

# Webequie Supply Road Project

Webequie First Nation

January 30, 2026

AtkinsRéalis Ref: 661910

# APPENDIX Q: HEALTH IMPACT ASSESSMENT

AtkinsRéalis



**WSR**  
WEBEQUIE  
SUPPLY ROAD





# HEALTH IMPACT ASSESSMENT (HIA) OF THE WEBEQUIE SUPPLY ROAD PROJECT

INTRINSIK PROJECT NO. 401291

Prepared for:

**Webequie First Nation**

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SCIENCE INTEGRITY KNOWLEDGE

## ACKNOWLEDGEMENTS

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## EXECUTIVE SUMMARY

### Introduction

Webequie First Nation, the proponent, is proposing to construct the Webequie Supply Road ('the Project'), a 107-kilometre all-season road connecting Webequie Airport and the McFaulds Lake area in northern Ontario. The Project includes the construction, operation and maintenance of the Webequie Supply Road, which would be within an approximately 35 metres wide right-of-way to accommodate a two-lane all-season road. Supportive infrastructure is required as part of the Project and includes aggregate/rock source areas (i.e., pit/quarries), temporary construction camps with storage and laydown yards, rest and maintenance areas, access roads and a permanent Maintenance and Storage Facility.

The Project would connect Webequie First Nation to existing mineral exploration activities and potential future mineral development within the Ring of Fire area of Ontario. The Project could also become part of a future all-season road network connecting the Webequie First Nation and the Ring of Fire area to the provincial highway system in Nakina and/or Pickle Lake. The Ring of Fire is located in Northern Ontario, within the boundaries of Treaty 9. The lands are Anishinaabe (Ojibway) and First Nations ancestral territory.

The primary objectives of the Project ("Need for the Project"), as determined by Webequie First Nation are:

1. Establish an all-season corridor that will facilitate the movement of materials, supplies, and people between the Webequie Airport and the mineral exploration and proposed mine development activities in the McFaulds Lake area of Northwestern Ontario (specifically, the camps, the drilling/exploration projects and, in the future, mining facilities).
2. Provide enhanced employment and other economic development opportunities to Webequie community members, while also allowing them to continue to reside in or around their community's traditional territory, engage in traditional uses of the land, and preserve their language and culture; and
3. Provide experience/training opportunities for youth to help encourage pursuit of additional skills through post-secondary education.

The Webequie Supply Road Project is subject to the federal IA process. The Project is also subject to comprehensive Environmental Assessment (EA) under the Ontario *Environmental Assessment Act*. For the purposes of the HIA, the two main phases of the IA process during which the majority of the HIA steps are carried out are Planning Phase and Impact Statement Phase, which includes preparation of the EAR / IS.

### **Webequie First Nation**

Webequie is an Anishinaabemowin (Oji-Cree) Tawin (community) located approximately 540 kilometres north of Thunder Bay in Treaty No. 9 territory. Anishinaabemowin is a combination of the Anishinaabe (Ojibway) and Mushkegowuk (James Bay Cree) languages.

Before the first settlers arrived, the Anishinaabe and Mushkegowuk shared the territory sustainably and lived *Mino Bimaadiziwin* ('the good life') under the guidance of Anishinaabe law, which regulates their *Kii'manitu'meano-goonan* ('Creator-given') responsibilities to ensure a good relationship with the Land (Webequie First Nation, 2021; Intrinsic, 2023b).

In general, the Anishinaabe and Mushkegowuk shared a spiritual perspective with Indigenous peoples across the continent, which was founded on a profound respect for *Shkagamik-Kwe* (Mother Earth) and a reciprocal relationship (Thomas, 2020; Helin, 2008).

Webequie First Nation, like many First Nations and communities across Turtle Island (North America), have been living with the systemic effects of colonization of their lands by European settlers and the formation of Canada. More than seven generations of systemic discrimination have had a profound effect on the Anishinaabemowin language. Webequie First Nation has been striving for *Mino Bimaadziwin* and to strengthen their nation holistically while reclaiming their culture. Webequie Anishinaabemowin have always maintained a reciprocal relationship with the Land and have reclaimed a number of traditional cultural practices, such as harvesting, hunting, trapping, and fishing (Webequie First Nation, 2023).

### **What ‘Health’ Means to Webequie First Nation**

Community members were asked for their definitions of ‘health’ or what ‘health’ meant to them. A common Anishinaabe concept shared with the Intrinsic HIA Team that closely relates to Webequie First Nation’s answer on what health means to them was *Mino bimaadziwin*, roughly translated as ‘the good life’.

*Mino Bimaadziwin* is an understanding that all beings are related and is the idea of the unity and dignity of all beings (Rheault, 1999). Those who choose to live *Mino Bimaadziwin* are living as the Ancestors planned, outlining a way of thinking, acting, understanding, and speaking Anishinaabe (Seven Generations Education Institute, 2009). In order to find this good life, there are traditional Teachings in place that give meaning and structure to being Anishinaabe (Rheault, 1999). These seven teachings are wisdom, love, respect, bravery, honesty, humility, and truth, which represent the blueprints to living a good life in balance and harmony with creation (Stark, 2021).

### **Approach and Methodology**

The purpose of the HIA is to develop a baseline health profile of Webequie First Nation, and to evaluate the potential positive and negative impacts on health and well-being of Webequie First Nation that may result from the Project. In addition, the HIA proposes measures to either reduce or mitigate potential harmful effects and to enhance potential positive effects.

### **The Health Impact Assessment Framework**

The HIA framework used in this HIA was originally developed by Intrinsic for Health Canada to be applied to projects undergoing the IA /EA process. As such, this framework is based on best practices published in a number of guidance documents and used in other assessments (Ross et al., 2014; US EPA, 2016; Bhatia, 2009; IAIA, 2021; National Research Council, 2011). Health Canada has since updated this Guidance (Health Canada, 2022 [unpublished]) and it is this updated Guidance, along with direction and guidance from Webequie First Nation that has guided this assessment. A GBA Plus approach was also taken within each of subsection of the effects assessment methodology to ensure that the health assessment considers impacts to different population sub-groups within Webequie First Nation.

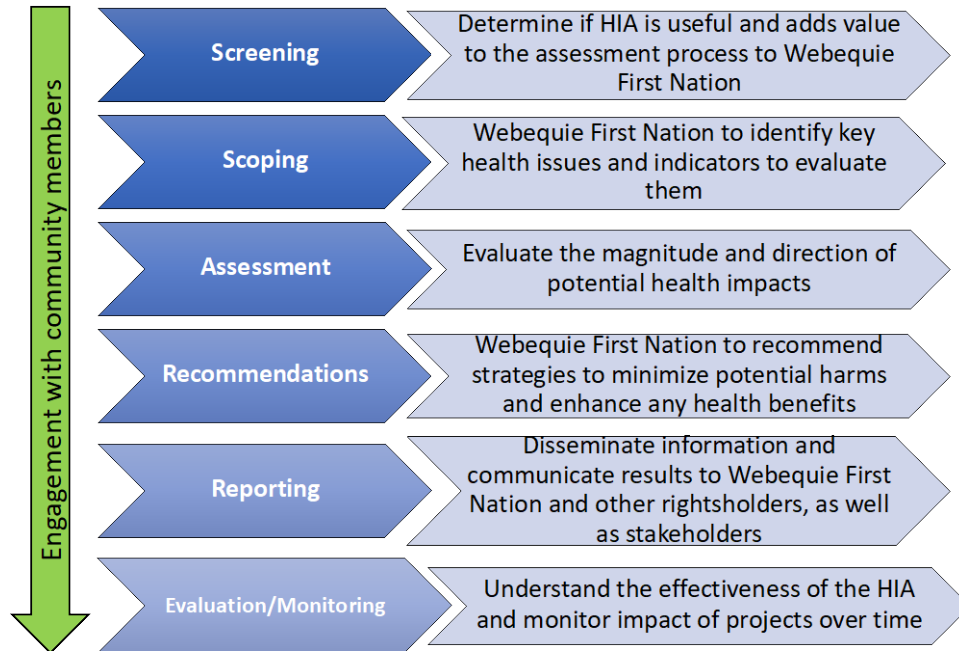


Figure 1: Health Impact Assessment Process

**Engagement**

Engagement activities were completed as part of the HIA for the Project on December 12-14, 2022, May 11-12, 2023, and May 13-14, 2024, which included community meetings, key person interviews, focus groups, surveys, etc.

**Screening**

The screening step consists of a rapid review of available evidence to determine whether a health assessment is needed, and whether sufficient data and time is available to conduct the assessment. However, as the TISG required that an HIA be conducted as part of the Impact Statement, this step has already been completed.

**Scoping**

The HIA scoping process is intended to provide the blueprint for the HIA. It involves identifying who will be engaged and how, the populations that might be affected, identifying which health issues will be evaluated within the HIA, and specifies the data and methods to be used and alternatives to be assessed. Intrinsic’s HIA Team will conduct a comprehensive and well-facilitated scoping process to ensure that the HIA considers those issues that are important to the proponent, Webequie First Nation, and other potentially affected Indigenous communities.

The initial task in scoping is to conduct a review of all project-related information to characterize the key issues around potential health impacts. This information can be gathered from several sources. Primarily, for this Project, the TISG and the rightsholder engagement informed the scope of the assessment. Other sources relied upon include the scientific literature, assessments on similar projects, and professional judgment (based on previous experience with HIAs on transportation projects).

A determinants of health approach recognizes that health is more than the absence of disease but is rather a state of overall well-being that is impacted by many factors (aka determinants of health), including the social and physical environment and Indigenous views of health. The social determinants

of health are the conditions in which we are born, grow, live, work and age. These conditions are inter-related and are shaped by the balance of power and structural and political factors at the local, national and global levels. These factors include economic policies and systems, social norms, social policies, and political systems (e.g., education, income, employment, and housing). This approach places emphasis on the causes of physical diseases and mental illnesses (i.e., Proximal determinants of health: health-related behavioural and biological factors; and Intermediate health determinants: service access and social, cultural and economic factors), and just as importantly, on the determinants of these causes (i.e., Level 3 health determinants: structural, systemic and political factors). Through their effects on well-being, the higher-level determinants of health influence behaviour that, along with human biology, directly impacts physical and mental health. Table 1 provides a summary of determinants of health for the Project.

Both social and environmental determinants of health influence human health outcomes, and are inter-related. For example, degradation of water quality due to a Project can impact health directly through waterborne illnesses or by exposure to contaminants. This can influence an individual's mental wellbeing by fostering feelings of stress and anxiety due to lack of access to clean water and choice of water source.

When asked to define health, Webequie First Nation community members stated that health means to be healthy mentally and physically, to live 'Mino Bimaadiziwin' and that 'the land is my gold mine'. Indeed, Indigenous peoples have a unique connection to the land and water, and indeed the ecosystem. They are the stewards of the land, and have cultural, economic, social and spiritual connection to and reliance on the land and water. Connection to territory, land and water is a key determinant of health for Indigenous peoples, while dispossession, disconnection and displacement from land has devastating impacts. Many Indigenous peoples believe that 'water is life'. Environmental impacts to water, the environment, and all the interconnected systems of life, has a deep impact on the physical, mental, spiritual, cultural, economic and social wellbeing of Indigenous peoples. This connection further reinforces the interconnected, but separate nature of the environmental and social determinants of health. Ecological grief, which is the grief experienced due to the loss or potential loss of ecosystems or environments, loss of species and also loss of meaningful landscapes, may be felt more strongly by Indigenous peoples due to their strong connection to the environment.

As described in the TISG, a tiered approach to the social determinants of health has been taken with proximal (or Level 1) determinants of health including health-related behavioural and biological factors, etc.; intermediate (or Level 2) determinants of health include education, service access and social, cultural and economic factors; and structural (or Level 3) determinants of health include structural and equity factors, including racism and colonialism. The final list of determinants of health included in the HIA was identified based on the issues that are important to the Webequie First Nation, as well as requirements identified in the TISG.

In order to conduct a comprehensive yet targeted assessment of potential health impacts, it is important to clearly define the boundaries of the assessment. Since any new development can result in a multitude of changes, large and small, it is vital to focus the assessment on those issues that are of most concern and to limit the assessment to specific geographic and temporal boundaries. These boundaries depend on several factors, including the nature of the project, potential scale of impacts, level of concern, likelihood of outcomes and other considerations.

The Project Team believes that since the Project is within the territory of the Webequie First Nation, the Webequie First Nation community will experience the bulk of the impacts due to the Project and can be considered to be representative of overall worst-case potential health impacts due to the Project.

The logic map outlined in the table below provides a prediction of and rationale for potential health effects due to the Project based on the changes in the social and environmental determinants of health and the chosen indicators identified in the scope of this health effects assessment.

Human Health VC (Determinants of Health) and Indicators for the Webequie Supply Road Project

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
<b>Structural / Level 3 Determinants of Health - Structural or systemic factors that impact health and wellbeing</b>						
Colonialism and trauma of residential schools	- Temporary disruption in the traditional practices on the land and impact to cultural identity	- May lead to changes in the land that negatively affects community members relationship with the land and may amplify feelings of colonial control and exploitation of land, which may bring up past trauma from displacement and land theft.	Negative	Construction	- Social - Economic - Culture - Aboriginal and Treaty Rights of Indigenous Peoples	The disproportionate burden of negative physical, mental, emotional and spiritual wellness outcomes among the Indigenous peoples of Canada have been linked to current and historic colonialism, and the traumatic impact of the residential school system. Increased economic opportunities may improve the physical and mental wellbeing of Webequie First Nation by enhancing the community's right to self-determination and self-governance and improving access to services, particularly mental health services. Easier access of drugs and alcohol into the community could lead to higher rates of substance use and mental health crisis, which could increase the dependency on healthcare systems within the community.
	- Local business and economic development	- May provide the community with positive economic growth and development due to the number of employment opportunities available, which may boost access to mental health services to address existing impacts of intergenerational trauma.	Positive	Construction and Operations		
	-Easier access of illicit substances and alcohol into the community	-May also allow for easier entry of illegal drugs and alcohol into the community, which may further exacerbate existing health disparities and addiction issues, many of which are linked to intergenerational trauma rooted in experiences from residential schools.	Negative	Construction and Operations		
Racism and social exclusion	- Racism from external workers – Feeling of isolation and loneliness due to being away from	- May experience racism from external workers through employment opportunities which contributes to negative wellness outcomes (i.e., stress, substance use, and mental wellness struggles).	Negative	Construction only	- Social	Racism is currently experienced by members of Webequie First Nation from health care professionals, teachers, and police. Additional experiences with racism may create new and compound existing feelings of

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
	community/family	Further, these feelings can be a catalyst for family violence.				isolation and loneliness and lead to mental and physical health difficulties.
Local economic growth	<ul style="list-style-type: none"> <li>- Local business and economic development</li> <li>- Employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- May provide opportunities for local business development and the associated local economic growth and employment</li> </ul>	Positive	Construction and Operations	- Economic	Overall local economic development will have implications to the health and wellbeing of the community as it bolsters not just individual-level wealth, but for the community overall, which in turn can potentially further benefit community members. Local economic growth and development can also boost the ability of the community for self-determination and self-governance.
Self-determination and governance	<ul style="list-style-type: none"> <li>- Rights to land and resources</li> <li>- Right to pursue economic prosperity and independence</li> </ul>	<ul style="list-style-type: none"> <li>- Community may feel a sense of empowerment if involved in the planning and decision-making process for the Project.</li> <li>- Choosing the Project and using it to achieve their goals as a community, towards economic prosperity, may increase the control the community has on its future.</li> </ul>	<p>Positive</p> <p>Positive</p>	<p>Construction</p> <p>Construction and Operations</p>	<ul style="list-style-type: none"> <li>- Cultural</li> <li>- Aboriginal and Treaty Rights of Indigenous Peoples</li> </ul>	Being able to pursue their own goals, needs and agenda, and make their own decisions independently is extremely important and valuable for Indigenous communities and promotes positive wellness outcomes.
Worker accommodations (i.e., during project activities, including in construction camps)	<ul style="list-style-type: none"> <li>- Safety and security</li> <li>- Availability of illicit substances</li> <li>- Housing availability</li> </ul>	<ul style="list-style-type: none"> <li>- May lead to reduced safety and security, especially of Indigenous women and girls, and also Indigenous workers due to experiences of racism in the construction workplace.</li> <li>- May lead to increased availability of illicit substances</li> <li>- May constrict housing availability if</li> </ul>	<p>Negative</p> <p>Negative</p>	Construction only	<ul style="list-style-type: none"> <li>- Social</li> <li>- Project-level</li> </ul>	The culture of work-camps can be one of hyper-masculinity, sexism, racism towards Indigenous Peoples, and homophobia. This poses a potential risk to the safety and security of the community, especially women, girls and 2SLGBTQ++ individuals, which will in turn affect community health and wellbeing. Having external workers

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
		off-reserve community members move back.	Limited (negative)			also increases risk that alcohol and illicit drugs will be brought into the community illegally.
<b>Intermediate / Level 2 Determinants of Health – Environmental and Community factors that impact health and wellbeing</b>						
Air quality	- Emissions, including greenhouse gases	- Project activities may lead to an increase in air pollutants.	Limited (negative)	Construction	-Environmental	Reduction in air quality due to emissions from construction activities, can impact physical and mental wellness, especially for those who have chronic health conditions such as asthma.
Noise levels and vibration	- Sound level	- May lead to increased noise and vibration levels from Project activities (e.g., blasting, aggregate extraction, vehicles, and vegetation clearing), impacting wildlife location and number, and enjoyment of the land.	Limited (negative)	Construction	-Environmental - Cultural	Noise from road construction and traffic can influence physical and mental health (e.g., hypertension, ischaemic heart disease, high blood pressure, anger, depression, anxiety, and disturbed sleep). In addition, loud noises during construction activities may change the location and behavioural movement patterns of game that are hunted by the community.
Water quality	- Change in surface water quality (e.g., habitat, chemistry, and flow rates) -	- Construction of water crossings may lead to degradation of fish habitat	Negative	Construction	-Environmental -Cultural	The health of water is linked to human health through physical, mental and spiritual pathways. Ingestion of contaminated water can have direct negative health outcomes, and ingestion of traditional foods (e.g., fish) from contaminated water bodies can affect physical health but also the spiritual health of Indigenous peoples who rely on fish as a traditional food source.
		- Changes to water bodies may lead to changes in water chemistry (e.g., vegetation clearing, changing water levels, erosion).	Negative	Construction		
		-Emissions from vehicles and spills may lead to changes in water quality	Limited (negative)	Operations		

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
Light pollution, including visual impacts	- Ambient light levels	- Project activities may change the amount of ambient light present in the Project area, specifically near construction camps (e.g., outdoor lighting, night construction lighting, vehicle headlights).	Limited (negative)	Construction	- Visual - Social - Cultural	Indigenous peoples have an intrinsic connection to the land, water and ecosystem. Changes to known and cherished landscapes and uses of lands can impact cultural and social functions and affect mental wellness (ecological grief).
	- Qualitative Visual changes	- Changes to the visual landscape may occur (e.g., loss of vegetation, construction of temporary structures)	Limited (negative)	Construction and Operations		
Housing, including access and quality	- Housing capacity	- May lead to overcrowding (temporary) due to need to house more off-reserve community members engaging in construction-related activities.	Limited (negative)	Construction only	- Social - Economic	Access to housing that is safe, affordable, and appropriate is a fundamental determinant of health and wellbeing. Being housed appropriately provides not just physical protection, but also fosters social and mental wellness. The effects of overcrowding and poor and unsafe housing conditions on the health and wellbeing of children and youth have been well-documented.
	- Housing quality	- May improve housing access and quality if the WSR allows for more homes to be built/repared and faster.	Limited (positive)	Operations		
	- Housing cost (e.g., repair and construction)	- May improve housing affordability if the WSR allows for building materials and labour to be transported to the community in an affordable manner.	Limited (positive)	Operations		
Employment and income	Access to employment opportunities and income	- May lead to an increase in employment opportunities in construction of the Project	Positive	Construction	- Economic	Employment and income determine one's access to education, housing, healthy foods, healthcare and other services, as well as safety and security. Greater employment and income opportunities increase the incidence of favourable health outcomes.
		- May lead to higher incomes if employment increases, and better quality of employment is available	Positive	Operations		
Education	- Skills and trade skills development	- May provide trade skills development opportunities	Positive	Construction	- Social - Economic	Education is a primary driver of health and wellbeing, as it has been shown that those with higher education tend to be healthier, often as a result of

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
						improved employment and income, and the resulting access to resources and services, including those related to health and healthcare and housing.
Food security, including quality and availability of traditional foods	-Access to and quality of traditional foods	<ul style="list-style-type: none"> <li>- May impede access to traditional foods</li> <li>- May disturb supply and quantity of traditional foods</li> <li>- Having additional income during construction-related employment may increase ability to afford store-bought healthy foods.</li> </ul>	<ul style="list-style-type: none"> <li>Limited (negative)</li> <li>Limited (negative)</li> <li>Positive</li> </ul>	<ul style="list-style-type: none"> <li>Construction</li> <li>Construction</li> <li>Operations</li> </ul>	<ul style="list-style-type: none"> <li>- Cultural-Aboriginal and Treaty Rights of Indigenous Peoples</li> <li>- Social</li> </ul>	Food insecure individuals experience a variety of adverse health outcomes. Heart disease, adult-onset diabetes, high blood pressure, and food allergies are more common in food insecure households. Additionally, food insecurity produces stress and feelings of uncertainty that have health-threatening effects.
Social cohesion and cultural continuity	- Traditional and cultural teachings and activities	- Interactions with outside workers (which may occur despite mitigation measures) could decrease social cohesion and negatively impact health.	Limited (negative)	Construction Phases	<ul style="list-style-type: none"> <li>- Social</li> <li>- Cultural-Aboriginal and Treaty Rights of Indigenous peoples</li> </ul>	Increased social cohesion is linked to increased engagement in the community, and lower rates of substance use which in turn are associated with more positive health outcomes. Both social cohesion and cultural continuity is important for transferring traditional and cultural knowledge across generations within Indigenous communities, and provides a connection between the structural and proximal determinants of health.
Safety and security of women and girls	<ul style="list-style-type: none"> <li>- Safety of women and girls</li> <li>- Violence and sexual exploitation of women and girls</li> </ul>	<ul style="list-style-type: none"> <li>- May be a safety and security risk for women and girls due to the presence of outside workers, if entry of outsiders cannot be controlled</li> <li>- May lead to increased incidents of racialized violence against community members due to the presence of outsiders</li> <li>- May lead to increased safety risk,</li> </ul>	<ul style="list-style-type: none"> <li>Negative</li> <li>Negative</li> <li>Negative</li> </ul>	<ul style="list-style-type: none"> <li>Construction</li> <li>Construction</li> </ul>	<ul style="list-style-type: none"> <li>- Social</li> <li>- Project-level</li> </ul>	Indigenous communities, particularly women and girls, are the most vulnerable and at risk of experiencing the negative effects of outside worker camps, such as sexual assault. This has consequences for the wellbeing, both physical and mental, of women and girls, and for the overall community as it erodes the sense of safety and security.

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
	- Accessibility of drugs and alcohol	and violence against women and girls, if entry of drugs and illicit substances cannot be adequately controlled		Construction and Operations		
Traffic volume and safety	- Traffic volume	- It is expected that during the winter road season, there will be increased traffic volume on the winter road bringing in equipment and personnel for the construction phase of the Project. This may cause delays in travel for community members.	Limited (negative)	Construction	- Project-level	There is an association between an increase in traffic density and an increase in fatal accidents. All major projects have associated risks to safety and security, especially during the construction phase when there is a lot of heavy-duty equipment and machinery around.
Access to healthcare services	- Demand for on-reserve healthcare services	- May increase the demand for health care services locally if currently off-reserve community members return to the community for employment opportunities with the Project.	Limited (negative)	Construction	- Social	Access to timely health care services is a social determinant of health as well as a basic human right. Barriers to access to appropriate healthcare services has led to historic health inequities in Indigenous communities.
Access to social, mental health and family services	- Childcare services - Elder services - Mental health services	- May increase demand for mental health, child care and Elder care services with off-reserve community members returning to the community for employment opportunities. The degree of service disruption would depend on the number of people who return to the community.	Limited (negative)	Construction	- Social	Appropriate social and mental health services are important for promoting positive wellness outcomes for individuals, families, and communities. Without access to culturally appropriate social and mental health services, inequities between Indigenous and non-Indigenous health outcomes, such as higher rates of substance use, youth suicide, mental health problems, chronic pain, and interpersonal violence, remain a pressing concern.

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
Access to transportation services	- Improved mobility and travel options	- Access to currently available modes of transport (air and winter road) may have increased wait times as traffic for construction and industrial activities increases. - Will provide safe and direct all season access to the Ring of Fire/McFaulds Lake area, where employment opportunities are expected to become available.	Limited (negative)  Positive	Construction  Operations	- Social - Land use - Project-level	Access to transportation is a precursor to having independence, mobility, access to services and resources, choice and safety and security. All of these factors, individually and combined influence health and wellbeing.
Access to emergency response services	- Availability of emergency services	- Depending on what Project-specific emergency planning measures are put in place, Project activities may, at times, increase demand for local emergency services, decreasing availability for community emergencies.	Limited (negative)	Construction	- Social	Ambulance, fire truck and police services can save lives in emergencies. Having prompt and urgent access to these emergency response services is essential for positive health outcomes and knowing that these services are available should the need arise is a factor in mental wellness as it promotes feelings of safety and security.
Childhood Development	- Available services	- There is no anticipated potential for change	Negative	Construction and Operations	- Social - Economic	There is a direct link between childhood development and the long-term mental and physical health of individuals. Indigenous children's health is dependent on a complex interaction of social determinants of health at the individual, family, community, and societal levels. Currently, there are a lot of observed discrepancies in health and development outcomes between Indigenous and non-Indigenous children



Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
Diet, including consumption of traditional foods	- Choice and availability of traditional and store-bought foods	<ul style="list-style-type: none"> <li>- May lead to disturbance in the traditional habitat of harvested species, which could impact ability to harvest and reduce reliance on traditional foods in diet</li> <li>- Depending on whether levels of employment and income increase, there may be an improvement in access to a healthy store-bought foods diet for community members</li> <li>- Increased access to the land via the Webequie Supply Road may improve traditional hunting abilities and improve ability to harvest traditional foods</li> </ul>	<ul style="list-style-type: none"> <li>Negative</li> <li>Positive</li> <li>Positive</li> </ul>	<ul style="list-style-type: none"> <li>Construction</li> <li>Construction and Operations</li> <li>Operations</li> </ul>	<ul style="list-style-type: none"> <li>- Social</li> <li>- Cultural</li> <li>- Aboriginal and Treaty Rights of Indigenous peoples</li> </ul>	Diet is a function of food security, and having a healthy and balanced diet is as much a behavioural trait, as it is dependent on the <u>availability</u> of healthy and fresh food. Diet determines health. For Indigenous peoples the importance of traditional foods is a fundamental aspect of their way of life and intrinsically tied to health. Should the project affect access to traditional foods, it will have an impact on health and wellness.

### ***Baseline Community Health Profile***

The baseline community health profile provides an understanding of current conditions related to the health and well-being of Webequie First Nation and other potentially affected Indigenous communities in the study area. The baseline community health profile was prepared by identifying and collating data on current health concerns, including health outcomes, within the population or region of interest, with special focus on Webequie. The baseline community health profile highlights the community's health issues and opportunities, the current population health status, and provides statistics on health-related behaviours.

The scope and content of the human health baseline reflects the specific project context, taking into account how Webequie residents view their health, and includes indicators that are meaningful to the community and that can also inform the effects analysis. The Tailored Impact Statement Guidelines provide details on the requirements for the baseline information for human health conditions and were consulted when developing a baseline community health profile for Webequie First Nation.

The baseline health assessment establishes the current health status of the community in order to evaluate whether the current profile of the community reveals vulnerabilities to any of a number of health outcomes, and also to provide a benchmark so that the HIA can characterize the extent of change from current health conditions.

#### *Socio-Demographic Profile*

When assessing potential future health impacts, it is important to be aware of the size of a population as well as how that population is changing over time. It is also crucial to recognise and comprehend the diversity within communities since this knowledge may be used to better understand the obstacles that various population groups could encounter both in their daily lives and while trying to access essential services. Webequie First Nation has a negative percent change in population from the years 2016 to 2021. Webequie First Nation has a lower average age of the population compared to Ontario.

Webequie's population aged 0 to 14 years is double that of Ontario as a whole, and Webequie has half the population aged 65 years above as compared to Ontario. The population of Webequie First Nation community is 100% First Nation and the most spoken languages include English (60%), Oji-Cree (28%), and Ojibway (12%).

#### *Education*

Education, income, and employment together contribute to one's socioeconomic status and are integral determinants of health that can determine access to services and contribute to overall health and wellbeing. Individuals from lower socioeconomic groups are more likely to experience health disparities as well as unequal access to resources, educational chances, and employment opportunities. Webequie First Nation has kindergarten to Grade 10 offered in school on the reserve (i.e., Simon Jacob Memorial Education Centre). In spite of the progress that has been made over the past few decades, Indigenous peoples still experience disparity in levels of education than the general population. Community well-being scores from Indigenous and Northern Affairs Canada (INAC) for Indigenous communities in Canada are much lower than for non-Indigenous communities in education, labour force activity, income and housing.

#### *Income*

During engagement with the HIA Team, several community members identified that higher incomes would increase their quality of life. The money they receive from Ontario Works is not enough to keep

up with the cost of inflation and the cost of living in their remote northern community. Many people living in the community are on welfare.

### *Employment*

There is a direct connection between household income and employment; having good employment results in having an income, which is linked with access to healthcare and essential health resources, including suitable housing and nutrition. When compared to Ontario, Webequie has lower rates of participation, employment and unemployment. When compared, men and women from Webequie have very similar rates of both participation and employment rate.

### *Housing*

Having access to safe and affordable housing is one of the most important determinants of health and can have a cascading impact on other health determinants, and one's physical, mental, and social wellbeing. From the HIA survey as well as in-person interviews, homelessness, lack of housing, overcrowding, as well as access to clean and affordable housing were concerning problems identified within the community.

### *Services Provided by Webequie First Nation*

Community services are essential for remote communities because many services that are required by the community can only be accessed outside of the community or are available intermittently. If a community is under-serviced, that can lead to detrimental effects on the health and well-being of community members. The Webequie First Nation offers several different services to support community members which are outlined in the HIA.

### *Health Status and Resources*

The unequal status of the determinants of health in a community (such as high versus low-income households, having quality versus hazardous housing, stable versus precarious employment, etc.), as well as the related challenges that can arise as a result of this unequal distribution (such as food insecurity, mental illness, reduced access to services, etc.), are the underlying reasons behind disparate health outcomes in various population groups. Underpinning this unequal distribution of the determinants of health is the unequal distribution of money, power and resources at the local, national and global levels (WHO, n.d.). Hence, existing disparity in the determinants of health can, in many instances, be the driving force behind disproportionate health impacts experienced by individuals due to a project. The overall health status and access to resources in Webequie is described in the HIA.

### *Spiritual and Cultural Well-Being: Practicing Ceremonies*

In addition to the range of health and wellness programs and services identified previously that are available to Webequie First Nation, traditional ceremonies are used for healing and renewal including sweat-lodges, sun dance/sunrise ceremonies, or fasting lodges. These ceremonies are a significant part of the Webequie community values and are often used in times of celebration or to express gratitude in the form of gift-giving.

### *Wellness, Food Security and Healthy Habits*

Indigenous peoples who live in remote rural and reserve areas have difficulty accessing both market and traditional foods, which makes them very food insecure. It has been reported that country foods or traditional foods are increasing in importance in the Webequie community due to the extreme prices of fresh fruits and vegetables, resulting in increased reliance on traditional foods at the household level.

Drug use is a major problem in Webequie, especially for youth, and many community members struggle with drug addiction and alcoholism. To help people with their drug addiction, suboxone (buprenorphine/naloxone) has been prescribed to help use other opioids less; however, some Webequie members have become addicted to suboxone as well. Webequie First Nation is lacking an addiction center where more active support could be available for those who need it, as well as their family members.

### *Racism and Violence*

Indigenous women and youth are at a higher risk of experiencing gender-based violence due to existing systemic challenges on reserves, as well as social, economic and historic factors. These factors have contributed to different types of traumas that has led to historical violence being passed through generations. Specifically, having witnessed or experienced sexual assault, relocation of Indigenous communities, and suffering that is associated with residential school builds the collective trauma that disproportionately impacts women and youth. Additionally, Indigenous women are more likely to live in poverty which contributes to less stable housing situations on reserve for them and resultantly, leads to an increased likelihood to experience abuse. Other factors such as low-income and less education also contribute to an increased likelihood to experience abuse, particularly intimate partner abuse. Further, there are often few services, programs, and opportunities to support this vulnerable population in the Community.

### *Transportation*

Understanding a community's transportation needs and modalities is critical when planning new transportation infrastructure. Webequie First Nation is a remote fly-in community that gains access to materials and goods via the Webequie Airport and use of seasonal winter roads. Cars, trucks, or vans are the most utilized mode of transportation and are used by a lower percentage of the population when compared to Ontario, especially for women in Webequie. In Webequie First Nation, men are more likely to utilize vehicular travel when compared to women. After vehicular travel, walking is the next highest mode of transportation used by the Webequie First Nation, where women are more likely to utilize walking as a method of transport compared to men. When compared to Ontario, Webequie does not have any public transit, and not many people travel via bicycles or other modes of transportation.

### *Community History*

Webequie First Nation has culturally significant and sensitive sites throughout the traditional land. As outlined in the Community-Based Land Use Plan, water is seen as the most precious element of their livelihood. Therefore, areas with rivers or waterbodies are seen as highly spiritual and there is a responsibility to protect them. Additionally, the area that extends 40 to 50 km in radius around the Webequie community is for traditional and recreational activities such as trapping, fishing, ceremonial activities, gathering/harvesting and hunting of local wildlife species (i.e., moose, caribou, and waterfowl). These wildlife species are a critical part of the diet of the community and hunting them it is a significant cultural activity that associates Webequie people to the land.

The residential school legacy is often referenced throughout the community engagement sessions, and drives a substantial proportion of the conversations. It is important to note that the community history is highly influenced by the trauma experienced at residential schools by some community members, and the intergenerational trauma that persists.

Preservation and teaching of the traditional way of life has been a consistent topic of discussion during the community engagement sessions and focus groups, and is of importance to the community.

***Assessment Process***

The assessment process in HIA involves: (1) developing a baseline community profile, (2) assessing the potential impacts, (3) identifying appropriate mitigation and enhancement measures, and (4) identifying net health effects after the application of mitigation measures.

As much as possible, this HIA applied an intersectional understanding when evaluating impacts as a result of the Webequie Supply Road Project. Impacts to various population groups who may be disproportionately impacted because of the Project was assessed in the HIA and the potential for disproportionate impacts on these groups was carefully considered in assigning criteria to residual/net effects. Disproportionately impacted groups were also taken into account when identifying mitigation and enhancement measures.

***Effects Assessment***

The HIA report describes the potential adverse and positive residual/net effects in relation to each temporal phase of the Project (i.e., construction and operations). Net effects have been described using criteria to quantify or qualify adverse and positive effects, considering any important contextual factors.

The table below provides a summary of potential health effects, the mitigation and enhancement measures that are recommended and the predicted net effects.

**Summary of Potential Human Health Effects, Mitigation and Enhancement Measures and Predicted Net Effects for Webequie First Nation**

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
<b>Structural / Level 3 Determinants of Health - Structural or systemic factors that impact health and wellbeing</b>				
<b>Colonization and Trauma from Residential Schools</b>	Construction	<p>- Indirect effect: Access to employment opportunities from the Project may improve the physical and mental well-being of Webequie First Nation through enhanced self-determination and self-governance, and better access to services, including mental health services to address the impacts of intergenerational trauma.</p> <p>- Indirect effect: The Project may temporarily disrupt access to traditional lands and ways of life due to various construction-related activities, leading, temporarily, to a loss of identity and amplification of feelings of colonial control.</p> <p>- Indirect effect: Even though it is expected that construction caps will be 'dry' the Project may allow for easier access to illicit drugs and alcohol illegally brought in by external construction workers, exacerbating existing addiction issues (many of which are related to colonization, intergenerational trauma, and the residential school legacy).</p>	<p>Note: some of the mitigation/enhancement measures for the construction and operations phases may be the same.</p> <p>M: Webequie First Nation will consult with community members throughout the construction phase to provide regular updates regarding construction activities that may impact traditional activities on the land, so community members are prepared for the changes. The contractor should consider avoiding impacts to traditional land activities as much as possible. The overall aim should be for the contractor to learn about cultural protocols and avoid actions that could exacerbate trauma, such as disrupting sacred lands or cultural sites.</p> <p>M: Webequie First Nation and the contractor should aim to limit as much as possible outsiders working on construction on the Project from entering the community. This may limit the amount of illegal drugs and alcohol from entering the community, and limit impacts to mental health.</p> <p>M: Webequie First Nation should work with the Province to increase access to trauma-informed mental health services and traditional healing practices for community members such as counselling, support groups, and healing circles.</p>	<p><i>It is possible that despite implementation of mitigation and enhancement measures there may still be some small and temporary net effects due to limitation of traditional land activities and predicted increases in mental health issues due to increased substance use during both construction and operation.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
			<p>E: Webequie First Nation should work with the contractor to help ensure that the Webequie Supply Road Project creates employment opportunities for community members, including Investing in training programs to build community capacity.</p>	
	Operations	<p>- Indirect effect: The Webequie Supply Road may provide a link to employment opportunities in the Ring of Fire, enhancing the self-determination and self-governance of the community and resulting in improved health outcomes.</p> <p>- Indirect effect: May allow for easier access of illicit drugs and alcohol from outsiders. This could lead to higher rates of substance use and mental health crisis, which could increase the dependency on healthcare systems within the community</p>	<p>M: Webequie First Nation should aim to limit, as much as possible, outsiders from entering the community through the Webequie Supply Road. This may limit the amount of illegal drugs and alcohol from entering the community, and limit impacts to mental health.</p> <p>E: Webequie First Nation should aim to help ensure that the employment and economic growth opportunities that may result due to the Webequie Supply Road Project creates sustainable employment and positive growth in income for most community members. This will help most members of the community access the services they need to address the trauma and mental health issues due to residential schools and colonization.</p>	<p><i>The availability of jobs and economic opportunities may improve access to mental health services in the community and net positive effects to mental health and wellness and go some way to address intergenerational trauma from residential schools.</i></p>
<b>Racism and Social Exclusion</b>	Construction	<p>- Indirect effect: While living in construction camps with non-community members, is possible that members of Webequie First Nation may experience racism from external workers who join the construction work force. Members of the community who experience this may develop negative health outcomes. Those that experience racism while working in construction camps can be a</p>	<p>M: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing regular mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising</p>	<p><i>There is a risk that community may still be exposed to racism and discrimination from outside workers despite mitigation measures, increasing risk to their safety and security with potential for some adverse net health impacts.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		catalyst for family violence against women, children and elders when they return home.	awareness for the safety of Indigenous women and girls.  M: The contractor should establish and enforce zero-tolerance policies on racism and violence in the workplace, which can help to provide a safer, more understanding work environment for Indigenous employees and encourage the potential Indigenous employees.	
	Operations	There are not expected to be any impacts to Webequie First Nation related to racism and discrimination during the operations phase of the Webequie Supply Road	No measures needed.	<i>No net effects to health anticipated.</i>
<b>Local Economic Growth</b>	Construction	- Indirect effect: The overall economy of Webequie First Nation is expected to be positively affected by the Project's construction phase, though not to a huge extent. Even so, this will increase the likelihood of positive health outcomes through potentially improved social and economic conditions, especially for those who are able to find jobs.	E: Webequie First Nation should consider the ways in which the construction phase of the Project may boost local business development, financial independence for the Band, development of business relationships with surrounding Indigenous and non-Indigenous communities, and employment opportunities for community members.  E: Prior to construction, it is suggested Webequie First Nation develop a Businesses Development Plan (See Section 6.1.3.4. for details).	<i>There are no adverse net effects to health expected.</i>  <i>If the Project boosts income, there will be a positive net effect to health.</i>
	Operations	- Indirect effect: Webequie First Nation will have access to the Ring of Fire after the completion of the Webequie Supply Road. The community hopes that this will significantly increase access to economic opportunities, specifically surrounding the Ring of Fire area, and	Note: The enhancement measures for the operations phase are the same as for the construction phase, and even more important to implement.  E: The Nation should consider that local economic growth benefits all sub-groups within	<i>There are no adverse net effects to health expected.</i>  <i>If businesses can benefit from reduced travel time and expenses to McFaulds Lake, it will lead to increased disposable income and</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		improve health outcomes associated with increased employment, income and availability of services.	the community, including women, youth and those with disabilities.	<i>higher spending on goods and services, which will have positive net effects to health and wellbeing.</i>
<b>Self-Determination and Governance</b>	Construction	- Indirect effect: For the community to fulfil its right to self-determination, it is imperative that the community be involved in the planning and decision-making process for the Project throughout its construction phase. If the community feels it is not involved as much as it should be, they could experience a loss of control, and a decrease in self-identity which could lead to negative mental wellness outcomes.	E: To enhance physical and mental health and wellbeing, Webequie First Nation should have a decision-making role throughout the planning and development of the Webequie Supply Road.  E: The community should be provided with regular information and messaging regarding planning for the Webequie Supply Road, including challenges faced, and how they are being addressed. This will allow the community to participate in the Project throughout.	<i>There are no adverse net effects to health predicted.  Positive net effects are predicted should the Project be approved and the community, as the Proponent exercises its rights to self-determination and builds the Projects as per its vision.</i>
	Operations	- Indirect effect: Building the Webequie Supply Road would be a positive step towards Webequie First Nation increasing their self-determination and self-governance. This has the potential to improve health outcomes in the community.	E: As was conveyed during in-person consultations, Webequie First Nation should consider how best the Webequie Supply Road can benefit all sub-groups within the community in the long-term, with commitment to social programming in the community.	<i>There are no adverse net effects to health predicted.  Positive net effects to health predicted should the Webequie Supply Road provide a connection to the Ring of Fire area, and improve economic growth, jobs and economic, social and health programming in the community.</i>
<b>Worker Accommodations (i.e., worker/construction camps)</b>	Construction	- Indirect effect: Webequie First Nation, and other First Nations, have expressed sensitivity and concern related to temporary construction camps where workers are brought temporarily to the area to support construction. The	M: When the locations of the construction camps are finalized, the location should be chosen that minimize interactions with high traffic areas and areas that are often used for traditional activities.	<i>Even with limitations in place to not allow outsiders to enter the community, except those with permission, enforcement may not be 100% effective. This means that individuals who are not</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>implementation of work camps may disproportionately affect the feelings of safety and security of Indigenous communities, especially women and girls, and also 2SLGBTQI+ individuals in the community, and potentially expose them to disproportionate levels of sexual violence, abuse, and STIs. Further, anti-Indigenous racism, if present in the construction camps, may lead to negative stereotyping of the Indigenous work force and cause negative mental wellness outcomes.</p> <p>- Indirect effect: Webequie community members who are participating in construction activities may experience negative impacts including being isolated from friends and family, stressful work environments, and a lack of connection which can lead to negative wellness outcomes.</p> <p>- Indirect effect: Housing services are already under pressure and may experience a slight burden if off-reserve community members (it is not known how many) wish to stay in the community to participate in construction-related activities. However, if temporary accommodations are provided in the community, this may limit and adverse impacts.</p>	<p>M: It is advised that non-Indigenous workers should not be allowed into Webequie First Nation during the construction phase, except by permission. Protocols should be put in place to regulate entry of members from other Indigenous communities. This may limit negative impacts to the safety and security of Webequie First Nation. However, the extent of mitigation of the impact will depend on how effectively non-members of the community are kept out.</p> <p>M: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.</p> <p>M: The contractor should work with Webequie First Nation to provide a safe and productive work environment by establishing and enforcing clear guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.</p> <p>E: To mitigate potential impacts on housing within the community from off-reserve members participating in construction jobs, the community can consider adding additional temporary</p>	<p><i>members of Webequie First Nation may gain entry into the community, which may have lingering safety and security impacts in Webequie First Nation, particularly to specific subgroups, including women, girls and individuals who identify as 2SLGBTQI+. As such, there is potential for limited negative net effects to health and wellbeing.</i></p> <p><i>Enforcement of the 'dry' status may be limited, and substances may still be brought into the camps, and as such the community, by external workers. Substance use may exacerbate violent activity, including sexual violence. Therefore, designating a camp as 'dry' does not necessarily mitigate this issue and there may be limited negative net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
			housing within the reserve to house off-reserve members during the construction phase.	
	Operations	There is not expected to be any construction camps/worker accommodation during the operations phase and therefore there is no anticipated health impact to Webequie First Nation.	E: Any additional housing that is added in the community during the construction phase can be potentially converted to more permanent housing. One of the construction camps is expected to be converted to temporary housing to house medical staff, teachers, and support personnel, who want to stay in the community.	<i>No predicted adverse net effects due to worker accommodations.</i>
<b>Intermediate / Level 2 Determinants of Health - Community factors that impact health and wellbeing</b>				
<b>Air Quality (including GHG emissions)</b>	Construction	Air Quality - Direct effect: According to the Human Health Risk Assessment (AtkinsRéalis, 2024e) for the construction phase, all contaminants of potential concern, except for carcinogenic risks associated with estimated chronic exposures to hexavalent chromium in baseline total suspended particulates, have risk levels below the Health Canada and Ontario MECP negligible risk levels. Additionally, the results of the Air Quality Impact Assessment (AtkinsRéalis, 2024f) for the construction phase are conservative and have likely overpredicted Project related emissions. Furthermore, the predicted exceedances are localized spatially to areas proximate to the road centreline and are not predicted at existing residences and institutional buildings in the Webequie area, where people are	<p><b>Note:</b> these mitigation measures are from the Air Quality Impact Assessment (AtkinsRéalis, 2024f) and the Assessment of GHG Emissions (AtkinsRéalis, 2024b).</p> <p>M: To minimize dust pollution, it is recommended that the contractor use tarps to prevent dust from spreading, or spray the roads with a water-based solution to suppress dust, especially in dry areas such as haul/access roads or temporary soil and aggregate stockpiles. The use of dust suppression systems at quarries, truck speed limitations, vehicle and heavy equipment movement limitations to designated areas, minimizing idling and so forth.</p> <p>M: The contractor should endeavour to use of environmentally certified equipment (e.g., Tier 4 engines) as much as possible.</p> <p>M: the contractor should develop and implement an Air Quality and Dust Control Management Plan to manage and reduce air contaminant</p>	<i>As identified in the Atmospheric Environment report and Human Health Risk Assessment by AtkinsRéalis (2024e; f), even with the application of mitigation measures, exceedances of Ontario Ambient Air Quality Criteria for total suspended particulates, PM10, and PM2.5 and Canadian Ambient Air Quality Standards for NO2 remain a possibility at some culturally sensitive areas. This indicates that there may be potential for negative net health effects.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>present most frequently (AtkinsRéalis, 2024f).</p> <p>GHG Emissions</p> <p>- GHG releases in the atmosphere do not trigger direct health impacts on nearby population (being non acutely toxic to humans) but rather cause global warming which drives climate change that can have an indirect impact, especially on vulnerable people. According to the Assessment of GHG emissions (AtkinsRéalis, 2024b), the maximum annual GHG emissions to occur during construction activities (~45 kt CO<sub>2</sub>e) would represent 0.0067% of the Canadian total annual inventory (and 0.029% for Ontario). Being more of a global issue given that GHGs do not cause “localized” global warming, the Webequie Supply Road emissions would represent less than 0.0001% of worldwide emissions estimated 50,000 Mt CO<sub>2</sub>e annually. The Project will not add much to the global GHG emissions and so the indirect impact to health is not considered appreciable.</p>	<p>emissions during construction phase. The Air Quality and Dust Control Management Plan will integrate a monitoring procedure for dustfall effects and measures to control or limit usage of vehicle or equipment that are the main emission source of particulates.</p> <p>M: Minimize the combustion of living biomass which will reduce GHG emissions by using the biomass for other purposes such as the production of roundwood and timber that would be used in Webequie for construction projects or woodchips used as mulch for landscaping, erosion control, etc.</p>	
	Operations	<p>Air Quality</p> <p>- Direct effect: The main pathway during Operations that will result in a change in air quality is the use of vehicles on the Webequie Supply Road once constructed and use of vehicles, machinery, and</p>	<p>M: During operations, while it is not feasible to have a direct control on emissions from vehicle engines, it is possible to work on dust emissions from the road surface. Considering that part of the road will not be fully surfaced with asphalt or chip seal from the start, the maintenance crew</p>	<p><i>There may be limited potential for negative net health effects due to the operation of the Webequie Supply Road alone.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>equipment for road maintenance. The potential for unacceptable risks associated with PM10 is considered to be low to negligible, and will further decrease once asphalt or chip-seal surfacing is in place. Hence there is limited potential for adverse health effects.</p> <p>GHG Emissions</p> <ul style="list-style-type: none"> <li>- Direct effect: Since the Webequie Supply Road Project is an infrastructure project intended to provide access to the Webequie community and future nearby mining exploration and proposed future mining sites, it will not have an impact on global GHG emissions.</li> <li>- Indirect effect: The existence of the Webequie Supply Road may hasten the opening of mines in the area whose ore might be substituted for foreign ore in Ontario or Canada's smelters. Because of this specific circumstance, Canada's greenhouse gas inventory would be improved by reducing foreign transportation emissions. Overall, it is difficult to predict the level of GHG emissions at this time, and thus the health effects.</li> </ul>	<p>will operate a truck that will spray water over the gravel-surface road from May to November, or when needed.</p> <p>M: An Air Quality and Dust Control Management Plan will be developed and implemented to manage and reduce air contaminant emissions during operation phase. The Air Quality and Dust Control Management Plan will also include a procedure for documenting compliance with applicable standards and required conditions as stipulated in permits, approvals, licenses and/or authorizations.</p>	
<b>Noise Levels and Vibration</b>	Construction	- Direct effect: The project area is naturally quiet, with any noise caused by the development could potentially cause distress to both humans and animals,	Note: The contract has included some stipulations to reduce vibration impacts (see Section 6.2.2.4 for full details).	<i>There are some predicted adverse and temporary net effects to health during construction. Individuals who are more</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>leading to disruption of quiet in the area. There are concerns from community members that the noise might scare away animals, impacting the ability of community members to hunt and access them as a food source. The project construction activities that involve blasting and use of vehicles, machinery and equipment will increase noise. Blasting is expected to occur infrequently. As such, noise impacts during construction are expected to be temporary, and cause limited and temporary health effects.</p> <p>- Direct effect: Noise emissions from equipment (e.g., crusher/screener, stackers, and front-end loaders) are continuous in worst-case simulations, and exceed the NPC-300 guideline limits by a maximum of 4 dB. These predicted exceedances are considered to be minor and insignificant, and are not expected to impact health outcomes.</p> <p>- Direct effect: Noise from general construction activities (e.g., vegetation clearing and overburden removal, subgrade compaction, the addition and compaction of base course and final courses of aggregate) are predicted to exceed the Mitigation Noise Level Threshold at several culturally sensitive areas. It is possible this disturbance may temporarily impact the mental wellness</p>	<p>M: To address the potential noise effects from blasting, it is proposed that a Construction Blasting Management Plan for the Project will be prepared by applicable contractor(s) prior to initiation of blasting activities. The plan will include a requirement for controlling peak overpressure sound levels to meet the blasting noise guidelines and criteria.</p> <p>M: Concerns of noise pollution has caused Webequie community members to recommend that there be more regulations around noise in the region. An example is maintaining equipment to limit noise emissions.</p> <p>M: The contractor should aim to limit construction to the daytime period, where possible, especially near residences. Noise complaints, if arise during the project construction and operations, should be investigated and addressed.</p>	<p><i>sensitive to noise may be more vulnerable, as well as those who hunt, as hunting activities may be interrupted by loud noise.</i></p> <p><i>- The noise modelling conducted for the construction of the proposed roadway and bridges indicated that the highest predicted sound levels at the culturally sensitive areas CHL-5, CHL-7, CHL-17, CHL-25, and Construction Camp 1A site C05 are between 48 and 57 dBA, exceeding the MNL threshold of 47 dBA (LDN). Therefore, the magnitude of the effect is considered to be low to moderate.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>of some community members, especially Elders and those who frequent culturally relevant locations.</p> <p>- Direct effects: Construction activity will also cause vibration impacts as construction continues along the Webequie Supply Road route. Mitigation measures listed below will be put in place, and as such negative impacts are unlikely.</p> <p>- Indirect effects: Noise pollution is not just an environmental issue but also affects cultural practices like hunting if high noise levels end up displacing wildlife. Community members prefer to harvest in areas where it is quiet. Temporary increase in noise levels in harvesting areas may increase physical disturbance and impact harvesting activities, and in turn may have temporary adverse impacts to health.</p>		
	Operations	<p>- Direct effect: The maximum predicted sound level based on the predicted operational sound levels is 44 dBA which is equal to the measured baseline ambient sound level within the community/settlement of Webequie. Therefore, there are no anticipated impacts to health with normal operational noise.</p>	Same mitigation measures as above for blasting activities are recommended.	<p><i>Overall operations phase sound levels are predicted to be less than or equal to 45 dBA which is considered appropriate for a quiet rural environment. With respect to Health Canada Guidelines, changes in sound levels resulting from the proposed Project are expected to be negligible for all Noise Sensitive Areas and less than the</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>- Direct effect: The changes in sound levels anticipated for some of the culturally sensitive places are anticipated to surpass the 5 dB threshold specified in the MECP/MTO Joint Noise Protocol. It is anticipated that the overall operations phase sound levels will be below or equal to 45 dBA, which is deemed suitable for a quiet rural environment. Based on Health Canada’s Guidelines, the operational noise impacts are not expected to result in long-term community annoyance, and therefore not anticipated to result in negative health outcomes.</p> <p>-Direct effect: The operations phase is not associated with any substantial sources of underwater noise or vibration. Therefore, it is unlikely that the operations phase will have any vibration impacts and in turn, no anticipated impacts to health.</p>		<p><i>6.5% threshold, and the magnitude of the effect is considered to be low. As such, there are no net effects to health predicted.</i></p>
<p><b>Surface Water Quality</b></p>	<p>Construction</p>	<p>Members of the community are concerned about the potential for environmental degradation at lake and river crossings and are interested in cumulative impacts in these areas.</p> <p>- Direct effect: There could be a change in surface water quantity as a result of changes to the surface water drainage patterns and flows. This could influence the availability of traditional foods,</p>	<p>These mitigation measures are provided in detail in the Assessment of Effects on Surface Water Resources (AtkinsRéalis, 2024j):</p> <p>M: Dewatering, water takings, and discharges will be regulated by MECP permits (i.e., a permit to take water will be required for the Project) and industry best management practices will be used to minimize dewatering/pumping volumes.</p>	<p><i>Despite mitigation /enhancement measures, changes in surface water quantity, changes in surface water quality, and changes in sediment quality may occur. Full details are provided in Section 6.2.3.5. Adverse net effects to health are anticipated in the construction and operations phases, should there</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>leading to some negative health outcomes.</p> <ul style="list-style-type: none"> <li>- Direct effect: Surface water quality can be affected by alterations to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants. Changes in water quality can lead to negative physical and mental health outcomes.</li> <li>- Direct effect: Sediment quality in waterbodies can be affected by erosion of stockpiles and the road from changes to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants. Changes in sediment quality can have cascading impacts to aquatic ecosystem and result in negative health outcomes due to changes in cultural and traditional food practices.</li> </ul>	<p>M: Restore disturbed areas from vegetation clearing and grubbing to minimize effects on runoff rates.</p> <p>M: Erosion and sediment control measures taken into consideration when constructing waterbody crossing structures along with implementing water quality monitoring.</p> <p>M: Reduce construction during times that would most affect fish and fish habitat (e.g., breeding seasons).</p> <p>M: Proper handling and storage of petroleum and other hazardous materials as well as emergency response plans to mitigate accidental spills and leaks.</p> <p>M: A Construction Blasting Management Plan for the Project will be prepared.</p> <p>M: A construction waste management plan will be developed to minimize the amount of the waste to be generated.</p>	<p><i>be sufficient impacts to surface water quantity and quality that it impacts community practices and use of the water.</i></p>
	Operations	<ul style="list-style-type: none"> <li>- Indirect effect: Local hydraulics including local shear stress, erosion, water levels, and sedimentation may occur around constructed waterbody crossings. Surface water quality can be affected by alterations to drainage pattern and flows, addition of potential spills, releases of chemicals and pollutants, and addition of sediment from dewatering, road maintenance, and vegetation control. Changes in</li> </ul>	<p>M: An ongoing follow-up monitoring program (post-construction) will be implemented during the operations phase of the Project.</p> <p>M: Water will be used to control the dispersion of dust.</p>	

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	<i>Predicted Net Effect</i>
		<p>surface water quality will have the same negative health effect as noted in the construction phase.</p> <p>- Indirect effect: Changes to sediment quality may occur due to erosion of stockpiles, changes to drainage and flow, the deposition of airborne particulate matter (i.e., dust), and potential spills of chemicals/pollutants. Negative health effects would be the same as those noted in the construction phase.</p>		
<p><b>Light Pollution, including Visual Impact</b></p>	<p>Construction</p>	<p>- Direct effect: Project activities during the construction phase included vegetation clearing and grubbing, the construction of support infrastructure such as camps or aggregate sources areas, the construction of structures at waterbody crossings, and the decommissioning and restoration of temporary supportive infrastructure. The visual effects associated with supportive infrastructure components will be confined to 1 km from project footprint and 500 m from the footprint of temporary or permanent supportive Infrastructure, and will be limited in extent due to the height and density of the coniferous woodland dominated landscape. Changes to the visual landscape may cause a sense of loss or ecological grief to some community members when the road is being built.</p>	<p>M: Inform community members of upcoming construction activities and where they will be focused so members are prepared to see construction equipment and changes in specific areas.</p>	<p><i>Net effects for light pollution, including visual impact are not anticipated during the construction phase.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>This may have some potential negative mental health impacts for these individuals.</p>		
	Operations	<p>- Direct effect: The potential effects from Project activities consist of a change to visual landscape in terms of the visibility (visual prominence) of the Project, and the scenic quality or viewer sensitivity and magnitude/distance. A change in the landscape cause feelings of ecological grief in some individuals, leading to some mental health impacts. Only those that are located within the defined viewsheds associated with each of the proposed crossings of Winisk Lake, the Winiskisis Channel and the Muketei River will be subject to a change in the visual environment. Potential for health effects is predicted to be limited.</p> <p>- Direct effect: The Webequie Supply Road is not proposed to be illuminated, except at the east and west terminus and at supportive structures, so the Webequie Supply Road will not be visible from any receptors during the night. Therefore, potential health effects are predicted to be negligible.</p>	<p>As per the Visual Impact Assessment (Schollen &amp; Company Inc., 2024), mitigation measures for effects to visual environment will be incorporated into the Project design and will be implemented to minimize negative effects. Mitigation measures considered in the potential effects analysis for visual environment included the following, and are re-iterated from the human health standpoint to limit impacts to mental health as a result of change to the visual environment:</p> <ul style="list-style-type: none"> <li>- Avoiding new Project footprint disturbances to the extent practicable, with particular consideration at the three waterbody crossing sites.</li> <li>- Minimizing the extent of vegetation clearing at the three waterbody crossings, and other crossings, that are considered navigable waterbodies will be limited to minimize visual impacts and where necessary meet safety standards.</li> <li>- Maximizing efforts to retain existing vegetation and landforms, to the extent practicable, to provide screening of activities and Project components.</li> <li>- Reducing the extent of disturbed area within the road right-of-way. Disturbed areas will be restored and seeded to allow for natural</li> </ul>	<p><i>Net effects for light pollution, including visual impact are not anticipated during the operations phase.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
			revegetation and its management to support the safe operations of the road.	
<b>Housing</b>	Construction	- Indirect effect: If community members who live off-reserve choose to come stay in Webequie First Nation to participate in constructions jobs, it is possible that there may be additional strain on Webequie First Nation’s already burdened housing situation. However, it is proposed in the Community Readiness Plan (AtkinsRéalais, 2024k) that there may be temporary accommodations built in the Webequie community during the construction phase, which will ease any burdens that could be placed on the Webequie community’s housing and infrastructure by off-reserve members seeking employment. As such, this impact, and its resulting health effects are uncertain at this time and will depend on how many off-reserve members return to participate in employment, and what temporary accommodations are built within the community to safely house them.	<p>M: All workers, except individuals from Webequie First Nation, should be housed in the designated construction camps.</p> <p>E: For off-reserve members of the Nation working on the construction of the Webequie Community Access Road, additional temporary housing within the community that can be converted into longer-term housing should be considered to avoid overcrowding in existing homes.</p> <p>E: The population groups who are already disproportionately affected by poor and crowded housing conditions, i.e., single mothers, older adults, women and single individuals, should be prioritized in the allocation of housing.</p> <p>M: During the construction phase, the construction camp structures will be designed to ensure all required services are available to the workers at the camp itself, with neutral to minimal disturbance/ impact to the existing community infrastructure of Webequie First Nation.</p>	<i>No net effects are predicted.</i>
	Operations	- Indirect effect: Once operational, the Webequie Supply Road may be able to reduce costs related to the transportation of supplies and materials for housing and therefore boost housing availability. However, it should be noted that for the Webequie Supply Road to	E: The Webequie First Nation Community Readiness Plan will include plans and measures for enhancing housing stock to address housing capacity issues. Given the importance of housing as a vital determinant of health, these measures	<i>Potential positive effects to health are predicted from enhancement measures adding new housing to increase housing availability during the operations phase. In addition, converting one construction camp into</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	<i>Predicted Net Effect</i>
		<p>allow for cheaper entry of housing-related goods and/or services, a connection to the provincial highway system that connect Webequie to other communities and municipalities would need to happen, and would require the construction of the Northern Road Link Project and the Marten Falls Community Access Road Project, both of which are also going through the federal Impact Assessment process. But one construction camp is expected to be converted to community housing to house any off-reserve members, medical staff, educators, and any other Project operations related staff. It is expected that some strain on housing can be relieved, with some potential for limited positive health impacts, especially if visiting health care staff can be more easily housed.</p>	<p>are also recommended from a human health standpoint.</p> <p>E: Off-reserve community members and medical staff and personnel should be prioritized for residence in the one construction camp expected to be converted into housing for community needs.</p>	<p><i>housing for the community and visiting staff has the potential for positive net effects to health and wellbeing.</i></p>
<b>Employment and Income</b>	Construction	<p>- Direct effect: Webequie First Nation members may have better jobs and economic prospects as a result of the Webequie Supply Road Project. During each year of construction, Webequie First Nation is estimated to fill approximately 10 direct employment positions which will be located on-site. Webequie First Nation is not forecasted to capture any of the direct off-site work attributed to the Project. Since employment positions will become</p>	<p>M: Webequie First Nation should consider working with the Province to invest in training programs to build local capacity. Webequie First Nation should also work with the contractor to consider providing childcare services so women can participate in training and education to take advantage of employment opportunities resulting from the Webequie Supply Road construction phase, as well as helping to ensure that workers from the community are offered</p>	<p><i>Potential positive net health effects are predicted as a result of employment opportunities available during construction with the potential to increase incomes. The scope of the positive effects, i.e., whether various sub-groups within the community (i.e., women, youth, individuals with disabilities) benefit, will depend on how well the mitigation and enhancement</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>available for Webequie First Nation, it can be expected that those individual household incomes will be positively affected in the community, resulting in positive health outcomes for those households.</p> <p>- Indirect effect: Due to the expected schedule of shifts, Webequie members who worked for the Project during the construction phase might not have as much time to spend harvesting on the land. Since traditional activities can give people a feeling of identity and worth, this poses issues to the well-being of those employed as well as problems for those who are more prone to rely on the traditional economy, such as Elders who may rely on the sharing economy.</p> <p>- Indirect effect: Although those without proper education will have the opportunity to be trained to develop the new skills that would be required for work on the Project. It might be difficult for Webequie members, especially women and young people, to gain this education and training as stated above as additional education and training for women is already a challenge. Therefore, a significant portion of the labour requirements for the Project may be met by labour force from the RSA.</p>	<p>fair wages, safe working conditions, job security, and address inequalities in labour practices.</p> <p>M: Webequie First Nation should work with the contractor to help ensure additional support for underrepresented groups such as youth, through opportunities such as job shadowing, mentorship programs, and paid internships.</p> <p>E: Creation and implementation of workplace policies and programs, including a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training), as a means to retain employees through positive work experience.</p> <p>E: The contractor should consider providing disability supports (e.g., access to wheelchair and access ramps, hearing aids, etc.) to allow community members with disabilities to participate in the work force as much as possible, potentially in desk-jobs or low intensity jobs.</p> <p>E: Webequie First Nation should consider a plan that would shape the Webequie Supply Road Project as a source of sustainable employment opportunities for community members. Investing in training programs to build local capacity. Ensuring that workers from the community are offered fair wages, safe working conditions, job security, to address inequalities in labor practices.</p>	<p><i>measures listed above are implemented.</i></p> <p><i>New labour and business opportunities (direct, indirect, and induced) will lead to increased participation and employment in the labour market, increased employment, and increased labour income</i></p>

<b>Determinants of Health for the Project</b>	<b>Project Phase</b>	<b>Summary of Potential Health Effect</b>	<b>Summary of Mitigation (M) and Enhancement (E) Measures</b>	<b>Predicted Net Effect</b>
	Operations	<p>- Direct effect: The same types of opportunities and health outcomes that exist during the construction phase (economic development related to operations, maintenance workforce training, and youth employment) will exist during the operations phase, but to a much lesser extent (only 3 direct jobs and 1 induced job).</p> <p>- Indirect effect: During the operations phase, it is expected that Webequie members will be able to get jobs in the Ring of Fire area once mining development starts. However, it is not known when this will be, and how many and what kind of jobs will be available. For those who get jobs, their families will benefit, and the same considerations related to inequitable distribution of positive impacts also applies here.</p>	<p>E: Safe, reliable, and accessible care options for children, older persons, and those with disabilities will help those who have care duties access and use the road to access employment opportunities.</p> <p>E: Creation and implementation of workplace policies and programs, including a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training), as a means to retain employees through positive work experience, should be implemented in all projects in the Ring of Fire area.</p>	<p><i>Increase in employment and income once the Webequie Supply Road is operational will depend on factors outside of the Webequie Supply Road Project itself. As such, it is not possible to currently predict the effects to health as a result of the Webequie Supply Road Project exclusively. However, the operation of the Webequie Supply Road will increase employment opportunities and therefore increase employment income, leading to positive net health effects.</i></p>
<b>Education / Access to Education</b>	Construction	<p>- Indirect effect: Education and training attainment opportunities may improve as a result of the Webequie Supply Road Project. The Project is anticipated to have a positive effect to incentivize education and training attainment required for Project employment opportunities. The positive health outcomes associated with improved employment opportunities would be anticipated. However, it is possible that diverse sub-populations, such as women,</p>	<p>E: Webequie First Nation should work with the contractor to help ensure that educational and specialized skills training opportunities in construction will be provided to community members ahead of Project initiation, so they are prepared with necessary skills. The Community Readiness Plan will include enhancement measures for Education, Training and Traditional Learning Programming and Facility Space to identify and plan for education and training needs.</p>	<p><i>Positive net effect on education and training attainment will lead potential positive net health effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>youth, and individuals living with disabilities may not be able to benefit equally from the Webequie Supply Road as compared to the men due to being at a disadvantage to get adequate training to benefit from a potential increase in employment opportunities associated with the Webequie Supply Road Project. These vulnerable populations may not experience the positive health outcomes associated with improved employment opportunities.</p> <p>- Indirect effect: As there is currently a lack of skills/trades experience related to potential Project-related employment, community members have expressed concerns that Webequie youth will not be in a position to benefit from the Project's employment opportunities and associated positive health outcomes. However, the Project could cause a small negative health effect to cultural and traditional activities for youth if they get more involved in Project employment and related activities and have decreased interest in learning traditional land-based skills.</p>	<p>E: Funding and educational programs will need to be available for members of the community to financially and practically access education and skills training required to participate in construction work. Webequie First Nation is encouraged to explore options for funding together with the contractor and the Province. Training may also be available through local educational service providers or through apprenticeships with construction companies or experienced members of the community. The community can also consider specialized programs for community members who have learning disabilities.</p> <p>E: Educational attainment levels for women in Webequie is lower than for men. To realize any health benefit from increased education/training in construction, some community members, and especially women, will need to be provided with child-care so they may attend training and get work.</p>	
	Operations	There are very few jobs available during the operations phase compared to the construction phase. As such it is not anticipated that there will be any major effects on health due to the Operations	There are no mitigation or enhancement measures needed.	<i>There are no net effects during the operations phase to Webequie First Nation.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		Phase of the Webequie Supply Road Project.		
<b>Food Security (including quality and availability of Country Foods)</b>	Construction	<p>- Indirect effect: Community members are concerned over the impact of the Road to their traplines, use of the land to harvest traditional foods, and the potential impact to their mental and physical health if the way they harvest food is influenced by the Road.</p> <p>- Indirect effect: community members will have increased access to the land as more territory will be able to be reached by car, ATV, or snowmobile. More community members may be able to access hunting, gathering, and fishing grounds thus increasing access to traditional food sources for dietary needs, thereby improving health outcomes associated with eating more traditional foods.</p> <p>- Indirect effect: Similarly, community members are concerned that construction noise will scare away animals, impacting their ability to hunt and rely on traditional food sources. However, the noise-effect due to road construction is expected to be locally isolated to the road construction area, and reversible. Therefore, the impact to health is expected to be minimal.</p>	<p>M: As there is potential for food insecurity arising from disturbance of land and habitat of traditional food sources due to construction-related activities, traditional hunting areas should be clearly identified by the contractor, and the impact to these areas from the Project should be kept minimal to avoid loss of habitat, and loss of animal traffic due to noise. This will maintain access to traditional foods, and related health benefits.</p> <p>M: Construction and any ground disturbing activity should be avoided by the contractor during critical windows of habitat movement, mating or spawning to help avoid lasting damage to specific species. If this is not possible, appropriate permits should be obtained to reduce the impact to wildlife.</p> <p>M: It is advised that Webequie First Nation be involved in all land use planning activities to manage any new developments that may arise due to the Project to secure the integrity of their traditional hunting, fishing, and trapping grounds to help to ensure current and future generations maintain traditional food security, and the health benefits associated with the consumption of traditional foods.</p> <p>M: It is possible that construction workers who are not members of Webequie First Nation will access the traditional lands of the community to</p>	<p><i>There may be a temporary loss of traditional food security in the community due to construction activities and their impact to wildlife and harvesting practices. As a result, there may be some temporary adverse net effects to health and wellbeing. Additional income from employment may could result in increased affordability of nontraditional store-bought foods, and thereby increase food security that way, and improve health and wellbeing. However, these potential positive health benefits would be mainly for those who obtain construction-related jobs.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>- Indirect effect: Community members are concerned that due to changes in wildlife behaviour, and the absence of hunters to participated in construction activities, that there will be a negative influence on the transfer of knowledge to youth related to hunting and traditional harvesting. These effects will be temporary and last during the construction phase, and have limited adverse mental health impacts.</p> <p>- Indirect effect: The effects of contamination on Traditional Food sources by construction or operations and maintenance emissions is an important factor when assessing the overall impact to food security. The results of the HHRA indicate that increases in project-related contaminants in country foods items are not expected to be appreciable; therefore, increases in exposures and resulting risks for human receptors consuming country foods items from the Project area are not anticipated (AtkinsRéalis, 2024e).</p>	<p>hunt for recreation and sport. This use of the land by non-members should be prohibited or strictly regulated by Webequie First Nation during the construction period to maintain self-sustaining populations of traditional food sources and therefore maintain the resulting health benefits associated with traditional food security.</p> <p>E: Webequie First Nation can include in their Community Readiness Plan the need for continuing to provide youth and interested members of the community with knowledge related to harvesting traditional foods. This will help with the passing of traditional knowledge to the next generation, spark joy associated with traditional methods and allow the next generation to experience the health benefits associated with traditional food harvesting and consumption.</p>	
	Operations	<p>- Indirect effect: increased income in some households who have jobs in the Ring of Fire area will increase disposable income for buying healthy store-bought foods and increase their overall food</p>	<p>M: The use of traditional lands by non-members should be discouraged or limited by Webequie First Nation. Hunters who are not from the community should follow all provincial regulations, and poaching should be monitored</p>	<p><i>Although there may be some outsiders who would now be able to hunt in the traditional lands of Webequie First Nation, with the mitigation measures, it is not expected that this will have net</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	<i>Predicted Net Effect</i>
		<p>security. Those who cannot obtain jobs will not benefit equally.</p> <p>- Indirect effect: It is not expected that the impacts due to operations-related noise will be significant; as mentioned in Section 6.2.2.3, these impacts may be temporary and limited, and may affect limited areas used by the community. As such, the resulting impact to harvesting practices and traditional food security are uncertain but probably limited. The potential for health impacts is also uncertain and probably limited.</p>	<p>through standard enforcement procedures to help to ensure all regulations are followed.</p> <p>E: Community members suggest that Webequie First Nation should continue to provide youth and interested members of community with knowledge related to harvesting traditional foods.</p>	<p><i>effects. However, should there be increased employment, and hence increased income, during the operations phase, it would allow community members to better afford store-bought foods. Community members may also have increased access to lands for hunting purposes.</i></p>
<b>Social Cohesion and Cultural Continuity</b>	Construction	<p>- Indirect effect: Negative interactions between the construction workforce and the Webequie community population may still occur despite best efforts to limit them. Depending on the extent and nature of the interactions between the construction workforce and members of Webequie First Nation, community cohesion may decrease. Should these negative interaction occur, this has the potential to have negative impacts on mental wellness.</p> <p>- Indirect effect: Community members have concerns about the loss of traditional culture in Webequie First Nation. Reduction in cultural practices and their continuation may impact the</p>	<p>M: The contractor is encouraged to develop policies that support flexibility in work schedule and/or opportunities for leave for Indigenous employees in order to support important cultural practices, such as harvesting, which may allow them to continue to participate in the traditional economy and harvesting.</p> <p>M: From the cultural enrichment plan of the Community Readiness Plan, enhancement measures for Webequie First Nation to consider could include continuing to hold camping and canoe trips, holding cultural and recreational activities, creating on the land retreats and a healing centre, creating a cultural centre, and development of new powwow grounds.</p> <p>M: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and</p>	<p><i>With mitigation measures in place, net effects to health may be limited in nature due to potential for some conflicts between construction workers and community members, which may reduce community cohesion.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		mental health of some community members, especially Elders.	construction workers by implementing regular mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.	
	Operations	There are not expected to be any impacts to social cohesion and cultural continuity during operations	No mitigation or enhancement measures are needed.	<i>There are no predicted negative net effects.</i>
<b>Safety of women and girls</b>	Construction	<p>- Direct effect: Construction camps will be used for the project, and the majority of the construction-related work force may be from outside the Local and Regional Study Areas, and as such, majority of construction workers may be non-Indigenous. Despite planned measures to keep the construction workforce out of the community, interactions may still occur directly during employment, or indirectly over the 5 to 6 year Project timeline. Increased exposure increases the risk to safety, especially for Indigenous women, girls and 2SLGBTQ+ individuals, and has potential major impacts to their wellbeing.</p> <p>- Direct effect: Women and girls with low income, low educational attainment, and those living with addictions may be particularly vulnerable to gender-based</p>	<p>M: The contractor should work with Webequie First Nation to create and implement mandatory training programs focused on the safety of Indigenous women, girls and 2SLGBTQ+ individuals.</p> <p>M: Webequie First Nation should consider establishing a group made of community members to function as Community Liaison Officers as part of the Project workforce during the construction phase, to bridge the gap between the community's needs and Project's requirements and affects (see Community Readiness Plan [AtkinsRéalis, 2024k]).</p> <p>M: The contractor should work with Webequie First Nation to develop a grievance mechanism for community concerns and issues at the construction camps, inclusive of issues regarding racism, sexism, gender-based violence, and other issues.</p> <p>M: Webequie First Nation should consider developing a Safety and Security Plan for</p>	<i>Even though Webequie aims to limit entry of outsiders into the community, it is not known how effective enforcement measures to keep out outsiders may be. Hence, there is potential for adverse net effects to health. Specifically, there is a risk to the safety and security of Indigenous women and girls, and safety concerns related to increased amount of alcohol and illicit substances entering the community illegally.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		violence and sexual exploitation, which results in negative health outcomes.	<p>Vulnerable Community Members with the purpose of providing enhanced safety and security for women, children, youth and vulnerable people in the Webequie community, including 2SLGBTQ+ and under-housed people, to address any new hazards and safety concerns related to the Project.</p> <p>M: Working with government bodies on implementation of Ontario’s strategy in response to the National Inquiry into Missing and Murdered Indigenous Women and Girls recommendations.</p>	
	Operations	- Indirect effect: Due to the direct link to future mining activities in the Ring of Fire area, there is potential for increased risk to the safety of women, girls and 2SLGBTQ+ individuals due to entry of outsiders during the operations phase.	M: It is recommended that Webequie First Nation advocate for creating and implementing training programs focused on the history and culture of Indigenous peoples, and the safety of Indigenous peoples, especially women, girls and 2SLGBTQ+ people for all projects being undertaken in the Ring of Fire Area.	<i>There is a risk to the safety and security of women and girls.</i>
<b>Traffic Volume and Safety</b>	Construction	- Direct effect: It is expected that during the winter road season, there will be increased traffic volume on the winter road bringing in equipment and personnel for the construction phase of the Project. This may increase wait and travel times for accessing goods and services away from the community, which may result in some impacts to health.	M: The contractor should develop a Construction Traffic Management Plan together with Webequie First Nation, to provide guidance on how Project-related traffic is managed in and around the Project site, including use of the winter road during construction of the Project	<i>With the mitigation measure in place, the net effects to health may be low.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
	Operations	<p>- Direct effect: Once the Webequie Supply Road is functional, it is not known what the average traffic on the road will be. Hence, it is not possible to currently predict the level of potential direct effects to health, but should there be increased traffic it will impact the health of community members.</p> <p>- Indirect effect: Should there be high traffic volume on the Webequie Supply Road, it may lead to accidents and injuries as a result of collisions. There are negative health effects associated with increased traffic, however, the level of effect will depend on how much traffic increases.</p>	<p>There are several mitigation measures proposed to address potential hazards during the Operations phase:</p> <ul style="list-style-type: none"> <li>• Develop a plan to enforce road safety;</li> <li>• Consider road patrols and inspections;</li> <li>• Consider partnerships for driver education and licensing;</li> <li>• Consider roadside safety options; and</li> <li>• Consider maintenance/turnaround/rest areas.</li> </ul>	<p><i>There are possible safety and security risks due to accidents and injuries because of speeding or driving under the influence during the operations phase. However, these magnitude, likelihood and significance of these adverse effects are hard to predict.</i></p>
<b>Access to Healthcare Services (family doctor or specialist care provider)</b>	Construction	<p>- Indirect effect: The Webequie Supply Road is likely to result in non-local workers coming to the area as well as some members returning to Webequie First Nation. This could lead to higher demand for already limited healthcare services due to injuries or accidents from construction activities. Competition for healthcare services also places more financial, emotional, and other burden on families, especially members of vulnerable populations. However, the Project is expected to have it's own first aid station to address immediate and minor health issues. As such, the strain</p>	<p>M: Webequie First Nation should consider working with the Province to improve health care services (including counselling services, and substance use-support programs) within the community before construction activities begin.</p> <p>M: Construction work will have safety management plans and workers will be required to adhere to these protocols and associated trainings for safe work. This reduces the potential for work-related incidents, such as injuries or fires.</p> <p>M: Construction camps are expected to have first-aid stations and occupational health and safety staff to address minor injuries and illness.</p>	<p><i>If construction workers are able to use first-aid stations at or near the camps, there are no adverse net effects to health predicted during the construction phase from increased demand and pressure on availability of healthcare services.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
	Operations	<p>on health care services in the community may be limited.</p> <p>- Indirect effect: Some off-reserve community members may wish to return to Webequie First Nation; however, it cannot be predicted how big this number would be. If a large number of off-reserve community members want to move back in, it could create a higher demand for healthcare services, impacting existing service levels and associated health outcomes.</p> <p>- Indirect effect: During the operations phase there will be a significantly lower workforce required for the Project. The number of workers is too small to put an additional strain on availability of services.</p>	<p>M: Health and safety plans will be developed for all parts of the Project activities.</p> <p>There are no specific enhancement and/or mitigation measures proposed as the scale of impact is unknown.</p>	<p><i>There are no adverse net effects.</i></p>
<p><b>Access to Social, Mental Health and Family Services</b></p>	Construction	<p>- Indirect effect: During the construction phase the Webequie Supply Road Project is likely to result in non-local workers coming to the area as well as some off-reserve members returning to Webequie First Nation to take advantage of employment opportunities. This could create a higher demand for mental health and social services, especially given the already limited services available in the community. However, the scope of the increased demand cannot be anticipated. As such, this may be a potential adverse impact on health,</p>	<p>M: Webequie First Nation should consider working with the Province to improve mental health care services within the community <u>before</u> construction activities begin to ensure the community's already limited health care services will not be burdened.</p>	<p><i>There are no predicted net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		if there is too much pressure on existing mental and social health services.		
	Operations	- Indirect effect: Some off-reserve community members may wish to return to Webequie First Nation to participate in new employment opportunities should they become available; however, it cannot be predicted how many off-reserve members would return. As it is not possible to determine how many off-reserve community members would return to the community, it is not possible to predict whether a potential adverse health impact would occur.	M: Webequie First Nation should consider working with the Province to improve mental health care services within the community to help ensure the community's already limited health care services will not be burdened.	<i>There are no predicted net effects.</i>
<b>Access to Transportation Services</b>	Construction	- Indirect effect: Available modes of transport may become more in demand due to the need to bring in supplies and personnel during the construction phase. This may make access to existing transportation options more difficult and make it harder for community members to seek care or other services off-reserve. The increased wait times may have an adverse impact on health.	M: Webequie First Nation may want to consider how community members needing to travel to and from the community, via air travel or the winter road, to access services and for other reasons, are still able to do so freely and not impeded by the higher demand placed on air travel and by winter road to bring in construction-related equipment and personnel.	<i>There may be small negative net health effects during the construction phase if community members experience long delays in accessing services and goods because air travel and the winter road, when available, is too busy.</i>
<b>Access to Transportation Services</b>	Operations	- Indirect effect: Community members indicate that one of the barriers to accessing services outside of the community was due to being unable to arrange transportation due to the cost or availability. Transportation delays can result in delayed healthcare service, including the possibility of loss of life.	E: For those travelling to the Ring of Fire area to access employment and opportunities via the Webequie Supply Road, Webequie First Nation may want to consider arranging community transportation services to assist those who are elderly, have a disability, and those who do not have access to a vehicle to access the mining areas and take advantage of opportunities. This	<i>There are no net effects during the operations phase to Webequie First Nation.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>The Webequie Supply Road would provide access to community members to the Ring of Fire area, which is not connected to the provincial highway network, nor does it have good and services available close to it. Therefore, Community members can anticipate that the road would be useful in providing year-round, more reliable passenger travel and delivery of good and services to mining explorers and operators in the McFaulds Lake area.</p>	<p>will increase the potential positive impacts to health.</p>	
<p><b>Access to Emergency Response Services</b></p>	<p>Construction</p>	<p>- Direct effect: Construction activities from the Webequie Supply Road may increase demand for emergency response services. This would result in a higher burden on these services, negatively impacting the physical mental well-being of members of Webequie First Nation. However, it is expected that construction camps will have first-aid stations and occupational health and safety staff to address minor injuries and illness. More serious incidents are expected to be rare and use emergency helicopter evacuation measures. As such, if there are no additional strains on the limited existing emergency response services in the community, there are expected to be no adverse health effects.</p>	<p>M: Webequie First Nation should seek external funding for a fire station and fire truck to put out fires and protect community members.</p> <p>M: Additional emergency response services for drug-related medical concerns and overdoses should be considered by the community.</p> <p>M: Construction camps are to include a first aid station, and occupational health and safety staff to address minor injuries and illness. Major emergencies will use helicopter transport and will not burden the health care system of the community.</p> <p>M: Construction work will have safety management plans and workers will be required to adhere to these protocols for safe work.</p> <p>M: Workers will be expected to remain within the camp at all times and will rarely enter the Webequie community reducing the use of</p>	<p><i>There are no predicted net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
			protective services within the Webequie community.  M: Camps will also have security staff to patrol the camp for hazards/threats and protect workers.  M: All safety incidents related to the Project will be reported within 24 hours and records of these incidents will be archived.	
	Operations	- Indirect effect: The operations phase of the Webequie Supply Road may increase demand for emergency services mainly related to vehicle accidents, and possibly impaired driving. These incidents would increase the need for emergency response services and put a higher burden on these services, having some limited negative impact on the mental well-being of members of Webequie First Nation.	M: As part of the Community Readiness Plan, a community well-being monitoring and adaptive management plan will monitor road safety as well as the capacity of the emergency and protective services.  M: Road safety plan will include measures to mitigate adverse effects.  E: Implementing road signs, raising public awareness about road safety, and providing education and awareness on road safety is also considered as an enhancement measure.	<i>There are no predicted net effects.</i>
<b>Childhood Development</b>	Construction	There are no anticipated effects.	There are no measures needed.	<i>There are no net effects during the construction phase to Webequie First Nation.</i>
	Operations	There are no anticipated effects.	E: As per the Community Readiness Plan, an initiative will be developed to implement a dedicated childcare and youth services drop-in centre in the Webequie community that will provide support to family members that required childcare in order to participate in education and training programs and employment opportunities related to the Project. In addition,	<i>There are no net effects during the operations phase to Webequie First Nation.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
			a drop-in centre will also focus on services available to youth, such as services under Jordan’s Principle, and people with disabilities.	
<b>Proximal / Level 1 Determinants of Health: Individual factors that impact health and wellbeing</b>				
<b>Mental wellness</b>	Construction	<p>- Indirect effect: Construction and related activities that make major changes to a cherished landscape and ecosystem may lead to solastalgia or ecological grief. Elders and community members who feel a deep connection to their traditional lands and waters may experience ecological grief. However, for those who look forward to the Project providing them with a link to the outside world and employment opportunities, they might feel hopeful during construction and look forward to using the Webequie Supply Road.</p> <p>- Indirect effect: Presence of construction camps and external construction workers, who are historically primarily men, may induce fears for safety and security within some community members and affect their mental wellness, particularly for women, girls and 2SLGBTQ+ individuals. The feeling of vulnerability has the potential to diminish the sense of safety and security, which are crucial for mental health and overall well-being.</p>	<p>M: Webequie may wish to consider working with the Province to obtain additional mental health supports and counselling for Webequie First Nation community to help with challenges community members anticipate facing regarding Project activities and concerns.</p> <p>M: Contact should be limited between the work camps and the community to reduce the stress and concern felt due to the threat of violence or concern for personal safety, especially by women and girls.</p> <p>M: The contractor should work with Webequie First Nation and aim to offer mandatory annual Indigenous cultural sensitivity training to workers to promote positive work relationships between Indigenous and non-Indigenous employees, and limit risk to the safety of women, girls and 2SLGBTQ+ individuals.</p> <p>M: The contractor should aim to understand Webequie cultural practices and respect cultural practices by allowing time and flexibility for workers to participate in cultural ceremonies, traditions or community events when possible as Elders believe these traditional practices promote positive mental well-being.</p>	<p><i>Net negative health effects are predicted due to:</i></p> <p><i>- Despite mitigation / enhancement measures, historic deficiencies in mental health services in Webequie prevents them from having the capacity to support any mental wellness challenges arising from the Project.</i></p> <p><i>- the presence of construction camp workers may still pose safety and security risk and impact the mental health and wellness of community members, particularly women, girls, and those who identify as 2SLGBTQI+.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	<i>Predicted Net Effect</i>
		<p>- Indirect effect: noise from construction activities may disturb some community members leading to feelings of irritability and a decline in mental wellness. Community members who are close enough to be affected by construction-related noise may experience increased annoyance and irritability, but this may be short-term.</p> <p>- Indirect effect: During the construction phase, employment that some members may get may change their interactions with the community. While in construction camps, community members may experience feelings of loneliness and isolation, and experience racism and discrimination. The workers could develop negative mental health outcomes, as may their families who are without them during shifts.</p> <p>- Indirect effect: is important to protect cultural sites for future access and use by the membership to maintain their spiritual and mental wellbeing.</p> <p>- Indirect effect: The construction phase would also be tied to jobs and better income which may improve positive effects on mental health in the community. However, these potential positive health benefits would only be to those members of the community who</p>	<p>M: To address feelings of ecological grief due to changes to the landscape, it is suggested that Webequie continue to keep community members (especially Elders) comprised of ongoing construction activities, so they are not surprised by sudden changes. And also ask the contractor to stage construction equipment and work camps away from sight lines to minimize visual disturbance to the landscape.</p> <p>E: The contractor should work with Webequie to understand environmental stewardship practiced by Webequie and incorporate these principles into construction practices whenever possible.</p>	

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		benefit from the employment opportunities.		
	Operations	<p>- Indirect effect: The Webequie Supply Road will only improve access to goods, services, and reduce feelings of isolation of community members once it connected to the provincial highway network via the Marten Falls Community Access Road and the Northern Road Link, both of which are project currently also going through the Impact Assessment process. Hence, it is not possible to say at this whether the positive health benefits expected from the potential increased and easy access to the provincial highway network will happen.</p> <p>- Indirect effect: The Webequie Supply Road maybe a means through which non-Community members and transient workers working in the Ring of Fire area may enter the community. Concerns have been expressed by community members regarding the safety of youth, women, and girls, which could lead to negative mental and physical wellness outcomes. Due to wealth disparities between high-income transient workers and community members, an increase in the prevalence and availability of alcohol, drugs, and sex to service the high-income population is a concern as</p>	<p>M: Webequie First Nation should consider implementing inspection areas to not only limit access to community to outsiders, but also to discourage illegal entry of illicit substances and alcohol into the community. This will reduce safety and security risks, and improve mental wellness when members feel safe in the community.</p> <p>M: Webequie First Nation may wish to consider working with the Province to obtain additional mental health supports and counselling for community to help with challenges community members anticipate facing regarding Project activities and concerns.</p>	<p><i>Despite previously recommended inspection areas, it can be anticipated that drugs and alcohol will make its way into the community due to the increased accessibility, resulting in negative net effects to mental wellness.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>those with mental health challenges are vulnerable to addiction behaviours.</p> <p>- Indirect effect: Webequie community members, particularly youth, may have more employment opportunities which could positively increase mental health and related outcomes. However, employment opportunities may increase their exposure to racism and discrimination negatively impacting health and well-being and leading to negative health outcomes.</p> <p>- Indirect effect: For workers employed in the Ring of Fire area, particularly youth, long shifts in employment can increase stress and lead to negative mental health outcomes due to decreased time for traditional, spiritual, and cultural practices.</p>		
<b>Substance Use</b>	Construction	<p>- Direct effect: Heightened exposure to outsiders, external influences, as well as additional health and safety risks may lead to greater and easier access to illegal drugs and alcohol and result in negative health impacts to the community. These concerns were expressed by many community members over the course of engagement (Intrinsik. 2023b).</p> <p>Members of the community who are employed during the construction phase</p>	<p>M: Webequie should consider increasing substance use support services in the community <u>before</u> construction begins, as well as provide enhanced messaging and programming around the harms of substance use.</p> <p>M: It is advised that workers who are not members of Webequie First Nation not be allowed into Webequie First Nation during the construction phase. This may limit opportunities for illicit drugs and/or alcohol to be transported into the community by outsiders.</p>	<p><i>Even though the Webequie First Nation construction camps will all be 'dry' camps (no alcohol in the camps), it can be anticipated that drugs and alcohol will make its way into the camps illegally and thereby the community, due to increased accessibility, increasing use of illegal substances. In turn, this will have negative net effects on the health of workers and those in the community.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>and who must leave the community for employment may have increased access to alcohol and illicit drugs in the workcamps. This could lead to new or increased use of these substances to cope with feelings of loneliness, isolation, and mental uncertainty due to increased exposure to difficult situations or oppressive atmospheres. This could lead to the negative health outcomes associated with alcohol and drug overuse.</p> <p>- Indirect effect: Women and girls could indirectly experience a disproportionate increase in physical and sexual violence due to increased access to drugs and alcohol for family members and/or partners.</p>	<p>M: The contractor should work with Webequie First Nation to provide a safe and productive work environment by establishing and enforcing clear guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.</p> <p>M: The contractor should provide education and training for workers on the effects of substance use and importance of maintaining a drug-free work environment.</p>	
	Operations	<p>- Indirect effect: Community members who travel to the Ring of Fire, or external workers who travel from the Ring of Fire can bring in illegal drugs and alcohol, which could increase how much of these harmful substances is available in the community, and thereby potentially increase their use and addiction and mental health issues. This has negative impact to the health of not just users, but the community as a whole.</p>	<p>M: Webequie should consider implementing inspection areas to not only limit access to community to outsiders, but also to discourage illegal entry of illicit substances and alcohol into the community.</p> <p>M: The Community should consider stepping up programs to educate younger generations about the effects of alcohol and drug use.</p>	<p><i>Similar to construction phase, it can be anticipated that drugs and alcohol will make its way into the community illegally despite previously recommended inspection areas, due to the increased accessibility. This has potential for negative net effects to health.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	<i>Predicted Net Effect</i>
Diet	Construction	<p>- Indirect effect: How store-bought food enters the community will not change during this phase. Therefore, the costs and availability of market food items are expected to be consistent.</p> <p>- Indirect effect: It is possible that workers who leave the community to participate in construction activities will no longer have the time to participate in traditional hunting activities. Therefore, there will be less available traditional foods in the community for choice of nutrition consumption. This may have some potential negative mental and physical wellness effects. Those who rely more heavily on traditional food sources, such as older adults, will be disproportionately affected by a temporary reduction in traditional food choices and change in diet.</p> <p>- Indirect effect: It is possible that the noise disturbance from construction operations may cause some limited disruptions to the habitat of wildlife used as traditional food sources, temporarily disrupting the availability of traditional food items. The uncertainty around the availability of a traditional food source may change the dietary patterns of community members temporarily, and if sustained over several seasons, may begin to infringe upon food security, and in turn diet. This</p>	<p>M: Ensure that disturbances to the local environment are made in a way that minimizes disturbance to natural habitats and focuses on the long-term stability of wild game and traditional plant populations during construction including minimizing noise pollution, especially during key mating periods.</p>	<p><i>There are no net effects during the construction phase to Webequie First Nation.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		could lead to potential negative health impacts.		
	Operations	<p>- Indirect effect: community members will have increased access to the land as more territory will be able to be reached by car, ATV, or snowmobile. More community members may be able to access hunting, gathering, and fishing grounds thus increasing access to traditional food sources for dietary needs, thereby improving health outcomes associated with eating more traditional foods.</p> <p>- Indirect effect: It is possible that non-members of Webequie First Nation would be able to use the road to access new hunting locations, and this may impact land animal, fish, and plant populations negatively. Hopefully, Provincial regulations will ensure stable populations of wild game for Webequie First Nation community members wanting to practice traditional food gathering techniques. An expected neutral effect to wellness is anticipated if regulations are adhered to.</p>	<p>M: Members of the community who hunt may want to notice and maintain records of changes in patterns of behaviour among game animals and growth patterns of traditional plants as a result of the Webequie Supply Road.</p> <p>M: Webequie First Nation is encouraged to work with the Ontario Ministry of Natural Resources and Forestry to monitor and issue licenses for large game, such as moose, through the provincial hunting lottery system, and regulate fish catches by conservation laws.</p>	<p><i>There are no net effects during the operations phase to Webequie First Nation.</i></p>

***Predicted Future Condition of the Environment if the Project Does Not Proceed***

Should the Project not proceed, the conditions within the proposed Project site area related to the Human Health VC will likely continue on the current trajectory.

***Follow-Up and Monitoring Programs***

Follow-up and monitoring related to the Human Health VC will be initiated at each phase of the Project. These activities will inform a precautionary approach and contribute to the understanding of changing conditions within the study area communities. This includes the Project-related and cumulative effects and the effectiveness of mitigation measures in addition to effects that were not initially identified or expected.

The monitoring and follow-up of the 24 social and environmental determinants of health of the Human Health VC will require consistent monitoring to evaluate the effectiveness of the Project mitigation measures. Regular evaluation will allow the Project proponent to identify areas of concern or success in a timely manner and pivot mitigation measures if necessary.

The recommended human health monitoring programs can be found in the full HIA report.

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**LIST OF ACRONYMS**

AA	Alcoholics Anonymous
EAR / IS	Environmental Assessment Report / Impact Statement
FNIHCC	First Nations and Inuit Home and Community Care
FTE	Full-Time Equivalent jobs (measures the total hours of full-time, part-time, and various other types of employees into measurable 'full-time' units as a result of the economic shock)
GBA	Gender-Based Analysis
GHG	Green House Gas
GW	Ground Water
HIA	Health Impact Assessment
HRA	Health Risk Assessment
IA	Impact Assessment
IAA	<i>Impact Assessment Act</i>
IKLRU	<i>Indigenous Knowledge Land Use and Resource Information</i>
IS	Impact Statement
LSA	Local Study Area
MSF	Maintenance and Storage Facility
RSA	Regional Study Area
SLHHRA	Screening Level Human Health Risk Assessment
SW	Surface Water
TISG	Tailored Impact Statement Guidelines
WAGE	Women and Gender Equality
WHO	World Health Organization

# 1. INTRODUCTION

---

## 1.1. Project Overview

Webequie First Nation, the proponent, is proposing to construct the Webequie Supply Road ('the Project'), a 107-kilometre all-season road connecting Webequie Airport and the McFaulds Lake area in northern Ontario. The Project includes the construction, operation and maintenance of the Webequie Supply Road, which would be approximately 35 metres wide and accommodate a two-lane all-season road. Supportive infrastructure is required as part of the Project and includes aggregate/rock source areas (i.e., pit/quarries), temporary construction camps with storage and laydown yards, rest and maintenance areas, access roads and a permanent Maintenance and Storage Facility (MSF) (AtkinsRéalis, 2024g). Figure 1-1 (also see Section 1 – Introduction of the EAR/IS) below shows the preferred route for the Webequie Supply Road and locations of supportive infrastructure needed for construction and operations of the Project. As seen in Figure 1-1, four temporary construction camps will be built and used during the construction of the proposed road (AtkinsRéalis, 2024g).

The Project would connect Webequie First Nation to existing mineral exploration activities and potential future mineral development within the Ring of Fire area of Ontario. The Project could also become part of a future all-season road network connecting the Webequie First Nation and the Ring of Fire area to the provincial highway system in Nakina and/or Pickle Lake.

As a federal designated project, the Impact Assessment Act (IAA) is applicable to the Project, which includes the preparation of an Impact Statement as per the requirements laid out in the Tailored Impact Statement Guidelines (TISG) prepared by the Impact Assessment Agency of Canada (the Agency). Intrinsic Corp. (Intrinsic) was retained by AtkinsRéalis Canada Inc. (AtkinsRéalis), on behalf of Webequie First Nation to conduct a Health Impact Assessment (HIA) of the Webequie Supply Road Project. The HIA addresses the requirements in the TISG with respect to the characterization of baseline human health conditions within Webequie First Nation as well as the assessment of potential human health impacts to Webequie First Nation due to the Project.

## 1.2. Project Context

### 1.2.1. The Ring of Fire

The Ring of Fire is located in Northern Ontario, within the boundaries of Treaty 9. The lands are Anishinaabe<sup>1</sup> (Ojibway) and First Nations ancestral territory. Through the generations, these nations coexisted, intermarried, and resided side-by-side in the Matawa region, resulting in the formation of the Oji-Cree culture (Thomas, 2020). The region is located approximately 500 km northeast of Thunder Bay (Government of Ontario, 2022), is at least 175 km long and is shaped like a crescent (Heffernan, 2023). Since time immemorial, Indigenous Peoples have inhabited this area and preserved its minerals, rocks, lands, and fauna, and other natural resources, in a state of health and abundance. In their capacity as custodians of the land, these nations maintain profound ties and authority regarding the preservation and advancement of the area.

---

<sup>1</sup> Anishinaabe is the general term that many Algonquian speaking peoples used to identify themselves including the Ojibwe (Chippewa), Odawa, Potawatomi, Oji-Cree, Saulteaux, Metis, Algonquin, Nipissing, Mississauga and others (Stark et al., 2021).

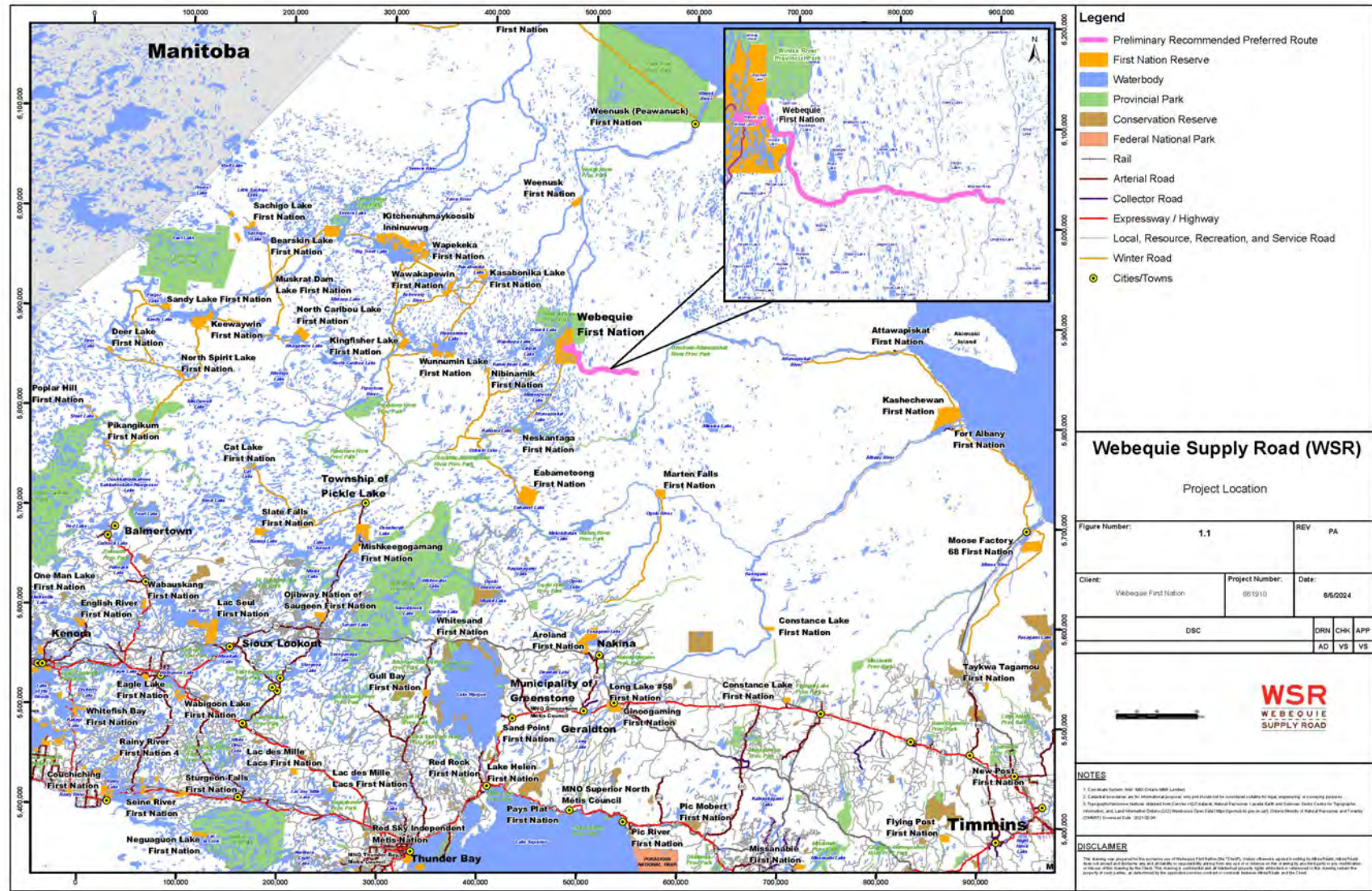


Figure 1-1: Location of Project Components

### 1.2.2. Matawa First Nations

Matawa First Nations Management was founded in 1988 as an organization to assist the nine-member First Nation communities: Aroland, Constance Lake, Ginoogaming, Long Lake 58, Eabametoong, Nibinimik, Marten Falls, Neskantaga, and Webequie. Of these nine communities, Aroland, Constance Lake, Ginoogaming, and Long Lake 58 are accessible by road, whereas Eabametoong, Nibinimik, Marten Falls, Neskantaga, and Webequie are accessible only by air or the winter road system, and thus have distinct requirements and priorities. Despite their isolation, the communities that are accessible by road are all within a few hours' journey of the cities of Thunder Bay and Hearst. However, for remote fly-in communities like Webequie, to leave the community, members must travel by plane or winter roads, making travel more challenging and expensive.

Each of these communities has different and specific needs, dependent on their access to transportation and on the winter road system, especially in terms of the existence (or absence) of a local economy and relative access to essential infrastructure and human rights, such as clean drinking water, safe housing, education, and healthcare. The Matawa member communities also maintain a presence in a historic village on the Kenogami River, which is located at the confluence of four rivers and is known in the Cree language as *Mamamatawa*, which translates to "a place where many rivers meet." The Chiefs and Elders of the Nations considered it appropriate to name their management organization *Matawa*, meaning "river mouth," to acknowledge the rivers as their primary source of sustenance.

### 1.2.3. Webequie First Nation

The Project Team collected as much Anishinaabemowin/Anishinaabe/Mushkegowuk (Cree) Indigenous Knowledge as possible in relation to the Project in order to inform the human health baseline/existing conditions. This document has been continuously updated as the Project Team received new information from the Webequie First Nation and other communities. Due to the limited resources of communities and the need to follow culturally relevant protocols that necessitate relationship building and consistency to establish trust, the collection of significant Indigenous Knowledge takes time (SNC-Lavalin, 2023).

Webequie is an Anishinaabemowin (Oji-Cree) Tawin (community) located approximately 540 kilometres north of Thunder Bay in Treaty No. 9 territory. Anishinaabemowin is a combination of the Anishinaabe (Ojibway) and Mushkegowuk (James Bay Cree) languages.

Before the first settlers arrived, the Anishinaabe and Mushkegowuk shared the territory sustainably and lived *Mino Bimaadziwin* ('the good life') under the guidance of Anishinaabe law, which regulates their *Kii'manitu'meano-goonan* ('Creator-given') responsibilities to ensure a good relationship with the Land (Webequie First Nation, 2021; Intrinsic, 2023b).

In general, the Anishinaabe and Mushkegowuk shared a spiritual perspective with Indigenous peoples across the continent, which was founded on a profound respect for *Shkagamik-Kwe* (Mother Earth) and a reciprocal relationship (Thomas, 2020; Helin, 2008).

Webequie First Nation, like many First Nations and communities across Turtle Island (North America), have been living with the systemic effects of colonization of their lands by European settlers and the formation of Canada. More than seven generations of systemic discrimination have had a profound effect on the Anishinaabemowin language. Webequie First Nation has been striving for *Mino Bimaadziwin* and to strengthen their nation holistically while reclaiming their culture. Webequie Anishinaabemowin have always maintained a reciprocal relationship with the Land and have reclaimed a

number of traditional cultural practices, such as harvesting, hunting, trapping, and fishing. Additionally, community members tan their own hides and fashion garments and tools from the materials they harvested. Some members of the community are members of the Anglican church, while others engage in traditional ceremonies (Webequie First Nation, 2023).

Before the arrival of European colonizers, Indigenous Nations were governed by their own governance structures and natural laws. The Anishinabek and Mushkegowuk governed themselves through a clan-based system. In this Health Impact Assessment that support the Environmental Assessment Report / Impact Statement (EAR/IS) for the Project, community members do discuss the clan system, but Elders and Knowledge Keepers provided the main information on this topic. Typically, the Anishinabek self-govern through a clan-system consisting of seven primary clans and numerous sub-clans. Each faction has a distinct role within the Nation as a whole.

### 1.3. Project Objectives / 'Need for' the Project

The primary objectives of the Project ("Need for the Project"), as determined by Webequie First Nation are (AtkinsRéalis, 2024):

4. Establish an all-season corridor that will facilitate the movement of materials, supplies, and people between the Webequie Airport and the mineral exploration and proposed mine development activities in the McFaulds Lake area of Northwestern Ontario (specifically, the camps, the drilling/exploration projects and, in the future, mining facilities).
5. Provide enhanced employment and other economic development opportunities to Webequie community members, while also allowing them to continue to reside in or around their community's traditional territory, engage in traditional uses of the land, and preserve their language and culture; and
6. Provide experience/training opportunities for youth to help encourage pursuit of additional skills through post-secondary education.

### 1.4. The Impact Assessment (IA) Process

The Webequie Supply Road Project is subject to the federal IA / EA Process, which, as seen in Figure 1-2, has five main phases. The Project is also subject to comprehensive Environmental Assessment (EA) under the Ontario *Environmental Assessment Act*. For the purposes of the HIA, the two main phases of the IA Process during which the majority of the HIA steps are carried out are Planning Phase and during the preparation of the EAR / IS (Figure 1-2).



Majority of HIA steps carried out during Planning and Impact Statement phases

Figure 1-2: The Impact Assessment process and when the HIA steps are carried out

#### 1.4.1. Planning Phase – an overview of HIA activities

- Engagement with community(ies) to build relationships and identify baseline health concerns as well as those related to the proposed Project.
- Providing input into the preparation of the Initial Project Description (Proponent-led step).
- Providing input into the response to Summary of Issues (Proponent-led step).
- Providing input into the Detailed Project Description (Proponent-led step).
- If the Agency determines that an Impact Assessment is necessary, the Agency develops the Draft and then the Final TISG, wherein the HIA requirements are identified.

#### 1.4.2. Impact Statement Phase – an overview of HIA activities

During the Impact Statement Phase, the Proponent and its team engage with Indigenous communities and the public and consider the potential environmental, health, social and economic impacts of the proposed Project, as well as engage with Indigenous communities to identify the potential impacts on Aboriginal and treaty rights. As such, the two main objectives of the HIA process during the Impact Statement are:

1. Continue to meaningfully engage Indigenous Peoples and the public and integrate their feedback and input related to baseline human health conditions and potential effects of the Project into the HIA:
  - Engagement with rightsholders and stakeholders is a foundational element of the HIA process.
  - The HIA Team utilizes the information gathered from initial engagement activities with affected rightsholders and stakeholders to determine the focus of the HIA (i.e., scope, see Figure 2-1), the boundaries of the assessment, the methods and data to be used in

- the effects assessment, informing the effects assessment, and informing the selection of recommended mitigation and enhancement measures.
  - Indigenous Knowledge gathered from Indigenous communities during the HIA forms the basis of the assessment of potential health impacts towards the respective communities.
2. Complete the HIA by also integrating information related to all the social and environmental determinants of health scoped into the HIA, which may include integrating information from other Valued Components (VCs), including air quality, water quality, noise, social, economic, cultural, etc.

## 2. APPROACH AND METHODOLOGY

---

### 2.1. What ‘Health’ Means to Webequie First Nation

Community members were asked for their definitions of ‘health’ or what ‘health’ meant to them. A common Anishinaabe concept shared with the Intrinsic HIA Team that closely relates to Webequie First Nation’s answer on what health means to them was *Mino bimaadiziwin*, roughly translated as ‘the good life’.

*Mino Bimaadiziwin* is an understanding that all beings are related and is the idea of the unity and dignity of all beings (Rheault, 1999). Those who choose to live *Mino Bimaadiziwin* are living as the Ancestors planned, outlining a way of thinking, acting, understanding, and speaking Anishinaabe (Seven Generations Education Institute, 2009). In order to find this good life, there are traditional Teachings in place that give meaning and structure to being Anishinaabe (Rheault, 1999). These seven teachings are wisdom, love, respect, bravery, honesty, humility, and truth, which represent the blueprints to living a good life in balance and harmony with creation (Stark, 2021).

To live *Mino Bimaadiziwin* is to live illness free and to live life to the fullest whatever that may mean to an individual. From interviews with community members, *Mino Bimaadiziwin* may mean a variety of things, including being healthy in all aspects of life (physically, mentally, emotionally, spiritually); going out on to the land, maintaining a connection with it, and living with peace on the land; being debt free and financially independent; being/staying active; having proper housing; having more land and better roads to allow for interconnectedness; meeting people and having good relationships; having access to healthy and traditional foods; and having access to education, access to cultural activities, and access to and improvement of social services. Community members believed that “by forgiving yourself and others, as well as putting in the work to find yourself, you can be on the path to *Mino Bimaadiziwin*” (Intrinsic, 2023). **Hence, in this HIA, every time a reference to ‘health’ is made, the Webequie First Nation community’s understanding of health, i.e., *Mino Bimaadiziwin*, is implied.**

In the Western Science approaches to health, the World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity” (WHO, 1946). This definition identifies the holistic nature of health and expands the definition to include physical, mental, social and economic factors. This definition is considered an ideal to strive for and it forms the principle upon which HIA is based.

Historically, health was considered secondary in development projects, if considered at all; however, there has been increasing interest in HIA and how it can be a useful tool to promote sustainable and responsible development. The WHO (1999) defines HIA as:

*“A combination of procedures, methods and tools by which a policy, programme or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population.”*

An HIA typically consists of a series of steps that are intended to provide a structural framework around which the assessment will be conducted. Although guidance documents from around the world have slight variations on these steps, the process is fundamentally the same: screening, scoping, assessment, recommendations, reporting, monitoring and evaluation (Figure 2-1).

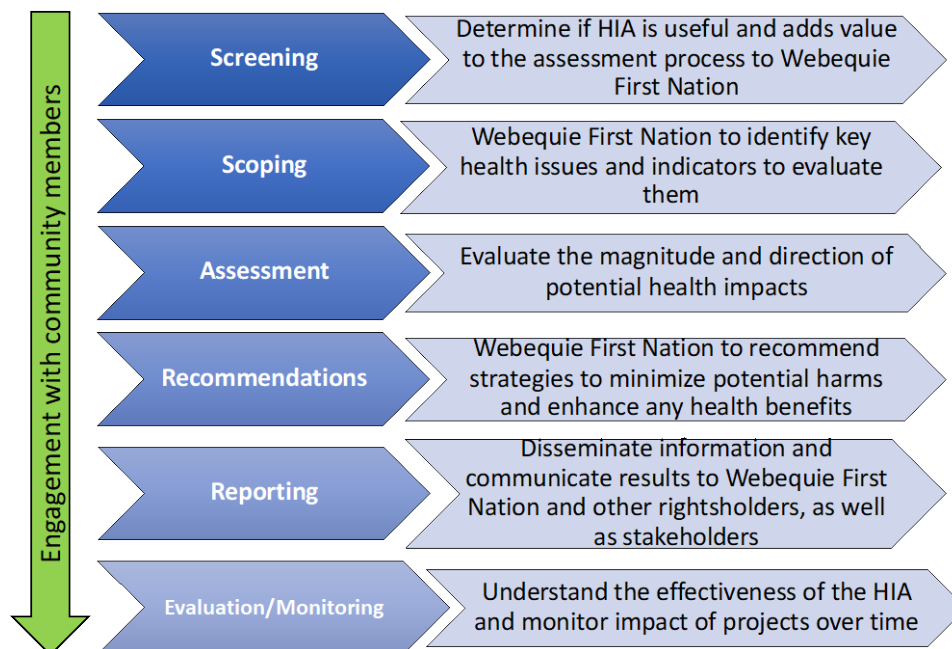


Figure 2-1: Health Impact Assessment Process

### 2.1.1. Purpose of HIA

The purpose of the HIA is to develop a baseline health profile of Webequie First Nation, and to evaluate the potential positive and negative impacts on health and well-being of Webequie First Nation that may result from the Project. In addition, the HIA proposes measures to either reduce or mitigate potential harmful effects and to enhance potential positive effects.

There are several benefits to conducting an HIA, including:

- **Highlights Positives:** Typically, environmental assessments tend to focus only on the absence or presence of negative effects.
- **Addresses Rightsholders/Stakeholders Concerns:** Addresses rightsholders/ stakeholders/ community concerns in an upfront and transparent manner.
- **Efficient Process:** The HIA can be completed independently, while relying on data and information collected for several of the studies conducted as part of the IA (e.g., air quality, noise, visual, etc.) to achieve maximum efficiency.

- **Feasible Recommendations:** Following the assessment, the HIA makes targeted recommendations that are feasible and effective, to mitigate potential adverse impacts and to enhance the positive impacts.
- **Enhanced Communication:** The HIA process is based on open and transparent communication of issues and concerns with the proponent as well as rightsholders/stakeholders. By identifying these early in the process and addressing them through the HIA in an open and transparent manner, the likelihood of last-minute setbacks is minimized.

## 2.2. HIA Approach and Methodology

The HIA framework used in this HIA was originally developed by Intrinsik for Health Canada to be applied to projects undergoing the IA Process. As such, this framework is based on best practices published in a number of guidance documents and used in other assessments (Ross et al., 2014; US EPA, 2016; Bhatia, 2009; IAIA, 2021; National Research Council, 2011). Health Canada has since updated this Guidance (Health Canada, 2022 [unpublished]) and it is this updated Guidance, along with direction and guidance from Webequie First Nation that has guided this assessment.

Infrastructure and resource development projects undoubtedly have some level of impact on people living or working in their vicinity. As such, it is important to distinguish between the directionality of these impacts (i.e., positive, negative) and consider the nature and extent of various types of effects on health.

### 2.2.1. Effects Assessment Methodology

The Assessment Phase includes the considerations listed below for each of the determinants of health scoped into the assessment. A GBA Plus approach was taken within each of these subsections of the effects assessment methodology to ensure that the health assessment considers impacts to different population sub-groups within Webequie First Nation:

- **Health Context and Linkages:** This section refers to scientific literature and the reputable grey literature to identify health linkages (or effect pathways) and make the Project-specific connection to health. This assessment of effects will not include a full literature review, which is a comprehensive undertaking, but refers to the relevant peer-reviewed and reputable grey literatures.
- **Existing Conditions:** This section describes the current conditions in the Local Study Area for the determinant of health being assessed. This information will primarily flow from community engagement information and the existing conditions reports for the human health, social, economic, cultural, and other relevant VCs, and be provided for Webequie First Nation.
- **Effects Assessment:** This section provides an assessment of potential positive and negative health effects related to each phase of the Project. This report relies on information shared by Webequie during engagement, other VC reports, and primary data as source material to develop the effects assessment. How this information has been incorporated is shown in Figure 2-2.
  - Negative health impacts are those impacts identified as being harmful to health and wellbeing.
  - Positive health impacts are those deemed beneficial to health and wellbeing.

- **Mitigation / Enhancement Measures:** Mitigation measures have been recommended with the aim of preventing, minimizing, monitoring or compensating for the potential negative health impacts of the Project. Enhancement measures are those that aim to spread the benefits of potential positive health impacts more broadly across the community using a GBA Plus approach.
- **Residual or Net Effects:** The potential negative human health impacts of the Project despite implementation of all proposed mitigation strategies are the residual/net effects or also commonly referred to as net effects. As it is not possible to predict residual/net human health impacts with certainty (e.g., different population groups are affected differently) a range of characterizations has been applied to incorporate differences in residual/net effects (see Section 2.2.2 below).

This approach to assessing health is based on available Indigenous Knowledge, as provided by Webequie First Nation, and the best available scientific evidence regarding health effects.

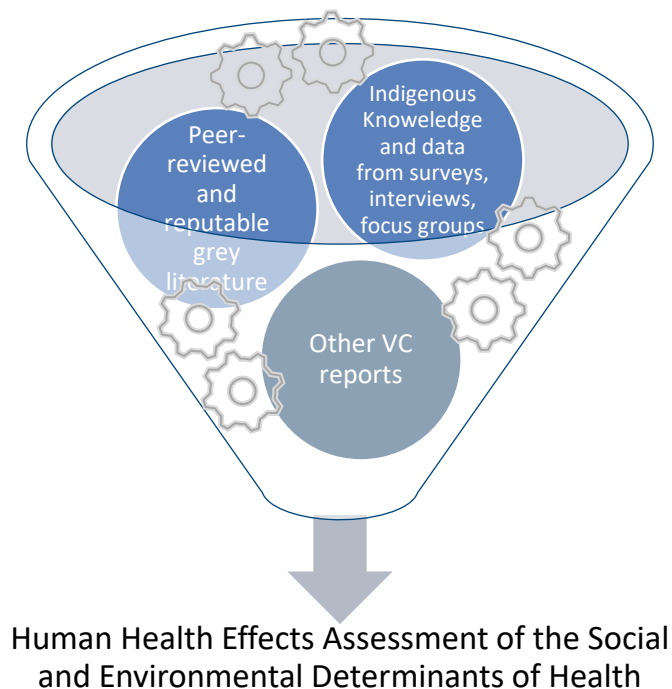


Figure 2-2: A depiction of how different sources contributed to the development of the human health effect assessment of the social and environmental determinants of health for the Webequie Supply Road Project.

### 2.2.2. Identification and Characterization of Net Effects

The characteristics used to complete the effects assessment are described in detail in the Environmental Assessment Report / Impact Statement. Table 2-1 below presents definitions for net effects criteria, developed with specific reference to the social and environmental determinants of health. These criteria are considered together in the assessment, along with context derived from existing conditions and proposed mitigation measures, to characterize predicted net effects from the Project on health.

**Table 2-1: Criteria for Characterization of Predicted Net Effects on Social and Environmental Determinants of Health**

Characterization Criteria	Description	Quantitative Measure or Definition of Qualitative Categories
Direction	Direction relates to the value of the effect in relation to the existing conditions	<p><b>Positive</b> – net gain or benefit; effect is desirable.</p> <p><b>Neutral</b> – no change compared with baseline conditions and trends.</p> <p><b>Negative</b> – net loss or adverse effect; effect is undesirable.</p>
Magnitude	Magnitude is the amount of change in measurable parameters or the determinant of health relative to existing conditions (see Table 2-2 below).	<p><b>Negligible</b> – no measurable change.</p> <p><b>Low</b> – the net effect may be measurable but represents a small change relative to existing conditions.</p> <p><b>Moderate</b> – the net effect will be measurable but represents a moderate change relative to existing conditions.</p> <p><b>High</b> – the net effect will be measurable to a high degree relative to existing conditions.</p>
Geographic Extent	Geographic extent refers to the spatial area over which a net effect is expected to occur or can be detected within the Project Footprint, Local Study Area and Regional Study Area	<p><b>Project Footprint</b> – the net effect is confined to the Project Footprint or Project Development Area.</p> <p><b>Local Study Area</b> – the net effect is confined to the Local Study Area.</p> <p><b>Regional Study Area</b> – the net effect extends beyond the Local Study Area boundary but is confined within the Regional Study Area.</p>
Timing	Timing criteria indicate the timing (e.g., dates or seasons) importance of the net effect	<p><b>Not time sensitive</b> - the net effect is not sensitive to the timing of a Project phase and/or specific Project activity.</p> <p><b>Time sensitive</b> - the net effect is sensitive to the timing of a Project phase and/or specific Project activity.</p>
Duration	Duration is the period of time required until the measurable indicators or the determinant of health returns to its existing (baseline) condition, or the net effect can no longer be measured or otherwise perceived	<p><b>Short Term</b> – the net effect is restricted to no more than the duration of the construction phase (approximately 5 years).</p> <p><b>Medium Term</b> – the net effect extends through the operations and maintenance phase of the Project (75-year life cycle).</p> <p><b>Long Term</b> – the net effect extends beyond the operations and maintenance phase (greater than 75 years).</p> <p><b>Permanent</b> – recovery to baseline conditions unlikely.</p>
Frequency	Frequency refers to the rate of occurrence of an effect over the duration of the Project or in a specific phase	<p><b>Infrequent</b> – the net effect is expected to occur rarely.</p> <p><b>Frequent</b> – the net effect is expected to occur intermittently.</p>

Characterization Criteria	Description	Quantitative Measure or Definition of Qualitative Categories
		<b>Continuous</b> – the net effect is expected to occur continually.
Context	Context considers sensitivity and resilience of the determinant of health to project-related change	<p><b>High resilience</b> – the determinant of health has high resilience or ability to adapt to changes in the measurement indicator and low sensitivity to changes caused by the Project.</p> <p><b>Moderate resilience</b> – the determinant of health has a moderate resilience or ability to adapt to changes in the measurement indicator and has moderate sensitivity to potential changes caused by the Project.</p> <p><b>Low resilience</b> – the determinant of health has low resilience or ability to adapt to changes in the measurement indicator and is sensitivity to potential changes caused by the Project.</p>
Input from Indigenous peoples	Views of the Indigenous communities and groups in assigning the criteria to be used and in characterizing the effects	Inputs received during consultation and engagement, and participation in the EA/IA process, in assigning the criteria to be used and in characterizing the effects.
Likelihood of Occurrence	Likelihood of occurrence is a measure of the likelihood that an activity will result in an effect	<p><b>Unlikely</b> – the net effect is not likely to occur.</p> <p><b>Possible</b> – the net effect may occur but is not likely.</p> <p><b>Probable</b> – the net effect is likely to occur.</p> <p><b>Certain</b> – the net effect will occur.</p>
Uncertainty/ Confidence	The potential for observed results to deviate from predictions made	This HIA is not an epidemiological study. The information and data available to make strong conclusions about how the Project can impact health by changing the determinants of health is not always available. Hence, the conclusions and determinations made of potential positive and negative health effects are not 100% certain.

### 2.2.3. Discipline Specific Characteristics

In addition to the net effects characteristics described in Table 2-1 above, the HIA has prepared the following specific definitions for characterization of net effects.

#### 2.2.3.1. Magnitude

Magnitude refers to the amount or degree / level of change in a measurable parameter relative to the existing conditions of a Valued Component, with and without the Project in place, or relative to other standards or guidelines. The human health definitions are provided below in Table 2-2.

Table 2-2: Human Health Magnitude Definition

Magnitude Level	Definition	Rationale
<b>Negligible</b>	An effect that may or may not be discernible but is within the historical variability as defined by baseline conditions. The effect is within the capacity of the community to respond and / or will not alter the current community conditions.	Negligible effects are small and may not be noticeable. These effects do not represent a change in day-to-day life at a community-level.
<b>Low</b>	An effect that is small but discernable and within historical variability as defined by baseline conditions. The effect is within the capacity of the community to respond and / or will not alter the current community conditions.	Low effects are noticeable to community members. These effects do not represent a change in day-to-day life at a community-level.
<b>Moderate</b>	An effect that is clearly discernable and beyond the historical variability as defined by baseline conditions. The effect is within the capacity of the community to respond and / or will not alter the current community conditions.	Moderate effects are noticeable to community members. These effects may or may not represent a change to day-to-day life but can be adjusted to. They are within the current capacity of the community to adapt to.
<b>High</b>	An effect that is clearly discernable and beyond the historical variability as defined by baseline conditions. The effect is beyond the capacity of the community to respond and / or will alter the current community conditions.	High effects are noticeable to community members. These effects represent a change to day-to-day life. In the case of adverse effects, these changes cannot be adapted to resulting in a large degree of change.

### 2.2.3.2. Determination of Significance

The assessment of significance of net effects of the Project is informed by the interaction between the significance factors, with magnitude and duration being the most important factors. Consideration is also given to comments and concerns raised by Webequie First Nation, other Indigenous communities and regulatory agencies during engagement and consultation.

Using the HIA-specific characterization of net effects (Section 2.2.2), an effect was considered as ‘significant’ when all of the following criteria were met and represented a management concern:

- Health Context: Pressure on existing health conditions
- Magnitude: Moderate-to-High
- Duration: Medium- to Long-Term

Implementation of proven mitigation measures is expected to avoid or reduce the magnitude and duration of net effects on human health.

## 2.3. Gender-Based Analysis (GBA) Plus

Women and Gender Equality Canada (WAGE), formerly known as Status of Women Canada, defines GBA Plus as “an analytical process that provides a rigorous method for the assessment of systemic inequalities, as well as a means to assess how diverse groups of women, men, and gender diverse people may experience policies, programs and initiatives.” (WAGE, 2022). The primary source for GBA

Plus data and information, for example, gender and age disaggregated data, will be the socioeconomic baseline conditions and effects assessment, including the GBA Plus report by InterGroup (2024). Where readily available, disaggregated data is also included in the HIA itself. A Gender-Based Analysis Plus has been conducted during the Impact Statement Phase to ensure that:

1. Diverse groups are considered in the assessment of potential health impacts; and
2. Recommendations are made to mitigate disproportionate distribution of potential health impacts.

In the HIA Report a qualitative discussion is provided indicating how various population groups already experience (i.e., baseline conditions) health disparities (Section 5.13).

### 2.3.1. GBA Plus context for the Webequie Supply Road HIA

The HIA framework is designed to assess potential health impacts due to a project on the most sensitive members of the population, such as children, the elderly, and those with compromised or sensitive health conditions (e.g., asthmatics, pregnant women, those with Chronic Obstructive Pulmonary Disease, immunodeficient individuals, etc.). Many of these sensitive members of the population would also be considered in a GBA Plus, as being disproportionately impacted due to project-related activities. Hence, through these approaches, and in combination with a GBA Plus, the HIA ensures its assessment provides a broad evaluation of potential health benefits and impacts arising from the proposed Project for all Rightsholders and stakeholders.

## 2.4. Engagement Details

Table 2-2 below presents the details on engagement activities that were completed as part of the HIA for the Webequie Supply Road Project.

Table 2-3: Details of in-person and virtual engagement conducted with Webequie First Nation for the human health VC

Date	Purpose of engagement trip	Key person interviews	Focus groups	Paper surveys administered
December 12-14, 2022	Engagement activities to: <ul style="list-style-type: none"> <li>• inform the community about the HIA, its purpose (community meetings),</li> <li>• gather their feedback into the HIA scope,</li> <li>• identify main health issues in the community, and</li> <li>• identify existing health conditions in the community</li> </ul>	<ul style="list-style-type: none"> <li>• Councillor</li> <li>• Elder (male)</li> <li>• Former Community Wellness Project and Cultural Department Coordinator</li> <li>• Director of Operations</li> <li>• Cultural Projects Coordinator</li> <li>• Tikinagan Child and Family Services</li> <li>• Family Wellbeing Program Coordinator</li> <li>• Community Nurse</li> <li>• Mental Health Councillors</li> <li>• Crisis Intervention &amp; Prevention Coordinator</li> <li>• Peacekeeper</li> </ul>	none	yes

Date	Purpose of engagement trip	Key person interviews	Focus groups	Paper surveys administered
May 11-12, 2023	Engagement activities to: <ul style="list-style-type: none"> <li>• present scope selected to community members (community meetings)</li> <li>• gather feedback to finalize scope, and</li> <li>• request Traditional and community knowledge for the assessment phase of the HIA</li> </ul>	<ul style="list-style-type: none"> <li>• Representative from the Community Aboriginal Recreational Activator (CARA) program</li> <li>• Representative from the Choose Life program</li> <li>• Principal of school</li> <li>• School activities worker/coordinator</li> <li>• Home Care / special needs Coordinator</li> </ul>	Women, youth, men, land users, 2SLGBTQ++, Elders	yes
May 13-14, 2024	<ul style="list-style-type: none"> <li>• Present the Baseline Community Health Profile to the community and verify results from previous engagement activities and survey.</li> <li>• Discuss potential mitigation and enhancement measures with community members.</li> </ul>	<ul style="list-style-type: none"> <li>• High school teacher</li> <li>• Community Coordinator</li> </ul>	Men, youth, women, individuals with disabilities and chronic health conditions, Two-spirit, elders/seniors	yes

## 2.5. Assumptions

A conservative approach was used in assessing potential effects where there is uncertainty.

The HIA has been completed using several assumptions. The assumptions made in this assessment include:

1. The closest construction / worker camp to Webequie First Nation is preliminarily located approximately 5 km south of the Webequie settlement site.
2. Although details of an approved safety and security enforcement strategy are still being worked out, it has been proposed by Webequie First Nation that for safety and security considerations, construction workers / other workers (non-Indigenous) will not be allowed into Webequie First Nation. However:
  - a. It is assumed that Webequie First Nation may not be completely successful in keeping out outside workers / individuals.
  - b. Construction workers / other workers are not expected to be allowed into either of the communities unless they use the appropriate channels to get permission to enter the communities.

3. Should off-reserve Webequie First Nation members decide to participate in construction activities / jobs, they will be provided housing on the community to the extent available, and the overflow will stay in the construction / worker camps.
4. Although it is expected that the construction/worker camps will be 'dry camps', i.e., no alcohol or illicit substances/drugs will be permitted in the camps, it is assumed that some amount of alcohol and drugs will make its way into the camp, and therefore find a way into the Webequie First Nation community. It is assumed that these amounts will be small and will depend on how strictly the 'dry camp' policy will be enforced.
5. Although sample size in the human health survey was small (i.e., 27), we have still used the results as evidence but noted that due to the low response rate, the results must be interpreted with caution, and avoided statements of fact regarding full community interpretation. Moreover, we have confidence in the results of the survey as during the most recent community engagement visit, the HIA Team endeavoured to ground-truth the information by presenting the data to community members at community meetings and during focus groups.
6. The HIA evaluates the impacts on health due to the Webequie Supply Road Project alone. Once operational, the Webequie Supply Road is expected to provide all-season access from Webequie First Nation to the Ring of Fire area, the site of much-expected resource development and employment opportunities. However, during engagement, Webequie community members often mentioned that they expected the Webequie Supply Road to improve access to goods, services, and reduce feelings of isolation of community members. In trying to convey these hope from community members in the HIA, the effects assessment tried to clarify that Webequie Supply Road can only provide this access to goods and services once it connected to the provincial highway network via the Marten Falls Community Access Road and the Northern Road Link, both of which are projects currently also going through the Impact Assessment process.

In addition, and since the HIA relied heavily on the socio-economic assessment, the assumptions in the socio-economic environment should also be considered:

- **Workforce composition:** it is assumed that job positions for the Webequie Supply Road project will first be filled using the available labour within Webequie First Nation, followed by the other Local Study Area (LSA) communities, and lastly the Regional Study Areas (RSA) (see Section 4.3 for the list of communities);
- **Availability of Labour:** it is assumed that the unemployed labour market is proportionally equal to the employed labour market in terms of industry involvement;
- **Labour Skill Requirements:** it is assumed that Webequie Supply Road Project related jobs within specific labour categories are unskilled labour positions and require limited training or qualifications;
- **Operations On-Site Labour:** it is assumed that during Webequie Supply Road Project operations, the on-site Project labour demand will be met by Webequie First Nation with any additional available jobs' gaps being filled by LSA workers;
- **Housing and Accommodations:** it is assumed that the temporary work-camps will fully meet the housing requirements for the additional temporary worker population created through Project employment.

## 2.6. Gaps and Uncertainties

A number of key informational gaps exist with respect to the human health environment that contribute to the uncertainty of effects prediction. These include:

- Low response rate to the human health survey:
  - There were 27 respondents to the human health survey.
- Statistics Canada Census of Population:
  - For privacy reasons, the Census of Population does not always publish full data sets to protect the identities of respondents;
  - Undercounting within Indigenous communities is a common complaint of the Census; and
  - Other errors likely to occur within the Census of are coverage errors, non-response errors, response errors, processing errors, and sampling errors.
- Skills and Qualification of Labour Force:
  - Detailed data for occupation of employment, employment ratios, and other labour force related indicators were not available for all communities; and
  - Due to the availability and level of detail of the data available, it is not possible to describe the current level of skills, training, and qualifications of the labour force.
- Duration of Project Operation Phase:
  - Due to the extended timeline of the Project, the certainty of the potential effects become difficult to measure;
  - The long-term changes within the local and regional communities are difficult to predict and could affect mitigation strategies; and
  - Other future projects could have effects on the study area communities and the evaluated VCs.

## 3. SCREENING

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The screening step consists of a rapid review of available evidence to determine whether a health assessment is needed, and whether sufficient data and time is available to conduct the assessment. However, as the TISG required that an HIA be conducted as part of the Impact Statement, this step has already been completed.

## 4. SCOPING

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The HIA scoping process is intended to provide the blueprint for the HIA. It involves identifying who will be engaged and how, the populations that might be affected, identifying which health issues will be evaluated within the HIA, and specifies the data and methods to be used and alternatives to be assessed. Intrinsic's HIA Team will conduct a comprehensive and well-facilitated scoping process to ensure that the HIA considers those issues that are important to the proponent, Webequie First Nation, and other potentially affected Indigenous communities.

The initial task in scoping is to conduct a review of all project-related information to characterize the key issues around potential health impacts. This information can be gathered from several sources. Primarily, for this Project, the TISG and the rightsholder engagement informed the scope of the

assessment. Other sources relied upon include the scientific literature, assessments on similar projects, and professional judgment (based on previous experience with HIAs on transportation projects).

A determinants of health approach recognizes that health is more than the absence of disease but is rather a state of overall well-being that is impacted by many factors (aka determinants of health), including the social and physical environment and Indigenous views of health. The social determinants of health are the conditions in which we are born, grow, live, work and age (WHO, n.d.). These conditions are inter-related and are shaped by the balance of power and structural and political factors at the local, national and global levels (WHO, n.d.). These factors include economic policies and systems, social norms, social policies, and political systems (e.g., education, income, employment, and housing) as shown in Figure 4-1. This approach places emphasis on the causes of physical diseases and mental illnesses (i.e., Proximal determinants of health: health-related behavioural and biological factors; and Intermediate health determinants: service access and social, cultural and economic factors), and just as importantly, on the causes of these causes (i.e., Level-3 health determinants: structural, systemic and political factors). Through their effects on well-being, the higher-level determinants of health influence behaviour that, along with human biology, directly impacts physical and mental health.

Both social and environmental determinants of health influence human health outcomes, and are inter-related. For example, degradation of water quality due to a Project can impact health directly through waterborne illnesses or by exposure to contaminants. This can influence an individual's mental wellbeing by fostering feelings of stress and anxiety due to lack of access to clean water and choice of water source.

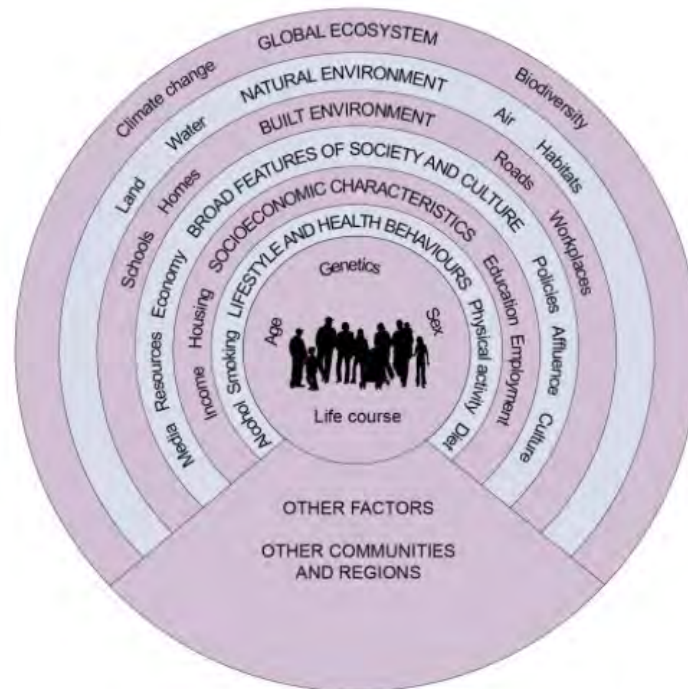


Figure 4-1. The Determinants of Health (Graham & White, 2016)

When asked to define health, Webequie First Nation community members stated that **health means to be healthy mentally and physically, to live ‘Mino Bimaadiziwin’ and that ‘the land is my gold mine’** (Intrinsik, 2022; 2023b; 2024). Indeed, Indigenous peoples have a unique connection to the land and water, and indeed the ecosystem. They are the stewards of the land, and have cultural, economic, social

and spiritual connection to and reliance on the land and water (Government of Canada, n.d.). Connection to territory, land and water is a key determinant of health for Indigenous peoples, while dispossession, disconnection and displacement from land has devastating impacts (FNHA & OPHO, 2021). Many Indigenous peoples believe that 'water is life'. Environmental impacts to water, the environment, and all the interconnected systems of life, has a deep impact on the physical, mental, spiritual, cultural, economic and social wellbeing of Indigenous peoples (Morin, 2015; Cass, 2017; Rao et al., 2019). This connection further reinforces the interconnected, but separate nature of the environmental and social determinants of health. Ecological grief (further discussed in this HIA in Sections 6.2.4 and 6.3.1), which is the grief experienced due to the loss or potential loss of ecosystems or environments, loss of species and also loss of meaningful landscapes (Cunsolo and Ellis, 2018), may be felt more strongly by Indigenous peoples due to their strong connection to the environment (Durkalec et al., 2015; Cunsolo and Ellis, 2018).

There are several potential health areas that could be considered in the scope of this HIA. As described in the TISG, a tiered approach to the social determinants of health will be taken, where (Reading & Wien, 2009; Health Canada (unpublished), 2022):

- Proximal (or Level 1) determinants of health include health-related behavioural and biological factors, etc.;
- Intermediate (or Level 2) determinants of health include education, service access and social, cultural and economic factors; and
- Structural (or Level 3) determinants of health include structural and equity factors, including racism and colonialism.

Although there are some differences in how the different levels are grouped, the three levels of health determinants can also be referred to as stem, core and root determinants of health, respectively (Loppie and Wien, 2022) (see Figure 4-2).

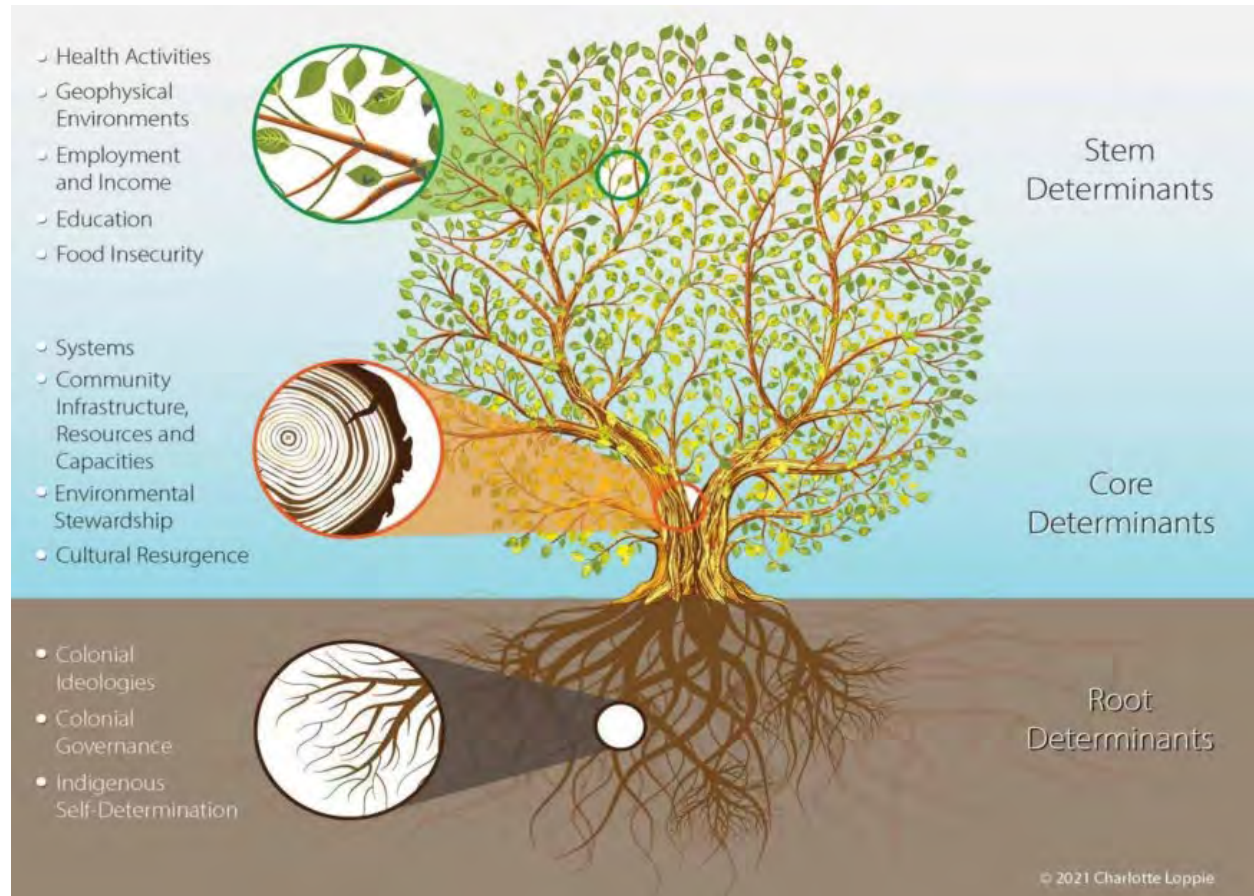


Figure 4-2: Social Determinants of Indigenous Peoples' Health (taken from Loppie and Wien, 2022)

#### 4.1. Scope of Webequie Supply Road HIA

Although distinct categorizations of health determinants have been made in the list below, it should be noted that these determinants are connected, where, for example an intermediate determinant of health may cause or play a role in shaping a proximal determinant of health. Where such connections exist, they will be highlighted during the assessment step of the HIA.

The following Figure 4-3 is a collection of assessment focus areas identified by engaging with Webequie First Nation and a review of the TISG (Section 16.2):

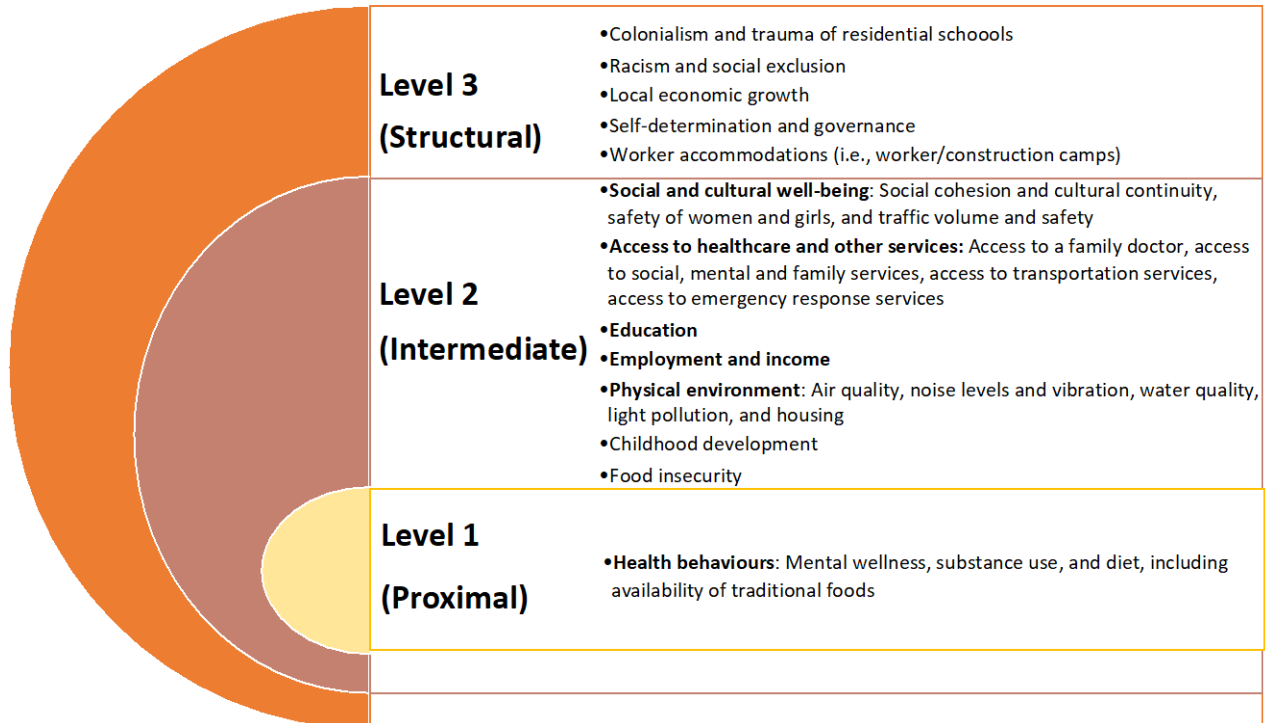


Figure 4-3: The Determinants of Health Evaluated for the Webequie Supply Road HIA

The final list of determinants of health included in the HIA was identified based on the issues that are important to the Webequie First Nation, as well as requirements identified in the TISG, Section 16.2. In addition, the HIA Team has endeavoured to collaborate with the Socioeconomic team (where possible), to characterize and assess these determinants of health through a Gender-Based Analysis (GBA) Plus lens.

#### 4.2. The Human Health Valued Component: the Social and Environmental Determinants of Health and Indicators

The Agency describes Valued Components as the environmental, health, social, economic, or additional elements or conditions of the natural and human environment that may be impacted by a proposed project and area of concern or of value to the public, Indigenous Peoples, federal authorities and interested parties (Impact Assessment Agency of Canada, 2020b). Indicators represent the resource, feature, or issue related to the Valued Component that, if changed, may demonstrate an effect on the environment and / or humans living in and using that environment. Indicators may be characterized quantitatively or qualitatively. As per the Agency, for the assessment of health effects, a determinants of health approach most accurately reflects the multiple and interacting factors that cause health effects (Impact Assessment Agency of Canada, 2020b). The logic map outlined in Table 4-1 provides a prediction of and rationale for potential health effects due to the Project based on the changes in the social and environmental determinants of health and the chosen indicators identified in the scope of this health effects assessment (see Figure 4-3 above).

**Table 4-1: Human Health VC (Determinants of Health) and Indicators for the Webequie Supply Road Project**

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
<b>Structural / Level 3 Determinants of Health - Structural or systemic factors that impact health and wellbeing</b>						
Colonialism and trauma of residential schools	- Temporary disruption in the traditional practices on the land and impact to cultural identity	- May lead to changes in the land that negatively affects community members relationship with the land and may amplify feelings of colonial control and exploitation of land, which may bring up past trauma from displacement and land theft.	Negative	Construction	- Social - Economic - Culture - Aboriginal and Treaty Rights of Indigenous Peoples	The disproportionate burden of negative physical, mental, emotional and spiritual wellness outcomes among the Indigenous peoples of Canada have been linked to current and historic colonialism, and the traumatic impact of the residential school system. Increased economic opportunities may improve the physical and mental wellbeing of Webequie First Nation by enhancing the community’s right to self-determination and self-governance and improving access to services, particularly mental health services. Easier access of drugs and alcohol into the community could lead to higher rates of substance use and mental health crisis, which could increase the dependency on healthcare systems within the community.
	- Local business and economic development	- May provide the community with positive economic growth and development due to the number of employment opportunities available, which may boost access to mental health services to address existing impacts of intergenerational trauma.	Positive	Construction and Operations		
	-Easier access of illicit substances and alcohol into the community	-May also allow for easier entry of illegal drugs and alcohol into the community, which may further exacerbate existing health disparities and addiction issues, many of which are linked to intergenerational trauma rooted in experiences from residential schools.	Negative	Construction and Operations		
Racism and social exclusion	- Racism from external workers – Feeling of isolation and loneliness due to being away from	- May experience racism from external workers through employment opportunities which contributes to negative wellness outcomes (i.e., stress, substance use, and mental wellness struggles).	Negative	Construction only	- Social	Racism is currently experienced by members of Webequie First Nation from health care professionals, teachers, and police. Additional experiences with racism may create new and compound existing feelings of

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
	community/family	Further, these feelings can be a catalyst for family violence.				isolation and loneliness and lead to mental and physical health difficulties.
Local economic growth	<ul style="list-style-type: none"> <li>- Local business and economic development</li> <li>- Employment opportunities</li> </ul>	<ul style="list-style-type: none"> <li>- May provide opportunities for local business development and the associated local economic growth and employment</li> </ul>	Positive	Construction and Operations	- Economic	Overall local economic development will have implications to the health and wellbeing of the community as it bolsters not just individual-level wealth, but for the community overall, which in turn can potentially further benefit community members. Local economic growth and development can also boost the ability of the community for self-determination and self-governance.
Self-determination and governance	<ul style="list-style-type: none"> <li>- Rights to land and resources</li> <li>- Right to pursue economic prosperity and independence</li> </ul>	<ul style="list-style-type: none"> <li>- Community may feel a sense of empowerment if involved in the planning and decision-making process for the Project.</li> <li>- Choosing the Project and using it to achieve their goals as a community, towards economic prosperity, may increase the control the community has on its future.</li> </ul>	<p>Positive</p> <p>Positive</p>	<p>Construction</p> <p>Construction and Operations</p>	<ul style="list-style-type: none"> <li>- Cultural</li> <li>- Aboriginal and Treaty Rights of Indigenous Peoples</li> </ul>	Being able to pursue their own goals, needs and agenda, and make their own decisions independently is extremely important and valuable for Indigenous communities and promotes positive wellness outcomes.
Worker accommodations (i.e., during project activities, including in construction camps)	<ul style="list-style-type: none"> <li>- Safety and security</li> <li>- Availability of illicit substances</li> <li>- Housing availability</li> </ul>	<ul style="list-style-type: none"> <li>- May lead to reduced safety and security, especially of Indigenous women and girls, and also Indigenous workers due to experiences of racism in the construction workplace.</li> <li>- May lead to increased availability of illicit substances</li> <li>- May constrict housing availability if</li> </ul>	<p>Negative</p> <p>Negative</p> <p>Limited (negative)</p>	Construction only	<ul style="list-style-type: none"> <li>- Social</li> <li>- Project-level</li> </ul>	The culture of work-camps can be one of hyper-masculinity, sexism, racism towards Indigenous Peoples, and homophobia. This poses a potential risk to the safety and security of the community, especially women, girls and 2SLGBTQ++ individuals, which will in turn affect community health and wellbeing. Having external workers also increases risk that alcohol and

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
		off-reserve community members move back.				illicit drugs will be brought into the community illegally.
<b>Intermediate / Level 2 Determinants of Health – Environmental and Community factors that impact health and wellbeing</b>						
Air quality	- Emissions, including greenhouse gases	- Project activities may lead to an increase in air pollutants.	Limited (negative)	Construction	-Environmental	Reduction in air quality due to emissions from construction activities, can impact physical and mental wellness, especially for those who have chronic health conditions such as asthma.
Noise levels and vibration	- Sound level	- May lead to increased noise and vibration levels from Project activities (e.g., blasting, aggregate extraction, vehicles, and vegetation clearing), impacting wildlife location and number, and enjoyment of the land.	Limited (negative)	Construction	-Environmental - Cultural	Noise from road construction and traffic can influence physical and mental health (e.g., hypertension, ischaemic heart disease, high blood pressure, anger, depression, anxiety, and disturbed sleep). In addition, loud noises during construction activities may change the location and behavioural movement patterns of game that are hunted by the community.
Water quality	- Change in surface water quality (e.g., habitat, chemistry, and flow rates) -	- Construction of water crossings may lead to degradation of fish habitat - Changes to water bodies may lead to changes in water chemistry (e.g., vegetation clearing, changing water levels, erosion). -Emissions from vehicles and spills may lead to changes in water quality	Negative  Negative  Limited (negative)	Construction  Construction  Operations	-Environmental -Cultural	The health of water is linked to human health through physical, mental and spiritual pathways. Ingestion of contaminated water can have direct negative health outcomes, and ingestion of traditional foods (e.g., fish) from contaminated water bodies can affect physical health but also the spiritual health of Indigenous peoples who rely on fish as a traditional food source.

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
Light pollution, including visual impacts	- Ambient light levels	- Project activities may change the amount of ambient light present in the Project area, specifically near construction camps (e.g., outdoor lighting, night construction lighting, vehicle headlights).	Limited (negative)	Construction	- Visual - Social - Cultural	Indigenous peoples have an intrinsic connection to the land, water and ecosystem. Changes to known and cherished landscapes and uses of lands can impact cultural and social functions and affect mental wellness (ecological grief).
	- Qualitative Visual changes	- Changes to the visual landscape may occur (e.g., loss of vegetation, construction of temporary structures)	Limited (negative)	Construction and Operations		
Housing, including access and quality	- Housing capacity	- May lead to overcrowding (temporary) due to need to house more off-reserve community members engaging in construction-related activities.	Limited (negative)	Construction only	- Social - Economic	Access to housing that is safe, affordable, and appropriate is a fundamental determinant of health and wellbeing. Being housed appropriately provides not just physical protection, but also fosters social and mental wellness. The effects of overcrowding and poor and unsafe housing conditions on the health and wellbeing of children and youth have been well-documented.
	- Housing quality	- May improve housing access and quality if the WSR allows for more homes to be built/repared and faster.	Limited (positive)	Operations		
	- Housing cost (e.g., repair and construction)	- May improve housing affordability if the WSR allows for building materials and labour to be transported to the community in an affordable manner.	Limited (positive)	Operations		
Employment and income	Access to employment opportunities and income	- May lead to an increase in employment opportunities in construction of the Project	Positive	Construction	- Economic	Employment and income determine one's access to education, housing, healthy foods, healthcare and other services, as well as safety and security. Greater employment and income opportunities increase the incidence of favourable health outcomes.
		- May lead to higher incomes if employment increases, and better quality of employment is available	Positive	Operations		
Education	- Skills and trade skills development	- May provide trade skills development opportunities	Positive	Construction	- Social - Economic	Education is a primary driver of health and wellbeing, as it has been shown that those with higher education tend to be healthier, often as a result of

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
						improved employment and income, and the resulting access to resources and services, including those related to health and healthcare and housing.
Food security, including quality and availability of traditional foods	-Access to and quality of traditional foods	<ul style="list-style-type: none"> <li>- May impede access to traditional foods</li> <li>- May disturb supply and quantity of traditional foods</li> <li>- Having additional income during construction-related employment may increase ability to afford store-bought healthy foods.</li> </ul>	<ul style="list-style-type: none"> <li>Limited (negative)</li> <li>Limited (negative)</li> <li>Positive</li> </ul>	<ul style="list-style-type: none"> <li>Construction</li> <li>Construction</li> <li>Operations</li> </ul>	<ul style="list-style-type: none"> <li>- Cultural-Aboriginal and Treaty Rights of Indigenous Peoples</li> <li>- Social</li> </ul>	Food insecure individuals experience a variety of adverse health outcomes. Heart disease, adult-onset diabetes, high blood pressure, and food allergies are more common in food insecure households. Additionally, food insecurity produces stress and feelings of uncertainty that have health-threatening effects.
Social cohesion and cultural continuity	- Traditional and cultural teachings and activities	- Interactions with outside workers (which may occur despite mitigation measures) could decrease social cohesion and negatively impact health.	Limited (negative)	Construction Phases	<ul style="list-style-type: none"> <li>- Social</li> <li>- Cultural-Aboriginal and Treaty Rights of Indigenous peoples</li> </ul>	Increased social cohesion is linked to increased engagement in the community, and lower rates of substance use which in turn are associated with more positive health outcomes. Both social cohesion and cultural continuity is important for transferring traditional and cultural knowledge across generations within Indigenous communities, and provides a connection between the structural and proximal determinants of health.
Safety and security of women and girls	<ul style="list-style-type: none"> <li>- Safety of women and girls</li> <li>- Violence and sexual exploitation of women and girls</li> </ul>	<ul style="list-style-type: none"> <li>- May be a safety and security risk for women and girls due to the presence of outside workers, if entry of outsiders cannot be controlled</li> <li>- May lead to increased incidents of racialized violence against community members due to the presence of outsiders</li> <li>- May lead to increased safety risk,</li> </ul>	<ul style="list-style-type: none"> <li>Negative</li> <li>Negative</li> <li>Negative</li> </ul>	<ul style="list-style-type: none"> <li>Construction</li> <li>Construction</li> </ul>	<ul style="list-style-type: none"> <li>- Social</li> <li>- Project-level</li> </ul>	Indigenous communities, particularly women and girls, are the most vulnerable and at risk of experiencing the negative effects of outside worker camps, such as sexual assault. This has consequences for the wellbeing, both physical and mental, of women and girls, and for the overall community as it erodes the sense of safety and security.

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
	- Accessibility of drugs and alcohol	and violence against women and girls, if entry of drugs and illicit substances cannot be adequately controlled		Construction and Operations		
Traffic volume and safety	- Traffic volume	- It is expected that during the winter road season, there will be increased traffic volume on the winter road bringing in equipment and personnel for the construction phase of the Project. This may cause delays in travel for community members.	Limited (negative)	Construction	- Project-level	There is an association between an increase in traffic density and an increase in fatal accidents. All major projects have associated risks to safety and security, especially during the construction phase when there is a lot of heavy-duty equipment and machinery around.
Access to healthcare services	- Demand for on-reserve healthcare services	- May increase the demand for health care services locally if currently off-reserve community members return to the community for employment opportunities with the Project.	Limited (negative)	Construction	- Social	Access to timely health care services is a social determinant of health as well as a basic human right. Barriers to access to appropriate healthcare services has led to historic health inequities in Indigenous communities.
Access to social, mental health and family services	- Childcare services - Elder services - Mental health services	- May increase demand for mental health, child care and Elder care services with off-reserve community members returning to the community for employment opportunities. The degree of service disruption would depend on the number of people who return to the community.	Limited (negative)	Construction	- Social	Appropriate social and mental health services are important for promoting positive wellness outcomes for individuals, families, and communities. Without access to culturally appropriate social and mental health services, inequities between Indigenous and non-Indigenous health outcomes, such as higher rates of substance use, youth suicide, mental health problems, chronic pain, and interpersonal violence, remain a pressing concern.

Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
Access to transportation services	- Improved mobility and travel options	- Access to currently available modes of transport (air and winter road) may have increased wait times as traffic for construction and industrial activities increases. - Will provide safe and direct all season access to the Ring of Fire/McFaulds Lake area, where employment opportunities are expected to become available.	Limited (negative)  Positive	Construction  Operations	- Social - Land use - Project-level	Access to transportation is a precursor to having independence, mobility, access to services and resources, choice and safety and security. All of these factors, individually and combined influence health and wellbeing.
Access to emergency response services	- Availability of emergency services	- Depending on what Project-specific emergency planning measures are put in place, Project activities may, at times, increase demand for local emergency services, decreasing availability for community emergencies.	Limited (negative)	Construction	- Social	Ambulance, fire truck and police services can save lives in emergencies. Having prompt and urgent access to these emergency response services is essential for positive health outcomes and knowing that these services are available should the need arise is a factor in mental wellness as it promotes feelings of safety and security.
Childhood Development	- Available services	- There is no anticipated potential for change	Negative	Construction and Operations	- Social - Economic	There is a direct link between childhood development and the long-term mental and physical health of individuals. Indigenous children's health is dependent on a complex interaction of social determinants of health at the individual, family, community, and societal levels. Currently, there are a lot of observed discrepancies in health and development outcomes between Indigenous and non-Indigenous children



Determinants of Health for the WSR Project	Indicator	Potential for change	Potential health impact of WSR	Duration of impact	Interconnection with other VCs	Rationale for predicted health impact
Diet, including consumption of traditional foods	- Choice and availability of traditional and store-bought foods	<ul style="list-style-type: none"> <li>- May lead to disturbance in the traditional habitat of harvested species, which could impact ability to harvest and reduce reliance on traditional foods in diet</li> <li>- Depending on whether levels of employment and income increase, there may be an improvement in access to a healthy store-bought foods diet for community members</li> <li>- Increased access to the land via the Webequie Supply Road may improve traditional hunting abilities and improve ability to harvest traditional foods</li> </ul>	<p>Negative</p> <p>Positive</p> <p>Positive</p>	<p>Construction</p> <p>Construction and Operations</p> <p>Operations</p>	<ul style="list-style-type: none"> <li>- Social</li> <li>- Cultural</li> <li>- Aboriginal and Treaty Rights of Indigenous peoples</li> </ul>	<p>Diet is a function of food security, and having a healthy and balanced diet is as much a behavioural trait, as it is dependent on the <u>availability</u> of healthy and fresh food. Diet determines health. For Indigenous peoples the importance of traditional foods is a fundamental aspect of their way of life and intrinsically tied to health. Should the project affect access to traditional foods, it will have an impact on health and wellness.</p>

### 4.3. Boundaries of the Assessment

In order to conduct a comprehensive yet targeted assessment of potential health impacts, it is important to clearly define the boundaries of the assessment. Since any new development can result in a multitude of changes, large and small, it is vital to focus the assessment on those issues that are of most concern and to limit the assessment to specific geographic and temporal boundaries. These boundaries depend on several factors, including the nature of the project, potential scale of impacts, level of concern, likelihood of outcomes and other considerations.

The Project Team believes that since the Project is within the territory of the Webequie First Nation, the Webequie First Nation community will experience the bulk of the impacts due to the Project and can be considered to be representative of overall worst-case potential health impacts due to the Project.

Intrinsic understands that the proponent wishes to focus the scope of the assessment on the Webequie First Nation, however, where available, information on unique health issues facing other potentially affected Indigenous communities was in the assessment. The HIA Team will ensure that other potentially affected Indigenous communities, to whom the Community Health Survey will be administered, also have the opportunity to bring their health issues to the attention of the Team.

Information on biophysical determinants of health (i.e., air quality, noise, surface water quality) was based on information gathered in study areas defined for these respective VCs. The reader is directed to these specific reports for an understanding of the boundaries of assessment for the biophysical VCs (AtkinsRéalis, 2024d; 2024j).

#### 4.3.1. Local Study Area

The local study area (LSA) is defined by the area in which the project interactions are anticipated, and potential effects are expected to occur. The LSA used for the Socio-Economic environment which consisted of Population and Demographics, Community Services and Infrastructure, and Local and Regional Economy includes the following eight Indigenous communities:

- Webequie First Nation;
- Attawapiskat First Nation;
- Eabametoong First Nation;
- Kasabonika Lake First Nation;
- Marten Falls First Nation;
- Neskantaga First Nation;
- Nibinamik First Nation; and
- Weenusk First Nation.

#### 4.3.2. Regional Study Area

The regional study area (RSA) is defined by the area in which cumulative effects could occur from the project. The RSA used for the Socio-Economic environment which consisted of Population and Demographics, Community Services and Infrastructure, and Local and Regional Economy, focuses on the area outside of the local study area and includes the following communities:

- Kenora District;
- Kashechewan First Nation;
- Kitchenuhmaykoosib Inninuwug First Nation;

- Kingfisher Lake First Nation;
- Mishkeegogamang First Nation;
- North Caribou Lake First Nation;
- Wapekeka First Nation;
- Wawakapewin First Nation;
- Wunnumin Lake First Nation;
- Township of Pickle Lake; and
- Municipality of Sioux Lookout.
- Thunder Bay District:
- Aroland First Nation;
- Ginoogaming First Nation;
- Long Lake #58 First Nation;
- City of Thunder Bay; and
- Municipality of Greenstone.
- Cochrane District:
- Constance Lake First Nation;
- Fort Albany First Nation; and
- City of Timmins.

Twenty-two Indigenous communities whose Aboriginal and/or Treaty Rights and interests may be affected by the Project and/or may have interest in the Project, based on the nature and location of the Project were recognized by the Ministry of the Environment, Conservation and Parks (MECP) and the Agency (SNC-Lavalin, 2023).

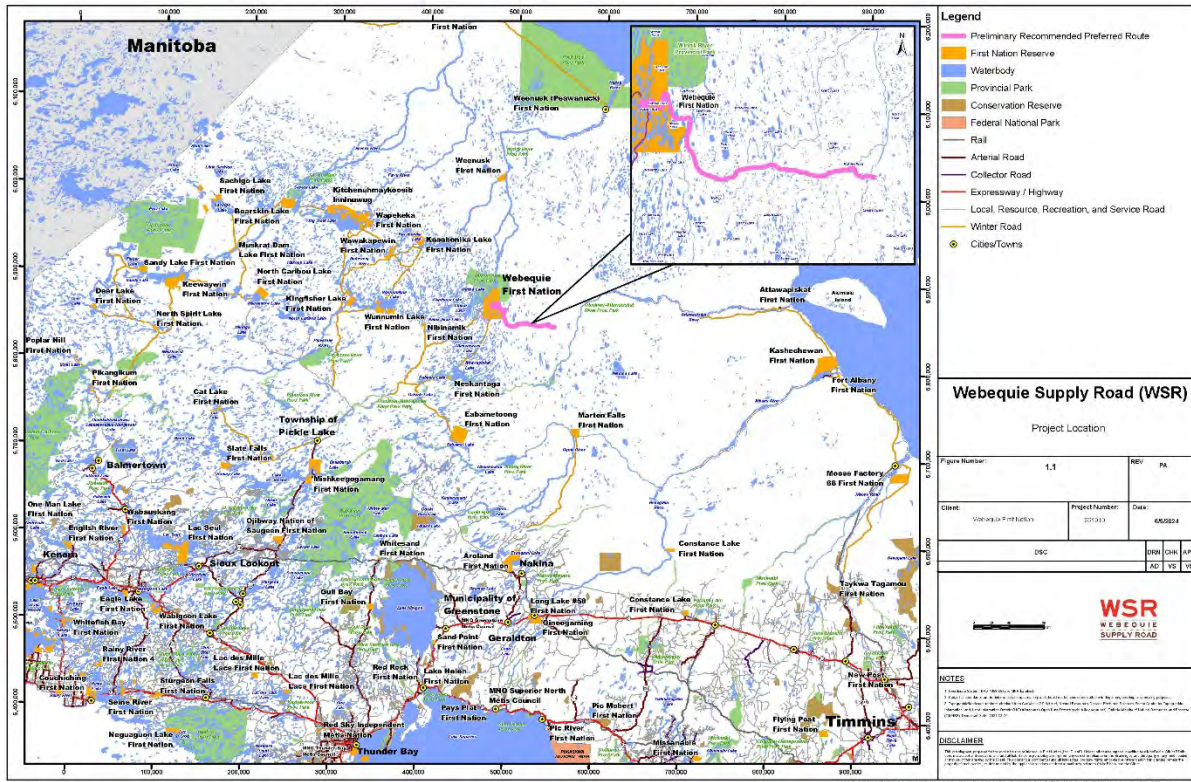


Figure 4-4: Map of Ontario showing Webeque First Nation Reserve Webeque Supply Road – Project Location (SNC-Lavalin, 2023a)

#### 4.4. Evaluation of Alternatives

As defined in the EA Terms of Reference (August, 2020), and the TISG the alternatives and alternative methods related to supportive infrastructure and the preferred supply route were identified during the preparation of the Impact Statement. The HIA evaluated these alternatives from a health standpoint using the information from the Impact Statement.

Based on the Evaluation of Project Alternatives report by AtkinsRéalis, the Alternatives to the Undertaking considered the following five options (2024a):

- Do nothing;
- Upgrade the existing trail system to seasonal winter road;
- Alternative modes of transportation (hoverbarge, airship, or rail);
- Manage travel demand; or
- New all-season road.

The evaluation of “Alternatives to the Undertaking” was completed by qualitatively assessing the above five alternatives using the following factors identified below:

- Impacts to the natural environment;
- Social and economic benefits;

- Reliability/proven technology; and
- Capital and operating costs.

#### Alternative 1: Do Nothing – Null Alternative

Of all alternatives that were considered, the 'Do Nothing – Null Alternative' would result in the lowest capital and operating costs, as well as have the lowest impact on the natural environment (AtkinsRéalis, 2024a). However, the 'Do Nothing – Null Alternative' does not achieve the primary purpose. This option does not offer the Webequie community/airport a sustainable or affordable way to participate in and support proposed mine developments and mineral exploration activities around McFaulds Lake, which would create jobs and economic opportunities for the locals (AtkinsRéalis, 2024a). Compared to the other options, Webequie First Nation will lose out on social and economic advantages under the Null Alternative.

#### Alternative 2: Upgrade Existing Trail System to Seasonal Winter Road

It is only possible to walk the entire length of the unofficial trail system that now connects Webequie First Nation to the McFaulds Lake area in the dead of winter. In the remaining months of the year, large-scale wetlands (muskeg) and scattered waterbodies and watercourses break up the path system (AtkinsRéalis, 2024a). Furthermore, the current routes are small and only fit for snowmobile use.

Webequie First Nation would benefit less socially and economically from the upgrade of the current trail system to a winter road since there would be less possibility to supply goods and services to the camps and facilities in and around McFaulds Lake all year round (AtkinsRéalis, 2024a). The benefits of the winter road upgrade are therefore not enough to make up for the option's lack of social and economic advantages.

#### Alternative 3: Alternative Modes of Transportation (hoverbarge, airship, rail)

The three alternate modes of transportation that were evaluated included a hoverbarge using hovercraft technology, a heavy lift airship (dirigible), and a new rail corridor.

##### *Hoverbarge*

It is discovered that the hovercraft technology needed on such a huge scale is typically unreliable and unproven. Hoverbarges are not thought to be a proven technology, and their price is not entirely known. As a result, the hovercraft option was dropped from further consideration during the alternative appraisal process (AtkinsRéalis, 2024a).

##### *Heavy Lift Airship (Dirigible)*

Like the hoverbarge, the heavy lift airship has not yet achieved widespread commercial success. The payload of airship models that are nearing or in commercial production is too small, despite the fact that the advantages are appealing and that the intended degree of social and economic benefits may be realized (AtkinsRéalis, 2024a). Furthermore, the absence of a demonstrated track record in the business world raises questions about dependability. The prices of heavy lift airships are not entirely known, and they are not thought to be proven technologies (AtkinsRéalis, 2024a). This option was not taken further for consideration in the examination of alternatives since airship technology is often unreliable and has not been proven at the appropriate scale.

### *New Rail Corridor*

The transportation of mine product was one of the benefits of the previously researched rail solutions; however, as the Webequie Supply Road would not be used for this purpose, the expense of building and maintaining rail infrastructure is not justified for the volume and kind of traffic expected (AtkinsRéalis, 2024a). Although a rail line would probably produce the intended degree of social and economic advantages; on the other hand, its effects on the environment would probably be comparable to those brought about by building and maintaining an all-season road. Comparatively high capital expenses and no connectivity to any planned or current rail network are two other drawbacks (AtkinsRéalis, 2024a). Although rail technology has been tested and proven to be dependable, its capital expenditures would be significantly greater than those of any other option, and its advantages would be minimal (AtkinsRéalis, 2024a). This option was not taken further for consideration in the examination of alternatives.

### Alternative 4: Manage Travel Demand

A secondary benefit of any long-term plan to introduce a road corridor for the installation of enhanced communications technology (broadband) is the potential for travel demand management mechanisms, such as encouraging the use of alternatives to travel (e.g., videoconferencing, increasing digital access to training opportunities) (AtkinsRéalis, 2024a). This option might be used in conjunction with a road right of way and in the same amount of time given the necessary conditions.

### Alternative 5: New All-Season Road

The dependable transportation option that would yield the intended degree of social and economic advantages is the all-season road. Even if an all-season road would have more environmental effects than some other alternative forms of transportation, the majority of these other options are deemed too unreliable to be given more weight in the assessment of "Alternatives to the undertaking" (AtkinsRéalis, 2024a). The all-season road is the better option due to its overall stability and capacity to yield the intended levels of social and economic benefits, even if its capital expenditures would be higher than those of most other options—a train line, for example. Transporting goods and services all year round will be safer and more dependable with an all-season road. Social and community benefits for the Webequie First Nation will be maximized by maximizing economic development opportunities as new and enhanced opportunities become available to the community (AtkinsRéalis, 2024a).

A number of road and transportation studies have been undertaken in the Webequie First Nation/McFaulds Lake region over the years that provide background and context for the proposed development of the Webequie Supply Road which are outlined in the Evaluation of Project Alternatives report by Atkins (2024). Alternative routes for connecting prospective mine developments and isolated First Nations communities to the province highway system have been thoroughly studied, as has the area around the McFaulds Lake (AtkinsRéalis, 2024a). Only the routes that connect Webequie First Nation to the McFaulds Lake area are being considered as alternate road corridors at this time. In the end, the eastern corridor was preferred over the others because of the following:

- Intersecting fewer known traplines;
- Route is further east and away from significant hunting areas (e.g., waterfowl, moose, etc.) well used by community members;
- Runs east of areas used most intensively for traditional activities south of the community;

- Minimizes intersecting significant moose mating areas located south of the community and north of the proposed east-west section of corridor;
- Minimizes effects to known built heritage resources/cultural heritage landscapes (i.e., cabins, hunting blinds, sacred site);
- Minimizes impacts to Webequie First Nation Reserve lands;
- Minimizes the number of waterbody crossings required;
- Minimizes potential effects to fish and fish habitat, as it has fewer waterbody crossings and shortest route length where structures are required to cross waterbodies; and
- Has the lowest estimated capital cost for construction.

Once the preferred corridor for the Webequie Supply Road was identified, the route alternatives were discussed for further evaluation. These alternative routes included the Webequie First Nation community’s preferred route (Alternative 1), the optimal geotechnical route (Alternative 2), and the optimal engineering route (Alternative 3) (AtkinsRéalis, 2024a).

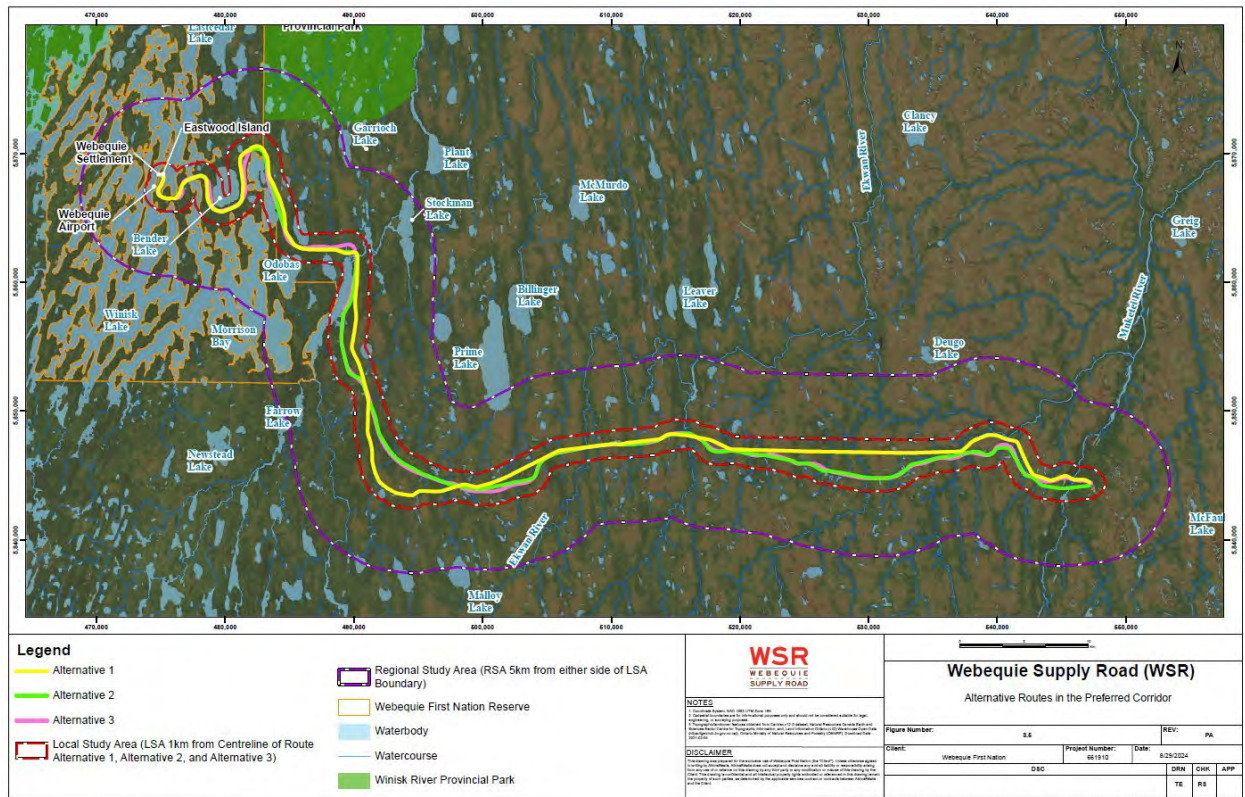


Figure 4-5: Alternative Routes in the Preferred Corridor

A model was run for the three potential routes noted previously. The categories that were assessed included: indigenous land use and interests, the biological environment, the physical environment, the socio-economic environment, and technical considerations. The results of the assessment indicated that Alternative 3 is the preferred route option that will be carried forward into the EA/IA (AtkinsRéalis, 2024a). Two sensitivity analyses were conducted which resulted in Alternative Route 2 being the preferred route as it is aligned to better avoid criteria including bog/fen birds, caribou, moose, raptor, and wolverine (AtkinsRéalis, 2024a).

### Supportive Infrastructure

The Project Team also evaluated alternative methods related to supportive infrastructure including:

- Alternative sites for temporary and/or permanent aggregate extraction areas (pits/quarries) and production facilities needed for construction and operation of the road, including access roads to these sites; and
- Alternative sites for temporary construction camps, including laydown and storage areas.

### Aggregate Sources

Existing surficial geology mapping was reviewed for potential aggregate sources for the Webequie Supply Road. The potential aggregate sources that were identified included six (6) ice-contact glaciofluvial landforms and five (5) bedrock locations (AtkinsRéalais, 2024a). If the potential aggregate source was not accessible by truck for hauling, did not have suitable material of sufficient quantity and/or was located too far from the preferred corridor, that alternative was screened out from further consideration.

Of the potentially viable alternatives that were carried forward, the following four (4) options were able to provide the aggregate types and quantities required by phase:

- Option 1 – ARA-3 and ARA-4;
- Option 2 – ARA-2 and ARA-4;
- Option 3 – ARA-2, ARA-3 and ARA-4; and
- Option 4 – ARA-4 Only.

The preferred option for supplying aggregate included identifying if that option met the quantities required, if there was an ability to access the aggregate, if it is located in proximity to the start of construction at Webequie, and if it provides a long-term source of aggregate for the community. Using the same software and methodology that was previously used for the assessment of alternative routes, Option 2 consisting of ARA-2 and ARA-4 was identified as the preferred source of aggregate for the Project (AtkinsRéalais, 2024a).

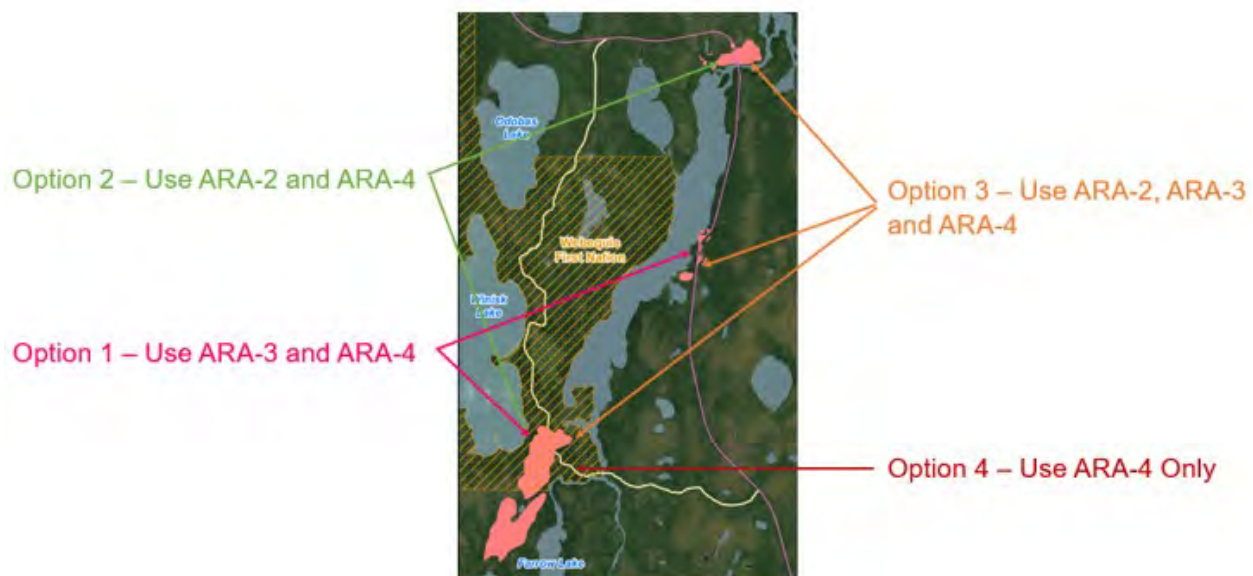


Figure 4-6: Locations of Options for Supplying Aggregate

### Construction Camps

The construction labor force for the project will be housed in compact, transient construction camps with an average workforce accommodation of 100 individuals. Camps for construction must be close to the planned road route in order to optimize construction efficiency. These camps would also make the best use of available space and reduce their negative environmental effects if they included additional supported site amenities, such as laydown areas for materials and equipment storage and repair (AtkinsRéalis, 2024a).

Each camp would be required to have accommodations (bunkhouse) for workers, construction office(s), kitchen and dining hall, first aid station, and helicopter-pad location, communications system, wastewater treatment system, groundwater water supply well, waste handling and storage facility area, electricity supply from diesel generators, above ground fuel storage tanks and refueling area, and laydown/storage areas for equipment and materials (AtkinsRéalis, 2024a).

Four construction camps are required throughout the entire route for worker safety: two in the north to south section, and two in the west to east section. Using the same approach used for evaluating alternate routes and aggregate sources, two camp possibilities were discovered for each of the four required places along the route. The preferred choice between each pair was then picked. The locations of the camps, Camp 1A, Camp 2A, Camp 3A, and Camp 4B, were chosen.

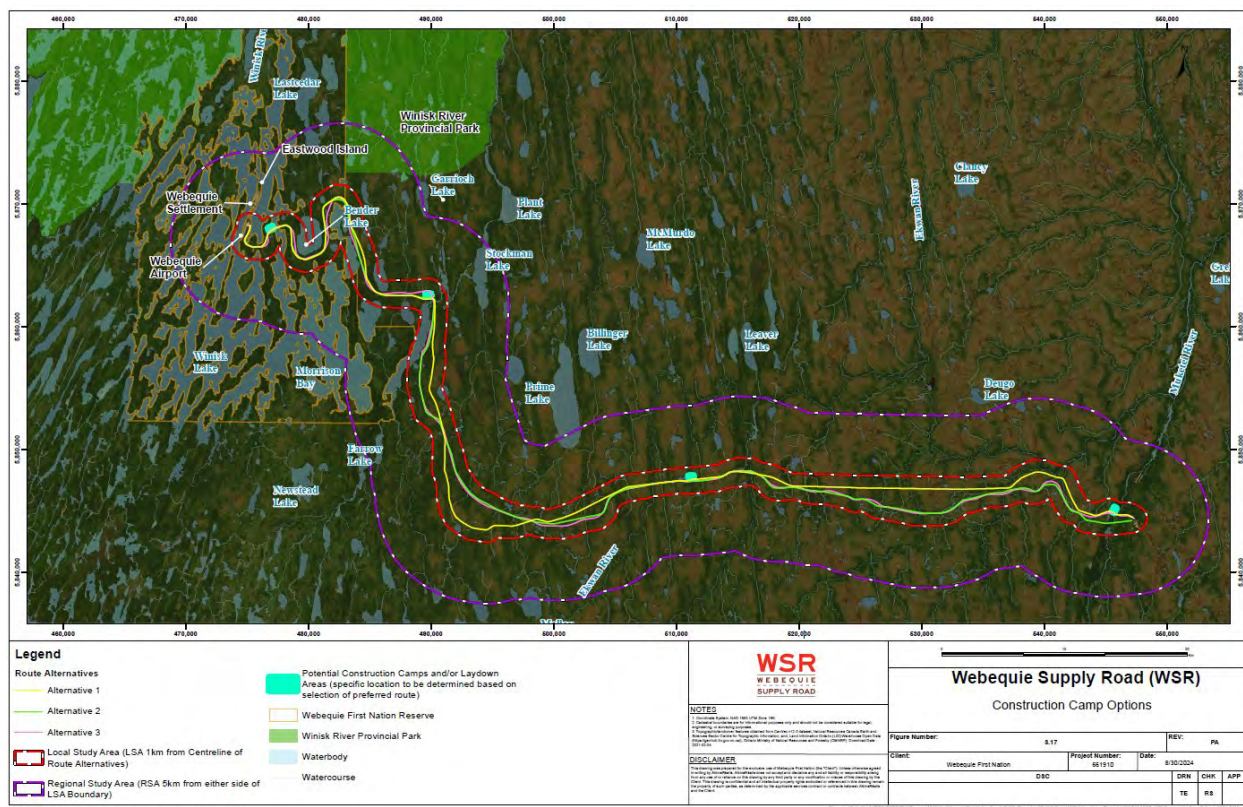


Figure 4-7: Construction Camp Options

## 5. BASELINE COMMUNITY HEALTH PROFILE

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The baseline community health profile provides an understanding of current conditions related to the health and well-being of Webequie First Nation and other potentially affected Indigenous communities in the study area. The baseline community health profile was prepared by identifying and collating data on current health concerns, including health outcomes, within the population or region of interest, with special focus on Webequie. After identifying secondary data sources, i.e., readily available data and information on the health of Webequie First Nation, and other potentially affected communities, data gaps were identified and primary data was requested from Webequie First Nation, and gathered via engagement conducted with the community. The community-specific information serves as a reference point from which to conduct the effect evaluations – the second component of the Assessment step. The baseline community health profile highlights the community's health issues and opportunities, the current population health status, and provides statistics on health-related behaviours.

The scope and content of the human health baseline reflects the specific project context, taking into account how Webequie residents view their health, and includes indicators that are meaningful to the community and that can also inform the effects analysis. The Tailored Impact Statement Guidelines provide details on the requirements for the baseline information for human health conditions and were consulted when developing a baseline community health profile for Webequie First Nation.

The baseline health assessment establishes the current health status of the community in order to evaluate whether the current profile of the community reveals vulnerabilities to any of a number of health outcomes, and also to provide a benchmark so that the HIA can characterize the extent of change from current health conditions (Ross et al., 2014).

The Community Health Survey, focus groups and community representative interviews were critical in developing a community-specific baseline health profile. Additional information related to services available to Webequie First Nation and access to those services was also available through the socioeconomic baseline (SNC Lavalin, 2023). Although dated, some information was also available from previous health and other studies conducted for the Webequie First Nation community (Webequie First Nation, 2014; Webequie First Nation, 2021; Chan et al., 2013). Hence, the baseline health profile was based on collating data and information gained from the community engagement, as well as from identification and analysis of existing health data and information for Webequie First Nation, where available.

Following completion of the baseline health profile, a data gap analysis was conducted to identify whether there are areas where additional information could be useful or where existing information is not available/sufficient to provide a clear picture of current community health status. In the event that this information cannot be made available, it will be carried forward and identified as an area of uncertainty (or data gap) in the final HIA report. A discussion regarding data gaps and their potential impacts on the HIA process, findings or recommendations will be included at the end of the HIA process.

As per the TISG, Table 5-1 below provides the list of indicators included in the Baseline Community Health Profile. Data is provided as available, either at the level of Webequie, or more regionally.

**Table 5-1: Baseline Community Health Profile**

Health Area	Factors (based on availability of community-level data)
Physical Well-Being	<ul style="list-style-type: none"> <li>• Mortality rate</li> <li>• Chronic disease rates</li> </ul>
Mental Health and Wellness	<ul style="list-style-type: none"> <li>• Stress</li> <li>• Depression</li> <li>• Anxiety</li> <li>• Self-Esteem</li> <li>• Inter-generational trauma (i.e., historical effects on health)</li> </ul>
Social and Economic Well-Being	<ul style="list-style-type: none"> <li>• Feelings of isolation/remoteness</li> <li>• Concerns for future generations</li> <li>• Sense of physical and emotional safety</li> <li>• Substance use / harm reduction programs</li> <li>• Diet</li> <li>• Food security</li> <li>• Physical activity</li> <li>• Overcrowding in housing</li> <li>• Poverty</li> <li>• Education level</li> <li>• Income</li> <li>• Nature of communal activities</li> </ul>
Spiritual and Cultural Well-Being	<ul style="list-style-type: none"> <li>• Spiritual practices</li> <li>• Practicing Ceremonies</li> <li>• Cultural practices</li> </ul>
Public Safety	<ul style="list-style-type: none"> <li>• Indigenous women’s safety</li> <li>• Community safety</li> </ul>
Health Care Services	<ul style="list-style-type: none"> <li>• Existing capacity of facilities</li> <li>• Current programs</li> <li>• Access to health services</li> </ul>

### 5.1. Webequie First Nation

Webequie First Nation is an Anishinaabemowin (Oji-Cree) community in Treaty No. 9 territory. Anishinaabemowin is a blend of Anishinaabe (Ojibway) and Mushkegowuk (James Bay Cree). Webequie is located, approximately 540 km northeast of the city of Thunder Bay or approximately 450km north of the town of Sioux Lookout in Ontario, on the northern peninsula of Eastwood Island on Winisk Lake (Webequie First Nation, 2021). The remote community is accessible by air and winter road. Several scheduled daily flights from Thunder Bay and Sioux Lookout are available from air service providers (e.g., Wasaya Airlines and Nakina Air Service) (Webequie First Nation, n.d.). Flights from Thunder Bay and Sioux Lookout to Webequie take approximately 75 minutes and 60 minutes, respectively (Webequie First Nation, n.d.).

The nearest towns of Pickle Lake and Nakina located approximately 250 km southwest and 320 km southeast, respectively, have year-round road access.

## 5.2. Socio-Demographic Profile

The Baseline Community Health Profile presents high-level information on the overall current health status of the Webequie First Nation community. Where possible, baseline health information is provided for the individual community of Webequie First Nation, located within the LSA. The purpose of the baseline health profile is to provide context for the assessment of the Webequie Supply Road Project, by describing at a high level how healthy the population currently is, in comparison to Ontario, and identifying the health issues of top concern.

Information has been provided at the level at which is publicly available, in addition to community-specific data provided by Webequie First Nation through community surveys and other engagement conducted by Intrinsic for the human health study. The community health survey was filled out by 40 community members, a subsample representing about 3% of the population of community members (Intrinsic, 2023a). Where possible, for each sub-section below, information is provided and compared to the province of Ontario, where appropriate.

Related data specifically for First Nations in Ontario was obtained from the Ontario First Nations Regional Health Survey (Chiefs of Ontario, 2019) and may not be completely representative of all Indigenous peoples in Ontario, or of individual Indigenous communities, but provides a high level overview of First Nations in Ontario. The following First Nations participated in the Ontario First Nations Regional Health Survey: Alderville, Beausoleil, Biinjitiwaabik Zaaging Anishinaabek (Rocky Bay), Bkejwanong Territory (Walpole Island), Chippewas of Kettle & Stony Point, Curve Lake, Fort William, Hiawatha, Kasabonika Lake, Kee-Way-Win, Kitchenuhmaykoosib Inninuwug, M'Chigeeng, Mississaugas of the Credit, Mohawks of Akwesasne, Mohawks of the Bay of Quinte, Moose Cree, Moravian of the Thames (Delaware Nation), Naotkamegwaning, Oneida Nation of the Thames, Pic Mobert, Red Rock, Sagamok Anishnawbek, Serpent River, Sheshegwaning, Shoal Lake No.40, and Wiikwemkoong Unceded Territory. Additionally, the survey was only completed by First Nations people who resided in their own First Nation community (i.e., on-reserve). Webequie First Nation did not participate in this regional health survey.

In general, an important consideration when preparing and looking at data and information related to Indigenous Peoples is the understanding that Indigenous peoples have a unique connection to the land and water, and indeed the ecosystem (Berry et al., 2022). They are the stewards of the land, and have cultural, economic, social, health and spiritual connections to and reliance on the land and water (NCCIH, 2022; Berry et al., 2022). Indigenous Peoples also experience systemic inequality and health disparities in Canada due to racism and discrimination, and the ongoing inter-generational impacts of colonization and residential schools, which affect their overall health and wellbeing (PHAC, 2020). This context is important background when viewing data and information that identify disparities in health behaviours, health care access and health outcomes for Indigenous Peoples.

### 5.2.1. Population Demographics

When assessing potential future health impacts, it is important to be aware of the size of a population as well as how that population is changing over time. It is also crucial to recognise and comprehend the diversity within communities since this knowledge may be used to better understand the obstacles that various population groups could encounter both in their daily lives and while trying to access essential services. Some highlights about population changes and sociodemographic data are provided in this section.

Table 5-2 below shows the population demographics of Webequie First Nation compared to Ontario. Webequie First Nation has a negative percent change in population from the years 2016 to 2021. Webequie First Nation has a lower average age of the population compared to Ontario. Webequie’s population aged 0 to 14 years is double that of Ontario as a whole, and Webequie has half the population aged 65 years above as compared to Ontario. This indicates that Webequie First Nation has a much younger population. Additionally, Webequie First Nation has a population density per square kilometre almost seven times smaller than Ontario.

Table 5-2: Population Demographics<sup>1</sup>

	Webequie First Nation	Ontario
Population (2021)	723	<b>14,223,942</b>
Population (2016)	778	<b>13,448,494</b>
Population Change (%) 2016 – 2021	-7.1	<b>5.8</b>
<b>Percent of the Total Population</b>		
Aged 0 to 14 years	34.7	<b>15.8</b>
Aged 15 to 64 years	58.3	<b>65.6</b>
Aged 65 years and over	6.9	<b>18.5</b>
Aged 85 years and over	1.4	<b>2.4</b>
Average Age of the Population	28.6	<b>41.80</b>
Population density per square kilometre	2.3	<b>15.9</b>

Source: Statistics Canada 2021 Census.

Notes:

1) Statistics from 2021 Data: Census Profile 2021.

Figure 5-1 below shows the population distribution for Webequie First Nation by both age and sex. Webequie saw a decrease in population from 2016 to 2021. The Webequie First Nation have the highest percent of their population being from the ages of 0 to 39, while only 6.9% of the total population are 65 and older. Overall, based on the figure below the Webequie First Nation have a generally young population.

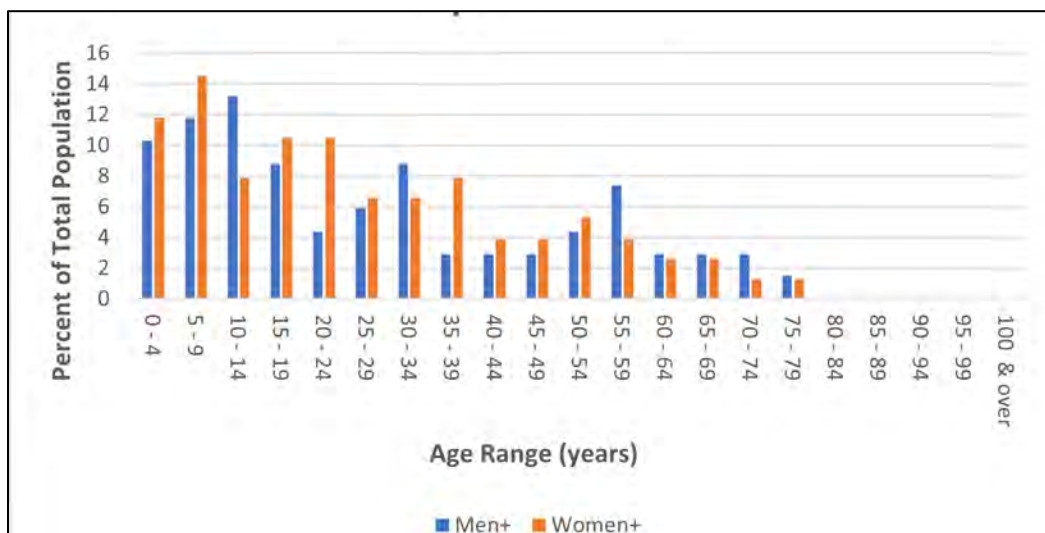


Figure 5-1: Population by Age and Sex (2021)

Due to limited in-migration to the Webequie community, there is a potential for population decline (Statistics Canada 2017a; 2022). Between 2016 and 2043, the male population will decrease from 365 to 249 (31.7%) and the female population will decrease from 415 to 258 (37.8%), as shown in Figure 5-2 (Statistics Canada 2017a; 2022). Results from the Community Health Survey indicate that about 11% of respondents are in the 18-30 age range; about 33% of respondents are in the 31-45 age range; about 33% of respondents are in the 46-65 age range; and about 19% of respondents are in the age range 66+ (about 4% of respondents preferred not to indicate their age) (Intrinsic, 2023).

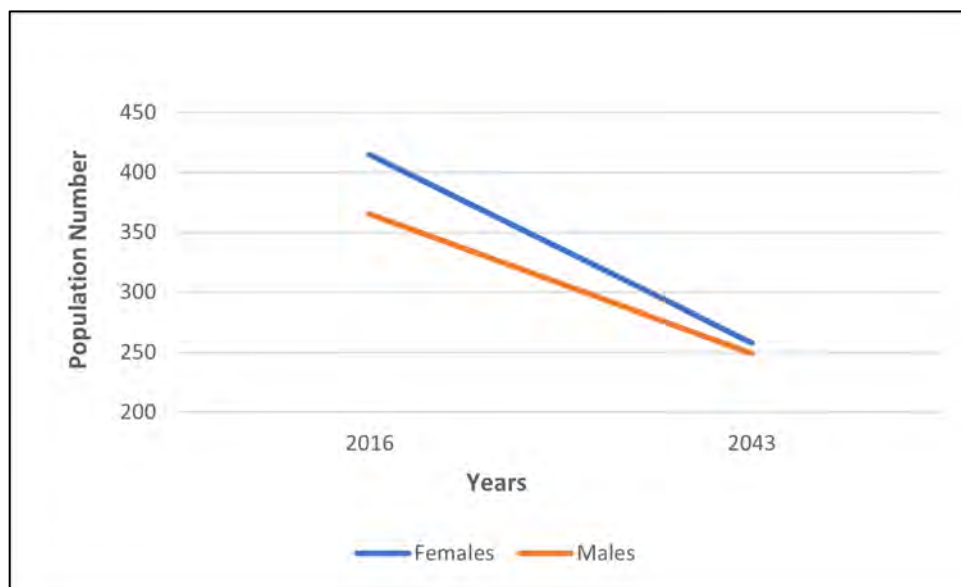


Figure 5-2: Potential Population Decline in Webequie

Table 5-3 below shows the population demographics of on and off reserve First Nations members. Webequie First Nation has the highest percent of their population residing off their own reserve.

Table 5-3: Population Demographics (2023)

	Total Registered Population 2023	Total Population on Own Reserve 2023 (%)	Registered Males (%)			Registered Females (%)		
			On Own Reserve	On Other Reserves	Off Reserve	On Own Reserve	On Other Reserves	Off Reserve
Webequie First Nation	975	36%	16%	1%	7%	19%	1%	7%

Source: Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC) Population Characteristics. Available at: [https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNRegPopulation.aspx?BAND\\_NUMBER=240&lang=eng](https://fnp-ppn.aadnc-aandc.gc.ca/fnp/Main/Search/FNRegPopulation.aspx?BAND_NUMBER=240&lang=eng)

### 5.2.1.1. Language

The population of Webequie First Nation community is 100% First Nation and the most spoken languages include English (60%), Oji-Cree (28%), and Ojibway (12%), as shown in Figure 5-3 (SNC Lavalin, 2023). The Community Health Survey revealed that all of the respondents understand or speak their

Indigenous language, even if it is only a few words. Approximately 92% of respondents believe it is important to speak and understand their traditional language as it is an integral part of their Indigenous identity. Additionally, about 92% of respondents think that speaking their Indigenous language has had a positive effect on them (Intrinsic, 2023).

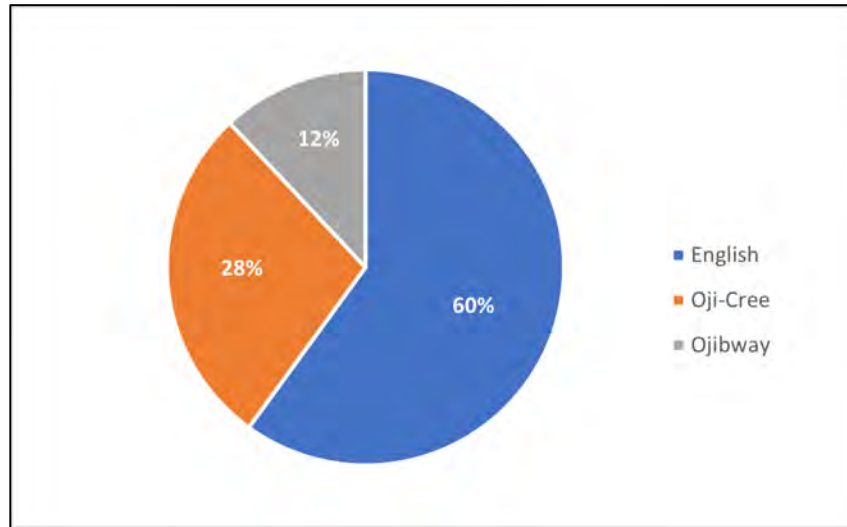


Figure 5-3: Webequie First Nation's Most Spoken Languages, SNC Lavalin 2023

Table 5-4 shows that conversations in Oji-Cree within the Webequie First Nation homes are conducted most of the time (i.e., 38%), all the time (27%), and half of the time (16%). Conversation in Oji-Cree are more likely to take place than not at all (5%).

Table 5-4: Frequency of Conversations in Oji-Cree within Webequie First Nation Households

	Webequie First Nation <sup>1</sup>
Frequency of Conversations in Oji-Cree within Webequie First Nation Households <sup>2</sup>	
All (%)	27
Most (%)	38
Half (%)	16
Some (%)	14
Not at All (%)	5

Source: Webequie First Nation 2014.

Notes:

1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

### 5.3. Education, Income & Employment

Education, income, and employment together contribute to one's socioeconomic status and are integral determinants of health that can determine access to services and contribute to overall health and wellbeing. Individuals from lower socioeconomic groups are more likely to experience health disparities as well as unequal access to resources, educational chances, and employment opportunities. Indigenous peoples, elderly persons, individuals of a racialized group, refugees and immigrants, those with particular disabilities, and others can frequently struggle to make ends meet socioeconomically. In addition, there is a significant body of evidence indicating that people who identify as bisexual or transgender are more likely to have lower earnings and to be subjected to higher levels of poverty when

compared to individuals who identify as lesbian, gay, cisgender, or heterosexual (National Academies of Sciences, Engineering, and Medicine (NASEM), 2020).

### 5.3.1. Education

The experience that many Indigenous peoples have had with Canada's formal education institutions has been a traumatic one (NCCAH, 2017).

*Prior to European settlers, Indigenous peoples had their own well-established education systems. These were rooted in the community and the natural environment, and were situated within a spiritual worldview.*

Standing Senate Committee on Aboriginal Peoples, 2011 (as reported in NCCAH, 2017).

Education in the community is supported and funding is available but the distribution of funding is not efficient (SNC Lavalin, 2023). Therefore, in some cases, students have had to travel off reserve for school but have found it difficult as they experience culture shock and financial concerns (SNC Lavalin, 2023). The schools on the reserve are also limited by the technology and physical space, thereby impacting the quality of education being administered to students (SNC Lavalin, 2023). In order to increase the number of classrooms, the school has repurposed the library, computer room, and staff room. However, the lack of physical space in the school leads to high school students missing their own space. Additionally, the school's infrastructure needs to be repaired, maintained, and upgraded (SNC Lavalin, 2023). The high school building (grades 10-12) is a portable-type building that was opened within the last few years. In May 2024, there were 67 students enrolled, and instruction was of a flexible nature, with no fixed class schedule or separation between grades. The teacher assists students in all subjects throughout the day as youth and adult students arrive at the portable, but more teachers would be beneficial to help students, engage and encourage them. There is breakfast provided to students at the high school building (Intrinsic, 2024).

The difference in educational funding between Indigenous education systems and non-Indigenous education systems is one of the key obstacles to learning for Indigenous peoples (NCCAH, 2017). This difference is especially prevalent in rural and isolated locations, where access to schools and educational activities may be highly limited (NCCAH, 2017). Hence, in spite of the progress that has been made over the past few decades, Indigenous peoples still experience disparity in levels of education than the general population.

Table 5-5 shows the highest level of education obtained in private households for Webequie First Nation, in comparison to Ontario. Webequie has a significantly higher percentage of households having no certificate, diploma, or degree, when compared to Ontario as a whole. Additionally, women in Webequie are more likely to obtain a high school diploma or equivalent compared to Webequie men, and conversely men are much more likely to obtain a postsecondary certificate, diploma, or degree compared to women. However, there are no major differences in these rates across Ontario.

**Table 5-5: Highest Level of Education in Private Household (25 – 64 yrs), 25% of Sample Data<sup>1,2</sup>**

	Webequie First Nation			Ontario		
	Total	Men+	Women+	Total	Men+	Women+
No certificate, diploma or degree (%)	61.1	60.5	62.7	15.3	15.8	14.8
High (secondary) school diploma or equivalency certificate (%)	25.3	20.9	29.4	27.2	28.0	26.4
Postsecondary certificate, diploma, or degree (%)	12.6	20.9	7.8	57.5	56.2	58.8

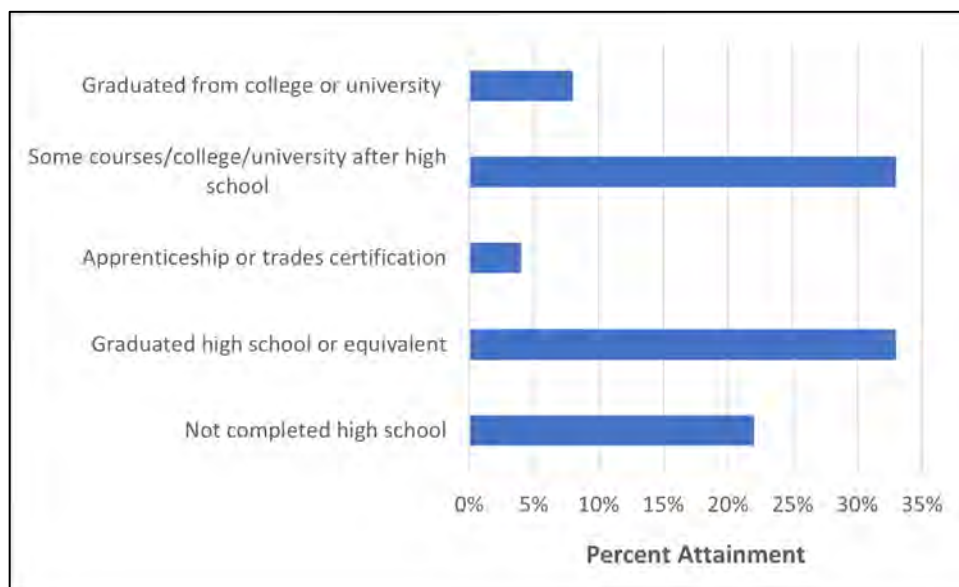
Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

2) Statistics from 2021 Data: Census Profile 2021.

3) “Women+” includes women (and/or girls), as well as some non-binary persons & “Men+” includes men (and/or boys), as well as some non-binary persons.

From the Community Health Survey, about 22% of respondents have not completed high school; ~33% have graduated high school or have equivalent certificates; ~4% have completed an apprenticeship or trades certification; ~33% have completed some courses/college/university after high school; and ~8% have graduated from college or university (Intrinsic, 2023). Figure 5-4 below, shows the educational attainment for Webequie First Nation.



**Figure 5-4: Educational Attainment of Webequie First Nation, Intrinsic 2023**

From key in-person interviews conducted by Intrinsic during community visits to Webequie in December 2022 and May 2023 (Intrinsic, 2023), community members expressed concerns related to the difficulty of attending schools outside of the community for higher education (i.e., after high school). The community is always attempting to find ways to minimize the gap between mainstream western education versus the western education they are receiving in their remote community. The internet plays a large role in this, as the connection isn’t always available, stable or reliable. During the earlier stages of the COVID-19 pandemic when there were outbreaks within the community, the school was unable to open and online learning was not a viable option due to lack the of internet access or unreliable internet access. This led to an even greater gap in education between Webequie and other

more connected Indigenous communities and non-Indigenous communities. Community members informed the engagement team that learning recovery has been difficult and northern communities are behind when it comes to western education, as the pandemic exacerbated the learning gap and impacted school-aged children in the community. Additionally, speech language pathology resources are not available in the community for children who may need them, and parents need to go to other communities to access such resources. Although there are some existing services, the community interview(s) indicated a lack of support for families with children with developmental delays, which can often result in caregivers becoming burnt out and requiring relief services (SNC Lavalin, 2023). It was communicated to the engagement team that at present, school retention rates in the community are low.

Webequie First Nation has kindergarten to Grade 10 offered in school on the reserve (i.e., Simon Jacob Memorial Education Centre). One of the goals of the community is to strengthen educational opportunities and to expand the school to help with overcrowding of the classrooms. The main barrier that limits the schools on reserve is the remoteness of the community. Access to the internet has made it possible for students to connect with mentorship programs using virtual conferencing, as opposed to a mentor flying into the reserve. Programs that are available in the community, due to partnerships, include the Outside Looking In program, dance programs, Future Leaders Program, and the Learning Bird Program (SNC Lavalin, 2023).

Having cultural programs available to remote communities reinforces their cultural identity. However, not all children attend school on reserve and may need to stay with their families off-reserve for personal reasons (SNC Lavalin, 2023). Additionally, long-distance options for post-secondary education are not available for the Webequie community (SNC Lavalin, 2023). The school currently has 15 teachers, some of whom live in the community and others are from outside (SNC Lavalin, 2023).

Special education and services (i.e., Jordan's Principle and special counselling) are expensive for schools in the community (SNC Lavalin, 2023). Special services can be difficult for community members to access due to the isolated nature of the reserve, and flying out can be time-consuming and expensive. Conducting virtual workshops can help overcome this challenge, but not everyone on the reserve has access to the internet (SNC Lavalin, 2023).

As seen in Figure 5-5 below, community well-being scores from Indigenous and Northern Affairs Canada (INAC) for Indigenous communities in Canada are much lower than for non-Indigenous communities in education, labour force activity, income and housing (INAC, 2016; Thomas, 2020). Figure 5-6 below shows the same community well-being scores for the Matawa First Nations, as well as a total score for each Nation. Limited information was available for the Ganoogaming and Neskantaga communities. Eabametoong and Nibinamik have the lowest scores for education, and Webequie has the lowest community well-being score for housing.

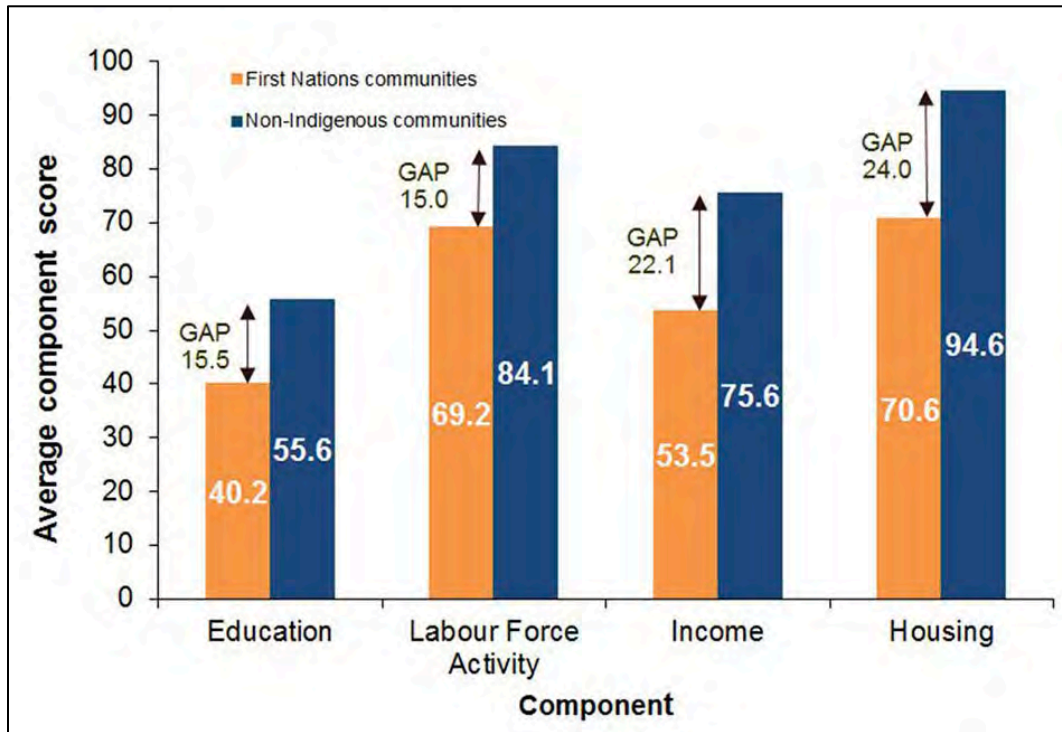


Figure 5-5: Community Well-Being Scores By Components for Indigenous and non-Indigenous Communities (Indigenous and Northern Affairs Canada (INAC) (2016), as presented in Thomas (2020))

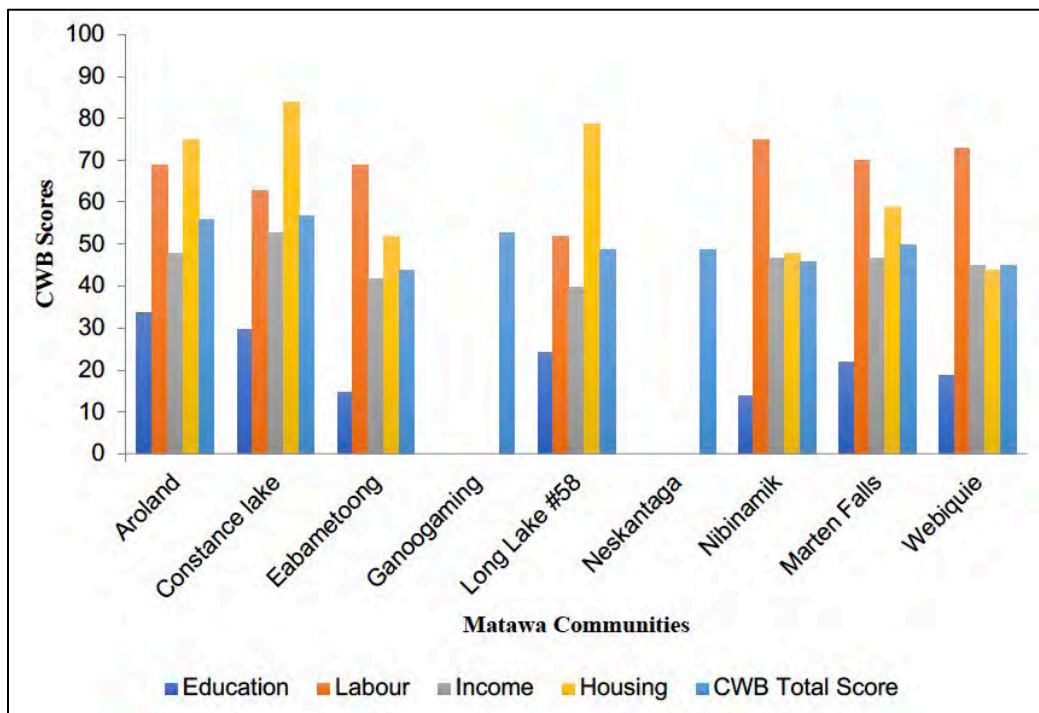


Figure 5-6: Community Well-Being Scores For Matawa Communities By Components (INAC (2016), as presented in Thomas (2020))

### 5.3.2. Income

During engagement with the HIA Team, several community members identified that higher incomes would increase their quality of life. The money they receive from Ontario Works is not enough to keep up with the cost of inflation and the cost of living in their remote northern community. Many people living in the community are on welfare.

Table 5-6 contains various income statistics of economic families<sup>2</sup> in Webequie First Nation in comparison to Ontario, including median income, average family size, and prevalence of low income. Webequie First Nation has a much lower median income compared to Ontario as a whole, which has income levels about \$40,000 higher than Webequie. Additionally, Webequie has a greater average family size when compared to Ontario. Webequie also has a much greater prevalence of low income, which is up to three or four times higher. Men in Webequie First Nation have greater prevalence of low income for all age groupings when compared to women. Approximately 31.2% of the Webequie population is considered low-income. About 36% of individuals between the ages of 0 to 17 years are living in low income, according to a low-income measure. Approximately 27% of people aged 18-64 are considered low-income and 38% of people aged 65 years and over are considered low-income.

Table 5-6: Income Statistics of Economic Families<sup>1,2</sup>

	Webequie First Nation			Ontario		
	Total	Men+ <sup>3</sup>	Women+ <sup>3</sup>	Total	Men+	Women+
Median Income of Economic Families (\$) (2020)	71,000			<b>111,000</b>		
Average Family Size	4.6			<b>3.1</b>		
Prevalence of low income based on the Low-income measure, after tax (%) <sup>4</sup>						
0 to 17 years (%)	35.5	42.0	30.0	<b>11.5</b>	<b>11.5</b>	<b>11.5</b>
18 to 64 years (%)	26.8	30.0	25.0	<b>9.1</b>	<b>8.9</b>	<b>9.4</b>
65 years and over (%)	38.0	45.0	30.0	<b>12.1</b>	<b>10.2</b>	<b>13.7</b>

Source: Statistics Canada 2021 Census.

Notes:

- 1) Statistics from 2021 Data: Census Profile 2021.
- 2) Economic family refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law union, adoption, or a foster relationship.
- 3) "Women+" includes women (and/or girls), as well as some non-binary persons & "Men+" includes men (and/or boys), as well as some non-binary persons.
- 4) The Low-income measure, after tax, refers to a fixed percentage (50%) of median adjusted after-tax income of private households (Statistics Canada, 2023). Low-income status is typically presented for persons but, since the LIM-AT threshold and household income are unique and shared by all members within each household, low-income status based on LIM-AT can also be reported for households (Statistics Canada, 2023). Available: <https://www12.statcan.gc.ca/census-recensement/2021/ref/dict/az/Definition-eng.cfm?ID=fam021>

In the Community Health Survey, respondents indicated that about 64% were the main income earner for their household. Additionally, 39% of respondents had a total individual income between \$46,000 and \$70,000 in 2021, while 9% of respondents had a total individual income between \$31,00 - \$45,000, 17% of respondents had a total individual income between \$16,000 and \$30,000, and 13% of respondents had a total individual income between \$1 and \$5,000 (Figure 5-7).

<sup>2</sup> Economic family refers to a group of two or more persons who live in the same dwelling and are related to each other by blood, marriage, common-law union, adoption, or a foster relationship.

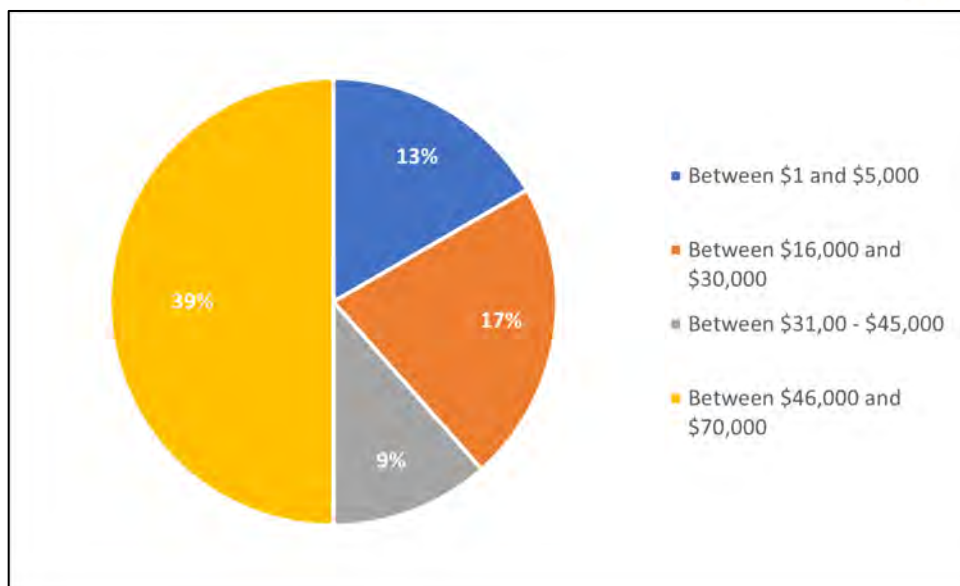


Figure 5-7: 2021 Total Individual Income for Webequie First Nation, Intrinsik 2023

### 5.3.3. Employment

There is a direct connection between household income and employment; having good employment results in having an income, which is linked with access to healthcare and essential health resources, including suitable housing and nutrition (NCCAH, 2017b). Uncertainty in employment may cause individuals to seek social assistance, which contributes to the negative health effects of stress, inadequate nutrition, and low income, among other factors (NCCAH, 2017). Intergenerational trauma and historical and contemporary effects of colonization, such as low incomes and inadequate education, constitute ubiquitous (and intricately intertwined) employment barriers for Indigenous people.

Table 5-7 below, shows the status of the labour force in Webequie First Nation in comparison to Ontario as a whole. When compared to Ontario, Webequie has lower rates of participation, employment and unemployment. When compared, men and women from Webequie have very similar rates of both participation and employment rate. However, disaggregated data for unemployment rates for Webequie is not available.

Table 5-7: Labour Force Status, 25% Sample Data<sup>1,2</sup>

	Webequie First Nation			Ontario		
	Total	Men+	Women+	Total	Men+	Women+
Participation Rate <sup>3</sup> (%)	37.9	39.5	39.2	62.8	67.1	58.7
Employment Rate (%)	36.8	37.2	37.3	55.1	59.6	50.8
Unemployment Rate (%)	5.6	--	--	12.2	11.2	13.4

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

- 1) Statistics from 2021 Data: Census Profile 2021.
- 2) “Women+” includes women (and/or girls), as well as some non-binary persons & “Men+” includes men (and/or boys), as well as some non-binary persons.
- 3) Participation rate: The share of the working-age population that is working or looking for work.

Table 5-8 shows the percent of household members that participate in either part-time or full-time work. Most of Webequie First Nation households have at least one member that holds a part-time or full-time work position.

It was further emphasized during the community engagement session that there is a need for new job openings in the community (Intrinsik, 2024).

**Table 5-8: Household Members with Part-Time and/or Full-Time Work**

	Webequie First Nation <sup>1</sup>
<b>Household Members with Part-Time and/or Full-Time Work</b>	
One+ (%)	73
Zero (%)	27

Source: Webequie First Nation 2014.

Notes:

1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

The working age population in Webequie First Nations is anticipated to decrease over the projection period from 420 members, as of 2021, to 310 members by 2043. This is mainly due to the aging population. The majority of the Webequie population is not in the labour force (62%); about the same percentage of men and women in Webequie are not in the labour force (Statistics Canada, 2021a; SNC Lavalin, 2023).

Table 5-9 below, shows the division of labour force by occupation, according to the National Occupational Classification (Canada’s national system for describing occupations), for Webequie First Nation, in comparison to Ontario. The occupations with the highest percent of Webequie First Nation participation are occupations in education, law, and social, community and government services followed by sales and services occupations.

**Table 5-9: Labour Force by Occupation (> 15 years old) National Occupational Classification, 25% of Sample Data<sup>1</sup>**

Occupations	Webequie First Nation	Ontario
Legislative and senior management occupations (%)	5.6	1.3
Business, finance, and administration occupations (%)	11.1	17.9
Natural and applied sciences and related occupations (%)	0	9.3
Health occupations (%)	0	7.3
Occupations in education, law and social, community and government services (%)	27.8	11.8
Occupations in art, culture, recreation, and sport (%)	5.6	3.1
Sales and service occupations (%)	22.2	23.5
Trades, transport and equipment operators and related occupations (%)	19.4	15.9
Natural resources, agriculture, and related production occupations (%)	5.6	2.0
Occupations in manufacturing and utilities (%)	0	5.0

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

1) Statistics from 2021 Data: Census Profile 2021

Webequie has seen a significant increase in all occupational categories between 2018 to 2022, with a 46% increase in jobs over the past 4 years (SNC Lavalin, 2023). The transport and equipment operation trades category has had the largest percentage increase over the 4-year period with a 65% increase (SNC Lavalin, 2023).

During engagement conducted by the Project Team for the Webequie Supply Road Project, community members expressed a strong desire within the community to find more and better employment opportunities (Intrinsic, 2023; SNC Lavalin, 2023). The community members believe that to prepare their youth for the future, it is necessary to have training programs (for future employment) readily available. If students and youth do not have the mandatory prerequisite course for a program, it should be provided in the school. However, some training programs require students to have completed Grade 12 but the high school on Webequie First Nation only offers schooling up to Grade 10 due to the limited number of students. As such, students are forced to seek education in surrounding communities in Thunder Bay and Sault Ste (SNC Lavalin, 2023). Due to the isolation and lack of educational resources on Webequie, there is a lack of interest among students to enroll in higher education (Intrinsic, 2023; SNC Lavalin, 2023). Additionally, it is uncertain whether jobs that require a Grade 12 education level will even become available, which discourages some students from completing higher education. However, currently, there are some training programs, such as drilling and line cutting, that allow students to enroll without completing high school (SNC Lavalin, 2023).

Currently, there is a strong need for heavy equipment training and maintenance training, as many of the Webequie members currently employed in the field will be retiring soon (SNC Lavalin, 2023). Hence, although, having the necessary training programs for the younger generation will be essential for them to take over the trade, there is a lack of accessibility to education and training programs for youth in the community due to insufficient funding (SNC Lavalin, 2023). Even after graduating high school, many youth struggle to find employment (Intrinsic, 2023; SNC Lavalin, 2023). The community expressed the need to have more youth to be trained in skilled trades such as plumbers, electricians, carpenters, and mechanics (SNC Lavalin, 2023).

An additional consideration when looking at baseline employment in communities is to also identify how/whether specific population groups experience the same levels of employment. Although Webequie-specific data is unavailable, in Canada, among those aged 25 to 64 years, persons with disabilities were less likely to be employed (59%) than those without disabilities (80%) (Statistics Canada, 2018).

## 5.4. Housing

Having access to safe and affordable housing is one of the most important determinants of health and can have a cascading impact on other health determinants, and one's physical, mental, and social wellbeing. From the HIA survey as well as in-person interviews, homelessness, lack of housing, overcrowding, as well as access to clean and affordable housing were concerning problems identified within the community. As with the socioeconomic indicators above, various population groups experience higher than average housing insecurity. Individuals from lower socioeconomic groups, especially if they also identify as Indigenous, women, gender diverse people, racialized individuals, having disabilities or are older adults, face chronic housing affordability issues (Schwan et al., 2021).

Table 5-10 shows the status of housing in Webequie First Nation in comparison to Ontario as a whole. As shown in the below table, housing in Webequie is provided by the First Nation or Indian Band, while in Ontario the majority of households own or rent their homes.

**Table 5-10: Housing Status, 25% of Sample Data<sup>1</sup>**

	Webequie First Nation	Ontario
Owner (%)	6.1	68.4
Renter (%)	0	31.4
Dwelling Provided by Local Government, First Nation, or Indian band (%)	100	0.2

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

1) Statistics from 2021 Data: Census Profile 2021.

As per the Community Health Survey, about 53% of respondents who live on-reserve reside in Band owned homes. Most off-reserve respondents live in rented homes (70%) (Intrinsic, 2023). In answer to the survey question about the proportion of their income spent on home rent or mortgage, 59% of the on-reserve respondents were unsure. Of the remaining on-reserve respondents, 24% indicated that they spend less than 30%, and 15% spend between 30-50% of their income on rent or mortgage for their home.

Responses provided by the off-reserve respondents to the Community Health Survey indicated that 35% spend between 30-50% of their income on home rent or mortgage, 29% were unsure/didn't know how much they spend, 18% spend less than 30% of their income on rent or mortgage, and 18% spend more than 50% of their income on rent or mortgage (Intrinsic, 2023). Over half of the on-reserve population live in Band-owned homes, and most who are off-reserve rent their homes. During the in-person community information session (Intrinsic, 2024) it was emphasized by some community members that there is a housing crisis in Webequie First Nation, and that the community has been in a housing crisis for some time. It was indicated by community members at the session that there is a need for 200-500 new homes. The result of the housing crisis has been that people in the community do not feel they have somewhere they can go for housing. Further, the quality of the housing was mentioned, with one elder during the community engagement session emphasizing that they believed illnesses in the community were linked to poor air quality and design gaps in the infrastructure.

In Canada, as per the 2016 census, persons with disabilities were more likely to live in rented dwellings (32.5%), than the total population (26.4%), and they were also more likely to live in subsidized rented dwellings (5.4%) than the total population (3.0%) (Statistics Canada, 2023).

Table 5-11 and Table 5-12 below provide insight into the suitability and affordability of housing conditions in Webequie First Nation. Webequie has a lower percentage of suitable housing and a higher percentage of unsuitable housing, when compared to Ontario as a whole. Additionally, in terms of housing that requires minor repairs or regular maintenance, Ontario housing has a much higher percentage (94.3%) compared to Webequie First Nation (54.5%). However, as compared to only 5.7% of homes in Ontario as a whole that require major repairs, 48.5% (i.e., almost half) of housing in Webequie First Nation requires major repairs.

**Table 5-11: Housing Suitability, 25% of Sample Data<sup>1</sup>**

	Webequie First Nation	Ontario
Housing Suitable (%)	60.6	93.3
Housing Not Suitable (%)	36.4	6.7
Housing Only Requires Regular Maintenance and Minor Repairs (%)	54.5	94.3

	Webequie First Nation	Ontario
Housing Requires Major Repairs <sup>2</sup> (%)	48.5	5.7

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

- 1) Statistics from 2021 Data: Census Profile 2021.
- 2) The 'major repairs needed' category includes dwellings needing major repairs such as dwellings with defective plumbing or electrical wiring; and dwellings needing structural repairs to walls, floors, or ceilings. Available at: <https://www12.statcan.gc.ca/census-recensement/2021/ref/dict/az/Definition-eng.cfm?ID=dwelling-logements003>

Key in-person interviews during the HIA Team’s visit to Webequie highlighted specific housing issues currently facing the community. In Webequie, many homes have mold and are in need of renovations to improve the quality of life of the residents. During in-person engagement, it was expressed by a member of the community that there is concern around the lack of wood available to heat the homes currently available, which further adds to housing insecurity (Intrinsic, 2024). The community is currently experiencing a housing shortage and they are unable to bring in supplies quick enough to keep up with demand due to the high costs of transporting supplies through either cargo flights or the winter road when available (Intrinsic, 2023).

Webequie has also started to build apartments and duplexes to help with the housing shortage but there is still overcrowding in many of the homes (Intrinsic, 2023). During focus groups and key person interviews, it was conveyed to the Project Team, that individuals who are single, i.e., don’t have a partner or children, are often couch surfing, moving house to house and sleeping in spaces that are available at the time (Intrinsic, 2023). To help such individuals, the community has converted COVID-19 isolation centres built during the height of the pandemic into housing for singles.

Accessible housing also continues to be a concern for community members. If someone has a physical disability and requires ramps, the Webequie Housing office would need to supply lumber and build ramps as they are not readily available (Intrinsic, 2023). Additionally, as the community lacks a fire station or fire trucks (also see Section 5.5.2). There have been homes that have caught fire and without the proper emergency services in place, there is no way to put the fire out (Intrinsic, 2023). This leads to the further displacement of people from their homes and contributes to the housing shortage in the community.

Table 5-12 below shows the difficulty faced by Webequie First Nation in payment of household electricity bills, with over a third indicating that these payments were sometimes or always hard to make.

**Table 5-12: Household Electricity Payments**

	Webequie First Nation <sup>1</sup>
Household Electricity Payments	
Easy to Pay (%)	63
Sometimes Difficult to Pay (%)	17
Always Difficult to Pay (%)	20

Source: Webequie First Nation 2014.

Notes:

- 1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

In 2021, 224,280 First Nations peoples live in a house with overcrowding. This is due to housing and accommodation not having enough rooms for families, especially multiple generations of families living in the same household (SNC Lavalin, 2023). Additionally, many households in First Nations reserves are

in poor condition for living and require repairs. As of 2021, the Webequie First Nation has 171 dwellings, 166 (97.1%) are occupied by residents. 95% of the of the dwellings are categorized as band housing or government.

Almost half of the occupied dwellings are shared by five or more residents and over half have five or less rooms and are in need of repair. Almost half of respondents reported overcrowded housing conditions, with over five in their household. Approximately 82% of homes in the community are in need of repair, including missing or loose floor tiles, bricks or shingles, broken steps, defective plumbing or electrical wiring, and structural problems with the walls, floor and ceiling (SNC Lavalin, 2023).

About 35% of respondents reported 3-4 people per household; 19% reported over five people per household; and 35% reported six or more people per household. Additionally, 40% of respondents reported living with two generations in their household; 23% of respondents reported living with three generations in their household; and 19% of respondents reported living with four generations in their household (Figure 5-8) (Intrinsik, 2023).

Indigenous housing in northwestern Ontario have been subject to both underfunding and inequalities, which have resulted in small and poorly constructed houses with inadequate funding for maintenance (Kovesi et al., 2022). In addition to houses being in poor physical condition, compared to non-Indigenous homes, crowding was five times as high in First Nations homes (Shapiro et al., 2020). Housing that is crowded with a loss of air and vapour barrier and poor ventilation can result in the presence of mould and endotoxins being common in homes (Kovesi et al., 2022). Homes with visible surface area of mould can be associated with upper respiratory infections, which can lead to lower respiratory infections and exacerbation of asthma symptoms (Kovesi et al., 2022). Additionally, situations associated with overcrowdings can increase the risk of viral infections and airborne contaminants (Kovesi et al., 2022).

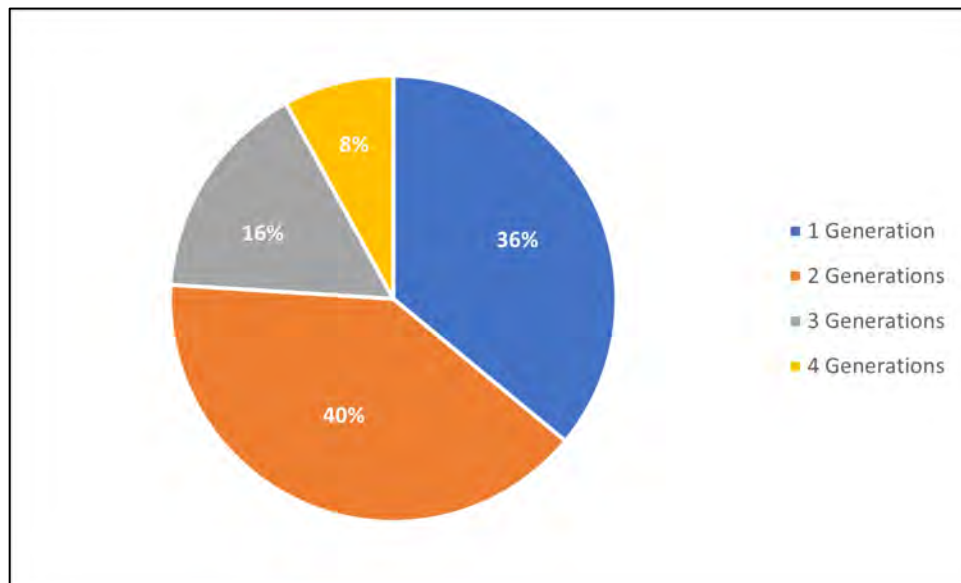


Figure 5-8: Multigenerational Homes in Webequie First Nation, Intrinsik 2023

## 5.5. Services Provided by Webequie First Nation

Community services are essential for remote communities because many services that are required by the community can only be accessed outside of the community or are available intermittently. If a community is under-served, that can lead to detrimental effects on the health and well-being of community members. The Webequie First Nation offers several different services to support community members including (SNC Lavalin, 2023):

- Tikinagan Child and Family Services,
- The Healthy Babies Healthy Children,
- The Choose Life Program
- The First Nations and Inuit Home and Community Care,
- Crisis intervention services,
- The Health Services,
- Mental health services,
- The Home and Community Care,
- The National Native Alcohol and Drug Abuse Program,
- The Family Well Being Program,
- Communication channels,
- Education,
- Communication channels,
- The Women's Group, and
- The Northern Ontario Internship Program

An excerpt of the services provided by Webequie has been provided in this sub-section, but detailed in full in the Draft Socioeconomic Baseline Conditions Report (SNC Lavalin, 2023):

Tikinagan Child and Family Services is a social service organization that provides child and family support services in a culturally appropriate manner, respecting traditional values and customs. Tikinagan aims to keep children in their home communities and if necessary it provides foster homes in close proximity to the reserve to maintain familiarity. Additionally, Tikinagan supports youth, women, and families in addressing different issues such as household-related, and community-wide issues (i.e., substance use, housing shortage, poverty, and lack of daycare) (SNC Lavalin, 2023). It is often difficult to encourage people to use the services available when there is no daycare and there are lots of single mothers. There would be no one to look after the children and the parents cannot take advantage of the services offered.

The Healthy Babies Healthy Children program provides parenting support and information on fostering health child development for children under 6 years old. The range of support that the program offers includes educational sessions that discuss topics related to healthy pregnancy, childbirth, and caring for babies at home (SNC Lavalin, 2023). The program also equips parents with an informative handbook called "Baby's Best Chance" Participants of the program also receive follow-up phone calls 48 hours after their hospital discharge. As well, trained professionals conduct home visits before and after the birth to support mothers in early childhood development. However, the program has faced many challenges due to the COVID-19 pandemic.

The Choose Life Program is designed for youth between the ages of 7 to 17 years. The program focuses on teaching land-based activities such as fish netting, moose hunting, and canoeing as well as holding ceremonies (SNC Lavalin, 2023). Elders in the community play a large role in the program in regards to sharing knowledge with the youth (SNC Lavalin, 2023).

The First Nations and Inuit Home and Community Care (FNIHCC) program provides funding for Elder care. The program aims to provide community care services for Indigenous residents in First Nation communities. The services provided by this program include client needs assessment, case management, care coordination, in-home respite care, temporary care, nursing care planning, and personal care management (SNC Lavalin, 2023).

Crisis intervention services provide support to community members impacted by family violence and suicide. The service is available on-site or via the telephone and if necessary, the police can be contacted. Additionally, there are Crisis Intervention facilities meetings with family members to explore resolution to crisis (SNC Lavalin, 2023).

The Health Services programs in Webequie provide services for the physical and mental well-being of community members. There is a dedicated team composed of three community health nurse practitioners, one community health representative, and two full-time counselors (SNC Lavalin, 2023). The program offers physician consultations twice a month as well as health awareness and counselling sessions, educational workshops, and preventative programs on various topics (i.e., diabetes, alcohol/drug use, sexual health, and communicable diseases). They also coordinate workshops related to different topics such as diabetes management, immunization, sexual health, and communicable diseases (SNC Lavalin, 2023).

Mental health services are available in Webequie, including counselling. Mental health in the community has always been a challenge, and the community has faced challenges and trauma when members have died of suicide (key-person interviews, Intrinsic, 2023; Webequie Knowledge-holder interview, SNC Lavalin, 2023). Funding has been made available to address issues related to mental health services, but limited call availability and the number of respondents puts a strain on workers (SNC Lavalin, 2023). Additionally, there are plans to renovate a building into a detox centre to provide additional support (SNC Lavalin, 2023).

The Home and Community Care program provides in-home rehabilitative care to community members who require assistance. Services can be provided at the client's home or at the nursing station including physiotherapy, occupational therapy, speech-language pathology, and case management (SNC Lavalin, 2023).

The National Native Alcohol and Drug Abuse Program supports community members and families grappling with addiction issues. Services include Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), public seminars, educational sessions in school, and cultural and spiritual events. The intervention program includes recreational activities, group discussions, and cultural gatherings to help with recovery (SNC Lavalin, 2023).

The Family Well Being Program supports Indigenous communities by delivering culturally appropriate services and programs. It focuses on empowering families and members by enhancing community health. Some of the services include language revitalization, alcohol and drug use prevention and intervention, community events such as feasts, family circles, counseling and support groups for youth, school programs, and traditional land-based healing events (SNC Lavalin, 2023). During the summer months there is also excursions available specifically for the youth such as camping, trapping or fishing (SNC Lavalin, 2023).

There are several communication channels made available to Webequie community members such as Canada Post (operates a days a week and provides postal services), Bell Canada (digital telephone services), Wawatay newspaper (published monthly), local radio station (C.S.P.N. radio), and internet services using a cable network. The Webequie First Nation KO telehealth provides residents with access to health specialists in major cities (i.e., Toronto, Winnipeg, Thunder Bay, and globally). The Ontario Telemedicine Network provides specialized medical care using videoconferencing to allow specialist to remove examine patients and prescribe treatments (SNC Lavalin, 2023).

An employment training program, funded by the Employment and Social Development Canada, is available through Matawa First Nations. A total of 42 certified workers have participated in the program. However, due to the lack of job availability in Webequie, the program is not currently being utilized and certified trainee's skills are under-utilized (SNC Lavalin, 2023).

The Choose Life Program was developed by the Nishnawbe Aski Nation and it aims to ensure that all First Nation communities had access to funding for programs that promote mental, emotional, and behavioural well-being for youths. The program provides immediate funding to youth who are at risk of suicide (key person interviews, Intrinsic, 2023; SNC Lavalin, 2023). The program has also been received well by the youth in the community and it promotes local cultural learning for youth (SNC Lavalin, 2023). For girls there are activities such as sewing, beading, cooking, volleyball, dancing, and baking in the Choose Life Program (key person interviews, Intrinsic, 2023; SNC Lavalin, 2023).

The Women's Group aids women (i.e., 45-55, 55-65, and 65+) in the community with mental health concerns, learning the native language, developing oneself as a First Nations person, and learning how to maintain identity and values. Currently, women in the community face several issues including a lack of access to services (i.e., childcare), nepotism, transportation, long waitlists for medical services, inactive aftercare program and follow-up services, lack of privacy during counselling, and lack of support for families (SNC Lavalin, 2023).

The Northern Ontario Internship Program is a training program offered by the Northern Ontario Heritage Fund Corporation that provides graduates career opportunities including advanced manufacturing, agriculture, aquaculture, and food processing (SNC Lavalin, 2023).

Additionally, the community is looking for a new space for waste disposal. The community is concerned about a lack of space for waste disposal and would like to expand the boundaries of the community to accommodate this service (Intrinsic, 2024). The lack of space is not limited to waste disposal. Additionally, the community is considering the feasibility of moving to the mainland so there is more land for community development and growth (Intrinsic, 2024).

### 5.5.1. Access to Services

Although there are some programs and services available in the community as mentioned above, often times the ones that are most at risk don't get to attend or participate. The single mothers raising families don't have time to attend such programs. Similarly, those with large families are too busy to attend, especially without a daycare to provide additional support in terms of childcare.

The Health Director of the community has expressed concern regarding the availability of programs aimed at ensuring children's safety and well-being in the community. The existing programs do not meet the specific needs of the community. The members of the community who participated in the engagement sessions don't feel that there is proper infrastructure (i.e., nursing stations, school, airport, band office, admin buildings). The community members feel proposals for expansion are often placed "under review" and then the proposal does not proceed due to finances (Intrinsic, 2024). The members

of the community who participated in the engagement sessions expressed the desire to have their own healing system, but expressed they did not feel that the settlers would allow it, nor provide funding. There was a sense of frustration conveyed by the community members who participated in the engagement session that poor bureaucratic procedures were still happening today, and there was a lot of work ahead of them (Intrinsic, 2024). Another example provided by the community, of when they were failed, was in regards to the airport. Community members were promised that prices of goods would decrease when the airport was built, and the community members participating in the discussion felt that was a broken promise by the government (Intrinsic, 2024).

There is a gap between the programs and the specific needs and wants of the community. In an online survey conducted by SNC-Lavalin, 68% of respondents (community members on the reserve) reported a lack of access to childcare (SNC Lavalin, 2023). Additionally childcare was ranked as the most desired program/service by the community (110 out of 146 responses indicated a need for childcare services). Respondents voiced that youth services also face challenges. As shown below in Table 5-13, 36.1% of respondents did not have access to the services while 33.6% did not use the services. Access to education programs for students with special needs also raised concerns. The survey responses indicated that 40.5% of respondents did not have access to these services while 37.2% did not utilize them (Table 5-13) (SNC Lavalin, 2023). It was reiterated in a community engagement session with Intrinsic (2024) that community members believe there is a lack of services in the community, with services such as the lack of a crisis centre being highlighted.

### 5.5.2. Emergency Response Services

Webequie also does not have an ambulance, or a fire station or fire fighters (key-person interviews, Intrinsic, 2023). In the Fall of 2022, a brand new fourplex burnt down and a couple of individuals affected had to be taken to the hospital in Thunder Bay for smoke inhalation (key person interviews, Intrinsic, 2023).

From interviews with community members, it was indicated that there are not enough police/peacekeepers in the community at any given time (SNC Lavalin, 2023). If more police officers were working, then the response time to calls could be shortened. The response time to emergencies is important when dealing with crisis prevention, especially those involving drugs.

Additionally, the community lacks essential services (i.e., ambulances and fire trucks) (SNC Lavalin, 2023).

Table 5-13: Access and Usage of Services<sup>1</sup>

	Youth Services	Educational Services for Students with Special Needs
Had access to service, but did not use (%)	33.6	37.2
Did not have access to service (%)	36.1	40.5

Source: SNC Lavalin 2023.

As per the Community Health Survey, about 68% of respondents do not have access to Childcare. Similarly, the majority of respondents do not have access to eldercare (65%) and legal aid (57%) (Intrinsic, 2023). The majority reported having access to:

- wellness counselling (70%),
- youth support services programs (60%),
- Jordan’s Principle (64%),
- education programs (supports for students with special needs) (58%),

- Traditional Healing Programs (78%),
- food distribution (70%) and
- Choose Life/Suicide prevention program (71%).

Among the services listed by the community as being most needed / most wanted, childcare (75%) and eldercare (71%) ranked top, followed by youth support services (64%), and traditional healing programs (65%). There is currently no childcare program available in Webequie (SNC Lavalin, 2023), and often times grandparents help out with childcare (SNC Lavalin, 2023).

## 5.6. Health Status and Resources

The unequal status of the determinants of health in a community (such as high versus low-income households, having quality versus hazardous housing, stable versus precarious employment, etc.), as well as the related challenges that can arise as a result of this unequal distribution (such as food insecurity, mental illness, reduced access to services, etc.), are the underlying reasons behind disparate health outcomes in various population groups. Underpinning this unequal distribution of the determinants of health is the unequal distribution of money, power and resources at the local, national and global levels (WHO, n.d.). Hence, existing disparity in the determinants of health can, in many instances, be the driving force behind disproportionate health impacts experienced by individuals due to a project.

This section provides an overview of the overall health status and access to resources in Webequie.

### 5.6.1. Mortality Rates

Figure 5-9 below shows age-standardized mortality rates for First Nations on-reserve, First Nations off-reserve, and non-Indigenous peoples in Canada (Statistics Canada, 2021b). For several illnesses and causes of death, it can be seen in the figure that from 2006 to 2016, mortality rates for First Nations on-reserve are significantly higher than for non-Indigenous populations (i.e., for homicides, suicides, accidents, kidney diseases, respiratory diseases, cerebrovascular diseases, diseases of the heart, diabetes mellitus and malignant neoplasms), and in some cases, even from the on-reserve First Nations populations (i.e., homicides, suicides, accidents, kidney diseases, influenza and pneumonia, cerebrovascular diseases, heart diseases, diabetes mellitus and malignant neoplasms).

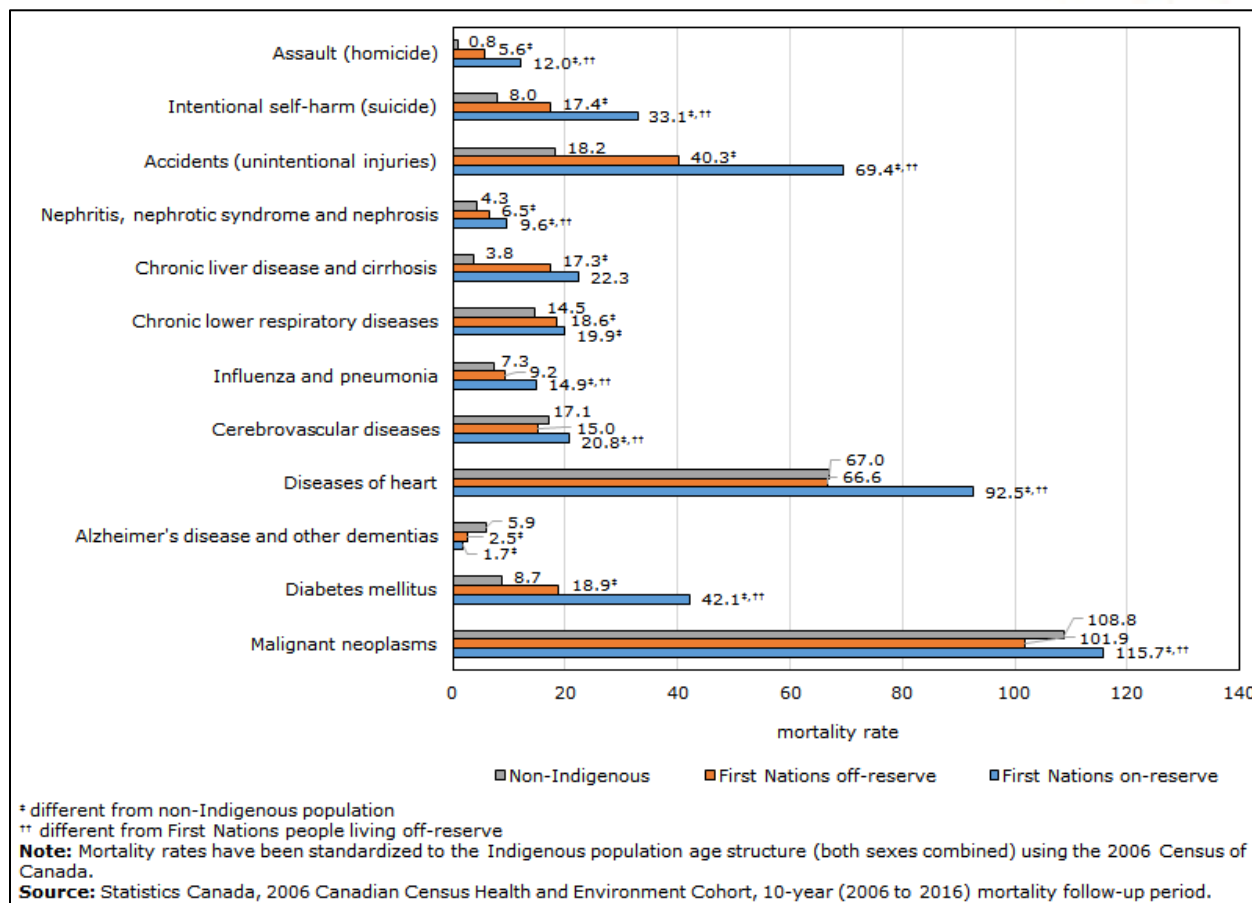


Figure 5-9: Age-standardized mortality rates per 100,000 person years at risk, by cause of death, on- and off-reserve First Nations, and non-Indigenous people, Canada, 2006 to 2016

Table 5-14 below shows age-standardized mortality rates per 100,000 person years at risk, by region, First Nations people and non-Indigenous population in Canada between 2006 and 2016 (Statistics Canada, 2021b). This is the latest year for which mortality data is available. Between 2006 and 2016, mortality rates for First Nations peoples overall, were significantly higher than the non-Indigenous population. Mortality rates for First Nations living on-reserve were also significantly higher than mortality First Nations peoples who lived off-reserve (Statistics Canada, 2021b).

Table 5-14: Mortality Rate Ratios in Ontario (2006 – 2016)

	First Nations on-reserve	First Nations off-reserve	Non-Indigenous
Ontario	592.79**	381.74*	329.47

Source: Statistics Canada, 2021b.

Notes:

Statistics from 2006 – 2016: 2006 Canadian Census Health and Environment Cohort, 10-year (2006 to 2016) mortality follow-up period.

\* indicates that the value is significantly different from the non-Indigenous population

# indicates that the value is significantly different from First Nations people living off-reserve.

**Table 5-15: Cancer Mortality in Ontario**

Mortality Rate	FNs in Ontario		Non-FNs peoples in Ontario	
	Males	Females	Males	Females
Cancer mortality per 100,000 <sup>1</sup>	158	127	146	104

Source: Chiefs of Ontario, Cancer Care Ontario, and Institute for Clinical Evaluative Science 2017.

Notes: FN: First Nations

1) Statistics from 1991 – 2010

**Table 5-16: Diabetes Mortality in Ontario**

Mortality Rate	FNs in Ontario	Other People in Ontario
Diabetes mortality per 1,000 <sup>1</sup>	33.3	25.4

Source: Walker et al., 2020.

Notes: FN: First Nations

1) Statistics from 2014

Birth rates were not available for Webequie or any other communities other than Attawapiskat. The Attawapiskat community experiences around 50 births per year (SNC Lavalin, 2023).

As mentioned above in Section 5.4, Indigenous homes in northwestern Ontario have been found to be overcrowded and in poor physical condition (Kovesi et al., 2022 & Shapiro et al., 2021). Shapiro et al. (2021) have associated higher rates of preterm birth and infant mortality rates with households where repairs are needed. Additionally, elevated infant mortality has been associated with overcrowding in households (Shapiro et al., 2021).

### 5.6.2. Chronic Disease and Mental Health

Physical and mental health issues and illnesses have a significant impact on how people live their lives. As such, it is crucial to understand the prevalence and incidence of chronic diseases as well as other health indicators in local communities, as this can help local governments and organisations define priorities for community health and manage health disparities. Indigenous individuals, families, communities, and nations who face inequities in the social determinants of health are more likely to bear an additional burden of illness and face difficulties in accessing resources (e.g., health and emergency response services) that could alleviate these concerns (Loppie and Wien, 2022).

Interviews conducted with Elders and other community members in Webequie indicated that mental health issues have been increasing not just in Webequie but other communities in the LSA, going back to the impacts of colonization, residential schools, and intergenerational trauma (key-person interviews, Intrinsic, 2023). Elders communicated that it is difficult to break the cycle of trauma and grief without proper support. There has been an intergenerational impact from the large number of residential school survivors in the community (key-person interviews, Intrinsic, 2023). There are currently no mental health counselors permanently in the community. Some counsellors visit the community once a month, which is insufficient time to build connections or see everyone who is struggling, especially individuals who need more counselling time (key-person interviews, Intrinsic, 2023).

### 5.6.2.1. Chronic diseases

Chronic diseases have a disproportionately high impact on Indigenous peoples in Ontario (PHO, 2019). As seen in Table 5-17, First Nations in Ontario have the highest burden of disease for all health conditions when compared to Ontario, except for mood disorders.

**Table 5-17: Health Conditions (Percent of the Population)**

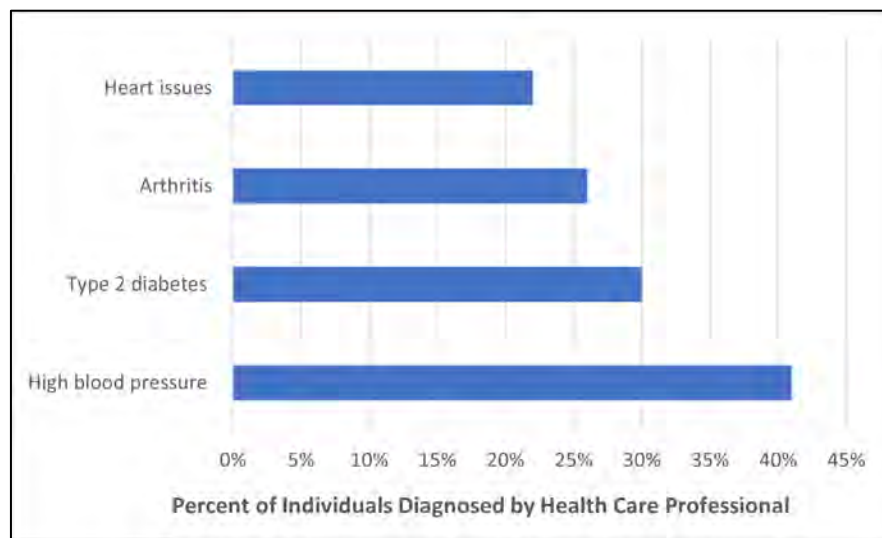
	Ontario First Nations <sup>2</sup>	Ontario <sup>1</sup>
High Blood Pressure (%)	22.9	<b>17.5</b>
High Cholesterol (%)	15.4	<b>NA</b>
Asthma (%)	12.6	<b>8.0</b>
Arthritis (%)	26.1	<b>19.1</b>
Thyroid Problems (%)	9.1	<b>NA</b>
Heart Disease (%)	6.0	<b>NA</b>
Cancer (%)	1.8	<b>NA</b>
Liver Disease (%)	1.7	<b>NA</b>
Diabetes (%)	23.4	<b>8.0</b>
Anxiety Disorder (%)	6.9	<b>NA</b>
Mood Disorder <sup>3</sup> (%)	7.6	<b>9.5</b>

Sources: Statistics Canada 2021 Health Characteristics; Chiefs of Ontario 2019.

Notes: NA – Data not available.

- 1) Statistics from 2019-2020 Data: Census Profile 2021.
- 2) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.
- 3) Population aged 12 and over who reported that they have been diagnosed by a health professional as having a mood disorder, such as depression, bipolar disorder, mania, or dysthymia.

In the Community Health Survey, about 26% of respondents claimed that they do not have any health conditions identified by a health care professional. However, as shown in Figure 5-10, the most common health conditions respondents indicated that had been identified by a health care professional were high blood pressure (41%), type 2 diabetes (30%), arthritis (26%), and heart issues, including heart and stroke (22%) (Intrinsic, 2023). From in-person interviews, it was understood that a couple of the most common health conditions discussed were rheumatoid arthritis and diabetes, with roughly 30-35 percent of the population diagnosed with Type 2 diabetes.



**Figure 5-10: Most Common Health Conditions in Webequie First Nation, Intrinsic 2023**

Table 5-18 below shows both childhood and adult obesity rates for First Nations in Ontario in comparison to Ontario as a whole. Both First Nations adults and children have higher rates of obesity when compared to Ontario. There has been confirmation of high prevalence rates of obesity in First Nations adults residing in northwestern Ontario communities (Imeault et al., 2011). Of the First Nations adults residing in northwestern Ontario communities, prevalence of obesity and overweight/obesity were found to be 65% and 92%, respectively (Imeault et al., 2011). Imeault et al. (2011) has also hypothesized that the high prevalence of diabetes, as shown above in Table 5-17, could likely be explained by the prevalence of obesity and high levels of abdominal adiposity found in the First Nations adults located in the northwestern communities. In the Community Health Survey, respondents were asked to rate their overall physical health on a scale of 1 to 5. About 48% of respondents rated their overall physical health as good, 33% of respondents rated their overall physical health as very good, while 19% of respondents rated their overall physical health as fair (Intrinsic, 2023).

**Table 5-18: Childhood and Adult Obesity (Percent of the Population)**

	Ontario First Nations <sup>2</sup>	Ontario <sup>1</sup>
Body mass index, adjusted self-reported, adult, overweight (%)	36	<b>35.4</b>
Body mass index, adjusted self-reported, adult, obese (%)	43	<b>28.1</b>
Body mass index, self-reported, youth (12 to 17 years old), overweight or obese (%)	32 <sup>3</sup> & 14 <sup>4</sup>	<b>22</b>

Sources: Statistics Canada 2021 Health Characteristics; Chiefs of Ontario 2019.

Notes: NA – Data not available.

- 1) Statistics from 2019-2020 Data: Census Profile 2021.
- 2) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.
- 3) 32% of youth reported to be overweight.
- 4) 14% of youth reported to be obese.

As shown in Table 5-19, Webequie First Nation has a lower Community Well-being Score when compared to the average Community Wellbeing Score of all First Nations in Ontario. A Community Well-being Score measures socio-economic well-being is for individual communities across Canada and scores on four components: education, labour force activity, income, and housing (Statistics Canada, 2016). Scores range from a low 0 to a high 100.

<b>Table 5-19: Community Well-being Score (2021)</b>		
	<b>Webequie First Nation</b>	<b>Ontario First Nations</b>
Community Well-being Score	54	<b>62<sup>1</sup></b>

Source: Statistics Canada 2021 Census Aboriginal Community Portrait, Available at: <https://www.sac-isc.gc.ca/SAC-ISC/CWB/index-map-en.html>.

Notes: Community Well-Being Index measures socio-economic well-being for individual communities across Canada. It has four components: education, labour force activity, income and housing. Scores range from a low 0 to a high 100.

- 1) Average Community Well-being score for First Nation communities in Ontario.

At the community engagement session, it was noted by an employee of the Aboriginal diabetes initiative that it appears Type 2 diabetes is rising this year, in addition to high blood pressure. Concerns were raised during the session as to the occurrence of asthma and arthritis in the area, which were communicated to be high in the community.

### 5.6.2.2. Mental Wellness

During key-person interviews and in focus groups, community members discussed that for both youth and adults, living in Webequie, a fly-in fly-out community can feel isolating. The isolation might be due to the lack of infrastructure and access to the mainland and other cities, and the high transportation costs due to the special equipment required to travel (SNC Lavalin, 2023). Additionally, based on an interview with Elders in the community, one of the challenges that young members of the community experience is the lack of adequate aid and assistance programs for issues such as substance use, depression, and mental wellbeing. There are programs available to help with drug and alcohol addiction, but due to the stigma surrounding these issues, in order to receive the help they need, the community needs to be able to trust the social workers (SNC Lavalin, 2023).

Webequie First Nation is among several northern Indigenous communities impacted by a suicide epidemic (Speaker of the House of Commons, 2016). Webequie had a significant increase in suicides within the community during the 1990s (Shewaybick, 2017). In 2017, the ongoing reports of mental health issues and suicide emergencies in Northern Ontario motivated a young person from Webequie, who identifies as Two-Spirit, to advocate for the establishment of a youth council in the community (Shewaybick, 2017). In 2021, there were still ongoing suicide and mental health crises in Northern Ontario, and the Webequie First Nation saw the tragic loss of a young person due to suicide (Forbes, 2021; Vis, 2020).

In the Community Health Survey, about 41% of respondents rated their mental health as fair, 26% of respondents rated their mental health as good, while 11% of respondents rated their mental health as poor (Intrinsic, 2023).

Additionally, from interviews with community members, it was noted that there has been an ongoing decline in mental health in the last few years and there are limited mental health services available in the community (key-person interviews, Intrinsic, 2023). Community members must make do with what limited resources are available (key-person interviews, Intrinsic, 2023). There is a significant need for mental health and addiction services, mainly related to prescription drug addiction (prevalent among community members aged 18 to 58 years). Addiction can be linked to childhood experiences, such as parental addiction, separation, or violence. Webequie First Nation provides a suboxone program to help treat opioid addiction (key person interviews, Intrinsic, 2023; SNC Lavalin, 2023). A large portion of the population is currently on suboxone, many of whom are young adults (key person interviews, Intrinsic, 2023; SNC Lavalin, 2023).

Table 5-20, Table 5-21, and Table 5-22 show how First Nations in Ontario perceive mental health, stress, and feelings related to depression. Table 5-20 shows indicators of mental health status for First Nations in comparison to Ontario as a whole. First Nations have higher rates of perceived mental health as good or fair, and lower rates of perceived mental health as excellent or very good. First Nations also show a higher sense of belonging to their local community when compared to Ontario as a whole. Strikingly, about 40% of First Nations members in Ontario report feeling depressed and about 76% report feeling worthless (Table 5-22).

**Table 5-20: Perceived Mental Health (Percent of the Population)**

	Ontario First Nations <sup>2</sup>	Ontario <sup>1</sup>
Described overall mental health as excellent or very good (%)	47.2	<b>64.7</b>
Described overall mental health as good or fair (%)	51.2	<b>9.8<sup>3</sup></b>
Described overall mental health as poor (%)	1.6	

	Ontario First Nations <sup>2</sup>	Ontario <sup>1</sup>
Sense of belonging to local community (%)	83.4	71.3

Sources: Statistics Canada 2021 Health Characteristics; Chiefs of Ontario 2019.

Notes: NA – Data not available.

- 1) Statistics from 2019-2020 Data: Census Profile 2021.
- 2) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.
- 3) Perceived mental health, fair or poor.

**Table 5-21: Feelings of Hopelessness and Stress**

	Ontario First Nations <sup>1</sup>
Feel Hopeless and Stressed All/Most of the Time (%)	3.5
Feel Hopeless and Stressed a Little/Sometimes (%)	25.7
Feel Hopeless and Stressed None of the Time (%)	70.8

Source: Chiefs of Ontario 2019.

Notes:

- 1) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.

**Table 5-22: Mental Health and Wellbeing**

	Ontario First Nations <sup>1</sup>
Feel Depressed (%)	39.7
Feel Tired for No Good Reason (%)	54.8
Feel So Sad That Nothing Could Cheer You Up (%)	8.4
Feel Worthless (%)	76.2
Suicide Attempted (%)	7.5
Thoughts of Considering Suicide (%)	12.8

Source: Chiefs of Ontario 2019.

Notes:

- 1) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.

### **Youth Mental Health**

Table 5-23 shows the perceived mental health of Ontario First Nations youth, aged 12 to 17 years old. Overall, the majority (i.e., 64%) Ontario First Nations youth reported their mental health status to be very good or excellent and only 1.7% reported their mental health status as poor. As reported in the 2015 to 2017 Ontario First Nations Regional Health Survey Phase III (Chiefs of Ontario, 2019), increases in bullying among First Nations youth have been noted. Of First Nations youth, 40.1% have reported to have been bullied in the last 12 months, of which 31.3% was cyberbullying (Chiefs of Ontario, 2019).

**Table 5-23: Youth Perceived Mental Health (Percent of the Population)**

	Ontario First Nations <sup>1</sup>
Described overall mental health as excellent or very good (%)	64
Described overall mental health as good or fair (%)	34.3
Described overall mental health as poor (%)	1.7
Described feeling helpless (%)	28.3

Source: Chiefs of Ontario 2019.

Notes:

- 1) Statistics from 2015-2017 for youth (12 – 17 years old): Chiefs of Ontario 2019.

Regarding support for youth, 77.1% of youth reported that they felt as though they had someone they could count on when they required support (Chiefs of Ontario, 2019). Table 5-24 below shows who Ontario First Nations youth specified they would reach out to when/if they required support.

**Table 5-24: Who Ontario First Nations Youth Chose to Speak to When They Needed Support**

Who Youth Spoke to When They Needed Support	Ontario First Nations <sup>1</sup>
No One (%)	44.7
A Friend (%)	32.7
Parents (%)	32.6

Source: Chiefs of Ontario 2019.

Notes:

1) Statistics from 2015-2017 for youth (12 – 17 years old): Chiefs of Ontario 2019.

As identified during key-person interviews, there are many concerns surrounding youth mental health and wellness in Webequie, including low self-esteem, depression, anxiety, grief, etc. (key-person interviews, Intrinsic, 2023). There are concerns around self-harm, sexual abuse, domestic abuse, drug overdose, and violence among the youth in the community (key-person interviews, Intrinsic, 2023). Mental health among youth is seen as declining as alcohol and drug use has increased (key-person interviews, Intrinsic, 2023). Mental health concerns also differ between girls and boys in Webequie. According to mental health counsellors who were interviewed, mental health concerns for girls are more related to self-harm, cutting or high risk behaviour (key-person interviews, Intrinsic, 2023). Counsellors who were interviewed suggested that more female mental health counsellors were needed in the community to help the girls who needed it. Mental health concerns in boys in Webequie tend to be related to how much they worry, and other clinical disorders such as schizophrenia (key-person interviews, Intrinsic, 2023). The COVID-19 pandemic exacerbated mental health and addiction issues, particularly with young girls requiring significant treatment for mental health concerns (SNC-Lavalin, 2023).

Webequie also has many two-spirited youth, who often don't come out to their friends and family as they are often not accepted (key-person interviews, Intrinsic, 2023). These two-spirited youth often feel like they have nowhere to go, no one to talk to (key-person interviews, Intrinsic, 2023). Hence, another tailored service needed in the community is programming for two spirited youth as this is currently non-existent (key-person interviews, Intrinsic, 2023).

### 5.6.3. Injuries

As reported in the 2015 to 2017 Ontario First Nations Regional Health Survey Phase III (Chiefs of Ontario, 2019), 20% of adult respondents had suffered an injury within the last year (Table 5-25), with the most common injury resulting from major sprains (22.8%). Almost half (i.e., 48.4%) of adults that suffered injuries sought treatment at emergency rooms, while 13.1% did not seek medical attention of any kind (Chiefs of Ontario, 2019). Injuries were reported to mostly take place in the home, and most occurred in June (16.3%), January (12.7%), and April (12.2%) (Chiefs of Ontario, 2019).

**Table 5-25: Injury Rates**

	Ontario First Nations <sup>1</sup>
Injury suffered in within the last 12 months (%)	20

Source: Chiefs of Ontario 2019.

Notes: NA – Data not available.

1) Statistics from 2015-2017: Chiefs of Ontario 2019.

#### 5.6.4. Access to Health Care and Culturally Appropriate Health Care

Webequie and other surrounding First Nation communities are heavily reliant on outside communities to fulfil their need for goods and services, including health care services. However, there are supply chain challenges due to the remote nature of the communities (SNC Lavalin, 2023).

In the Community Health Survey (Intrinsic, 2023), 78% of respondents indicated that they have access to a doctor that visits the community. Additionally, 45% of respondents have access to a traditional elder or healer in the community, 44% of respondents have access to nursing care, 26% of respondents have access to a health clinic, and 22% of respondents have access to substance use/addiction services and counselling. The most frequently visited health care service is the nursing station (63%). However, 57% of respondents stated that they chose their health care service due to the limited options available in the community (Intrinsic, 2023).

About 78% of respondents indicated that the community needs additional mental health care/counselling. Additionally, 74% of respondents indicated that the community is in need of culturally appropriate healthcare (i.e., nurses and doctors that speak the native language and use traditional medicine), 70% of respondents believe the community is in need of a diabetes management clinic, 67% of respondents indicated that the community is in need of long-term care, and 63% of respondents indicated that the community is in need of better integration of traditional healing methods into the community health care services, substance use/addiction services and counselling, and women and child health care services (Intrinsic, 2023).

When asked to rate their access to healthcare on a scale of 1 to 5, 35% of respondents on the Community Health Survey rated their access to healthcare as poor (1/5), 31% of respondents rated their access to healthcare as fair (2/5) and 23% of respondents rated their access to healthcare as good (3/5). Some respondents claimed that there is a lack of doctors/nurses at the nursing station, and the specialist doctors do not visit the community often enough (i.e., once a month, depending on the specialty). Lack of access to a permanent doctor was further emphasized during the in-person community engagement session (Intrinsic, 2024). About 41% of respondents rated the quality of healthcare services in the area as average and 45% of respondents rated the quality of healthcare services in the area as below average or very poor (Intrinsic, 2023). Several community members during the engagement sessions with Intrinsic (2024) highlighted that they have suffered with chronic conditions for more than 20 years with limited access to proper diagnosis and consistent treatment.

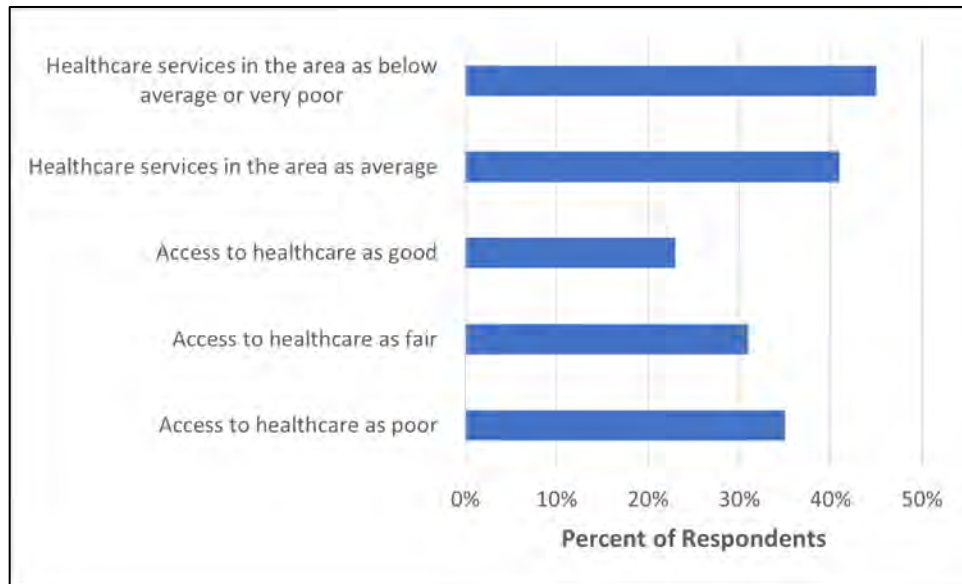


Figure 5-11: Access and Quality of Healthcare, Intrinsic 2023

The Community Health Survey respondents considered the following factors to be barriers to accessing health services (Intrinsic, 2023):

- remote location of Webequie (81%),
- cost associated with services and medication not included in insurance (52%),
- lack of access due to wait times (48%),
- racism and/or other forms of discrimination in accessing health care (44%),
- cultural differences (41%), and
- inability to arrange for transportation or child care due to cost availability (41%).

People have had to wait months for appointments with physicians, and even when they are in the community, the appointments fill up very quickly. Since many medical services are not offered in the community, especially specialists, people must fly to Thunder Bay to seek treatment. The Nursing Station in Webequie is very busy and as per interview(s) with staff at the Nursing Station, at times the Nursing Station has to close its doors to deal with the demand, accepting only emergencies at such times (key-person interviews, Intrinsic, 2023).

Community interviews reveal that the reliance on rotating nurses instead of a full-time doctor create inconsistent healthcare provision (key-person interviews, Intrinsic, 2023). Due to the isolated nature of the community, there are challenges with the delivery of clinical services, especially in the winter (SNC Lavalin, 2023). Transportation delays can result in delayed services and in the most severe cases, loss of life (SNC Lavalin, 2023). The lack of sufficient healthcare has led to the loss of numerous community members causing frustration among community members and families and a loss of confidence in the system (SNC Lavalin, 2023). Members of the Webequie community also report experiencing racism from health care staff in Thunder Bay, and once they go in for treatment, it can be days until they are able to fly back to Webequie.

Interviews conducted in the community point to a lack of accommodations to house visiting health care professionals as one main reason why Webequie is unable to get health professionals into the community more often or have more health care professionals in to address community needs (key-person interviews, Intrinsic, 2023).

### **Dental Care**

As shown below in Table 5-26, about 46% of respondents rated their overall dental health as poor and 31% of respondents rated their overall dental health as fair. Additionally, 48% of respondents rated their access to dental care as poor and 37% of respondents rated their access to dental care as fair. A portion of survey respondents (i.e., 67%) hoped that the Webequie Supply Road will improve access to dental care services for the community (Intrinsic, 2023).

**Table 5-26: Dental Health**

	<b>Webequie First Nation</b>
Dental health poor (%)	46
Dental health fair (%)	31
Access to dental care poor (%)	48
Access to dental care fair (%)	37

Source: Intrinsic, 2023.

During the women’s focus group (Intrinsic, 2023), it was noted that a dentist does not come in regularly, and the doctor comes in once a month. Some have had to wait months to get a toothache checked or extracted. Additionally, there are issues with dental services for infants and mothers because the community’s current dental services do not meet the established guidelines (SNC Lavalin, 2023).

### **Routine Cancer Screening**

Nursing station staff in Webequie also report that the community is behind in routine cancer screening (key-person interviews, Intrinsic, 2023). Compared to the rest of Ontario, where there is easier access to screening and periodic re-screening for breast, cervical, and prostate cancer, the Webequie community is very behind, and the pandemic only exacerbated the rates of routine cancer screening in the community (key-person interviews, Intrinsic, 2023). Lack of uptake as well as a lack of staff were both reasons for the delays, as per nursing station staff. It is much more difficult to get the proper screening tests completed in the isolated community, an example of which is pap tests for cervical cancer in women, but all types of cancer aren’t being caught as early as they could be (key-person interviews, Intrinsic, 2023).

### **Routine Immunizations**

Regular immunizations for school-age children is also lagging in Webequie, and has been made worse by the pandemic (key-person interviews, Intrinsic, 2023). This is due to both poor uptake and a lack of health care staff needed to follow-up with community members, as currently, most staff in the Nursing Station are focused on acute care and lack additional capacity needed for follow-up care (key-person interviews, Intrinsic, 2023). Interview(s) with nursing station staff indicated that having a public health nurse in the community would be ‘a game changer’ for non-acute health services, including immunizations and the well-baby program.

### **Prenatal and Postpartum Care**

The prenatal program in Webequie sees the women through their pregnancy, ensuring that every test is done (key-person interviews, Intrinsic, 2023). If women miss a prenatal appointment, the nursing station reaches out to them as there is a nurse assigned to the prenatal program, as it one of three mandatory programs in Webequie (key-person interviews, Intrinsic, 2023). Women generally go to Thunder Bay for their delivery, and as part of the postnatal program, the nursing station provides postpartum visits and follows-up as needed (key-person interviews, Intrinsic, 2023). Although the staff try their best to provide home visits for postnatal care, sometimes the equipment required for postnatal care (e.g., weighing

equipment) makes it harder to provide at-home postnatal care for women who have just given birth, especially as the nursing station is always kept busy handling acute medical care in the community. Lack of a dedicated staff for such health care also makes it harder to follow-up with patients who miss any postnatal appointments (key-person interviews, Intrinsic, 2023).

### **Aboriginal Diabetes Initiative**

Given that around 30 to 35% of individuals in the community are diabetic, the Aboriginal Diabetes Initiative (ADI) is an outreach program that proactively tries to engage community members and educate them about diabetes pre-emptively (key-person interviews, Intrinsic, 2023). The community recently hired an ADI worker. The aim of the initiative is to do outreach, teaching the community about diabetes, getting people together and cooking healthy meals, and other similar measures (key-person interviews, Intrinsic, 2023).

Registered dietitians are also available to community members from the Sioux Lookout First Nation Health Authority as well as the Matawa Health Co-operative, and visit the community about one to times per month (key-person interviews, Intrinsic, 2023). Registered dietitians also help community members who need assistance in addressing diabetes through their diet (key-person interviews, Intrinsic, 2023).

### 5.6.5. Access to Home Care

Access to home care is also a major challenge in Webequie (key person interviews, Intrinsic, 2023). Older adults who need home care are often unable to stay in the community when they start to need round the clock care. If more intensive care is required, older adults with serious care needs are required to seek services outside of the community (i.e., in Thunder Bay) (key person interviews, Intrinsic, 2023). The lack of long-term care facilities also present challenges for young families who struggle to take care of their parents. This results in older adults being sent to retirement facilities in Thunder Bay, which can also present financial problems and cuts them off from their families and their communities (key person interviews, Intrinsic, 2023).

Webequie has about three or four Personal Support Workers, but they don't provide personal care. Their services are limited to cleaning the house, getting groceries, and other services, but they don't provide personal care (key person interviews, Intrinsic, 2023). As a result, Nursing station staff, see older adults for concerns normally addressed by a personal support worker. A failure to thrive in older adults who are unable to take care of themselves and who often lack support is one of the reasons the nursing station staff has had to send older adults needing medical care at home to Thunder Bay (key person interviews, Intrinsic, 2023). At times their families bring them back to Webequie with a desire to keep them in the community and to take care of them, but as providing round the clock home care is challenging, a month and a half or two months later, that family gets burnt out and the responsibility for care falls back on the nursing station staff, for which they do not have capacity (key person interviews, Intrinsic, 2023). Palliative care is also a challenge in the community as they don't have the staff to conduct home visits to give patients morphine and other medications or to do wellness checks (key person interviews, Intrinsic, 2023). Currently, the nursing station staff has an RPN who flies in for one week per month, sometimes less, to address the needs of community members who need homecare, including access to wheelchairs, walkers, occupational therapy, Hoyer lifts, etc., and can also do training of other staff to change catheters and similar services (key person interviews, Intrinsic, 2023).

## 5.7. Spiritual and Cultural Well-Being: Practicing Ceremonies

During interviews conducted with Elders and other community members, it was shared that in addition to the range of health and wellness programs and services identified previously (Section 5.5) that are available to Webequie First Nation, traditional ceremonies are used for healing and renewal (Intrinsic, 2023). These ceremonies include sweat-lodges, sun dance/sunrise ceremonies, or fasting lodges. Although each ceremony ultimately serves a different purpose, they are designed to nourish the mind and body as well as strengthen the connection between the person to the land and their ancestors (key-person interviews, Intrinsic, 2023). For example, a sweat lodge ceremony is often used when clearing both the mind and body through prayer, purification, or healing, while a Sundance ceremony could be celebrating the well-being of the community and giving thanks (key-person interviews, Intrinsic, 2023). These ceremonies are a significant part of the Webequie community values and are often used in times of celebration or to express gratitude in the form of gift-giving (key-person interviews, Intrinsic, 2023).

## 5.8. Wellness, Food Security and Healthy Habits

Indigenous peoples who live in remote rural and reserve areas have difficulty accessing both market and traditional foods, which makes them very food insecure (Reading and Wien, 2009; Lambden et al., 2006). Healthy, nutritious food is out of reach for most families because it costs a lot to get market foods to remote areas (Reading and Wien, 2009; Lambden et al., 2006). As indicated from the Community Health Survey, about 86% of respondents would rate the community’s supply of nutritious grocery food items as poor (1/5) or fair (2/5), and 88% of respondents are hopeful that the construction of the Webequie supply road will improve the community’s access to nutritious grocery food items (Intrinsic, 2023). At the Northern Store, the only available grocery store on the reserve, the healthier options are often priced out of people’s budgets and they can only afford unhealthy and processed foods, which creates its own set of health problems.

Table 5-27 below shows the percentage of individuals who consume five servings or more of fruits and vegetables per day. When compared to Ontario as a whole, First Nations in Ontario who reside off-reserve show a very similar rate of consuming five servings or greater of vegetables and fruits.

**Table 5-27: Healthy Eating**

	Ontario First Nations off-reserve <sup>1</sup>	Non-Aboriginal <sup>1</sup>	Ontario <sup>2</sup>
Consumption of ≥ 5 Servings of Fruits and Vegetations per Day (%)	27.5	36.0	27.8

Sources: Statistics Canada Health Characteristics 2016; Cancer Care Ontario 2016.

Notes:

- 1) Statistics from 2007-2011 for adults >18 years old: Cancer Care Ontario 2016.
- 2) Statistics from 2015-2016 – Statistics Canada Health Characteristics

It has been reported that country foods or traditional foods are increasing in importance in the Webequie community due to the extreme prices of fresh fruits and vegetables, resulting in increased reliance on traditional foods at the household level (Webequie First Nation, 2014). Table 5-28 shows the number of days per week country foods are being included in a household’s meal in Webequie and Table 5-29 shows how often traditional methods of cooking are used per week.

**Table 5-28: Number of Days per Week When Country Foods are Included in Meals**

	Webequie First Nation <sup>1</sup>
Number of Days per Week When Country Foods are Included in Meals	
Two+ (%)	45
Two (%)	31
One (%)	14
Zero (%)	10

Source: Webequie First Nation 2014.

Notes:

- 1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

**Table 5-29: Number of Household Members Who Cook Using Traditional Foods or Methods 3+ Times Per Week**

	Webequie First Nation <sup>1</sup>
Number of Household Members Who Cook Using Traditional Foods or Methods 3+ Times Per Week	
One+ (%)	78
Zero (%)	22

Source: Webequie First Nation 2014.

Notes:

- 1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

In Webequie First Nation, it has been reported previously that individuals did not have enough food to last the week and may be required to skip meals or cut down the size of their meals, in order to compensate (Webequie First Nation, 2014). As shown in Table 5-30 below, 38% of households in Webequie indicated that they are often food secure, 56% are sometimes food secure, and 6% of individuals are never food secure. For comparison, it has been reported that in Ontario 16% of households are food insecure, indicating they are unable to afford nutritious food on a regular basis (PHO, 2023). As traditional foods are consumed less frequently, there is now a reliance on store bought foods in northern Ontario Indigenous communities, and although this provides an alternative to traditional food it is accompanied by exorbitant food costs (Robidoux et al., 2012). As healthy store-bought foods are often expensive, with limited variety, less expensive and less healthy alternatives are often more chosen in place of healthier options (Robidoux et al., 2012).

**Table 5-30: Frequency of Food Security in Webequie First Nation Households**

	Webequie First Nation <sup>1</sup>
Frequency of Food Security in Webequie First Nation Households	
Often (%)	38
Sometimes (%)	56
Never (%)	6

Source: Webequie First Nation 2014.

Notes:

- 1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

Table 5-31 below shows the percentage of participants who have been worried traditional food would run out before more could be collect in the past year. The percentage of individuals in Webequie who often worry or sometimes worry that their traditional food would run out before they could get more is higher in Webequie compared to other First Nations in Ontario.

**Table 5-31: Percent of Participants Who, in the Past 12 Months, Worried Their Traditional Food Would Run Out Before They Could Get More<sup>1</sup>**

	<b>Webequie First Nation</b>	<b>First Nations in Ontario</b>
<b>Participants Worried Their Traditional Food Would Run Out Before They Could Get More</b>		
Often (%)	12	9
Sometimes (%)	57	18
Never (%)	21	21
Do Not Know or Refused (%)	9	8

Source: FNFNES 2013.

Notes:

1) Statistics from 2011-2012: FNFNES Results from Webequie First Nation, Ontario

The most reported limiters affecting the Webequie First Nations people's ability to hunt, fish, or collect berries included mining, recreation boaters or fishers, oil & gas operations, snowmobiles or ATVs, and sports outfitters as shown in the table below (FNFNES, 2013). Robidoux et al. (2012) has also confirmed northern Ontario Indigenous communities experience obstacles in obtaining traditional foods, like those presented in Table 5-32. The obstacles included a lack of proper materials and supplies (i.e., clothing, transportation, tools, ammunition, clothing, fuel) and unless traditional food is shared by friends of family, most individuals were found to not consume traditional foods (Robidoux et al., 2012).

**Table 5-32: Reported Barriers Preventing First Nations' Households From Using More Traditional Food<sup>1</sup>**

	<b>Webequie First Nation</b>	<b>First Nations in Ontario</b>
<b>Barriers Preventing First Nations' Households from Using More Traditional Food</b>		
Cost of Equipment (%)	41	NA
Lack of Time (%)	8	19
Lack of Hunter (%)	13	12
Lack of Equipment/Transportation	21	10
Physical or Health Reasons	6	8

Source: FNFNES 2013.

Notes:

1) Statistics from 2011-2012: FNFNES Results from Webequie First Nation, Ontario

Table 5-33 shows the percentage of Ontario adults who are physically active. First Nations in Ontario who reside off-reserve show a higher percentage of being physically active when compared to non-Indigenous people from Ontario.

**Table 5-33: Physical Activity**

	Ontario First Nations off-reserve	Non-Indigenous
Percentage of Ontario Adults Who Are Physically Active <sup>2</sup> (%)	54.5	46.0

Source: Cancer Care Ontario 2016.

Notes:

1) Statistics from 2007-2011: Cancer Care Ontario 2016.

From interviews with community members, it was indicated that an outdoor arena would help the youth become more active and give them something to do other than using the internet (key-person interviews, Intrinsic, 2023).

Table 5-34: Smoking and Alcohol Drinking Habits shows the prevalence of smoking and alcohol consumption. First Nations in Ontario residing off-reserve have a higher prevalence rate of both smoking and the consumption of alcohol when compared to non-Aboriginal people from Ontario.

**Table 5-34: Smoking and Alcohol Drinking Habits**

	Ontario First Nations off-reserve	Non-Indigenous
Prevalence of Smoking (%)	44.0	22.0
Prevalence of Consumption of >1 or 2 alcoholic drinks per Day <sup>1</sup> (%)	12.5	9.2

Source: Cancer Care Ontario 2016.

Notes:

1) Statistics from 2007-2011: Cancer Care Ontario 2016.

The results from the Community Health Survey indicate that approximately 44% of respondents currently smoke multiple times a day (Intrinsic, 2023). Approximately 28% of respondents struggle with problematic substance use with drugs, alcohol, or both (Intrinsic, 2023). As noted from key person interviews, drug use is a major problem in Webequie, especially for youth, and many community members struggle with drug addiction and alcoholism (key-person interviews, Intrinsic, 2023). They use substances such as drugs and alcohol as a way of coping with the current and historical trauma they've faced in their lives such as the loss of cultural lands, loss of their way of life, residential schools, systemic racism, discrimination, and cultural genocide (key-person interviews, Intrinsic, 2023). Those who move off reserve may also feel lonely and isolated, which can also lead to substance use (key-person interviews, Intrinsic, 2023).

To help people with their drug addiction, suboxone (buprenorphine/naloxone) has been prescribed to help use other opioids less; however, some Webequie members have become addicted to suboxone as well (key-person interviews, Intrinsic, 2023). When prescribed suboxone, they are using it longer, sometimes much longer (over 10 years) than was initially prescribed, sometimes lasting years (key-person interviews, Intrinsic, 2023). Webequie First Nation is lacking an addiction center where more active support could be available for those who need it, as well as their family members (key-person interviews, Intrinsic, 2023). Many people in the community have lost their lives to addiction and suicide. Due to reuse of needles, an increase in Hepatitis C has been discovered recently within the community (key-person interviews, Intrinsic, 2023).

There is an after-care program, however, more help is required to make this program successful. Suicide rates are high in the community, and without the proper support, mental health in the community is declining.

Additionally, the use of drugs and alcohol in the community has led to an increase in impaired driving.

There are still many services currently not offered or unavailable within the community, including addiction centres, serious and long-term mental health services, senior care homes, daycare, health care specialist (i.e., physiotherapy), fire stations as identified during trips to the community.

The most concerning behaviours respondents believe impact health in the community are drug use (64%), alcohol use (52%), dropping out of school (36%), and bullying (28%). About 80% of respondents believe that the Webequie supply road could increase access to drugs and alcohol if connected to the provincial highway system (Intrinsic, 2023).

### 5.9. Racism and Violence

First Nations adults have reported experiencing physical aggression (i.e., 13.8%) in the last 12 months, but more commonly experience verbal aggression (i.e., 32.1%) (Chiefs of Ontario, 2019). As shown in Table 5-35, males most commonly experience aggression at home while females most commonly experience aggression in their community. Additionally, as shown in Table 5-36, 23% of Ontario First Nations have experienced racism in the past 12 months which was most experienced outside of the community, followed by at work or school, and then within the community.

Indigenous women and youth are at a higher risk of experiencing gender-based violence due to existing systemic challenges on reserves, as well as social, economic and historic factors. These factors have contributed to different types of traumas that has led to historical violence being passed through generations. Specifically, having witnessed or experienced sexual assault, relocation of Indigenous communities, and suffering that is associated with residential school builds the collective trauma that disproportionately impacts women and youth. Additionally, Indigenous women are more likely to live in poverty which contributes to less stable housing situations on reserve for them and resultantly, leads to an increased likelihood to experience abuse. Other factors such as low-income and less education also contribute to an increased likelihood to experience abuse, particularly intimate partner abuse. Further, there are often few services, programs, and opportunities to support this vulnerable population in the Community (InterGroup, 2024).

Table 5-35: Location of Received Physical or Verbal Aggression

	Ontario First Nations <sup>1</sup>	
	Male	Female
Home (%)	26.6	12.1
Work/School (%)	9.1	12.1
Online (%)	11.6	5.1
Community (%)	18.1	17.8

Source: Chiefs of Ontario 2019.

Notes: NA – Data not available.

1) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.

**Table 5-36: Racism**

	Ontario First Nations <sup>1</sup>
Experienced Racism in the Past 12 Months (%)	23
<b>Where Racism was Experienced</b>	
Work/School (%)	19
Outside Community (%)	85
Within Community (%)	10

Source: Chiefs of Ontario 2019.

Notes: NA – Data not available.

1) Statistics from 2015-2017 for adults: Chiefs of Ontario 2019.

## 5.10. Social Cohesion

Table 5-37 shows how often community members offer help to and share with other families in the community within the past year. Generally, wood and food are shared sometimes and it was found that families helped other families at times.

**Table 5-37: Sharing and Helping with Other Families within the Past Year**

	Webequie First Nation <sup>1</sup>
<b>Shared Wood (%)</b>	
Regularly	7.8
Sometimes	53.3
Never	39.0
<b>Shared Food (%)</b>	
Regularly	26.0
Sometimes	59.7
Never	14.3
<b>Helped Others (%)</b>	
Regularly	9.09
Sometimes	62.3
Never	28.6

Source: Webequie First Nation 2014.

Notes:

1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

Table 5-38 shows Webequie First Nation household participation in various forms of community governance at least once in the last year.

**Table 5-38: Household Participation in Various Forms of Community Governance At Least Once in the Last Year**

	Webequie First Nation <sup>1</sup>
<b>Household Participation<sup>2</sup> in Various Forms of Community Governance</b>	
One+ (%)	95
Zero (%)	5

Source: Webequie First Nation 2014.

Notes:

1) Statistics from 2013-2014 for adults: Webequie First Nation 2014.

2) Participation can include activities such as attending community meeting, accessing information on Chief and Council decisions and initiatives.

## 5.11. Transportation

Understanding a community's transportation needs and modalities is critical when planning new transportation infrastructure. The section below provides information related to transportation and mobility from publicly available data sources.

Webequie First Nation is a remote fly-in community that gains access to materials and goods via the Webequie Airport and use of seasonal winter roads (SNC Lavalin, 2023).

Table 5-39 below shows the different modes of transportation that are utilized in Webequie First Nation, in comparison to Ontario. Cars, trucks, or vans are the most utilized mode of transportation and are used by a lower percentage of the population when compared to Ontario, especially for women in Webequie. In Webequie First Nation, men are more likely to utilize vehicular travel when compared to women. After vehicular travel, walking is the next highest mode of transportation used by the Webequie First Nation, where women are more likely to utilize walking as a method of transport compared to men. When compared to Ontario, Webequie does not have any public transit, and not many people travel via bicycles or other modes of transportation.

Table 5-39: Main Mode of Commuting (15 yrs and older), 25% of Sample Data<sup>1,2</sup>

	Webequie First Nation			Ontario		
	Total	Men+	Women+	Total	Men+	Women+
Car, Truck, or Van (%)	45.5	71.4	27.8	83.6	86.7	79.8
Public Transit (%)	0.0	0.0	0.0	8.6	6.6	11.1
Walked (%)	51.5	28.6	72.2	4.6	3.8	5.6
Bicycle (%)	0.0	0.0	0.0	0.8	1.1	0.6
Other Method (%)	0.0	0.0	0.0	2.4	1.9	2.9

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

- 1) Statistics from 2021 Data: Census Profile 2021.
- 2) "Women+" includes women (and/or girls), as well as some non-binary persons & "Men+" includes men (and/or boys), as well as some non-binary persons.

Table 5-40 provides insight into the durations of commuting in Webequie First Nation compared to Ontario. Webequie First Nation has commute times typically ranging between 15 to 29 minutes or less than 15 minutes, while Ontario has a much larger range in commuting times.

Table 5-40: Commuting Duration (15 yrs and older), 25% of Sample Data<sup>1,2</sup>

	Webequie First Nation			Ontario		
	Total	Men+	Women+	Total	Men+	Women+
Less than 15 minutes (%)	97.0	100.0	100.0	28.3	24.9	32.4
15 to 29 minutes (%)	6.1	0.0	11.1	33.7	33.1	34.5
30 to 44 minutes (%)	0.0	0.0	0.0	20.6	22.3	18.6
45 to 59 minutes (%)	0.0	0.0	0.0	8.3	9.1	7.3
60 minutes and over (%)	0.0	0.0	0.0	9.1	10.6	7.3

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

- 1) Statistics from 2021 Data: Census Profile 2021.
- 2) "Women+" includes women (and/or girls), as well as some non-binary persons & "Men+" includes men (and/or boys), as well as some non-binary persons.

Table 5-41 shows the status of workplaces in Webequie First Nation in comparison to Ontario. Webequie shows the highest percentage of individuals working at a fixed or usual work location or have no fixed work address. Webequie First Nation has a much lower percentage of individuals who work from home compared to Ontario, and only show that men working from home.

**Table 5-41: Place of Work Status (15 yrs and older), 25% of Sample Data<sup>1,2</sup>**

	Webequie First Nation			Ontario		
	Total	Men+	Women+	Total	Men+	Women+
Worked at home (%)	0.0	12.5	0.0	29.7	26.5	33.3
Worked outside Canada (%)	0.0	0.0	0.0	0.5	0.6	0.3
No fixed workplace address (%)	14.3	18.8	10.5	11.8	16.9	6.1
Usual place of work (%)	80.0	75.0	84.2	58.0	56.1	60.2

Source: Statistics Canada 2021 Census.

Notes: A sample of approximately 25% of Canadian households receive a long-form questionnaire. All other households receive a short-form questionnaire.

- 1) Statistics from 2021 Data: Census Profile 2021.
- 2) “Women+” includes women (and/or girls), as well as some non-binary persons & “Men+” includes men (and/or boys), as well as some non-binary persons.

## 5.12. Community History

Webequie First Nation prepared a draft of the On-Reserve Land Use Plan in 2019 through the First Nations Land Management federal program. To develop the Plan, a participatory community engagement to gather information from community members on needs, issues, values and aspirations regarding the land use of the reserve (SNC Lavalin, 2023).

Webequie First Nation has culturally significant and sensitive sites throughout the traditional land. As outlined in the Community-Based Land Use Plan, water is seen as the most precious element of their livelihood. Therefore, areas with rivers or waterbodies are seen as highly spiritual and there is a responsibility to protect them. Additionally, the area that extends 40 to 50 km in radius around the Webequie community is for traditional and recreational activities such as trapping, fishing, ceremonial activities, gathering/harvesting and hunting of local wildlife species (i.e., moose, caribou, and waterfowl). These wildlife species are a critical part of the diet of the community and hunting them it is a significant cultural activity that associates Webequie people to the land (SNC Lavalin, 2023).

The north end of Eastwood Island was originally used as a summer gathering site for family groups. Eastwood Island is another significant gathering area for harvesting (i.e., fishing, hunting, trapping, and gathering), and other traditional and spiritual activities. There are also scattered graves on the north point of the community dating back to the 1800s (SNC Lavalin, 2023).

The residential school legacy is often referenced throughout the community engagement sessions, and drives a substantial proportion of the conversations. It is important to note that the community history is highly influenced by the trauma experienced at residential schools by some community members, and the intergenerational trauma that persists. For example, the government, police, and Christians told the people to cut their hair short. These experiences influence the perception of any future developments. The community members participating in the engagement session want a better environment for their children prior to any developments in their territory. The community emphasized that the consultants they’ve hired need to be aware of the history, educated in it, and ensure that the studies achieve appropriate results (Intrinsic, 2024).

Preservation and teaching of the traditional way of life has been a consistent topic of discussion during the community engagement sessions and focus groups, and is of importance to the community. For example, during the community engagement session, participants spoke to the importance of the link between the land and traditional knowledge. For example, members of the Webequie community historically used to harvest ice to build ice hits to preserve food. They also used to use sawdust, and prior to that moss, to preserve the ice. The tools and knowledge used by the elders to survive in the Weenusk river area should be written down to preserve the way of life and culture (Intrinsic, 2024). During the community engagement session, the importance of a full review prior to the development of their territory was discussed. There was a call for further reconciliation, damages repaired, and the treaties corrected prior to any development in their territory (Intrinsic, 2024).

### 5.13. Population Groups Who Maybe Disproportionately Impacted – a GBA Plus Summary of Baseline Conditions

In general, HIAs seek to identify and evaluate the potential health impacts on various population groups within communities that may be disproportionately affected by the project. Invariably, women, children, lower income individuals, racialized individuals, Indigenous peoples, older adults, individuals with disabilities, and those with chronic health conditions are considered to be population groups that can be disproportionately impacted as a result of various project activities, environmental exposures and impacts due to changing socioeconomic conditions. For Indigenous peoples, there is an additional consideration that must be made for factors influenced by intergenerational trauma and colonialism when assessing the impacts of project, as these factors further influence groups that may be disproportionately impacted by a project, and are less likely to experience positive effects of major projects (InterGroup, 2024). When some of the identities listed above intersect (for example a female Indigenous older adult), potential impacts can be magnified. Hence, an intersectional analysis is a helpful way to understand how some individuals or groups can experience disproportionate impacts as a result of project activities due to their intersecting identities. As much as possible, this HIA applied this intersectional understanding when evaluating impacts as a result of the Webequie Supply Road Project. Impacts to various population groups who maybe disproportionately impacted because of the Project was assessed in the HIA and the potential for disproportionate impacts on these groups was carefully considered in assigning criteria to net effects. Disproportionately impacted groups were also taken into account when identifying mitigation and enhancement measures.

In this HIA, baseline conditions (Section 5) and potential health impacts due to the Project (Section 6) have been described for the following population groups throughout, where information was available:

- Women
- Men
- Youth
- Older adults and Elders
- Knowledge keepers and Land users
- Individuals with disabilities and chronic health conditions
- 2SLGBTQ+ individuals.

Information from focus groups conducted with some of these population groups re-iterated information gathered from the Community Health Survey and key-personnel interviews, and also highlighted the main concerns of each group. Of the population groups listed above, little information was available for

baseline health conditions for 2SLGBTQ+ individuals in Webequie First Nation. General and Webequie-specific information related to inequitable conditions faced by 2SLGBTQ+ individuals has been provided below.

#### 5.13.1.1. Baseline Conditions for Women in Webequie

Factors such as being low income, being a single parent, experiencing addictions and mental health challenges, living in unstable housing, and lack of education disproportionately increases the vulnerability of Indigenous women (InterGroup, 2024). Due to the integral importance of women in a community, and the unique vulnerability women face, it is important to fully characterize the challenges women face to assess overall community health.

During the focus groups with women in Webequie First Nation, the importance of education in the community was emphasized (Intrinsic, 2024). The women reiterated that a lack of infrastructure limits the education of the youth. Currently, the high school is located in a portable, with access to an internet high school within the past few years for the community. There was concern expressed about there being limited learning due to a lack of options and a limited number of classes and subjects. Further, there is a lack of attendance for both elementary school and high school which is concerning to the women involved in the focus group (Intrinsic, 2024). With respect to services, such as education, the women's focus group indicated that racism is evident everywhere, even in the community, and that service providers and professionals (i.e., teachers, doctors, nurses, police) exhibit racism toward members of the community (Intrinsic, 2024). During the in-person focus group, the women provided examples of racism felt by the community members by others when outside of the community. The first example was of a man who left the community seeking further education that was unavailable within the community, and who didn't make it home following an incident with the police in Winnipeg. The women provided this tragic incident in reference to both racism and the need for more educational opportunities in the community (Intrinsic, 2024; CTV News, 2023). Further, the women referenced youth who leave their communities to seek further education in places such as Thunder Bay and who then go missing (Intrinsic, 2024).

The women were concerned about the loss of language by the youth in the community. The women noted that the youth are interested in learning the language but need more opportunities for knowledge transfer. The women noted that from kindergarten to high school there are immersion classes, with the children distracted by cell phones, social media, and internet. It was highlighted that some lost their language during residential schooling (6 to 7 years old) and had to re-learn the language when they returned to the community. The women re-iterated that everyone is affected by residential school intergenerational trauma, with no after care provided and the importance that some children never came back. The women brought the conversation back around to wanting to teach the youth survival skills. They want to teach them what is on the island and how to survive (Intrinsic, 2024).

Women land users are concerned about the land. They believe the helicopters are distracting the geese. Further, there is concern about the fish quality and want to know if the surface water has been affected. The women land users noted that the number of fish has been consistent, but there has been lumps on the fish caught. The women say they fish on the river that flows from Musselwhite mine. The women noted that the medicinal plants and herbs are changing every year, and that the winter road closed in March this year. The women noted that garbage had been left on the land by the mining companies and that construction materials were not being taken care of properly. Further, the women noted that there is an increase in cancer rates in the community (Intrinsic, 2024).

During the women's focus group, one of the main concerns raised by women in Webequie is related to the ongoing suboxone program and that appropriate drug rehabilitation services or centres are unavailable to Webequie community members. Individuals are reluctant to quit using drugs abruptly, and need help easing into the transition and to fully wean off. The women do not think the suboxone program is working appropriately to address this need as individuals can be suboxone-dependent for 10 years or more.

Women, in particular, and families with only one parent are experiencing the effects of drug use and addiction more acutely in the community. Follow-up care crew are available, but reinforcements to this program are needed to address community needs. The women mentioned that additional infrastructure is needed in the community so that more services can be provided within the community, as Webequie members can experience racism from the hospital staff in Thunder Bay, which makes them feel unwanted and unwelcome to be there. Also, as community members have to fly out to get to the hospital in Thunder Bay to access health care services, they have difficulty at times getting on a flight back to Webequie, and feel trapped in the hospital after doctor's visits. Women in the community also mentioned that lack of timely access to healthcare, for example, the dentist visits around twice yearly, is an ongoing concern for them (also see Section 5.6.4).

The women also expressed some interest in the jobs that may be created with the Webequie Supply Road, however access to reliable childcare would be necessary for the women to take advantage of any jobs opportunities that were created (Intrinsic, 2024).

The women noted that the cost of living has increased (at the time of the focus group, December 2022, one avocado cost \$5.09; one head of cauliflower cost \$8.99; a 12-pack case of bottled water cost \$22.79, etc.), especially since the COVID-19 pandemic, and there has been no offset in the form of increased welfare or other forms of financial support for community members. The focus group in 2024 did mention that some food items are subsidized (i.e., dairy, milk), but that prices are still high (i.e., small box kelloogs cereal cost \$12.19, a brick of cream cheese cost \$9.19, frozen French fries cost \$18.79, a 6-pack of toilet paper cost \$10.89, and one package of bacon cost \$8.99). Prices in the Northern Store (the only grocery store in the community that has healthy foods available) have always been high due to the isolated nature of the community and the cost of transporting goods in. Further, following the stocking by the winter road, the food prices go up when goods are flown in (Intrinsic, 2024) but the women mentioned that the pandemic had made prices of fruits, vegetables and other healthy foods more unaffordable. This is especially true for families with single mothers. The school's breakfast program has been cut and only snacks are now provided by Indigenous Services Canada. It was conveyed to the project team that women in Webequie keenly support having an affordable daycare and a care home for older adults in the community. Having access to safe and sufficient housing and healthy and affordable foods is also a major concern in Webequie, and was echoed during the women's focus group (also see Section 5.4).

During the focus group and other interviews (key-person interviews, Intrinsic, 2023), women also expressed concerns related to safety and security, and that a women's shelter is needed in the community. Safety and security concerns for women would be an important consideration if the Webequie Supply Road is built (Intrinsic, 2024). The overall importance of community safety and security and community togetherness was also emphasized during the women's focus group, and reiterated in 2024.

### 5.13.1.2. Baseline Conditions for Youth

Indigenous youth face unique challenges related to geographic isolation and lack of infrastructure that have led to significantly higher rates of suicide than non-Indigenous people. There are physical, historic and financial barriers to governments providing assistance to remote communities that have led to the promotion of feelings of oppression, perpetuation of residential school trauma, discrimination, loss of culture and language that has influenced the well-being of Indigenous youth in particular (InterGroup, 2024).

During the focus group with Webequie youth, it was noted that health is important to everyone in the community including the youth residing in the community. Webequie youth expressed that to them 'health' includes activities (i.e., video games), community (i.e., friendships), and access to food (i.e., KFC).

Key informant interviews were also conducted with youth workers in the community, who are associated with the Community Aboriginal Recreational Activator (CARA) program, and the Choose Life Program. Key-person interviews indicated that over time, as technology has grown and spread throughout the community youth are less and less likely to use their free time to play outside in the bush or on boats. Prior to the internet, children's free time was primarily spent outdoors and within the community playing games and socializing. Now there are concerns related to youth in Webequie not being active enough, and being more willing to live a sedentary lifestyle that revolves around technology. The common use of video games, mobile devices and social media amongst youth is resulting in difficulties convincing them to engage in alternative activities that take place outside the house and on the land. The COVID-19 pandemic has further exacerbated these problems.

Webequie youth in the community have expressed interest in extracurricular activities such as camping, baseball, and volleyball, but there is not enough social capacity (i.e., teachers and youth workers) to support such activities. It has been suggested that incentives, such as gift cards or gaming consoles, could be used to further encourage participation.

Key-personnel interviews with representatives from the CARA and Choose Life Programs indicated that there is a lack of sufficient infrastructure in the community to hold youth programs. The power grid that supports the community does not have the capacity to support any additional large buildings, and the buildings it currently supports are limited in their operation (i.e., cannot plug in multiple appliances). There are not enough locations available to support the additional desired extracurricular activities or programs for youth, as the only available gymnasium has very limited availabilities for activities that are not school related (i.e., it is often busy). To add to that, even if there is available gym time, it is also difficult to secure adult supervision to oversee youth activities.

The mental health of youth in the community has been deteriorating, which is being linked to smoking, drug use, and high cost of living. There is now increased access to drugs and alcohol for youth in Webequie, which is a concern expressed by several community members.

Key-person interviews with the youth workers identified that being able to afford and have access to healthy foods is a challenge in the community due to high prices within grocery stores and the high cost to ship food to the community. Traditional activities and foods are popular with Webequie youth. During the focus group, the youth expressed interest in participating in traditional activities such as hunting,

fishing, and sacred ceremonies, in addition to enjoying traditional foods such as goose and moose meats. Although the youth are interested in participating in traditional activities, some of them didn't believe that there are sufficient opportunities for transfer traditional knowledge from Elders and Knowledge Keepers and land users to themselves. Some were also keen to learn how to speak and communicate freely in their traditional language.

The focus group participants indicated that impacts from the Webequie Supply Road to youth in community could include an increased motivation to attend school, obtain training, and seek employment. Alternatively, it was expressed that there are no local jobs and as such there is no motivation to gain training as there are no jobs to seek out post training. It was also noted that community members do not want to leave Webequie and feel that they should not have to leave the community to obtain a better quality of life.

#### 5.13.1.3. Baseline Conditions for Men

One of the primary concerns raised by men in Webequie who participated in a focus group with the HIA Team was related to the availability and access to traditional foods, particularly as at least 50-75% of some of their diets consist of traditional country foods. Some of the men participating in the focus group were also land users, and were able to provide their perspective. Concerns were also raised regarding their capacity to hunt and use the land. In the past years/decades, there have been less geese and moose available for hunting. In the 2024 focus group, the men also noted that the population of Sturgeon is decreasing and that there are invasive species (i.e., pelican, turkey vulture) entering their land. They noted that there are now parasites on the moose and that the population of snakes and toads is declining (Intrinsic, 2024). The land users in the focus group also pointed out that they've had to travel farther distances than they previously did in order to hunt – sometimes even 45 km away from the community – to find moose. In the 2024 focus group, the men noted that the mating season of the wildlife is changing (Intrinsic, 2024). Additionally, they have noticed that goose berries and some medicinal plants are far more uncommon now than in previous years, possibly due to climate change and changing water levels. Further, the men noted that now there are only blueberries, whereas 30 years ago there were more berries available (Intrinsic, 2024).

The men noted the rising incidence of allergies to fish as a concern. They spoke to the changing preferences and allergies among community members. They noted that some are having allergic reactions to wild game, or do not like the smell of beaver. Further, the men noted that the fish are changing in colour (i.e., the fish have blue on them) and that lumps are seen on the fish (Intrinsic, 2024). The men are concerned about the fish and would like the quality and quantity of the fish monitored. They are concerned about the population and discussed a tagging system like what is used for moose. The men were concerned about what happened in Deer Lake happening in Webequie. The men also noted that there is a change in the taste of black ducks, muskrats, and otters. They noted it could be climate change or a shift in personal preference, but spoke to not preferring to eat those game animals anymore. The men were concerned with the change in their traditional diet, and linked this to the rate of diabetes rising (Intrinsic, 2024). Further, the men noted that there is an increase in the number of youth experiencing autism and ADHD, and noted there are no services for helping those youth. They would like to speak directly with the principal to find a solution to support children struggling with a disability (Intrinsic, 2024).

During the focus group, the men noted that access to services providing education on Type 2 diabetes is important. They men note that there needs to be more supports in place to manage the high cost of food doe those with diabetes, as purchasing healthy food is challenging with the high cost of living (Intrinsic, 2024).

The men, and especially the land users among them, noted the frequency with which they've seen helicopters flying above the Ring of Fire area, which can scare away game that they are hunting. Even though the Chief and Council have requested that corporations refrain from flying over or through their lands during the hunting seasons, the number of helicopters has increased dramatically in the previous few years. Residents of the community still see and hear helicopters throughout the hunting seasons (spring for geese and fall for moose hunting) despite this request. Men as well as land users expressed concerns that the Webequie Supply Road Project would make hunting more challenging because of the noise and traffic on the proposed road when asked about the possible effects on traditional foods. They also believe that the local airline movement is disrupting the surrounding natural environment, similar to the effects of helicopters in the area. However, the rising costs of transportation, food and airfare is a further concern brought up by the men and land users. To reduce costs, they hope to set up their own greenhouse(s) where they can grow vegetables within the community.

Another primary issue raised by the focus group is the lack of or decline in traditional knowledge transfer to the youth that has been observed since the internet became available and further exacerbated since the availability of Starlink. Men expressed concern for the youth who do not possess traditional knowledge, stating that they may go hungry in the future because of it. The men noted that the youth are taken out on the land less now as they are in school during the week. An example provided was that the youth don't understand the different bird calls, and what those bird calls mean. Additional teachings are necessary to pass down knowledge to the younger generations and ensure knowledge surrounding the language, hunting, harvesting, snow-shoe making, etc., is not lost. It was noted that the language is being lost with each passing generation (Intrinsic, 2024). The men participating in the 2024 focus group would like to see more integration of traditional learning and western education, with this learning integrated into the schools. The men noted that the parents are responsible for the children's education, but that they needed to be supported so that they can succeed (Intrinsic, 2024). They also mentioned the rise in suicide rates and mental health issues they have observed among young people in Webequie. The group thought that the youth may re-establish a connection to the land by spending more time on the land and less time on forms of technology and video games, which could boost their physical and mental health.

The effects of climate change are being felt directly by the community, and especially land users, who are observing changes to the river system, experiencing more frequent and intense floods, and earlier melting of snow. The men noted that the weatheris less extreme than previous, the weather does not get as extremely hot, nor as extremely cold as it used to (Intrinsic, 2024). Since the winter road is heavily dependent on the weather, it has been forced to close earlier and earlier each year due to the instability of the ice. In 2023, the winter road was closed on April 8<sup>th</sup>. In previous years, winter roads were safe to travel on until May. During the focus group in May 2024, the men noted that the winter road closed on March 31<sup>st</sup>, and was only open for 2.5 to 3 months (Intrinsic, 2024). The snow and ice have been melting earlier each year due to climate change, and the winter roads have been considerably more unpredictable and dangerous. Permafrost in the area is also being impacted by climate change and is leading to changing landscapes. The land users in the group reported fewer sightings of many animal species, as well as their numbers over the last few decades, including moose, beavers, and geese.

The focus group also discussed a spill that took place at Musselwhite Mine a few years ago. Since the mine is connected to Webequie's water shed, some members of the group believed that the spill has harmed the water quality and aquatic life in the area. The mine upriver has impacts on all the communities along the water shed from the tailings ponds, the floods, and especially the health of the water and aquatic life. When ice fishing, several people in the focus group mentioned that they have noticed that the wall-eye fish have lumps. They are also concerned about the impact of the water quality on aquatic life as they've witnessed teenagers and young children develop rashes, eczema, and allergies to certain types of fresh fish, which were not previously common in the community.

Men were also concerned about rising drug overuse and mental health issues in Webequie. During the focus group in 2024, the men further re-iterated that the suboxone program was being used by approximately 130 people, though they didn't know the exact number and referred the Intrinsic employees to the clinic for updated numbers (Intrinsic, 2024). Although drugs and alcohol could become more easily accessible once the Webequie Supply Road is operational, the focus group members believed that the Webequie Supply Road could create a safer environment if more employment opportunities were available for the community, which was a sentiment reiterated during the May 2024 focus group (Intrinsic, 2024). In the 2024 focus group (Intrinsic), the men noted that a security checkpoint may help to keep things like drugs and alcohol from entering the community. Increased employment would also generate more income for those in the community and the community itself.

Focus group participants also expressed their desire for a care home in Webequie for older adults and those who need advanced care, along with a dedicated nurse, as opposed to flying to Thunder Bay to receive that type of care.

The men see both pros and cons to the Webequie Supply Road. They are concerned about dealing with corporations, and that more corporations will want to enter the community to try to make a profit. They are also concerned about safety and security in the community if the road is built. They are hopeful that the road will decrease the price of gas, which the men noted they rely on more now to go out on the land than they historically did (Intrinsic, 2024). The men hope to see better infrastructure, and more businesses and economic growth.

During the focus group, benefits from being on the land were emphasized. Men spoke about how important the land is and what being on the land means to them. Many people in Webequie are still coping with the trauma they experienced in the past due to colonization, residential schools and systemic racism, which is still ongoing. The men stated that they needed to work on and forgive themselves in order to heal and find Mino Bimaadiziwin, or 'the good life'. By returning to their roots and establishing a connection with the land, they can discover that. One individual in the group said: "The land is my gold mine."

#### 5.13.1.4. Baseline Conditions for 2SLGBTQ+ Individuals

From interview(s) with the community, it was expressed that 2SLGBTQ+ (Two-Spirit, Lesbian, Gay, Bisexual, Transgender, Queer or Questioning and additional sexual orientations and gender identities) individuals often have a difficult time settling into the community due to religious views and beliefs currently held by members of the community, and as a result, the 2SLGBTQ+ community in Webequie experiences a greater degree of stress on a daily basis (key-person interviews, Intrinsic, 2023). Interviews with individuals who identify as 2SLGBTQ+, indicated that these individuals experience disproportionate impacts due to pre-existing health issues (key-person interviews, Intrinsic, 2023). The stress coupled with a lack of programming (supports and services) leads to lower self-esteem, higher rates of anxiety, higher rates of depression, and a greater degree of suicidal ideations (key-person

interviews, Intrinsic, 2023). Community members expressed that individuals from some population groups would be more susceptible to seasonal depression during the winter months and Christmas season, when loneliness can be at an all-time high (key-person interviews, Intrinsic, 2023). Many members of the 2SLGBTQ+ community in Webequie also experience bullying which further negatively impacts their mental health (key-person interviews, Intrinsic, 2023). There is also a stigma around AIDS and HIV within 2SLGBTQ+ communities which can lead to lower self-esteem and decreased overall health when they don't have programs available and feel isolated (key-person interviews, Intrinsic, 2023). Discussions surrounding sexually transmitted infections and safe sex are discouraged and often seen as taboo due to the religious beliefs that are held within the community (key-person interviews, Intrinsic, 2023). Additional healthcare resources are needed for the 2SLGBTQ+ community in Webequie. The 2SLGBTQ+ community has been put into one box to include everyone and does not account for each person's sexual orientation or gender identity (key-person interviews, Intrinsic, 2023). In order for 2SLGBTQ+ to become accepted and more comfortable within the community, a suggestion was to create talking circles that would be safe spaces for those who identify as 2SLGBTQ+ to share and build connections (key-person interviews, Intrinsic, 2023). These talking circles or safe spaces could also serve to build awareness of the 2SLGBTQ+ community in Webequie. If the goal is to make everyone feel safe in Webequie, then everyone needs to feel safe, not just select groups or individuals (key-person interviews, Intrinsic, 2023).

#### 5.13.1.5. Baseline Conditions for Individuals with Disabilities and Chronic Health Conditions

To understand ongoing health concerns and current health conditions for individuals with disabilities in the community, the HIA Team conducted interview(s) with personnel in the Home Community Care Program. During the interview, it was shared that there are individuals in Webequie who are in need of 24/7 care, and often times, individuals returning from treatment in the hospital in Thunder Bay need additional attention. However, there are not enough staff working in the Home Community Care Program to meet the needs of the community. As such, the individual's family assumes responsibility for their care (as much as possible), and currently, there are no facilities in Webequie to provide ongoing 24/7 care to individuals who need it (also see Section 5.6.5). There is also currently a limited availability of respite care for caregivers. Individuals with arthritis also have mobility problems and Home Community Care Program staff provide support as possible.

If an individual needs the use of a wheelchair or a 4-wheel walker, they must request the Webequie housing department to provide the necessary lumber for the construction of ramps. Requirements for individuals with disabilities include the construction of facilities suitable to house visiting physiotherapists, increased availability of healthcare resources and personnel who can be brought into the community and housed temporarily, and increasing staff in the Home Community Care Program, as sometimes current staff are unable to attend to all those in need.

There are also insufficient financial resources available for acquiring hearing aids or similar devices for those who need them. Dentures are provided once and renewed every 5-10 years. If hospital beds are needed in the community, the cost of bringing one in is prohibitively high as access to these resources is severely constrained, and transportation by plane incurs significant expenses.

There is a small number of individuals, mainly older adults, in the community who have permanent disabilities. There are also a handful of adolescents who have special needs. Support systems are not available for students with special needs, and it is uncertain whether the school or teachers offer such programs. Mental health support for those with disabilities is very limited in the community, or

completely absent. The counsellor who visits the community does so on a monthly basis, which is insufficient time to interact with everyone. As such, many individuals seek counselling outside of their community but encounter numerous difficulties when venturing into the urban environment. Staff from the Home Community Care Program are also called upon to accompany individuals who need assistance to their healthcare appointments, whether in Thunder Bay or Sioux Lookout. Families have to send older adults and other individuals who need round-the-clock care to long term care centers out of the community (i.e., mainly Thunder Bay), and it costs their families in Webequie a lot to visit them. Moreover, concerns expressed by other community members and also in the women's and men's focus groups were echoed by the Home Community Care Program staff, that care homes in Thunder Bay were unsuitable and difficult for Webequie members due to the racism they experienced.

At the time of the key-personnel interview (May, 2023), four additional individuals had received training to become personal support workers, and did not have any prior experience in this field. As discussed in Section 5.5.1, nurses stationed at the nursing station offer assistance to the Home Community Care Program, but there is limited help and resources available.

For community members who are undergoing dialysis and are unable to care for themselves, the Home Community Care Program cannot provide assistance and it is up to their family to provide support and assistance. These community members needing dialysis have to store the dialysis equipment and all related treatment materials in their own homes and independently manage their proper storage.

Food security is a pressing issue in the community, as it often necessitates assistance to individuals facing financial constraints through the Band due to high food costs in the community (Northern Store). The band frequently utilizes an account with the Northern Store to get groceries. According to personnel at the Home Community Care Program, Webequie should consider an alternative community grocery store (i.e., alternative to the Northern Store), as the prices in the Northern Store are three times more than in other communities. However, it was acknowledged that the cost of shipping to the community is substantial when placing an order for the community.

To add to ongoing health concerns in the community, the COVID-19 pandemic instilled a greater inclination among individuals to remain in their homes, driven by fear and resulting in feelings of depression and loneliness, making them seek reasons to avoid venturing outside.

Overall, staff from the Home Community Care Program would like to provide in-home visits for those experiencing disabilities or impairments in the future by expanding the program and by enhance the scope of services offered. The Home Community Care Program staff also believe that the Webequie Supply Road, if built, would improve quality of and access to health care services for community members.

#### 5.14. Gaps and Limitations

Gaps and limitations noted in the preparation of this baseline health profile include:

- Birth rates and death rates for Webequie First Nation are unavailable.
- Low response rate to circulated Webequie community health survey (27 respondents)

## 6. ASSESSMENT

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As described previously, the assessment process in HIA involves: (1) developing a baseline community profile, (2) assessing the potential impacts, (3) identifying appropriate mitigation and enhancement measures, and (4) identifying net health effects after the application of mitigation measures. In this section, the effects assessment methodology has been applied (Section 2.2.1).

The HIA Team was able to rely on data and information collected as part of the IA process for the Project. The HIA relies on the project scenario as laid out in the Impact Statement in order to assess potential effects on human health and well-being.

The assessment of health effects starts from the higher-level determinants of health, i.e., the structural / Level 3 determinants of health, then the intermediate and finally the proximal determinants of health.

Where possible, health linkages diagrams and figures have been provided that demonstrate the interconnections between the determinants of health being evaluated, as well as pathways through which social, economic, and cultural impacts can lead to changes in physical and mental health and wellbeing.

### **Mitigation and Enhancement Measures**

Webequie First Nation has contributed to a Community Readiness Plan (AtkinsRéal, 2024k) that describes various mitigation and enhancement measures related to the Project and its activities. The community plans a Community Readiness Working Group, formed of community members, members from other impacted First Nations, Indigenous community organizations, provincial and federal representatives, and the Webequie Supply Road contractors (AtkinsRéal, 2024k). The Community Readiness Working Group, to be led by Webequie First Nation, is proposed as a body that will oversee the further development and implementation of the Community Readiness Plan. The Community Readiness Plan should be considered the main source of community-recommended mitigation and enhancement measures. In this health assessment, these measures, as relevant, are re-iterated from a human health standpoint.

### 6.1. Structural / Level 3 Determinants of Health

These are higher-level systemic factors that are out of control of individuals and communities that can have an effect on how the intermediate and proximal determinants of health are impacted by the Project.

#### 6.1.1. Colonization and Trauma from Residential Schools

##### 6.1.1.1. Colonization and Trauma from Residential Schools and Health

*“As a powerful root determinant of health, the colonization of what is now known as Canada cannot be overstated. The imposition of foreign cultures, governance structures, and ideologies profoundly reshaped the lives of Indigenous Peoples.”*

(Loppie & Wien, 2022).

Indigenous peoples have experienced a system of settler colonization that has aimed to eliminate Indigenous societies through control exerted over Indigenous identity and displacement of Indigenous peoples from their land. The Indian Act of 1876 regulated Indigenous identity, land, and socio-economic

structures, and Indigenous peoples have been further influenced by colonial legislations and attitudes (Irving, 2021). For example, reserves were established to restrict the movement of Indigenous peoples to specific parcels of land (Allan & Smylie, 2015). Land allotments were often not sizeable, resulting in the loss of traditional hunting and gathering grounds which also influenced traditional knowledge transfer through generations. Colonial policies have influenced many intersectional factors that determine social outcomes, including self-identification, self-governance, and social-economic factors (Irving, 2021). The Indian Act also diminished the roles and duties of women in historically matriarchal and/or matrilineal Indigenous communities, restricting their participation in government and establishing "Indian" identity based on male lineage (Blair, 2005; Stevenson, 2011).

By aligning religion and government, the Western colonizers, in 1867, granted churches authority over education of Indigenous peoples in the lands being colonized, and Indian Residential Schools emerged as the chosen means of assimilation (Truth and Reconciliation Commission, 2015). The colonizers attempted assimilation of Indigenous peoples to 'Western' society through the residential school system has had a profound and multi-generational impact on Indigenous individuals, families, communities, and Nations (MacDonald & Steenbeek, 2015; Loppie & Wien, 2022).

*"For more than 100 years, the aim of these schools was to "kill the Indian in the child" by attempting to destroy the cultures, languages, family ties, and community networks of approximately 150,000 First Nations, Inuit, and Métis children."*

(Facing History and Ourselves, 2021, as cited in Loppie & Wien, 2022, pp. 17)

As colonialism produces social, political and economic inequalities, it is a determinant of health that is the basis for all other social determinants of health for Indigenous peoples (Reading & Wien, 2009). The disproportionate burden of negative physical, mental, emotional and spiritual wellness outcomes among the Indigenous peoples of Canada have been linked to current and historic colonialism, and the traumatic impact of the residential school system (Wilk et al., 2017). The list of negative health outcomes and inequities associated with colonialism and the residential school system legacy is almost non-exhaustive and permeates every aspect of health (e.g., shorter life expectancy, poorer self-reported general health on reserve, poorer self-reported mental health, increased prevalence of chronic health conditions, etc.) (Loppie & Wien, 2022). This is also represented more holistically in Figure 6-1 below. Colonial policies and health inequities have created barriers to accessing health care services (i.e., policy, racism, poverty, and unemployment) and inappropriately placed blame on individuals with intergenerational trauma rather than on the colonial structure that created the barriers (Nelson & Wilson, 2017).

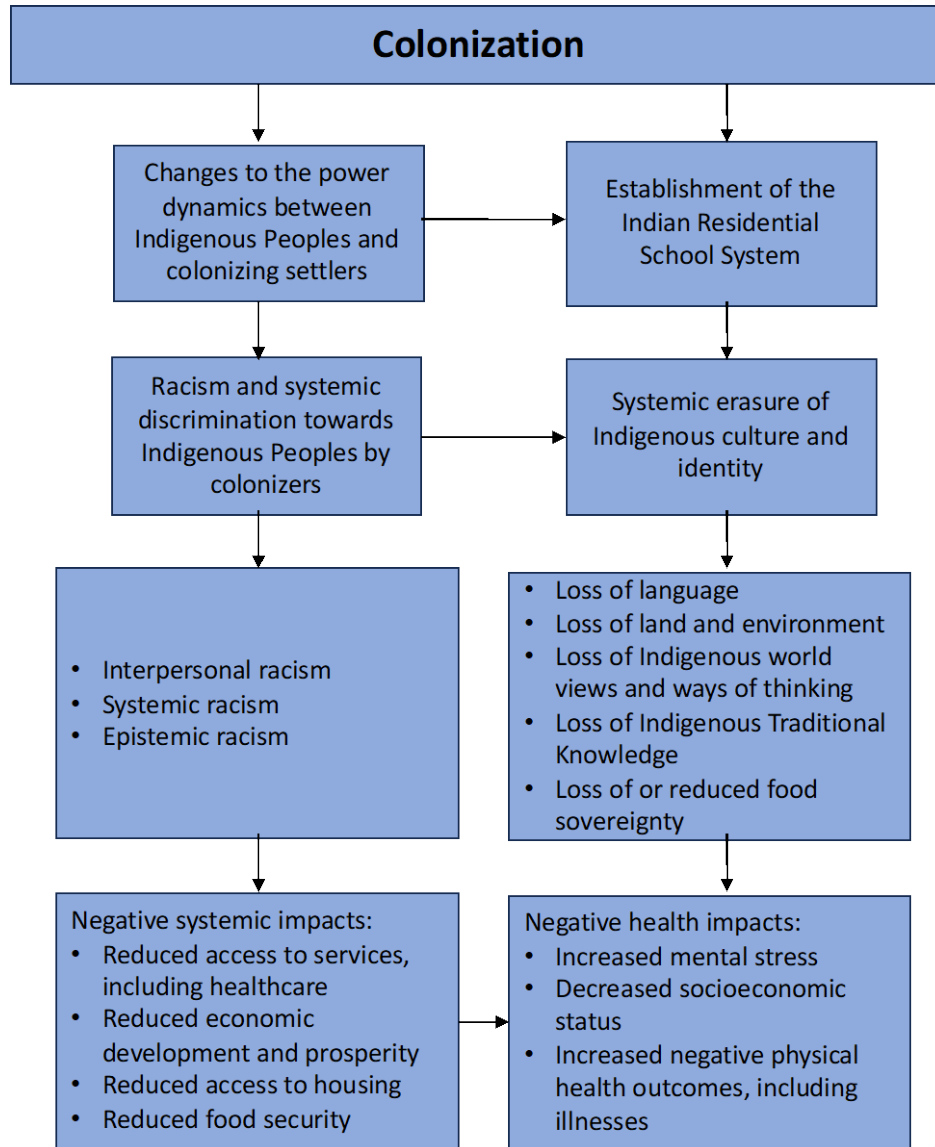


Figure 6-1: The systemic impacts to Indigenous peoples due to colonization

The residential school system began operation in 1867, and carried out a host of atrocities, including harsh discipline, loss of culture, isolation from family, and physical, verbal, sexual and emotional abuse, against Indigenous Peoples for over a century (Loppie & Wien, 2022). The residential school system contributed to a burden of poorer wellness outcomes among the Indigenous population (e.g., increased rate of infectious and chronic diseases, mental distress, stress, depression, addictive behaviours, substance use, and suicidal behaviours) (Wilk et al. 2017). Due to the intergenerational nature of the trauma experienced by those who attended residential schools, the impact of the trauma that was experienced continues to ripple through Indigenous Nations, and influences the health of children, youth, and adults who never attended a residential school directly, but who have been impacted by epigenetic changes in addition to social influences (Bombay et al., 2014). Intergenerational trauma from residential schools has been linked to the inheritance of diseases (e.g., Type 2 diabetes, Alzheimer’s disease, depression, and addiction) (Loppie & Wien, 2022). The influence of colonialism and residential

schools on the health of Indigenous peoples is complex, but it is clear that there are influences on every aspect of health that are still being quantified, researched, and acknowledged (Wilk et al., 2017).

#### 6.1.1.2. Existing Conditions

In Webequie, intergenerational trauma, and its continued effects in the community, is a major concern, specifically related to historical trauma associated with colonization and the residential school system (SNC, 2023). There are community members who attended residential schools, which has resulted in continued trauma that affects their personal and community life, and thus creates difficulty in performing everyday tasks (SNC, 2023). Community members shared that residential school attendance caused cultural impacts, including loss of identity, parenting skills, and traditional knowledge (SNC, 2023).

Children removed from the Webequie community were taken to St. Anne's Residential School in Fort Albany, approximately 400 km away which was open from 1906 until 1976 (National Centre for Truth and Reconciliation, n.d.b). Twenty-four children died while the school was government-run (National Centre for Truth and Reconciliation, n.d.b).

The historical trauma of colonialism carried by Indigenous peoples has caused a lack of trust and feelings of hopelessness in government processes such as Impact Assessments, where Indigenous communities fear the violation of their Treaty rights and believe that their needs are left unheard and unaddressed (Myette & Riva, 2021). From interviews, members expressed concern for Indigenous youth who are born into a society of systemic racism, discrimination, cultural genocide, and trauma from residential schools (Intrinsic, 2023b). Many community members are dealing with trauma from being born into or enduring a broken system where they lost their cultural lands and their way of life was disrupted (Intrinsic, 2023b). Elders have expressed the need to work through intergenerational trauma that is stuck in the body by performing spiritual ceremonies, stating that trauma can affect both mental and physical health (Intrinsic, 2023b).

Indigenous women and children have been subject to many historical and socio-economic factors which have contributed to different types of traumas. This can include having witnessed or experienced sexual assault, the relocation of Indigenous communities and being forced into new settlements, and suffering associated with residential schools (Intergroup, 2024). The collective trauma held by Indigenous peoples in Canada has led to net historical violence being passed on to new generations (Intergroup, 2024). Indigenous women and youth are at a higher risk of experiencing gender-based violence given the existing systemic challenges on reserves, where there are often few services, programs, and opportunities to support them (Intergroup, 2024). Knowledge holders expressed concern for women and their ability and willingness to seek social support and services in the community due to social stigmas because of the shame taught by residential schools (SNC-Lavalin, 2022a). The traumas brought on by the residential school system remain within the community and continue to negatively impact the mental health and substance use addictions challenges of Webequie members (Intergroup, 2024).

#### 6.1.1.3. Effects Assessment

##### Construction Phase

##### Direct effects

There are not anticipated to be any direct effects.

### Indirect effects

The Webequie Supply Road Project may provide the community with positive economic growth and development due to the number of employment opportunities available during the construction phase (AtkinsRéalis, 2024h) (Table 6-6). This will improve the physical and mental wellbeing of Webequie First Nation by enhancing the community's right to self-determination and self-governance (i.e., determine its own path by overcoming systemic marginalization due to pre-existing colonial policies) and access to services, including mental health services to address the intergenerational trauma in the community.

However, the Project may temporarily disrupt access to traditional lands and ways of life during the construction phase by temporarily disrupting hunting, fishing, and ceremonial practices potentially leading to dislocation and a temporary loss of identity. This may amplify feelings of colonial control and exploitation of land, which may bring up past trauma from displacement and land theft. As mentioned, these impacts may be temporary and last only as long as construction activities disturb land meant for traditional hunting, fishing and ceremonial practices.

Even though it is expected that construction camps will be 'dry', as discussed in Section 6.3.2, construction of the Webequie Supply Road may also allow for easier entry of illegal drugs and alcohol into the community via outside construction workers (Intrinsic, 2023b; SNC-Lavalin 2022a; SNC-Lavalin 2022b). This is a possibility during the construction phase. This may further temporarily exacerbate existing addiction issues, many of which are linked to intergenerational trauma rooted in experiences from residential schools. This could then temporarily lead to higher rates of substance use and mental health issues, which could increase dependency on healthcare system within the community.

### Operations Phase

#### Direct effects

There are not anticipated to be any direct effects.

#### Indirect effects

As mentioned above, the Project may provide a link to employment opportunities in the Ring of Fire area and promote positive economic growth and development due to the number of employment opportunities available. The project itself is only projected to provide four jobs during the operations phase (AtkinsRéalis, 2024h). Should there be increased jobs due to the link with the Ring of Fire, it will improve the physical and mental wellbeing of Webequie First Nation by enhancing the community's right to self-determination and self-governance (i.e., determine its own path by overcoming systemic marginalization due to pre-existing colonial policies), economic growth and access to services, including mental health services to address the intergenerational trauma in the community. During interviews and focus group discussions, community members indicated that they believed the Webequie Supply Road would help address the impacts of colonization and the intergenerational trauma in the community (Intrinsic, 2023a; Intrinsic, 2023b).

As discussed in Section 6.3.2 and above in 'Construction Phase', the Webequie Supply Road may also allow for easier entry of illegal drugs and alcohol into the community (Intrinsic, 2023b; SNC-Lavalin 2022a; SNC-Lavalin 2022b). During the operations phase this may be due to outsiders who gain entry into the community through the Webequie Supply Road, and also through community members who can easily access other areas (i.e., in the Ring of Fire) through the Webequie Supply Road. This may further exacerbate existing addiction issues, many of which are linked to intergenerational trauma rooted in experiences from residential schools. This could lead to higher rates of substance use and

mental health issues, which could increase the dependency on the healthcare system within the community.

#### 6.1.1.4. Mitigation / Enhancement Measures

Note: some of the mitigation/enhancement measures for the construction and operations phases may be the same.

##### Construction Phase

1. Mitigation measure: Webequie First Nation will consult with community members throughout the construction phase to provide regular updates regarding construction activities that may impact traditional activities on the land, so community members are prepared for the changes. The contractor should consider avoiding impacts to traditional land activities as much as possible. The overall aim should be for the contractor to learn about cultural protocols and avoid actions that could exacerbate trauma, such as disrupting sacred lands or cultural sites.
2. Mitigation measure: Webequie First Nation and the contractor should aim to limit as much as possible outsiders working on construction on the Project from entering the community. This may limit the amount of illegal drugs and alcohol from entering the community, and limit impacts to mental health.
3. Mitigation measure: Webequie First Nation should consider working with the Province to increase access to trauma-informed mental health services and traditional healing practices for community members such as counselling, support groups, and healing circles.
4. Enhancement measure: Webequie First Nation should work with the contractor to help ensure that the Webequie Supply Road Project creates as many employment opportunities for community members as possible, including investing in training programs to build community capacity.

##### Operations Phase

1. Mitigation measure: Webequie First Nation should aim to limit, as much as possible, outsiders from entering the community through the Webequie Supply Road. This may limit the amount of illegal drugs and alcohol from entering the community, and limit impacts to mental health.
2. Enhancement measure: Webequie First Nation should aim to help ensure that the employment and economic growth opportunities that may result due to the Webequie Supply Road Project creates sustainable employment and positive growth in income for most community members (men, women, youth, 2SLGBTQ+ individuals, those with disabilities, etc.). This will help most members of the community access the services they need to address the trauma and mental health issues due to residential schools and colonization.

#### 6.1.1.5. Net Effects

##### Construction Phase

While the mitigation and enhancement measures are intended to address the worsening of intergenerational trauma in the community due to the Webequie Supply Road Project, it is possible that there may still be some temporary adverse net effects with low magnitude due to limitation of traditional land activities and increase in mental health issues due to increased substance use.

### Operations Phase

While the mitigation and enhancement measures are intended to address the worsening of intergenerational trauma in the community due to the Webequie Supply Road Project, it is possible that there may still be some small adverse net effects due to increase in mental health issues due to increased substance use.

The availability of jobs and economic opportunities may improve access to mental health services in the community and net positive effects to mental health and wellness and go some way to address intergenerational trauma from residential schools.

## 6.1.2. Racism and Social Exclusion

### 6.1.2.1. Racism and Social Exclusion and Health

“Racism is a social injustice based on falsely constructed, but deeply embedded, assumptions about people and their relative social value; it is often used to justify disparities in the distribution of resources.”

(MacKinnon, 2004 as cited in NCCIH, 2014).

*“In the healthcare system, personally-mediated racism impacts quality of care for racialized persons”.*

(Raphael et al., 2020).

Indigenous peoples have experienced racism, discrimination, oppression, and assimilation since contact with European colonizers. European colonizers imposed Western laws, social hierarchy, economic dominance, and power distributions that have influenced Indigenous health and wellness across generations (Reading & Wien, 2009). Racism and social exclusion permeate every intermediate, proximal, and distal social determinant of health through the creation and implementation of policies that create barriers, and enforce inequities for Indigenous people’s access, use, and relation to social, economic, political, and health care services (see Figure 6-1 above). The obstacles created by racist and socially exclusive policies can result in negative wellness outcomes for Indigenous peoples and contribute to the higher rates of acute and chronic health conditions documented in Indigenous populations (Reading & Wien, 2009; NCCIH, 2014). For example, youth who experience racism and social exclusion have a higher rate of alcohol and substance use than those who lack this experience (Mignone & O’Neil, 2005). However, First Nations that invest in cultural continuity, traditional knowledge transfer, and community inclusion can increase the cultural identity of youth, stimulate healing, and provide a protective factor for youth mental wellness (Mignone & O’Neil, 2005).

Racism is expressed in health care settings, which impedes Indigenous peoples’ access to necessary care services. Longer wait times, fewer referrals, disrespectful treatment, and lack of culturally appropriate treatments or demeaning attitudes towards traditional healing are hallmarks of racism towards Indigenous peoples in health care settings (as cited in NCCIH, 2014), and can result in poorer health outcomes. Over time, racist treatment toward Indigenous peoples results in a lack of trust in the system, which perpetuates a cycle of lack of access, lack of treatment, poorer health and wellness outcomes, and a disproportionate burden of disease and ill-health among Indigenous people (NCCIH, 2014).

Racism and discrimination by European settlers towards Indigenous peoples has contributed to demeaning attitudes and violence towards Indigenous women:

*“In addition to imposing patriarchal norms, colonizers depicted Indigenous women as inferior to European women in beauty and morality, leading to justification of widespread sexual exploitation, assault, and murder.”* (Ministry of Public Safety & Solicitor General, 2019; Tucker, 2016 – as cited in Loppie & Wien, 2022).

As per the Survey of Safety in Public and Private Spaces (Statistics Canada, 2022c), physical assault and sexual assault by non-intimate partner (perpetrator with whom the victim did not have an intimate relationship) has been committed against 42.7% and 43.2% of Indigenous women, as compared to 25.6% and 29.9%, respectively, of non-Indigenous women, a statistically significant difference. Colonialist ideologies and the influence of the patriarchy on Indigenous societies has had long-lasting impacts on the position of Indigenous women in society (McKinley et al., 2021). The purposeful exclusion of Indigenous women in community decision-making, consultations, and negotiations, particularly with respect to resource projects, highlights gender inequities that are further perpetuated when industry and government fail to adequately engage Indigenous women on matters concerning themselves, their families, and their communities (Bond & Quinlan, 2018).

#### 6.1.2.2. Existing Conditions

Racism is currently experienced by those who have had to travel outside the community to seek healthcare, especially Elders who may not speak English fluently (Intrinsic, 2023b). Nurses in elder care homes do not pay as close attention their patients who are Indigenous, which means Indigenous peoples may experience a decrease in the quality of care their receive when seeking healthcare outside their community (Intrinsic, 2023b).

Community members also expressed that they experience racism from professionals such as teachers, doctors, nurses, or police (Intrinsic, 2023a, 2023b). 44% of respondents to the health survey in Webequie identified that racism and/or other forms of discrimination in health care presented a barrier to accessing health services they needed (Intrinsic, 2023a; results should be interpreted cautiously due to low sample size). They have said they also experience racism when seeking education outside of the community, and in extreme cases, this ends in violence (Intrinsic, 2023b, 2024).

#### 6.1.2.3. Effects Assessment

##### Construction Phase

##### Direct effects

There are not anticipated to be any direct effects.

##### Indirect effects

Should it make logistical sense, community members working in construction jobs may have to live in construction camps with non-community members, and it is possible that these members may experience feelings of loneliness and isolation, and experience racism from external workers who join the construction work force. Due to this negative treatment, members of the community may develop negative health outcomes (i.e., stress, substance use, and mental wellness struggles). Further, there could be negative effects to the workers’ family as they are without a family member during shifts, and when the worker returns there could be feelings of isolation and resentment. Experience suggests that Indigenous men employed by major resource projects can face racism and discrimination from other employees which can be a catalyst for family violence against women, children and elders when they return home (Gibson et al., 2017; Intergroup, 2024). First Nations women experience slightly higher

rates of physical or verbal aggressions at the work place or school when compared to men (Table 5-35). During construction activities for the Webequie Supply Road, women will be at higher risk for experiencing racism and aggressive behaviours from others.

#### Operations Phase

There are not expected to be any impacts to Webequie First Nation related to racism and discrimination during the operations phase of the Webequie Supply Road. It is not known how many outsiders would have access to Webequie First Nation during the operations phase, and as such it cannot be anticipated what, if any, impacts there would be during the operations phase.

#### 6.1.2.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing regular mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.
2. Mitigation measure: The contractor should establish and enforce zero-tolerance policies on racism and violence in the workplace, which can help to provide a safer, more understanding work environment for Indigenous employees and encourage the potential Indigenous employees.

##### Operations Phase

No measures needed.

#### 6.1.2.5. Net Effects

##### Construction Phase

While the mitigation measures are intended to address racism and social exclusion, there may still be some small adverse net effects despite these efforts. Some of these effects stem from the complexity and long-standing nature of the issues being addressed. There is a risk that community members may still be exposed to racism and discrimination from outside workers, increasing risk to their safety and security and impact their health.

##### Operations Phase

No net effects to health are anticipated.

#### 6.1.3. Local Economic Growth

##### 6.1.3.1. Local Economic Growth and Health

*“[C]ommunity ownership and the acknowledgment of the importance of long-term profitability and growth of businesses created, not as an end but as the means to an end... [some of which] included the creation of employment with characteristics that ‘fit’ the interest, capabilities, and preferred lifestyles of community members; control of traditional lands and activities on these lands; and the creation of wealth to fund education, health and wellness, housing, and other social programs.”*

(Anderson et al, 2006).

The economic health of Indigenous communities has important effects on the health of its residents. Just as cities and towns with more economic resources are able to enhance the health of their citizens by investing in and improving these services, as well as the infrastructure, Indigenous communities who experience economic prosperity, can improve services and housing for community members. Hence, activities or developments that increase economic growth can also positively impact the health of the local community. Figure 6-2 below indicates the broad relationships between transport interventions, funding, well-being and economic development. Transportation projects, such as the Webequie Supply Road, can play a role in economic development, which can in turn have positive social and health impacts. Factors such as public opinion and available funding play a huge role in the type and scale of transportation investments (Ministry of Transport, 2016). The direct major downstream impact of having a new transportation system, such as a road, is the improvement in accessibility and mobility effects, which is not to say that sometimes new transportation projects may have negative effects, such as increased access to illicit substances and criminal activity, including sex trafficking.

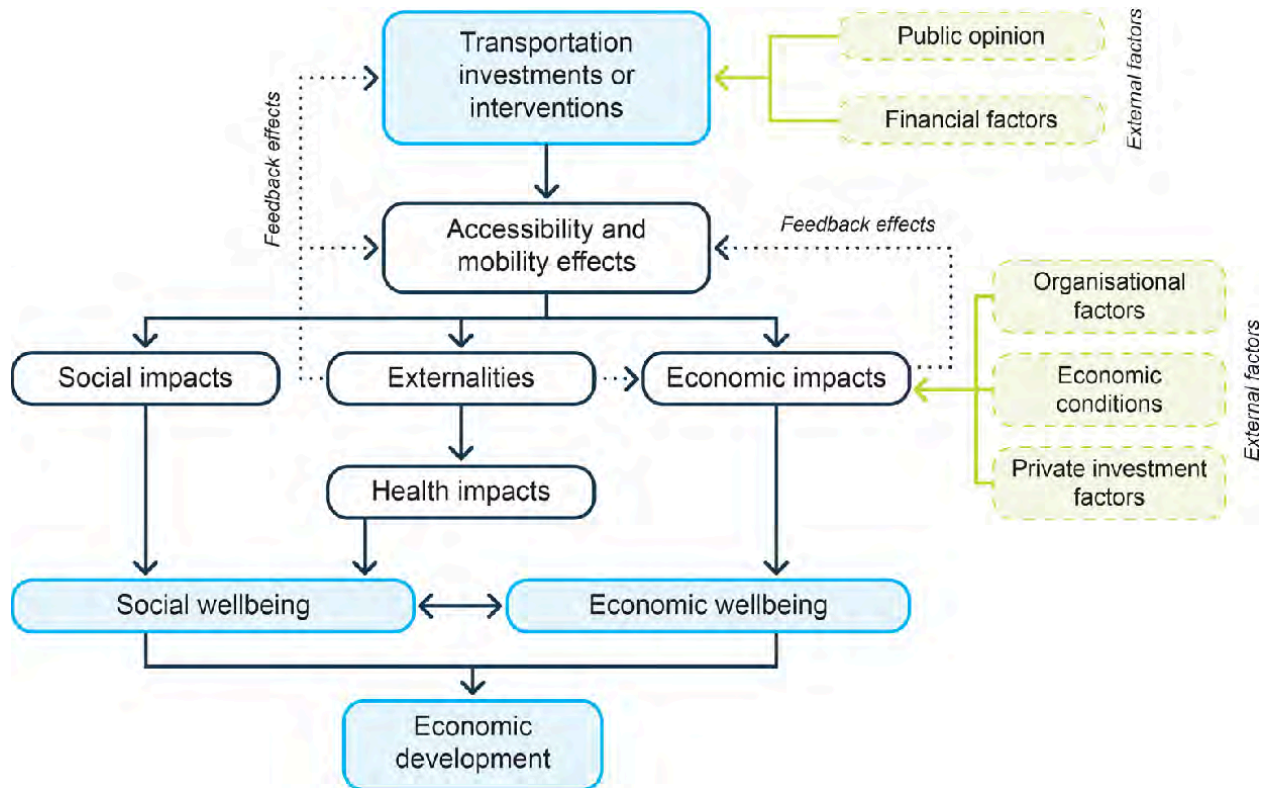


Figure 6-2: Transport and economic development – key connections (taken from Ministry of Transport, 2016)

Economic development leads to growth in employment and incomes, and a growth in demographics, however, development must be undertaken carefully in order to achieve maximum results for a community with minimum negative social, cultural, spiritual and economic impacts from the development.

### 6.1.3.2. Existing Conditions

Webequie First Nation is currently involved in the following economic initiatives (SNC-Lavalin, 2023):

- Management of the Webequie Business Centre;
- Advisory role for Northwest Company’s Northern Store;
- Business assistance for Webequie Motel;
- Collaboration with provincial and federal government; and
- Assistance with proposed construction of a new Community Readiness & Wellness Center.

In Webequie First Nation, industries with the highest growth between 2018 and 2022 include public administration (i.e., 68%), educational services (i.e., 35%), and healthcare and social assistance (i.e., 35%) (SNC-Lavalin, 2023). Within Webequie most of the demand for goods and services is met through imports (i.e., 97%) (SNC-Lavalin, 2023).

Webequie First Nation currently relies on government funding to develop infrastructure and services within the community as they do not have any major income generating mechanisms at this time (AtkinsRéalis, 2024h). The current demands and needs for employment in the community are unable to be met with the current economic potential of Webequie First Nation. The progress of Webequie First Nation’s economic growth is being slowed by gaps such as housing, utilities, education and training (AtkinsRéalis, 2024h). In comparison to the Provincial standard, the average annual income in Webequie First Nation is very low (AtkinsRéalis, 2024h) (see Section 6.2.6). This creates higher poverty levels and allows for less spending within the community.

However, future mining activities in the Ring of Fire area, to which the Webequie Supply Road will provide direct access, and increased economic activities are being considered by the community (AtkinsRéalis, 2024h).

### 6.1.3.3. Effects Assessment

#### Construction Phase

##### Direct and Indirect effects

The overall economy in both the LSA and RSA will be positively affected by the increased spending during the Project’s construction phase. The table below outlines the direct, indirect, and induced effects of the Project on GDP, labour income, and jobs during the five-to-six-year construction phase.

**Table 6-1 Direct, Indirect, and Induced Effects of Project Expenditure, Webequie First Nation, Total Construction Phase**

Effect	GDP	Labour Income	FTE Years of Employment
Direct	\$38,401,630	\$9,372,990	50
Indirect	\$31,959	\$20,282	0
Induced	\$2,707,645	\$1,110,829	19
<b>Total</b>	<b>\$41,141,235</b>	<b>\$10,504,100</b>	<b>69</b>

Source: Avaanz Ltd., 2024; AtkinsRéalis, 2024h.

During the construction phase, there will be a total effect on GDP of \$41,141,235, approximately 44% of which is attributed to the first year of construction. 93% of the effects on Webequie First Nation’s GDP is due to the direct Project activities and expenses (AtkinsRéalis, 2024h). Direct, indirect, and induced effects on local business activities and labour opportunities locally will occur during the construction

phase of the Project, because of increased local Project employment and expenditures. Household spending could then increase as business, employment, and household income are positively influenced by the new economic and employment activities from the construction phase (AtkinsRéalis, 2024h).

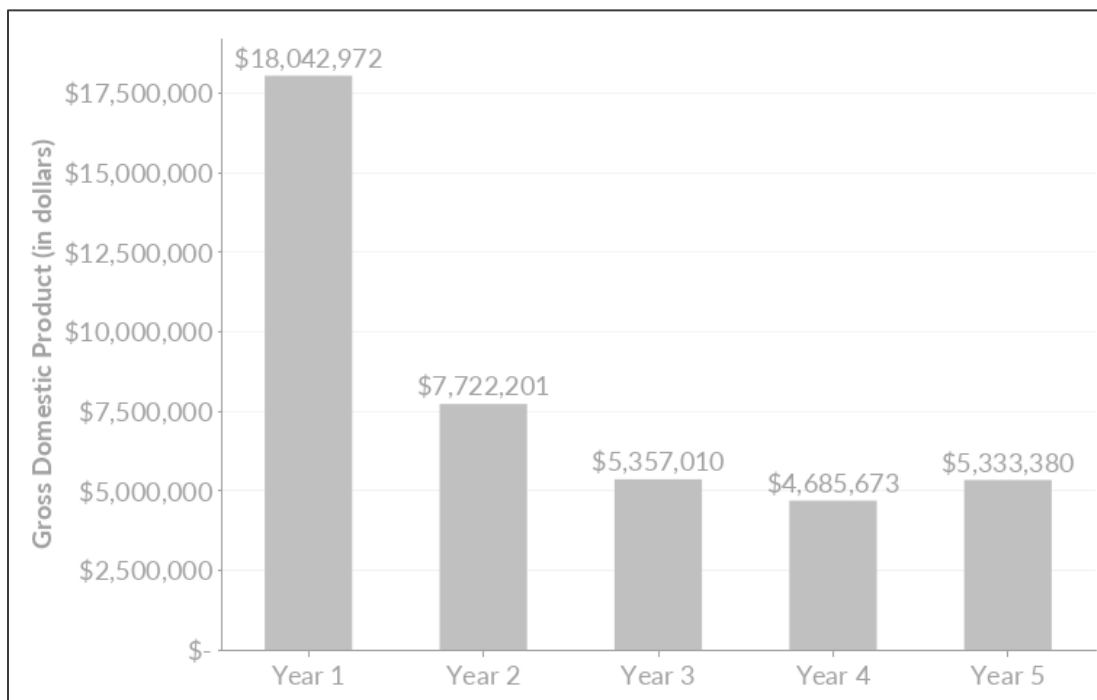
The table below provides an annual breakdown of the Project’s construction phase effects on Webequie First Nation’s overall economy.

**Table 6-2 Total Effects of Project Expenditure, Webequie First Nation, Construction Phase by Year**

Year	GDP	Labour Income	FTE Years of Employment
2028	\$18,042,972	\$2,203,795	17
2029	\$7,722,201	\$1,977,201	14
2030	\$5,357,010	\$2,056,673	13
2031	\$4,685,673	\$2,073,498	13
2032	\$5,333,380	\$2,192,934	13
Total	\$41,141,235	\$10,504,100	69

Source: Avaanz Ltd., 2024; AtkinsRéalis, 2024h.

Increased workforce participation and further development of existing and new businesses to participate in the supply chain could increase Webequie First Nation’s capture of these effects to the overall economy. 50 direct on-site employment positions are expected to be filled by Webequie First Nation over the construction period (AtkinsRéalis, 2024h) (also see Section 6.2.6 ‘Employment and Income’).



**Figure 6-3 Project Effect on GDP for Webequie First Nation, Construction Phase** Source: Avaanz Ltd., 2024; AtkinsRéalis, 2024h

Positive economic growth in the Nation will promote better jobs and availability of services, which in turn has the potential to increase socioeconomic status and improve health and wellbeing in the community, especially for those who benefit from jobs. During this phase it will be important to identify ways in which diverse population groups in the community benefit equally, so some are not left behind. Women, youth, individuals with disabilities may not benefit as much as men, if measures are not put in place before construction starts (see Section 6.1.3.4 below).

Operations Phase

Direct and Indirect Effects

Due to the remoteness of Webequie, transporting goods to the community is significantly more costly than areas further south in more urban areas contributing to the high cost of living associated with remote fly-in communities. Based on responses received from the socio-economic survey, it was found that community members are hopeful that the Webequie Supply Road will bring improvements to the economy, including better food and gas prices (AtkinsRéalais, 2024h). Community members also hope that employment and business opportunities will increase leading to improvement in the cost of living, and community involvement, because of the Webequie Supply Road (AtkinsRéalais, 2024h).

Webequie First Nation will have access to the Ring of Fire after the completion of the Webequie Supply Road (AtkinsRéalais, 2024h). It is expected that this will significantly increase access to economic opportunities, specifically surrounding the Ring of Fire area (AtkinsRéalais, 2024h).

Table 6-3 Annual Direct, Indirect, and Induced Effects of Project Expenditure, Webequie First Nation, Operations Phase

Effect	GDP	Labour Income	Jobs
Direct	\$306,933	\$257,651	3
Indirect	\$217	\$136	0
Induced	\$110,480	\$44,718	1
Total	\$417,630	\$302,505	4

Source: Avaanz Ltd., 2024; AtkinsRéalais, 2024h.

Both the construction and operation phases of the Project will result in Webequie’s overall economy being positively affected. This is mostly related to direct project activities. Community members are hopeful that the cost of living (e.g., gas prices, grocery costs) will decrease because of the Project (AtkinsRéalais, 2024h) (also see Section 6.2.6 ‘Employment and Income’).

The other LSA communities will also be positively affected by the construction and operation phases of the Project by increasing economic development activities in the area including business development, access to services, advisory services, and employment counselling (AtkinsRéalais, 2024h). The RSA’s overall economy will also be positively affected by the Project in a similar manner.

As discussed in “Construction Phase’ above, positive economic growth in the Nation will promote better jobs and availability of services, which in turn has the potential to increase socioeconomic status and improve health and wellbeing in the community, especially for those who benefit from jobs. It will be important to identify ways in which all community sub-groups, including women, youth and those with disabilities benefit just as much.

#### 6.1.3.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Enhancement measure: During the construction phase, it is recommended that Webequie First Nation consider the ways in which the construction phase of the Project may boost local business development, financial independence for the Band, development of business relationships with surrounding Indigenous and non-Indigenous communities, and employment opportunities (also see Section 6.2.6 ‘Employment and Income’) for community members.
2. Enhancement measure: Local economic growth should not leave women behind. Economic growth opportunities that include and seriously consider women’s needs and feedback should be actioned.
3. Enhancement measure: Prior to construction, it is suggested Webequie First Nation develop a Businesses Development Plan to:
  - Outline an inventory of local and/or Indigenous-owned companies that can be used throughout the construction phase to invest in the participation of businesses from Webequie First Nation and surrounding communities.
  - Include women in the development of the Business Development Plan and ensure the plan includes roles for women with equitable-paying opportunities.
  - Identify specific Project services that would be targeted to local and/or Indigenous-owned businesses.
  - Set procurement targets (e.g., total contract value) for the participation of local and/or Indigenous businesses in Project construction. Procurement policies for the recruitment, development, and retention of underrepresented groups of Webequie First Nation, other LSA communities and the RSA in the Project may include setting Mandatory Minimum Indigenous Requirements to hit targets for employment of specific groups like women, youth and individuals with disabilities (AtkinsRéalis, 2024h; 2024k). Additional support for underrepresented groups, such as women, youth and individuals with disabilities, could be provided through opportunities such as job shadowing, mentorship programs, and paid internships.
  - Specify how contracts should be released by the Project management to maximize Project participation by local and/or Indigenous owned businesses. This may include providing information on advanced notice of procurement opportunities (e.g., public announcements, advertisements) and establishing clear and equitable certification processes for local and Indigenous businesses (Mines Canada, 2024 and CCAB 2021 as cited in AtkinsRéalis, 2024k). This may further include providing a clear definition and requirements of local and Indigenous businesses and/or asking Webequie First Nation to define eligibility criteria for their businesses, maintaining a list of qualified businesses, increasing the time to submit bids, and reducing technical requirements in order to reduce barriers for Indigenous business participation and encourage new Indigenous business owners (Indigenous Services Canada, 2019; AtkinsRéalis, 2024k).

### Operations Phase

The enhancement measures recommended for the construction phase are also applicable to the operations phase, as once the Webequie Supply Road is operational, it is expected that advancement of mining development in the Ring of Fire area will induce economic development in not just Webequie First Nation, but also the surrounding Indigenous communities.

A big part of the overall economic development of Webequie First Nation will be to ensure that future economic opportunities include equal representation of women, and include the provision of child care and long-term care facilities, so women can join and help in building the economy.

Although this health impact assessment of the Webequie Supply Road Project focuses mainly on the impacts of the Webequie Supply Road, once it is operational, there will be additional regional growth to be considered, which is addressed in the regional assessment of the Ring of Fire development.

#### 6.1.3.5. Net Effects

##### Construction Phase

There are no adverse net effects to health expected.

Based on the Economic Effects Assessment (AtkinsRéalis, 2024h), the construction phase of the project will stimulate the economic activities in the region, and especially within the Webequie First Nation and other LSA communities via material procurement, labour and employment, services contracting and similar which in turn will increase GDP levels. If this boosts income, there will be a positive net effect to health.

##### Operations Phase

There are no adverse net effects to health expected.

Based on the Economic Effects Assessment (AtkinsRéalis, 2024h), during the operation phase, by improving connectivity and reducing transportation costs, the Webequie Supply Road will boost GDP through enhanced economic activity and productivity. Businesses can benefit from reduced travel time and expenses to McFaulds Lake, leading to increased disposable income and higher spending on goods and services, which will have positive net effects to health and wellbeing. Additionally, the Webequie Supply Road can attract businesses and investors, fostering economic development and creating new job opportunities (AtkinsRéalis, 2024h). Improved road access can also make land more accessible for development, increasing its value and potential for new residential, commercial, and industrial projects (AtkinsRéalis, 2024h), and boost community wellbeing.

#### 6.1.4. Self-Determination and Governance

##### 6.1.4.1. Self-Determination and Governance and Health

Supporting self-determination and governance in First Nations communities means providing support to build and maintain culturally relevant governance structures in communities. Self-governance in First Nation's communities is an important factor for the health and well-being of community members (Halseth & Murdock, 2020). Culturally relevant governance structures increase feelings of empowerment, and confirmation of identity which is associated with positive physical and mental health outcomes (Halseth & Murdock, 2020). Providing Indigenous peoples with funding for only

mainstream health organizations to provide services to First Nations peoples perpetuates a lack of capacity for First Nations to address health services themselves, and therefore, prevents communities from breaking cycles based on colonial enforcement of Western biases non-traditional healing methods (Halseth & Murdock, 2020; Assembly of First Nations, 2017). To promote more positive health outcomes among Indigenous populations, governance structures that are focused on, and supported in, providing culturally appropriate social, recreational, and health services for all community members tend to promote more social cohesion, and therefore higher rates of physical and mental wellness, among community members (Assembly of First Nations, 2017; Marchildon et al, 2021). These interactions and health and wellbeing outcomes are explored in Figure 6-4.

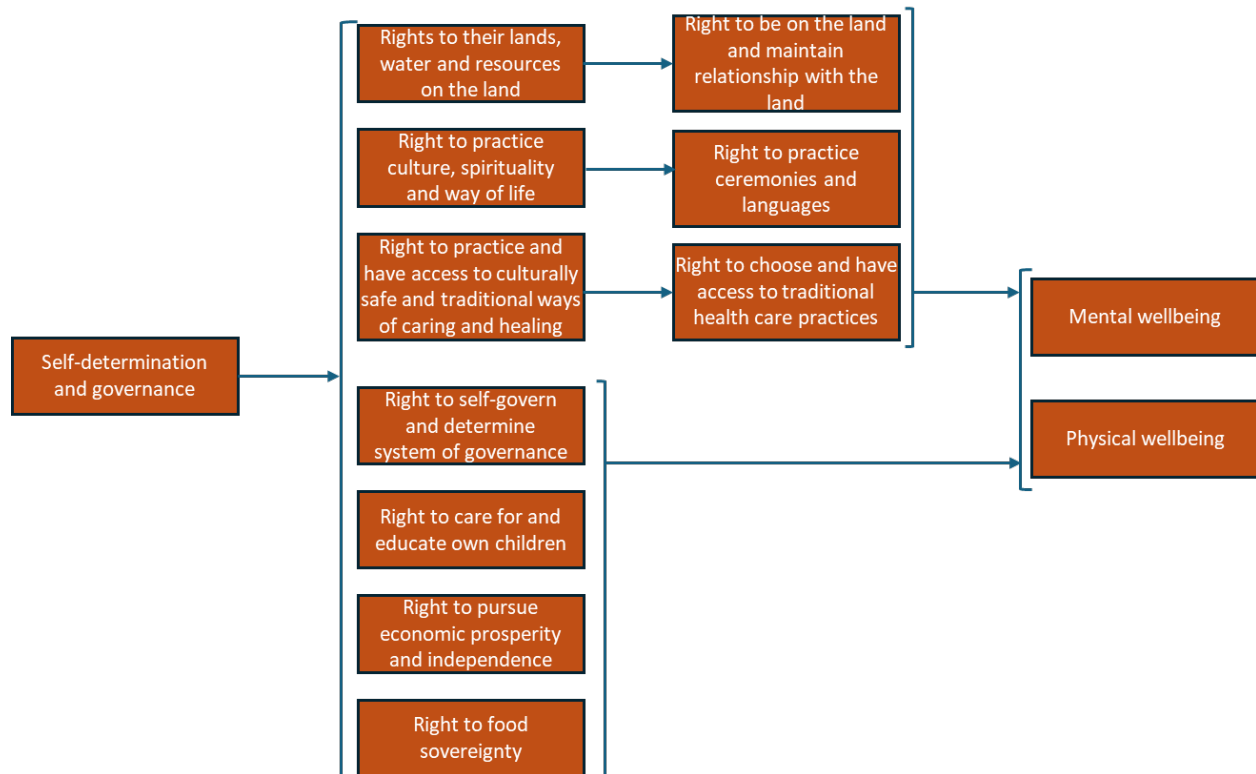


Figure 6-4: Key interactions between self determination and governance, Indigenous rights, and mental and physical well-being.

*“Often, federal, provincial and territorial health services fail to meet the needs of First Nations people... the long-term solution is health systems run by and for First Nations themselves; however, in the short and medium term, patients are left feeling disempowered by fighting a system that can be a hostile one for First Nations people.”*

(Assembly of First Nations, 2017).

Funding for self-governing First Nations is complex, and is vital for the successful delivery of Indigenous-owned culturally relevant health care services in communities (Assembly of First Nations, 2017). A fundamental barrier to health care access for Indigenous peoples stems from the colonial practice of assigning “status” to Indigenous individuals. First Nations do not classify community members based on “status”, but rather on familial relations and traditional kinship (Assembly of First Nations, 2017). Traditional funding models are often based on colonial definitions of “registered” or “status” members of the community (Assembly of First Nations, 2017). The funding is different between “status” and “non-

status” individuals in a community, with “non-status” having access to standard provincial health care rights, and “status” individuals have access to federally funded models, which tend to financially support community based, culturally relevant health care services under Community governance. The difference in colonial imposed registration status between community members has a fundamental influence on the health status outcomes for communities.

The introduction of colonial ideologies into Indigenous societies resulted in the purposeful exclusion of women from community decision making, consultations, and negotiations (Bond & Quinlan, 2018; Allan & Smylie, 2015). Prior to contact with settlers, Indigenous communities had a complex structure of self-governance that recognized women’s participation and contribution in governance and stewardship. Inheritance was passed down through the mother, including their clan and lineage (First Nations Studies Program, 2009). The purposeful exclusion of women during engagement between communities, government, and industry on matters that concern individuals, families, and community members contributes to the social suppression of women, and perpetuates ideas related to colonial patriarchy, and gender inequalities (Bond & Quinlan, 2018).

The lack of funding support for all members of the community (i.e., “status” and “non-status” individuals) restricts access to health services for all (Assembly of First Nations, 2017). Lack of Indigenous-controlled, culturally appropriate funding for health care services for all community members leads to a lack of care, and therefore an increase in negative health outcomes for residents (Lavoie, 2008). Further, this disparity in classification, based on colonial laws, creates additional barriers to “non-status” individuals living on-reserve when accessing mainstream provincial health services (i.e., lack of private transportation to services, geographic isolation, and travel restrictions due to winter weather conditions, etc.), which leads to a lack of health care accessed, and contributes to the disproportionate burden of ill-health for Indigenous peoples compared to non-Indigenous people.

#### 6.1.4.2. Existing Conditions

Webequie First Nation is a Nishnawbe Aski Nation (Treaty No. 9) First Nation (Nishnawbe Aski Nation, 2023). Treaty No. 9 was first signed in 1905-1906 and adhesions signed in 1929-1930. At the time, the Crown included clans representing the Webequie community with the Eabametoong (Fort Hope Band) (Archaeological Services Inc., 2021). In the post-Treaty years, Webequie First Nation was not recognized as having Band status until 1985 when this was received from the federal government. In 2001, the community finally received its current reserve status (SNC-Lavalin, 2023).

Webequie First Nation indicates it has inherent right to self-governance and self-determination (Webequie First Nation, 2023b). First Nations such as Webequie have elected local governance. The elected Chief and Councillors are the recognized political representatives and leadership of the community. Webequie is committed to preserving its freedom, to live their lives as they choose, and to be proud of its heritage, and the strong and thriving community that has been built (Webequie First Nation, 2023b). Webequie First Nation has a Custom Electoral System, with one Chief, one Head Councillor and five Councillors elected every two years (CIRNAC, 2023). Custom election processes follow community’s election code that provides the rules under which chiefs and councillors are chosen for those First Nations who are not under the Indian Act election rules. These codes are often unique to the specific community (Indigenous Services Canada, n.d.). At the time this report was prepared, the most recent election occurred in February 2024.

In a 2014 community well-being study conducted with Webequie First Nation, community members considered self-governance to include attending community meetings, which involved accessing information on Chief and Council decisions and initiatives, becoming aware of community reports, and

participating on community committees (SNC, 2023). It was reported that 95% of study respondents had one or more household members who engaged in some form of community self-governance (SNC, 2023).

#### 6.1.4.3. Effects Assessment

##### Construction Phase

###### Direct effects

There are no direct effects.

###### Indirect effects

As discussed in Section 6.1.4.1, a community exercising its Indigenous rights and sovereignty leads to positive health outcomes for the community. As the proponent for the Project, for the community to fulfil its right to self-determination, it is imperative that the community be involved in the planning and decision-making process for the Project throughout its construction phase. If conditions occur in which the community feels that control has been taken away from them, it may impact their identity as an independent Nation that has the right to govern itself. During community engagement, it was reinforced that members of the community would like to be involved throughout the Webequie Supply Road decision making process. It was emphasized by a member of the community that clarity with the decision-making process is very important (Intrinsic, 2024).

##### Operations Phase

###### Direct effects

There are no direct effects.

###### Indirect effects

As discussed in Section 6.1.4.1, a community exercising its Indigenous rights and sovereignty leads to positive health outcomes for the community. As the proponent for the Webequie Supply Road Project, Webequie First Nation demonstrates the community's need for the Project. Building the Webequie Supply Road would be a positive step towards Webequie First Nation increasing their self-determination and self-governance.

#### 6.1.4.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Enhancement measure: To enhance physical and mental health and wellbeing, Webequie First Nation should have a decision-making role throughout the present and future planning and development of the Webequie Supply Road.
2. Enhancement measure: the community should be provided with regular information and messaging regarding planning for the Webequie Supply Road, including challenges faced, and how they are being addressed. This will allow the community to participate in the Project throughout.

### Operations Phase

1. Enhancement measure: As was conveyed during in-person consultations, Webequie First Nation should consider how best the Webequie Supply Road can benefit the community in the long-term, with commitment to social programming in the community.

#### 6.1.4.5. Net Effects

### Construction Phase

There are no adverse net effects to health predicted. Positive net effects are predicted should the Project be approved and the community, as the Proponent, exercises its rights to self-determination and builds the Projects as per its vision.

### Operations Phase

There are no adverse net effects to health predicted. As mentioned above under 'Construction Phase' there can be expected to be positive net effects to health should the Webequie Supply Road provide a connection to the Ring of Fire area, and improve economic growth, jobs and economic, social and health programming in the community.

#### 6.1.5. Worker Accommodations (i.e., worker/construction camps)

##### 6.1.5.1. Worker Accommodations and Health

Large-scale projects can have a major impact on Indigenous communities. In addition to bringing in economic opportunities (i.e., increased employment, increased income, increased education and training opportunities, increased access to social and health services, increased business opportunities), large-scale projects require an influx of outside personnel to work in the region, either temporarily or for longer durations, and these personnel are often housed in work-camps that can significantly influence the health and wellbeing of surrounding host communities (see Figure 6-5 below). Work-camps house mobile workers who stay at the camp for their shifts and often leave after the work is complete. These workers can offer an economic boost to nearby communities as they spend a portion of their income on goods and services, but they can also increase the burden of drugs, alcohol, violence, and sexual violence in remote communities (Goldenberg et al., 2008).

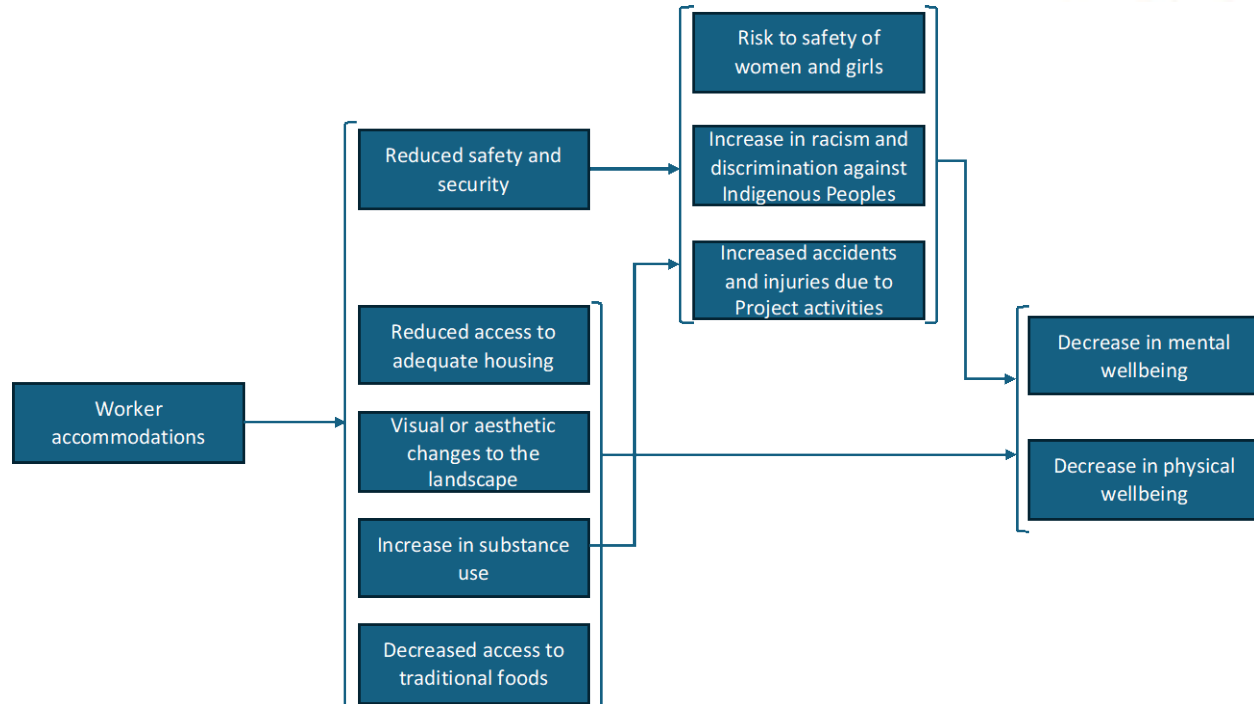


Figure 6-5: Linkages Between Worker Accommodations and Other Determinants of Health

The culture of work-camps can be one of hyper-masculinity, sexism, racism towards Indigenous Peoples, homophobia, apathy toward self-care, and disconnection from the local communities that host them, or are close to them (Goldenberg et al., 2008). Women, girls and children, and particularly Indigenous women and girls, and individuals who identify as Two-Spirit, lesbian, gay, bisexual, transgender, queer, intersex and additional sexually and gender diverse (2SLGBTQI+), are considered especially vulnerable groups when work camps are set up, as there is an increased risk of sexual assault and violence from the transient workers who enter the community (Gibson et al., 2017; Gibson & Klinck, 2005). This can be from an increase in the consumption of drugs and alcohol, or because women, girls and children can be targeted for trafficking, sexual coercion, or unwanted sexual advances (Gibson et al., 2017; Gibson & Klinck, 2005). When there is an increase in such occurrences, there is an associated increase in the need for mental and physical health services (i.e., counselling, trauma support, and Sexually Transmitted Infection testing) (Goldenberg et al., 2008; Gibson et al., 2017). In remote locations, such as remote First Nations communities, these services can be severely lacking and the increase in demand associated with the installation work-camps and associated problem-behaviours would be a strain on available resources. The final report of the National Inquiry into Missing and Murdered Indigenous Women and Girls (the National Inquiry) (2019) that focused on the relationship between resource development projects and violence against Indigenous women and girls, also noted that “*transient workers, harassment and sexual assault in the workplace, rotational shift work, substance abuse, and addictions and economic insecurity*” contributed to heightened safety and security risks to Indigenous women and girls (National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019).

Indigenous Peoples working in such construction camps often face heightened racism and discrimination on account of being Indigenous. This has negative consequences for their mental wellbeing. In addition, feeling harassed at work camps due to racism and discrimination diminishes individuals’ sense of self-worth, and on a broader community scale, this impacts the community’s ability for self-determination and governance.

An increase in the number of people in the region (during the construction and/or operations phases of a project) can increase the access of non-Indigenous peoples who may hunt and fish traditional food sources relied upon by a community in their traditional lands. This can reduce the overall availability of traditional foods to the Indigenous peoples who rely on these foods for health and food security (Gibson et al., 2017). The inability to practice Traditional and treaty land rights can decrease the mental and physical wellness of First Nations people, leading to more mental and physical health services needed, as well as a loss of community control of the land and how it is stewarded (Gibson et al., 2017).

#### 6.1.5.2. Existing Conditions

Worker accommodation camps have yet to be built, therefore it is not a current concern to Webequie First Nation. However, it is known that worker camps will be alcohol-free (dry) environments.

#### 6.1.5.3. Effects Assessment

##### Construction Phase

Supportive infrastructure is required as part of the Project which includes temporary construction camps with laydown and storage areas. These construction camps will be used for the accommodation of the construction work force which averages from 50 to 70 people (AtkinsRéalis, 2024g). Four construction camps (Camp 1A, 2A, 3A and 4B) are proposed for the project and are to be established at relatively uniform intervals, or distance, along the preferred route to support the overall construction staging of the road and development of key supportive infrastructure (Figure 6-6) (AtkinsRéalis, 2024g). The proposed area for each construction camp is approximately 8 ha and will be comprised of modular structures for sleeping, dining and offices, as well, to maximize space and minimize project environmental impacts, each camp will include a designated laydown/storage area for equipment and materials.

It can be anticipated that each of the construction camps will include the following (AtkinsRéalis, 2024g):

- Accommodations (bunkhouse) for workers;
- Construction Office(s);
- Kitchen and dining hall;
- First aid station, and helicopter-pad location complete with lighting and windsocks for response to emergency events;
- Communications system;
- Wastewater treatment holding tank and/or treatment system;
- Groundwater water supply well;
- Solid waste (hazardous and non-hazardous) handling and storage facility, including a designated waste recycling area;
- Electricity supply from diesel generators;
- Above ground fuel storage tanks and refueling area; and
- Laydown/Storage area for equipment and materials.



Figure 6-6: Typical Layout of Temporary Construction Camp and Laydown/Storage Area (AtkinsRéalis, 2024g)

No temporary access roads are required for development and use of construction camps, as the camp sites are located abutting the Right-of-Way of the Webequie Supply Road (AtkinsRéalis, 2024g). The closest construction camp planned (Camp 1A) to the Webequie First Nation settlement area is located approximately 5 km east of the airport.

#### Direct effects

There are no direct effects.

#### Indirect effects

Webequie First Nation, and other First Nations, have expressed sensitivity and concern related to temporary construction camps where workers are brought temporarily to the area to support construction (AtkinsRéalis, 2024g). The implementation of work camps may disproportionately affect the safety and security of Indigenous communities, especially women, girls and 2SLGBTQ+ individuals, who may be exposed to disproportionate levels of sexual violence, abuse, and STIs (AtkinsRéalis, 2024g). Overall, anti-Indigenous racism, if present in the construction camps, may lead to negative stereotyping of the Indigenous work force and cause them harm. This may cause negative mental wellness outcomes and feelings of social isolation. Webequie community members who are participating in construction activities may experience negative impacts from being isolated from friends and family, stressful work environments, and a lack of connection which can lead to increased substance misuse (AtkinsRéalis, 2024i). Additionally, chronic conditions, injuries, and illnesses may emerge in construction camps and can negatively impact the community by overwhelming the existing healthcare services (AtkinsRéalis, 2024i).

Although it is understood that Webequie First Nation aims to make the construction camps 'dry', i.e., no alcohol or illegal drugs can be brought in (AtkinsRéalis, 2024g), it is not known how effective enforcement of the 'dry' status may be, and substances may still be brought by external workers, leading to increased substance use among workers and in the community. Substance use may

exacerbate violent activity, including sexual violence. Therefore, designating a camp as ‘dry’ does not necessarily mitigate this issue.

Table 6-4 below presents the estimated number of direct on-site Project workers coming from the RSA during each year of construction who will be contributing to the construction work force (AtkinsRéalis, 2024g).

**Table 6-4: Full-Time Equivalent Project Labour Participation, Regional Study Area, Construction**

Labour Type	2028	2029	2030	2031	2032
Direct	37	85	79	36	28

Source: Avaanz Ltd., 2024; AtkinsRéalis, 2024g.

Off-reserve community members who participate in construction-related activities may wish to stay in the community, which may over-burden the housing capacity and demand for services in Webequie. These services are already experiencing pressure, as outlined in Section 6.2.5, and additional pressure would increase pre-existing housing concerns. However, it is not known how many off-reserve members may move to the community. In addition, it is proposed in the Community Readiness Plan (AtkinsRéalis, 2024k) that there may be temporary accommodations in the Webequie community during the construction phase, which will ease any burdens that could be placed on the Webequie community’s housing and infrastructure. As such, this impact, and its resulting health effects are unlikely.

Operations Phase

The construction camps will be decommissioned upon completion of construction as they will not be required for operation of the Project (AtkinsRéalis, 2024g). As such, there is not expected to be any worker accommodation during the operations phase and therefore there is no impact to Webequie First Nation.

6.1.5.4. Mitigation / Enhancement Measures

Overall, the aim of the mitigation and enhancement measures should be multi-pronged pathways to safety for women, girls and 2SLGBTQ+ individuals. This is well described in the Government of Ontario’s Pathways to Safety in Response to the MMIWG National Inquiry Recommendations (Source: Ministry of Children, Community and Social Services, 2021b) (Figure 6-7).

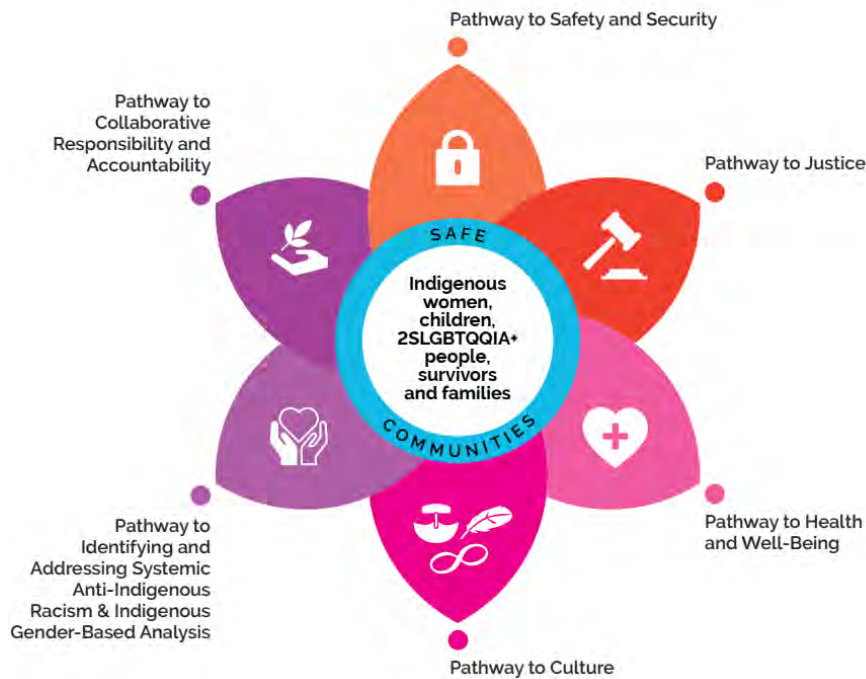


Figure 6-7: Ontario's Pathways to Safety in Response to the MMIWG National Inquiry Recommendations (Source: Ministry of Children, Community and Social Services. (2021b))

Construction Phase

1. Mitigation measure: The final location of the work camp closest to Webequie First Nation should be selected carefully to avoid interaction with high-traffic areas, and areas that are often used for traditional activities.
2. Mitigation measure: It is advised that non-Indigenous workers should not be allowed into Webequie First Nation during the construction phase, except by permission. Protocols should be put in place to regulate entry of members from other Indigenous communities. This may limit negative impacts to the safety and security of Webequie First Nation. However, the extent of mitigation of the impact will depend on how effectively non-members of the community are kept out.
3. Mitigation measure: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.
4. Mitigation measure: The contractor should work with Webequie First Nation to provide a safe and productive work environment by establishing and enforcing clear guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.
5. Enhancement measure: To mitigate potential impacts on housing within the community from off-reserve members participating in construction jobs, the community can consider adding

additional temporary housing within the reserve to house off-reserve members during the construction phase.

#### Operations Phase

1. Enhancement measure: Any additional housing that is added during the construction phase can be potentially converted to more permanent housing. The need for housing for medical staff, teachers, and support personnel, who want to stay in the community is highlighted by community members and during key person interviews (Intrinsik, 2023b; 2024).

#### 6.1.5.5. Net Effects

##### Construction Phase

1. Even with limitations in place to not allow outsiders to enter the community, except those with permission, enforcement may not be 100% effective. This means that individuals who are not members of Webequie First Nation will gain entry into the community, which may have lingering safety and security impacts in Webequie First Nation, particularly to specific sub-groups, including women, girls and individuals who identify as 2SLGBTQI+.
2. Enforcement of the 'dry' status may be limited, and substances may still be brought into the camps, and as such the community, by external workers. Substance use may exacerbate violent activity, including sexual violence. Therefore, designating a camp as 'dry' does not necessarily mitigate this issue.

##### Operations Phase

There are no adverse net effects to health expected.

## 6.2. Intermediate / Level 2 Determinants of Health

These include factors related to the physical environment, access to services, safety and security issues, and other social, cultural and economic factors.

### **PHYSICAL ENVIRONMENT**

#### 6.2.1. Air Quality (including GHG Emissions)

##### 6.2.1.1. Air Quality and Health

Air quality is intrinsically linked to human health. Impacts to air quality, particularly related to the emission of oxides of nitrogen (NO<sub>x</sub>), particulate matter (PM) (especially PM<sub>2.5</sub>), carbon monoxide (CO), dioxins, and sulphur dioxide (SO<sub>2</sub>) are a concern to human health. Transportation projects can have both positive and negative health impacts, and the negative impacts are mainly due to the air quality and other physical impacts due to motorized modes of transportation. Transportation projects and policies can also have impacts on climate change, whether it be related to creating heat islands or rising temperatures due to greenhouse gas emissions from vehicles (Zhang et al., 2013; Gago et al., 2013 & Estrada et al., 2017). Change in air quality is a major direct determinant of health and has the potential to impact human health including via release of Greenhouse Gases (GHGs).

GHGs are a group of gases that trap heat in the Earth's atmosphere, leading to increasing temperatures and various changes in climate and weather patterns; collectively this effect is known as climate change (EPA, 2024). Greenhouse gases include CO<sub>2</sub>, methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O) and fluorinated gases,

such as hydrofluorocarbons and perfluorocarbons. Different GHGs have varying impacts on climate, and are emitted both due to human activities, as well as natural processes. The two most common GHGs, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities due to human activities. Emissions of CO<sub>2</sub> are largely byproducts of fossil fuel combustion or oxidation of fixed carbon due to land use changes (US EPA, n.d.). Methane emissions result from off-gassing associated with agricultural practices, the decomposition of organic materials within landfills, fugitive emissions from oil & gas production, as well as other sources.

Through climate change, GHGs have the potential to impact human health in a variety of ways, including air pollution, diseases carried by vectors, food insecurity, increasing temperatures, increased extreme weather events, aeroallergens, mental health and stress-related disorders and other health impacts (CDC, 2024; Figure 6-8). Increasing GHG emissions is a global issue that is affected by several factors. Overall climate change can impact both the social and environmental determinants of health (WHO, 2018a). The WHO estimates that “between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhea and heat stress”, an impact that is expected to be most pronounced in developing countries (WHO, 2018a).

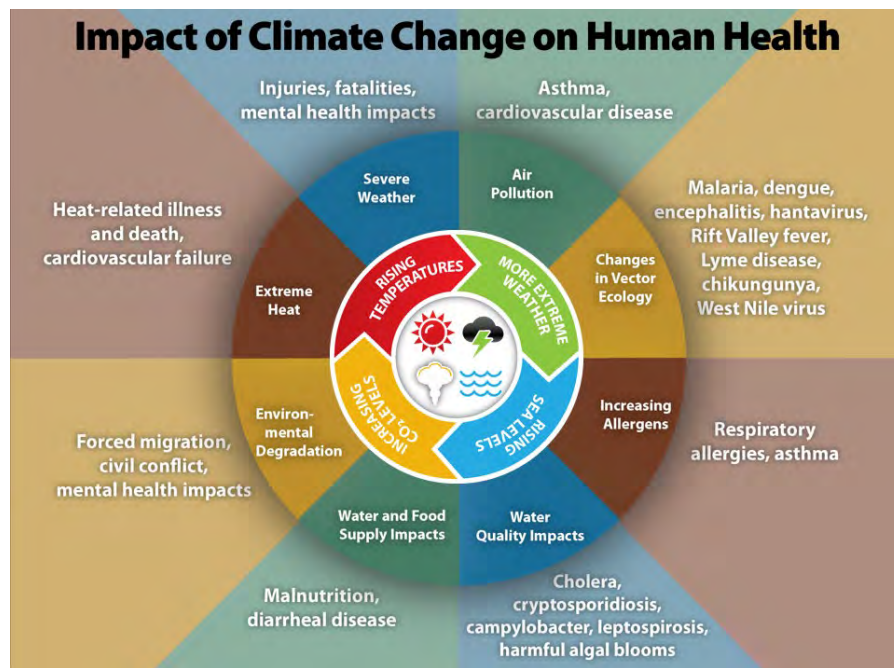


Figure 6-8: Climate Change Impacts on Health (from CDC, 2024)

### 6.2.1.2. Existing Conditions

This information is provided in detail in Air Quality Assessment (AtkinsRéalis, 2024d), the Human Health Risk Assessment (AtkinsRéalis, 2024e), and the GHG Emissions Assessment (AtkinsRéalis, 2024b), and has only been briefly summarized here.

Data from air quality monitoring stations in remote areas across Canada were used to characterize and quantify the expected background concentrations of air contaminants within the LSA and RSA (AtkinsRéalis, 2024d). These included monitoring stations outside of urban areas (used for regional backgrounds), monitoring stations in non-urban remote areas, and monitoring stations in areas with

non-commercial and non-industrial land uses (AtkinsRéalis, 2024d). The list of contaminants that were used as air quality indicators included:

- Criteria Air Contaminants: SO<sub>2</sub>, CO, NO<sub>2</sub>, TSP, PM<sub>10</sub>, and PM<sub>2.5</sub>;
- Volatile Organic Compounds: 1,3-butadiene, acetaldehyde, acrolein, benzene, ethylbenzene, formaldehyde, hexanes, propionaldehyde, toluene, xylenes;
- Benzo(a)pyrene as a surrogate to Polycyclic Aromatic Hydrocarbons; and
- Ground-level ozone.

Air emission sources for air quality in the LSA and RSA are limited to the community of Webequie. An electric power station with diesel generator sets has a capacity of 2 MW producing an estimated 3,000 MWh of electricity per year and generates a total of 50 to 70 tonnes of NO<sub>2</sub> annually and 1 tonne or less of micro particulates (PM<sub>10</sub> and PM<sub>2.5</sub>) (AtkinsRéalis, 2024d). Since natural gas and propane are not available in the community, NO<sub>2</sub> and VOCs are produced from the combustion of wood (AtkinsRéalis, 2024d). Emissions related to mobile vehicles such as trucks, snowmobile, all-terrain vehicles, dozers, etc. are expected to be relatively low. Although there is an airport which links the community to other regions in Ontario, the air contaminants generated are mostly contained to the upper atmosphere. Finally, the nearby community landfill where solid wastes are disposed of can release GHGs as well as Volatile Organic Compounds. However, the fugitive emissions are expected to be relatively low based on population size (AtkinsRéalis, 2024d).

#### **Gaseous Common Air Contaminants**

For all monitoring stations CO, NO, NO<sub>2</sub>, and SO<sub>2</sub> were found to be in compliance with applicable air criteria and standards (AtkinsRéalis, 2023). It was determined that baseline conditions in the project area were adequately represented by the monitoring stations and as such, common gaseous air contaminants were found to be well below criteria and standards for the project area (AtkinsRéalis, 2023).

#### **Carbonyls, Volatile Organic Compounds, and Polycyclic Aromatic Hydrocarbons**

The Simcoe, Ontario monitoring station was used to represent Webequie First Nation as it was determined to be representative as it was in a non-urban setting which is not impacted by any considerable emission sources (AtkinsRéalis, 2023). Apart from benzo(a)pyrene, all concentrations of carbonyls, Volatile Organic Compounds, and Polycyclic Aromatic Hydrocarbons were all found to be below Ontario's Ambient Air Quality Criteria (AtkinsRéalis, 2023). Benzo(a)pyrene concentrations exceeded Ontario Ambient Air Quality Criteria for both maximum daily and annual averaging periods (AtkinsRéalis, 2023). It was noted that higher concentrations of benzo(a)pyrene occurred in the cooler months which could be related to wood burning in the area (AtkinsRéalis, 2023).

#### **Particulate Matter (PM) and Diesel Particulate Matter (DPM)**

There were no recorded exceedances of 24-hour and/or annual Ontario's Ambient Air Quality Criteria for total particulate matter or PM<sub>2.5</sub> at any of the monitoring stations chosen to represent Webequie First Nation (AtkinsRéalis, 2023). It was determined that exceedances of PM<sub>10</sub> concentrations were possible, although 95<sup>th</sup> percentile statistics fell below applicable criteria (AtkinsRéalis, 2023). It was noted that windstorms pulling up dust and ground material may lead to exceedances of PM<sub>10</sub> (AtkinsRéalis, 2023). Diesel particulate matter was also assessed when predicting the extent of dustfall during the construction and operation phases of the Project (AtkinsRéalis, 2024d). However, background concentrations of diesel particulate matter could not be defined as there is no existing data about their concentration levels in ambient air (AtkinsRéalis, 2024d).

## Greenhouse Gases (GHGs)

In Webequie, GHG emissions can be attributed to the energy usage from buildings (residential and commercial), local transportation, air travel, and solid waste disposal (AtkinsRéalis, 2024d). Other emissions, both direct and indirect, related to industrial, or manufacturing activities are not relevant to the project area as Webequie is a small northern settlement located in an area which consists of lakes, woodlands, and wetlands where anthropogenic/human emissions of GHGs are very low to non-existent (AtkinsRéalis, 2024d). The National Inventory Report was utilized to obtain provincial and national annual GHG emission levels (AtkinsRéalis, 2024d).

### 6.2.1.3. Effects Assessment

#### Air Quality

##### Construction Phase

###### Direct effects

The Human Health Risk Assessment characterizes the human health risks due to changes in air quality that could occur as a result of the Proposal. Air emission sources associated with the Project are mainly from the combustion of diesel fuel or gasoline from land mobile equipment, heavy-duty trucks and light-duty vehicles during the construction and operation phases of the Project (AtkinsRéalis, 2024d). A change in air quality may result from the generation of emissions of air contaminants by project activities. The main pathway during construction that will result in a change in air quality (AtkinsRéalis, 2024d):

- Use of vehicles, machinery, and equipment for construction of the proposed road → Fuel combustion and dust uplifting → Increased air contaminant emissions during construction phase.

Community members are concerned that the proposed roads will result in more pollution in and around their traditional territory. Specifically, they are concerned about water contamination, noise pollution, managing industrial dust, littering, polluting nearby waterways and the groundwater with chemicals, oil, and/or dust (AtkinsRéalis, 2024d). Community members are concerned that increased dust from the Project during both construction and operation could make it harder to breathe (AtkinsRéalis, 2024d). Community members are concerned about keeping the water, fish, plants and wildlife safe from dust. Some members pointed out that dust may negatively impact sturgeon because they are sensitive to changes in their environment or habitat (AtkinsRéalis, 2024d; Intrinsic, 2023b).

For the construction phase, results from the Human Health Risk Assessment conducted by AtkinsRéalis (2024e) indicated that all contaminants of potential concern, except for carcinogenic risks associated with estimated chronic exposures to hexavalent chromium in baseline total suspended particulates, had estimated risks for the baseline scenario which were less than the Health Canada and Ontario MECP negligible risk levels (AtkinsRéalis, 2024e). Additionally, the results of the Air Quality Impact Assessment for the construction phase are conservative and have likely overpredicted Project related emissions. Furthermore, the predicted exceedances are localized spatially to areas proximate to the road centreline and are not predicted at existing residences and institutional buildings in the Webequie area, where people are present most frequently (AtkinsRéalis, 2024e).

As per the Human Health Risk Assessment conducted by AtkinsRéalis (2024e), in the absence of speciated chromium concentrations in soil, the baseline TSP hexavalent chromium concentration was predicted using highly conservative assumptions. Overall, all estimated exposures and risks associated with exposures to hexavalent chromium are considered to be highly conservative and unlikely to

represent actual exposures (AtkinsRéalis, 2024e). As noted below, it is therefore recommended that soil samples be collected from the LSA and submitted for analysis of chromium speciation, with the results used to revisit the conclusions of the Human Health Risk Assessment for this chemical (AtkinsRéalis, 2024e).

### Operations Phase

#### Direct effects

The main pathway during Operations that will result in a change in air quality is the use of vehicle on the Webequie Supply Road once constructed and use of vehicles, machinery, and equipment for road maintenance → Fuel combustion and dust uplifting → Increased air contaminant emissions during operation phase (AtkinsRéalis, 2024d).

For the operations phase, estimated risks for the baseline scenario were less than the Health Canada and Ontario MECP negligible risk levels except for carcinogenic risks associated with estimated chronic exposures to hexavalent chromium in baseline total suspended particulates (AtkinsRéalis, 2024d; e). Additionally, when cumulative risks are considered, risks associated with PM10 marginally exceeded the negligible risk level for acute risks of an HQ < 1.0 at culturally sensitive area CHL25 at 60 m from the road centre line and future residential plot RFP42 at 55 m from the road centre line (AtkinsRéalis, 2024e).

Given the conservatism in the model, the potential for unacceptable risks associated with PM10 is considered to be low to negligible, and will further decrease once asphalt or chip-seal surfacing is in place.

### **GHG Emissions**

#### Construction Phase

For the construction phase, GHG emissions will come from the following categories (AtkinsRéalis, 2024b):

- Mobile land equipment including excavators, bulldozers, graders, rubber tire loaders, cranes, compactors, forklifts, and off-road service trucks not used for transportation purpose;
- Stationary fuel combustion equipment namely all internal combustion engines used to operate the generator sets, the crushing and screening plant, the concrete batching plant, the tower lights, and the water pumps. Heating systems used during winter are included in this category;
- Crew vehicles used to transport workers, mainly from construction camps to their work area;
- Heavy-duty transport trucks used to haul materials on-site including filling materials and aggregates from quarries to site. Geotextile and geogrids transportation to location are included in this category;
- Land mobilization and demobilization including the shipment of equipment and consumables via a winter road linking Pickle Lake to Webequie;
- Air travel for mobilizing and demobilizing workers living outside the Webequie community. A helicopter will be used to transport camp supplies and personnel to and from Webequie during summer. It will also be used to support the movement of personnel and material to the area where the WC-26 bridge crossing of the Muketei River will be constructed; and

- Carbon stock removal from living biomass (trees, shrubs) and the management of dead organic matter. It also includes related CH<sub>4</sub> and N<sub>2</sub>O from the controlled burning of these biogenic material.

Total GHG emissions for the construction phase were calculated showing the highest emissions for the second year (15,605 t CO<sub>2</sub>/a) with about 80% coming from on-site fossil-fuel combustion (mobile, stationary, and trucking) and most of the remaining 20% coming from the burning of biomass and DOM generating CH<sub>4</sub> and N<sub>2</sub>O (AtkinsRéalis, 2024b). Overall, in order of importance, the GHG emissions are expected to come from 38% as land mobile equipment, 33% as heavy-duty trucks, 12% as DOM combustion, and 17% others (AtkinsRéalis, 2024b).

Carbon stock in biomass (living and dead) will be removed from the site mainly by combustion but also in part via the harvesting of wood logs by the Webequie community resulting in a total of 57,602 tonnes of biogenic CO<sub>2</sub> (AtkinsRéalis, 2024b). The main contribution (51%) coming from litter as natural boreal forests with conifers tend to accumulate a lot of such material (needles, decomposing wood, foliage, etc.) followed by 33% coming from the removal of living vegetation during clearing activities, and finally 13% coming from dead trees (AtkinsRéalis, 2024b). Although there will be some litter that will remain to decompose on-site, which is impossible to determine, this assessment considers that all litter will be piled and burned.

The project is anticipated to produce about 330,000 t CO<sub>2</sub>e over a 20-year period beginning in the first year of construction, of which 33% is related to the construction phase (AtkinsRéalis, 2024b; Table 6-5). Because the Project would affect current carbon stocks and associated sinks, these emissions include both the biogenic CO<sub>2</sub> emissions and the GHG emissions related to fossil fuels. The biogenic CO<sub>2</sub> emissions represent 32% of total GHG emissions according to calculations (i.e., 105,000 t biogenic CO<sub>2</sub> over 25-years). In comparison, the emissions produced from fossil-fuel combustion for the operation of mobile and stationary equipment, trucking, traffic, road maintenance activities, and maintenance facility power supply is 68% (AtkinsRéalis, 2024b).

As mentioned previously, the maximum GHG emissions are expected to occur during the second year of construction by producing a total of 44,699 t CO<sub>2</sub>e, with 75% of that coming from the combustion of cleared living and dead organic biomass (AtkinsRéalis, 2024b). GHG releases in the atmosphere do not trigger direct health impacts on nearby population (being non acutely toxic to humans) but rather cause global warming which drives climate change that can have an indirect impact, especially on vulnerable people. According to the Assessment of GHG emissions (AtkinsRéalis, 2024b), the maximum annual GHG emissions to occur during construction activities (~45 kt CO<sub>2</sub>e) would represent 0.0067% of the Canadian total annual inventory (and 0.029% for Ontario). Being more of a global issue given that GHGs do not cause “localized” global warming, the Webequie Supply Road emissions would represent less than 0.0001% of worldwide emissions estimated 50,000 Mt CO<sub>2</sub>e annually. The Project will not add much to the global GHG emissions and so the indirect impact to health is not considered appreciable.

**Table 6-5: GHG Emissions Inventory Summary – from AtkinsRéalis, 2024b**

Project Phase	Source Type	Total GHG Emissions <sup>(1) (2)</sup>	Canadian Annual Emissions	
			Relevant NIR Category <sup>(3)</sup>	2021 total
Construction	Fuel Combustion (construction including air and land mobilization and demobilization activities)	44,870 t CO <sub>2</sub> e [3%] (11,394 t CO <sub>2</sub> /a)	Transport (off-road manufacturing, mining and construction)	18 Mt CO <sub>2</sub> e/a
	Impact of construction activities on carbon reservoirs	65,227 t CO <sub>2</sub> e [86%] (33,305 t CO <sub>2</sub> /a)	Land-use, land-use change and forestry (land converted into settlements)	6.5 Mt CO <sub>2</sub> e/a
Operation	Fuel combustion (road traffic and maintenance activities)	107,420 t CO <sub>2</sub> e [4%] (5,371 t CO <sub>2</sub> e/a)	Transport (Road transportation)	116 Mt CO <sub>2</sub> e/a
	Fuel combustion (generator set at the maintenance facility)	78,660 t CO <sub>2</sub> e [3%] (3,933 t CO <sub>2</sub> e/a)	Stationary combustion sources (commercial and institutional)	35 Mt CO <sub>2</sub> e/a
	Impact of road on carbon sinks and land emissions	40,154 t CO <sub>2</sub> e [100%] (1,874 t CO <sub>2</sub> e/a)	Land-use, land-use change and forestry (land converted into settlements)	6.5 Mt CO <sub>2</sub> e/a
<b>TOTAL (over the construction period and the first 20 years of operation)</b>		<b>336,331 t CO<sub>2</sub>e [32%]</b>		

Source: AtkinsRéalis, 2024b.

- (1) The Total GHG emissions cover the 5 years of construction + the first 20 years of operation of the Webequie Supply Road.
- (2) The totals combine fossil-fuel combustion emissions and biogenic CO<sub>2</sub>. The percentage in bracket represents the proportion of biogenic CO<sub>2</sub> while the value in parentheses represents the maximum annual emission rate calculated as part of this assessment.
- (3) Corresponds to the main GHG category (and smallest sub-category) from ECCC NIR 1990:2021 most relevant to the source type.

### Operations Phase

#### Direct effects

Based on the Webequie Supply Road Assessment of GHG Emissions report completed by AtkinsRéalis, over time, the Project would result in additional GHG emissions and would also depend on the future mining activities that may occur in the region (AtkinsRéalis, 2024b). The Webequie Supply Road will not

replace existing GHG emissions as it is not intended to improve current traffic conditions, however, air travel into the community may decrease with the new connection to the road network. The road may potentially add to GHG emissions to the environment given that air travel is more energy efficient than road travel depending on the extent of modal shift on that respect (AtkinsRéalis, 2024b).

For the operations phase, the following GHG emitting activities will be occurring on an annual basis:

- Daily traffic of vehicles using the Webequie Supply Road;
- Trucks and equipment used for road maintenance; and
- Net GHG emissions caused by land-use changes along the road.

Direct GHG emissions would come from the following sources:

- Private / commercial and heavy-duty vehicles commuting on the road on a daily basis.
- Road maintenance equipment (mobile, truck).
- Generator sets used at the aggregate pit (ARA-4) and the MSF for power supply.
- Net GHG emissions changes from mineral soil and peatland due to disturbances caused by the Project.

Since the Webequie Supply Road Project is an infrastructure project intended to provide access to the Webequie community and future nearby mining exploration and proposed future mining sites, it will not have an impact on global GHG emissions (at least it will not displace emissions internationally) (AtkinsRéalis, 2024b).

The emissions produced from fossil-fuel combustion for the operation of mobile and stationary equipment, trucking, traffic, road maintenance activities, and maintenance facility power supply is 68% (AtkinsRéalis, 2024b). The predicted yearly emissions for the operation phase are 11,178 t CO<sub>2</sub>e, of which about half are related to the anticipated amount of traffic on the Webequie Supply Road and the remaining third are caused by the generator set that is needed to power the road maintenance and storage facilities (AtkinsRéalis, 2024b). Land-use change emissions, primarily from the naturally occurring carbon oxidation in mineral soil disturbed during construction, account for 17% of the total annual emissions that are expected to significantly decline after twenty (20) years (soil carbon oxidation is expected to cease or significantly decrease after that time period) (AtkinsRéalis, 2024b).

#### Indirect effects

In addition, the road's existence may hasten the opening of mines in the area whose ore might be substituted for foreign ore in Ontario or Canada's smelters (AtkinsRéalis, 2024b). Because of this specific circumstance, Canada's greenhouse gas inventory would be improved by reducing foreign transportation emissions. If the ore is moved elsewhere, it could also have the opposite impact. Therefore, future mining operations will have more of an impact on the carbon footprint in the region than the impact from the Webequie Supply Road.

#### 6.2.1.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: To minimize dust pollution, it is recommended that the contractor use tarps to prevent dust from spreading, or spray the roads with a water-based solution to suppress dust, especially in dry areas such as haul/access roads or temporary soil and aggregate

stockpiles (AtkinsRéalis, 2024d). The use of dust suppression systems at quarries, truck speed limitations, vehicle and heavy equipment movement limitations to designated areas, minimizing idling and so forth.

2. Mitigation measure: Re-iterated here from the Human Health Risk Assessment (AtkinsRéalis, 2024e): To further characterize metals in soil and associated particulates from soil during the Project, it is recommended that soil samples be collected from the LSA and submitted for analysis of total metals, as well as for speciation of chromium. This data should be used to confirm that the soil metals concentrations obtained from the Eagle's Nest Environmental Assessment are representative of the Webequie Supply Road Right-of-Way, and to determine concentrations of hexavalent chromium, if any, in soils in the region. This data should be used to update the results of the Human Health Risk Assessment.
3. Mitigation measure: The contractor should endeavour to use environmentally certified equipment (e.g., Tier 4 engines) as much as possible (AtkinsRéalis, 2024d).
4. Mitigation measure: The contractor should develop and implement an Air Quality and Dust Control Management Plan to manage and reduce air contaminant emissions during construction phase (AtkinsRéalis, 2024d). The Air Quality and Dust Control Management Plan will integrate a monitoring procedure for dustfall effects and measures to control or limit usage of vehicle or equipment that are the main emission source of particulates (AtkinsRéalis, 2024d).
5. Mitigation measure: Minimize the combustion of living biomass which will reduce GHG emissions by using the biomass for other purposes such as the production of roundwood and timber that would be used in Webequie for construction projects or woodchips used as mulch for landscaping, erosion control, etc. (AtkinsRéalis, 2024d).
6. Mitigation measures should first be directed towards the protection of the most sensitive receptor locations and population groups, including those with pre-existing respiratory conditions (such as asthma), children, pregnant women and older adults.

#### Operations Phase

1. Mitigation measure: During operations, while it is not feasible to have a direct control on emissions from vehicle engines, it is possible to work on dust emissions from the road surface. Considering that part of the road will not be fully surfaced with asphalt or chip seal from the start, the maintenance crew will operate a truck that will spray water over the gravel-surface road from May to November, or when needed (AtkinsRéalis, 2024d).
2. Mitigation measure: An Air Quality and Dust Control Management Plan will be developed and implemented to manage and reduce air contaminant emissions during operation phase (AtkinsRéalis, 2024d). The Air Quality and Dust Control Management Plan will also include a procedure for documenting compliance with applicable standards and required conditions as stipulated in permits, approvals, licenses and/or authorizations.

#### 6.2.1.5. Net Effects

##### Construction Phase

The net effects on air quality during the construction phase are adverse, as the project construction results in a predicted increase of ambient concentrations compared to existing conditions (AtkinsRéalis, 2024d). As such, there is potential for temporary limited adverse net effects to health.

### Operations Phase

As identified in the Atmospheric Environment report and Human Health Risk Assessment by AtkinsRéalis (2024d,e), even with the application of mitigation measures, exceedances of Ontario Ambient Air Quality Criteria for TSP, PM<sub>10</sub>, and PM<sub>2.5</sub> and Canadian Ambient Air Quality Standards for NO<sub>2</sub> remain a possibility at some culturally sensitive areas. There is some potential for negative net effects to health.

## 6.2.2. Noise Levels and Vibration

### 6.2.2.1. Noise Levels and Vibration and Health

Noise impacts due to transportation can arise due to two scenarios: during construction, and increased traffic along route once it is built.

According to the World Health Organization, evidence from epidemiological studies on the association between exposure to road traffic and aircraft noise and hypertension and ischaemic heart disease has increased (WHO, 2011). Road traffic noise has been shown to increase the risk of ischaemic heart disease, including myocardial infarction (WHO, 2011). Both road traffic noise and aircraft noise increase the risk of high blood pressure. High levels of noise during night lead to disturbed sleep, which can result in several adverse health impacts (WHO, 2009).

In addition, using available evidence, a hypothetical exposure–response relationship between noise level (L<sub>dn</sub>) and risk of cognitive impairment in children was formulated (WHO, 2011). It was found that all of the noise-exposed children were cognitively affected at noise levels as high as 95 dB(A) L<sub>dn</sub>, and no children were affected at a relatively low level, such as 50 dB(A) L<sub>dn</sub> (WHO, 2011). As such, according to WHO, the recommended night noise guideline is 40 dB L<sub>night</sub>, outside with an interim target of 55 dB L<sub>night</sub>, outside (WHO, 2009).

Sound levels from 40 to 65 dBA are considered to be in the faint to moderate range (AtkinsRéalis, 2024d).

One of the major effects of exposure to environmental noise is annoyance. Noise-related annoyance, typically described as a feeling of displeasure evoked by a noise, has been extensively linked to a variety of common noise sources such as rail, road, and air traffic (Berglund et al., 1999; Laszlo et al., 2012; WHO, 2011). Although annoyance is considered to be the least severe potential impact of community noise exposure (WHO, 2011), it has been hypothesized that sufficiently high levels of noise-related annoyance could lead to negative emotional responses (e.g., anger, disappointment, depression, or anxiety) and psychosocial symptoms (e.g., tiredness, stomach discomfort and stress) (Fields et al., 2001; WHO, 2011; Öhrström, 2004; Öhrström et al., 2006). Therefore, regulations exist in many jurisdictions around the world to limit community noise exposure from stationary sources (e.g., factories) as well as road, rail, and air traffic in order to curtail community levels of annoyance and more severe impacts of community noise exposure. It is important to emphasize that the existence of these regulations/guidelines has not eliminated community noise annoyance and noise related annoyance remains prevalent in many areas.

Those most sensitive to noise include older adults, children, those who have existing health conditions that can be exacerbated by loud noise, pregnant women, hunters, etc.

### 6.2.2.2. Existing Conditions

Background sound level measurements were taken between October 29 and November 1, 2021 from three locations including M1 (within the Webequie First Nation community, at the western terminus of the proposed Webequie Supply Road route), M2 (at a distance of 4.41 km along the proposed route (away from the Webequie First Nation community), which has been used as representative of conditions along the route, and M3 (at a distance of 10.57 km south-east of the western terminus (away from the Webequie First Nation community); which has been used as representative of “remote” conditions, away from the community) (AtkinsRéalis, 2024d).

A sound monitoring station within the Webequie community (M1) showed the daytime sound environment was dominated by sounds of people, including traffic noise, barking dogs, and airport activity (AtkinsRéalis, 2023). The nighttime sound environment, at the same station, was shown to be dominated by the continuous “sound of nature”, including rustling leaves and with some intermittent sounds of traffic and airport activity (AtkinsRéalis, 2023). Manmade sounds were found to be generally intermittent (AtkinsRéalis, 2023). Additionally, no tonal, regular impulsive, highly impulsive, or high-energy impulsive noise sources were identified (AtkinsRéalis, 2023). Impulsive noise being a ‘banging’ type of noise characterized by rapid rise time and decay (SLR Consulting, 2024).

The sound monitoring stations located on the proposed Webequie Supply Road route (M2 and M3) were at all times dominated by continuous “sounds of nature” including rustling vegetation, bird calls, etc. (AtkinsRéalis, 2023; 2024d). Noises of chainsaw activity were noted during the daytime at M2, in addition to intermittent vehicle activity (AtkinsRéalis, 2023). Additionally, no tonal, regular impulsive, highly impulsive, or high-energy impulsive noise sources were identified at M2 or M3 (AtkinsRéalis, 2023; 2024d). Existing baseline vibration levels are characterized to be negligible or minimal, similar to other areas across Canada for potential receptors within the remote or rural land uses, based on a desktop review and previous project experiences (AtkinsRéalis, 2024d).

### 6.2.2.3. Effects Assessment

#### Construction Phase

##### Direct effects

The project area is naturally quiet, dominated by sounds from wildlife, with minimal external land use. The area includes remote regions like the Winisk River Provincial Park and other wildlife areas, therefore, any noise caused by the development could potentially cause distress to both humans and animals, leading to disruption of quiet in the area (AtkinsRéalis, 2024d).

There are concerns from community members that the noise might scare away animals, impacting the ability of community members to hunt and access them as a food source (AtkinsRéalis, 2024d).

Information from noise sensitive locations were used to characterize the existing conditions and to assess potential effects of noise and vibration from the Project. The project construction and operation activities that involve blasting and use of vehicle, machinery and equipment will increase noise (AtkinsRéalis, 2024d). Blasting of rocks with explosives is required to create desired road profiles and to extract rocks and granular for construction and maintenance/operations of the Webequie Supply Road (AtkinsRéalis, 2024d). Based on the relatively low volumes of rock needed for the Project, blasting of rock requiring the use of explosives during construction and operation activities is expected to occur on an infrequent basis when aggregate and/or rock materials are required for construction and maintenance activities (AtkinsRéalis, 2024d). Exact locations and the blast designs for the Project’s

blasting activities are currently unknown. Noise generated by blasting is expected to be temporary and the potential effects will be centered around blasting locations (AtkinsRéalis, 2024d).

Construction and Operational noise as well as vibration impacts were considered when determining project impact from noise related to the Webequie Supply Road. Construction of the Webequie Supply Road will require aggregates, obtained from two aggregate extraction sites. Although the aggregate extraction locations' equipment has not yet been chosen, one primary crusher with an associated screener, six stackers, three front-end loaders, the movement of material through conveyors, and the movement of heavy trucks throughout the aggregate extraction sites carrying material were selected as the assumed sources of noise (SLR Consulting, 2024). SLR Consulting's internal database provided sound level information for similar types of equipment.

The crusher/screener, stackers, and front-end loaders, and noise emissions were all expected to run continuously in worst-case simulations. The projected noise levels at Construction Camp 2A, located near ARA-2, are projected to exceed the NPC-300 guideline limits by a maximum of 4 dB (SLR, 2024). These predicted exceedances are considered to be minor and insignificant given that workers would be in the field during the day. In a suburban or semi-rural area, the overall sound levels would not be considered excessive and would meet the NPC-300 guideline limits of 50 dBA (SLR Consulting, 2024). Therefore, noise mitigation is not recommended or required.

For the purpose of processing and extracting rock and aggregate, the blasting of rock is anticipated to be restricted to a single location along the preferred route (SLR Consulting, 2024). The blasting contractor will ensure criteria is met from the overpressure sound levels of blasting rock.

As the construction of the roadway progresses, noise from general construction activities such as vegetation clearing and overburden removal, subgrade compaction, the addition and compaction of base course and final courses of aggregate, and in certain places, bridge and water crossing construction will occur. At several culturally sensitive areas, the highest predicted noise levels exceed the Mitigation Noise Level threshold of 47 dBA (LDN) (SLR Consulting, 2024). The locations found within 150 m of the roadway or 300 m of a waterbody crossing are the most affected noise-sensitive areas.

For the current permanent residences within Webequie, no exceedances are anticipated. For about one week, noise-sensitive receptors may be affected due to the noise impacts from roadway construction (SLR Consulting, 2024). This is based on approximately 100 m/day rate of construction. Therefore, mitigation measures are not required. Due to bridge construction, noise impacts are anticipated to slightly exceed the threshold of 47 dBA at Construction Camp 1A (CHL-7 and C05) (SLR Consulting, 2024). As no permanent residences will be affected, mitigation measures are not warranted. Construction activity will also cause vibration impacts as construction continues along the Webequie Supply Road route. It is fully expected that mitigation measures listed below will be put in place, and as such negative impacts to health are unlikely. Mitigation measures should be more focused on the population subgroups most sensitive to high noise levels.

#### Indirect effects

Noise pollution is not just an environmental issue but also affects cultural practices like hunting, if high noise levels end up displacing wildlife. Community members prefer to harvest in areas where it is quiet. Increased noise in harvesting areas may increase physical disturbance and impact harvesting activities.

### Operations Phase

#### Direct effects

For transportation projects, operational noise is of primary importance. The maximum predicted sound level based on the predicted operational sound levels is 44 dBA which is equal to the measured baseline ambient sound level within the community/settlement of Webequie (SLR Consulting, 2024).

The changes in sound levels anticipated for some of the culturally sensitive places are anticipated to surpass the 5 dB threshold specified in the MECP/MTO Joint Noise Protocol, based on the anticipated operational sound levels. It is anticipated that the overall operations phase sound levels will be below or equal to 45 dBA, which is deemed suitable for a quiet rural environment (SLR Consulting, 2024).

Based on Health Canada's Guidelines, the operational noise impacts are not expected to result in long-term community annoyance.

The Project's operations phase (i.e., the roadway in use) is not associated with any substantial sources of underwater noise or vibration (SLR Consulting, 2024). Therefore, it is unlikely that the operations phase of the Project will have any vibration impacts. Infrequent blasting at aggregate extraction site ARA-4 may be required to maintain stockpiles of rock for road maintenance and repairs; however, this would not be considered a routine activity associated with the operations phase (AtkinsRéalis, 2024d).

Therefore, it is unlikely that the operations phase will have any significant noise and vibration impacts and in turn, no anticipated impacts to health.

#### 6.2.2.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: To address the potential noise effects from blasting, it is proposed that a Construction Blasting Management Plan for the Project will be prepared by applicable contractor(s) prior to initiation of blasting activities (AtkinsRéalis, 2024d). The plan will include a requirement for controlling peak overpressure sound levels to meet the blasting noise guidelines and criteria (AtkinsRéalis, 2024d).
2. Mitigation measure: Concerns of noise pollution has caused Webequie community members to recommend that there be more regulations around noise in the region (AtkinsRéalis, 2024d). An example is maintaining equipment to limit noise emissions.
3. Mitigation measure: The contractor should aim to limit construction to the daytime period, where possible, especially near residences. Noise complaints, if arise during the project construction and operations, should be investigated and addressed (AtkinsRéalis, 2024d).
4. Mitigation measure: To minimize vibration impacts, the contract has included the following stipulations (SLR Consulting, 2024):
  - *Construction should be limited to the daytime period, where possible, especially near residences.*
  - *All equipment should be properly maintained to limit noise emissions. As such, all construction equipment should be operated with effective muffling devices that are in good working order.*
  - *In the presence of persistent noise complaints, all construction equipment should be verified to comply with MOE NPC-115 guidelines.*

- *In the presence of persistent complaints and subject to the results of a field investigation, alternative noise control measures may be required, where reasonably available. In selecting appropriate noise control and mitigation measures, consideration should be given to the technical, administrative, and economic feasibility of the various alternatives.*

#### Operations Phase

Same mitigation measures as above for blasting activities are recommended.

#### 6.2.2.5. Net Effects

##### Construction Phase

1. The Noise Impact Modelling conducted for aggregate extraction activities indicated that predicted sound levels are expected to minorly exceed NPC-300 guideline limits at Construction Camp 2A located near ARA-2. Given workers will be in the field during the daytime, the exceedances are minor (by a maximum of 4 dBA). Therefore, the magnitude of the effect is considered to be low.
2. The noise modelling conducted for the construction of the proposed roadway and bridges indicated that the highest predicted sound levels at the culturally sensitive areas CHL-5, CHL-7, CHL-17, CHL-25, and Construction Camp 1A site C05 are between 48 and 57 dBA, exceeding the MNL threshold of 47 dBA ( $L_{DN}$ ). Therefore, the magnitude of the effect is considered to be low to moderate.

##### Operations Phase

The noise impact modelling conducted to predict noise generated from the operations of the Webequie Supply Road indicated that changes in sound levels resulting from the proposed Project are expected to be negligible for the existing residences within the Webequie community and less than the 5 dB change threshold outlined in the Joint Protocol and MTO Noise Guide. For the culturally sensitive areas, the maximum sound level is predicted to be 46 dBA. The maximum change is predicted to be 14 dB which is above the MTO Joint Protocol/Noise Guide threshold. Overall operations phase sound levels are predicted to be less than or equal to 45 dBA which is considered appropriate for a quiet rural environment. With respect to Health Canada Guidelines, changes in sound levels resulting from the proposed Project are expected to be negligible for all Noise Sensitive Areas and less than the 6.5% threshold, and the magnitude of the effect is considered to be low. As such, there are no net effects to health predicted.

#### 6.2.3. Surface Water Quality

##### 6.2.3.1. Surface Water Quality and Health

Indigenous peoples have a special relationship with the land and water and this connection is based on practices and traditions since time immemorial. Indigenous peoples believe that everything taken from the Earth should be used to its fullest capacity and with the awareness of how much is taken and how much is going to be available for future generations. The Traditional Knowledge that First Nations pass down to generations is vital in maintaining their sustainable practices. The First Nations communities have historically thrived in subsistence activities, such as, hunting, fishing and harvesting. Traditional foods consumed include moose, deer, beaver and bear, and plants, such as, wild rice and berries, and their cultural and ritual practices are also heavily reliant on use of water. This implies that the availability

of clean, unpolluted water is vital in carrying out traditional activities, including cultural and ceremonial practices.

Surface water quality can affect the health of aquatic organisms, such as fish, and subsequently may affect the people who consume these fish. To the general population, the concentrations of contaminants that are present in fish are not a health concern. However, vulnerable groups such as pregnant women, nursing mothers, the elderly and children are at comparably higher health risks from eating contaminated fish. In addition, populations that consume fish frequently or in large quantities, such as First Nation communities, are also considered to be at greater health risks from eating contaminated sites. A number of regulatory agencies recommend that vulnerable populations should pay special attention to the amount and type of fish they consume (MECP, 2024; US EPA, n.d.).

Recreational use of surface water bodies for activities such as swimming and fishing, has a direct health benefit, as well as indirect benefits via the social nature of the activities (WHO, 2006). Contamination of nearby downstream surface water bodies would not only impact a community's ability to use the surface water body for recreational purposes, but also adversely impact fish populations in the surface water, and if ingested by people would impact health.

Recreational water uses can provide many health benefits and improve overall well-being. Swimming, for example, is acknowledged as one of the most beneficial forms of exercising and also a rehabilitation therapy. However, poor surface water quality, for recreational, leisure and traditional water uses, can lead to potentially unsafe conditions that can pose various risks to human health. People can be exposed to health risks that are linked to chemical and physical hazards, and microbial activity. Chemical hazards can include contaminants that are inputted into the watershed through discharged water or other forms of contamination, such as petroleum products. Recreational and leisure water uses may pose health risks if there is poor water quality.

Physical hazard of poor water quality can be due to increased suspended solids in the water, where individuals that are in danger of drowning may not be clearly seen by others due to murky waters. Additionally, swimming or accidentally swallowing water that is contaminated by harmful algal blooms can cause health risks including rashes, stomach or liver illnesses, respiratory problems, and potentially cause neurological affects (CDC, n.d.). Water that is contaminated with pathogenic viruses and bacteria, like *Escherichia coli*, pose a risk for infection, particularly if there are many nutrients available in the water body which can increase the number of microbes (WHO, 2006).

#### 6.2.3.2. Existing Conditions

##### **General Chemistry & Nutrients**

Groundwater was found to be on the basic side of the pH scale, ranging from 7.47 to 8.63 which is within the Canadian Drinking Water Quality Guidelines and Ontario Drinking Water Quality Guidelines (AtkinsRéal, 2023). There was only a single sample which exceeded the Ontario Drinking Water Quality, Aesthetic and Operational (ODWQS) during a spring sampling event in 2021 (AtkinsRéal, 2023).

All major ions (i.e., bicarbonate, chloride, nitrate, sulphate, calcium, magnesium, potassium, and sodium), ammonia, nitrate, total kjeldahl nitrogen, dissolved orthophosphate, and total phosphorus were found to be within the applicable Canadian Drinking Water Quality Guidelines and Ontario Drinking Water Quality, Aesthetic and Operational guidelines (AtkinsRéal, 2023). It was found that alkalinity, dissolved organic carbon, hardness, and turbidity exceed guidelines for Canadian Drinking Water Quality Guidelines and/or Ontario Drinking Water Quality, Aesthetic and Operational guidelines (AtkinsRéal, 2023).

## Metals

Apart from aluminum, arsenic, iron, and manganese, all analyzed metals were found to be below applicable water quality guidelines (AtkinsRéalis, 2023). Aluminum, arsenic, manganese, and iron were found to exceed guidelines for Canadian Drinking Water Quality Guidelines and/or Ontario Drinking Water Quality, Aesthetic and Operational guidelines (AtkinsRéalis, 2023).

Molybdenum was found to exceed the 2011 MOE Table 2 standard in only one sample during the 2021 spring sampling event, which was determined to be an isolated event and may have been related to insufficient field filtering or excessive sediment (AtkinsRéalis, 2023).

## BTEX, PHC F1 to F4 and PAHs

Most samples analyzed for Benzene, Toluene, Ethylbenzene and Xylenes, petroleum hydrocarbons, and Polycyclic Aromatic Hydrocarbons were found to be below the laboratory reportable detection limits, and those samples found above detection limits were below applicable water quality guidelines (AtkinsRéalis, 2023).

### 6.2.3.3. Effects Assessment

#### Construction Phase

##### Direct effects

During in-person engagement with community members, specific concerns were raised regarding the potential for environmental degradation at lake and river crossings of the proposed Webequie Supply Road. Members of the community were specifically interested in cumulative impacts in these areas and were raised as a major concern to community members (Intrinsik, 2024).

As per the 'Assessment of Effects on Surface Water Resources' (AtkinsRéalis, 2024j) there could be a change in surface water quantity as a result from changes to the surface water drainage patterns and flows during construction and throughout operations. During construction, dewatering of surface water at waterbodies and groundwater dewatering is likely to occur (AtkinsRéalis, 2024j). This may result in reduced streamflow or water levels in nearby waterbodies. Runoff rates and volumes, infiltration rates, and overland flow paths may also be affected by alterations to land cover from construction, result in decreased infiltration and increased streamflow or water levels (AtkinsRéalis, 2024j). Discharge rates and flow paths may be altered by construction of culverts and bridges at waterbody crossings (AtkinsRéalis, 2024j).

Surface water quality can be affected by alterations to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants (AtkinsRéalis, 2024j). Extra sediment may be introduced from dewatering activities or road maintenance activities such as winter snow clearing or vegetation control. Temporary increases to chemical constituents and exceedances of water quality guidelines in nearby waterbodies may occur from short-term discharges of construction water, wastewater, or wash water (AtkinsRéalis, 2024j). Accidental spills or leaks may also occur from construction activities which would reduce the quality of surface water. Airborne particulate matter (e.g., dust) that has the potential to settle directly onto the water surface or be transported by the wind into nearby waterbodies.

The sediment quality in waterbodies can be affected by erosion of stockpiles and the road from changes to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants (AtkinsRéalis, 2024j). Accidental spills or leaks may also occur from construction activities which would reduce the quality of sediment (AtkinsRéalis, 2024j).

Hence, although the full impact of construction-related activities on surface water quantity and quality cannot at present be quantified and risk to human health estimated, it can be predicted that should surface water quantity and quality be negatively affected, this will have negative impacts to health and wellbeing. Webequie First Nation uses the water around the community to harvest fish, for ceremonial and recreational purposes. Impacts to surface water in areas of often use by community members will have mental and physical health impacts. However, at this time, given construction has not started, it is hard to predict the level of the impact.

#### Indirect effects

Construction and maintenance activities may generate airborne particulate matter and lead to the reduction in sediment quality (AtkinsRéalis, 2024j).

#### Operations Phase

##### Direct effects

During the operations phase, local hydraulics including local shear stress, erosion, water levels, and sedimentation may occur around constructed waterbody crossings (AtkinsRéalis, 2024j). Surface water quality can be affected by alterations to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants (AtkinsRéalis, 2024j). Extra sediment may be introduced from dewatering activities or road maintenance activities such as winter snow clearing or vegetation control.

The sediment quality in waterbodies can be affected by erosion of stockpiles and the road from changes to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants (AtkinsRéalis, 2024j). Given the magnitude of this effect is known, it is not possible to predict the potential health effect at this time. However, changes in surface water quality and quantity will have the same negative health effects as noted in the construction phase above.

##### Indirect effects

Construction and maintenance activities may generate airborne particulate matter and lead to the reduction in sediment quality (AtkinsRéalis, 2024j). Given the magnitude of this effect is known, it is not possible to predict the potential health effect at this time.

#### 6.2.3.4. Mitigation / Enhancement Measures

Due to the importance of maintaining surface water quality, which has a direct effect on food security, recreational and cultural activities in Webequie First Nation, all mitigation measures from the 'Assessment of Effects on Surface Water Resources' report (AtkinsRéalis, 2024j) are re-iterated from a human health stand point:

#### Construction Phase

1. Mitigation measure: Dewatering, water takings, and discharges will be regulated by MECP permits (i.e., a permit to take water will be required for the Project) and industry best management practices will be used to minimize dewatering/pumping volumes;

2. Mitigation measure: Restore disturbed areas from vegetation clearing and grubbing to minimize effects on runoff rates;
3. Mitigation measure: Erosion and sediment control measures taken into consideration when constructing waterbody crossing structures along with implementing water quality monitoring;
4. Mitigation measure: Reduce construction during times that would most affect fish and fish habitat (e.g., breeding seasons);
5. Mitigation measure: Proper handling and storage of petroleum and other hazardous materials as well as emergency response plans to mitigate accidental spills and leaks;
6. Mitigation measure: A Construction Blasting Management Plan for the Project will be prepared, and implemented (also see Section 6.2.2.4 above); and,
7. Mitigation measure: A construction waste management plan will be developed to minimize the amount of the waste to be generated.

#### Operations Phase

1. Mitigation measure: An ongoing follow-up monitoring program (post-construction) will be implemented during the operations phase of the Project; and,
2. Mitigation measure: Water will be used to control the dispersion of dust.

#### 6.2.3.5. Net Effects

##### Construction and Operations Phases

Despite mitigation /enhancement measures, changes in surface water quantity, changes in surface water quality, and changes in sediment quality may occur. Depending on the magnitude of these changes, there is potential for adverse net effects to health.

#### 6.2.4. Light Pollution, including Visual Impact

##### 6.2.4.1. Light Pollution, including Visual Impact and Health

The widespread use of artificial light, especially at night, has become a necessity in many areas of the world to enhance commerce, promote social activity, and increase public safety (Nadybal et al., 2020). However, when artificial light impacts regular activities, enjoyment of spaces, and influences wildlife, it becomes known as light pollution (Chepesiuk, 2009).

Artificial light can influence the human body in both negative and positive ways. Artificial light can improve mood, lower fatigue, and reduce eyestrain. Conversely, artificial light can negatively influence the human body (e.g., disrupting circadian rhythms, causing hormone imbalances, sleep disorders, increased rates of mental disorders, and an increased risk of some cancers and other ailments), animals (e.g., through disorientation, avian collisions with buildings, changes to reproductive capacity and feeding patterns, and habitat destruction), plants (e.g., influence on photosynthesis), increase energy cost, and reduce the clarity of viewing the night sky (Bashiri and Hassan, 2014; Nadybal et al., 2020).

Although there is a lack of literature available on the effect of light pollution on Indigenous communities in Canada specifically, it is known that large developments can influence the amount of light pollution in a region, and lead to insufficient sleep, and a decrease in self-reported mental and physical health (Boslett et al., 2021). As Northern Indigenous communities are often situated in rural settings with

relatively lower levels of light pollution compared to more urban areas, they may be disproportionately impacted by the light pollution introduced by large scale developments in their territory.

Indigenous communities rely on wild food sources for nutritional, cultural, spiritual, and economic reasons (Batal et al., 2021). In addition to the physiological and psychological influences that light pollution has on human beings, effects to traditional food sources (plant and animal) may occur. Wildlife is known to change circadian rhythms and reproductive trends following exposure to artificial light, which can change the foraging, mating, and hatching behaviour of prey and predators, disrupting ecological rhythms (Faid et al., 2019) and potentially influencing traditional food availability.

Plants are also influenced by light pollution. For example, trees in a 13-year dataset across the United Kingdom were shown to bud up to 7.5 days earlier in brighter areas than in areas with less lighting (Ffrench-Constant et al., 2016). Although research in Canadian plant species is limited, the potentially early emergence of food sources due to increased light pollution could change the timing of availability of food for herbivores (Ffrench-Constant et al., 2016) and therefore influence traditional food gathering practices. This change in food-source timing could have downstream effects on traditional food source populations. This can change the success of traditional hunting rhythms, or predator-prey populations which will in turn affect traditional food security.

Canadian Indigenous communities have cultural traditions and oral histories linked to the night sky (Harris et al., 2010). Without clear access to a darkened sky, due to an increase in light pollution (Faid et al., 2019), access to their traditional knowledge may be lost. Although little research is available on the cultural influence of light pollution on the Indigenous peoples in Canada, in Australia light pollution has impeded cultural interconnectedness between the night sky and the Aboriginal Australian peoples (Noon and De Napoli, 2022).

Access and connection to the land is important to protect and enhance Indigenous mental well-being and build a strong sense of identity and self-worth, strong interpersonal relationships, and strong cultural beliefs (Middleton et al., 2020; Salerno et al., 2021). Major visual changes in the landscape and the use of the land itself can have drastic effects to the cultural and spiritual way of life for Indigenous peoples (Fuentes et al., 2020), and in turn to health and wellbeing. The factors that influence mental and physical well-being that are associated with changes to the visual environment are presented in Figure 6-9.

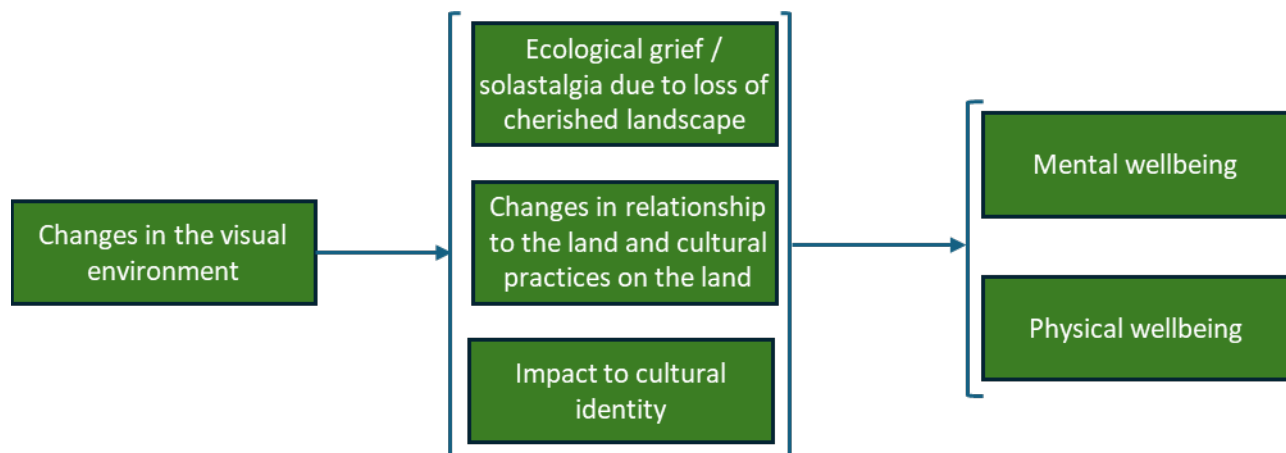


Figure 6-9: Factors that influence mental and physical well-being when changes are made to the visual environment.

#### 6.2.4.2. Existing Conditions

Existing ambient light levels of night sky conditions in the project area were a dark, rural environment as per the criteria for Zone LZ-0 as specified by the Model Lighting Ordinance (AtkinsRéalis, 2023; 2024d). A Zone LZ-0 is described as containing limited to no existing sources of artificial light contributing to the existing ambient light environment (AtkinsRéalis, 2023; 2024d). Additionally, in this zone, sky glow levels are representative of an unpolluted starry sky, where on clear nights thousands of stars and the Milky Way would be clearly visible (AtkinsRéalis, 2023; 2024d). The landscape that the proposed Webequie Supply Road will traverse is typical of the Hudson Bay Lowland Physiographic Region, which characterized as a low, swampy plain with numerous water bodies, bogs, fens, and subdued glacial features (Schollen & Company Inc., 2024). The topography within the project study area is relatively flat, with a topographic variation of 53 m. Based upon the Visibility Analysis, areas that are likely to afford views to the Webequie Supply Road include the following (Schollen & Company Inc., 2024):

- Areas in the vicinity of the Webequie settlement;
- The crossing at Winisk Lake;
- The crossing at Winiskisis Channel;
- The crossing at Muketei River;
- Cultural sites or areas of value or interest that are located within the Local Study Area for the Visual Impact Assessment (1 km from project footprint and 500 m from the footprint of temporary or permanent supportive Infrastructure), east of the divide between predominantly lowland and predominantly forested vegetation communities and within the Regional Study Area for the Visual Impact Assessment west of this line of division; and,
- Trails and locations used for recreation and/or land ad resource use that are located within the Local Study Area for the Visual Impact Assessment.

#### 6.2.4.3. Effects Assessment

##### Construction Phase

##### Direct effects

Visual effects were assessed in the context of the project study areas which includes the project footprint, local study area (i.e., 1 km from project footprint and 500 m from the footprint of temporary or permanent supportive Infrastructure) and regional study area. Project activities during the construction phase included vegetation clearing and grubbing, the construction of support infrastructure such as camps or aggregate sources areas, the construction of structures at waterbody crossings, and the decommissioning and restoration of temporary supportive infrastructure (Schollen & Company Inc., 2024). Potential effects were measured using a qualitative assessment of the change to the visual landscape during construction and during the operations phases of the Project (Schollen & Company Inc., 2024). Visual effects are not anticipated to extend beyond 1 km from project footprint and 500 m from the footprint of temporary or permanent supportive Infrastructure (i.e., the Local Study Area for the Visual Assessment) as the landscape in the vicinity of the project study areas is dominated by coniferous woodland (Schollen & Company Inc., 2024).

The visual effects associated with supportive infrastructure components (i.e., construction camps, aggregate source areas, construction access roads, and maintenance and storage facility) will be confined to the Local Study Area for the Visual Assessment (see above) and will be limited in extent due

to the height and density of the coniferous woodland dominated landscape (Schollen & Company Inc., 2024). Also, as per the Visual Impact Assessment (Schollen & Company Inc., 2024), the Winisk Lake Crossing was determined to have the highest potential to affect a change in the quality of the visual landscape based on the scenic quality of the existing landscape, the length of the proposed crossing structure, and the extent of the viewsheds from which the crossing structure will be visible.

Changes to the visual landscape (e.g., removal of trees for the road and right of way, or construction of water crossing on previous wide-open areas) may cause a sense of loss or ecological grief to some community members when the road is being built. This may have some potential negative mental health impacts for these individuals.

#### Indirect effects

There are no indirect effects to the visual environmental and as such there no health impacts due to indirect effects.

#### Operations Phase

##### Direct effects

Project activities during the operations phase included the operation, maintenance and repair of road and waterbody crossing structures. The potential effects from these project activities consisted of a change to visual landscape in terms of the visibility (visual prominence) of the Project, and the scenic quality or viewer sensitivity and magnitude/distance. This change in the landscape and their cherished visual environment can cause feelings of ecological grief in some individuals, leading to some mental health impacts.

Three waterbody crossings were assessed to identify potential visual effects (Schollen & Company Inc., 2024). The assessment determined that for the Winiskis Channel and Muketei River Crossings, visual effects will not extend beyond the project footprint and will be limited to the viewsheds. For the Winisk Lake Crossing, visual effects are not anticipated to extend beyond the Local Study Area for the Visual Assessment (see above) and will extend approximately 1,850 m from the Webequie Supply Road right-of-way corridor. Views to the crossing structures at all three crossings will be limited to views from open water and shoreline areas within the mapped viewshed. None of the crossings will be visible from the Webequie settlement. Additionally, the Webequie Supply Road is not proposed to be illuminated so the Webequie Supply Road will not be visible from any receptors during the night. With respect to potential receptors, only those that are located within the defined viewsheds associated with each of the proposed crossings of Winisk Lake, the Winiskis Channel and the Muketei River will be subject to a change in the visual environment.

It is not anticipated that the Webequie Supply Road will be illuminated along its entire length. However, for safety and security, lighting may be required at certain locations such as the east and west terminus points of the road and at supportive infrastructure sites, such as construction camps, rest and maintenance areas, aggregate/rock sites and Maintenance and Storage Facility (Schollen & Company Inc., 2024). In addition, visibility of the project components, including supportive infrastructure for the Project's operations would be partially or fully obstructed by surrounding vegetation with the existing height and density of the coniferous woodland. Therefore, potential lighting effects of the Project are predicted to be negligible and are not carried forward for further assessment (Schollen & Company Inc., 2024). Moreover, over time, it is expected that for these areas where the road is visible, community members will get used to the change in scenery. It is not expected that there is any potential for adverse health effects.

## Indirect effects

There are no indirect effects to the visual environmental and as such there no health impacts due to indirect effects.

### 6.2.4.4. Mitigation / Enhancement Measures

The change to the visual landscape during construction and during the operations phases of the Project is anticipated to be minor.

#### Construction Phase

1. Mitigation measure: Inform community members of upcoming construction activities and where they will be focused so members are prepared to see construction equipment and changes in the landscape in specific areas.

#### Construction and Operations Phases

As per the Visual Impact Assessment (Schollen & Company Inc., 2024), mitigation measures for effects to visual environment will be incorporated into the Project design and will be implemented to minimize negative effects. Mitigation measures considered in the potential effects analysis for visual environment included the following, and are re-iterated from the human health standpoint to limit impacts to mental wellness as a result of change to the visual environment (Schollen & Company Inc., 2024):

- Avoiding new Project footprint disturbances to the extent practicable, with particular consideration at the three waterbody crossing sites
- Minimizing the extent of vegetation clearing at the three waterbody crossings, and other crossings, that are considered navigable waterbodies will be limited to minimize visual impacts and where necessary meet safety standards.
- Maximizing efforts to retain existing vegetation and landforms, to the extent practicable, to provide screening of activities and Project components.
- Reducing the extent of disturbed area within the road right-of-way. Disturbed areas will be restored and seeded to allow for natural revegetation and its management to support the safe operations of the road.

As per the visual assessment (Schollen & Company Inc., 2024), the mitigation measures will be effective in reducing the extent and magnitude of change to the visual environment.

### 6.2.4.5. Net Effects

#### Construction Phase

Net effects for light pollution, including visual impact are not anticipated during the construction phase.

#### Operations Phase

Net effects for light pollution, including visual impact are not anticipated during the operations phase.

## 6.2.5. Housing

### 6.2.5.1. Housing and Health

All individuals should have access to appropriate housing according to the Universal Declaration of Human Rights (United Nations, n.d.). Shelter is recognized as a basic prerequisite for health by the Ottawa Charter for Health Promotion (WHO, 1986). Housing policies often fail to meet these prerequisites. Housing insecurity such as lack of access, lack of appropriate housing, and overcrowding can lead to implications of individuals' health (Raphael, 2016) (e.g., increased risk of tuberculosis, preterm labor, infant mortality, respiratory tract infections, etc.) (Clark et al., 2002; Shapiro et al., 2021; Kovesi et al., 2022). Figure 6-10 below shows how housing provides a physical benefit as well as a social one (Shaw, 2004; Nguyen et al., 2022). Physical aspects of housing are related to material and quality of housing, which can be dependent on one's socioeconomic status. Physical location of housing also determines access to services and facilities (Shaw, 2004; Nguyen et al., 2022). Housing has more social and psychological impacts, including determining one's social status, sense of community and security, as well as social capital and cohesion (Shaw, 2004; Nguyen et al., 2022).

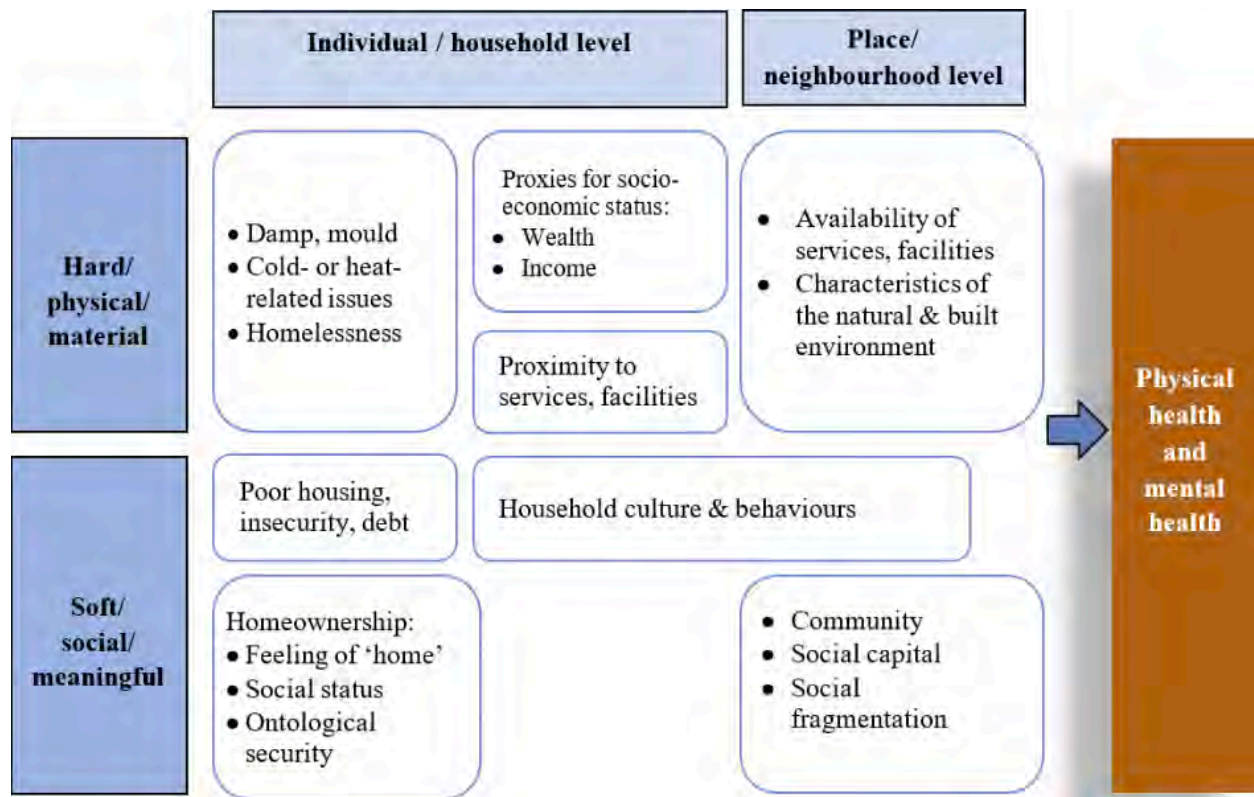


Figure 6-10: Ways in which housing can impact health. From Shaw et al., 2004 and Nguyen et al., 2022.

Indigenous people in Canada are over-represented among the visibly homeless in rural and urban locations. Additionally, there is a non-visible component to housing need and insecurity in Indigenous communities. Specifically, overcrowding of housing, and temporary housing at family or friends due to a lack of permanent shelter (Christensen, 2016).

The current state of homelessness and housing insecurity in Indigenous communities can be framed in a colonial context (i.e., intergenerational trauma stemming from the residential school legacy, loss of a sense of belonging, implementation of government managed housing programs, displacement of people from their ancestral lands, etc.) as well as specific health and social needs of Indigenous peoples (i.e., cultural based material, spiritual, relational, and emotional factors that build a home) (Christensen, 2016). To address the disproportionate access to safe and appropriate housing for Indigenous peoples, an approach that focuses on Indigenous culture, traditional homemaking practices, and that is led by Indigenous communities, policymakers and practitioners is needed (Christensen, 2016).

Children and youth spend more time in the home and are more likely to experience the negative health impacts of housing insecurity (Figure 6-11 below) (San Francisco Department of Public Health, 2019).



Figure 6-11: Negative health outcomes in children due to residential crowding, multiple moves and poor quality housing. Taken from the San Francisco Department of Public Health (2019)

For remote communities, there is also the added burden of the cost and logistics associated with affording and delivering needed materials during the short winter road season (Lyeo et al., 2024). Once the materials are on-site, skilled tradespeople are also needed to assemble the homes, which can add to the logistical and monetary barriers to building and repairing housing (Lyeo et al., 2024).

Overcrowding has also been shown to exacerbate family violence (Makinde et al., 2016) and has a direct negative impact on the physical and emotional health of children, and all familial dimensions of health, particularly women's health (Daoud et al., 2013). Indigenous women, who are often forced to live in overcrowded housing due to a lack of appropriate housing, are particularly susceptible to intimate partner violence (Daoud et al., 2013; Ontario Native Women's Association, 2018). For instance, the rates of female victims of family violence in Canada are highest in the Northwest Territories, Nunavut, and Yukon, where households are 'highly crowded' (Public Safety Canada, 2020).

Due to a number of factors including poor housing, lack of fire hydrants, lack of fire-fighting equipment, and a lack of fire alarms, Indigenous peoples are regarded to be more susceptible to fire-related deaths (McMahon & Cribb, 2024). As stated by the Minister of Indigenous Services, many First Nation lives are being lost to fires due to a lack of building and fire codes, poor housing conditions, and overcrowding (McMahon & Cribb, 2024).

#### 6.2.5.2. Existing Conditions

As of 2021, Webequie First Nation has a total of 171 private dwellings, of which 166 (i.e., 97.1%) were occupied by community members (SNC Lavalin, 2023; AtkinsRéalis, 2024i). Of the total dwellings located in the community 94.3% are considered government or band housing, with the remainder owned by community members (SNC Lavalin, 2023). The majority of the dwellings in Webequie First Nation are considered single-detached (i.e., 84.8%), with the remainder of dwellings being semi-detached (i.e., 15.2%) (SNC Lavalin, 2023). Most homes in Webequie First Nation were constructed over 20 years ago, which suggests most of the residential infrastructure on-reserve is aging and in need of major repairs (SNC Lavalin, 2023).

40% of these homes are classified as unsuitable for the size of the household residing in them (AtkinsRéalis, 2024i). 14 new modular housing units were recently brought to the community along with two 4-unit multiplex housing facilities and five single-family homes as well as the renovation of 14 existing houses after partnering with federal and governmental department through Crown-Indigenous Relations and Northern Affairs Canada's program 'Strategic Partnerships Initiative' (AtkinsRéalis, 2024h). This allowed housing conditions to be improved for 29 families in Webequie First Nation.

There is also limited short-term housing available in the community including the Webequie Motel which has one suite and five double rooms (AtkinsRéalis, 2024i). There is currently a 49-person trailer camp unit installed near the airport which is typically used by contractors (AtkinsRéalis, 2024i).

Both on and off-reserve it is most common for households to contain approximately 3 to 4 members, while households with 7 members are much more common on reserve (SNC Lavalin, 2023). Compared to the 9.9% average across Ontario, nearly half (48.5%) of Webequie residences are occupied by more than five individuals, making overcrowding a significant problem in the community (SNC Lavalin, 2023). As of 2021, 47.1% of Webequie's occupied dwellings required major repairs, and 37.7% of them were deemed unsuitable, compared to 6.7% and 5.7%, respectively, for Ontario (SNC Lavalin, 2023). It has been reported that on-reserve that 46.4% of individuals felt as though their living space was overcrowded, and alternatively 45.8% of individuals felt their living space was not overcrowded (SNC Lavalin, 2023). For community members who reside off-reserve, the number of individuals who felt their living spaces were overcrowded was slightly higher (i.e., 47.1%) (SNC Lavalin, 2023).

There has been a need for additional housing in the community for the last 15 years (Webequie First Nation, 2021; SNC-Lavalin, 2022a). The community's top housing issues, according to findings from knowledge holder interviews and the Webequie First Nation Socio-Economic Survey, are overcrowding, bad conditions, and lack of availability (SNC Lavalin, 2022b). The lack of bedrooms for household members, safety concerns including mould and lack of fire alarms, and expensive fuel prices to heat homes are just a few of the obstacles that community members face. It is estimated that mould is an issue in ~80% of homes in the community, and major repairs needed consist of electrical, plumbing and structural problems (SNC-Lavalin, 2022a; 2022b). There is limited housing stock available due to a combined lack of funding, lack of trained individuals to construct and repair homes, and the exorbitant costs associated with transporting materials (SNC-Lavalin, 2022a; Webequie First Nation, 2021). The lack of housing available within the community is leading to "couch surfing" for those who may have become

unhoused due to fires for example (SNC-Lavalin, 2022a). Service providers such as teachers, professional therapists, health care practitioners, etc. are also in need of available housing for short or long-term placements in Webequie First Nation (SNC-Lavalin, 2022a). This also negatively impacts the availability of services within the community when professionals such as teachers or nurses lack a place to live. Many people in the community reside off-reserve, and despite their desire, they are unable to return because of the housing problem (SNC-Lavalin, 2022a). 148 new housing units are needed by 2037 based on registered population projections according to the Comprehensive Community Plan for Webequie First Nation (Webequie First Nation, 2021).

Poor housing conditions in Webequie First Nation have had an adverse effect on community members' physical and mental health; for example, young people who share rooms with multiple generations and do not experience enough privacy, overcrowded housing with too many individuals living with them, lack of housing experienced by single mothers, etc. (AtkinsRéalais, 2024i; Intrinsik, 2023a; 2023b; 2024). Members expressed the opinion that because young people are trying to escape the conditions of their overcrowded houses, substance misuse and other undesirable behaviours, such as vandalism, are worsened by overcrowding (SNC-Lavalin, 2022a).

Housing shortages and affordability are also critical issues in the other LSA communities (AtkinsRéalais, 2024i). The high costs associated with transporting building materials to remote areas are exacerbating the substandard living conditions and lack of essential services that many of these communities face (AtkinsRéalais, 2024i). Significant gaps remain despite efforts to address these issues including community-led housing projects and increased federal investment (AtkinsRéalais, 2024i).

#### 6.2.5.3. Effects Assessment

##### Construction Phase

###### Direct effects

There are no direct effects to housing due to the construction phase of the Webequie Supply Road.

###### Indirect effects

If community members who live off-reserve choose to come stay in Webequie First Nation during the construction phase to participate in construction jobs, it is possible that there may be additional strain on Webequie First Nation's already burdened housing situation, with potential for stress and anxiety in the community related to housing shortage. However, it is proposed in the Community Readiness Plan (AtkinsRéalais, 2024k) that there may be temporary accommodations built in the Webequie community during the construction phase, which will ease any burdens that could be placed on the Webequie community's housing and infrastructure by off-reserve members seeking employment. As such, this impact, and its resulting health effects are uncertain at this time and will depend on how many off-reserve members return to participate in employment, and what temporary accommodations are built within the community to safely house them.

Due to Webequie's shortage of short-term lodging, any new guests connected to the Project may put further strain on the community's housing (AtkinsRéalais, 2024i). Overcrowding can disproportionately impact vulnerable populations who are susceptible to change, including those currently without housing (single parents, women, etc.) and young people (InterGroup, 2024). Overcrowding could contribute to social issues and health concerns, which could be further stressed by the Project (AtkinsRéalais, 2024i; Intrinsik, 2023b). Hence, all new guests who are not community members should be housed in the

construction camps for the Project. This will limit additional burden on an already stretched housing system and limit health impacts.

### Operations Phase

#### Direct effects

There are no direct effects to housing due to the operations phase of the Webequie Supply Road.

#### Indirect effects

Once operational, the Webequie Supply Road may be able to reduce costs related to the transportation of supplies and materials for housing and therefore boost housing availability. Many Webequie members have conveyed optimism regarding the Webequie Supply Road Project's capacity to enhance the quality of homes within their community (SNC Lavalin, 2022a; 2022b, 2024).

However, it should be noted that for the Webequie Supply Road to allow for cheaper entry of goods and/or services related to building of new housing and repairing existing housing, a connection to the provincial highway system that connects Webequie to other communities and municipalities would need to happen. However, connecting the Webequie Supply Road to the rest of the province also required the construction of the Northern Road Link Project and the Marten Falls Community Access Road Project, both of which are also going through the federal Impact Assessment process. As such, it is cannot be determined at this time if the Project operations phase will have an impact on housing, apart from the one construction camp which is expected to be converted to community housing to house any off-reserve members, medical staff, educators, and any other Project operations related staff. However, even with the one construction camp converted into housing, it is expected that some strain on housing can be relieved, with some potential for limited positive health impacts, especially if visiting health care staff can stay more easily.

### 6.2.5.4. Mitigation / Enhancement Measures

#### Construction Phase

1. Mitigation measure: All workers, except individuals from Webequie First Nation, should be housed in the designated construction camps.
2. Enhancement measure: For off-reserve members of the Nation working on the construction of the Webequie Community Access Road, additional temporary housing within the community that can be converted into longer-term housing should be considered to avoid overcrowding in existing homes.
3. Enhancement measure: The population groups who are already disproportionately affected by poor and crowded housing conditions, i.e., single mothers, older adults, women and single individuals, should be prioritized in the allocation of housing (Intrinsic, 2023b; InterGroup, 2024).
4. Mitigation measure: During the construction phase, the construction camp structures will be designed to ensure all required services are available to the workers at the camp itself, with neutral to minimal disturbance/ impact to the existing community infrastructure of Webequie First Nation (AtkinsRéalisis, 2024k).

### Operations Phase

1. Enhancement measure: The Webequie First Nation Community Readiness Plan will include plans and measures for enhancing housing stock to address housing capacity issues (AtkinsRéal, 2024i). Given the importance of housing as a vital determinant of health, these measures are also recommended from a human health standpoint.
2. Enhancement measure: Off-reserve community members and medical staff and personnel should be prioritized for residence in the one construction camp expected to be converted into housing for community needs.

#### 6.2.5.5. Net Effects

### Construction Phase

No net effects are predicted.

### Operations Phase

Potential positive effects to health are predicted from enhancement measures adding new housing to increase housing availability during the operations phase (AtkinsRéal, 2024i).

In addition, converting one construction camp into housing for the community and visiting staff has the potential for positive net effects to health and wellbeing.

## 6.2.6. Employment and Income

### 6.2.6.1. Employment and Income and Health

Income and social status are closely connected and often combined into the term ‘socio-economic status’. Socio-economic status is a long-established risk factor for population health (Winkleby et al., 1992). A systematic review about the influence of social determinants on the health and well-being of Indigenous peoples in Alberta revealed a strong association between unemployment and health inequity, leading to an increased risk of cardiovascular diseases, mental health issues, and harmful lifestyles characterized by alcohol and substance misuse, poor dietary habits, physical inactivity, and domestic violence (Kolahdoz et al., 2015). Unemployment and low-income status are also linked to obesity, and childhood development and behaviour (National Collaborating Centre for Aboriginal Health, 2017b). For example, children raised in low-income situations are less likely to be academically successful due, in part, to lack of nutritious food. This inequity leads to disadvantages later in life (e.g., impeded physical abilities, cognition, and health outcomes), thus perpetuating a cycle of unemployment and low-income status across generations. In Indigenous communities, negative health outcomes are exacerbated by a lack of access to basic goods, services, and medical support thus creating a culture of inequity (Kim, 2019). In Ontario, 53.1% of First Nations members on reserve obtain an employment income, with the average income being \$33,240. This is lower than the average income for all of Ontario (\$55,500) (Statistics Canada, 2023). In Ontario, men on reserve earn on average less than women (\$30,280 and \$36,080 for men and women respectively) (Statistics Canada, 2022).

In remote Indigenous communities, a lack of infrastructure and resource development opportunities contributes to economic insecurity and marginalization which influences health outcomes associated with socio-economic determinants of health (Reading & Wien, 2009). For example, lack of new employment opportunities in the community results in decreased individual and household income, and increased rates of poverty-associated negative wellness outcomes (i.e., mental health, chronic diseases,

substance use, etc.). Further, a lack of qualified persons (i.e., health care and education professionals, trades-people, etc.) within the community decreases the access of community members to services that would influence social determinants of health within the community (i.e., childcare, education, mental wellness services, substance use services, health care service, etc.) and increase the overall wellness of the people in the community (Reading and Wien, 2009).

In general, higher income and social status are associated with better health status, whereas lower income and social status are linked to the opposite. There is abundant research that connects specific health outcomes with income and social status, including birth weight and infant mortality; self-rated health; adult mortality; chronic and acute infectious diseases; mental well-being; social pathologies; and health service utilization (Yen and Syme, 1999; McIntosh et al., 2009, Mikkonen and Raphael, 2010). A summary of the effects of employment, and its impacts on other determinants of health is shown in Figure 6-12 below.

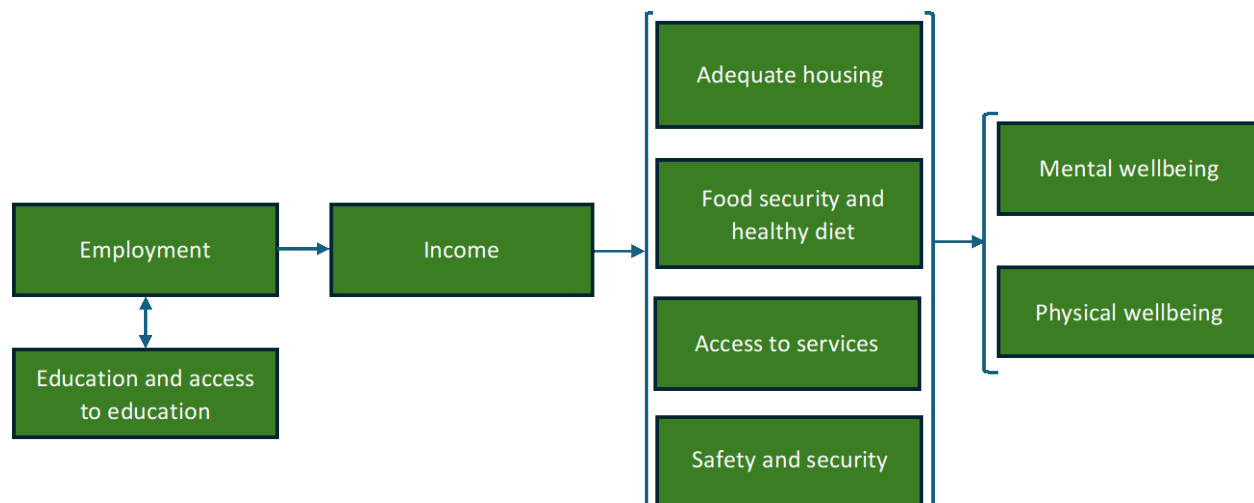


Figure 6-12: Employment affects other determinants of health and can lead to physical and mental health outcomes

### 6.2.6.2. Existing Conditions

Information on existing conditions with respect to employment and income in Webequie First Nation is highlighted in Section 5.3. Additional information has been provided below.

#### Employment

According to the economic assessment report, the majority of Webequie’s population is not in the labour force (61.7%) (AtkinsRéalis, 2024h). The working age population (those aged 15-64), of Webequie First Nation is in decline based on the 2021 Census population trends, and the working age population was 420 individuals in 2021 (AtkinsRéalis, 2024h). Through a survey conducted in 2022 by SNC-Lavalin, it was reported that 45.9% of individuals who live on-reserve were employed in fulltime positions, while 34.7% were not currently employed (SNC-Lavalin, 2023). Of those who are working, 39.2% are female, and 38.6% are male (SNC-Lavalin, 2023). Although, it was reported that of the individuals on-reserve who were unemployed, more than half (i.e., 59.3%) of the individuals were searching for work opportunities (SNC, 2023). Compared to Ontario, the participation rate is quite low at 63%, but the unemployment rate is roughly the same at 5.5% (SNC-Lavalin, 2023). Of the employed individuals who

reside on-reserve, 85% were found to not own, operate, or work for a local Indigenous-owned business (SNC-Lavalin, 2023).

Within the community, there is a strong desire to find employment and engage in training programs, however, it has been expressed by youth in the community that once graduating from high school, employment is difficult to find (SNC-Lavalin, 2023). To capture employment benefits from the construction of the Project, Webequie First Nation community members are currently enrolled in Building Environmental Aboriginal Human Resources (BEAHR) training (AtkinsRéalis, 2024h).

The labour force and employment opportunities in Webequie First Nation are seen as major concerns by community members, with 68% of members stating they do not feel there are enough local job opportunities for them (SNC-Lavalin, 2023). Lack of training and education, lack of childcare, and lack of traditional needs such as hunting, fishing and fathering have been the top responses to barriers of employment (SNC-Lavalin, 2023). The youth in Webequie may especially feel that education and training is lacking as 29% of respondents were aged 15 to 30 (SNC-Lavalin, 2023). Concerns were also raised for women's barriers to employment from knowledge holder interviews and focus groups, the top barriers being familial responsibilities with a lack of childcare options and a lack of education (SNC-Lavalin, 2023). Community members thought that if childcare services additional education could be offered, then more women would be able to join the workforce. Of the unemployed women in the community, 47% were searching for work, and about 50% of respondents who noted education or training as a barrier to employment were female (InterGroup, 2024). Also, as discussed in Section 5.3, although Webequie-specific numbers are unavailable, persons with disabilities were less likely to be employed (59%) than those without disabilities (80%) (Statistics Canada, 2018).

### **Income**

The most common income group for working males (i.e., 27.8%) and females (i.e., 40%) in 2020 was "under \$10,000 (including loss)" (SNC-Lavalin, 2023). Webequie also has a much greater prevalence of low income, which is up to three or four times higher (Statistics Canada, 2021; see Table 5-6). Men in Webequie First Nation have greater prevalence of low income for all age groupings when compared to women. Approximately 31.2% of the Webequie population is considered low-income. About 36% of individuals between the ages of 0 to 17 years are living in low income, according to a low-income measure. Approximately 27% of people aged 18-64 are considered low-income and 38% of people aged 65 years and over are considered low-income. Some members of Webequie First Nation have also expressed their inability to afford the Starlink internet service in the community (AtkinsRéalis, 2024h). In the past, Webequie individuals did not need to rely on income from employment. Now that they are dependent on such income, which also hinders their ability to go out on the land (InterGroup, 2024).

Additionally, based on the socio-economic survey, 36% of respondents identified that they receive income from Ontario works, 10.8% receive income from Ontario disability program, 16.2% receive income from old age pension Old Age Security (OAS), the Canada Pension Plan (CPP), 23% receive income from employment insurance, 1.4% receive income from employee disability insurance, 1.4% receive income from accident and benefit insurance, whilst 10.8% did not receive any income from government sponsored programs (SNC-Lavalin, 2022a).

### 6.2.6.3. Effects Assessment

#### Construction Phase

##### Direct effects

Webequie First Nation members may have better jobs and economic prospects as a result of the Webequie Supply Road Project. As shown in Table 6-6, during each year of construction, Webequie First Nation is estimated to fill approximately 10 direct employment positions which will be located on-site (AtkinsRéalis, 2024h). Webequie First Nation is not forecasted to capture any of the direct off-site work attributed to the Project.

**Table 6-6 Full-Time Equivalent Direct, Indirect, and Induced Project Related Employment, Webequie First Nation, Construction Phase**

Labour Type	2028	2029	2030	2031	2032
Direct	10	10	10	10	10
Indirect	0	0	0	0	0
Induced	7	4	3	3	3
Total	17	14	13	13	13

Source: Avaanz Ltd., 2024; AtkinsRéalis, 2024h.

Since employment positions will become available for Webequie First Nation, it can be expected that those individual household incomes will be positively affected in the community (AtkinsRéalis, 2024h). Employment income generated by the Project for Webequie First Nation has been estimated based on FTE salaries and labour requirements (Table 6-7). It is estimated that direct on-site jobs will bring between \$1.8M to \$2M into the community each year (AtkinsRéalis, 2024h).

**Table 6-7 Project Related Employment Income, Webequie First Nation, Construction Phase**

Labour Type	2028	2029	2030	2031	2032
Direct	\$1,801,004	\$1,748,848	\$1,883,612	\$1,919,317	\$2,020,209
Indirect	-	-	-	-	-
Induced	\$395,515	\$223,087	\$169,504	\$151,924	\$170,799
Total	\$2,196,519	\$1,971,935	\$2,053,116	\$2,071,241	\$2,191,008

Source: Avaanz Ltd., 2024; AtkinsRéalis, 2024h.

For those who gain employment, it is expected that their income and socioeconomic condition will improve, allowing for better access to healthy foods and other services. This has the potential for positive health impacts. It should be noted, however, that not everyone may benefit equally. For example, women who have childcare and home care responsibilities, youth, older adults, those with disabilities, those without necessary skills and training, may not benefit as much. If left unaddressed, this may lead to increasing inequities within the community and feelings of resentment and reduced social cohesion. Employment and income are major predictors of health and social wellbeing, and it is recommended that the Community Readiness Plan consider equitable uptake of employment opportunities, as much as possible.

**Indirect effects**

Due to the nature of the indirect work requirements and with the lack of supply chain connections to Webequie First Nation, it is unlikely that Webequie First Nation will capture any indirect employment related to the Project. Workers from the RSA, specifically the Thunder Bay District, are likely to fill the indirect labour positions (AtkinsRéalais, 2024h).

During the Project's construction period, shifts are expected to be restricted to 14 days on and 7 days off (InterGroup, 2024). Because of this, Webequie members who worked for the Project during the construction phase might not have as much time to spend harvesting on the land. Since traditional activities can give people a feeling of identity and worth, this poses issues to the well-being of those employed as well as problems for those who are more prone to rely on the traditional economy, such as Elders who may rely on the sharing economy (InterGroup, 2024). Local hiring and training of labour, especially for members of Indigenous communities, will be prioritized for the Project (AtkinsRéalais, 2024h).

However, women and young people, in particular, encounter additional obstacles when attempting to take advantage of these opportunities. Education, training, and/or experience will be necessary to take advantage of the Project's direct and indirect employment opportunities (see Figure 6-12). It might be difficult for Webequie members, especially women and young people, to gain this education and training as stated above as additional education and training for women is already a challenge. Community members may face challenges securing employment as only a limited supply of labourers have attained a post-secondary certificate, diploma, or degree and only a limited number have the required areas of study (AtkinsRéalais, 2024h). Although those without proper education will have the opportunity to be trained to develop the new skills that would be required for work on the Project, a significant portion of the labour requirements for the Project may be met by labour force from the RSA (AtkinsRéalais, 2024h).

Despite these challenges, community members are hopeful that potential development in the area from the Project might help improve opportunities in education and employment for younger members, as the high cost of living can disproportionately affect vulnerable populations including those who are low-income, youth, Elders, women, and individuals living with disabilities (AtkinsRéalais, 2024h). The potential for positive health effects may be limited to those members of the community who can get the jobs.

Operations Phase

Direct effects

The same types of opportunities that exist during the construction phase (economic development related to operations, maintenance workforce training, and youth employment) will exist during the operations phase, but to a lesser extent.

**Table 6-8 Project Related Employment, Webequie First Nation, Operation Phase**

Direct	Indirect	Induced	Total
3	0	1	4

Source: Avaanz Ltd., 2024; AtkinsRéalais, 2024h.

During operations, the total labour income attributed to the Webequie First Nation workforce for the Project is approximately \$302,505 (AtkinsRéalais, 2024h). 85% of this is attributed to the labour income received from direct on-site employment.

## Indirect effects

During the operations phase, it is expected that Webequie members will be able to get jobs in the Ring of Fire area once mining development starts. However, it is not known when this will be, and how many and what kind of jobs will be available. For those who get jobs, their families will benefit, and the same considerations related to inequitable distribution of positive impacts also applies here.

### 6.2.6.4. Mitigation / Enhancement Measures

#### Construction Phase

1. Mitigation measure: Webequie First Nation should consider working with the Province to invest in training programs to build local capacity. Webequie First Nation should also work with the contractor to consider providing childcare services so women can participate in training and education to take advantage of employment opportunities resulting from the Webequie Supply Road construction phase (AtkinsRéalis, 2024k), as well as helping to ensure that workers from the community are offered fair wages, safe working conditions, job security, and address inequalities in labour practices.
2. Mitigation measure: Webequie First Nation should work with the contractor to help ensure additional support for underrepresented groups such as youth, through opportunities such as job shadowing, mentorship programs, and paid internships.
3. Enhancement measure: Creation and implementation of workplace policies and programs, including a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training), as a means to retain employees through positive work experience (AtkinsRéalis, 2024h).
4. Enhancement measure: The contractor should consider providing disability supports (e.g., access to wheelchair and access ramps, hearing aids, etc.) to allow community members with disabilities to participate in the work force as much as possible, potentially in desk-jobs or low intensity jobs.
5. Enhancement measure: Webequie First Nation should consider a plan that would shape the Webequie Supply Road Project as a source of sustainable employment opportunities for community members. Investing in training programs to build local capacity. Ensuring that workers from the community are offered fair wages, safe working conditions, job security, to address inequalities in labor practices.

#### Operations Phase

1. Enhancement measure: Safe, reliable, and accessible care options for children, older persons, and those with disabilities will help those who have care duties access and use the road to access employment opportunities.

### 6.2.6.5. Net Effects

#### Construction Phase

Potential positive net health effects are predicted as a result of employment opportunities available during construction with the potential to increase incomes. The scope of the positive effects, i.e., whether various sub-groups within the community (i.e., women, youth, individuals with disabilities)

benefit, will depend on how well the mitigation and enhancement measures listed above are implemented.

New labour and business opportunities (direct, indirect, and induced) will lead to increased participation and employment in the labour market, increased employment, and increased labour income (AtkinsRéalis, 2024h).

#### Operations Phase

Increase in employment and income once the Webequie Supply Road is operational will depend on factors outside of the Webequie Supply Road Project itself. As such, it is not possible to currently predict the level of effects to health as a result of the Webequie Supply Road Project exclusively. However, the operation of the Webequie Supply Road will increase employment opportunities and therefore increase employment income (AtkinsRéalis, 2024h).

### 6.2.7. Education / Access to Education

#### 6.2.7.1. Education and Health

Education is used as a predictor of health outcomes, though the factors that influence educational attainment and health are complex and interwoven (Korpál & Wong, 2015; Raghupathi and Raghupathi, 2020). Education has been shown to positively correlate with longer life expectancies, healthier behaviors, and better overall health, as well as lower morbidity from acute and chronic disease (Korpál & Wong, 2015). Those with a higher education have a better chance of improving their socio-economic status which is a long-established risk factor for population health (Winkleby et al., 1992).

Indigenous peoples are less likely to achieve a certificate, diploma, or degree (National Collaborating Centre for Aboriginal Health, 2017a). Possible obstacles to the attainment of high levels of high school and post-secondary certificates, degrees, and diplomas among the Indigenous population in Ontario are lack of access, geographic isolation, limited opportunities, and systemic discrimination and intergenerational trauma due to the imposition of residential schools (National Collaborating Centre for Aboriginal Health, 2017a). Several social determinants of health affect a students' educational attainment, for example, food security, adequate housing, appropriate childcare, addiction and substance use in their environment, household income and employment (National Collaborating Centre for Aboriginal Health, 2017a). These are indicated in Figure 6-13. In turn, education and access to education has impacts to health and wellbeing, as it is a factor that can determine employment and income, which are necessary for accessing appropriate housing, food security and a healthy diet, and access to services (see Figure 6-12).

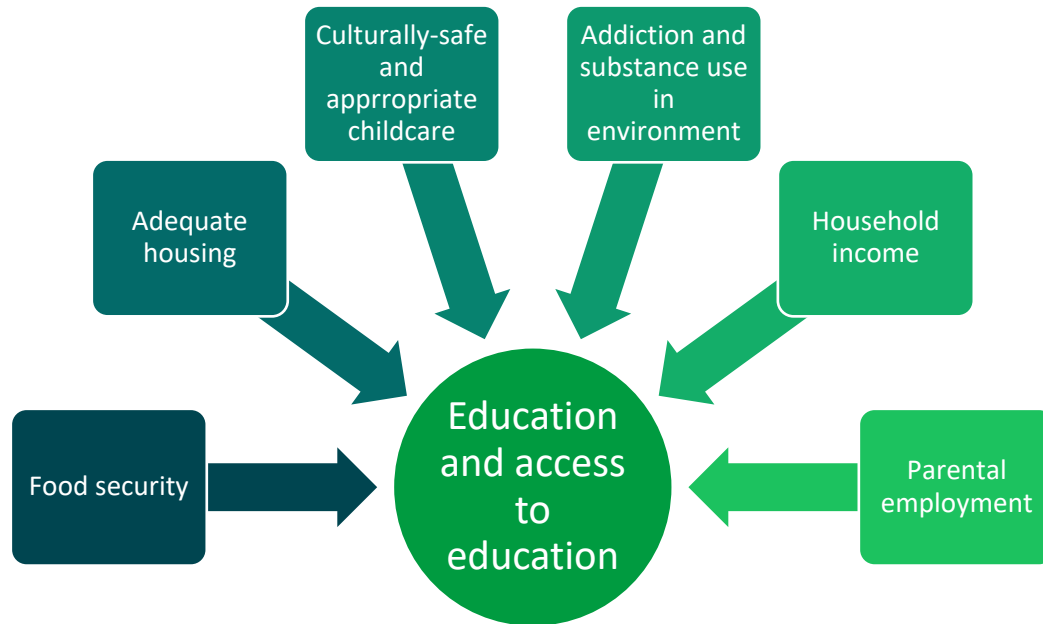


Figure 6-13: The social determinants of health that impact educational attainment in youth

There are over 500 on-reserve band-operated schools, mostly located in rural, remote, or special access locations. Challenges these schools face include isolation, underfunding and lack of infrastructure and human resources. These concerns surrounding the schools' isolation and perceived lower quality of education can lead to higher enrolment in public secondary school (Korpál & Wong, 2015). There are over 130 First Nations in Ontario that do not have a high school program. Youth who want to pursue education must leave home in adolescence to pursue a higher level of education than what is offered in the community, or pursue their studies online, if possible, with e-learning infrastructure in the community (Hallmark & Reed, 2016). The difference in educational attainment in the populations has both direct and indirect effects on health outcomes of individuals, families, and communities (i.e., lower life expectancies, higher rates of chronic health conditions, etc.) (Bethune et al., 2019).

Further, the legacy of colonialism, racism, and government policies have influenced the social climate surrounding the pursuit of education among Indigenous peoples (Milne, 2017; Rocchetta, 2019). The Indigenous experience with education has been heavily influenced by historic experiences with the residential school system. The residential school system focussed on the need to assimilate and "civilize" Indigenous children, who were forcibly removed from their families and communities to attend schools run by the Government of Canada and the church in locations that were often far away from home communities (Government of Canada, 2017; National Centre for Truth and Reconciliation, n.d.a). Children experienced the loss of culture, language, and family. They faced harsh punishments, loneliness, and sexual and physical abuse (Government of Canada, 2017; National Centre for Truth and Reconciliation, n.d.a). The intergenerational influence of these traumatic experiences has influenced subsequent generations relationship with mental health, and substance use (Government of Canada, 2017; National Centre for Truth and Reconciliation, n.d.a).

#### 6.2.7.2. Existing Conditions

Existing conditions for education are provided in Section 5.3.1 above. Additional information is included below.

The Aboriginal Head Start Program is a preschool program available in Webequie which caters to children aged 4 and under (AtkinsRéalais, 2024i). Once children finish this program there are no further options until they start kindergarten at the Simon Jacob Memorial Educational Centre in the community is a Kindergarten to Grade 10 band-operated school (AtkinsRéalais, 2024i). Students are able to take part in spring and fall hunts, and the school provides culturally appropriate curriculum that highlights the customs, language, and way of life of Webequie First Nation and Anishinaabe people (InterGroup, 2024).

To receive their high school diploma, youth work with teachers at the school who support their online education in partnership with Keewaytinnook Internet High School (InterGroup, 2024). Youth collaborate with teachers at Keewaytinnook Internet High School, who supports their online education, to earn their high school diploma (InterGroup, 2024). The rate of teacher turnover at the school is high. The school's physical layout presents another difficulty; in order to accommodate more classrooms, the school had to give up space for a staff room, computer lab, library, and workable kitchen. Those who did not finish high school can obtain their high school equivalency with the aid of the Alternative Secondary School Program (ASSP) (InterGroup, 2024).

The Simon Jacob Memorial Educational Centre has 15 teachers, including a teacher that works on-site to support the online educational component and to assist students in obtaining their Ontario Secondary School Diploma (SNC-Lavalin, 2023). The school currently offers culturally relevant content, which aims to reflect the traditions, language, and way of life of Webequie First Nation and Anishinaabe people (SNC-Lavalin, 2023). Education on reserve prioritizes a focus on the land and cultural programs, the school on reserve also integrates seasonality into programming (e.g., spring camping) (SNC-Lavalin, 2023). The ability to teach cultural programs reinforces cultural identity and teaches children both Indigenous and western ideologies (SNC-Lavalin, 2023).

In 2022, it was reported that 150 students were enrolled at the Simon Jacob Memorial Educational Centre including 50 students enrolled in high school (SNC-Lavalin, 2023). Distance educational programs are also available, including Washa in Sioux Lookout and the online high school through Keewaytinnook Internet High School (SNC-Lavalin, 2023). Additionally, special education and related services, including Jordan's Principal and special counselling, are noted as being expensive for schools in the community and difficult to access (SNC-Lavalin, 2023). Socio-economic survey results indicated that community members expressed concern about access to education programs for students with special needs, including individual education plans (AtkinsRéalais, 2024i). The Webequie First Nation On-reserve Land Use Plan hopes to strengthen the educational opportunities in the community and includes expanding the existing school and youth camps (AtkinsRéalais, 2024i).

It has been noted in community interviews that the quality of the education received in the Simon Jacob Memorial Educational Centre has significantly degraded (SNC-Lavalin, 2023). After graduating from the educational system in Webequie, graduates were said to have a similar educational level as a 6<sup>th</sup> or 7<sup>th</sup> grade student (SNC-Lavalin, 2023). It has also been expressed that after graduating from high school many youth in the community are unable to find employment (SNC-Lavalin, 2023).

It is difficult to provide equitable special education in the community for those who might have intellectual challenges. Counseling and Jordan's Principle services, for example, can be costly and difficult to obtain as it involves travelling out of the community (InterGroup, 2024). In addition to the high expense of bringing counselors into the community, Webequie's lack of housing issues makes it more difficult to offer in-community counseling (Intrinsic, 2023b). While counseling can be conducted online, not every Webequie citizen has access to the internet (Intrinsic, 2023b; SNC-Lavalin, 2023). Since the COVID-19 pandemic, speech-language therapy has been available virtually to the population and has been recognized as a necessary service (InterGroup, 2024). Knowledge holders highlighted the

challenges of offering in-community services to children with disabilities and that caregivers are suffering from burnout when they cannot access these services (SNC-Lavalin, 2022a).

Currently, if a Webequie member wants to pursue education and training beyond high school, they must leave the reserve. There are several colleges and universities offering in-person and virtual training in Timmins and Thunder Bay. Pickle Lake, Sioux Lookout, and Greenstone also offer post-secondary options, including Confederation College's regional campuses (InterGroup, 2024). Although these options exist, it can be difficult for Webequie members to take advantage of them due to the culture shock and financial challenges they face away from the community (Intrinsic, 2023b; SNC-Lavalin, 2022a). It can be difficult, especially for youth, to leave their home to pursue further education and training. The women's focus group indicated that hands-on training in the community is needed so students do not have to leave the community (Intrinsic, 2024). Knowledge holders have spoken about the lack of motivation the youth have in pursuing further education, pointing to the intergenerational trauma from residential school system (Intrinsic, 2023b; SNC-Lavalin, 2022a; InterGroup, 2024).

There is currently no childcare program available in Webequie. The pressure to fulfill caregiver roles at home may be creating additional barriers for Indigenous women to pursue education and training. The lack of childcare in the community along with familial responsibilities creates further inequities in accessing education for women. The Webequie First Nation Socio-Economic Survey indicated that 80.5% of Webequie female respondents said they were the primary caregiver at home (SNC-Lavalin, 2022b).

It is noteworthy that the education and training statistics do not accurately encompass all the skills and knowledge possessed by Webequie First Nation members. There is an employment training program available through the Matawa First Nations, funded by the Employment and Social Development Canada, but due to limited job availability in Webequie the program is not currently utilized (SNC-Lavalin, 2023). Despite its limited utilization, ~42 millwrights, heavy equipment operators, remote camp cooks, and underground miners have been certified through the program (AtkinsRéalis, 2024i). However, there is now concern that those who had become certified are now aging out of the workforce. The program is no longer funded or available due to a lack of interest (AtkinsRéalis, 2024i).

Community members suggested that a major barrier of schooling in a remote area is that there are limitations preventing partnerships and collaborations with other educational organizations due to difficulties related to access (SNC-Lavalin, 2023). In addition to lack of partnerships and collaborations, the school on-reserve does not contain a library, computer room, and lacks the physical space to function efficiently (SNC-Lavalin, 2023). Another barrier to education for remote communities is how expensive specialized services are including bringing counsellors to the community (AtkinsRéalis, 2024i). The housing shortage only further complicates this issue. Some services are available online including speech language therapy, however, not everyone in the community has reliable access to internet (AtkinsRéalis, 2024i).

A new project currently in place involves the installation of a fibre optic broadband line to increase connectivity in the community. Community members hope that this will allow them to take advantage of more education and training opportunities that are offered remotely (AtkinsRéalis, 2024h).

### 6.2.7.3. Effects Assessment

#### Construction Phase

##### Direct effects

There are no direct effects on health due to education as a result of the Webequie Supply Road Project.

### Indirect effects

Education and training attainment opportunities may improve as a result of the Webequie Supply Road Project. The Project is anticipated to have a positive effect to incentivize education and training attainment required for Project employment opportunities (AtkinsRéalis, 2024i). Education, training, and/or experience will be required to take advantage of the direct and indirect employment opportunities related to the Project. It is possible that diverse sub-populations, such as women, youth, and individuals living with disabilities may not be able to benefit equally from the Webequie Supply Road as compared to the men due to being at a disadvantage to get adequate training to benefit from a potential increase in employment opportunities associated with the Webequie Supply Road Project (InterGroup, 2024).

As there is currently a lack of skills/trades experience related to potential Project-related employment, community members have expressed concerns that Webequie youth will not be in a position to benefit from the Project's employment opportunities (Intrinsic, 2023b; SNC-Lavalin, 2023), as existing education focus in youth in the community suggests youth in the community may not have skills that align with positions required for the Project (i.e., trades, equipment operators, health, and natural and applied sciences). Community members stated that they wanted to teach youth heavy machinery operation and trades so that they may take advantage of employment opportunities resulting from the Webequie Supply Road Project (InterGroup, 2024). However, the Project could cause a small negative effect if youth get more involved in Project employment and related activities and have decreased interest in learning traditional land-based skills (AtkinsRéalis, 2024i).

Women may also not have skills that align with positions required for the Project based on responses to the Webequie First Nation Socio-Economic Survey (InterGroup, 2024). Therefore, women are less likely to benefit from the Webequie Supply Road Project in terms of employment opportunities.

### Operations Phase

#### Direct effects

There are no direct effects on health due to education as a result of the Operations Phase of the Webequie Supply Road Project.

#### Indirect effects

There are very few jobs available during the operations phase compared to the construction phase. As such it is not anticipated that there will be any major indirect effects on health due to the Operations Phase of the Webequie Supply Road Project.

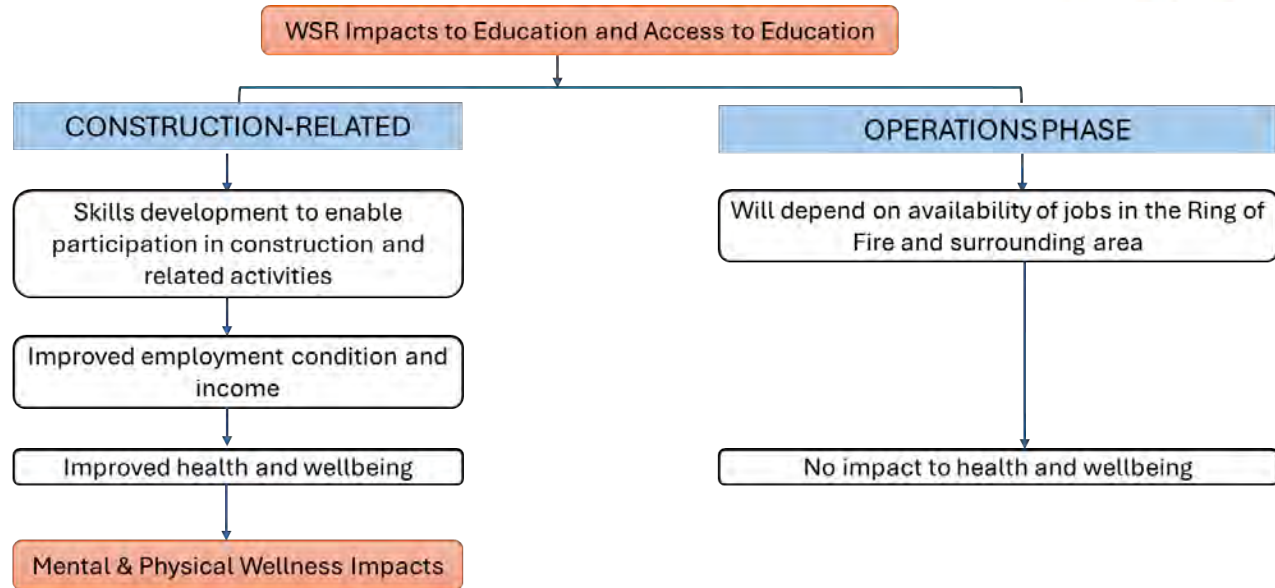


Figure 6-14: Webequie Supply Road Impacts to Education and Access to Education

#### 6.2.7.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Enhancement measure: Webequie First Nation should work with the contractor to help ensure that educational and specialized skills training opportunities in construction will be provided to community members ahead of Project initiation, so they are prepared with necessary skills (AtkinsRéalis, 2024k). The Community Readiness Plan will include enhancement measures for Education, Training and Traditional Learning Programming and Facility Space to identify and plan for education and training needs (AtkinsRéalis, 2024i).
2. Enhancement measure: Funding and educational programs will need to be available for members of the community to financially and practically access education and skills training required to participate in construction work. Webequie First Nation is encouraged to explore options for funding together with the contractor and the Province. Training may also be available through local educational service providers or through apprenticeships with construction companies or experienced members of the community. The community can also consider specialized programs for community members who have learning disabilities.
3. Enhancement measure: Educational attainment levels for women in Webequie is lower than for men (Sections 5.3.1 and 6.2.7.2). To realize any health benefit from increased education/training in construction, some community members, and especially women, will need to be provided with child-care so they may attend training and get work (Ministry of Children, Community and Social Services, n.d.; InterGroup, 2024; AtkinsRéalis, 2024k).

##### Operations Phase

1. Enhancement measure: There may be considerable opportunities for Webequie First Nation to manage and/or implement parts of the follow-up monitoring programs for various VC's (fisheries, groundwater, peatland, caribou, etc.) with the needed education and skills training to effectively maximize the benefits to the community.

#### 6.2.7.5. Net Effects

##### Construction Phase

Positive net effect on education and training attainment (AtkinsRéal, 2024i) will lead to potential positive net health effects.

##### Operations Phase

There are no net effects during the operations phase to Webequie First Nation.

### 6.2.8. Food Security (including quality and availability of Country Foods)

#### 6.2.8.1. Food Security and Health

Food insecurity arises when an individual or household is unable to acquire and consume a diet of adequate quality and quantity which results in inadequate nutrition (Government of Canada, 2020). In addition to accessibility, individual and household incomes are the main indicators of food security (FNIQC, 2012). Both accessibility and income are intrinsically linked to geographic location (FNIQC, 2012). Food insecurity is a public health concern as inadequate nutrition can impact both the physical and mental health of those affected throughout their lifetimes (PHSA 2016). In Canada, nearly nine million (9,000,000) people lived in food insecure households in 2022, with 22.9% of the population reporting some form of food insecurity (CBC, 2024). Single-parent families, and those who can least afford higher food and housing costs, were highlighted as being most at-risk of food insecurity (CBC, 2024).

Food security is one of the 12 social determinants of Indigenous health identified by the First Nations Health Council (First Nations Health Council 2023) and is intrinsically related to overall physical and mental health. Reduced food security can have profound effects on a community or individual's well-being and health (i.e., increased malnutrition and obesity rates in adults and adolescents). Additionally, food insecurity is related to several negative health outcomes, including poorer physical and mental health, and higher rates of various chronic conditions such as depression, diabetes and heart disease (Che & Chen, 2001; Fuller-Thomson & Nimigon, 2008; Galesloot et al., 2012; Gucciardi et al., 2009; McLeod & Veall, 2006; Muirhead et al., 2009; Vozoris & Tarasuk, 2003; Willows et al., 2011).

Indigenous leaders are concerned about the disruptions to traditional Indigenous food systems and the disregard for environmental sustainability due to colonial agriculture practices and regulations (Snook et al., 2020; Cameron et al., 2021). Indigenous food security in Canada is threatened by limited access to traditional foods and climate change impacts (Rosol et al., 2016; Kenny et al., 2018). Indigenous health depends on both, food security and food sovereignty (Assembly of First Nations, 2017; Loppie & Wien, 2022; see Figure 6-15 (Doran, 2024). Food security is defined as *“access to sufficient, safe and nutritious food that meets their dietary needs and food preferences”* and *“access to land and water and allows individuals to retain cultural knowledge and be culturally intact”* (Food and Agricultural Organization, 1996; Settee et al., 2020). The United Nations Declaration of the Rights of Indigenous Peoples defines Indigenous food sovereignty as *“the right of peoples to healthy and culturally appropriate food produced through ecologically sound and sustainable methods and their right to define their own food and agriculture systems.”* (Asia Pacific Forum, United Nations, 2013; The Nyéléni 2007 International Steering Committee, 2007). Indigenous peoples in Canada have much greater food insecurity rates than settler populations, due to colonization and systematic racism (Snook et al., 2020; Food Secure Canada, n.d.; Malli et al., 2023). Colonial practices have impeded subsistence pursuits like hunting, leading to sedentary lives and the consumption of processed market goods (Assembly of First Nations, 2017).

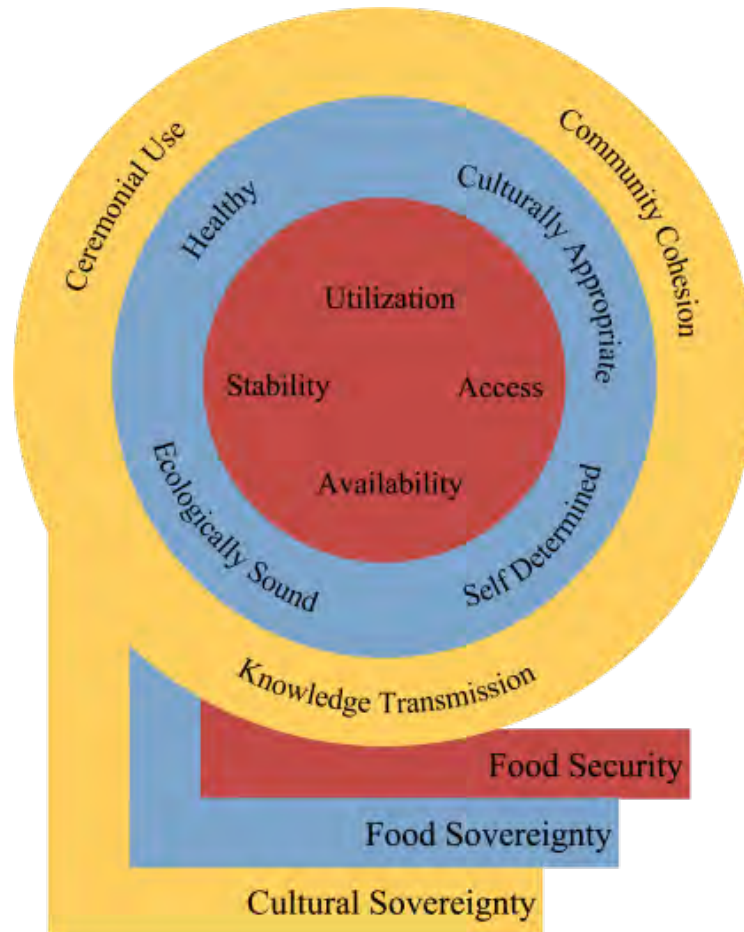


Figure 6-15: Taken from Doran (2024): A Conceptual Framework for how Food Security, Food Sovereignty, and Cultural Sovereignty are Interrelated

Cultural sovereignty can be connected back to Indigenous peoples right to self-determination and governance (Section 6.1.4), showing that the determinants of health are inter-related and intrinsically connected, and how impacts to higher-level structural determinants of health can have far-reaching consequences to health and wellbeing for communities.

First Nations communities may rely heavily on accessing traditional food systems (e.g., fishing, hunting, gathering and harvesting). Hence, impacts to the natural environment can have major impacts on their food security by impacting the quantity and quality of food sources (Batal et al., 2021).

Fish is an important part of diet for many individuals, including First Nations communities, as it is a source of high quality protein with Omega-3 fatty acids and other nutrients that have been shown to provide many health benefits (Parian & Mullin, 2016). However, fish may contain contaminants which may be harmful to human health, and the concentration of these contaminants in aquatic organisms is dependent on another social determinant of health, i.e., water quality, in the area of harvest. Areas with poor water quality are at elevated risk of food insecurity as fish harvested in contaminated water may pose a health risk to those who consume it, especially in large quantities. Some of the classes of aquatic contaminant that are particularly concerning to consumers include heavy metals (i.e., mercury, selenium, arsenic, cadmium, chromium), volatile organic chemicals, PCBs, synthetic industrial organic chemicals, pesticides and insecticides and their metabolites, disinfection byproducts, flame retardants,

natural and synthetic estrogenic and androgenic hormones, and pharmaceuticals (MECP, 2024). To the general population, the concentrations of contaminants that are present in fish, and other aquatic food sources, are not a health concern. However, vulnerable groups such as pregnant women, nursing mothers, the elderly and children are at comparably higher health risks from eating contaminated fish. In addition, populations that consume fish frequently or in large quantities, such as First Nation communities, are also considered to be at greater health risks from eating contaminated fish. Regulatory agencies recommend that vulnerable populations should pay special attention to the amount and type of fish they consume (MECP, 2024; US EPA, n.d.) as they may be exposed to a disproportionately high amount of contaminated fish than those who do not consume large amounts of fish as a diet staple.

A scoping review of the factors that play a role in Indigenous food security was conducted by Shafiee and others (2022), and a summary is shown below in Figure 6-16.

Indigenous women play an essential role in the transmission of cultural teachings and Traditional Knowledge to future generations, particularly in the preparation of traditional foods (Native Women's Association of Canada (NWAC), n.d.). NWAC has conducted numerous surveys that demonstrate that Indigenous women, girls, Two-Spirit, transgender, and gender-diverse peoples encounter obstacles in accessing healthy food options, which in turn impede their ability to access Traditional Knowledge on food harvesting (NWAC, n.d.). In addition, continued knowledge transfer to future generations requires the involvement of youth, and strong relationships between Indigenous Knowledge providers, i.e., Elders, and those who learn, i.e., the youth.

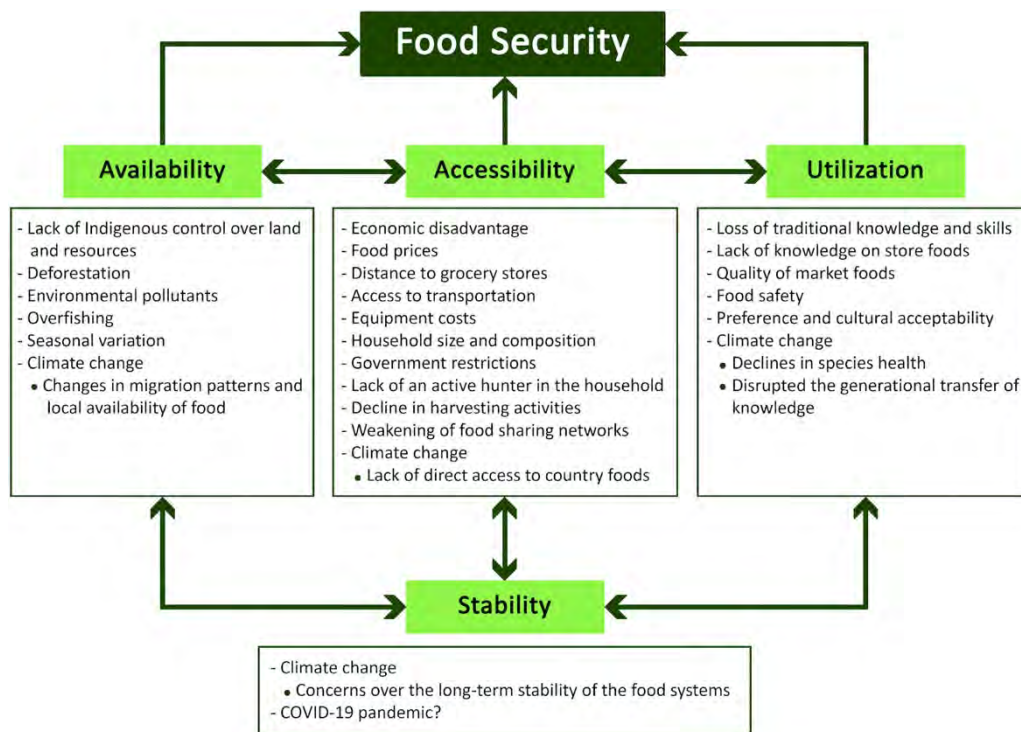


Figure 6-16: Factors that Contribute to Indigenous Food Security (taken from Shafiee et al., 2022)

### 6.2.8.2. Existing Conditions

During the community engagement session, some community members expressed that they struggle to meet doctor recommendations for eating healthy foods such as fresh fruit and vegetables due to the prohibitive cost of healthy food, especially for those on a fixed income system, such as welfare (Intrinsic, 2024; AtkinsRéalis, 2024h). Members feel that the high prices are due to the remoteness of the community and high costs associated with shipping the food by air (Intrinsic, 2024). Based on responses to the Socio-Economic Survey, 30% of respondents indicated that they spent \$751 to \$1,000 per month on groceries (AtkinsRéalis, 2024h). This should be considered along with the average income of individuals in Webequie, which is much lower than the Provincial averages (see Sections 5.3.2 and 6.2.6.2).

In the socio-economic survey of the Webequie community, it was indicated that 29% of respondents did not have access to food distribution programs and 13.7% of respondents had access to programs but chose not to access them (SNC-Lavalin, 2023). For respondents who noted accessing food distribution programs, 35.9% reported accessing the programs yearly (SNC-Lavalin, 2023).

As indicated in the 2014 community well-being study completed with Webequie First Nation (SNC-Lavalin, 2023):

- 90% of households were unable to afford healthy balanced meals;
- 94% of households were affected by some form of food insecurity;
- 10% of households did not typically consume country foods; and
- 45% of households included traditional food items into meals two or more times per week.

Additionally, in the 2014 study, 26% of Webequie households reported encountering abnormalities, such as bumps or lesions on fish, in harvested wildlife (SNC-Lavalin, 2023). During a focus group with land users in 2023, community members who engage in hunting and fishing activities suggested that they still discover bumps and lesions on fish that worry them (Intrinsic, 2023b).

Therefore, not only are the high costs of food creating a barrier to food security for members of Webequie First Nation, but high costs associated with getting out on the land (i.e., costs of snowmobiles, proper gear/equipment), are also contributing to that barrier by making it more difficult to access and consume country foods (AtkinsRéalis, 2024h).

Vulnerable populations include women who may skip meals in order to feed children and family members, and youth who may be more likely to consume unhealthy foods, as they are cheaper (AtkinsRéalis, 2024h). Food, especially healthy food, from the Northern store, which is the only grocery in the community, is extremely expensive. Community members have expressed that with the high cost of living, it is easier to buy and consume junk food or fast food rather than healthy food which has been recommended by their physicians (Intrinsic, 2023b). There is hope that the Webequie Supply Road will open more jobs for community members which would in turn lead to higher incomes so that people can afford high grocery prices.

The women's focus group expressed concern over food security especially around the holidays such as Christmas and easter with a lack of a food bank in the community (Intrinsic, 2023b). Traditional food is rare at times as people need experience along with transportation, usually a truck, which also requires gas (Intrinsic, 2023b).

Food security is also a concern for kids attending school in the community. Currently there is a snack program, and there is hope that a breakfast program will run in the next couple of years, possibly funded through child and family services (Intrinsic, 2023b). There is also the Northern fruits and

vegetables program which receives portions of fruits and vegetables every two weeks. Members of the youth focus group expressed their desire to have more traditional foods as part of their diet (Intrinsic, 2023b). They mentioned they enjoy eating goose and moose meat (Intrinsic, 2023b).

### 6.2.8.3. Effects Assessment

#### Construction Phase

##### Direct effects

There are no direct effects to food security due to the Webequie Supply Road.

##### Indirect effects

During in-person interviews, community members expressed concern over what would happen to their trap lines due to construction and related activities of the Webequie Supply Road (Intrinsic, 2023b). They are worried if trap lines are interrupted, this will affect one of the ways they use the land to harvest and consume traditional foods, which will impact their health. Community members also expressed concerns that the construction noise might scare away animals, impacting the ability of community members to hunt (Intrinsic, 2023b). Noise pollution is not just an environmental issue but also affects cultural practices like hunting by displacing wildlife (see Section 6.2.2.3). The noise created by Project construction may result in changed behaviour of traditionally harvested animals, that may go further into the bush to escape the noise and be unavailable in certain areas close to the construction for the duration of the construction phase. This may limit access to traditional food hunting grounds, putting strain on traditional food sources, and potentially have an adverse impact on health. However, the noise-effect due to road construction is expected to be locally isolated to the road construction area, and reversible (AtkinsRéalis, 2024d; i) (see Section 6.2.2.3).

Due to changing locations of wildlife because of construction-related impacts, transfer of knowledge to youth related to hunting and locations of wildlife traditionally harvested by the community may be negatively affected. Although these effects will be temporary and last during the construction phase, they may impede the future ability of youth to improve their food security via harvesting of traditional foods, and impact cultural continuity in the community, and have temporary and limited adverse mental health impacts. Also, if community members participate in the employment offered during the construction phase of the Webequie Supply Road can make it harder for them to attend family or community events or regularly participate in traditional activities, including hunting, that tend to bring Indigenous peoples closer to their culture and communities and promote cultural continuity.

The effects of contamination on Traditional Food sources (i.e., plants, fish, large game, fur bearers, and water) by construction or operations and maintenance emissions is an important factor when assessing the overall impact to food security. The results of the HHRA indicate that increases in project-related contaminants in country foods items are not expected to be appreciable; therefore, increases in exposures and resulting risks for human receptors consuming country foods items from the Project area are not anticipated (AtkinsRéalis, 2024e).

#### Operations Phase

##### Direct effects

There are no direct effects to food security due to the Webequie Supply Road.

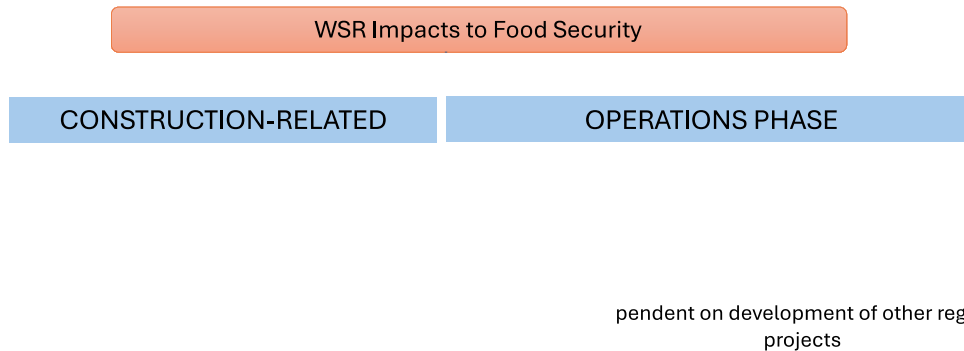
##### Indirect effects

When the winter road is open, people often travel 3-5 times a season to pick up food. When the Webequie Supply Road is operational, members are hopeful that they can travel more often to buy food as they will not be restricted by the winter road season (Intrinsic, 2023b). However, this may only be true if the other road projects (i.e., Marten Falls Community Access Road and the Northern Road Link) are also built at the same time which would allow Webequie First Nation members access to the provincial highway network. Since this assessment focuses on the effects of the Webequie Supply Road alone, the impacts due to other road projects and mining activities that may happen in the future is not evaluated here. However, increased income in some households who have jobs in the Ring of Fire area will increase disposable income for buying healthy store-bought foods and increase their overall food security. Those who cannot obtain jobs will not benefit equally.

Community members who participated in focus groups also expressed concern that once the road is built there will be more disturbances to the land and nature which may impact the migration of animals and in turn, the availability of traditional foods and the related health impacts (Intrinsic, 2023b). This is important as some members said 50-75% of their diet was made up of traditional foods, although this percentage can vary between individuals and families (Intrinsic, 2023b). However, it is not expected that the impacts due to operations-related noise will be significant; as mentioned in Section 6.2.2.3, these impacts may be temporary and limited, and may affect limited areas used by the community. As such, the resulting impact to harvesting practices and traditional food security are uncertain but probably limited. The potential for health impact is also uncertain and probably limited.

Community members will have increased access to the land as more territory will be able to be reached by car, ATV, or snowmobile. More community members may be able to access hunting, gathering, and fishing grounds thus increasing access to traditional food sources for dietary needs, thereby improving health outcomes associated with eating more traditional foods.

Figure 6-17 below presents the Webequie Supply Road impacts to food security from the construction and operations phases.



**Figure 6-17: Webequie Supply Road Impacts to Food Security**

6.2.8.4. Mitigation / Enhancement Measures

Mitigation and enhancement measures related to food security should prioritize the population sub-groups in Webequie First Nation who are the most food insecure. This includes women, families with little kids led by single women, older adults and especially women, and youth who depend on store-bought unhealthy snacks for nutrition, and lower income families and individuals.

Construction Phase

1. Mitigation measure: As there is potential for food insecurity arising from disturbance of land and habitat of traditional food sources due to construction-related activities, traditional hunting areas should be clearly identified by the contractor, and the impact to these areas from the Project should be kept minimal to avoid loss of habitat, and loss of animal traffic due to noise. This will maintain access to traditional foods, and related health benefits.
2. Mitigation measure: Construction and any ground disturbing activity should be avoided by the contractor during critical windows of habitat movement, mating or spawning to help avoid lasting damage to specific species. If this is not possible, appropriate permits should be obtained to reduce the impact to wildlife.
3. Mitigation measure: It is advised that Webequie First Nation be involved in all land use planning activities to manage any new developments that may arise due to the Project to secure the integrity of their traditional hunting, fishing, and trapping grounds to help to ensure current and future generations maintain traditional food security, and the health benefits associated with the consumption of traditional foods.

4. Mitigation measure: It is possible that construction workers who are not members of Webequie First Nation will access the traditional lands of the community to hunt for recreation and sport. This use of the land by non-members should be prohibited or strictly regulated by Webequie First Nation during the construction period (e.g., construction workers only for construction-related activities), to maintain self-sustaining populations of traditional food sources and therefore maintain the resulting health benefits associated with traditional food security.
5. Enhancement measure: Webequie First Nation can include in their Community Readiness Plan (AtkinsRéalais, 2024k) the need for continuing to provide youth and interested members of the community with knowledge related to harvesting traditional foods. This will help with the passing of traditional knowledge to the next generation, spark joy associated with traditional methods and allow the next generation to experience the health benefits associated with traditional food harvesting and consumption.

#### Operations Phase

1. Mitigation measure: It is possible that those who are not members of Webequie First Nation will access the traditional lands of the community to hunt for recreation and sport. This use by non-members should be discouraged or limited by Webequie First Nation. Hunters who are not from the community should follow all provincial regulations, and poaching should be monitored through standard enforcement procedures to help to ensure all regulations are followed.
2. Enhancement measure: Community members suggest that Webequie First Nation continue to provide youth and interested members of community with knowledge related to harvesting traditional foods (AtkinsRéalais, 2024k). Women and families with little children should be prioritized in the implementation of measures to enhance food security.

#### 6.2.8.5. Net Effects

##### Construction Phase

- There may be a temporary loss of traditional food security in the community due to construction activities and their impact to wildlife and harvesting practices. As a result, there may be some temporary adverse net effects to health and wellbeing.
- Additional income from employment may could result in increased affordability of non-traditional store-bought foods, and thereby increase food security that way, and improve health and wellbeing. However, these potential positive health benefits would be mainly for those who obtain construction-related jobs.

##### Operations Phase

Although there may be some outsiders who would now be able to hunt in the traditional lands of Webequie First Nation, with the mitigation measures, it is not expected that this will have net effects. However, should there be increased employment, and hence increased income, during the operations phase, it would allow community members to better afford store-bought foods. Community members may also have increased access to lands for hunting purposes.

## 6.2.9. Social Cohesion and Cultural Continuity

### 6.2.9.1. Social Cohesion and Cultural Continuity and Health

Social cohesion refers to “the extent of connectedness and solidarity among groups in society” and is related to a sense of belonging in a community and relationships among community members (Manca, 2014). Social cohesion is an important indicator of health, as a lack of social support and increased social isolation has been shown to lead to poor physical and mental health (Stansfeld et al., 2006).

In general, transportation networks connect people and communities and can increase social cohesion. However, poorly functioning transport corridors can have downsides. Social cohesion and cultural continuity is important for transferring traditional and cultural knowledge across generations within the Indigenous community, and provides a connection between distal and proximal determinants of health (Auger, 2016). A strong sense of cultural continuity and social cohesion has been shown to be an important factor in protecting against some negative health outcomes (Oster et al, 2014). It has been shown that rates of suicide (an outcome linked to proximal social determinants of health) among Indigenous youth in British Columbia is correlated to social cohesion and cultural continuity (Chandler & Lalonde, 1998; Reading & Wien, 2009). Further, cultural continuity has been found to be a protective factor for the health outcome of type 2 diabetes. First Nations communities in Alberta that have more cultural continuity have a significantly lower prevalence of diabetes after adjusting for socio-economic factors (Oster et al., 2014).

Increased social cohesion (measured as identity, traditions, and spirituality) among Indigenous youth can increase engagement at school and in the community, and lower rates of substance use which are also linked to more positive health outcomes as both of these social determinants of health are associated with more positive health outcomes (Snowshoe et al., 2015; Auger, 2016). Research suggests that the preservation or promotion of cultural continuity could increase mental health, as well as other factors such as community empowerment and social cohesion. There are a multitude of factors that contribute to social cohesion, including: (a) Land claims, (b) self-government, (c) education services, (d) police and fire services, (e) health services, (f) cultural facilities, (g) women in band councils, (h) community control over child welfare services, and (i) knowledge of aboriginal languages. These factors are linked to Indigenous health and they can better protect communities, and therefore the health of their members, when they are integrated into communities and culturally appropriate health services (Kielland & Simeone, 2014).

### 6.2.9.2. Existing Conditions

Speaking traditional languages and practicing traditional cultural activities help maintain cultural continuity. Results from a 2014 community well-being study conducted with Webequie First Nation showed that 81% of households speak Oji-Cree in half or more home conversations (SNC-Lavalin, 2023). Conversely, 19% of households speak Oji-Cree in only some or none of their household conversations (SNC-Lavalin, 2023). In the same study it was reported that 61% of households had at least one adult to teach traditional knowledge and skills to children (SNC-Lavalin, 2023). Related to cultural activities, such as pow-wows, dancing, or sports events, approximately 95% of households possessed at least one individual who participated in activities three or more times per year (SNC-Lavalin, 2023).

As such, an important focus for the Webequie community is intergenerational knowledge transfer of culture and language (AtkinsRéal, 2024i). Webequie is working to take youth and families out on the land regularly to learn traditional skills, cultural teachings, and the language which can improve their

mental, physical, emotional, and spiritual health (AtkinsRéal, 2024i). Community-focused curriculum based on language and culture has been developed by the Webequie Education Authority (AtkinsRéal, 2024i).

Events such as summer and winter festivals, sporting tournaments (e.g., floor hockey, broomball), talent shows, drum groups, ribbon-making, games, youth weeks, and wild game and fish cooking are organized throughout the year by the Webequie First Nation community (AtkinsRéal, 2024i). Summer powwows are also organized by the community which brings in people from the surrounding communities (AtkinsRéal, 2024i). Over 90% of households indicated that they attend community events based on results of the Webequie First Nation Community Well-Being Study (2014), and 75% of households mentioned that at least one member of their household participates in community sports, community events, and fundraising (AtkinsRéal, 2024i). Results from the 2022 Webequie First Nation Socio-Economic Survey indicated that residents remain involved in community events (AtkinsRéal, 2024i).

### 6.2.9.3. Effects Assessment

#### Construction Phase

##### Direct effects

There are no direct effects to health due to the Webequie Supply Road Project.

##### Indirect effects

Negative interactions between the construction workforce and the Webequie community population may still occur despite best efforts to keep them separate. As a result, community cohesion may decrease during the construction phase of the Webequie Supply Road depending on the extent and nature of the interactions between the construction workforce and members of Webequie First Nation and any conflicts that may arise (AtkinsRéal, 2024i; InterGroup, 2024). Should these negative interactions occur, this has the potential to have negative impacts on mental wellness.

In a community survey, 94 out of 152 respondents from Webequie First Nation indicated that they have concerns about the loss of traditional culture in Webequie First Nation (AtkinsRéal, 2024h). The main concerns included the loss of traditional land use activities, traditional teachings, traditional language, and traditional values, during the construction phase, due to decrease in community members' ability to participate in traditional economic activities such as hunting, trapping, and fishing (AtkinsRéal, 2024h). During construction, there may be those who engage in construction-related employment, either directly or indirectly. In addition, construction-related activities may lead to interruptions in cultural activities, and impact social cohesion. Should there be reduction in cultural practices and their continuation, it may impact the mental health of some community members, especially Elders.

#### Operations Phase

##### Direct effects

There are no changes in social cohesion and cultural continuity due to the operations phase of the Webequie Supply Road Project that lead to direct health effects.

##### Indirect effects

Since only the effects of the Webequie Supply Road are being considered in isolation (i.e., without including the potential for the Marten Falls Community Access Road, the Northern Road Link and

resource development in the Ring of Fire area), there are not expected to be any impacts to social cohesion and cultural continuity during operations.

#### 6.2.9.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: The contractor is encouraged to develop policies that support flexibility in work schedule and/or opportunities for leave for Indigenous employees in order to support important cultural practices, such as harvesting, which may allow them to continue to participate in the traditional economy and harvesting (i.e., hunting, trapping, fishing) (AtkinsRéalis, 2024k).
2. Mitigation measure: From the cultural enrichment plan of the Community Readiness Plan, enhancement measures for Webequie First Nation to consider could include continuing to hold camping and canoe trips, holding cultural and recreational activities, creating on the land retreats and a healing centre, creating a cultural centre, and development of new powwow grounds (AtkinsRéalis, 2024k).
3. Mitigation measure: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing regular mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.

##### Operations Phase

No mitigation or enhancement measures are needed.

#### 6.2.9.5. Net Effects

##### Construction

With mitigation measures in place, net effects to health may exist but may be limited in nature.

##### Operations Phase

There are no predicted negative net effects.

#### 6.2.10. Safety of women and girls

##### 6.2.10.1. Safety of Women and Girls and Health

Perception of physical and emotional safety is a necessity for healing physical or emotional trauma (Hobbs & Rice, 2018). The safety and security within their communities, especially for women and girls, is a major concern for Indigenous peoples. Indigenous women and girls are 12 times more likely to be missing or murdered than any other women in Canada (National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019). Women face a high rate of domestic and family violence, are more likely to be a victim of sexual trafficked and are sexually assaulted three-times more often than non-Indigenous women (National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019). Indigenous women are more likely to be killed by acquaintances and are seven times more likely to be the target of serial killers than non-Indigenous women (National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019).

Several factors contribute to the disproportionately high rates of violence for Indigenous women, including racism, systemic discrimination, economic and social inequities, problem use of alcohol and drugs, poor housing conditions, intergenerational trauma resulting from force attendance at residential school, and the impacts of colonialism on traditional ways of life (Assembly of First Nations, 2021). Due to their increased vulnerability, between 2001 to 2014, the rate of murdered Indigenous women was up to 12 times higher than non-Indigenous women in Canada (Government of Canada, 2017). Of the total solved homicide cases of Indigenous women between 1980 and 2014, 53% were committed by a family member, 26% by an acquaintance, and 8% by a stranger (Government of Canada, 2017). Further, 17% of homicides of Indigenous women occurred on a street, a road, or a highway, which is much higher than the 1% of homicides committed for the same location with non-Indigenous women (Government of Canada, 2017).

Indigenous women are more likely to be targets of human trafficking, due to generations of racialized violence against Indigenous peoples, especially women, and socio-economic conditions that make them more vulnerable. In 2014, although Indigenous women represented 4% of the population of Canada, about 50% of human trafficking victims were Indigenous women (National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019). Of those accused of human trafficking, 83% were male (Karam, 2016). As the culture of work camps can be hyper-masculine, and lead to situations of violence (Gibson et al., 2017; Gibson & Klinck, 2005), such projects should be undertaken with special considerations provided for protecting local communities, particularly women and girls.

Temporary construction camps are known to hold severe implications for host communities, particularly vulnerable groups in Indigenous communities (i.e., women, girls, youth, and individuals living with addiction challenges). Impacts are known to stem from increased access to and use of drug and alcohol (i.e., brought in by external construction workers), racism, and gender-based violence (InterGroup, 2024). As seen in other big projects, the majority of industrial project workers are young males from outside the region who work for extended periods of time in challenging conditions and away from their homes (Native Women's Association of Canada, 2020). The mass influx of primarily male workers who work on project sites and have high levels of disposable income has been associated with an increase in sex work among Indigenous women (Joly & Westman, 2017), as well as higher rates of teen pregnancies and sexually transmitted infections among Indigenous girls in nearby communities (Buell, 2006; Native Women's Association of Canada, 2020). The fly-in-fly-out model, disconnection from local communities, substance misuse, combined with racism and sexism towards Indigenous women, creates an atmosphere sometimes referred to as "rigger culture", and contributes to the increased rate of sexual violence in proximity to work camps (Native Women's Association of Canada, 2020).

A recent study by Liard Aboriginal Women's Society (2021) found that a high percentage of women have reported harassment, discrimination, assault, and abuse at camps in Yukon and northern B.C. Hypermasculinity, ineffective prevention strategies, lack of trust in grievance reporting, and denial of the existence of these issues perpetuate an unsafe environment for women (Liard Aboriginal Women's Society., 2021). These experiences highlight the importance of assessing issues that may unfold due to the proposed project, especially in the context of limited community infrastructure and health services.

#### 6.2.10.2. Existing Conditions

Crime and violence statistics are not available at the Webequie First Nation community level. Rates of gender-based violence and family violence could also not be obtained (InterGroup, 2024). Thus, existing conditions largely rely on information shared by knowledge holders, focus group participants, and survey data. Based on information collected in the 2014 Webequie First Nation Community Well-being

Baseline Study, it was reported that community members trust one another and 71% of households who participated with young children (i.e., 12 years old and younger) indicated they allow the children to play outside unsupervised (SNC-Lavalin, 2023). It was reported by the Webequie community coordinator that lateral violence (i.e., abuse inflicted by other community members due to last effects of intergenerational trauma and mental health struggles) is present in the community, especially within workplace settings (SNC-Lavalin, 2023; Intrinsic, 2023b).

Webequie First Nation members have expressed concern for the safety of women and girls due to the Webequie Supply Road Project (SNC-Lavalin, 2022a; 2022b), especially as there is no women's shelter in the community, which is something women who participated in focus groups mentioned as a concern (Intrinsic, 2023b). Asked if there is existing violence against women in the community, members who participated in interviews and focus groups only provided affirmation and no additional information (Intrinsic, 2023b; Intrinsic, 2024).

Results from the Webequie First Nation Socio-Economic Survey indicated that Webequie members feel that high rates of substance 'abuse' (72.4%), bullying or cyber-bullying (64.8%), high rates of domestic (family) violence (43.5%) and child negligence (40%) are the largest safety concerns in the community (SNC-Lavalin, 2022b), which could all contribute to violence against women and girls.

### 6.2.10.3. Effects Assessment

#### Construction Phase

##### Direct effects

There are temporary construction camps proposed for the construction phase of the Project at various locations along the right-of-way and/or near other Project components (AtkinsRéalis, 2024g). This will support crews that will be constructing the road, and bring people who are not from the area to the region for work (AtkinsRéalis, 2024g). As per the Economic Effects Assessment (AtkinsRéalis, 2024h), majority of the construction-related work force may be from outside the Local and Regional Study Areas, and as such, majority of construction workers may be non-Indigenous. Although Webequie First Nation plans to restrict entry of construction workers into the Webequie First Nation community, the method of enforcement, and its effectiveness, is currently unknown. Although the closest construction camp to the Webequie community settlement area is expected to be approximately 5 km to the south and east of the community (AtkinsRéalis, 2024g; Figure 1-1), the interaction of construction workers with community members cannot be ruled out, especially as it is expected that over an assumed 5 to 6 year construction period, about 179 construction workers will be hired from other than Webequie First Nation (AtkinsRéalis, 2024h). Webequie members, including women, will be able to get some of the construction jobs and come into contact with outside construction workers, increasing risk to their safety. During engagement for the Project, Webequie community members have expressed concerns surrounding increased risk to the safety of women, girls and 2SLGBTQ+ individuals due to the construction camp located close to the community (AtkinsRéalis, 2024i; Intrinsic, 2023b).

Furthermore, women and girls with low income, low educational attainment, and those living with addictions may be particularly vulnerable to gender-based violence and sexual exploitation (AtkinsRéalis, 2024i). Additionally, the community at present does not have the capacity to provide services related to gender-based violence so those affected would need to seek services outside of Webequie (AtkinsRéalis, 2024i). This may also deter women from seeking employment related to the Project (AtkinsRéalis, 2024i).

Indirect effects

There are no anticipated indirect effects.

Operations Phase

Direct effects

As the impacts of just the Webequie Supply Road are being considered in this assessment are no anticipated direct effects.

Indirect effects

Similarly to the construction phase, due to the direct link to future mining activities in the Ring of Fire area, there is potential for increased risk to the safety of women, girls and 2SLGBTQ+ individuals due to entry of outsiders during the operations phase.

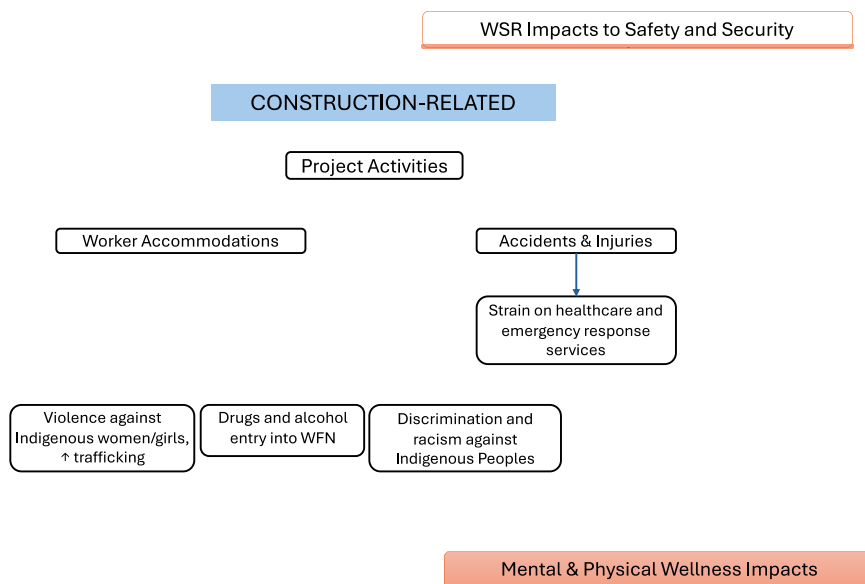


Figure 6-18: Webequie Supply Road Impacts to Safety and Security

6.2.10.4. Mitigation / Enhancement Measures

Overall, the aim of the mitigation and enhancement measures should be the development and promotion of multi-pronged pathways to safety for women, girls and 2SLGBTQ+ individuals. This is well described in the Government of Ontario’s Pathways to Safety in Response to the MMIWG National Inquiry Recommendations (Source: Ministry of Children, Community and Social Services, 2021b) (Figure 6-7).

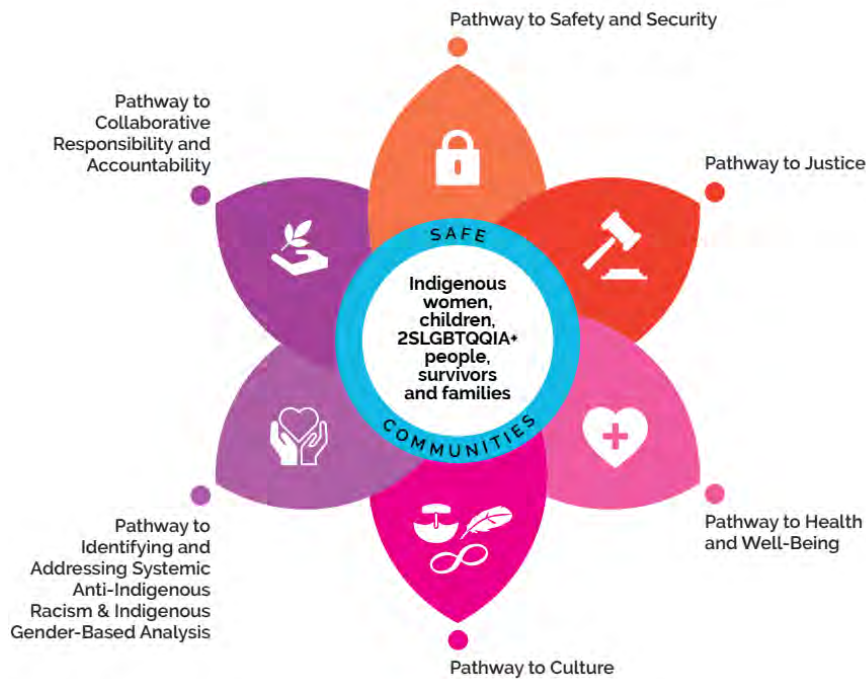


Figure 6-19: Ontario's Pathways to Safety in Response to the MMIWG National Inquiry Recommendations (Source: Ministry of Children, Community and Social Services, 2021b)

Construction Phase

1. Mitigation measure: The contractor should work with Webequie First Nation to create and implement mandatory training programs focused on the safety of Indigenous women, girls and 2SLGBTQ+ individuals (covering issues like sexual harassment and sex trafficking) for all Project employees (AtkinsRéalis, 2024i; 2024k).
2. Mitigation measure: Webequie First Nation should consider establishing a group made of community members to function as Community Liaison Officers as part of the Project workforce during the construction phase, to bridge the gap between the community's needs and Project's requirements and affects. Creating roles for Webequie community members as liaison officers can serve various functions, such as disseminating up-to-date information about Project activities and opportunities (e.g., employment, timelines, potential disruptions) to the community (AtkinsRéalis, 2024i; 2024k).
3. Mitigation measure: The contractor should work with Webequie First Nation to develop a grievance mechanism for community concerns and issues at the construction camps, inclusive of issues regarding racism, sexism, gender-based violence, and other issues (Gibson et al., 2017 as cited in InterGroup, 2024). The grievances follow up and resolution are proposed to be addressed with community liaison officers (AtkinsRéalis, 2024i; 2024k).
4. Mitigation measure: Webequie First Nation should consider developing a Safety and Security Plan for Vulnerable Community Members with the purpose of providing enhanced safety and security for women, children, youth and vulnerable people in the Webequie community, including 2SLGBTQ+ and under-housed people, to address any new hazards and safety concerns related to the Project (AtkinsRéalis, 2024k). The plan will be developed through the Community Readiness Working Group and in collaboration with community, government and community-based organizations focused on

the implementation of the recommendations of the National Inquiry into Missing and Murdered Indigenous Women and Girls, and other programs with related objectives (AtkinsRéal, 2024k).

5. Mitigation measure: Working with government bodies on implementation of Ontario's strategy in response to the National Inquiry into Missing and Murdered Indigenous Women and Girls recommendations, which is presented in Pathways to Safety: Ontario's strategy in response to the Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls, published in 2021 (Ministry of Children, Community and Social Services, 2021b). Ontario's response includes six Pathways to Safety, which are illustrated in Figure 6-7 (Ministry of Children, Community and Social Services, 2021b).

#### Operations Phase

1. Mitigation measure: It is recommended that Webequie First Nation advocate for creating and implementing training programs focused on the history and culture of Indigenous peoples, and the safety of Indigenous peoples, especially women, girls and 2SLGBTQ+ people for all projects being undertaken in the Ring of Fire area.

#### 6.2.10.5. Net Effects

##### Construction Phase

1. There is a risk to the safety and security of community members due to violence, racism, discrimination and criminal activity from external workers, either at the construction camps, or during interactions with outsiders in other areas. Even though Webequie aims to limit entry of outsiders into the community, it is not known how effective enforcement measures to keep out outsiders may be. Hence, there is potential for adverse net effects to health.
2. There is a specific risk to the safety and security of Indigenous women and girls due to concerns of sexual violence and sex trafficking that may be perpetrated by external workers. Hence, there is potential for adverse net effects to health.
3. There is heightened risk for increased amounts of alcohol and illicit substances entering the community illegally via the external workers even though the worker camps have been designated as 'dry camps'. Hence, there is potential for adverse net effects to health.

##### Operations and Maintenance Phase

1. There is a specific risk to the safety and security of Indigenous women and girls due to concerns of sexual violence and sex trafficking that may be perpetrated by outsiders who may gain entry into the community via the Webequie Supply Road, despite measures to restrict entry. Hence, there is potential for adverse net effects to health.

#### 6.2.11. Traffic Volume and Safety

##### 6.2.11.1. Traffic Volume and Safety and Health

High volumes of vehicular traffic and the resulting congestion on roadways can have negative impacts on traffic safety (Retallack & Ostendorf, 2019). In a literature review conducted by Retallack & Ostendorf (2019), it was reported that increased traffic density was related to increased fatal accidents. Excessive traffic congestion increases levels of stress and anxiety among commuters (WHO, 2000; TPH, 2006). It also reduces the amount of discretionary time available to commuters for physical activity, family time and socializing. These in turn have significant mental health impacts (reviewed in Cohen et al., 2014).

Using multi-level statistical models, two studies investigated the relationship between perceived traffic stress and objective measures of the transportation environment and how they impacted general health outcomes and depressive symptoms (Gee and Takeuchi, 2004; Song et al., 2007). The studies found that traffic stress was self-reported, and focused on the severity of annoyance by traffic, auto maintenance, and traffic crashes. Also, congestion has spill-over impacts related to increased air pollution, which is discussed in greater detail in Sections 6.1.6.

#### 6.2.11.2. Existing Conditions

There is limited information available related to winter road daily traffic accounts, as such a 2016-2017 study from the Ministry of Northern Development and Mines was relied upon, which included Webequie, Kingfisher, and North Caribou Winter Road Corridors (SNC-Lavalin, 2023). The study reported that the average daily traffic ranged from 30 to 70 vehicles per corridor, with a daily peak as high as approximately 60 to 110 vehicles per corridor (SNC-Lavalin, 2023). The highest traffic trend takes place in mid-February to near the end of the season, where weekly traffic counts of approximately 300 to 500 vehicles per corridor were reported in 2016 (SNC-Lavalin, 2023).

#### 6.2.11.3. Effects Assessment

##### Construction Phase

###### Direct

It is expected that during the winter road season, there will be increased traffic volume on the winter road bringing in equipment and personnel for the construction phase of the Project. This may increase wait and travel times for accessing goods and services away from the community, which may result in some impacts to health.

###### Indirect effects

There are not expected to be any indirect effects to Webequie First Nation related to traffic volume and safety during the construction phase of the Webequie Supply Road.

##### Operations Phase

###### Direct effects

Once the Webequie Supply Road is functional, it is not known what the average traffic on the road will be. Hence, it is not possible to currently predict the level of potential direct effects to health, but should there be increased traffic it will impact the health of community members.

###### Indirect effects

Should there be high traffic volume on the Webequie Supply Road, it may lead to accidents and injuries as a result of collisions. There are negative health effects associated with increased traffic, however, the level of effect will depend on how much traffic increases.

#### 6.2.11.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: The contractor should develop a Construction Traffic Management Plan together with Webequie First Nation, to provide guidance on how Project-related traffic is managed in and around the Project site, including use of the winter road during construction of the

Project (AtkinsRéalis, 2024k). Elements such as driving routes and procedures for the site and driving routes and procedures for material and equipment transport via the winter road will be included in this plan.

#### Operations Phase

1. Mitigation measure: Webequie First Nation aims to identify and develop road safety enforcement and/or by-law officer positions with community police or tribal council partners to carry out and enforce the road safety plan (AtkinsRéalis, 2024k)
2. Mitigation measure: Webequie First Nation should consider road patrols and inspection of the road, and their frequency may require adjustment to address specific situations, such as during spring break-up, during and after heavy wind or rain events, and emergencies (e.g., accidents, fires, stranded motorists, wildlife mortality from collision with vehicles), as well as checking for driver safety, such as driving under the influence and valid driver's license (AtkinsRéalis, 2024k).
3. Mitigation measure: Webequie First Nation should consider establishing partnerships with Kiikenomaga Kikenjigewen Employment & Training Services to provide driver's education and licensing (AtkinsRéalis, 2024i).
4. Mitigation measure: Webequie First Nation should consider roadside safety elements, including safety treatments for avoidance of collisions that occur within the roadside environment typically involve a vehicle departing the roadway and subsequently impacting a stationary obstacle (e.g., tree, utility pole, embankment, bridge, etc.), or encountering a situation (e.g., wildlife - moose) or feature that result in a vehicle losing control or rolling over (AtkinsRéalis, 2024k). All roadside safety features and design elements can be further considered and confirmed in the detail design phase of the Project and comply with the MTO Roadside Design Manual (AtkinsRéalis, 2024k).
5. Mitigation measure: Webequie First Nation should consider maintenance turnaround areas and maintenance/rest areas: Includes maintenance turnaround areas along the Webequie Supply Road to allow for maintenance equipment/vehicles during the operations phase of the Project to safely turn around and proceed in the opposite direction in which they came on the roadway (AtkinsRéalis, 2024k). In addition, the purpose of rest areas is to enhance safe travel and provide more comfort for road users who may want to pull-off to allow for other vehicles to pass, or to stop due to inclement weather, vehicle issues or to rest (AtkinsRéalis, 2024k).

#### 6.2.11.5. Net Effects

##### Construction Phase

With the mitigation measure in place, the net effects to health may be low.

##### Operations Phase

There are possible safety and security risks due to accidents and injuries because of speeding or driving under the influence during the operations phase. However, these magnitude, likelihood and significance of these adverse effects are hard to predict.

#### 6.2.12. Access to Healthcare Services (family doctor or specialist care provider)

##### 6.2.12.1. Access to healthcare services and Health

Access to healthcare services is a strong determinant of health among all Canadians (Health Council of Canada, 2005; Public Health Agency of Canada, 2010). Health services and programs are important for

treating both physical and mental illness. Primary health care services, such as physician and hospital care, are generally provided by provincial and territorial health authorities (Raphael, 2016). Equitable access to mental health services is further complicated by the multiple authorities involved in the delivery of health services (Raphael, 2016). Coordination problems have occurred and created service gaps in terms of healthcare. Additional challenges can arise for those living off reserve or outside their traditional territories. Furthermore, those living further north or in more isolated areas face additional obstacles such as delivery cost, lack of appropriate infrastructure, shortages of health care providers and limited services available (Raphael, 2016). Part of these obstacles come from the more difficult work environments such as long working hours, smaller staff, lack of opportunity for the rest of the family (Peiris, Brown & Cass 2008).

At times, jurisdictional challenges and confusion over services offered can cause First Nations peoples to hesitate when accessing care. Further, experiences with discrimination and racism within the primary health care system, which is often based on colonial ways of approaching healing, prevents some First Nations peoples from accessing health care services (Davy et al., 2016). Access to health care also includes shortages or lack of medical professionals to provide that care, and in a culturally safe manner. There is a general lack of access for Indigenous peoples to appropriate and culturally relevant care for mental well-being, which is a contributor to the health inequities that exist between Indigenous and non-Indigenous Canadians (Raphael et al., 2020).

#### 6.2.12.2. Existing Conditions

Interviews with health care staff at the nursing station shared that Webequie does not have a hospital, they need better access to doctors and nurses (Intrinsic, 2023b). The need for improved healthcare infrastructure was also emphasized by community members during in-person engagement sessions, which included focus groups and key person interviews (Intrinsic, 2023b; 2024) Additionally, traditional healers are currently not adequately recognized as healthcare service providers; however, many community members listed availability of healing ceremonies as a gap in the healthcare options in the community. Community members also mentioned that less use of traditional healing would slowly reduce the knowledge of traditional healers over time (Intrinsic, 2023b). There is a large gap in services available in Webequie.

#### **Elder/older adult Services**

Webequie First Nation does not currently have a long-term Elder care facility (SNC-Lavalin, 2023). The community does have staff who conduct home visits with the objective of assisting with household tasks, personal care, and transportation when required (Intrinsic, 2023b; SNC-Lavalin, 2023). If more intensive care (e.g., dialysis treatment) than what is offered through home visits is required, Elders must seek services outside of the community, primarily in Thunder Bay (Intrinsic, 2023b; SNC-Lavalin, 2023). The overall lack of Elder care facilities has resulted in challenges for caretakers and reliance on retirement facilities outside of the community, which can become a financial burden (SNC-Lavalin, 2023). Families must often send their parents to long-term care facilities in larger urban centres like Thunder Bay, where costs may exceed their financial capacity (Intergroup, 2024; AtkinsRéalis, 2024i), but also where the Elders feel alone and isolated, and miss their community, land and families (Intrinsic, 2023b; 2024). The lack of adequate elder care available in the community leaves the senior population vulnerable to shifts in population (AtkinsRéalis, 2024i).

### **Crisis Intervention Services**

Crisis Intervention provides support in Webequie First Nation through either on-site or via the telephone and can dispatch police services when required for individuals affected by family violence and suicide (SNC-Lavalin, 2023). Crisis Intervention's primary goal is ensuring the safety of victims while offering compassionate support and assistance (SNC-Lavalin, 2023). Additional services provided by Crisis Intervention included facilitating meetings for crisis resolution, coordinating crisis plans for suicide and domestic violent intervention, and provides information and referrals to appropriate resources and services (SNC-Lavalin, 2023).

### **Health Services**

The Health Services program in Webequie First Nation consists of a team of three community health nurses/nurse practitioners, one community health representative, and two full-time counselors (SNC-Lavalin, 2023). The program offers physician consultations, health awareness and counselling sessions, educational workshops, preventative programs, and coordinate clinics and workshops (SNC-Lavalin, 2023). Physician consultations are offered only twice a month when a physician from Sioux Lookout visits Webequie First Nation (AtkinsRéalais, 2024i).

Although there are programs offered by the Health Services program, the community lacks a full-time doctor and relies upon nurses. Additionally, the community lacks emergency medical services including an ambulance and firetruck (SNC-Lavalin, 2023). Due to challenges associated with being in the northern reaches of Ontario, such as transportation and service delays, there is a need for an improved facility with enhanced equipment located in the community (SNC-Lavalin, 2023). The lack of health services in Webequie First Nation has resulted in a loss of trust in the system amongst Webequie residents and numerous community members have relocated out of the community (SNC-Lavalin, 2023; AtkinsRéalais, 2024i). Adequate healthcare and overnight health care accommodation is needed in the community (AtkinsRéalais, 2024i).

### **Physiotherapy Services**

The Home and Community Care Program provides physiotherapy, occupational therapy, speech language pathology, and case management (SNC-Lavalin, 2023). The program also provides in-home rehabilitative care to individuals in Webequie, which assists with regaining or maintaining independence (SNC-Lavalin, 2023). However, these services are in demand and not regularly available.

### **Alcohol and Drug Use Services**

The National Native Alcohol and Drug Abuse Program provides services including Alcoholics Anonymous, Narcotics Anonymous, public seminars, educational sessions, cultural and spiritual events, counseling, support groups, home visits and offer referrals to detoxification and medical assistance (SNC-Lavalin, 2023).

Healthcare services for other LSA communities are generally similar to those described for the Webequie community as many of the LSA communities are fly-in and winter road accessible (AtkinsRéalais, 2024i).

## 6.2.12.3. Effects Assessment

### Construction Phase

#### Direct effects

There are no direct effects.

Indirect effects

The Webequie Supply Road is likely to result in non-local workers coming to the area as well as some members returning to Webequie First Nation. This could create a higher demand for community services, especially the already limited healthcare services (see Section 5.6.4) due to injuries or accidents from construction activities (AtkinsRéalis, 2024i). Competition for healthcare services also places more financial, emotional, and other burden on families (AtkinsRéalis, 2024i). Vulnerable populations like older adults may experience these effects disproportionately. However, the Project is expected to have its own first aid station to address immediate and minor health issues. As such, the strain on health care services in the community may be limited, and the impact on health in the community may be negligible.

Operations Phase

Direct effects

There are no direct effects.

Indirect effects

Once the Webequie Supply Road is operational, some off-reserve community members may wish to return to Webequie First Nation; however, it cannot be predicted how big this number would be. Should there be a large number of off-reserve community members wanting to move back in, without additional health care services being put in place, this could create a higher demand for healthcare services (AtkinsRéalis, 2024i). However, since it cannot be predicted how many community members will want to move back to the community, this effect cannot be predicted with any amount of certainty.

During the operations phase there will be a significantly lower workforce required for the Project (AtkinsRéalis, 2024k). The number of workers is too small to put an additional strain on availability of services.

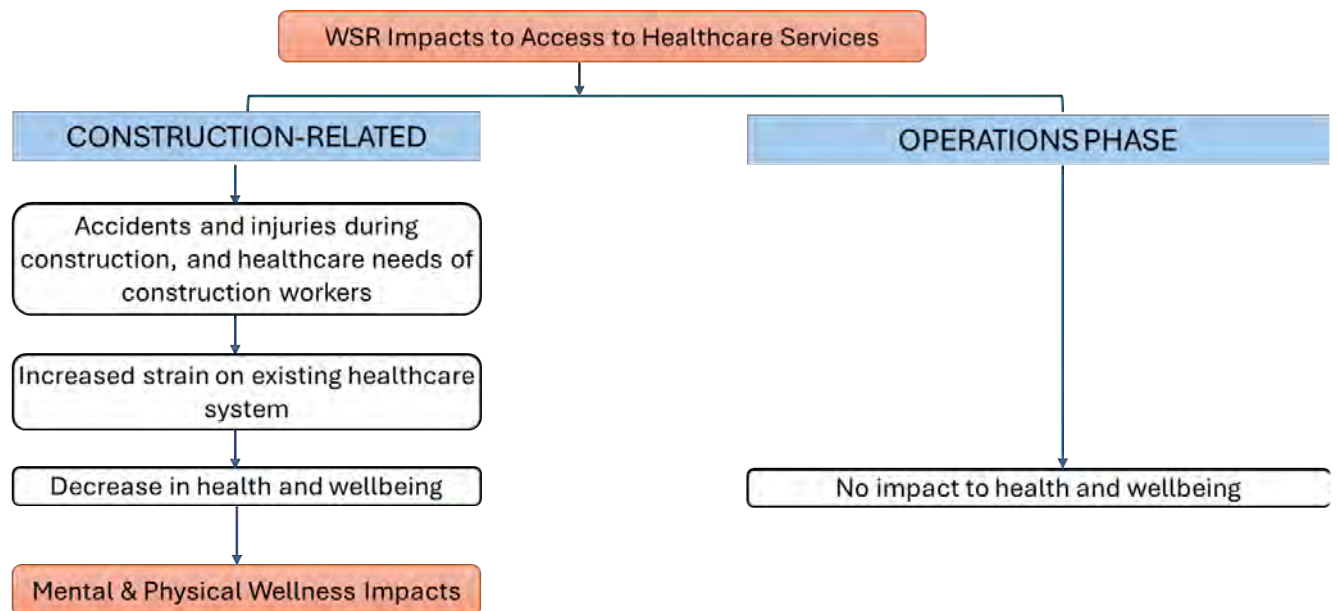


Figure 6-20: Webequie Supply Road Impacts to Access to Healthcare Services

#### 6.2.12.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: Webequie First Nation should consider working with the Province to improve health care services within the community before construction activities begin to ensure the community's already limited health care services will not be burdened.
2. Mitigation measure: Construction work will have safety management plans and workers will be required to adhere to these protocols for safe work. This reduces the potential for work-related incidents, such as injuries or fires. Workers will also be trained prior to commencing work to ensure they are capable of performing their duties safely.
3. Mitigation measure: Construction camps will have first-aid stations and occupational health and safety staff to address minor injuries and illness. Although more serious incidents will require transporting workers to the nearest hospital, the Project anticipates these incidents to be rare occurrences due to multiple safety measures. In these situations, helicopters that are used for Project construction work are expected to also be readily available to transport individuals to larger health facilities for medical treatment (AtkinsRéalis, 2024k).
4. Health and safety plans will be developed for all parts of the Project activities (construction, environmental monitoring, camp maintenance work, and operations and maintenance). During the construction phase, the contractor will enforce health and safety protocols to minimize accidents and injuries.

##### Operations Phase

There are no specific enhancement and/or mitigation measures proposed as the scale of impact is unknown.

#### 6.2.12.5. Net Effects

##### Construction Phase

If construction workers are able to use first-aid stations at or near the camps, there are no adverse net effects to health predicted during the construction phase from increased demand and pressure on availability of healthcare services.

##### Operations Phase

There are no adverse net effects.

#### 6.2.13. Access to Social, Mental Health and Family Services

##### 6.2.13.1. Access to Social, Mental Health and Family Services and Health

Lack of access to culturally relevant social, mental health, and family services for Indigenous peoples is a contributor to the reported health inequities that exist between Indigenous and non-Indigenous Canadians (Raphael et al, 2020). Barriers to social, mental health and family services in northern, rural and remote regions include delivery cost, lack of appropriate infrastructure, shortages of health care providers and limited service availability (Raphael, 2016). These barriers are in part due to difficult work environments, lack of personnel, and lack of continuing education. There is also a lack of financial

resources to fund services outside of basic health care (i.e., mental and social health services). This leads to further travel times for individuals accessing these services and can lead to increased stress.

First Nations children are three times more likely to be investigated by child and family services than white children in Canada and are twice as likely to be placed outside the home (Quinn et al., 2022). In Manitoba, one in three (36%) of First Nations infants had an open Child and Family Services file between 1998 and 2019, which is four times higher than the rate for non-First Nations infants and about 9% of First Nations infants experienced placement in Child and Family Services custody, which is nearly seven times higher than for non-First Nations infants (Kenny et al., 2024; Winnipeg Sun, 2024). The higher rate of investigation and out-of-home placement for First Nations youth is attributed, in part, to other social determinants of health including family income, education, childcare availability, racism, the residential school legacy, and colonialism (represented by political policies of oppression, marginalization, and destruction of First Nations culture) (Quinn et al., 2022). Placement outside of the home by mainstream child welfare agencies can lead to a loss of cultural identity, knowledge, and language, and the loss of a sense of belonging to the community. These losses can lead to negative health outcomes for children and families including decreased mental wellness, increased substance use, and acute social and psychological problems relating to fitting into society (Moody & Onysko, 2007).

Appropriate social and mental health services are important for promoting positive wellness outcomes for individuals, families, and communities. Appropriate services include those that incorporate culturally relevant healing practices within the safety of the community structure to address the specific health needs of Indigenous peoples. Without access to culturally appropriate social and mental health services, inequities between Indigenous and non-Indigenous health outcomes, such as higher rates of substance use, youth suicide, mental health problems, chronic pain, and interpersonal violence, remain a pressing concern. Social and mental services that are accessible off-reserve are often delivered by mainstream health authorities in a non-culturally relevant manner. However, these systems may not be appropriate in addressing the specific healing needs of Indigenous peoples, and out-of community resources create more barriers to access for those living in remote communities (i.e., cost, travel, isolation, etc.) (Smye et al., 2023). Further, when removed from the community, individuals often experience a loss of the social determinants of health of cultural continuity and social cohesion which can compound negative social and mental health outcomes and leave Indigenous peoples more vulnerable to negative influence from systemic factors that influence health including racism, oppression, discrimination, and the effects of historical trauma (Auger, 2016).

To support healing and healthier outcomes for individuals and communities, it has been proposed that culturally relevant social, mental health, and family services that are based in communities and are part of a system of self-governance will result in better health outcomes for individuals, families, and the community (Moody & Onysko, 2007).

#### 6.2.13.2. Existing Conditions

During interviews with mental health counsellors in the community (Intrinsic, 2023b), Webequie community members identified a need for more female mental health counsellors. They identified differences between girls' and boys' mental health issues, some of which are that girls are more likely to self-harm, and cut themselves (Intrinsic, 2023b). The mental health counsellors have also seen more health disorders now compared to a few years back such as borderline personality disorder. The boys have different mental health concerns, such as schizophrenia, which require medication and monitoring (Intrinsic, 2023b). The mental health counsellors also reported seeing a lot of cases of autism in both girls and boys in the community (Intrinsic, 2023b). When it comes to youth in the community, many

families are separated so children will grow up without fathers or other relationships which has a big effect on youth (Intrinsic, 2023b). The mental health counsellors believe that some of the systemic issues are from the residential school trauma passed down through generations, which are still unresolved (Intrinsic, 2023b). Not just mental health counsellors, but knowledge holders, and individuals who practice traditional healing practices in the community, such as sweat lodge and healing circle, strongly believe that land-based healing would be beneficial to everyone looking for support within the community (Intrinsic, 2023b; 2023a; 2024). associated with this, a need for additional land-based structures, such as campsites was identified by community members.

Also need improvements in the mental health department, especially those with traditional knowledge so they can relate to people as opposed to just western knowledge who don't know about the ceremonies and land.

### **Family Services**

Tikinagan is a family service available to Webequie First Nation, that provides child and family services and is Ontario's largest residential services provider (SNC-Lavalin, 2023). Within Webequie First Nation Tikinagan provides support for youth, women, and families, and addresses personal, household-related, and community-wide issues, including substance use, housing shortages, poverty, and lack of daycare (SNC-Lavalin, 2023). Tikinagan offers childcare and family services that are culturally specific, as the organization recognizes the harm that can be caused support services provided from outside Indigenous communities (SNC-Lavalin, 2023). Although, it has been noted by community members that it is believed that personal information may not be kept private, thus hindering access to Tikinagan due to confidentiality concerns (SNC-Lavalin, 2023).

The Family Well Being Program operates within the community and strives to address issues including family violence, youth involvement in the justice system, and the number of children in care (SNC-Lavalin, 2023). The program is a Nishnawbe Aski Nation initiative which supports Indigenous communities with delivering and developing culturally appropriate programs and services which promote community health and family wellbeing (SNC-Lavalin, 2023).

Within the community, for 7- to 17-year-olds, the Choose Life Program offers land-related activities to youth (e.g., fish netting, moose hunting, canoeing) (SNC-Lavalin, 2023). The Choose Life Program incorporates Elders into the program to allow for knowledge transfer and teachings (SNC-Lavalin, 2023).

Survey results indicated that community member expressed a lack of access or access without utilization when it comes to youth services (AtkinsRéalis, 2024i).

### **Childcare Services**

Webequie First Nation community members who live on-reserve have noted there is a lack of childcare services available, and childcare was reported as the most requested and desired service in the community (SNC-Lavalin, 2023; Intrinsic, 2023b; 2024). Through community interviews, it has been expressed that the lack of support for families with children has resulted in caregiver burnout (SNC-Lavalin, 2023). Additionally, it has been revealed through community interviews that even with the available services, women may be hesitant to utilize services due to fear of judgement (SNC-Lavalin, 2023).

### **Elder Services**

There are select services available in Webequie First Nation related to Elder care, including the First Nations and Inuit Home and Community Care which is operated by Indigenous Services Canada (SNC-

Lavalin, 2023). The goal of the First Nations and Inuit Home and Community Care is to establish home and community care services for Indigenous individuals living on-reserve in First Nations and Inuit communities (SNC-Lavalin, 2023).

### **Mental Health**

Select mental health services are available in Webequie First Nation, including counseling (SNC-Lavalin, 2023). There is currently limited capacity related to responding to crisis scenarios, as the availability of responders is minimal (SNC-Lavalin, 2023). Through interviews with Webequie Knowledge holders, it has been noted that there is a significant need for mental health services, addiction services, and qualified counsellors within the community (SNC-Lavalin, 2023). Additionally, it was expressed that the COVID-19 pandemic has further exacerbated mental health and addiction issues, particularly with young girls (SNC-Lavalin, 2023). Need for additional mental health and addiction services have led community members to seek help outside of the community (SNC-Lavalin, 2023). Staff in the nursing station mentioned that although mental health counsellors come into the community for a week at a time, this is not long and they don't get to know their patients and vice-versa, which leads community members to not have full trust in them (Intrinsic, 2022). Nursing station staff hope that if the funding increased, mental health counsellors can stay in the community for longer periods (Intrinsic, 2022).

The Women's Group conducts workshops which aid women with mental health problems, learning language, and learning how to keep identity and values for different age groups (e.g., 45-55, 55-65, and 65+) (SNC-Lavalin, 2023).

Social, mental health, and family services for other LSA communities are generally similar to those described for the Webequie community as many of the LSA communities are fly-in and winter road accessible (AtkinsRéal, 2024i).

#### 6.2.13.3. Effects Assessment

##### Construction Phase

###### Direct effects

There are no direct effects to access to mental and social health services due to the Webequie Supply Road Project.

###### Indirect effects

During the construction phase the Webequie Supply Road Project is likely to result in non-local workers coming to the area as well as some off-reserve members returning to Webequie First Nation to take advantage of employment opportunities. This could create a higher demand for mental health and social services, especially given the already limited services available in the community (see Section 5.6.4) (AtkinsRéal, 2024i). Since the majority of community services are already operating at full capacity, the increase in demand from the influx of workers will put further strain on these services (AtkinsRéal, 2024i). However, the construction camps that are to be built along the Webequie Supply Road Project area are anticipated to provide workers with the necessary health care services, making the impact on mental and social health services in Webequie dependent on how many off-reserve members of the community participate in the construction work force. In addition, current on-reserve Webequie members who participate in construction jobs may find that their need for mental and social health services has increased. However, the scope of the increased demand cannot be anticipated. As such, this may be a potential adverse impact on health, if there is too much pressure on existing mental and social health services.

### Operations Phase

#### Direct effects

There are no direct effects to access to mental and social health services due to the Webequie Supply Road Project.

#### Indirect effects

Once the Webequie Supply Road is operational, some off-reserve community members may wish to return to Webequie First Nation to participate in new employment opportunities in the Ring of Fire/McFauld's Lake area, should they become available; however, it cannot be predicted how many off-reserve members would return. Should there be a large number of off-reserve community members wanting to move back in, without additional mental and social care services being put in place, this could create a higher demand for community services, especially given the already limited community services currently available (see Section 5.6.4). As it is not possible to determine how many off-reserve community members would return to the community, it is not possible to predict whether a potential adverse health impact would occur, should there be delays in accessing mental and social health services.

#### 6.2.13.4. Mitigation / Enhancement Measures

##### Construction Phase

Mitigation measure: Webequie First Nation should consider working with the Province to improve mental health care services (including counselling services, and substance use-support programs) within the community before construction activities begin to ensure the community's already limited health care services will not be burdened.

##### Operations Phase

Mitigation measure: Webequie First Nation should consider working with the Province to improve mental health care services within the community to help ensure the community's already limited health care services will not be burdened.

#### 6.2.13.5. Net Effects

##### Construction Phase

There are no predicted net effects.

##### Operations Phase

There are no predicted net effects.

#### 6.2.14. Access to Transportation Services

##### 6.2.14.1. Access to Transportation Services and Health

Access to transportation services play an important role for accessibility and mobility for individuals and communities. The level of accessibility and mobility for individuals and communities has the potential to impact several other determinants of health, such as access to health services, education, access to food, etc. Transportation has enormous positive health impacts, but motorized modes of transport can also have potential negative health impacts, mainly due to impacts to air quality and increased traffic

congestion (Figure 6-21). As such, transportation planning plays a crucial role in influencing health behaviours, especially those related to levels of physical activity, and provides a way to access goods and services that improve the quality life and improve wellbeing in communities. This, in turn, can impact health outcomes and rates of morbidity and mortality.

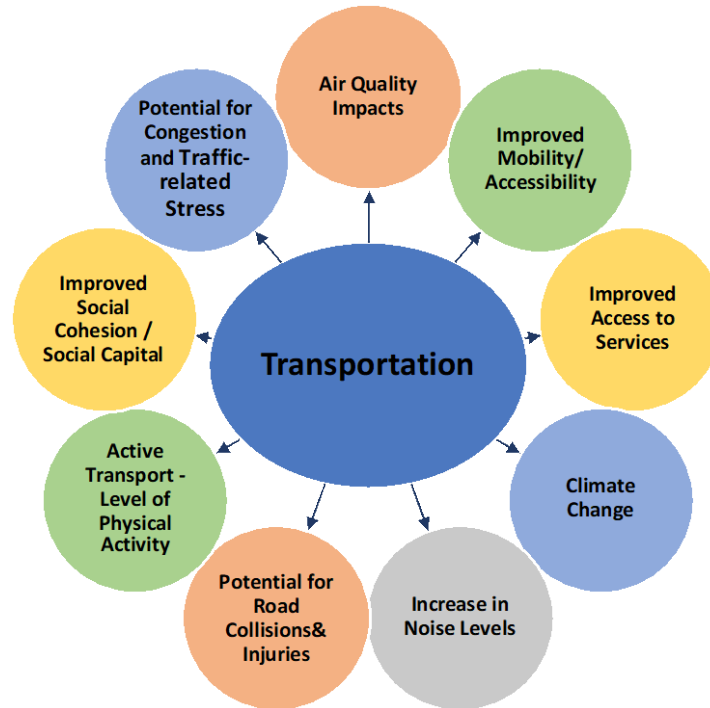


Figure 6-21: Some of the potential positive and negative human health implications of transportation.

Barriers to transportation have been identified in literature as a cause of rescheduled and missed health care appointments which may result in an overall poorer management of chronic illnesses (Solomon et al., 2020; Starbird et al., 2019; Syed et al., 2013; Thomas et al., 2017). A review by Suntai et al. (2020) highlighted the lack of public transportation, lack of special needs and wheelchair accessible vehicles, high costs of transportation services, poor weather conditions, remoteness to services, and lack of reliable drivers as transportation barriers for older adults living in rural areas seeking palliative care.

A systematic review completed by Davy et al. (2016) identified that a main factor preventing Indigenous peoples in reaching health care services was transport (Bennett, 1998; Campbell et al., 2015, as cited in Davy et al. (2016), especially if the health care services were outside of the people's communities. As distance and/or a lack of transport to health care facilities are highlighted as barriers to access of health care services, results of the systematic review note that Indigenous health care services may address this issue by providing transportation to healthcare facilities (Davy et al., 2016). The level of transportation infrastructure can impact the various modes and types of transportation available for individuals and the community (e.g., public transportation, private vehicle, ride-share, etc). Various forms of healthcare transportation assistance has been noted in literature, including but not limiting to vouchers for taxis, bus tickets, van services, parking vouchers, ridesharing services (Solomon et al., 2020).

Although transportation and appointment keeping has a clear relationship, other interventions to improve health outcomes for individuals with chronic health conditions, by reducing social and

economic barriers (e.g., food insecurity, housing), could improve the effectiveness of transportation assistance (Solomon et al., 2020).

#### 6.2.14.2. Existing Conditions

Webequie First Nation does not currently have all-season road access to the provincial highway system located south of the community, with the only access being fly-in or winter roads (SNC-Lavalin, 2023). The only paved road located in the far reaches of northern Ontario is Highway 599 (SNC-Lavalin, 2023). Travel and shipping in the area relies upon the use of remote airports and winter roads, which has resulted in demand for an all-season road (SNC-Lavalin, 2023). There is 14 km of gravel or earth-covered roads in the community, which connect south to the airport and to the northern portion of the community (SNC-Lavalin, 2023). The community road system allows for access to the airport, landfill, and band storage facilities (SNC-Lavalin, 2023).

The use of waterways for transportation has remained an integral part of Webequie First Nation and provides an important transportation network (SNC-Lavalin, 2023). Webequie First Nation has current interest in the waterways located near the community, including in the Winisk tertiary watershed (located to the west) and the Upper Ekwana and Lower Attawapiskat tertiary watersheds (located to the east) (SNC-Lavalin, 2023). The Webequie Airport is undergoing redevelopment to provide community members with additional options and increased flexibility in the future (AtkinsRéalis, 2024h).

#### 6.2.14.3. Effects Assessment

##### Construction Phase

###### Direct effects

There are no direct effects to access to transportation services due to the Webequie Supply Road Project.

###### Indirect effects

Available modes of transport, i.e., airplane or via the winter road, may become more in demand due to the need to bring in supplies and personnel during the construction phase. This may make access to existing transportation options more difficult and make it harder for community members to seek care or other services off-reserve. The increased wait times may have an adverse impact on health, especially if there is increased delay in accessing non-emergency health care and mental health services.

##### Operations Phase

###### Direct effects

There are no direct effects to access to transportation services due to the Webequie Supply Road Project.

###### Indirect effects

From the Webequie First Nation health survey, respondents indicated that one of the barriers to accessing services outside of the community was due to being unable to arrange transportation due to the cost or availability (Intrinsic, 2023a). Transportation delays can result in delayed healthcare service, including the possibility of loss of life (Intergroup, 2024). Members of Webequie First Nation are hopeful that the Webequie Supply Road will reduce the cost of transportation, and have positive health

outcomes if they are able to use the Webequie Supply Road to access goods and services in other areas of the province, for example, Geraldton, thunder Bay, etc. The Webequie Supply Road will be also be helpful in bringing in health care and other services personnel to the community (Intrinsic, 2023a). However, all this may only be true if the other road projects (i.e., Marten Falls Community Access Road and the Northern Road Link) are also built at the same time which would allow access to the provincial highway network.

Currently, once built, the Webequie Supply Road would provide access to community members to the Ring of Fire area, which is not connected to the provincial highway network, nor does it have goods and services available close to it.

However, even to access the Ring of Fire area via the Webequie Supply Road to access employment opportunities, community members will need access to vehicles and have drivers licenses to travel via the road. Older adults may find it difficult to drive for long distances or be unable to drive independently and need the assistance of family and/or friends to access the Webequie Supply Road.

Considering just the Webequie Supply Road Project, during its operations phase, the road would be useful in providing year-round, more reliable passenger travel and delivery of good and services to mining explorers and operators in the McFaulds Lake area (AtkinsRéalis, 2024a).

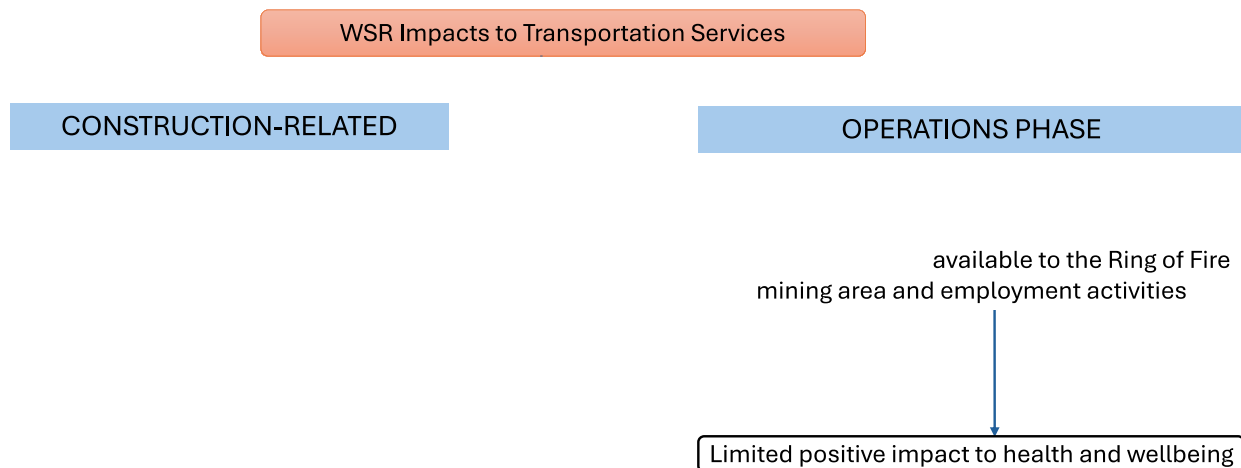


Figure 6-22: Webequie Supply Road Impacts to Transportation Services

#### 6.2.14.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: Webequie First Nation may want to consider how community members needing to travel to and from the community, via air travel or the winter road, to access services and for other reasons, are still able to do so freely and not impeded by the higher demand placed on air travel and by winter road to bring in construction-related equipment and personnel.

### Operations and Maintenance Phase

1. Enhancement measure: For those travelling to the Ring of Fire area to access employment and opportunities via the Webequie Supply Road, Webequie First Nation may want to consider arranging community transportation services (such as an affordable and regularly scheduled community shuttle) to assist those who are elderly, have a disability, and those who do not have access to a vehicle (either because they don't drive or can't afford one), to access the mining areas and take advantage of opportunities. This will increase the potential positive impacts to health.

#### 6.2.14.5. Net Effects

##### Construction Phase

There may be small negative net health effects during the construction phase if community members experience long delays in accessing services and goods because air travel and the winter road, when available, is too busy.

##### Operations Phase

There are no net effects during the operations phase to Webequie First Nation.

#### 6.2.15. Access to Emergency Response Services

##### 6.2.15.1. Access to Emergency Response Services and Health

A lack of reliable and accessible emergency response services has significant negative health and wellness impacts, to both physical and mental health. Not having access to ambulatory care, police services or fire services in times of emergency is a threat to physical health, and sometimes life. Not having access to these critical services can also be stressful and lead to negative mental health impacts, including anxiety. For pregnant women not having access to reliable, quick and safe emergency response services can make their pregnancy challenging and stressful, and have negative health impacts.

As previously mentioned, access to healthcare services (including emergency services) in northern more rural regions of Canada remain an issue due to cost of delivery, lack of appropriate infrastructure, shortages of health care providers and limited services available (Raphael, 2016). These emergency services are often far away, and in northern areas of Canada sometimes only accessible by air. Weather conditions also play a role in the accessibility of these services when individuals have to travel. Travel not only costs time, but is a financial burden as well. Although these services may be available, due to other circumstances they may not be easily accessible.

##### 6.2.15.2. Existing Conditions

Indigenous peoples are regarded to be more susceptible to fire-related deaths for a variety of reasons. It has been hypothesized that several variables enhance the likelihood of fire-related deaths, including poverty, poor housing, a lack of smoke detectors, underfunding of fire services in Indigenous communities, and a lack of legislation requiring adherence to construction and fire rules on reservations (Eduful, 2024). Indigenous peoples also face a higher risk of various unintentional injuries, including fire-related morbidity and mortality, due to a number of factors, including crowded living conditions, limited access to healthcare services in rural areas, and lower socioeconomic status (lower income, unemployment, and educational attainment) (Eduful, 2024). As stated by the Minister of Indigenous

Services, too many First Nation lives are being lost to fires due to a lack of building and fire codes, poor housing conditions, and overcrowding (McMahon, 2024). Between 2011 and 2020, 700 fire related deaths were reported and analysed by Statistics Canada (Eduful, 2024). Of the 700 fire deaths, 20% of the victims were found to be First Nations, Métis or Inuit. That proportion of deaths is four times higher than the percentage of Indigenous peoples in Canada (Eduful, 2024). In addition, a review from Ontario's Office of the Chief Coroner found children living on a reserve in Ontario are 86 times more likely to die in a fire than children living elsewhere (Thompson, 2021). Ontario and British Columbia had the lowest proportion of Indigenous fire deaths based on their Indigenous populations, while Alberta, Saskatchewan and Quebec had the most (Boicescu, 2024).

As the Webequie community is largely only accessible by fly-in fly-out methods and use of the winter roads during peak winter, there is limited access to emergency response services (SNC-Lavalin, 2023). Due to the remote nature of some communities, many emergency response services are often not available and there is a resulting reliance on services that are found outside of reserve land (SNC-Lavalin, 2023).

Webequie First Nation currently does not have any operating emergency response services (EMS) on reserve (SNC-Lavalin, 2023). If EMS related needs are required, an air ambulance is dispatched to Webequie and transports the patient out of the community, typically to a hospital located in Sioux Lookout, Thunder Bay, or Winnipeg (SNC-Lavalin, 2023). Policing services are provided by Nishnawbe Aski Police Service (NAPS), which has a detachment located in the Webequie community (SNC-Lavalin, 2023). The NAPS detachment located in Webequie includes the employment of two constables, who are Webequie members (SNC-Lavalin, 2023). As discussed in Section 5.5.2, interviews with community members indicated that there are not enough police/peacekeepers in the community at any given time (SNC-Lavalin Lavalin, 2023). Regarding fire services, Webequie First Nation has indicated that related fire services are essentially nonexistent, apart from pumps at the water treatment plant (SNC-Lavalin, 2023). Existing fire hydrants and fire hall within the reserve are noted as not functioning and not operating (SNC-Lavalin, 2023). Although, there is a volunteer fire department within the reserve which focuses on the preventions of fires and the administration of the Ontario Fire Code (SNC-Lavalin, 2023).

### 6.2.15.3. Effects Assessment

#### Construction Phase

##### Direct effects

Construction activities from the Webequie Supply Road may increase demand for emergency response services (AtkinsRéalis, 2024i). During the construction phase, there is an increased risk in accidents and injuries, an increased risk in conflicts and crime, an increased potential for fires, and increased potential for sexual assault due to increased interactions with workers. This would result in an increased need for emergency response services and a higher burden on these services, negatively impacting the physical mental well-being of members of Webequie First Nation. However, it is expected that construction camps will have first-aid stations and occupational health and safety staff to address minor injuries and illness. Although more serious incidents will require transporting workers to the nearest hospital, the Project anticipates these incidents to be rare occurrences due to multiple safety measures. In these situations, helicopters that are used for Project construction work are expected to also be readily available to transport individuals to larger health facilities for medical treatment. As such, if there are no additional strains on the limited existing emergency response services in the community, there are expected to be no adverse health effects.

**Indirect Effects**

There are no anticipated indirect effects.

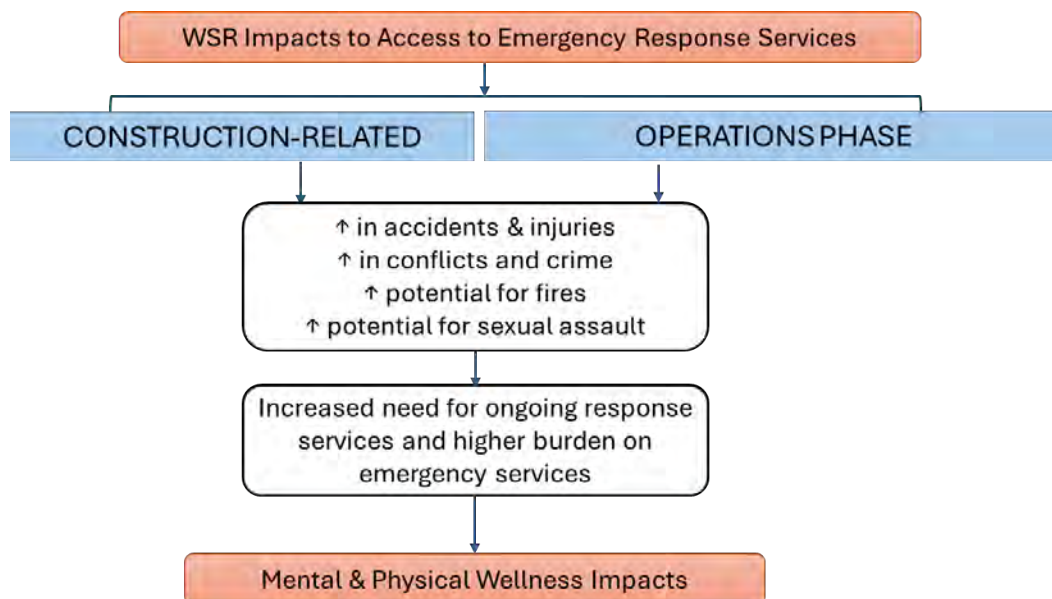
Operations Phase

**Direct Effects**

There are no anticipated direct effects.

**Indirect effects**

Similar to the construction phase, the operations phase of the Webequie Supply Road may increase demand for emergency services mainly related to vehicle accidents (AtkinsRéal, 2024i). Community members also expressed concerns related to road safety and impaired driving (AtkinsRéal, 2024i). These incidents would increase the need for emergency response services and put a higher burden on these services, negatively impacting the mental well-being of members of Webequie First Nation.



**Figure 6-23: Webequie Supply Road Impacts to Access to Emergency Response Services**

6.2.15.4. Mitigation / Enhancement Measures

Construction Phase

1. Mitigation measure: Webequie First Nation should seek external funding for a fire station and fire truck to put out fires and protect community members.
2. Mitigation measure: Additional emergency response services for drug-related medical concerns and overdoses should be considered by the community.
3. Mitigation measure: Construction camps are to include a first aid station, and occupational health and safety staff to address minor injuries and illness. Although more serious incidents will require transporting workers to the nearest hospital, the Project anticipates these incidents to be rare occurrences due to multiple safety measures. In these situations, helicopters that are used for Project construction work are expected to also be readily available to transport individuals to larger health facilities for medical treatment. (AtkinsRéal, 2024i).

4. Mitigation measure: Construction work will have safety management plans and workers will be required to adhere to these protocols for safe work. This reduces the potential for work-related incidents, such as injuries or fires. Workers will also be trained prior to commencing work to ensure they are capable of performing their duties safely (AtkinsRéalis, 2024k).
5. Mitigation measure: Workers will be expected to remain within the camp at all times and will rarely enter the Webequie community, reducing the potential for harmful/disruptive actions to occur within the Webequie community and reducing the use of protective services within the Webequie community (AtkinsRéalis, 2024k).
6. Mitigation measure: Camps will also have security staff to patrol the camp for hazards/threats (e.g. wildlife) and protect workers (AtkinsRéalis, 2024k).
7. Mitigation measure: All safety incidents related to the Project will be reported within 24 hours and records of these incidents will be archived. Safety incidents can include any incidents or near misses that occur at work sites, in camps, and in communities and can also include any incidents or near misses that occur outside of work hours (AtkinsRéalis, 2024k).

#### Operations Phase

1. Mitigation measure: As part of the Community Readiness Plan, a community well-being monitoring and adaptive management plan will monitor road safety as well as the capacity of the emergency and protective services (AtkinsRéalis, 2024i); and
2. Mitigation measure: A road safety plan will include measures to mitigate adverse effects.
3. Enhancement measure: Implementing road signs, raising public awareness about road safety, and providing education and awareness on road safety is also considered as an enhancement measure (AtkinsRéalis, 2024i)

#### 6.2.15.5. Net Effects

##### Construction Phase

There are no predicted net effects.

##### Operations Phase

There are no predicted net effects.

#### 6.2.16. Childhood Development

##### 6.2.16.1. Childhood Development and Health

The early years of a child’s life are often the most important for growth and development (Ministry of Children, Community and Social Services, 2021a). There is systemic inequity in the wellness of Indigenous children compared to non-Indigenous children in Canada (Halseth & Greenwood, 2019; Greenwood & de Leeuw, 2012). For example, in Indigenous children there are:

- higher rates of infant mortality (Smylie et al., 2010),
- higher rates of youth suicide (Kirmayer et al., 2007),
- increased exposure to environmental contaminants (Office of the Provincial Health Officer, 2009),

- higher rates of obesity among the Indigenous preschool population (Public Health Agency of Canada & Canadian Institute for Health Information, 2011),
- higher rate of dental caries, a higher rate of childhood illnesses including ear infections and respiratory infections (Office of the Provincial Health Officer, 2009),
- lower rate of access to a doctor (Statistics Canada, 2023),
- poorer prenatal health care affecting birth rate and child mental and physical health outcomes (Smylie et al., 2014), and
- higher rates of family and child abuse (Fallon et al., 2013).

The observed discrepancies in health and development outcomes between Indigenous and non-Indigenous children stems from a legacy of European colonization of Indigenous peoples and their territories, and formation of a social and political system rooted in racism and discrimination against Indigenous peoples.

There is a direct link between childhood development and the long-term mental and physical health of individuals (Likhari et al., 2022). Indigenous children's health is dependent on a complex interaction of social determinants of health at the individual, family, community, and societal levels (Greenwood and de Leeuw, 2012). These determinants of health fall within the broader categories of family size and composition, and socio-economic inequities in employment, income, and education, culture and language, family and community well-being, environmental health, and early learning and childcare (Halseth and Greenwood, 2019). For example, their parents' life circumstances, such as their access to healthy foods, their socioeconomic circumstances, their access to healthcare and social services, and their levels and sources of stress, shape the lives of young children. This, in turn, can determine the quality and quantity of food the children consume and the extent of stressful experiences they face, affecting their development with long-term health consequences (i.e., impacting their Level 1/proximal determinants of health).

To address this inequity, investment in high quality and culturally linked childhood development and care programs is imperative (Greenwood, 2005). By investing in childhood development in a holistic and culturally appropriate manner, socioeconomic inequities would be influenced, and this could have cascading positive impacts both to childhood development and to the community (Halseth and Greenwood, 2019).

#### 6.2.16.2. Existing Conditions

Webequie First Nation has a program for families called the 'Healthy Babies Healthy Children' program, which provides comprehensive parenting support and fosters healthy child development (SNC-Lavalin, 2023). The Healthy Babies Healthy Children program caters to children aged 6 and under and provides a variety of supports and resources, including providing a handbook, "Baby's Best Chance", which outlines the stages of pregnancy and parenting (SNC-Lavalin, 2023). The program includes trained professionals who conduct home visits before and after birth and assist with early childhood development and offer support to mothers (SNC-Lavalin, 2023).

The community has expressed concerns regarding dental services and care for both infants and mothers, as current services have failed to meet established guidelines (SNC-Lavalin, 2023). Additionally, the Health Director has expressed that existing programs dedicated to ensuring children's safety and well-being (e.g., Jordan's Principal and provincial early years programs) within the community may not fully meet the communities needs and desires (SNC-Lavalin, 2023). It should be noted that these programs do not receive full recognition in terms of funding and tribunals (SNC-Lavalin, 2023).

Staff at the nursing station suggested that since the COVID-19 pandemic, the community has fallen behind on providing regular immunizations for infants and children (Intrinsic, 2023b). Staff suggested that the community is currently lacking the capacity to catch up on the missed immunizations, and that additional staffing may be expected in the future allowing for this to happen (Intrinsic, 2023b).

#### 6.2.16.3. Effects Assessment

##### Construction Phase

###### Direct Effects

There are no anticipated direct effects.

###### Indirect effects

There are no anticipated indirect effects.

##### Operations Phase

###### Direct Effects

There are no anticipated direct effects.

###### Indirect effects

There are no anticipated indirect effects.

#### 6.2.16.4. Mitigation / Enhancement Measures

##### Construction Phase

No measures are needed.

##### Operations Phase

1. Enhancement measure: As part of the Community Readiness Plan an initiative will be developed to implement a dedicated childcare and youth services drop-in centre in the Webequie community that will provide support to family members that required childcare in order to participate in education and training programs and employment opportunities related to the Project (AtkinsRéalis, 2024k). In addition, a drop-in centre will also focus on services available to youth, such as services under Jordan's Principle, and people with disabilities (AtkinsRéalis, 2024k).

#### 6.2.16.5. Net Effects

##### Construction Phase

There are no net effects during the construction phase to Webequie First Nation.

##### Operations Phase

There are no net effects during the operations phase to Webequie First Nation.

## 6.3. Proximal / Level 1 Determinants of Health

These include health-related behavioural and biological factors.

### 6.3.1. Mental Wellness

#### 6.3.1.1. Mental Wellness and Health

Mental wellness is influenced by a complex interaction of interpersonal factors, social influences, and economic conditions, together known as the social determinants of mental health (Nelson & Wilson, 2017). Overall mental wellness and health status of First Nation individuals and communities is dependent on a complex interaction of social and economic factors. These factors include political context, community infrastructure, community resources, systemic dispossession of land, weakening of social institutions and racial discrimination (Kielland & Simeone, 2014). Risk factors, such as childhood and intergenerational trauma, poverty, unemployment, housing, and food security can influence the risk of developing mental health challenges (Boksa et al., 2015). The history of colonialism, and resulting intergenerational trauma, has influenced the psychological well-being of Indigenous communities (Boksa et al., 2015; Nelson & Wilson, 2017). Kielland & Simeone (2014) discuss in detail the mental health challenges experienced by First Nations and Inuit communities and the relation of mental well-being to overall health. Briefly, dispossession of land, weakening of social and political systems, and racial discrimination have led to an epidemic of poor mental health outcomes among First Nation and Inuit communities (Kielland & Simeone, 2014). Poor mental wellness and health outcomes include increased psychological distress, an elevated rate of psychological disorders.

When developing large-scale Projects, such as the Webequie Supply Road, it is important to consider the current state of mental wellness services, and the predicted outcomes to those services during and after completion of the Project. Many major projects will contribute to increased mental health burdens (i.e., stress, fear, anxiety, post-traumatic stress disorder, anger, solastalgia, loss of self-esteem, loss of agency, and depression), and this combined impact could lead to negative mental wellness related behaviours (e.g., substance use, suicide, and violence) (Salerno et al., 2021). Figure 6-24 below has been adapted from Salerno and others (2021), and identifies the myriad ways in which major projects, such as the Webequie Supply Road, can impact mental wellness in Indigenous communities.

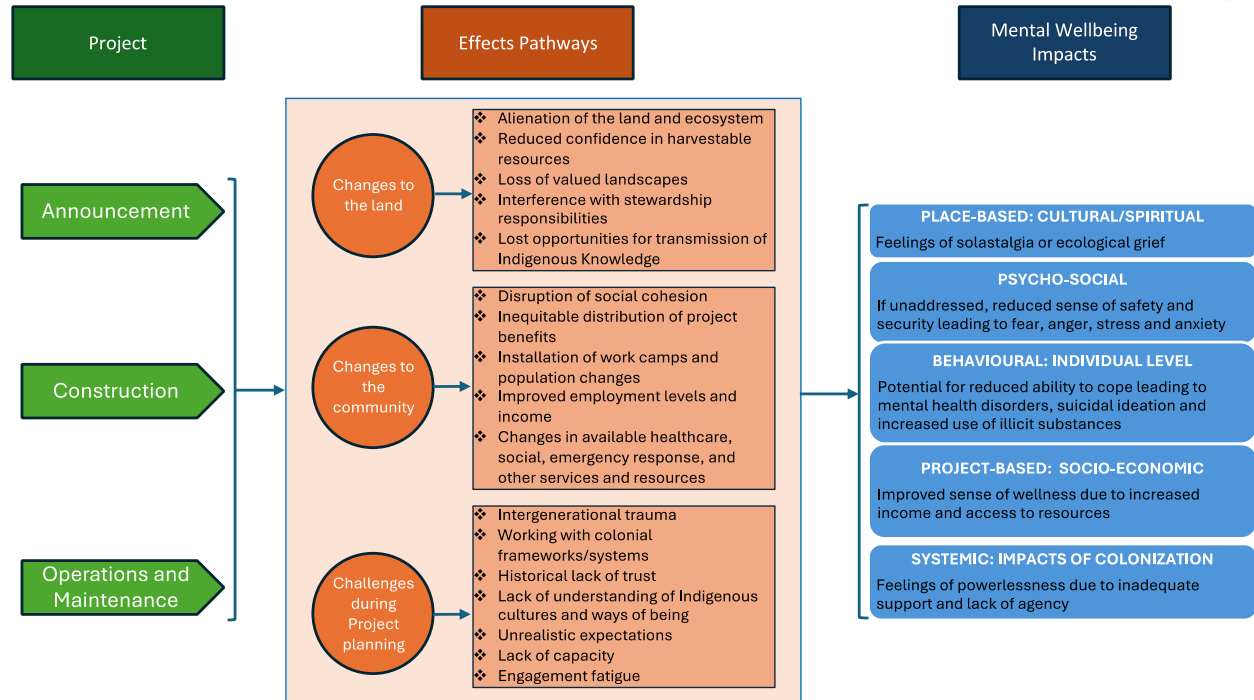


Figure 6-24: Adapted from Salerno et al., 2021. Some effects pathways and impacts on mental wellbeing due to major projects.

Mental wellness influences overall health outcomes. Increased mental health burdens have been linked to some of the wellness challenges currently facing First Nations communities including higher rates of illicit and prescription drug use compared to non-Indigenous populations (Fischer & Argento, 2012), childhood abuse and neglect, alcohol use and misuse, and the tragically high suicide rate in First Nations communities, which is double the national average for First Nations communities (Kielland & Simeone, 2014; Boksa et al., 2015). Poor health outcomes stemming from mental wellness varies greatly from community to community. The variation is accredited to the culture of individual communities, with factors involving self-governance, such as involvement in land claims, band control of education, health services, cultural facilities and police and fire services leading to better wellness outcomes (Boksa et al., 2015; Chandler & Lalonde, 1998). The integration of traditional healing practices with mainstream mental health services, alongside the dissection of colonial influences and biases, is needed to holistically address mental wellness and health outcomes among First Nation peoples (Nelson & Wilson, 2017).

### 6.3.1.2. Existing Conditions

Trauma associated with colonization is considered to be the primary concern for Webequie, and drives mental health and addiction challenges for members of the community. Negative impacts for both men and women, to such as violence, poverty, and addictions (i.e., alcohol, drugs, and gambling) are directly linked to this trauma, and healing is a priority within the community to help end the cycle of trauma across the generations (InterGroup, 2024). Young people are particularly sensitive to additional challenges such as overcrowding, social isolation, lack of reliable internet for communication, lack of recreational activities, lack of education, lack of employment, lack of land access due to rising costs of land transport. These challenges are further exacerbated by perceived political broken promises for funding to address education, employment, and recreational activity access gaps. These additional

challenges contribute to poor mental wellness among the youth population and lead to the commencement or continuation of unhealthy coping mechanisms such as substance use (Intergroup, 2024). It is critical to stress the importance of the mental health crisis among First Nations youth, as youth suicide is a crisis among First Nations communities and is not to be underestimated or diminished. Youth need access to more mental health supports, and need to be made more aware of the available mental health supports currently in the community.

Women face additional challenges which influence their addictions, including lack of childcare, lack of transportation, nepotism, lack of family support, lack of communication, and a lack of privacy while receiving counselling. Further, COVID-19 exacerbated the additional factors that influence women's mental wellness and created additional barriers to mental wellness care for women. As a confounding factor, women are more susceptible to exploitation, trafficking, and gender-based violence, which is in turn linked to increased smoking, drinking, and problem substance use, which can further compound mental wellness struggles in women. Those who are two-spirited in the community also face additional challenges to mental wellness. Challenges include social isolation, and a lack of understanding which can lead to the use of coping mechanisms that are not associated with positive mental wellness (SNC-Lavalin, 2022).

Webequie First Nation currently has several mental wellness services offered, both in the community and outside the community. Webequie has a women's group, which helps women of all ages with mental health challenges through learning and sharing of Indigenous identity, language, and values. Crisis Interventions services are available on-site, or by phone, and provides support to those in the community impacted by violence and suicide. In cases of immediate mental health crisis need, police are dispatched. The Choose Life Program is a suicide prevention program for youth (i.e., 7-17 years old) that focuses on traditional techniques, teachings, and knowledge transfer to help youth struggling with suicide ideation and mental health challenges. The suboxone program helps members of the community with opioid addiction, and the program services approximately half of the adults in the community. The National Native Alcohol and Drug Abuse Program (i.e., Alcoholics Anonymous, Narcotics Anonymous, public seminars, school sessions, cultural events) supports those living with the challenge of addiction to help with recovery. There is currently no mental health counsellor who stays in the community permanently. Mental health counsellors visit the community regularly, but unable to see all community members who request appointments (Intrinsic, 2023b). Additional-trauma-informed mental health services are needed in the community, as is a general increase in spiritual land-based healing methods, which are currently available in the community (Webequie First Nation, 2021).

Results from the Health Survey indicated that 11% of peoples' mental health was poor, 41% was fair, 26% was good, 19% was very good, and only 4% was excellent (Intrinsic, 2023a).

### 6.3.1.3. Effects Assessment

#### Construction Phase

##### Direct effects

There are no direct effects.

##### Indirect effects

Construction and related activities that make major changes to a cherished landscape and ecosystem may lead to solastalgia or ecological grief (Salerno et al., 2021). Not all members of the community may feel this, and even members who look forward to the Project may experience solastalgia if there are

changes to specific popular landscapes. Elders and community members who feel a deep connection to their traditional lands and waters may experience ecological grief. However, for those who look forward to the Project providing them with a link to the outside world and employment opportunities, they might feel hopeful during construction and look forward to using the Webequie Supply Road.

Presence of construction camps and external construction workers, who are historically primarily men, may induce fears for safety and security within some community members and affect their mental wellness. Since Webequie First Nation is an isolated community, members may not be used to seeing groups of strangers within and outside the community, as would happen during the construction phase. As discussed above in Section 6.1.5, situation of worker camps close by has been associated with an increased risk to the safety of Indigenous women and girls. The closest construction camp is planned about 5 km south of Webequie First Nation (see Figure 1-1). Community members' activities on the land may take them far from their homes.

Although Webequie First Nation has decided that external construction workers will not be allowed into the community settlement areas in order to reduce safety and security risks, especially to women, girls, and 2SLGBTQ++ individuals in the community (see Section 6.2.10.4), the restriction on their entry is only as good as the enforcement of the measure to keep them out. Also, no mitigation measure can be expected to be 100% effective, especially if some external workers find their way in illegally. Hence, some community members who may have heightened perception of safety may experience negative effects on their mental wellness, resulting in a feeling of perpetual vigilance and worry. The feeling of vulnerability has the potential to diminish the sense of safety and security, which are crucial for mental health and overall well-being. Women and girls are at heightened safety risk due to the presence of construction camps, and they and their families may experience diminished mental wellness.

In addition, noise from construction activities may disturb some community members leading to feelings of irritability and a decline in mental wellness (Hahad et al., 2024). Community members who are close enough to be affected by construction-related noise may experience increased annoyance and irritability, but this may be short-term. According to the noise assessment, the potential for noise impacts above acceptable thresholds is limited (AtkinsRéalis, 2024d), and therefore the health impacts may be limited and temporary.

During the construction phase, employment that some members may get may change their interactions with the community (i.e., frequency of trips to Webequie First Nation on off-time). While living in construction camps with non-community members, it is possible that members of Webequie First Nation may experience feelings of loneliness and isolation, and experience racism and discrimination. Due to this negative treatment, members of the community may develop negative mental health outcomes (i.e., stress, substance use, and mental wellness struggles). Furthermore, there could be negative effects to the workers' entire family as they are without a family member during shifts.

Cultural sites are important because they hold deep, spiritual significance for Webequie First Nation members. As such, it is important to protect these for future access and use by the membership to maintain their spiritual and mental wellbeing.

The construction phase would also be tied to jobs and better income. Several of the mental health issues raised by Webequie First Nation related to poverty, income, jobs and housing may be alleviated during the construction phase due to improved income and may have some positive effects on mental health in the community. However, these potential positive health benefits would only be to those members of the community who benefit from the employment opportunities.

### Operations Phase

#### Direct effects

There are no direct effects.

#### Indirect effects

Results from the Health Survey indicated that 44% of people think the Webequie Supply Road will impact their mental well-being, while 26% do not think the Webequie Supply Road will impact their mental well-being, and 22% were unsure if their mental well-being would be impacted by the Webequie Supply Road (Intrinsic, 2023a; due to low response rate, results should be interpreted with caution).

However, the Webequie Supply Road will only improve access to goods, services, and reduce feelings of isolation of community members once it connected to the provincial highway network via the Marten Falls Community Access Road and the Northern Road Link, both of which are project currently also going through the Impact Assessment process. Hence, it is not possible to say at this whether the positive health benefits expected from the potential increased and easy access to the provincial highway network will happen.

The Webequie Supply Road maybe a means through which non-Community members and transient workers working in the Ring of Fire area may enter the community. Although Webequie First Nation plans to limit entry of external individuals, concerns have been expressed by community members regarding the safety of youth, women, and girls, which could lead to negative mental wellness (i.e., anxiety, stress). Women and girls may experience an increased risk of violent outcomes from increased risk due to unwelcome visitors to the community and may experience heightened experiences of fear and stress for their safety. Women and girls with addiction issues are more vulnerable to non-local offers of drugs and alcohol in exchange for sex. This could lead to increased negative mental health and increased problem use of drugs and alcohol. Members of the 2SLGBTQI+ community may experience increased levels of fear due to outsider access to the community and fear of violent acts, which may diminish their mental wellbeing. Gender-based violence among the LGBTQ2+ community from non-local workers is a concern as violence towards members of this community may increase addiction behaviours (i.e., alcohol and drug dependency) and negatively impact the mental health of this vulnerable community. Due to wealth disparities between high-income transient workers and community members, an increase in the prevalence and availability of alcohol, drugs, and sex to service the high-income population is a concern as those with mental health challenges are vulnerable to addiction behaviours.

Webequie community members, particularly youth, may have more employment opportunities which could positively increase mental health and related outcomes (i.e., increased financial means to increase affordability of healthy foods, housing and services). However, employment outside the community, i.e., the Ring of Fire, could also increase exposure to racism and discrimination in the workplace, negatively impacting health and well-being and leading to negative health outcomes (i.e., domestic violence). Increased domestic violence would disproportionately impact women, children, and Elders. For workers employed in the Ring of Fire area, long shifts in employment can increase stress and lead to negative mental health outcomes due to decreased time for traditional, spiritual, and cultural practices. Youth need the resiliency offered by land-based practices, and removing their connections to the land while working in the Ring of Fire area, or having a traditional knowledge teacher working in the Ring of Fire, decreases their opportunities to access the land and would therefore decrease their mental wellness.

#### 6.3.1.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: Webequie may wish to consider working with the Province to obtain additional mental health supports and counselling for Webequie First Nation community to help with challenges community members anticipate facing regarding Project activities and concerns (also see Section 6.2.13.4) (InterGroup, 2024).
2. Mitigation measure: Contact should be limited between the work camps and the community to reduce the stress and concern felt due to the threat of violence or concern for personal safety, especially by women and girls, as discussed in Section 6.2.10.4.
3. Mitigation measure: The contractor should work with Webequie First Nation and aim to offer mandatory annual Indigenous cultural sensitivity training to workers to promote positive work relationships between Indigenous and non-Indigenous employees (also mentioned in Sections 6.1.5.4, 6.2.10.4 and 6.3.2.4) and limit risk to the safety of women, girls and 2SLGBTQ+ individuals.
4. Mitigation measure: The contractor should aim to understand Webequie cultural practices and respect cultural practices by allowing time and flexibility for workers to participate in cultural ceremonies, traditions or community events when possible as Elders believe these traditional practices promote positive mental well-being (also see InterGroup, 2024).
5. Mitigation measure: To address feelings of ecological grief due to changes to the landscape, it is suggested that Webequie continue to keep community members (especially Elders) comprised of ongoing construction activities, so they are not surprised by sudden changes. And also ask the contractor to stage construction equipment and work camps away from sight lines to minimize visual disturbance to the landscape.
6. Enhancement measure: The contractor should work with Webequie to understand environmental stewardship practiced by Webequie and incorporate these principles into construction practices whenever possible.

##### Operations Phase

1. Mitigation measure: Webequie First Nation should consider implementing inspection areas to not only limit access to community to outsiders, but also to discourage illegal entry of illicit substances and alcohol into the community. This will reduce safety and security risks, and improve mental wellness when members feel safe in the community (also see Sections 6.1.5.4, 6.2.10.4 and 6.3.2.4).
2. Mitigation measure: Webequie First Nation may wish to consider working with the Province to obtain additional mental health supports and counselling for community to help with challenges community members anticipate facing regarding Project activities and concerns (also see Section 6.2.13.4) (InterGroup, 2024).

By integrating these mitigation / enhancement measures into the Webequie Supply Road Project, adverse mental health effects can be minimized while also enhancing overall well-being for the community.

### 6.3.1.5. Net Effects

Despite mitigation / enhancement measures, the current lack of mental health services in Webequie prevents them from having the capacity to support any mental wellness challenges arising from the project (InterGroup, 2024).

#### Construction Phase

1. Despite limiting contact between the work camps and the community, the presence of construction camp workers may still pose safety and security risk and impact the mental health and wellness of community members. Even with mitigations in place to not allow outsiders to enter the community, enforcement may not be 100% effective and this may have some safety and security impacts in Webequie First Nation, especially to specific sub-groups, including women, girls and individuals who identify as 2SLGBTQI+, during the construction phase.

#### Operations Phase

1. Despite previously recommended inspection areas, it can be anticipated that drugs and alcohol will make its way into the community due to the increased accessibility, resulting in increased negative impacts to mental wellness.

### 6.3.2. Substance Use

#### 6.3.2.1. Substance Use and Health

The Canadian Mental Health Association presents substance use on a spectrum, where spiritual and cultural uses is beneficial to the community (CMHA, n.d.). For example, tobacco is considered a sacred plant by many Indigenous peoples, where it is used for ceremonial, medicinal and spiritual purposes (Reading & Halseth, 2013). However, the overuse of these substances and the use of illicit and not-culturally linked substances, can become problematic and may lead to negative consequences, such as crime, violence, overdose (Mamakwa et al., 2017), and potential chronic dependence (CMHA, n.d.) (Figure 6-25).

Due to their experiences with colonization, ongoing systemic racism and barriers in access to healthcare services, erosion of their culture, and the intergenerational trauma caused by abuse directed towards them during forced attendance in residential schools, Canada's substance use crisis disproportionately affects Indigenous peoples (Lavalley et al., 2018; Jardine et al., 2021; Chiefs of Ontario and Ontario Drug Policy Research Network, 2021), who are statistically more likely to have poorer health than non-Indigenous people in Canada (Urbanoski, 2017). Negative health outcomes resulting from substance use are more prevalent due to the systemic disadvantages caused by colonialization (Urbanoski, 2017). Indigenous communities in Canada have identified alcohol and substance misuse as a serious concern, with 74% of First Nations respondents to a 2003 survey, rating alcohol and illegal drugs as their biggest health concern (INAC, 2003; as cited in Jiwa et al., 2008).

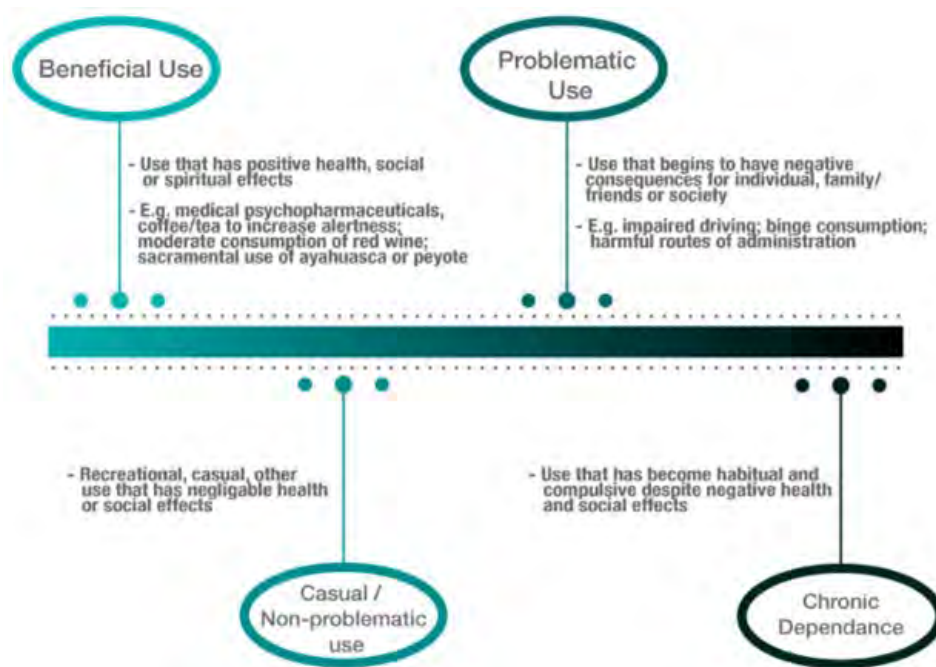


Figure 6-25: Spectrum of Substance Use (CMHA, n.d.; adapted from Health Officers Council of British Columbia, 2005)

The use of illicit drugs, non-traditional tobacco consumption, and alcohol dependency are symptoms of and contributors to poor mental and physical health outcomes (Reading & Halseth, 2013). Social and individual risk factors are associated with substance use in First Nation populations (Reading & Halseth, 2013). Factors that influence substance use among First Nations people include housing quality and availability, poverty, educational status, employment status, social networks, health care access, early life experiences, intergenerational trauma, loss of cultural identity, and physical activity levels (Reading & Halseth, 2013). These factors all work together in a complex manner that result in First Nations peoples being disproportionately influenced to use illicit substances (Reading & Halseth, 2013).

Drug use (illicit drugs, misuse of prescription drugs, etc.), also may have negative consequences such as injuries, fatalities, etc. In a study by the Chiefs of Ontario and the Ontario Drug Policy Research Network, which looked at trends and patterns in opioid prescribing and opioid-related poisoning among First Nations people in Ontario, it was seen that, for all age groups, First Nations individuals experienced a higher rate of hospital visits for opioid-related poisoning than non-First Nations individuals, and the rate for males was higher than that for females (Chiefs of Ontario and Ontario Drug Policy Research Network, 2021) (Figure 6-26). Individuals between the ages of 25 and 44 experienced much higher rates of hospital visits for opioid-related poisoning compared to other age groups, and this difference was more pronounced among First Nations people (Chiefs of Ontario and Ontario Drug Policy Research Network, 2021).

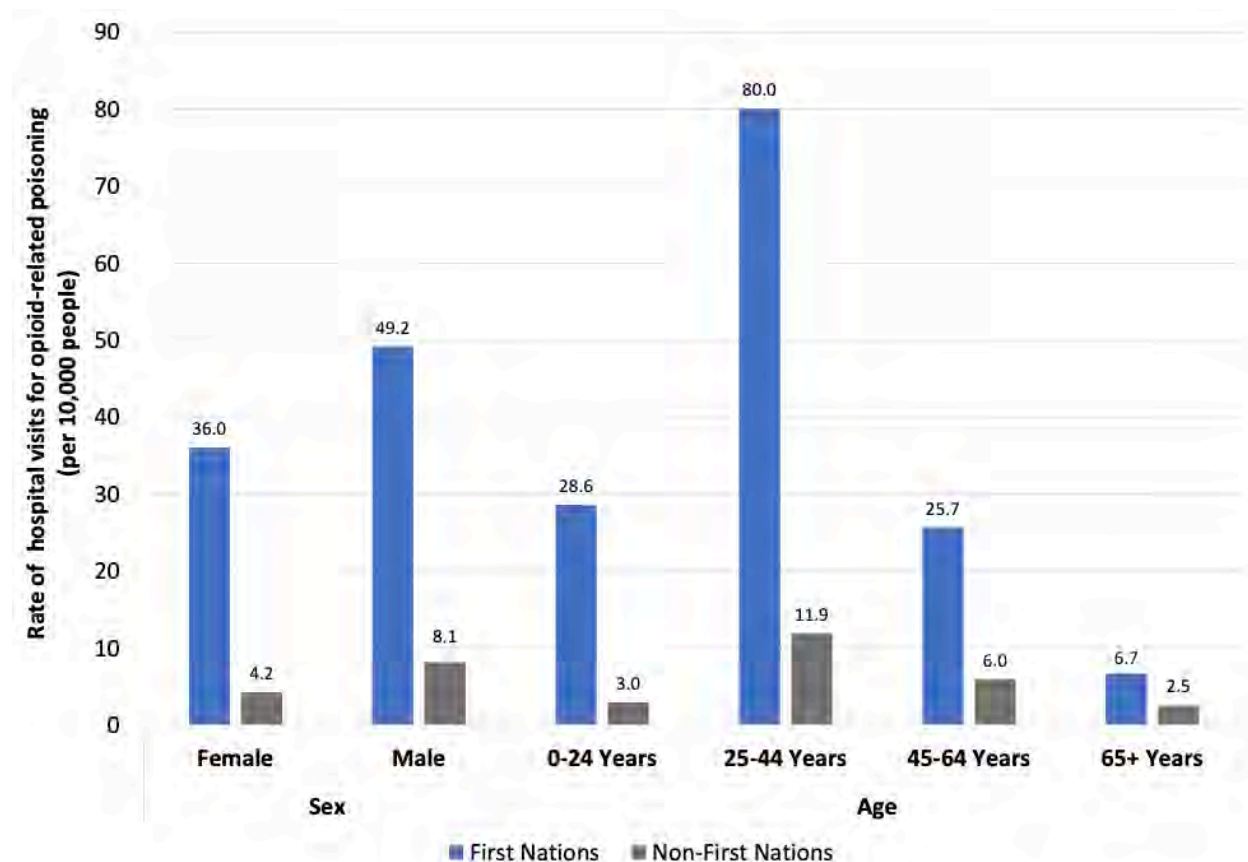


Figure 6-26: Rate of hospital visits for opioid-related poisoning in 2019, by sex and age

High levels of alcohol consumption are also linked to various chronic diseases, cognitive effects, injuries, and fatalities (NIAAA, 2003; as cited in Reading & Halseth, 2013). Alcohol, specifically problem drinking<sup>3</sup>, has been identified as a major problem in Indigenous communities (FNIAH, n.d.; as cited in Reading & Halseth, 2013).

Substance misuse is a complex issue, with a multitude of contributing factors dictating the frequency and severity of the crisis in individual communities. It was estimated in 2012 by the Nishnawbe Aski Nation that 36% of the population in the Sioux Lookout region of Northwestern Ontario were opioid dependent (NAN, 2012; as reported by Mamakwa et al., 2017). Programs to treat those with substance use and misuse dependency include urban treatment centres, and community-based initiatives that focus on prevention, harm reduction, treatment, and aftercare (Jiwa et al. 2008; Mamakwa et al., 2017). Overall, there are strong links between illicit substance and alcohol use and the other social determinants of health, as outlined in Figure 6-27, and assessed in the Webequie Supply Road HIA. These links influence the initiation, severity, and propagation of illicit substance and alcohol use, as well as influence an individual’s ability to access appropriate care options if they wish to do so, as outlined in Section 6.2.13.

<sup>3</sup> Consuming more than two (2) standard drinks per occasion is associated with an increased risk of harm to self and others, including injuries and violence (Canadian Centre on Substance Use and Addiction, 2023).

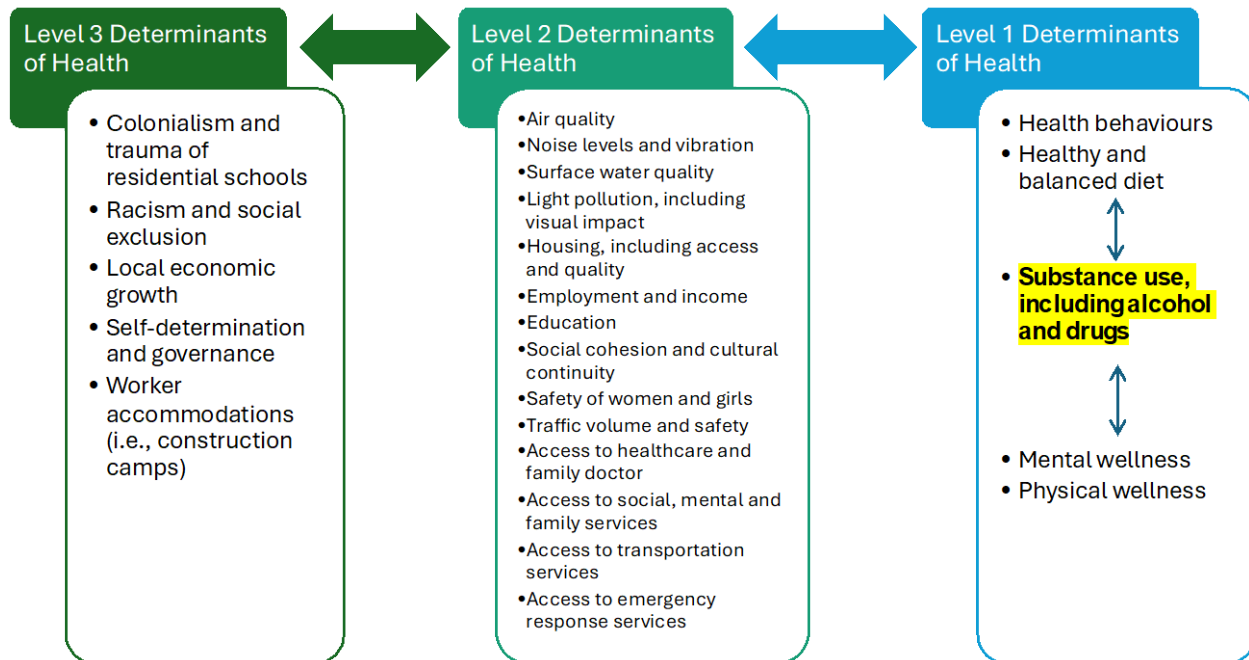


Figure 6-27: Connecting the different levels of determinants of health to substance use (on the right) and the impact to wellness for the Webequie Supply Road HIA

### 6.3.2.2. Existing Conditions

Based on key in-person interviews, the substance use ‘crisis’ within the community is a key concern and major driver of mental health issues, and vice-versa (Intrinsic, 2023b). The ‘Suboxone program’ was initially created with the intention to reduce peoples’ dependence on opioid drugs (suboxone is a drug designed to replace opioids). The program started out with 30-40 people, and became normalized: “People would go to the nursing station, take a dose, and then get on with their day” (key person interviews, Intrinsic, 2023b). This quickly became a part of peoples’ routines. Instead of reducing community members’ dependence on drugs, they are now addicted to Suboxone and have been taking the same dose for years (Intrinsic, 2023b). The program is supposed to last 12 months, where a person will stabilize at 20 milligrams and then be tapered off over 12 months to get drug-free (Intrinsic, 2023b). Unfortunately, a lot of patients have been on Suboxone for many years at this point and it has become a major concern within the community (Intrinsic, 2023b). The Webequie First Nations’ Comprehensive Community Plan (2021) indicates nearly half of the community’s adults participate in the suboxone program. There are not enough resources or infrastructure currently available in the community to help everyone who is dealing with a suboxone addiction.

Teenagers are also struggling with substance misuse. From interviews with community members, they were referred to as the ‘forgotten ages’, where there is lots going on in the community and not enough supervision to keep an eye on the youth (Intrinsic, 2023b). Younger generations are seeing older adults use suboxone which is then normalizing the behaviour (Intrinsic, 2023b). This results in younger people being more likely to adopt the same habits. Over the course of several conversations with Elders, it became apparent that elders are particularly concerned about young people in the community, i.e., the next generation, being so dependent on substance use (Intrinsic, 2023b; 2024).

There are currently limited resources and no facilities within the community to help those struggling with substance misuse. As no facilities exist, land-based resources are often used in its place (Intrinsic, 2023b). A detox treatment centre is needed for families and individuals within the community. Often those who are addicted to drugs or reliant on the suboxone program also experience poor mental health (Intrinsic, 2023b).

During engagement, community members expressed concern that existing alcohol addiction and addiction to illicit substances may be exacerbated by the Webequie Supply Road (Intrinsic, 2023b). There has been an increase in alcohol consumption in Webequie over the years (Intrinsic, 2023b). There has also been an increase in cocaine use, and cocaine that has been tainted or laced with other substances entering the community (Intrinsic, 2023b).

### 6.3.2.3. Effects Assessment

#### Construction Phase

##### *Direct Effects*

Heightened exposure to outsiders, external influences, as well as additional health and safety risks may lead to greater and easier access to illegal drugs and alcohol and result in negative health impacts to the community. These concerns were expressed by many community members over the course of engagement (Intrinsic, 2023b).

Members of the community who are employed during the construction phase and who must leave the community for employment may have increased access to alcohol and illicit drugs in the workcamps, which may be brought in illegally, even though the camps will be 'dry'. This could lead to new or increased use of these substances to cope with feelings of loneliness, isolation, and mental uncertainty due to increased exposure to difficult situations or oppressive atmospheres. This could lead to the negative health outcomes associated with alcohol and drug overuse.

##### *Indirect Effects*

Women and girls could indirectly experience a disproportionate increase in physical and sexual violence due to increased access to drugs and alcohol for family members and/or partners.

#### Operations Phase

##### Direct effects

There are no direct effects to substance use due to the operations phase of the Webequie Supply Road.

##### Indirect effects

Once operational, the Webequie Supply Road will connect Webequie First Nation to the Ring of Fire area, where community members expect to work in jobs related to resource development. Community members who travel to the Ring of Fire, or external workers who travel from the Ring of Fire can bring in illegal drugs and alcohol, which could increase how much of these harmful substances is available in the community, and thereby potentially increase their use and addiction and mental health issues. This has negative impact to the health of not just users, but the community as a whole. Currently, alcohol and drugs are prohibited in the community, and the community controls what comes in and out of the community at the airport by searching bags. However, with the operation of the Webequie Supply Road, it could be much easier to smuggle drugs and alcohol into the community (Intrinsic, 2024).

#### 6.3.2.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: Webequie should consider working with the Province to increase substance use support services in the community before construction begins, as well as provide enhanced messaging and programming around the harms of substance use. This recommendation from the health assessment is high priority.
2. Mitigation measure: It is advised that workers who are not members of Webequie First Nation not be allowed into Webequie First Nation during the construction phase. This may limit opportunities for illicit drugs and/or alcohol to be transported into the community by outsiders (AtkinsRéal, 2024k). However, the extent of mitigation will depend on how effectively non-members are kept out.
3. Mitigation measure: The contractor should work with Webequie First Nation to provide a safe and productive work environment by establishing and enforcing clear guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase, i.e., establish and enforce 'dry' camps (AtkinsRéal, 2024k).
4. Mitigation measure: The contractor should provide education and training for workers on the effects of substance use and importance of maintaining a drug-free work environment.

##### Operations Phase

- (1) Mitigation measure: Webequie should consider implementing inspection areas to not only limit access to community to outsiders, but also to discourage illegal entry of illicit substances and alcohol into the community.
3. Mitigation measure: The Community should consider stepping up programs to educate younger generations about the effects of alcohol and drug use.

#### 6.3.2.5. Net Effects

##### Construction Phase

1. Even though the Webequie First Nation construction camps will all be 'dry' camps (no alcohol in the camps), it can be anticipated that drugs and alcohol will make its way into the camps and thereby the community, due to increased accessibility, increasing use of illegal substances. In turn, this will have negative net effects on the health of workers and those in the community.

##### Operations and Maintenance Phase

1. Similar to construction phase, it can be anticipated that drugs and alcohol will make its way into the community despite previously recommended inspection areas, due to the increased accessibility. This has potential for some negative net effects to health.

#### 6.3.3. Diet, Including Access to Traditional Country Foods

##### 6.3.3.1. Diet and Health

Although inter-related, there is a distinct difference between diet and food security in terms of the options available to an individual over what foods are consumed. Diet fundamentally refers to the individual food choices that a person can make when accessing food options. These choices are limited

by individual factors (i.e., personal taste, ability to access a traditional knowledge source to learn traditional hunting practices, ability to access the land at will to hunt and gather traditional foods, and availability of preferred nutritious market food items). Food security is beyond the control of the individual and refers to the reliable access of individuals to a predictable, affordable source of nutritious food at regular intervals (e.g., factors such as climate change impacting traditional food populations, or shipping costs making food options restricted and prohibitively expensive). Indigenous peoples' right to govern their food systems and safeguard Traditional Knowledge is dependent upon their ability to practice individual and communal food sovereignty. Section 6.2.8 identifies the difference between traditional food security and food sovereignty of Indigenous peoples more comprehensively.

Figure 6-28 below identifies some factors that can contribute to healthy and balanced diets in Indigenous peoples, which can in turn boost food security in communities. As seen in the figure below, a variety of social, economic and cultural factors play a role in whether an individual has access to a healthy and balanced diet, which ultimately is a personal behavioural decision. Having access to healthy and balanced diets is especially important for children and youth as it has a significant influence on their growth and development. For individuals from lower socioeconomic families, individuals with disabilities, and for older adults, partaking in a healthy and balanced diet becomes especially challenging due to inability to afford store-bought foods or have access to them, and also due to difficulty in harvesting traditional foods themselves (especially for those with disabilities and older adults). In such cases, having strong community support and sharing of foods, traditional and store-bought, can make a difference. Mental wellness and lack of substance use issues can also be factors that contribute to a healthy diet.

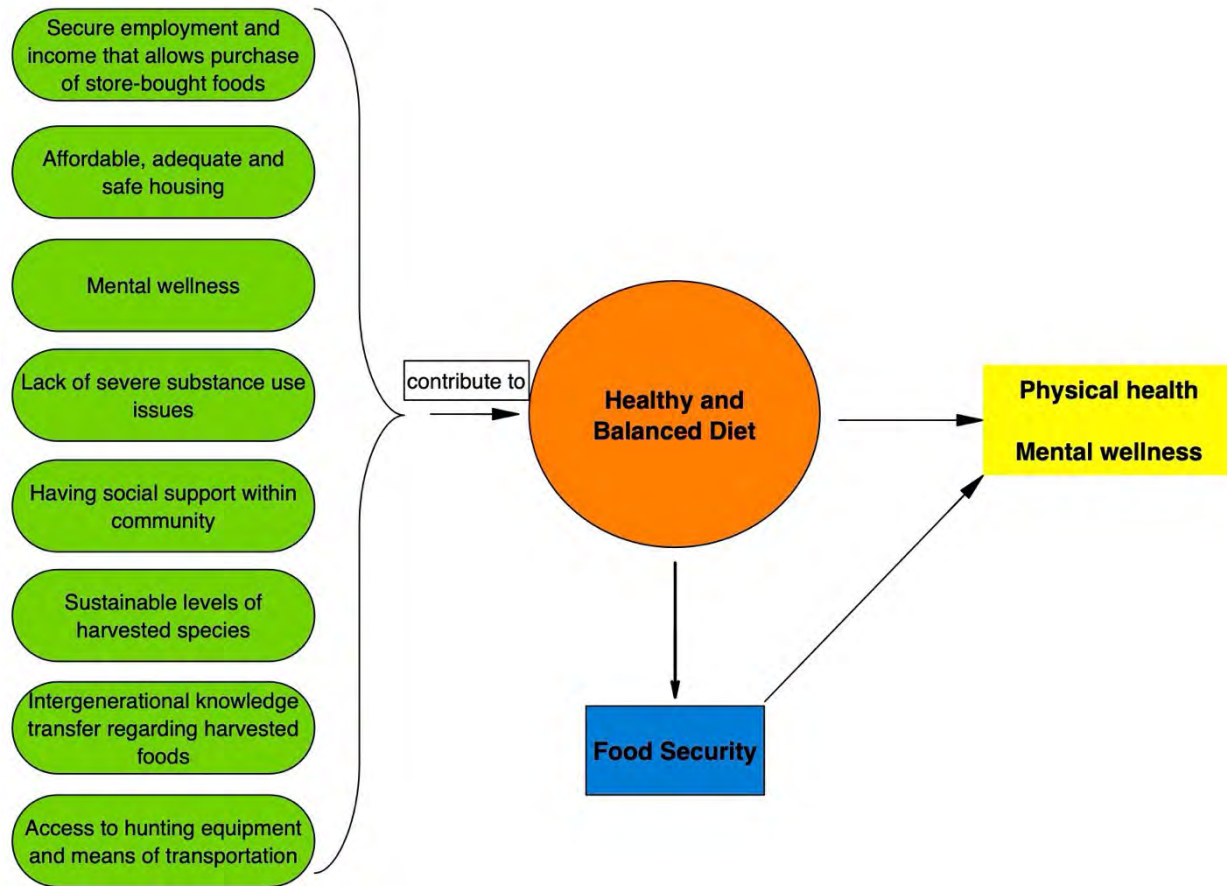


Figure 6-28: Some factors that contribute to a healthy and balanced diet in Indigenous communities

In turn, the harvesting of traditional foods can also enhance mental wellness by fostering a sense of purpose, physical activity, and connection to nature (Ahmed et al., 2021). Traditional foods are vital for Indigenous peoples, as they support nutrient-rich, cultural, spiritual, and environmental well-being. First Nations people traditionally accessed traditional and country foods harvested from wild game, plants, and fish, as well as domesticated plants such as corn, beans and squash. They are a component of ceremonies, gatherings, and the transfer of knowledge through generations, and are abundant in omega-3 fatty acids, protein, and antioxidants (FNHA, n.d). These food sources still make up a portion of the Indigenous diet (Council of Canadian Academies, 2014). However, due to the devastation caused by European colonial policies and practices that interrupted and removed traditional food procurement knowledge, as well as factors such as climate change altering traditional food availability, processed market foods have become a more prevalent component of the diets of Indigenous peoples (Willows et al., 2019). The health of the environment is intrinsically linked to the availability and quality of traditional foods, and environmental disruptions, such as climate change and major projects, can result in food insecurity. Food insecurity as a determinant of health is discussed in Section 6.2.8.

In Ontario, First Nations adults indicate that about 43% of their diet is from traditional food sources, and 56% is from ultra-processed foods (Willows et al., 2019). Shipping fresh produce and nutrient dense market food to remote First Nations communities, that are mainly fly-in-fly-out communities, is both expensive and logistically challenging. Therefore, available market foods tend to be calorie-dense, nutrient poor, ultra processed products (Monteiro et al., 2017). The lack of access of First Nations

people to affordable and healthy market foods reduces the quality of individual diets, and poor health outcomes associated nutrition-related chronic diseases are prevalent (i.e., lower life expectancy, type 2 diabetes, obesity, cardiovascular disease, etc.) (Willows et al., 2019; McNally & Martin., 2017).

#### 6.3.3.2. Existing Conditions

A traditional (country) foods survey was conducted between 2022 and 2023 by AtkinsRéalis (2024f) which resulted in 14 survey responses. Due to the limited number of survey responses, this data was combined with FNFNES data where possible. Conclusions from the combined data of this study identified that the most consumed fish is Walleye, followed by Lake Whitefish, Lake Sturgeon, and Northern Pike, with nearly all Webequie First Nation survey respondents consuming fish during the year (AtkinsRéalis, 2024f). The most consumed mammal is moose, with meat being consumed more frequently than other tissues, and all Webequie First Nation members surveyed consumed wild land mammal tissue during the year (AtkinsRéalis, 2024f). The most frequently consumed waterfowl are Canada geese, and the most commonly consumed terrestrial bird is grouse, and nearly all Webequie First Nation members consume wild birds during the year (AtkinsRéalis, 2024f). No wild eggs were consumed during the year of the survey. Wild berries were consumed by majority of survey respondents, and blueberries dominated the type of berry consumed. Wild plants most consumed by most respondents consisted of Labrador tea, while mint had a higher frequency of yearly consumption and the only homegrown produce consumed by the respondents consisted of potatoes which are grown either at a home or in the community garden (AtkinsRéalis, 2024f).

Drinking water is primarily sourced from the community water distribution system. 77.7% of respondents drink their tap water, and 57.1% of respondents indicated that they treat their water prior to use, usually by boiling (AtkinsRéalis, 2024f). From the 2022/2023 study data, inorganic elements which are not nutritionally essential, such as mercury, chromium (VI), uranium and arsenic were not detected in vegetation samples (AtkinsRéalis, 2024f). Mercury was detected in Whitefish and Walleye, almost entirely in the methylated form (i.e., methyl mercury) (AtkinsRéalis, 2024f). Non-essential elements, such as arsenic and chromium (VI) were not detected in tissue samples, however, mercury, lead and uranium were detected in several tissue samples (AtkinsRéalis, 2024f).

The Country Foods Assessment indicated that community members consumed traditional country foods at least on a weekly basis, with 71% of respondents specifying that they consume locally harvested fish for at least one meal per week (AtkinsRéalis, 2024f). Although sample size for this survey was indeed very small, the results were corroborated by talking to community member during focus groups and during interviews to ground-truth this information (Intrinsik, 2023b; 2024). Indeed, somewhere between half to three-quarters of community members consume locally harvested fish on a regular basis. This statement was agreed upon in focus groups with youth, women, Elders, men, and land users (Intrinsik, 2023b; 2024). Survey results also indicated that game meat is consumed for at least one meal per week for approximately 86% of respondents (AtkinsRéalis, 2024f). Migratory birds were consumed for at least one meal per week for approximately 64% of respondents (AtkinsRéalis, 2024f). Less frequently consumed country foods included gooseberries, strawberries, blueberries, raspberries, service/ June/ saskatoon berries, Labrador (tea), muskrat root, mint, cedar (tea), and bear root (AtkinsRéalis, 2024f).

During all community engagement session with Intrinsik (2023; 2024), community members explained that as the Northern store (grocery store) was so expensive, many did not have an income high enough to afford healthy food items, and junk food was always cheaper (Intrinsik, 2023b; 2024).

### 6.3.3.3. Effects Assessment

#### Construction Phase

##### Direct Effects

There are no direct effects anticipated.

##### Indirect Effects

During the construction phase, food items will still be brought in by plane, or by the winter road. Therefore, it is unlikely that the diet of community members will change during this phase as costs and availability of market food items are expected to be consistent.

Indirectly, it is possible that workers who leave the community to participate in construction activities will no longer have the time to participate in traditional hunting activities. Therefore, there will be less available traditional foods in the community for consumption. Although these workers may maintain food security, the choices of food items they have access to will change, with market foods being more readily accessible than traditional food items. The lack of time to access the land to hunt for traditional food may have some potential negative mental wellness effects (i.e., disconnection from land and cultural identity) (as discussed in Section 6.3.1). If loss of traditional foods persists, there could be an outcome associated with food insecurity (Section 6.2.8), including lowering overall health and resulting in health outcomes associated with a nutrient poor diet (i.e., lower life expectancy, type 2 diabetes, obesity, cardiovascular disease) (Willows et al., 2019; McNally & Martin., 2017). Those who rely more heavily on traditional food sources, such as older adults (Intrinsic, 2023b; 2024), will be disproportionately affected by a temporary reduction in traditional food choices and change in diet.

During the construction phase, it is possible that the noise disturbance from construction operations may cause limited and temporary disruptions to the habitat of wildlife used as traditional food sources, as discussed in Sections 6.2.2 and 6.2.4. This means that traditional hunting grounds may be disrupted temporarily if they overlap with the planned route of the road. This effect is considered to be temporary in nature and localized to within the range of sound travelling near the construction area (SLR Consulting, 2024). The uncertainty around the availability of a traditional food source may change the dietary patterns of community members temporarily, and if sustained over several seasons, may begin to infringe upon food security, and in turn diet. This could lead to temporary potential negative health impacts.

It is possible that the loss of habitat experienced by traditional food source animals may be temporarily impacted (Intrinsic, 2023b). It is likely that habitat loss on land will not be substantial, and that the range of traditional food source land animals will recover quickly and adapt to the existence of the road in their territory.

#### Operations Phase

##### Direct Effects

There are no direct effects anticipated.

##### Indirect effects

During the operations and maintenance phase community members will have increased access to the land as more territory will be able to be reached by car, ATV, or snowmobile. The road may increase the number of hunting locations available to community members that were previously inaccessible due to transportation limitations. More community members may be able to access hunting, gathering, and

fishing grounds using the road that were previously inaccessible, thus increasing the level of consistent access to traditional food sources for dietary needs. Increased access to the land may improve access to traditional food benefits, thereby improving health outcomes associated with eating more traditional foods.

It is also possible that non-members of Webequie First Nation would be able to use the road to access new hunting locations, and this may impact land animal, fish, and plant populations negatively. The Ontario Ministry of Natural Resources and Forestry would monitor and issue licenses for large game, such as moose, through the provincial hunting lottery system, and fish catches would be limited in size by conservation laws. It is expected that these provincial regulations will ensure stable populations of wild game for Webequie First Nation community members wanting to practice traditional food gathering techniques. An expected neutral effect to wellness is anticipated if regulations are adhered to.

#### 6.3.3.4. Mitigation / Enhancement Measures

##### Construction Phase

1. Mitigation measure: Ensure that disturbances to the local environment are made in a way that minimizes disturbance to natural habitats, such as water crossings (SLR Consulting, 2024), and focuses on the long-term stability of wild game and traditional plant populations during construction including minimizing noise pollution, especially during key mating periods.

##### Operations Phase

1. Mitigation measure: Members of the community who hunt may want to notice and maintain records of changes in patterns of behaviour among game animals and growth patterns of traditional plants as a result of the Webequie Supply Road.
2. Webequie First Nation is encouraged to work with the Ontario Ministry of Natural Resources to monitor and issue licenses for large game, such as moose, through the provincial hunting lottery system, and regulate fish catches by conservation laws.

#### 6.3.3.5. Net Effects

##### Construction Phase

There are no net effects during the construction phase to Webequie First Nation.

##### Operations Phase

There are no net effects during the operations phase to Webequie First Nation.

## 7. SUMMARY

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This section provides a summary of potential health effects, the mitigation and enhancement measures to be applied and the predicted net effects in Table 7-1 for Webequie First Nation.

**Table 7-1: Summary of Potential Human Health Effects, Mitigation and Enhancement Measures and Predicted Net Effects for Webequie First Nation**

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
<b>Structural / Level 3 Determinants of Health - Structural or systemic factors that impact health and wellbeing</b>				
<b>Colonization and Trauma from Residential Schools</b>	Construction	<p>- Indirect effect: Access to employment opportunities from the Project may improve the physical and mental well-being of Webequie First Nation through enhanced self-determination and self-governance, and better access to services, including mental health services to address the impacts of intergenerational trauma.</p> <p>- Indirect effect: The Project may temporarily disrupt access to traditional lands and ways of life due to various construction-related activities, leading, temporarily, to a loss of identity and amplification of feelings of colonial control.</p> <p>- Indirect effect: Even though it is expected that construction caps will be 'dry' the Project may allow for easier access to illicit drugs and alcohol illegally brought in by external construction workers, exacerbating existing addiction issues (many of which are related to colonization, intergenerational trauma, and the residential school legacy).</p>	<p>Note: some of the mitigation/enhancement measures for the construction and operations phases may be the same.</p> <p>M: Webequie First Nation will consult with community members throughout the construction phase to provide regular updates regarding construction activities that may impact traditional activities on the land, so community members are prepared for the changes. The contractor should consider avoiding impacts to traditional land activities as much as possible. The overall aim should be for the contractor to learn about cultural protocols and avoid actions that could exacerbate trauma, such as disrupting sacred lands or cultural sites.</p> <p>M: Webequie First Nation and the contractor should aim to limit as much as possible outsiders working on construction on the Project from entering the community. This may limit the amount of illegal drugs and alcohol from entering the community, and limit impacts to mental health.</p> <p>M: Webequie First Nation should work with the Province to increase access to trauma-informed mental health services and traditional healing practices for community members such as counselling, support groups, and healing circles.</p>	<p><i>It is possible that despite implementation of mitigation and enhancement measures there may still be some small and temporary net effects due to limitation of traditional land activities and predicted increases in mental health issues due to increased substance use during both construction and operation.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
			<p>E: Webequie First Nation should work with the contractor to help ensure that the Webequie Supply Road Project creates employment opportunities for community members, including Investing in training programs to build community capacity.</p>	
	Operations	<p>- Indirect effect: The Webequie Supply Road may provide a link to employment opportunities in the Ring of Fire, enhancing the self-determination and self-governance of the community and resulting in improved health outcomes.</p> <p>- Indirect effect: May allow for easier access of illicit drugs and alcohol from outsiders. This could lead to higher rates of substance use and mental health crisis, which could increase the dependency on healthcare systems within the community</p>	<p>M: Webequie First Nation should aim to limit, as much as possible, outsiders from entering the community through the Webequie Supply Road. This may limit the amount of illegal drugs and alcohol from entering the community, and limit impacts to mental health.</p> <p>E: Webequie First Nation should aim to help ensure that the employment and economic growth opportunities that may result due to the Webequie Supply Road Project creates sustainable employment and positive growth in income for most community members. This will help most members of the community access the services they need to address the trauma and mental health issues due to residential schools and colonization.</p>	<p><i>The availability of jobs and economic opportunities may improve access to mental health services in the community and net positive effects to mental health and wellness and go some way to address intergenerational trauma from residential schools.</i></p>
<b>Racism and Social Exclusion</b>	Construction	<p>- Indirect effect: While living in construction camps with non-community members, is possible that members of Webequie First Nation may experience racism from external workers who join the construction work force. Members of the community who experience this may develop negative health outcomes. Those that experience racism while working in construction</p>	<p>M: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing regular mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising</p>	<p><i>There is a risk that community may still be exposed to racism and discrimination from outside workers despite mitigation measures, increasing risk to their safety and security with potential for some adverse net health impacts.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		camps can be a catalyst for family violence against women, children and elders when they return home.	awareness for the safety of Indigenous women and girls.  M: The contractor should establish and enforce zero-tolerance policies on racism and violence in the workplace, which can help to provide a safer, more understanding work environment for Indigenous employees and encourage the potential Indigenous employees.	
	Operations	There are not expected to be any impacts to Webequie First Nation related to racism and discrimination during the operations phase of the Webequie Supply Road	No measures needed.	<i>No net effects to health anticipated.</i>
<b>Local Economic Growth</b>	Construction	- Indirect effect: The overall economy of Webequie First Nation is expected to be positively affected by the Project's construction phase, though not to a huge extent. Even so, this will increase the likelihood of positive health outcomes through potentially improved social and economic conditions, especially for those who are able to find jobs.	E: Webequie First Nation should consider the ways in which the construction phase of the Project may boost local business development, financial independence for the Band, development of business relationships with surrounding Indigenous and non-Indigenous communities, and employment opportunities for community members.  E: Prior to construction, it is suggested Webequie First Nation develop a Businesses Development Plan (See Section 6.1.3.4. for details).	<i>There are no adverse net effects to health expected.</i>  <i>If the Project boosts income, there will be a positive net effect to health.</i>
	Operations	- Indirect effect: Webequie First Nation will have access to the Ring of Fire after the completion of the Webequie Supply Road. The community hopes that this will significantly increase access to economic opportunities, specifically	Note: The enhancement measures for the operations phase are the same as for the construction phase, and even more important to implement.	<i>There are no adverse net effects to health expected.</i>  <i>If businesses can benefit from reduced travel time and expenses to McFaulds Lake, it will lead to</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		surrounding the Ring of Fire area, and improve health outcomes associated with increased employment, income and availability of services.	E: The Nation should consider that local economic growth benefits all sub-groups within the community, including women, youth and those with disabilities.	<i>increased disposable income and higher spending on goods and services, which will have positive net effects to health and wellbeing.</i>
<b>Self-Determination and Governance</b>	Construction	- Indirect effect: For the community to fulfil its right to self-determination, it is imperative that the community be involved in the planning and decision-making process for the Project throughout its construction phase. If the community feels it is not involved as much as it should be, they could experience a loss of control, and a decrease in self-identity which could lead to negative mental wellness outcomes.	E: To enhance physical and mental health and wellbeing, Webequie First Nation should have a decision-making role throughout the planning and development of the Webequie Supply Road.  E: The community should be provided with regular information and messaging regarding planning for the Webequie Supply Road, including challenges faced, and how they are being addressed. This will allow the community to participate in the Project throughout.	<i>There are no adverse net effects to health predicted.  Positive net effects are predicted should the Project be approved and the community, as the Proponent exercises its rights to self-determination and builds the Projects as per its vision.</i>
	Operations	- Indirect effect: Building the Webequie Supply Road would be a positive step towards Webequie First Nation increasing their self-determination and self-governance. This has the potential to improve health outcomes in the community.	E: As was conveyed during in-person consultations, Webequie First Nation should consider how best the Webequie Supply Road can benefit all sub-groups within the community in the long-term, with commitment to social programming in the community.	<i>There are no adverse net effects to health predicted.  Positive net effects to health predicted should the Webequie Supply Road provide a connection to the Ring of Fire area, and improve economic growth, jobs and economic, social and health programming in the community.</i>
<b>Worker Accommodations (i.e.,</b>	Construction	- Indirect effect: Webequie First Nation, and other First Nations, have expressed sensitivity and concern related to temporary construction camps where	M: When the locations of the construction camps are finalized, the location should be chosen that minimize interactions with high	<i>Even with limitations in place to not allow outsiders to enter the community, except those with permission, enforcement may</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
<p><b>worker/construction camps)</b></p>		<p>workers are brought temporarily to the area to support construction. The implementation of work camps may disproportionately affect the feelings of safety and security of Indigenous communities, especially women and girls, and also 2SLGBTQI+ individuals in the community, and potentially expose them to disproportionate levels of sexual violence, abuse, and STIs. Further, anti-Indigenous racism, if present in the construction camps, may lead to negative stereotyping of the Indigenous work force and cause negative mental wellness outcomes.</p> <p>- Indirect effect: Webequie community members who are participating in construction activities may experience negative impacts including being isolated from friends and family, stressful work environments, and a lack of connection which can lead to negative wellness outcomes.</p> <p>- Indirect effect: Housing services are already under pressure and may experience a slight burden if off-reserve community members (it is not known how many) wish to stay in the community to participate in construction-related activities. However, if temporary accommodations</p>	<p>traffic areas and areas that are often used for traditional activities.</p> <p>M: It is advised that non-Indigenous workers should not be allowed into Webequie First Nation during the construction phase, except by permission. Protocols should be put in place to regulate entry of members from other Indigenous communities. This may limit negative impacts to the safety and security of Webequie First Nation. However, the extent of mitigation of the impact will depend on how effectively non-members of the community are kept out.</p> <p>M: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.</p> <p>M: The contractor should work with Webequie First Nation to provide a safe and productive work environment by establishing and enforcing clear guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.</p> <p>E: To mitigate potential impacts on housing within the community from off-reserve members participating in construction jobs, the</p>	<p><i>not be 100% effective. This means that individuals who are not members of Webequie First Nation may gain entry into the community, which may have lingering safety and security impacts in Webequie First Nation, particularly to specific subgroups, including women, girls and individuals who identify as 2SLGBTQI+. As such, there is potential for limited negative net effects to health and wellbeing.</i></p> <p><i>Enforcement of the 'dry' status may be limited, and substances may still be brought into the camps, and as such the community, by external workers. Substance use may exacerbate violent activity, including sexual violence. Therefore, designating a camp as 'dry' does not necessarily mitigate this issue and there may be limited negative net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		are provided in the community, this may limit and adverse impacts.	community can consider adding additional temporary housing within the reserve to house off-reserve members during the construction phase.	
	Operations	There is not expected to be any construction camps/worker accommodation during the operations phase and therefore there is no anticipated health impact to Webequie First Nation.	E: Any additional housing that is added in the community during the construction phase can be potentially converted to more permanent housing. One of the construction camps is expected to be converted to temporary housing to house medical staff, teachers, and support personnel, who want to stay in the community.	<i>No predicted adverse net effects due to worker accommodations.</i>
<b>Intermediate / Level 2 Determinants of Health - Community factors that impact health and wellbeing</b>				
<b>Air Quality (including GHG emissions)</b>	Construction	Air Quality - Direct effect: According to the Human Health Risk Assessment (AtkinsRéalis, 2024e) for the construction phase, all contaminants of potential concern, except for carcinogenic risks associated with estimated chronic exposures to hexavalent chromium in baseline total suspended particulates, have risk levels below the Health Canada and Ontario MECP negligible risk levels. Additionally, the results of the Air Quality Impact Assessment (AtkinsRéalis, 2024f) for the construction phase are conservative and have likely overpredicted Project related emissions. Furthermore, the predicted exceedances are localized spatially to areas proximate to the road centreline and are not predicted at existing	<b>Note:</b> these mitigation measures are from the Air Quality Impact Assessment (AtkinsRéalis, 2024f) and the Assessment of GHG Emissions (AtkinsRéalis, 2024b).  M: To minimize dust pollution, it is recommended that the contractor use tarps to prevent dust from spreading, or spray the roads with a water-based solution to suppress dust, especially in dry areas such as haul/access roads or temporary soil and aggregate stockpiles. The use of dust suppression systems at quarries, truck speed limitations, vehicle and heavy equipment movement limitations to designated areas, minimizing idling and so forth.  M: The contractor should endeavour to use of environmentally certified equipment (e.g., Tier 4 engines) as much as possible.	<i>As identified in the Atmospheric Environment report and Human Health Risk Assessment by AtkinsRéalis (2024e; f), even with the application of mitigation measures, exceedances of Ontario Ambient Air Quality Criteria for total suspended particulates, PM10, and PM2.5 and Canadian Ambient Air Quality Standards for NO2 remain a possibility at some culturally sensitive areas. This indicates that there may be potential for negative net health effects.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>residences and institutional buildings in the Webequie area, where people are present most frequently (AtkinsRéal, 2024f).</p> <p>GHG Emissions                      - GHG releases in the atmosphere do not trigger direct health impacts on nearby population (being non acutely toxic to humans) but rather cause global warming which drives climate change that can have an indirect impact, especially on vulnerable people. According to the Assessment of GHG emissions (AtkinsRéal, 2024b), the maximum annual GHG emissions to occur during construction activities (245 kt CO<sub>2</sub>e) would represent 0.0067% of the Canadian total annual inventory (and 0.029% for Ontario). Being more of a global issue given that GHGs do not cause “localized” global warming, the Webequie Supply Road emissions would represent less than 0.0001% of worldwide emissions estimated 50,000 Mt CO<sub>2</sub>e annually. The Project will not add much to the global GHG emissions and so the indirect impact to health is not considered appreciable.</p>	<p>M: the contractor should develop and implement an Air Quality and Dust Control Management Plan to manage and reduce air contaminant emissions during construction phase. The Air Quality and Dust Control Management Plan will integrate a monitoring procedure for dustfall effects and measures to control or limit usage of vehicle or equipment that are the main emission source of particulates.</p> <p>M: Minimize the combustion of living biomass which will reduce GHG emissions by using the biomass for other purposes such as the production of roundwood and timber that would be used in Webequie for construction projects or woodchips used as mulch for landscaping, erosion control, etc.</p>	
	Operations	<p>Air Quality                      - Direct effect: The main pathway during Operations that will result in a change in air quality is the use of vehicles on the</p>	<p>M: During operations, while it is not feasible to have a direct control on emissions from vehicle engines, it is possible to work on dust emissions from the road surface. Considering that part of</p>	<p><i>There may be limited potential for negative net health effects due to the operation of the Webequie Supply Road alone.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>Webequie Supply Road once constructed and use of vehicles, machinery, and equipment for road maintenance. The potential for unacceptable risks associated with PM10 is considered to be low to negligible, and will further decrease once asphalt or chip-seal surfacing is in place. Hence there is limited potential for adverse health effects.</p> <p>GHG Emissions</p> <ul style="list-style-type: none"> <li>- Direct effect: Since the Webequie Supply Road Project is an infrastructure project intended to provide access to the Webequie community and future nearby mining exploration and proposed future mining sites, it will not have an impact on global GHG emissions.</li> <li>- Indirect effect: The existence of the Webequie Supply Road may hasten the opening of mines in the area whose ore might be substituted for foreign ore in Ontario or Canada's smelters. Because of this specific circumstance, Canada's greenhouse gas inventory would be improved by reducing foreign transportation emissions. Overall, it is difficult to predict the level of GHG emissions at this time, and thus the health effects.</li> </ul>	<p>the road will not be fully surfaced with asphalt or chip seal from the start, the maintenance crew will operate a truck that will spray water over the gravel-surface road from May to November, or when needed.</p> <p>M: An Air Quality and Dust Control Management Plan will be developed and implemented to manage and reduce air contaminant emissions during operation phase. The Air Quality and Dust Control Management Plan will also include a procedure for documenting compliance with applicable standards and required conditions as stipulated in permits, approvals, licenses and/or authorizations.</p>	

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
<p><b>Noise Levels and Vibration</b></p>	<p>Construction</p>	<p>- Direct effect: The project area is naturally quiet, with any noise caused by the development could potentially cause distress to both humans and animals, leading to disruption of quiet in the area. There are concerns from community members that the noise might scare away animals, impacting the ability of community members to hunt and access them as a food source. The project construction activities that involve blasting and use of vehicles, machinery and equipment will increase noise. Blasting is expected to occur infrequently. As such, noise impacts during construction are expected to be temporary, and cause limited and temporary health effects.</p> <p>- Direct effect: Noise emissions from equipment (e.g., crusher/screener, stackers, and front-end loaders) are continuous in worst-case simulations, and exceed the NPC-300 guideline limits by a maximum of 4 dB. These predicted exceedances are considered to be minor and insignificant, and are not expected to impact health outcomes.</p> <p>- Direct effect: Noise from general construction activities (e.g., vegetation clearing and overburden removal, subgrade compaction, the addition and compaction of base course and final courses of aggregate) are predicted to</p>	<p>Note: The contract has included some stipulations to reduce vibration impacts (see Section 6.2.2.4 for full details).</p> <p>M: To address the potential noise effects from blasting, it is proposed that a Construction Blasting Management Plan for the Project will be prepared by applicable contractor(s) prior to initiation of blasting activities. The plan will include a requirement for controlling peak overpressure sound levels to meet the blasting noise guidelines and criteria.</p> <p>M: Concerns of noise pollution has caused Webequie community members to recommend that there be more regulations around noise in the region. An example is maintaining equipment to limit noise emissions.</p> <p>M: The contractor should aim to limit construction to the daytime period, where possible, especially near residences. Noise complaints, if arise during the project construction and operations, should be investigated and addressed.</p>	<p><i>There are some predicted adverse and temporary net effects to health during construction. Individuals who are more sensitive to noise may be more vulnerable, as well as those who hunt, as hunting activities may be interrupted by loud noise.</i></p> <p><i>- The noise modelling conducted for the construction of the proposed roadway and bridges indicated that the highest predicted sound levels at the culturally sensitive areas CHL-5, CHL-7, CHL-17, CHL-25, and Construction Camp 1A site C05 are between 48 and 57 dBA, exceeding the MNL threshold of 47 dBA (LDN). Therefore, the magnitude of the effect is considered to be low to moderate.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>exceed the Mitigation Noise Level Threshold at several culturally sensitive areas. It is possible this disturbance may temporarily impact the mental wellness of some community members, especially Elders and those who frequent culturally relevant locations.</p> <p>- Direct effects: Construction activity will also cause vibration impacts as construction continues along the Webequie Supply Road route. Mitigation measures listed below will be put in place, and as such negative impacts are unlikely.</p> <p>- Indirect effects: Noise pollution is not just an environmental issue but also affects cultural practices like hunting if high noise levels end up displacing wildlife. Community members prefer to harvest in areas where it is quiet. Temporary increase in noise levels in harvesting areas may increase physical disturbance and impact harvesting activities, and in turn may have temporary adverse impacts to health.</p>		
	Operations	<p>- Direct effect: The maximum predicted sound level based on the predicted operational sound levels is 44 dBA which is equal to the measured baseline ambient sound level within the community/settlement of Webequie. Therefore, there are no anticipated</p>	<p>Same mitigation measures as above for blasting activities are recommended.</p>	<p><i>Overall operations phase sound levels are predicted to be less than or equal to 45 dBA which is considered appropriate for a quiet rural environment. With respect to Health Canada Guidelines, changes in sound</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>impacts to health with normal operational noise.</p> <p>- Direct effect: The changes in sound levels anticipated for some of the culturally sensitive places are anticipated to surpass the 5 dB threshold specified in the MECP/MTO Joint Noise Protocol. It is anticipated that the overall operations phase sound levels will be below or equal to 45 dBA, which is deemed suitable for a quiet rural environment. Based on Health Canada’s Guidelines, the operational noise impacts are not expected to result in long-term community annoyance, and therefore not anticipated to result in negative health outcomes.</p> <p>-Direct effect: The operations phase is not associated with any substantial sources of underwater noise or vibration. Therefore, it is unlikely that the operations phase will have any vibration impacts and in turn, no anticipated impacts to health.</p>		<p><i>levels resulting from the proposed Project are expected to be negligible for all Noise Sensitive Areas and less than the 6.5% threshold, and the magnitude of the effect is considered to be low. As such, there are no net effects to health predicted.</i></p>
<b>Surface Water Quality</b>	Construction	<p>Members of the community are concerned about the potential for environmental degradation at lake and river crossings and are interested in cumulative impacts in these areas.</p> <p>- Direct effect: There could be a change in surface water quantity as a result of</p>	<p>These mitigation measures are provided in detail in the Assessment of Effects on Surface Water Resources (AtkinsRéalis, 2024j):</p> <p>M: Dewatering, water takings, and discharges will be regulated by MECP permits (i.e., a permit to take water will be required for the Project)</p>	<p><i>Despite mitigation /enhancement measures, changes in surface water quantity, changes in surface water quality, and changes in sediment quality may occur. Full details are provided in Section</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>changes to the surface water drainage patterns and flows. This could influence the availability of traditional foods, leading to some negative health outcomes.</p> <p>- Direct effect: Surface water quality can be affected by alterations to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants. Changes in water quality can lead to negative physical and mental health outcomes.</p> <p>- Direct effect: Sediment quality in waterbodies can be affected by erosion of stockpiles and the road from changes to drainage pattern and flows in addition to potential spills or releases of chemicals and pollutants. Changes in sediment quality can have cascading impacts to aquatic ecosystem and result in negative health outcomes due to changes in cultural and traditional food practices.</p>	<p>and industry best management practices will be used to minimize dewatering/pumping volumes.</p> <p>M: Restore disturbed areas from vegetation clearing and grubbing to minimize effects on runoff rates.</p> <p>M: Erosion and sediment control measures taken into consideration when constructing waterbody crossing structures along with implementing water quality monitoring.</p> <p>M: Reduce construction during times that would most affect fish and fish habitat (e.g., breeding seasons).</p> <p>M: Proper handling and storage of petroleum and other hazardous materials as well as emergency response plans to mitigate accidental spills and leaks.</p> <p>M: A Construction Blasting Management Plan for the Project will be prepared.</p> <p>M: A construction waste management plan will be developed to minimize the amount of the waste to be generated.</p>	<p><i>6.2.3.5. Adverse net effects to health are anticipated in the construction and operations phases, should there be sufficient impacts to surface water quantity and quality that it impacts community practices and use of the water.</i></p>
	Operations	<p>- Indirect effect: Local hydraulics including local shear stress, erosion, water levels, and sedimentation may occur around constructed waterbody crossings. Surface water quality can be affected by alterations to drainage pattern and flows, addition of potential spills, releases of chemicals and pollutants, and addition of sediment</p>	<p>M: An ongoing follow-up monitoring program (post-construction) will be implemented during the operations phase of the Project.</p> <p>M: Water will be used to control the dispersion of dust.</p>	

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		<p>from dewatering, road maintenance, and vegetation control. Changes in surface water quality will have the same negative health effect as noted in the construction phase.</p> <p>- Indirect effect: Changes to sediment quality may occur due to erosion of stockpiles, changes to drainage and flow, the deposition of airborne particulate matter (i.e., dust), and potential spills of chemicals/pollutants. Negative health effects would be the same as those noted in the construction phase.</p>		
<p><b>Light Pollution, including Visual Impact</b></p>	<p>Construction</p>	<p>- Direct effect: Project activities during the construction phase included vegetation clearing and grubbing, the construction of support infrastructure such as camps or aggregate sources areas, the construction of structures at waterbody crossings, and the decommissioning and restoration of temporary supportive infrastructure. The visual effects associated with supportive infrastructure components will be confined to 1 km from project footprint and 500 m from the footprint of temporary or permanent supportive Infrastructure, and will be limited in extent due to the height and density of the coniferous woodland dominated landscape. Changes to the visual</p>	<p>M: Inform community members of upcoming construction activities and where they will be focused so members are prepared to see construction equipment and changes in specific areas.</p>	<p><i>Net effects for light pollution, including visual impact are not anticipated during the construction phase.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>landscape may cause a sense of loss or ecological grief to some community members when the road is being built. This may have some potential negative mental health impacts for these individuals.</p>		
	Operations	<p>- Direct effect: The potential effects from Project activities consist of a change to visual landscape in terms of the visibility (visual prominence) of the Project, and the scenic quality or viewer sensitivity and magnitude/distance. A change in the landscape cause feelings of ecological grief in some individuals, leading to some mental health impacts. Only those that are located within the defined viewsheds associated with each of the proposed crossings of Winisk Lake, the Winiskisis Channel and the Muketei River will be subject to a change in the visual environment. Potential for health effects is predicted to be limited.</p> <p>- Direct effect: The Webequie Supply Road is not proposed to be illuminated, except at the east and west terminus and at supportive structures, so the Webequie Supply Road will not be visible from any receptors during the night. Therefore, potential health effects are predicted to be negligible.</p>	<p>As per the Visual Impact Assessment (Schollen &amp; Company Inc., 2024), mitigation measures for effects to visual environment will be incorporated into the Project design and will be implemented to minimize negative effects. Mitigation measures considered in the potential effects analysis for visual environment included the following, and are re-iterated from the human health standpoint to limit impacts to mental health as a result of change to the visual environment:</p> <ul style="list-style-type: none"> <li>- Avoiding new Project footprint disturbances to the extent practicable, with particular consideration at the three waterbody crossing sites.</li> <li>- Minimizing the extent of vegetation clearing at the three waterbody crossings, and other crossings, that are considered navigable waterbodies will be limited to minimize visual impacts and where necessary meet safety standards.</li> <li>- Maximizing efforts to retain existing vegetation and landforms, to the extent practicable, to provide screening of activities and Project components.</li> </ul>	<p><i>Net effects for light pollution, including visual impact are not anticipated during the operations phase.</i></p>

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			<p>- Reducing the extent of disturbed area within the road right-of-way. Disturbed areas will be restored and seeded to allow for natural revegetation and its management to support the safe operations of the road.</p>	
<b>Housing</b>	Construction	<p>- Indirect effect: If community members who live off-reserve choose to come stay in Webequie First Nation to participate in constructions jobs, it is possible that there may be additional strain on Webequie First Nation’s already burdened housing situation. However, it is proposed in the Community Readiness Plan (AtkinsRéalais, 2024k) that there may be temporary accommodations built in the Webequie community during the construction phase, which will ease any burdens that could be placed on the Webequie community’s housing and infrastructure by off-reserve members seeking employment. As such, this impact, and its resulting health effects are uncertain at this time and will depend on how many off-reserve members return to participate in employment, and what temporary accommodations are built within the community to safely house them.</p>	<p>M: All workers, except individuals from Webequie First Nation, should be housed in the designated construction camps.</p> <p>E: For off-reserve members of the Nation working on the construction of the Webequie Community Access Road, additional temporary housing within the community that can be converted into longer-term housing should be considered to avoid overcrowding in existing homes.</p> <p>E: The population groups who are already disproportionately affected by poor and crowded housing conditions, i.e., single mothers, older adults, women and single individuals, should be prioritized in the allocation of housing.</p> <p>M: During the construction phase, the construction camp structures will be designed to ensure all required services are available to the workers at the camp itself, with neutral to minimal disturbance/ impact to the existing community infrastructure of Webequie First Nation.</p>	<i>No net effects are predicted.</i>
	Operations	<p>- Indirect effect: Once operational, the Webequie Supply Road may be able to reduce costs related to the</p>	<p>E: The Webequie First Nation Community Readiness Plan will include plans and measures for enhancing housing stock to address housing</p>	<i>Potential positive effects to health are predicted from enhancement measures adding</i>

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		<p>transportation of supplies and materials for housing and therefore boost housing availability. However, it should be noted that for the Webequie Supply Road to allow for cheaper entry of housing-related goods and/or services, a connection to the provincial highway system that connect Webequie to other communities and municipalities would need to happen, and would require the construction of the Northern Road Link Project and the Marten Falls Community Access Road Project, both of which are also going through the federal Impact Assessment process. But one construction camp is expected to be converted to community housing to house any off-reserve members, medical staff, educators, and any other Project operations related staff. It is expected that some strain on housing can be relieved, with some potential for limited positive health impacts, especially if visiting health care staff can be more easily housed.</p>	<p>capacity issues. Given the importance of housing as a vital determinant of health, these measures are also recommended from a human health standpoint.</p> <p>E: Off-reserve community members and medical staff and personnel should be prioritized for residence in the one construction camp expected to be converted into housing for community needs.</p>	<p><i>new housing to increase housing availability during the operations phase. In addition, converting one construction camp into housing for the community and visiting staff has the potential for positive net effects to health and wellbeing.</i></p>
<b>Employment and Income</b>	Construction	<p>- Direct effect: Webequie First Nation members may have better jobs and economic prospects as a result of the Webequie Supply Road Project. During each year of construction, Webequie First Nation is estimated to fill approximately 10 direct employment positions which will be located on-site.</p>	<p>M: Webequie First Nation should consider working with the Province to invest in training programs to build local capacity. Webequie First Nation should also work with the contractor to consider providing childcare services so women can participate in training and education to take advantage of employment opportunities resulting from the Webequie Supply Road</p>	<p><i>Potential positive net health effects are predicted as a result of employment opportunities available during construction with the potential to increase incomes. The scope of the positive effects, i.e., whether various sub-groups within the</i></p>

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		<p>Webequie First Nation is not forecasted to capture any of the direct off-site work attributed to the Project. Since employment positions will become available for Webequie First Nation, it can be expected that those individual household incomes will be positively affected in the community, resulting in positive health outcomes for those households.</p> <p>- Indirect effect: Due to the expected schedule of shifts, Webequie members who worked for the Project during the construction phase might not have as much time to spend harvesting on the land. Since traditional activities can give people a feeling of identity and worth, this poses issues to the well-being of those employed as well as problems for those who are more prone to rely on the traditional economy, such as Elders who may rely on the sharing economy.</p> <p>- Indirect effect: Although those without proper education will have the opportunity to be trained to develop the new skills that would be required for work on the Project. It might be difficult for Webequie members, especially women and young people, to gain this education and training as stated above as additional education and training for women is already a challenge. Therefore, a significant portion of the</p>	<p>construction phase, as well as helping to ensure that workers from the community are offered fair wages, safe working conditions, job security, and address inequalities in labour practices.</p> <p>M: Webequie First Nation should work with the contractor to help ensure additional support for underrepresented groups such as youth, through opportunities such as job shadowing, mentorship programs, and paid internships.</p> <p>E: Creation and implementation of workplace policies and programs, including a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training), as a means to retain employees through positive work experience.</p> <p>E: The contractor should consider providing disability supports (e.g., access to wheelchair and access ramps, hearing aids, etc.) to allow community members with disabilities to participate in the work force as much as possible, potentially in desk-jobs or low intensity jobs.</p> <p>E: Webequie First Nation should consider a plan that would shape the Webequie Supply Road Project as a source of sustainable employment opportunities for community members. Investing in training programs to build local capacity. Ensuring that workers from the community are offered fair wages, safe working</p>	<p><i>community (i.e., women, youth, individuals with disabilities) benefit, will depend on how well the mitigation and enhancement measures listed above are implemented.</i></p> <p><i>New labour and business opportunities (direct, indirect, and induced) will lead to increased participation and employment in the labour market, increased employment, and increased labour income</i></p>

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	Operations	<p>labour requirements for the Project may be met by labour force from the RSA.</p> <p>- Direct effect: The same types of opportunities and health outcomes that exist during the construction phase (economic development related to operations, maintenance workforce training, and youth employment) will exist during the operations phase, but to a much lesser extent (only 3 direct jobs and 1 induced job).</p> <p>- Indirect effect: During the operations phase, it is expected that Webequie members will be able to get jobs in the Ring of Fire area once mining development starts. However, it is not known when this will be, and how many and what kind of jobs will be available. For those who get jobs, their families will benefit, and the same considerations related to inequitable distribution of positive impacts also applies here.</p>	<p>conditions, job security, to address inequalities in labor practices.</p> <p>E: Safe, reliable, and accessible care options for children, older persons, and those with disabilities will help those who have care duties access and use the road to access employment opportunities.</p> <p>E: Creation and implementation of workplace policies and programs, including a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training), as a means to retain employees through positive work experience, should be implemented in all projects in the Ring of Fire area.</p>	<p><i>Increase in employment and income once the Webequie Supply Road is operational will depend on factors outside of the Webequie Supply Road Project itself. As such, it is not possible to currently predict the effects to health as a result of the Webequie Supply Road Project exclusively. However, the operation of the Webequie Supply Road will increase employment opportunities and therefore increase employment income, leading to positive net health effects.</i></p>
<b>Education / Access to Education</b>	Construction	<p>- Indirect effect: Education and training attainment opportunities may improve as a result of the Webequie Supply Road Project. The Project is anticipated to have a positive effect to incentivize education and training attainment required for Project employment opportunities. The positive health outcomes associated with improved</p>	<p>E: Webequie First Nation should work with the contractor to help ensure that educational and specialized skills training opportunities in construction will be provided to community members ahead of Project initiation, so they are prepared with necessary skills. The Community Readiness Plan will include enhancement measures for Education, Training and Traditional Learning Programming and Facility Space to</p>	<p><i>Positive net effect on education and training attainment will lead potential positive net health effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>employment opportunities would be anticipated. However, it is possible that diverse sub-populations, such as women, youth, and individuals living with disabilities may not be able to benefit equally from the Webequie Supply Road as compared to the men due to being at a disadvantage to get adequate training to benefit from a potential increase in employment opportunities associated with the Webequie Supply Road Project. These vulnerable populations may not experience the positive health outcomes associated with improved employment opportunities.</p> <p>- Indirect effect: As there is currently a lack of skills/trades experience related to potential Project-related employment, community members have expressed concerns that Webequie youth will not be in a position to benefit from the Project's employment opportunities and associated positive health outcomes. However, the Project could cause a small negative health effect to cultural and traditional activities for youth if they get more involved in Project employment and related activities and have decreased interest in learning traditional land-based skills.</p>	<p>identify and plan for education and training needs.</p> <p>E: Funding and educational programs will need to be available for members of the community to financially and practically access education and skills training required to participate in construction work. Webequie First Nation is encouraged to explore options for funding together with the contractor and the Province. Training may also be available through local educational service providers or through apprenticeships with construction companies or experienced members of the community. The community can also consider specialized programs for community members who have learning disabilities.</p> <p>E: Educational attainment levels for women in Webequie is lower than for men. To realize any health benefit from increased education/training in construction, some community members, and especially women, will need to be provided with child-care so they may attend training and get work.</p>	

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	Operations	There are very few jobs available during the operations phase compared to the construction phase. As such it is not anticipated that there will be any major effects on health due to the Operations Phase of the Webequie Supply Road Project.	There are no mitigation or enhancement measures needed.	<i>There are no net effects during the operations phase to Webequie First Nation.</i>
<b>Food Security (including quality and availability of Country Foods)</b>	Construction	<p>- Indirect effect: Community members are concerned over the impact of the Road to their traplines, use of the land to harvest traditional foods, and the potential impact to their mental and physical health if the way they harvest food is influenced by the Road.</p> <p>- Indirect effect: community members will have increased access to the land as more territory will be able to be reached by car, ATV, or snowmobile. More community members may be able to access hunting, gathering, and fishing grounds thus increasing access to traditional food sources for dietary needs, thereby improving health outcomes associated with eating more traditional foods.</p> <p>- Indirect effect: Similarly, community members are concerned that construction noise will scare away animals, impacting their ability to hunt and rely on traditional food sources. However, the noise-effect due to road construction is expected to be locally</p>	<p>M: As there is potential for food insecurity arising from disturbance of land and habitat of traditional food sources due to construction-related activities, traditional hunting areas should be clearly identified by the contractor, and the impact to these areas from the Project should be kept minimal to avoid loss of habitat, and loss of animal traffic due to noise. This will maintain access to traditional foods, and related health benefits.</p> <p>M: Construction and any ground disturbing activity should be avoided by the contractor during critical windows of habitat movement, mating or spawning to help avoid lasting damage to specific species. If this is not possible, appropriate permits should be obtained to reduce the impact to wildlife.</p> <p>M: It is advised that Webequie First Nation be involved in all land use planning activities to manage any new developments that may arise due to the Project to secure the integrity of their traditional hunting, fishing, and trapping grounds to help to ensure current and future generations maintain traditional food security,</p>	<p><i>There may be a temporary loss of traditional food security in the community due to construction activities and their impact to wildlife and harvesting practices. As a result, there may be some temporary adverse net effects to health and wellbeing. Additional income from employment may could result in increased affordability of nontraditional store-bought foods, and thereby increase food security that way, and improve health and wellbeing. However, these potential positive health benefits would be mainly for those who obtain construction-related jobs.</i></p>

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		<p>isolated to the road construction area, and reversible. Therefore, the impact to health is expected to be minimal.</p> <ul style="list-style-type: none"> <li>- Indirect effect: Community members are concerned that due to changes in wildlife behaviour, and the absence of hunters to participated in construction activities, that there will be a negative influence on the transfer of knowledge to youth related to hunting and traditional harvesting. These effects will be temporary and last during the construction phase, and have limited adverse mental health impacts.</li> <li>- Indirect effect: The effects of contamination on Traditional Food sources by construction or operations and maintenance emissions is an important factor when assessing the overall impact to food security. The results of the HHRA indicate that increases in project-related contaminants in country foods items are not expected to be appreciable; therefore, increases in exposures and resulting risks for human receptors consuming country foods items from the Project area are not anticipated (AtkinsRéal, 2024e).</li> </ul>	<p>and the health benefits associated with the consumption of traditional foods.</p> <p>M: It is possible that construction workers who are not members of Webequie First Nation will access the traditional lands of the community to hunt for recreation and sport. This use of the land by non-members should be prohibited or strictly regulated by Webequie First Nation during the construction period to maintain self-sustaining populations of traditional food sources and therefore maintain the resulting health benefits associated with traditional food security.</p> <p>E: Webequie First Nation can include in their Community Readiness Plan the need for continuing to provide youth and interested members of the community with knowledge related to harvesting traditional foods. This will help with the passing of traditional knowledge to the next generation, spark joy associated with traditional methods and allow the next generation to experience the health benefits associated with traditional food harvesting and consumption.</p>	
	Operations	<ul style="list-style-type: none"> <li>- Indirect effect: increased income in some households who have jobs in the Ring of Fire area will increase disposable</li> </ul>	<p>M: The use of traditional lands by non-members should be discouraged or limited by Webequie First Nation. Hunters who are not from the</p>	<p><i>Although there may be some outsiders who would now be able to hunt in the traditional lands of</i></p>

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		<p>income for buying healthy store-bought foods and increase their overall food security. Those who cannot obtain jobs will not benefit equally.</p> <p>- Indirect effect: It is not expected that the impacts due to operations-related noise will be significant; as mentioned in Section 6.2.2.3, these impacts may be temporary and limited, and may affect limited areas used by the community. As such, the resulting impact to harvesting practices and traditional food security are uncertain but probably limited. The potential for health impacts is also uncertain and probably limited.</p>	<p>community should follow all provincial regulations, and poaching should be monitored through standard enforcement procedures to help to ensure all regulations are followed.</p> <p>E: Community members suggest that Webequie First Nation should continue to provide youth and interested members of community with knowledge related to harvesting traditional foods.</p>	<p><i>Webequie First Nation, with the mitigation measures, it is not expected that this will have net effects. However, should there be increased employment, and hence increased income, during the operations phase, it would allow community members to better afford store-bought foods. Community members may also have increased access to lands for hunting purposes.</i></p>
<p><b>Social Cohesion and Cultural Continuity</b></p>	<p>Construction</p>	<p>- Indirect effect: Negative interactions between the construction workforce and the Webequie community population may still occur despite best efforts to limit them. Depending on the extent and nature of the interactions between the construction workforce and members of Webequie First Nation, community cohesion may decrease. Should these negative interaction occur, this has the potential to have negative impacts on mental wellness.</p> <p>- Indirect effect: Community members have concerns about the loss of traditional culture in Webequie First Nation. Reduction in cultural practices and their continuation may impact the</p>	<p>M: The contractor is encouraged to develop policies that support flexibility in work schedule and/or opportunities for leave for Indigenous employees in order to support important cultural practices, such as harvesting, which may allow them to continue to participate in the traditional economy and harvesting.</p> <p>M: From the cultural enrichment plan of the Community Readiness Plan, enhancement measures for Webequie First Nation to consider could include continuing to hold camping and canoe trips, holding cultural and recreational activities, creating on the land retreats and a healing centre, creating a cultural centre, and development of new powwow grounds.</p>	<p><i>With mitigation measures in place, net effects to health may be limited in nature due to potential for some conflicts between construction workers and community members, which may reduce community cohesion.</i></p>

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		mental health of some community members, especially Elders.	M: The contractor should work with Webequie First Nation to promote respectful relationships between Webequie First Nation members and construction workers by implementing regular mandatory in-person cultural and Indigenous awareness training in order to increase awareness and knowledge of Indigenous history and culture among workers and on raising awareness for the safety of Indigenous women and girls.	
	Operations	There are not expected to be any impacts to social cohesion and cultural continuity during operations	No mitigation or enhancement measures are needed.	<i>There are no predicted negative net effects.</i>
<b>Safety of women and girls</b>	Construction	<p>- Direct effect: Construction camps will be used for the project, and the majority of the construction-related work force may be from outside the Local and Regional Study Areas, and as such, majority of construction workers may be non-Indigenous. Despite planned measures to keep the construction workforce out of the community, interactions may still occur directly during employment, or indirectly over the 5 to 6 year Project timeline. Increased exposure increases the risk to safety, especially for Indigenous women, girls and 2SLGBTQ+ individuals, and has potential major impacts to their wellbeing.</p> <p>- Direct effect: Women and girls with low income, low educational</p>	<p>M: The contractor should work with Webequie First Nation to create and implement mandatory training programs focused on the safety of Indigenous women, girls and 2SLGBTQ+ individuals.</p> <p>M: Webequie First Nation should consider establishing a group made of community members to function as Community Liaison Officers as part of the Project workforce during the construction phase, to bridge the gap between the community’s needs and Project’s requirements and affects (see Community Readiness Plan [AtkinsRéalis, 2024k]).</p> <p>M: The contractor should work with Webequie First Nation to develop a grievance mechanism for community concerns and issues at the construction camps, inclusive of issues regarding</p>	<p><i>Even though Webequie aims to limit entry of outsiders into the community, it is not known how effective enforcement measures to keep out outsiders may be. Hence, there is potential for adverse net effects to health. Specifically, there is a risk to the safety and security of Indigenous women and girls, and safety concerns related to increased amount of alcohol and illicit substances entering the community illegally.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		attainment, and those living with addictions may be particularly vulnerable to gender-based violence and sexual exploitation, which results in negative health outcomes.	<p>racism, sexism, gender-based violence, and other issues.</p> <p>M: Webequie First Nation should consider developing a Safety and Security Plan for Vulnerable Community Members with the purpose of providing enhanced safety and security for women, children, youth and vulnerable people in the Webequie community, including 2SLGBTQ+ and under-housed people, to address any new hazards and safety concerns related to the Project.</p> <p>M: Working with government bodies on implementation of Ontario’s strategy in response to the National Inquiry into Missing and Murdered Indigenous Women and Girls recommendations.</p>	
	Operations	- Indirect effect: Due to the direct link to future mining activities in the Ring of Fire area, there is potential for increased risk to the safety of women, girls and 2SLGBTQ+ individuals due to entry of outsiders during the operations phase.	M: It is recommended that Webequie First Nation advocate for creating and implementing training programs focused on the history and culture of Indigenous peoples, and the safety of Indigenous peoples, especially women, girls and 2SLGBTQ+ people for all projects being undertaken in the Ring of Fire Area.	<i>There is a risk to the safety and security of women and girls.</i>
<b>Traffic Volume and Safety</b>	Construction	- Direct effect: It is expected that during the winter road season, there will be increased traffic volume on the winter road bringing in equipment and personnel for the construction phase of the Project. This may increase wait and travel times for accessing goods and services away from the community,	M: The contractor should develop a Construction Traffic Management Plan together with Webequie First Nation, to provide guidance on how Project-related traffic is managed in and around the Project site, including use of the winter road during construction of the Project	<i>With the mitigation measure in place, the net effects to health may be low.</i>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
	Operations	<p>which may result in some impacts to health.</p> <p>- Direct effect: Once the Webequie Supply Road is functional, it is not known what the average traffic on the road will be. Hence, it is not possible to currently predict the level of potential direct effects to health, but should there be increased traffic it will impact the health of community members.</p> <p>Indirect effect: Should there be high traffic volume on the Webequie Supply Road, it may lead to accidents and injuries as a result of collisions. There are negative health effects associated with increased traffic, however, the level of effect will depend on how much traffic increases.</p>	<p>There are several mitigation measures proposed to address potential hazards during the Operations phase:</p> <ul style="list-style-type: none"> <li>• Develop a plan to enforce road safety;</li> <li>• Consider road patrols and inspections;</li> <li>• Consider partnerships for driver education and licensing;</li> <li>• Consider roadside safety options; and</li> <li>• Consider maintenance/turnaround/rest areas.</li> </ul>	<p><i>There are possible safety and security risks due to accidents and injuries because of speeding or driving under the influence during the operations phase. However, these magnitude, likelihood and significance of these adverse effects are hard to predict.</i></p>
<b>Access to Healthcare Services (family doctor or specialist care provider)</b>	Construction	<p>- Indirect effect: The Webequie Supply Road is likely to result in non-local workers coming to the area as well as some members returning to Webequie First Nation. This could lead to higher demand for already limited healthcare services due to injuries or accidents from construction activities.</p> <p>Competition for healthcare services also places more financial, emotional, and other burden on families, especially members of vulnerable populations. However, the Project is expected to have it's own first aid station to address</p>	<p>M: Webequie First Nation should consider working with the Province to improve health care services (including counselling services, and substance use-support programs) within the community before construction activities begin.</p> <p>M: Construction work will have safety management plans and workers will be required to adhere to these protocols and associated trainings for safe work. This reduces the potential for work-related incidents, such as injuries or fires.</p>	<p><i>If construction workers are able to use first-aid stations at or near the camps, there are no adverse net effects to health predicted during the construction phase from increased demand and pressure on availability of healthcare services.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>immediate and minor health issues. As such, the strain on health care services in the community may be limited.</p>	<p>M: Construction camps are expected to have first-aid stations and occupational health and safety staff to address minor injuries and illness.</p> <p>M: Health and safety plans will be developed for all parts of the Project activities.</p>	
	Operations	<p>- Indirect effect: Some off-reserve community members may wish to return to Webequie First Nation; however, it cannot be predicted how big this number would be. If a large number of off-reserve community members want to move back in, it could create a higher demand for healthcare services, impacting existing service levels and associated health outcomes.</p> <p>- Indirect effect: During the operations phase there will be a significantly lower workforce required for the Project. The number of workers is too small to put an additional strain on availability of services.</p>	<p>There are no specific enhancement and/or mitigation measures proposed as the scale of impact is unknown.</p>	<p><i>There are no adverse net effects.</i></p>
<p><b>Access to Social, Mental Health and Family Services</b></p>	Construction	<p>- Indirect effect: During the construction phase the Webequie Supply Road Project is likely to result in non-local workers coming to the area as well as some off-reserve members returning to Webequie First Nation to take advantage of employment opportunities. This could create a higher demand for mental health and social services, especially given the already</p>	<p>M: Webequie First Nation should consider working with the Province to improve mental health care services within the community <u>before</u> construction activities begin to ensure the community's already limited health care services will not be burdened.</p>	<p><i>There are no predicted net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>limited services available in the community. However, the scope of the increased demand cannot be anticipated. As such, this may be a potential adverse impact on health, if there is too much pressure on existing mental and social health services.</p>		
	Operations	<p>- Indirect effect: Some off-reserve community members may wish to return to Webequie First Nation to participate in new employment opportunities should they become available; however, it cannot be predicted how many off-reserve members would return. As it is not possible to determine how many off-reserve community members would return to the community, it is not possible to predict whether a potential adverse health impact would occur.</p>	<p>M: Webequie First Nation should consider working with the Province to improve mental health care services within the community to help ensure the community's already limited health care services will not be burdened.</p>	<p><i>There are no predicted net effects.</i></p>
<p><b>Access to Transportation Services</b></p>	Construction	<p>- Indirect effect: Available modes of transport may become more in demand due to the need to bring in supplies and personnel during the construction phase. This may make access to existing transportation options more difficult and make it harder for community members to seek care or other services off-reserve. The increased wait times may have an adverse impact on health.</p>	<p>M: Webequie First Nation may want to consider how community members needing to travel to and from the community, via air travel or the winter road, to access services and for other reasons, are still able to do so freely and not impeded by the higher demand placed on air travel and by winter road to bring in construction-related equipment and personnel.</p>	<p><i>There may be small negative net health effects during the construction phase if community members experience long delays in accessing services and goods because air travel and the winter road, when available, is too busy.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
	Operations	<p>- Indirect effect: Community members indicate that one of the barriers to accessing services outside of the community was due to being unable to arrange transportation due to the cost or availability. Transportation delays can result in delayed healthcare service, including the possibility of loss of life. The Webequie Supply Road would provide access to community members to the Ring of Fire area, which is not connected to the provincial highway network, nor does it have good and services available close to it. Therefore, Community members can anticipate that the road would be useful in providing year-round, more reliable passenger travel and delivery of good and services to mining explorers and operators in the McFaulds Lake area.</p>	<p>E: For those travelling to the Ring of Fire area to access employment and opportunities via the Webequie Supply Road, Webequie First Nation may want to consider arranging community transportation services to assist those who are elderly, have a disability, and those who do not have access to a vehicle to access the mining areas and take advantage of opportunities. This will increase the potential positive impacts to health.</p>	<p><i>There are no net effects during the operations phase to Webequie First Nation.</i></p>
<p><b>Access to Emergency Response Services</b></p>	Construction	<p>- Direct effect: Construction activities from the Webequie Supply Road may increase demand for emergency response services. This would result in a higher burden on these services, negatively impacting the physical mental well-being of members of Webequie First Nation. However, it is expected that construction camps will have first-aid stations and occupational health and safety staff to address minor injuries and illness. More serious incidents are expected to be rare and</p>	<p>M: Webequie First Nation should seek external funding for a fire station and fire truck to put out fires and protect community members.</p> <p>M: Additional emergency response services for drug-related medical concerns and overdoses should be considered by the community.</p> <p>M: Construction camps are to include a first aid station, and occupational health and safety staff to address minor injuries and illness. Major emergencies will use helicopter transport and</p>	<p><i>There are no predicted net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>use emergency helicopter evacuation measures. As such, if there are no additional strains on the limited existing emergency response services in the community, there are expected to be no adverse health effects.</p>	<p>will not burden the health care system of the community.</p> <p>M: Construction work will have safety management plans and workers will be required to adhere to these protocols for safe work.</p> <p>M: Workers will be expected to remain within the camp at all times and will rarely enter the Webequie community reducing the use of protective services within the Webequie community.</p> <p>M: Camps will also have security staff to patrol the camp for hazards/threats and protect workers.</p> <p>M: All safety incidents related to the Project will be reported within 24 hours and records of these incidents will be archived.</p>	
	Operations	<p>- Indirect effect: The operations phase of the Webequie Supply Road may increase demand for emergency services mainly related to vehicle accidents, and possibly impaired driving. These incidents would increase the need for emergency response services and put a higher burden on these services, having some limited negative impact on the mental well-being of members of Webequie First Nation.</p>	<p>M: As part of the Community Readiness Plan, a community well-being monitoring and adaptive management plan will monitor road safety as well as the capacity of the emergency and protective services.</p> <p>M: Road safety plan will include measures to mitigate adverse effects.</p> <p>E: Implementing road signs, raising public awareness about road safety, and providing education and awareness on road safety is also considered as an enhancement measure.</p>	<p><i>There are no predicted net effects.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
<b>Childhood Development</b>	Construction	There are no anticipated effects.	There are no measures needed.	<i>There are no net effects during the construction phase to Webequie First Nation.</i>
	Operations	There are no anticipated effects.	E: As per the Community Readiness Plan, an initiative will be developed to implement a dedicated childcare and youth services drop-in centre in the Webequie community that will provide support to family members that required childcare in order to participate in education and training programs and employment opportunities related to the Project. In addition, a drop-in centre will also focus on services available to youth, such as services under Jordan’s Principle, and people with disabilities.	<i>There are no net effects during the operations phase to Webequie First Nation.</i>
<b>Proximal / Level 1 Determinants of Health: Individual factors that impact health and wellbeing</b>				
<b>Mental wellness</b>	Construction	- Indirect effect: Construction and related activities that make major changes to a cherished landscape and ecosystem may lead to solastalgia or ecological grief. Elders and community members who feel a deep connection to their traditional lands and waters may experience ecological grief. However, for those who look forward to the Project providing them with a link to the outside world and employment opportunities, they might feel hopeful during construction and look forward to using the Webequie Supply Road.	<p>M: Webequie may wish to consider working with the Province to obtain additional mental health supports and counselling for Webequie First Nation community to help with challenges community members anticipate facing regarding Project activities and concerns.</p> <p>M: Contact should be limited between the work camps and the community to reduce the stress and concern felt due to the threat of violence or concern for personal safety, especially by women and girls.</p> <p>M: The contractor should work with Webequie First Nation and aim to offer mandatory annual Indigenous cultural sensitivity training to</p>	<p><i>Net negative health effects are predicted due to:</i></p> <ul style="list-style-type: none"> <li>- <i>Despite mitigation / enhancement measures, historic deficiencies in mental health services in Webequie prevents them from having the capacity to support any mental wellness challenges arising from the Project.</i></li> <li>- <i>the presence of construction camp workers may still pose safety and security risk and impact the mental health and wellness of community members,</i></li> </ul>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>- Indirect effect: Presence of construction camps and external construction workers, who are historically primarily men, may induce fears for safety and security within some community members and affect their mental wellness, particularly for women, girls and 2SLGBTQ+ individuals. The feeling of vulnerability has the potential to diminish the sense of safety and security, which are crucial for mental health and overall well-being.</p> <p>- Indirect effect: noise from construction activities may disturb some community members leading to feelings of irritability and a decline in mental wellness. Community members who are close enough to be affected by construction-related noise may experience increased annoyance and irritability, but this may be short-term.</p> <p>- Indirect effect: During the construction phase, employment that some members may get may change their interactions with the community. While in construction camps, community members may experience feelings of loneliness and isolation, and experience racism and discrimination. The workers could develop negative mental health outcomes, as may their families who are without them during shifts.</p>	<p>workers to promote positive work relationships between Indigenous and non-Indigenous employees, and limit risk to the safety of women, girls and 2SLGBTQ+ individuals.</p> <p>M: The contractor should aim to understand Webequie cultural practices and respect cultural practices by allowing time and flexibility for workers to participate in cultural ceremonies, traditions or community events when possible as Elders believe these traditional practices promote positive mental well-being.</p> <p>M: To address feelings of ecological grief due to changes to the landscape, it is suggested that Webequie continue to keep community members (especially Elders) comprised of ongoing construction activities, so they are not surprised by sudden changes. And also ask the contractor to stage construction equipment and work camps away from sight lines to minimize visual disturbance to the landscape.</p> <p>E: The contractor should work with Webequie to understand environmental stewardship practiced by Webequie and incorporate these principles into construction practices whenever possible.</p>	<p><i>particularly women, girls, and those who identify as 2SLGBTQI+.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>- Indirect effect: is important to protect cultural sites for future access and use by the membership to maintain their spiritual and mental wellbeing.</p> <p>- Indirect effect: The construction phase would also be tied to jobs and better income which may improve positive effects on mental health in the community. However, these potential positive health benefits would only be to those members of the community who benefit from the employment opportunities.</p>		
	Operations	<p>- Indirect effect: The Webequie Supply Road will only improve access to goods, services, and reduce feelings of isolation of community members once it connected to the provincial highway network via the Marten Falls Community Access Road and the Northern Road Link, both of which are project currently also going through the Impact Assessment process. Hence, it is not possible to say at this whether the positive health benefits expected from the potential increased and easy access to the provincial highway network will happen.</p> <p>- Indirect effect: The Webequie Supply Road maybe a means through which non-Community members and transient workers working in the Ring of Fire area</p>	<p>M: Webequie First Nation should consider implementing inspection areas to not only limit access to community to outsiders, but also to discourage illegal entry of illicit substances and alcohol into the community. This will reduce safety and security risks, and improve mental wellness when members feel safe in the community.</p> <p>M: Webequie First Nation may wish to consider working with the Province to obtain additional mental health supports and counselling for community to help with challenges community members anticipate facing regarding Project activities and concerns.</p>	<p><i>Despite previously recommended inspection areas, it can be anticipated that drugs and alcohol will make its way into the community due to the increased accessibility, resulting in negative net effects to mental wellness.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>may enter the community. Concerns have been expressed by community members regarding the safety of youth, women, and girls, which could lead to negative mental and physical wellness outcomes. Due to wealth disparities between high-income transient workers and community members, an increase in the prevalence and availability of alcohol, drugs, and sex to service the high-income population is a concern as those with mental health challenges are vulnerable to addiction behaviours.</p> <p>- Indirect effect: Webequie community members, particularly youth, may have more employment opportunities which could positively increase mental health and related outcomes. However, employment opportunities may increase their exposure to racism and discrimination negatively impacting health and well-being and leading to negative health outcomes.</p> <p>- Indirect effect: For workers employed in the Ring of Fire area, particularly youth, long shifts in employment can increase stress and lead to negative mental health outcomes due to decreased time for traditional, spiritual, and cultural practices.</p>		

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
<p><b>Substance Use</b></p>	<p>Construction</p>	<p>- Direct effect: Heightened exposure to outsiders, external influences, as well as additional health and safety risks may lead to greater and easier access to illegal drugs and alcohol and result in negative health impacts to the community. These concerns were expressed by many community members over the course of engagement (Intrinsic. 2023b).</p> <p>Members of the community who are employed during the construction phase and who must leave the community for employment may have increased access to alcohol and illicit drugs in the workcamps. This could lead to new or increased use of these substances to cope with feelings of loneliness, isolation, and mental uncertainty due to increased exposure to difficult situations or oppressive atmospheres. This could lead to the negative health outcomes associated with alcohol and drug overuse.</p> <p>- Indirect effect: Women and girls could indirectly experience a disproportionate increase in physical and sexual violence due to increased access to drugs and alcohol for family members and/or partners.</p>	<p>M: Webequie should consider increasing substance use support services in the community <u>before</u> construction begins, as well as provide enhanced messaging and programming around the harms of substance use.</p> <p>M: It is advised that workers who are not members of Webequie First Nation not be allowed into Webequie First Nation during the construction phase. This may limit opportunities for illicit drugs and/or alcohol to be transported into the community by outsiders.</p> <p>M: The contractor should work with Webequie First Nation to provide a safe and productive work environment by establishing and enforcing clear guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.</p> <p>M: The contractor should provide education and training for workers on the effects of substance use and importance of maintaining a drug-free work environment.</p>	<p><i>Even though the Webequie First Nation construction camps will all be ‘dry’ camps (no alcohol in the camps), it can be anticipated that drugs and alcohol will make its way into the camps illegally and thereby the community, due to increased accessibility, increasing use of illegal substances. In turn, this will have negative net effects on the health of workers and those in the community.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
	Operations	<p>- Indirect effect: Community members who travel to the Ring of Fire, or external workers who travel from the Ring of Fire can bring in illegal drugs and alcohol, which could increase how much of these harmful substances is available in the community, and thereby potentially increase their use and addiction and mental health issues. This has negative impact to the health of not just users, but the community as a whole.</p>	<p>M: Webequie should consider implementing inspection areas to not only limit access to community to outsiders, but also to discourage illegal entry of illicit substances and alcohol into the community.</p> <p>M: The Community should consider stepping up programs to educate younger generations about the effects of alcohol and drug use.</p>	<p><i>Similar to construction phase, it can be anticipated that drugs and alcohol will make its way into the community illegally despite previously recommended inspection areas, due to the increased accessibility. This has potential for negative net effects to health.</i></p>
<b>Diet</b>	Construction	<p>- Indirect effect: How store-bought food enters the community will not change during this phase. Therefore, the costs and availability of market food items are expected to be consistent.</p> <p>- Indirect effect: It is possible that workers who leave the community to participate in construction activities will no longer have the time to participate in traditional hunting activities. Therefore, there will be less available traditional foods in the community for choice of nutrition consumption. This may have some potential negative mental and physical wellness effects. Those who rely more heavily on traditional food sources, such as older adults, will be disproportionately affected by a temporary reduction in traditional food choices and change in diet.</p>	<p>M: Ensure that disturbances to the local environment are made in a way that minimizes disturbance to natural habitats and focuses on the long-term stability of wild game and traditional plant populations during construction including minimizing noise pollution, especially during key mating periods.</p>	<p><i>There are no net effects during the construction phase to Webequie First Nation.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	Predicted Net Effect
		<p>- Indirect effect: It is possible that the noise disturbance from construction operations may cause some limited disruptions to the habitat of wildlife used as traditional food sources, temporarily disrupting the availability of traditional food items. The uncertainty around the availability of a traditional food source may change the dietary patterns of community members temporarily, and if sustained over several seasons, may begin to infringe upon food security, and in turn diet. This could lead to potential negative health impacts.</p>		
	Operations	<p>- Indirect effect: community members will have increased access to the land as more territory will be able to be reached by car, ATV, or snowmobile. More community members may be able to access hunting, gathering, and fishing grounds thus increasing access to traditional food sources for dietary needs, thereby improving health outcomes associated with eating more traditional foods.</p> <p>- Indirect effect: It is possible that non-members of Webequie First Nation would be able to use the road to access new hunting locations, and this may impact land animal, fish, and plant populations negatively. Hopefully,</p>	<p>M: Members of the community who hunt may want to notice and maintain records of changes in patterns of behaviour among game animals and growth patterns of traditional plants as a result of the Webequie Supply Road.</p> <p>M: Webequie First Nation is encouraged to work with the Ontario Ministry of Natural Resources and Forestry to monitor and issue licenses for large game, such as moose, through the provincial hunting lottery system, and regulate fish catches by conservation laws.</p>	<p><i>There are no net effects during the operations phase to Webequie First Nation.</i></p>

Determinants of Health for the Project	Project Phase	Summary of Potential Health Effect	Summary of Mitigation (M) and Enhancement (E) Measures	<i>Predicted Net Effect</i>
		Provincial regulations will ensure stable populations of wild game for Webequie First Nation community members wanting to practice traditional food gathering techniques. An expected neutral effect to wellness is anticipated if regulations are adhered to.		

## 7.1. CHARACTERIZATION OF NET EFFECTS

Net effects are the effects remaining after the application of mitigation measures. This HIA report describes the potential adverse and positive net effects in relation to each temporal phase of the Project (i.e., construction and operations). Net effects have been described using criteria to quantify or qualify adverse and positive effects, considering any important contextual factors (Table 2-1). To note, human health impacts are influenced by a number of factors, including social, economic, environmental quality, cultural and traditional. The interconnected and dynamic nature of this influence makes it difficult to accurately predict 'reversibility' of human health impacts, especially those related to the social determinants of health. Where appropriate, a GBA Plus has been applied to net effects to identify disproportionate net effects for diverse subgroups.

The assessment of significance of net effects of the Project has been conducted using the methodology described in Section 2.2.3.2

Table 8-1 below presents the characterization of predicted net effects.

As shown in Table 8-1, Racism and Social Exclusion, Air Quality, Noise Levels and Vibration (construction), Safety, including safety of women and girls, and Substance Use (construction) were found to have significant adverse effects based on the previously outlined criteria. Further discussion is provided here:

**Racism and social exclusion:** Some of these effects stem from the complexity, systemic and long-standing nature of the issues being addressed. There is a risk that community members may still be exposed to racism and discrimination from outside workers, increasing risk to their safety and security and impact their health, including mental health. Further discussion on net effects from racism and social exclusion is discussed in Section 6.1.2.5.

**Air quality:** The net effects during the construction phase are adverse, as the project construction results in a predicted increase of ambient concentrations compared to existing conditions identified in the Assessment of Effects on Atmospheric Environment (AtkinsRéalis, 2024d). As such, there is potential for temporary limited adverse net effects to health. Furthermore, during the operations phase, even with the application of mitigation measures, exceedances of Ontario Ambient Air Quality Criteria for TSP, PM10, and PM2.5 and Canadian Ambient Air Quality Standards for NO2 remain a possibility at some culturally sensitive areas which was identified in the Assessment of Effects on Atmospheric Environment (AtkinsRéalis, 2024d). Further discussion on net effects from air quality is discussed in Section 6.2.1.5.

**Safety of women and girls:** There is a risk to the safety and security of community members due to violence, racism, discrimination and criminal activity from external workers, either at the construction camps, or during interactions with outsiders in other areas. Even though Webequie aims to limit entry of outsiders into the community, it is not known how effective enforcement measures to keep out outsiders may be. Historically, Indigenous women and girls have been disproportionately subjected to violence, including sexual violence, racism and discrimination. There is a specific risk to the safety and security of Indigenous women and girls due to concerns of sexual violence and sex trafficking that may be perpetrated by external workers. Hence, there is potential for adverse net effects to health. Additional discussion is provided in Section 6.2.10.5 on the net effects of the safety of women and girls.

**Substance use:** Even though the Webequie First Nation construction camps will all be designated as 'dry' camps (i.e., no alcohol or drugs will be allowed in the camps), it can be anticipated that drugs and alcohol will make its way illegally into the camps and thereby the community, due to increased

accessibility, which will in turn increase the use of illegal substances. In turn, this will have negative net effects on the health of workers and community members. Further discussion on net effects from substance use (and population groups disproportionately impacted) during the construction phase is discussed in Section 6.3.2.5.

Table 8-2: Characterization of Predicted Net Effects on the Social and Environmental Determinants of Health Evaluated in the HIA

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
Colonization and Trauma from Residential Schools	Construction	Negative	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Short Term	Continuous	Low resilience	Possible	Not significant	Low
	Operations	Negative	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Long Term	Continuous	Low resilience	Possible	Not significant	Low
Racism and Social Exclusion	Construction	Negative (risk to the safety and security of community members due to violence, racism, discrimination and criminal activity from external workers)	Moderate	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Short Term	Continuous	Low resilience	Probable	Significant	Low
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Low
Local Economic Growth	Construction	Positive (Traditional Indigenous Economy)	Low (ability to participate in traditional Indigenous economy); and Medium to High (GDP, cost of living, household spending, economic development)	Webequie First Nation (Negligible in LSA and RSA)	Time sensitive	Short-term	Frequent	Moderate resilience within LSA, and high resilience within the RSA.	Certain	Significant	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
			and utilization of land).								
	Operations	Positive (Traditional Indigenous Economy)	Low (ability to participate in traditional Indigenous economy); and Medium to High (GDP, cost of living, and economic development).	Webeque First Nation (Negligible in LSA and RSA)	Not time sensitive	Permanent	Frequent	Moderate resilience within LSA, and high resilience within the RSA.	Certain	Significant	Medium
Self-Determination and Governance	Construction	Neutral / potentially positive	Low	Webeque First Nation (Negligible in LSA and RSA)	Not time sensitive	Long-term	Continuous	Low Resilience	Possible	Not significant	Low
	Operations	Neutral / potentially positive	Low	Webeque First Nation (Negligible in LSA and RSA)	Not time sensitive	Long-term	Continuous	Low Resilience	Possible	Not significant	Low
Worker Accommodations (i.e., worker/construction camps)	Construction	Negative	Low	Webeque First Nation (Negligible in LSA and RSA)	Time sensitive	Short-term	Infrequent / Frequent	Low Resilience	Possible / Probable	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Air Quality (including GHG emissions)	Construction	Negative	Moderate to High (Air Quality) Low (GHG emissions)	LSA (Air Quality) Beyond RSA (GHG emissions)	Not time sensitive	Short-term	Infrequent (Air Quality) Continuous (GHG emissions)	Moderate resilience	Certain	Significant (Air quality) Not significant (GHG emissions)	Medium
	Operations	Negative	Moderate to High (Air Quality)	LSA (Air Quality)	Not time sensitive	Medium-term	Frequent (Air Quality)	Moderate resilience	Certain	Significant (Air quality)	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
			Low (GHG emissions)	Beyond RSA (GHG emissions)			Continuous (GHG emissions)			Not significant (GHG emissions)	
Noise Levels and Vibration	Construction	Negative (aggregate extraction operations; construction of the proposed roadway and waterbody - crossings; changes to harvesting practices)	Low to moderate	LSA	Not time sensitive	Short-term	Infrequent	Moderate resilience	Probable	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Water Quality – Changes in Surface Water Quantity	Construction	Negative (Reduced stream flow or water level due to short-term water takings; Increased stream flow or water level due to short-term discharges; Changes to runoff due to changes in land cover; Changes to discharge rates during installation of water crossings)	Low	LSA, RSA	Within / Outside Restricted Activity Timing Window	Short-term	Frequent / Infrequent / Continuous	High Resilience	Certain	Not significant	Medium
	Operations	Negative (Changes to channel)	Low	LSA, RSA	Within / Outside Restricted	Long-Term;	Infrequent; Continuous	High Resilience	Certain	Not significant	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
		hydraulics (flow depth/water level and velocity) around constructed water crossings; Changes to overland flow paths due to road maintenance activities)			Activity Timing Window	Medium-Term					
Water Quality – Changes in Surface Water Quality	Construction	Negative (Increased chemical constituents due to short-term discharges; Chemical and sediment release from blasting activities)	Low	LSA, RSA	Outside Restricted Activity Timing Window	Short-term	Frequent	High Resilience	Possible / Probable	Not significant	Medium
	Operations	Negative (Deposition of sediment into waterbodies from road maintenance activities)	Low	LSA	Within / Outside Restricted Activity Timing Window	Medium-term	Frequent	High Resilience	Probable	Not significant	Medium
Water Quality – Change in Sediment Quality	Construction	Negative (Increased chemical constituents in sediment due to short-term discharges; Increased chemical	Low	LSA	Outside Restricted Activity Timing Window	Short-Term	Frequent / Infrequent	High Resilience	Possible / Probable	Not significant	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
		constituents in sediment due to blasting activities)									
	Operations	Negative (Deposition of sediment into waterbodies from road maintenance activities)	Low	LSA	Within / Outside Restricted Activity Timing Window	Medium-term	Frequent	High Resilience	Probable	Not significant	Medium
Light Pollution, including Visual Impact	Construction	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Housing	Construction	Neutral	Negligible	-	-	-	-	-	-	Not significant	Low
	Operations	Positive (in terms of availability of housing)	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Time sensitive to work activities	Medium-term	Frequent	Low Resilience	Possible	Not significant	Low
Employment and Income	Construction	Positive	Low to Moderate (employment opportunities); and Moderate to High (employment income).	Webequie First Nation (Negligible in LSA and RSA)	Time sensitive	Short-term	Frequent	Low resilience within the LSA, and high resilience within the RSA	Certain	Significant	Medium
	Operations	Positive	Low to Moderate (employment opportunities); Low to Moderate (employment income).	Webequie First Nation (Negligible in LSA and RSA)	Not time sensitive	Medium-term	Frequent	Low resilience within the LSA, and high resilience within the RSA	Probable-to-Certain	Significant (employment income)	Medium
Education / Access to Education	Construction	Positive (in terms of education and	Moderate	Webequie First Nation	Not time sensitive	Short-term	Continuous	Low Resilience	Probable	Significant	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
		training attainment)		(Negligible in other LSA communities and RSA)							
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Food Security (including quality and availability of Country Foods)	Construction	Negative (traditional territories affected, temporary loss of traditional foods)  Positive (additional income to afford non-traditional food)	Low	Webequie First Nation, LSA	Time sensitive	Short-term	Continuous	Low resilience	Probable	Not significant	Low
	Operations	Neutral-to-Positive	Negligible to Low	Webequie First Nation (Negligible in LSA and RSA)-	Not time sensitive	Medium-term	Frequent	Low resilience within the LSA, and high resilience within the RSA	Probable-to-Certain	Significant	Medium
Social Cohesion and Cultural Continuity	Construction	Neutral to Negative (in terms of community cohesion)	Negligible to Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Time sensitive	Short-term	Frequent	Low resilience	Possible to Probable	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Safety, including safety of women and girls	Construction	Negative (in terms of community safety)	Moderate	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Short-term	Continuous	Low resilience	Probable	Significant	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
	Operations	Negative (in terms of community safety)	Moderate	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Medium-term	Continuous	Low resilience	Probable	Significant	Medium
Traffic Volume and Safety	Construction	Negative (in terms of traffic safety)	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Time sensitive to work activities	Short-term	Frequent	Low resilience	Probable	Not significant	Medium
	Operations	Dependent on traffic volume (in terms of traffic safety)	Dependent on traffic volume	Webequie First Nation (Negligible in other LSA communities and RSA)	Time sensitive to work and other activities	Medium Term	Frequent	Low resilience	Probable	Not significant (will depend on traffic volume)	Low
Access to Healthcare Services (family doctor or specialist care provider)	Construction	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Access to Social, Mental Health and Family Services	Construction	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Access to Transportation Services	Construction	Negative (in terms of availability of community services)	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Short Term	Infrequent	Low resilience	Possible	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Low
Access to Emergency Response Services	Construction	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium

Determinant of Health	Net Effects Characterization										
	Project Phase	Direction	Magnitude	Geographic Extent	Timing	Duration	Frequency	Context	Likelihood of Occurrence	Determination of Significance	Level of Confidence
Childhood Development	Construction	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
	Operations	Neutral	Negligible	-	-	-	-	-	-	Not significant	Medium
Mental Wellness	Construction	Negative	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Short Term	Continuous	Low resilience	Possible	Not significant	Medium
	Operations	Negative	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Long Term	Continuous	Low resilience	Possible	Not significant	Medium
Substance Use	Construction	Negative (drugs and alcohol entering the community)	Moderate	Webequie First Nation (Negligible in other LSA communities and RSA)	Time sensitive	Short Term	Continuous	Low resilience	Probable	Significant	Medium
	Operations	Negative (drugs and alcohol entering the community)	Low	Webequie First Nation (Negligible in other LSA communities and RSA)	Not time sensitive	Medium Term	Continuous	Low resilience	Probable	Not significant	Medium
Diet, Including Access to Traditional Country Foods	Neutral	Negligible	-	-	-	-	-	-	Neutral	Not significant	Medium
	Neutral	Negligible	-	-	-	-	-	-	Neutral	Not significant	Medium

## 8. CUMULATIVE EFFECTS ASSESSMENT

The Impact Assessment Act, 2019 (Government of Canada, 2019) requires that each impact assessment of a project consider any cumulative environmental effects that are likely to result from the Project in combination with the environmental effects of other physical activities that have been or will be carried out.

This section presents the cumulative health effects assessment of the Project, considering the overlap temporally and spatially with effects from other past, present and reasonably foreseeable developments and activities.

### 8.1. Valued Components / Determinants of Health with Net Effects

Table 9-1 below summarizes the net effects identified in the HIA.

Table 9-1: Identification of Net Effects in the HIA

Determinant of Health	Net Effect
<b>Structural / Level 3 Determinants of Health - Structural or systemic factors that impact health and wellbeing</b>	
Racism and Social Exclusion	<p><b>Indirect</b></p> <p><u>Construction</u></p> <ul style="list-style-type: none"> <li>The community may still be exposed to racism and discrimination from outside workers despite mitigation measures, increasing risk to their safety and security with potential for some adverse residual health impacts.</li> </ul> <p><u>Operations</u></p> <p>No adverse net effects predicted.</p>
Local Economic Growth	No adverse net effects predicted.
Self-Determination and Governance	No adverse net effects predicted.
Worker Accommodations (i.e., worker/construction camps)	<p><b>Indirect</b></p> <p><u>Construction</u></p> <ul style="list-style-type: none"> <li>Individuals who are not members of Webequie First Nation may gain entry into the community, which may have lingering safety and security impacts in Webequie First Nation, particularly to specific subgroups, including women, girls and individuals who identify as 2SLGBTQI+.</li> <li>Substance use may exacerbate violent activity, including sexual violence. Therefore, designating a camp as 'dry' does not necessarily mitigate this issue and there may be limited adverse net effects.</li> </ul> <p><u>Operations</u></p> <p>No adverse net effects predicted.</p>
<b>Intermediate / Level 2 Determinants of Health - Community factors that impact health and wellbeing</b>	
Light Pollution, including Visual Impact	No adverse net effects predicted.
Housing	No adverse net effects predicted.
Employment and Income	No adverse net effects predicted.
Education / Access to Education	No adverse net effects predicted.

Determinant of Health	Net Effect
Food Security (including quality and availability of Country Foods)	<p><b>Indirect</b> <u>Construction</u></p> <ul style="list-style-type: none"> <li>• <i>There may be a temporary loss of traditional food security in the community due to construction activities and their impact to wildlife and harvesting practices. As a result, there may be some temporary adverse residual effects to health and wellbeing.</i></li> </ul> <p>• <u>Operations</u> No adverse net effects predicted.</p>
Social Cohesion and Cultural Continuity	No adverse net effects predicted.
Safety of women and girls	<p><b>Direct</b> <u>Construction</u></p> <ul style="list-style-type: none"> <li>• <i>There is potential for adverse net effects to health. Specifically, there is a risk to the safety and security of Indigenous women and girls, and safety concerns related to increased amount of alcohol and illicit substances entering the community illegally.</i></li> </ul> <p><b>Indirect</b> <u>Operations</u></p> <ul style="list-style-type: none"> <li>• <i>There is a risk to the safety and security of women and girls. May lead to trafficking of women and girls</i></li> </ul>
Traffic Volume and Safety	No adverse net effects predicted.
Access to Healthcare Services (family doctor or specialist care provider)	No adverse net effects predicted.
Access to Social, Mental Health and Family Services	No adverse net effects predicted.
Access to Emergency Response Services	No adverse net effects predicted.
Childhood Development	No adverse net effects predicted.
<b>Proximal / Level 1 Determinants of Health: Individual factors that impact health and wellbeing</b>	
Substance Use	<p><b>Direct</b> <u>Construction</u></p> <ul style="list-style-type: none"> <li>• <i>It can be anticipated that drugs and alcohol will make its way into the camps illegally and thereby the community, due to increased accessibility, increasing use of illegal substances. In turn, this will have adverse net effects on the health of workers and those in the community.</i></li> </ul> <p><b>Indirect</b> <u>Operations</u></p> <ul style="list-style-type: none"> <li>• <i>Similar to construction phase, it can be anticipated that drugs and alcohol will make its way into the community illegally despite previously recommended inspection areas, due to the increased accessibility. This has potential for adverse net effects to health.</i></li> </ul>
Diet	No adverse net effects predicted.

## 8.2. Scoping

The cumulative effects assessment for each determinant of health is primarily qualitative and describes how the interacting effects of human activities and natural factors are predicted to impact health due to cumulative effects from a number of regional projects/activities. The assessment is presented as a reasoned narrative describing the outcomes of cumulative effects for each determinant of health.

Results of the cumulative effects assessment for human health with consideration of reasonably foreseeable developments and activities are presented in the following subsection and are also presented in Section 21 of Webequie Supply Road Environmental Assessment Report / Impact Statement.

For the human health assessment, the adverse net effects (as seen in Table 8-1) that have been carried forward to the cumulative effects assessment are those that are characterized as having a:

- magnitude higher than negligible or low; and
- likelihood of occurrence as probable or certain

Table 9-2 provides a summary of how scoping was conducted for the cumulative effects assessment. Additionally, key health effects that have been identified by the community as key concerns during engagement (i.e., worker accommodations, food security, and substance use) have been retained for the assessment of cumulative effects as they were considered to be most likely to interact with other reasonably foreseeable developments and activities. Therefore, where the human health effects are characterized as having a magnitude of no net effects, only positive net effects, negligible or low net effects or likelihood of occurrence as “unlikely or “possible” and have not been specifically identified as a specific concern by Webequie First Nation, are not carried forward to the cumulative effects assessment.

There were three environmental determinants of health evaluated in the HIA for which net effects were identified, i.e., air quality, water quality and noise and vibration. These environmental determinants of health are discussed in detail in other dedicated reports (AtkinsRéalis, 2024b; AtkinsRéalis, 2024d; AtkinsRéalis, 2024j; & SLR Consulting (Canada) Ltd. (2024)) and will not be retained for assessment in this cumulative effects assessment section. Additionally, although traffic has been assessed in this HIA as a determinant of health, a cumulative effects assessment of traffic-related impacts to health is not included here as this may be better addressed in the traffic study (SNC-Lavalin (2023)) with additional data to support it.

A summary of the determinants of health included in the cumulative effects assessment in the HIA is presented in Table 9-2. For each effect identified in Section 8, a determination of inclusion in the cumulative effects assessment is presented in the table based on the criteria described.

Table 9-2: A summary of the net effects for each determinant of health with adverse net effects

Determinant of Health	Net Effect	Likelihood	Magnitude	Retained for CEA? (Y/N)
<b><i>Structural / Level 3 Determinants of Health - Structural or systemic factors that impact health and wellbeing</i></b>				
<b>Colonization and Trauma from Residential Schools</b>	Construction Indirect: It is possible that despite implementation of mitigation and enhancement measures there may still be some small and temporary net effects due to limitation of traditional land activities and predicted increases in mental health issues due to increased substance use during both construction and operation.	Possible	Low	No
<b>Racism and Social Exclusion</b>	Construction Indirect: The community may still be exposed to racism and discrimination from outside workers despite mitigation measures, increasing risk to their safety and security with potential for some adverse net health impacts.	Probable	Moderate	Yes
<b>Worker Accommodations (i.e., worker/construction camps)</b>	Construction Indirect: Individuals who are not members of Webequie First Nation may gain entry into the community, which may have lingering safety and security impacts in Webequie First Nation, particularly to specific subgroups, including women, girls and individuals who identify as 2SLGBTQI+. Substance use may exacerbate violent activity, including sexual violence. Therefore, designating a camp as 'dry' does not necessarily mitigate this issue and there may be limited negative net effects.	Possible/Probable	Low	Yes

Determinant of Health	Net Effect	Likelihood	Magnitude	Retained for CEA? (Y/N)
<b>Intermediate / Level 2 Determinants of Health - Community factors that impact health and wellbeing</b>				
<b>Air Quality (including GHG emissions)</b>	Construction Direct: Even with the application of mitigation measures, exceedances of Ontario Ambient Air Quality Criteria for total suspended particulates, PM10, and PM2.5 and Canadian Ambient Air Quality Standards for NO2 remain a possibility at some culturally sensitive areas. This indicates that there may be potential for adverse net health effects.	Certain	Moderate to High	No
<b>Air Quality (including GHG emissions)</b>	Operation Direct: There may be limited potential for adverse net health effects due to the operation of the Webequie Supply Road alone.	Certain	Moderate to High	No
<b>Noise Levels and Vibration</b>	Construction Direct: Adverse and temporary net effects to health during construction may occur. Individuals who are more sensitive to noise may be more vulnerable - the effect is considered to be low to moderate.	Probable	Low to Moderate	No
<b>Surface Water Quality (including Quantity and sediment quality)</b>	Construction Direct: Changes in surface water quantity and surface water quality, and changes in sediment quality may occur. Adverse net effects to health are anticipated in the construction and operations phases, if there is sufficient impacts to surface water quantity and quality that impact community practices and use of the water - the effect is considered to be low.	Certain	Low	No

Determinant of Health	Net Effect	Likelihood	Magnitude	Retained for CEA? (Y/N)
<b>Food Security (including quality and availability of Country Foods)</b>	Construction Indirect: There may be a temporary loss of traditional food security in the community due to construction activities and their impact to wildlife and harvesting practices. As a result, there may be some temporary adverse net effects to health and wellbeing.	Probable	Low	Yes
<b>Safety of women and girls</b>	Construction Direct: There is potential for adverse net effects to health. Specifically, there is a risk to the safety and security of Indigenous women and girls, and safety concerns related to increased amount of alcohol and illicit substances entering the community illegally.	Probable	Moderate	Yes
<b>Safety of women and girls</b>	Operation Indirect: There is a risk to the safety and security of women and girls.	Probable	Moderate	Yes
<b>Traffic Volume and Safety</b>	Operation Direct: There are possible safety and security risks due to accidents and injuries because of speeding or driving under the influence during the operations phase. However, these magnitude, likelihood and significance of these adverse effects are hard to predict.	Certain	Low	No
<b>Access to Transportation Services</b>	Construction Indirect: Small adverse net health effects during the construction phase may occur if community members experience long delays in accessing services and goods because air travel and the winter road, when available, is too busy.	Possible	Low	No

Determinant of Health	Net Effect	Likelihood	Magnitude	Retained for CEA? (Y/N)
<b><i>Proximal / Level 1 Determinants of Health: Individual factors that impact health and wellbeing</i></b>				
<b>Mental wellness</b>	Construction Indirect: - Despite mitigation / enhancement measures, historic deficiencies in mental health services in Webequie prevents them from having the capacity to support any mental wellness challenges arising from the Project. - the presence of construction camp workers may still pose safety and security risk and impact the mental health and wellness of community members, particularly women, girls, and those who identify as 2SLGBTQI+.	Possible	Low	No
<b>Mental wellness</b>	Operation Indirect: Despite previously recommended inspection areas, it can be anticipated that drugs and alcohol will make its way into the community due to the increased accessibility, resulting in adverse net effects to mental wellness.	Possible	Low	No
<b>Substance Use</b>	Construction Direct: It can be anticipated that drugs and alcohol will make its way into the camps illegally and thereby the community, due to increased accessibility, increasing use of illegal substances. In turn, this will have adverse net effects on the health of workers and those in the community.	Probable	Moderate	Yes
<b>Substance Use</b>	Operation Indirect: Similar to construction phase, it can be anticipated that drugs and alcohol will make its way into the community illegally despite previously recommended inspection areas, due to the increased accessibility. This has potential for adverse net effects to health.	Probable	Low	Yes

## 8.3. Methodology

### 8.3.1. Spatial and Temporal Boundaries

Spatial and temporal boundaries for the Project can be found in Section 4.3. Based on the summary of the health effects assessment provided in Table 9-2, 'racism and social exclusion', 'worker accommodations', 'food security', 'safety and security of women and girls', and 'substance use' determinants of health are the main areas for potential adverse net effects to Webequie First Nation, and thus the focus of the cumulative effects assessment in the HIA is on these determinants of health. The spatial boundary for the assessment is mainly Webequie First Nation, with consideration of other Indigenous communities in the Local and Regional Study Areas.

### 8.3.2. Physical Activities Inclusion List

When considering local projects to consider in the Cumulative Effects Assessment, the spatial and / or temporal overlap of the Webequie First Nation community and the construction and operations phases for the Webequie Supply Road were used to determine inclusion. In essence, the nature of the projects included in the Cumulative Effects Assessment may have some level of influence on the health outcomes of Webequie First Nation in all Project phases due to temporal or spatial overlap.

### 8.3.3. Definitions

**Cumulative Effects:** The Agency defines cumulative effects as 'changes to the environment, health, social and economic conditions, as a result of the Project's net environmental, health, social and economic effects combined with the existence of other past, present and reasonably foreseeable physical activities, as well as within activities of the Project itself from multiple emissions and discharges (e.g., simultaneous operations) to understand synergistic or additive effects' (the Agency, 2020).

**Spatial boundaries:** Focus on the Local Study Area and surrounding Regional Study Area. The worst-case scenario health effects in this cumulative effects assessment for each net health effect are assumed to be representative of Webequie First Nation, as this community is the focus of the report. Spatial boundaries are further described in Section 4.3.

**Temporal boundaries:** They correspond to the duration that the likely net adverse effects of the Project are predicted to occur. As there are currently no plans to decommission or abandon the Project, temporal boundaries will focus on the construction and operation phases. Temporal boundaries are further described in Section 4.3.

### 8.3.4. Overlap between Webequie Supply Road and other projects considered in the cumulative effects assessment

Based on what is known about expected projects and developments in the broader region, the following projects and development plans are considered in the cumulative effects assessment:

1. **Northern Road Link Project:** It is assumed that construction on the Northern Road Link will begin during Webequie Supply Road and Marten Falls Community Access Road construction period. All three roads will be operational around the same time period.
2. **Marten Falls Community Access Road:** It is assumed that construction on the Marten Falls Community Access Road will begin during Webequie Supply Road and Northern Road Link construction period. All roads will be operational for the same time period.

3. **Anaconda and Painter Lake Forestry access road upgrades:** Construction assumed to occur before construction on Webequie Supply Road commences.
4. **Esnagami Road Bypass Upgrade:** While it is uncertain, it is possible that construction of this Project overlaps with Webequie Supply Road construction phase although it would not be required until well into the future (when the future Ring of Fire mines are operational).
5. **Eagles Nest Mine:** Mine construction would likely overlap with Webequie Supply Road operations. Mine operations will overlap with the Webequie Supply Road operations.
6. **Ogoki Forest Management Plans:** Future forestry activity could have temporal overlap with Webequie Supply Road construction and operations phase
7. **Greenstone Gold Mine:** Operations of the mine is assumed to have temporal overlap with Webequie Supply Road construction and operations periods.

## 8.4. Cumulative Effects Assessment

### 8.4.1. Racism and Social Exclusion

#### 8.4.1.1. Construction Phase

It is assumed that the construction schedules of the Webequie Supply Road and the Marten Falls Community Access Road will overlap and require large mobilization efforts of equipment, personnel, and supplies to staging areas and worker accommodations camps. As the Anaconda and Painter Lake Access Road upgrade will likely be complete by the time construction of the three Ring of Fire project roads, traffic will be routed through the Anaconda and Painter Lake Access Roads and the Winter Supply Road network to access staging areas and worker accommodation camps. During transport of materials, it is possible that members of Webequie First Nation will have increased encounters with outside workers and there may be an increased likelihood for them to experience anti-Indigenous discrimination and racism during these interactions, and especially for those members of Webequie First Nation who participate in employment opportunities on these projects. Systemic racism and hurtful stereotyping of Indigenous peoples during these interactions may lead to an increase health issues such as mental wellness issues, substance misuse, and social isolation.

If members of Webequie First Nation choose to participate in construction jobs related to the Webequie Supply Road, Marten Falls Community Access Road, or the Northern Road Link, or resource industry jobs with Eagles Nest Mine, Greenstone Gold Mine, or Ogoki Forest Management, it may be necessary for them to seek accommodation in worker camps. These camps may house other workers who may be non-Indigenous, or who are Indigenous but from other communities. As it may not be possible to fully enforce planned policies to reduce harassment and bullying, members of Webequie First Nation may experience external racism and / or lateral violence. Members of Webequie First Nation may experience feelings of marginalism, which could trigger or worsen existing social and economic inequalities and lead to negative mental wellness and physical health outcomes.

It is possible that the construction of the Ring of Fire Road projects could lead to social division within Webequie First Nation, and between First Nation communities in the Regional Study Area. Differences in opinion of the Project(s) within and between communities could lead to reduced social cohesion and exclusion which could have negative mental wellness outcomes such as isolation, loss of traditional knowledge transfer between those with differing opinions on the road projects and future of the community, loss of cultural identity as the projects progress, increased tensions over land rights within

the communities, and feeling of loss related to loss of traditional lands used for cultural practices and traditions. Lateral violence, and loss of cultural connectivity may be associated with negative physical health and mental wellness outcomes.

#### 8.4.1.2. Mitigation and Enhancement Measures

1. Mitigation measure: Webequie First Nation, Marten Falls First Nation, Aroland First Nation, and Ring of Fire road project operators should consider working together to ensure that external workers are regularly educated about Indigenous culture, inform workers of and actively work to break down pre-existing racial stereotypes, and build a strong sense of community and belonging within the worker accommodations camps. A zero-tolerance policy for racially-charged language or violence should be considered as part of the employment contract.
2. Mitigation measure: Webequie First Nation, Marten Falls First Nation, Aroland First Nation and other interested First Nation Community leaders are encouraged to work together to build and maintain strong inter-community relationships, work within their respective communities to communicate Project updates as the Project(s) progress. Exploring the need for a formal complaint system to report and resolve instances of discrimination and violence, may help to prevent the negative health effect of social isolation and racism.

### 8.4.2. Worker Accommodations (i.e., worker/construction camps)

#### 8.4.2.1. Construction Phase

While constructing the Webequie Supply Road, Marten Falls Community Access Road, Northern Road Link, and Eagles Nest Mine there will likely be the presence of accommodation camps to house workers participating in construction related positions with each Project. Many of the workers being accommodated will be non-Indigenous or will not be members of Webequie First Nation. Therefore, members of Webequie First Nation who choose to stay in worker accommodation camps while participating in construction-related employment will be exposed to large numbers of non-Indigenous colleagues. It is possible that members of Webequie First Nation will have experiences of racism and discrimination due to their Indigenous identity and associated systemic negative stereotypes, which may lead to violence, harassment, or feelings of social isolation. These experiences may lead to negative physical and mental wellness outcomes for members of Webequie First Nation, and other Indigenous peoples from the Regional Study Area participating in construction-related employment and living in the construction camps.

Worker accommodation camps are often male-dominated, and there is increased risk of gender based-violence. Women and people who identify as 2SLGBTQ+ may be at increased risk of sexual harassment, assault, sex trafficking, and exploitation in these settings. Indigenous women and girls and 2SLGBTQ+ individuals are already at an increased risk of experiencing violence, which could be further exacerbated in male-dominated isolated work camps, particularly if additional confounding factors such as alcohol and illicit substance misuse, social and cultural isolation, sexual coercion, and marginalization are introduced despite mitigation measures and efforts to make camps “dry”. Violent and exploitive situations against women, girls and 2SLGBTQ+ individuals will lead to negative physical and mental outcomes, and may also increase substance use, social isolation, rates of sexually transmitted diseases, and physical injuries.

In addition to the those working and living in the worker accommodation camps, it may be possible that non-Indigenous and Indigenous outsiders living in the construction camps may gain access into the

Webequie First Nation community despite mitigation measures to limit access as they may not be fully enforceable, particularly over long construction timelines. Outsiders entering the community may introduce increased access to illicit drugs and / or alcohol, increased threats for safety (particularly for women, girls, and 2SLGBTQ+ individuals), and increased opportunities for racially charged interactions between Indigenous and non-Indigenous people resulting from systemic stereotypes. Negative interactions between community members and workers who manage to gain access into the community, despite mitigation measures discussed in Section 6.1.5.4, could lead to increased need for mental and physical health services. With little capacity available in Webequie First Nation for an increase in need, there may be shortfalls in providing adequate mental and physical health resources to community members which would in turn lead to negative health outcomes, particularly for those with pre-existing, chronic, or worsening conditions, the elderly, and those with substance dependency issues.

It is not anticipated that during the construction phase it will be possible for members of Webequie First Nation to access the Ring of Fire mineral development using the proposed roads. Therefore, cumulative effects of the Eagles Nest Mine worker accommodation camps were not considered to be as pressing as the effects of the three Ring of Fire road projects in this assessment. Further, as provincial highway network access will not be available until the Project is completed, cumulative effects of Greenstone Gold Mine, Esnagami Road Bypass Upgrade, and Ogoki Forest Management Plans worker accommodations were not considered as likely to occur in this assessment.

#### 8.4.2.2. Mitigation and Enhancement Measures

1. Mitigation measure: Webequie First Nation, Marten Falls First Nation, and Aroland First Nation should consider working with Project construction contractor to ensure adequate education, training, and enforcement of Indigenous-led anti-racism and anti-harassment policies in the workplace, and in the construction camps as extensions of the workplace. Implementation of mandatory semi-annual training programs focused on the safety of Indigenous women, girls and 2SLGBTQ+ individuals (covering issues like sexual harassment and sex trafficking) for all Project employees (AtkinsRéalis, 2024i; 2024k) should be required at all worker accommodation camps. Zero-tolerance policies for racism, race-based violence and sexual harassment should be explored alongside Indigenous-led mechanisms for reporting and investigating incidents. Avenues of enforcement should be considered, including termination clauses for offenses in employee contracts.
2. Mitigation measure: Webequie First Nation and Marten Falls First Nation, should consider working with Ring of Fire road project construction contractor to develop methods to enforce proposed community-entry restrictions among those living in worker accommodations. This will help to prevent negative interactions between community members and construction workers living in nearby accommodation camps and limit negative mental health impacts.
3. Mitigation measure: Webequie First Nation, and Marten Falls First Nation should work with Project construction contractor to establish check-points to restrict the flow of illicit substances being smuggled into Webequie First Nation by workers accommodated in construction camps, or into the construction camps themselves, which are mandated to be “dry” facilities.

#### 8.4.3. Food Security (including quality and availability of traditional foods)

##### 8.4.3.1. Construction Phase

During the construction phase, it will not be possible for Webequie First Nation to access the provincial highway network using the Webequie Supply Road, Northern Road Link, Marten Falls Community Access

Road, nor the Anaconda and Painter Lake Forestry access road. Further, Webequie First Nation will not have access to the Ring of Fire mining development, inclusive of Eagles Nest Mine. However, members of Webequie First Nation are concerned that the construction of the Webequie Supply Road, Marten Falls Community Access Road, and the Northern Road Link may interfere with the productivity of their traplines, and their ability to harvest traditional food sources due to physical interference and noise disruption, as discussed in Section 6.2.8. A disruption in the traplines due to construction activities could lead to additional food insecurity and a decrease in food sovereignty. A disruption in habitat (for fish, plants, or animals), changes in mating behaviours, and changes in general animal behaviours may also decrease the availability of traditional foods in the community. The community struggles to gather enough traditional food currently due to the high costs associated with using and maintaining equipment, as well as a lack of knowledge and experience among the youth to access the land and harvest traditional foods. Additional burdens placed on hunting and gathering by the construction operations of the Ring of Fire road projects may further reduce food security and food sovereignty for Webequie First Nation and possibly other Indigenous communities affected by construction-related activities. The recommended preferred route for Webequie Supply Road aims to reduce the number of traplines intersecting the road, and is further east from significant hunting areas, runs east of areas used for traditional activities, reduces intersection with moose mating areas, and minimizes effects to waterbodies as discussed in Section 4.4.

During the construction phase, members of Webequie First Nation may leave the community for various lengths of time to participate in construction employment opportunities with the Esnagami Road Bypass Upgrade, Northern Road Link, Webequie Supply Road, or the Marten Falls Community Access Road. Community members may also leave at this time to participate in mining and forestry activities with the Ogoki Forest Management Plans, or the Greenstone Gold Mine. Inevitably, this means that adults and elders with knowledge of traditional hunting and gathering practices may leave the community and will be unavailable to pass on traditional food acquisition knowledge to future generations. The ongoing effect of their absence, particularly during key harvesting intervals, could have long-term repercussions to mental and health outcomes in the community as youths' ability to carry forward traditional knowledge and practices to future generations may be impeded.

During the construction phase, members of Webequie First Nation, and other nearby Indigenous communities may participate in road construction, mining and forestry employment opportunities with the aforementioned opportunities. During employment, Indigenous employees will receive a source of income previously unavailable for community members. Increased income within Webequie First Nation, and other nearby Indigenous communities, will improve purchasing power for market food items. Although those who are able to seek employment will benefit with improved mental wellness and physical health outcomes from increased access to healthy food options, those unable to access these employment opportunities (i.e., elders, youth, and those with chronic health conditions) may continue to be unable to afford expensive healthy market food items.

#### 8.4.3.2. Mitigation and Enhancement Measures

1. Mitigation measure: Webequie First Nation should consider working within the community (leaders and community members) to identify key times for land users to be in the community for traditional knowledge transfer, and to harvest traditional foods for their families and the community to preserve traditional knowledge and ensure traditional foods are available for consumption within the community. These time periods can be communicated to the contractors of the different Projects within the area where members of the First Nations may be employed, so these members can have time off during these key times for traditional food

harvesting and cultural community events. This may include options such as accommodations during scheduling and having the option to take additional time off. Community members may also wish to discuss community timing and frequency of hunting/gathering trips, purchasing and maintaining community equipment to increase affordability of going out on the land for those who remain in the community, etc.

2. Mitigation measure: Webequie First Nation should continue to work with the Webequie Supply Road construction contractor to ensure traditional hunting, gathering, and fishing grounds receive minimal impact from physical disturbance and noise during the construction phase. Additionally, throughout construction, noise should be limited to certain hours and construction should be considerate of identified key hunting and fish harvesting areas.

#### 8.4.4. Safety of Women and Girls

##### 8.4.4.1. Construction Phase

The Webequie Supply Road is expected to be built following the completion of the Anaconda and Painter Lake Forestry Access Road upgrades. However, both the Marten Falls Community Access Road and the Northern Road Link will be incomplete at the time of construction of the Webequie Supply Road, and it is unlikely that Anaconda and Painter Lake Roads will be used to transport equipment specifically for the Webequie Supply Road. It is probable that winter roads and air transport will be used to transport the necessary equipment and personnel for the construction of the Northern Road Link, the Webequie Supply Road and the Marten Falls Community Access Road. Due to this, it is likely that the volume of traffic on the winter roads will increase during the construction phase, causing an increase in the exposure of the Webequie First Nation community to outsiders passing through the area, and could in turn increase the exposure of women and girls to undesirable people and situations of potential violence. Other First Nation communities, including Marten Falls First Nation, Aroland First Nation, Eabametoong First Nation, Neskantaga First Nation and Nibinamik First Nation are also expected to experience this increase in traffic and the subsequent exposure to a potential threat to community safety and security, particularly for women and girls.

During the construction phase of the Webequie Supply Road it is expected to result in the influx of construction-related equipment and construction workers to the area. It is expected that the influx of equipment and personnel will increase traffic and associated accidents, increase opportunities for employment, and increase potential for negative interactions with non-Indigenous construction workers and with Indigenous construction workers from other reserves. Together, these negative interactions could affect the safety of community members of Webequie First Nation, particularly women, girls, and those who identify as 2SLGBTQ+.

During the construction phase of the Webequie Supply Road, and the Northern Road Link, there will be temporary construction camps used to accommodate construction workers near Webequie First Nation. It is likely that these camps will accommodate Indigenous construction workers from other First Nation communities, as well as non-Indigenous construction workers. Despite mitigation measures, the presence of these outside construction workers, may create lingering feelings of reduced safety for women and girls due to the risk of sexual violence and sex trafficking against Indigenous women, girls, and members of the 2SLGBTQ++ community. In addition to physical health risks, there are mental health effects of living in fear of personal safety.

There are three pathways that women, girls and members of the 2SLGBTQ++ community are expected to interact with Project construction workers, or workers of other operations occurring in the area:

1. The first pathway for interaction is through contact of outside construction workers with community members within Webequie First Nation. Although Webequie First Nation does have plans to implement restrictions for construction worker entry into the community, due to potential enforcement challenges, it may not be possible to have total compliance with the restriction policy and construction workers may enter the community and create an environment of concern for safety.
2. The second pathway of exposure that is expected to occur is through participation of women and members of the 2SLGBTQ++ community in employment opportunities. This would increase the exposure of vulnerable persons to construction workers, in turn influencing risk to personal safety, or deterring vulnerable populations from seeking employment with the Project. Furthermore, it is expected that although these construction camps may be considered “dry”, it may not be possible to obtain full compliance with a “dry” policy, and therefore there could be the presence and use of alcohol and/or illicit substances in the community which can compound the risk to personal safety for women, girls and members of the 2SLGBTQ++ community (See Substance Use) as substance use is linked to increased violence and sexual assault.
3. The third pathway of exposure is expected to occur during the transportation of materials and equipment for construction of the Webequie Supply Road and the Northern Road Link using the winter roads. It is also possible, though less likely, that exposure to workers from future Ogoki Forest Management and/or Greenstone Gold Mine could occur in a similar manner. It is possible that interactions between workers (who can be predominantly men) and women, girls, and members of the 2SLGBTQ++ community could occur throughout the winter road network. There are additional concerns for the safety of all community members during these interactions, as members of the community may face violence or racism due to anti-Indigenous rhetoric, and systemic exposure to racism which is more common for Indigenous peoples than non-Indigenous people.

It is possible that there will be interactions between Webequie First Nation community members, Esnagami Road Bypass Upgrade workers, and Eagles Nest Mine workers during the later phases of construction of the Webequie Supply Road, though an overlap in timelines is not guaranteed. If interactions were to occur, unsafe interactions would be considered possible.

#### 8.4.4.2. Operations Phase

The Webequie Supply Road alone does not provide access to the provincial highway network; however with the expected simultaneous completion of the Marten Falls Community Access Road and the Northern Road Link, Webequie First Nation will be connected to the provincial highway network during the operations phase of the Webequie Supply Road. It is anticipated that equipment, supplies, and personnel will be regularly using all three roads as the primary means of transport to the Ring of Fire development. The increased traffic will create more opportunities for accidents, more opportunities for interactions with mine workers and / or persons with nefarious intent, and more opportunities to have illicit substances and / or alcohol brought to the community. Members of Webequie First Nation will also have access to the road for travel, further increasing the interactions mentioned previously. Therefore, there are concerns to the safety of women, girls, and 2SLGBTQ+ individuals through these interactions with regular use of the completed Ring of Fire roads.

With an increase in traffic to and from the Webequie First Nation community during the operations phase, there is an increased risk of sex trafficking and assault against women, girls, and members of the 2SLGBTQ+ community. These populations are already at an increased rate of likelihood for experiencing violent situations, and therefore with more access to the Webequie First Nations community through the three Ring of Fire roads the concern for personal safety is increased, despite restrictions against outsiders in the community. This threat also applies to Marten Falls First Nation and Aroland First Nation, who are also expected to see increased traffic through their communities as goods and personnel use the road to access the Ring of Fire mining development.

The participation of women and members of the 2SLGBTQ+ community in employment opportunities with developments such as Eagles Nest Mine, Greenstone Mine, and other accessible future employment operations will increase the exposure of this community to outsiders through worker accommodations and interactions in the workplace. As some workplaces have instances of discrimination and harassment despite efforts to address these issues, it is likely that women and members of the 2SLGBTQ+ community will encounter increased rates of racism, discrimination, and harassment while seeking and participating in employment opportunities. Increased exposure to racism, discrimination, and harassment in the workplace will have negative physical health and mental wellness outcomes on women, girls and 2SLGBTQ+ individuals.

#### 8.4.4.3. Mitigation and Enhancement Measures

Webequie First Nation should consider working with both Marten Falls First Nation and Eagles Nest Mine officials (once the mine is being constructed/operational) to ensure appropriate mitigation and enhancement measures are taken during the operations phase of the Ring of Fire road projects to further protect the safety of women, girls, and members of the 2SLGBTQ+ community. As discussed in Section Mitigation / Enhancement Measures, mitigation measures should be developed that promote pathways to safety of women, girls, and 2SLGBTQ+ individuals (Ministry of Children, Community and Social Services, 2021b).

1. Mitigation measure: Webequie First Nation should consider working with Marten Falls First Nation, Aroland First Nation, and the operator of Eagles Nest Mine to ensure respectful and inclusive workplace dynamics are encouraged, particularly for women and members of the 2SLGBTQ+ community. Mandatory training should be provided to all employees to increase awareness of Indigenous culture and history and policies to limit the instances of harassment and discrimination in all workplaces and extensions of the workplace, as well as transit to and from the workplace should be implemented within the employment contract of all workers.
2. Mitigation measure: Webequie First Nation should consider working with the operator/owner of Eagles Nest Mine to consider strategies within the employment contract to enforce that construction workers for the mine who are not from Webequie First Nation should not be allowed into the community.
3. Mitigation measure: Webequie First Nation should consider working with the operator/owner of Eagles Nest Mine to consider strategies within the employment contract to enforce that worker accommodations, associated with the mine development, are 'dry', to ensure interactions between workers, particularly with women and 2SLGBTQ+ individuals occur without the confounding influence of illicit substances and / or alcohol, which can increase the likelihood of violent interactions and poses an increased risk to personal safety and security.
4. Mitigation measure: Webequie First Nation should consider working with Eagles Nest Mine operator/owner to develop a plan to monitor, report, and handle complaints of discrimination, harassment, violence or threats to personal safety, particularly for women, girls, and 2SLGBTQ+

individuals due to road construction or operation. Further, access to relevant and timely health care services for those who need to access care as a result of experiences related to the Ring of Fire road project should be considered in this plan as follow-up measure in the plan.

5. Mitigation measure: Webequie First Nation should consider working with Marten Falls First Nation, Aroland First Nation, and the operator of Eagles Nest Mine to provide security check-points along the Ring of Fire roads entry and exit points to discourage the entry of illicit substances and alcohol into 'dry' worker accommodations during the construction and operations phases, and to address potential safety concerns that arise for all members of the community, but particularly the safety and security of women, girls, and members of the 2SLGBTQ+ community.

## 8.4.5. Substance Use

### 8.4.5.1. Construction Phase

During the construction phase, it is likely that there will be increased traffic to the community, particularly during the transportation of equipment and personnel to work sites. As the Webequie Supply Road (or any other Ring of Fire Road Projects) will not be completed at this time, traffic will be higher on the winter roads and via air. It is expected that the Marten Falls Community Access Road and the Northern Road Link will be being built concurrent to the Webequie Supply Road, meaning a compounding of traffic on different winter roads and via air due to the need for transportation of equipment and personnel needed to build all three roads. Due to the anticipated increase in traffic, there may be more opportunities for increased availability of illicit drugs and / or alcohol as they are transported into or near the community by construction personnel and sub-contractors. An increase in the availability of these substances may also lead to an increase in substance misuse, which is associated with several negative physical health and mental wellness outcomes as discussed in Section Substance Use).

It is anticipated that for construction purposes, there will be worker accommodations situated near the Webequie First Nations community. Although it is planned that outsiders and construction workers will not be allowed to enter the community, there may not be full compliance and enforcement of this policy, leading outsiders and construction workers to have access to the community despite mitigation measures. It is not possible to predict the level of which outsiders will gain access to the community. When entering the community, these outsiders and construction workers may bring with them illicit drugs and / or alcohol which will make access to these substances easier, and lead to the negative health outcomes associated with substance misuse (as discussed in Section Substance Use). Further, members of Webequie First Nation may seek employment opportunities with the Ring of Fire road projects, leading to time spent in worker accommodations. While in the accommodations, members of Webequie First Nation may have increased access to illicit drugs and / or alcohol, despite efforts to make these camps "dry". With concerns already over substance use among community members, increased access to illicit substances and / or alcohol could exacerbate existing mental wellness challenges, such as lack of supports, which could further strain health resources in Webequie First Nation.

With increased access to illicit substances and / or alcohol within the community, those with pre-existing substance misuse issues, or those considered at risk of developing substance misuse issues (i.e., older adults, those with chronic pain, youth, and those with pre-existing mental wellness challenges), may be at increased risk of becoming further entrenched, or developing a problem with the use of illicit substances and / or alcohol. With limited mental and physical health service capacity within the

community, an increase in demand of these services, due to an increase in substance and / or alcohol misuse, would be hard to accommodate and could lead to a decline in the quality and availability of health services in the community, resulting in poorer health outcomes overall. Further, an increase in the availability and misuse of illicit substances, coupled with the loss of individuals in the community to new employment opportunities, could trigger a cycle of cultural erosion. Over time, this could lead to negative and exacerbated physical health and mental wellness outcomes such as increased family and domestic violence, loss of cultural identity, and disconnection from the community.

#### 8.4.5.2. Operation Phase

Once completed, the three Ring of Fire Roads will provide Webequie First Nation with access to the provincial highway network via the Webequie Supply Road, the Northern Road Link, the Marten Falls Community Access Road, and the Anaconda and Painter Lake Forestry access roads. Access to the provincial highway network will provide new opportunities for members of Webequie First Nation to access health and mental wellness services for substance misuse and addiction, as well as a connection to the outside world that is not as expensive as air travel, which together will have tremendous positive health benefits.

However, access to the provincial highway network will also allow community members increased access to illicit substances and alcohol. In addition, the connection to the provincial highway network will allow drug traffickers access to the community that was previously unavailable. Additionally, it is expected that the construction of Eagles Nest Mine will occur during the operations phase of the Ring of Fire road projects, which will further increase traffic and interactions with outside workers as construction, equipment, and personnel are brought in for mine construction. The result of these pathways is an increase in the availability and movement of illicit drugs and / or alcohol into Webequie First Nation, which may have negative health impacts in the community.

#### 8.4.5.3. Mitigation and Enhancement Measures

1. Mitigation measure: Webequie First Nation should consider working with the federal and provincial governments to increase the availability of mental and physical wellness services within the community for those struggling with substance and / or alcohol misuse issues and relieve pressure on existing services that is expected to increase due to the Ring of Fire road projects. This increase in support to address substance misuse and addiction should be provided to Webequie First Nation before construction of the Webequie Supply Road project starts. This is a key mitigation measure.
2. Mitigation measure: It is advised that Webequie First Nation work with Marten Falls First Nation and Eagles nest Mine operator/owner to devise checkpoints along the Ring of Fire road projects to help to ensure illicit substances and / or alcohol are not being trafficked along the road network to prevent increased availability of these substances in previously remote communities.
3. Mitigation measure: Webequie First Nation should work with the project proponent for construction (i.e., the Government of Ontario) to require that the contractors responsible for worker accommodation camps and road construction ensure the “dry” status of worker accommodations is enforced through training and employment contract obligations.
4. Mitigation measure: Webequie First Nation is encouraged to work with Marten Falls First Nation, Aroland First Nation, other nearby Indigenous communities, and operators of Eagles Nest Mine to promote and provide culturally relevant experiences, workplace training, and traditional knowledge transfer to youth to maintain a strong sense of cultural identity within communities and regionally.

5. Mitigation measure: Webequie First Nation should work with Eagles Nest Mine operators and Ring of Fire road project operators to ensure there is adequate access to mental wellness and addiction services for members of the workforce to access while in the employment of the Project(s).
6. Webequie First Nation, Marten Falls First Nation, Aroland First Nation, and other interested First Nation parties should work together to build capacity for traditional healing and culturally appropriate mental wellness and addiction services for members of their respective communities during the construction and operation phases. It is a strong recommendation of this HIA that federal and provincial governments recognize the need for additional health care, mental health and addiction support services in these communities and provide additional support before starting construction on the projects. This will help communities better prepare and make them more resilient to change that will be brought on by these projects.

## 9. PREDICTED FUTURE CONDITION OF THE ENVIRONMENT IF THE PROJECT DOES NOT PROCEED

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Should the Project not proceed, the conditions within the proposed Project site area related to the Human Environment will likely continue on the current trajectory.

## 10. PREDICTED CONFIDENCE IN THE ASSESSMENT

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A conservative approach was used in assessing potential effects where there is uncertainty. The HIA has been completed using several assumptions. The assumptions made in this assessment include:

1. The closest construction / worker camp to Webequie First Nation is preliminarily located approximately 5 km south of the Webequie settlement site.
2. Although details of an approved safety and security enforcement strategy are still being worked out, it has been proposed by Webequie First Nation that for safety and security considerations, construction workers / other workers (non-Indigenous) will not be allowed into Webequie First Nation. However:
  - a. It is assumed that Webequie First Nation may not be completely successful in keeping out outside workers / individuals.
  - b. Construction workers / other workers are not expected to be allowed into either of the communities unless they use the appropriate channels to get permission to enter the communities.
3. Should off-reserve Webequie First Nation members decide to participate in construction activities / jobs, they will be provided housing on the community to the extent available, and the overflow will stay in the construction / worker camps.
4. Although it is expected that the construction/worker camps will be 'dry camps', i.e., no alcohol or illicit substances/drugs will be permitted in the camps, it is assumed that some amount of alcohol and drugs will make its way into the camp, and therefore find a way into the Webequie First Nation community. It is assumed that these amounts will be small and will depend on how strictly the 'dry camp' policy will be enforced.

5. Although sample size in the human health survey was small (i.e., 27), we have still used the results as evidence but noted that due to the low response rate, the results must be interpreted with caution, and avoided statements of fact regarding full community interpretation. Moreover, we have confidence in the results of the survey as during the most recent community engagement visit, the HIA Team endeavoured to ground-truth the information by presenting the data to community members at community meetings and during focus groups.
6. The HIA evaluates the impacts on health due to the Webequie Supply Road Project alone. Once operational, the Webequie Supply Road is expected to provide all-season access from Webequie First Nation to the Ring of Fire area, the site of much-expected resource development and employment opportunities. However, during engagement, Webequie community members often mentioned that they expected the Webequie Supply Road to improve access to goods, services, and reduce feelings of isolation of community members. In trying to convey these hope from community members in the HIA, the effects assessment tried to clarify that Webequie Supply Road can only provide this access to goods and services once it connected to the provincial highway network via the Marten Falls Community Access Road and the Northern Road Link, both of which are projects currently also going through the Impact Assessment process.

In addition, and since the HIA relied heavily on the socio-economic assessment, the assumptions in the socio-economic environment were also considered:

- **Workforce composition:** it is assumed that job positions for the Webequie Supply Road project will first be filled using the available labour within Webequie First Nation, followed by the other Local Study Area (LSA) communities, and lastly the Regional Study Areas (RSA) (see Section 4.3 for the list of communities);
- **Availability of Labour:** it is assumed that the unemployed labour market is proportionally equal to the employed labour market in terms of industry involvement;
- **Labour Skill Requirements:** it is assumed that Webequie Supply Road Project related jobs within specific labour categories are unskilled labour positions and require limited training or qualifications;
- **Operations On-Site Labour:** it is assumed that during Webequie Supply Road Project operations, the on-site Project labour demand will be met by Webequie First Nation with any additional available jobs' gaps being filled by LSA workers;
- **Housing and Accommodations:** it is assumed that the temporary work-camps will fully meet the housing requirements for the additional temporary worker population created through Project employment.

Furthermore, a number of key informational gaps exist with respect to the human health environment that contribute to the uncertainty of effects prediction. These include:

- Low response rate to the human health survey:
  - There were 27 respondents to the human health survey.
- Statistics Canada Census of Population:
  - For privacy reasons, the Census of Population does not always publish full data sets to protect the identities of respondents;
  - Undercounting within Indigenous communities is a common complaint of the Census; and
  - Other errors likely to occur within the Census of are coverage errors, non-response errors, response errors, processing errors, and sampling errors.

- Skills and Qualification of Labour Force:
  - Detailed data for occupation of employment, employment ratios, and other labour force related indicators were not available for all communities; and
  - Due to the availability and level of detail of the data available, it is not possible to describe the current level of skills, training, and qualifications of the labour force.
- Duration of Project Operation Phase:
  - Due to the extended timeline of the Project, the certainty of the potential effects become difficult to measure;
  - The long-term changes within the local and regional communities are difficult to predict and could affect mitigation strategies; and
  - Other future projects could have effects on the study area communities and the evaluated VCs.

As a result, some effects are difficult to predict with certainty. The likelihood of occurrence and the level of confidence in the assessment of effects on the social and environmental determinants of health are presented in Table 8-1.

## 11. FOLLOW-UP AND MONITORING PROGRAMS

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Follow-up and monitoring related to the Human Health Environment will be initiated at each phase of the Project. These activities will inform a precautionary approach and contribute to the understanding of changing and existing conditions within the study area communities. This includes the Project-related and cumulative effects and the effectiveness of mitigation measures in addition to effects that were not initially identified or expected.

The follow-up and monitoring of Project impacts will be the responsibility of the Project proponent and will need to be conducted consistently throughout each stage of the Project. This will include engagement with community members and those in surrounding areas to address community concerns.

The monitoring and follow-up of the 24 social and environmental determinants of health of the Human Environment will require constant and consistent monitoring to evaluate the effectiveness of the Project mitigation measures. Regular evaluation will allow the Project proponent identify areas of concern or success in a timely manner and pivot mitigation measures if necessary.

The purposes of the follow-up and monitoring programs are to:

- Ensure the Project construction contributes to the economic empowerment of the Webequie First Nation by creating job opportunities and supporting local businesses, as this will have positive health impacts on the community.
- Maintain transparency in the execution of the Project and ensure accountability in how the economic benefits are distributed in Webequie First Nation. Particular attention is called to helping to ensure equitable distribution of economic benefits in the community, so all population sub-groups benefit.
- Implement a dynamic monitoring approach that can adapt to feedback and changing circumstances, allowing for continuous improvement of the Project's health impact on the Webequie community.
- Collect community input into how the Project is contributing to health outcomes within the Webequie community through improvement of access to services and other measures.

## 11.1. Approach to the Monitoring Plan for Human Health

A number of the monitoring and surveillance activities identified below that are proposed to identify and manage potential negative health impacts to community members could be conducted through means of community-led data gathering exercises that follow the rules of OCAP (the principles of ownership, control, access, and possession). One such method could be the use of a Community Health and Wellbeing Survey that is distributed in the community on a regular basis. During construction phase, this survey would need to be conducted more regularly, i.e., every 3 – 6 months. All of the impacts identified in Section 11.2 for which monitoring is recommended could be included as questions that community members respond to in these surveys. To ensure increased uptake of surveys, community leadership should identify these surveys as one of the key ways in which community members can indicate how changes are happening within the community. Directly engaging with the community liaisons, Elders and community leadership to report concerns is another key method of tracking health impacts in the community.

Once the surveys are completed, the community leadership can share select, anonymized and relevant information with the contractor to raise concerns and push for actions to mitigate impacts.

## 11.2. Recommended Human Health Monitoring Components

The recommended human health monitoring program could include the following components:

### Colonization and Trauma from Residential Schools

- Monitoring the regular consultation during the construction phase between Webequie First Nation and the contractor and ensuring regular updates regarding construction activities that may impact traditional activities on the land are provided.

### Racism and Social Exclusion

- Monitoring the implementation of the regularly mandated in-person cultural and Indigenous awareness training for construction workers and all outside personnel.
- Provided a safe way for community members to report all incidents related to racism and social exclusion and set up a transparent way in which the leadership can address these incidents and take action.

### Local Economic Growth

- Monitoring procurement targets (e.g., total contract value) for the participation of local and/or Indigenous businesses in Project construction. Procurement policies for the recruitment, development, and retention of underrepresented groups of Webequie First Nation, other LSA communities and the RSA in the Project may include setting Mandatory Minimum Indigenous Requirements to hit targets for employment of specific groups like women, youth and individuals with disabilities (AtkinsRéalis, 2024h; 2024k).

### Self-Determination and Governance

- No applicable follow-up or monitoring programs required.

### Worker Accommodations (i.e., worker/construction camps)

- Monitor the implementation of the in-person cultural and Indigenous awareness training for all construction workers and outside personnel.

- Monitoring and enforcing the guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.
- Provided a safe way for community members staying in the worker camps to report all incidents of workplace harassment and set up a transparent way in which the contractor can address these incidents and take action.
- Set up a surveillance method to identify and monitor harassment of women and 2SLGBTQ++ individuals and identify protocols to address these infractions.

#### Air Quality (including GHG Emissions)

- Following the Air Quality and Dust Control Management Plan once established which will integrate a monitoring procedure for dust fall effects and measures to control or limit usage of vehicle or equipment that are the main emission source of particulates

#### Noise Levels and Vibration

- Provide a way for community members to report whether construction-related noise has changed harvesting areas for big and small game and birds.

#### Surface Water Quality

- An ongoing follow-up monitoring program (post-construction) will be implemented during the operations phase of the Project

#### Light Pollution, including Visual Impact

- No applicable follow-up or monitoring programs required.

#### Employment and Income

- Monitor whether the regular implementation of workplace policies and programs, such as a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training).

#### Education / Access to Education

- A monitoring program that surveys every 6 months or annually how community members have gained education and skills and in which areas is beneficial to the community. In addition, identifying which trades/skills are in high demand and in which training is needed will allow the community to better prepare for taking advantage of opportunities in ongoing work on the project.

#### Food Security

- Monitor if harvesting of traditional foods is impacted during the construction and operation of the project. During construction, surveying the community every 3 – 6 months on changes they've noticed in the difficulty in harvesting big and small game should be noted and project activities adjusted as much as possible to avoid disturbing traditional land use.
- Monitoring those allowed on the land to ensure outside hunters are following provincial regulations when accessing land.

#### Social Cohesion and Cultural Continuity

- Monitor the implementation of workplace policies and programs, such as a diversity and inclusion strategy, zero-tolerance policies for racism and workplace violence, codes of conduct, workplace safety programs and cultural training programs (e.g., Indigenous Awareness Training)

#### Safety of Women and Girls

- Monitor the implementation of workplace policies and programs focused on the safety of Indigenous women, girls and 2SLGBTQ+ individuals (covering issues like sexual harassment and sex trafficking) for all Project employees (AtkinsRéalis, 2024h; 2024k).
- Per the grievance mechanism, community liaison officers are to follow-up on community concerns and issues at the construction camps, inclusive of issues regarding racism, sexism, gender-based violence, and other issues in a culturally appropriate and safe manner.

#### Traffic Volume and Safety

- Any follow-up or monitoring programs will be discussed in the Construction Traffic Management Plan that is to be developed with the contractor and Webequie First Nation.
- Follow-up with the design phase of the Project to ensure compliance with the MTO Roadside Design Manual and adequate roadside safety elements are included

#### Access to Healthcare Services (family doctor or specialist care provider)

- Monitor the need and uptake of healthcare services prior to construction activities and increase availability of specific healthcare services as needed. This is a key step in ensuring increased resiliency of the community to withstand impacts of the project.
- Follow-up to ensure safety management plans and health and safety plans are in place for workers

#### Access to Social, Mental Health and Family Services

- Monitor mental health and wellness of the community over time by using indicators such as demand for mental health services, new reported incidence of mental health issues, incidence, both new and ongoing of substance use issues, etc.
  - Should these indicators show negative change, a mental health management plan should be developed and implemented to provide community members, and those who are most affected, with adequate mental health supports, including the use of traditional healing practices.

#### Access to Transportation Services

- No applicable follow-up or monitoring programs required.

#### Access to Emergency Response Services

- Follow-up to ensure safety management plans and health and safety plans are in place for workers
- Monitoring to ensure workers remain within the construction camps at all times
- Monitoring the safety incidents reported at the camps

- As part of the Community Readiness Plan, a community well-being monitoring and adaptive management plan will monitor road safety as well as the capacity of the emergency and protective services

#### Childhood Development

- No applicable follow-up or monitoring programs required.

#### Mental Wellness

- Monitor any concerns or issues related to contact between the outside workers and community members in the work camps or within the community and take appropriate action in order to reduce the stress and concern felt due to the threat of violence or concern for personal safety, especially by women and girls.
- Annual monitoring of the Indigenous cultural sensitivity training to workers to promote positive work relationships between Indigenous and non-Indigenous employees.
- Monitor the need for and uptake of mental health and wellness services offered in the community, including traditional healing practices.

#### Substance Use

- Monitoring and enforcing the guidelines on substance use that includes the prohibition of drugs and alcohol in construction camps during the construction phase.
- During the operation phase, continue to track and monitor the potential for movement of large quantities of alcohol and illegal drugs into the community (i.e., trafficking) by outsiders and engage appropriate law enforcement to raise alarm about the issue.

#### Diet, Including Access to Traditional Country Foods

- Monitor changes in patterns of behaviour among game animals and growth patterns of traditional plants as a result of the Webequie Supply Road
- Monitor licenses for large game, such as moose with the Ontario Ministry of Natural Resources

These monitoring programs are designed to be dynamic, allowing adjustments based on ongoing findings and community feedback, ensuring that the Project aligns with community aspirations.



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## 12. REFERENCES

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- Ahmed, F., Zuk, A. M., & Tsuji, L. J. S. (2021). The Impact of Land-Based Physical Activity Interventions on Self-Reported Health and Well-Being of Indigenous Adults: A Systematic Review. *International journal of environmental research and public health*, 18(13), 7099. <https://doi.org/10.3390/ijerph18137099>
- Allan, B. & Smylie, J. (2015). *First Peoples, second class treatment: The role of racism in the health and well-being of Indigenous peoples in Canada*. Toronto, ON: the Wellesley Institute.
- Anderson, R.B., Dana, L.P., & Dana, T.E. (2006). Indigenous land rights, entrepreneurship, and economic development in Canada: “Opting-in” to the global economy. *Journal of World Business*, 41(1), 45-55. <https://doi.org/10.1016/j.jwb.2005.10.005>.
- Assembly of First Nations. (2017). *The First Nations Health Transformation Agenda*. Accessed: <https://scoinc.mb.ca/wp-content/uploads/2021/06/FNHTA-AFN-wcag.pdf>.
- Assembly of First Nations (AFN). (2021). *Ending Violence Against Women. Ending Violence Against Women – AFN It’s Our Time Toolkit*. Accessed <https://education.afn.ca/afntoolkit/web-modules/plain-talk-18-ending-violence-against-women/ending-violence-against-women/>
- AtkinsRéalis. (2023). *Draft Part 1 – Natural Environment Existing Conditions Report*. Webequie Supply Road. December 15, 2023.
- AtkinsRéalis. (2024a). *Section 3: Evaluation of Project Alternatives*. Webequie Supply Road Environmental Assessment Report / Impact Statement. August 30, 2024.
- AtkinsRéalis. (2024b). *Webequie Supply Road Assessment of GHG Emissions*. Webequie Supply Road Project. Webequie First Nation. AtkinsRéalis Ref: 661910-4E-L01-PA or 00. August 30, 2024.
- AtkinsRéalis. (2024c). *Webequie Supply Road Climate Change Resilience*. Webequie Supply Road Project. Webequie First Nation. AtkinsRéalis Ref: 661910-4E-L01-PA or 00. September 4, 2024.
- AtkinsRéalis. (2024d). *Section 9: Assessment of Effects on Atmospheric Environment*. Webequie Supply Road Environmental Assessment Report / Impact Statement. AtkinsRéalis Ref: 661910. October 16, 2024.
- AtkinsRéalis. (2024e). *Human Health Risk Assessment*. Webequie Supply Road. AtkinsRéalis Ref: 661910. October 21, 2024.
- AtkinsRéalis. (2024f). *Webequie Supply Road – Country Foods Assessment*. AtkinsRéalis Ref: 661910. July 19, 2024.
- AtkinsRéalis. (2024g). *Section 4: Project Description*. Webequie Supply Road Environmental Assessment Report / Impact Statement. AtkinsRéalis Ref: 661910. April 25, 2024.
- AtkinsRéalis. (2024h). *Section 15: Assessment of Effects on Economic Environment*. Webequie Supply Road Environmental Assessment Report / Impact Statement. AtkinsRéalis Ref: 661910. October 16, 2024.
- AtkinsRéalis. (2024i). *Section 14: Assessment of Effects on Social Environment*. Webequie Supply Road Environmental Assessment Report / Impact Statement. AtkinsRéalis Ref: 661910. October 22, 2024.

- AtkinsRéalis. (2024j). Section 7: Assessment of Effects on Surface Water Resources. Webequie Supply Road Environmental Assessment Report / Impact Statement. AtkinsRéalis Ref: 661910. July 23, 2024.
- AtkinsRéalis. (2024k). Section 12: Community Readiness Plan. Webequie Supply Road Environmental Assessment Report / Impact Statement. AtkinsRéalis Ref: 661910. November 19, 2024. Avaanz Ltd. (2024). Economic Impact Assessment – Draft Report. Internal Document Review.
- Asia Pacific Forum, United Nations. The United Nations Declaration on the Rights of Indigenous Peoples: A Manual for National Human Rights Institutions 2013.  
<https://www.ohchr.org/sites/default/files/Documents/Issues/IPeoples/UNDRIPManualForNHRIIs.pdf>
- Auger, M. (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*. Volume 7. Issue 4. Social Determinants of Indigenous Well-Being: Building a More Complete Understanding.
- Bashiri, F., & Hassan, R. (2014). Light Pollution and Its Effect on the Environment. *International Journal of Fundamental Physical Sciences*, 4(1), 8-12. <http://doi.org/10.14331/ijfps.2013.330061>
- Batal, M., Chan, H. M., Fediuk, K., Ing, A., Berti, P., Sadik, T., & Johnson-Down, L. (2021). Importance of the traditional food systems for First Nations adults living on reserves in Canada. *Canadian journal of public health = Revue canadienne de sante publique*, 112(Suppl 1), 20–28.  
<https://doi.org/10.17269/s41997-020-00353-y>
- Bennett M. (1988). An aboriginal model of care. *Nurs Times*. 1988;84:56–8. [As cited in Davey et al. 2016]
- Berglund, B., Lindvall, T., Schwela, D. H. (1999). Guidelines for Community Noise. World Health Organization, Geneva.
- Berry, P., Schnitter, R., & Noor, J. (2022). Climate Change and Health Linkages. In P. Berry & R. Schnitter (Eds.), *Health of Canadians in a Changing Climate: Advancing our Knowledge for Action*. Ottawa, ON: Government of Canada.
- Bethune, R., Absher, N., Obigawa, M., Qarmout, T., Steeves, M., Yaghoubi, M., Tikoo, R., Szafron, M., Dell, C., & Farag, M. (2019). Social determinants of self-reported health for Canada's Indigenous Peoples: a public health approach. *Public Health*, 176, 172-180. Accessed March 13, 2024 from: <https://www.sciencedirect.com/science/article/abs/pii/S0033350618300957>.
- Bhatia, R. (2009). A Guide for Health Impact Assessment. San Francisco Department of Public Health. Available: [https://ww2.arb.ca.gov/sites/default/files/2020-09/hia\\_guidelines\\_sept\\_04\\_09.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-09/hia_guidelines_sept_04_09.pdf)
- Blair, P.J. (2005). Rights of Aboriginal women on- and off-reserve. Vancouver: Scow Institute. Available: <http://www.scowinstitute.ca/library/documents/RPRightsofWomen.pdf>
- Boicescu, Z. (2024). Coroner Data Reveals Factors in Fire Deaths. Canadian Association of Fire Chiefs. <https://cafc.ca/news/679260/>
- Boksa, P., Joober, R., & Kirmayer, L.J. (2015). Mental wellness in Canada's Aboriginal communities: striving toward reconciliation. *J Psychiatry Neurosci*, 40(6), 363-365. Available: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4622632/>.

- Bombay, A., Matheson, K., & Anisman, H. (2014). The intergenerational effects of Indian Residential Schools: implications for the concept of historical trauma. *Transcultural psychiatry*, 51(3), 320–338. <https://doi.org/10.1177/1363461513503380>
- Bond, A. & Quinlan, L. (2018). Indigenous Gender-based Analysis for Informing the Canadian Minerals and Metals Plan. Available: <https://www.minescanada.ca/sites/minescanada/files/2022-06/indigenous-gender-based-analysis-cmmp.pdf>
- Boslett, A., Hill, E., Ma, L., & Zhang, L. (2021). Rural light pollution from shale gas development and associated sleep and subjective well-being. *Resource and Energy Economics*. <https://doi.org/10.1016/j.reseneeco.2021.101220>
- Buell, M. (2006). Resource extraction development and well-being in the north: A scan of the unique challenges of development in Inuit communities. Ottawa: National Aboriginal Health Organization.
- Cameron, L., Courchene, D., Ijaz, S., Mauro, I. (2021). A change of heart': indigenous perspectives from the Onjisay Aki Summit on climate change. *Clim Change*. 2021;164:43. <https://doi.org/10.1007/s10584-021-03000-8>
- Campbell, M. A., Hunt, J., Walker, D., & Williams, R. (2015). The oral health care experiences of NSW Aboriginal Community Controlled Health Services. *Australian and New Zealand Journal of Public Health*, 39(1), 21–25. <https://doi.org/10.1111/1753-6405.12294> [As cited in Davey et al. 2016]
- Canadian Centre on Substance Use and Addiction. (2023). Canada's Guidance on Alcohol and Health: Final Report. [https://www.ccsa.ca/sites/default/files/2023-01/CCSA\\_Canadas\\_Guiance\\_on\\_Alcohol\\_and\\_Health\\_Final\\_Report\\_en.pdf](https://www.ccsa.ca/sites/default/files/2023-01/CCSA_Canadas_Guiance_on_Alcohol_and_Health_Final_Report_en.pdf)
- Cancer Care Ontario. (2016). Path to Prevention Recommendations for Reducing Chronic Disease in First Nations, Inuit and Métis. Queen's Printer for Ontario, 2016. Available at: [https://www.ccohealth.ca/sites/CCOHealth/files/assets/FNIMPathtoPrevention\\_0.pdf](https://www.ccohealth.ca/sites/CCOHealth/files/assets/FNIMPathtoPrevention_0.pdf)
- Cassidy, J. (2003). The Legacy of Colonialism. *The American Journal of Comparative Law*, 51(2), 409–455. <https://doi.org/10.2307/3649152>
- CBC. 2024. Nearly 23% of the Canadian population reported food insecurity in 2022. Available online: <https://www.cbc.ca/news/business/canadian-income-survey-2022-results-1.7186033>
- CDC (US Centers for Disease Control and Prevention). (2014) Facts About Physical Activity. Available: <http://www.cdc.gov/physicalactivity/data/facts.html>.
- CDC (US Centers for Disease Control and Prevention). (2024). Preparing for the Regional Health Impacts of Climate Change in the United States. *A summary of health effects, resources, and adaptation examples from health departments funded by CDC's Climate and Health Program*. Available: [Preparing for the Regional Health Impacts of Climate Change in the United States \(cdc.gov\)](https://www.cdc.gov/climateandhealth/effects/summary.html).
- CDC, n.d., Harmful Algal Bloom (HAB)-Associated Illness. Available: <https://www.cdc.gov/harmful-algal-blooms/causes/index.html>
- Chan, L. et al. (2013). First Nations Food, Nutrition and Environment Study (FNFNES). Results from Webequie First Nation, Ontario. (FNFNES). University of Northern British Columbia, Université de Montréal, Assembly of First Nations. Available: [https://www.fnfnes.ca/docs/Webequie\\_First\\_Nation\\_draft\\_report\\_Oct25\\_2013.pdf](https://www.fnfnes.ca/docs/Webequie_First_Nation_draft_report_Oct25_2013.pdf)

- Chandler, M.J., & Lalonde, C.E. (1998). Cultural continuity as a hedge against suicide in Canada's First Nations. *Transcult Psychiatry*, 35, 191–219. Accessed February 29, 2024 from <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=b0dbc5f4c7a4ff7757af1e5e67e9a8db043b7572>.
- Che, J., & Chen, J. (2001). Food insecurity in Canadian households. *Health reports*, 12(4), 11-22.
- Chepesiuk., R. (2009). Missing the Dark: Health Effects of Light Pollution. *Environmental Health Perspectives*. Volume 117, Issue 1, A20 - A27. <https://doi.org/10.1289/ehp.117-a20>
- Chiefs of Ontario and Ontario Drug Policy Research Network. 2021. Opioid Use, Related Harms, and Access to Treatment among First Nations in Ontario, 2013-2019. Toronto, ON: Chiefs of Ontario; 2021. Available: <https://odprn.ca/wp-content/uploads/2021/11/First-Nations-Opioid-Use-Harms-and-Treatment-Report.pdf>
- Chiefs of Ontario, Cancer Care Ontario and Institute for Clinical Evaluative Sciences. (2017). Cancer in First Nations People in Ontario: Incidence, Mortality, Survival and Prevalence. Toronto. Available: <https://www.cancercareontario.ca/sites/ccocancercare/files/assets/CancerFirstNationsReportAccessible.pdf>
- Chiefs of Ontario. (2019). Ontario First Nations Regional Health Survey Phase III. People's Report. Available at: [https://chiefs-of-ontario.org/wp-content/uploads/2020/10/COO\\_RHS-PHASE-III-PEOPLES-REPORT.pdf](https://chiefs-of-ontario.org/wp-content/uploads/2020/10/COO_RHS-PHASE-III-PEOPLES-REPORT.pdf)
- Christensen, J. (2016). Indigenous housing and health in the Canadian North: Revisiting cultural safety. *Health & Place*, 40, 83–90. <https://doi.org/10.1016/j.healthplace.2016.05.003>
- CIRNAC (Crown-Indigenous Relations and Northern Affairs Canada). 2023. First Nations Profiles – Webequie. Available at: [https://fnp-ppn.aadnc-aadnc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND\\_NUMBER=240&lang=eng](https://fnp-ppn.aadnc-aadnc.gc.ca/fnp/Main/Search/FNMain.aspx?BAND_NUMBER=240&lang=eng)
- Clark, M., Riben, P., & Nowgesic, E. (2002). The association of housing density, isolation and tuberculosis in Canadian First Nations communities. *International Journal of Epidemiology* 2002;31:940–945.
- CMHA (Canadian Mental Health Association). (n.d.). Substance use and addiction. Retrieved January 12, 2021, from <https://ontario.cmha.ca/addiction-and-substance-use-and-addiction/>
- Cohen, J.M., Boniface, S., Watkins, S. (2014). Health implications of transport planning, development and operations. *Journal of Transport and Health* 1. 63–72
- Council of Canadian Academies. (2014). Aboriginal Food Security in Northern Canada: An Assessment of the State of Knowledge. *The Expert Panel on the State of Knowledge of Food Security in Northern Canada*. Available: <https://cca-reports.ca/reports/aboriginal-food-security-in-northern-canada-an-assessment-of-the-state-of-knowledge/>.
- CTV News. (2013). 'Why didn't they keep him safe?': Family, First Nations leaders question Winnipeg police after man's death in custody. Available at: <https://winnipeg.ctvnews.ca/why-didn-t-they-keep-him-safe-family-first-nations-leaders-question-winnipeg-police-after-man-s-death-in-custody-1.6629408>
- Daoud, N., Smylie, J., Urquia, M., Allan, B., & O'Campo, P. (2013). The contribution of socio-economic position to the excesses of violence and intimate partner violence among Aboriginal versus non-Aboriginal women in Canada. *Canadian Journal of Public Health*, 104(4), e278-e283.

- Davy, C., Harfield, S., McArthur, A., Munn, Z., & Brown, A. (2016). Access to primary health care services for Indigenous peoples: A framework synthesis. *International Journal for Equity in Health*, 15(1), 163. <https://doi.org/10.1186/s12939-016-0450-5>
- Doran, N. (2024). Exploring culturally meaningful definitions of justice and resilience through the lens of sovereign Indigenous foodways. A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science, University of Washington.
- Eduful, Jeannette. (2024). Circumstances surrounding fire-related deaths among Indigenous people in Canada, 2011 to 2020. Centre for Population Health Data, Statistics Canada. July 19, 2024.
- EPA (United States Environmental Protection Agency). (2024). Overview of Greenhouse Gases. Accessed: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>.
- Facing History and Ourselves. (2021). “Until there is not a single Indian in Canada”. In *Stolen lives: The Indigenous Peoples of Canada and the Indian Residential Schools*. Facing History and Ourselves. <https://www.facinghistory.org/stolen-lives-indigenous-peoples-canada-and-indian-residential-schools/historical-background/until-there-not-single-indian-canada>
- Faid, M., Shariff, N., & Hamidi, S. (2019). The Risk of Light Pollution on Sustainability. *ASM Science Journal*, 12, Special Issue 2, 2019 for Malaysia in Space, 134-142.
- Fallon, B., Chabot, M., Fluke, J., Blackstock, C., MacLaurin, B., & Tonmyr, L. (2013). Placement decisions and disparities among Aboriginal children: Further analysis of the Canadian incidence study of reported child abuse and neglect part A: Comparisons of the 1998 and 2003 surveys. *Child Abuse and Neglect*, 37, 47-60. <http://dx.doi.org/10.1016/j.chiabu.2012.10.001>.
- Ffrench-Constant, R.H., Somers-Yeates, R., Bennie, J., Economou, T., Hodgson, D., Spalding, A., & McGregor, P.K. (2016). Light pollution is associated with earlier tree budburst across the United Kingdom. *Proc Biol Sci*. 2016 Jun 29;283(1833):20160813. doi: 10.1098/rspb.2016.0813. PMID: 27358370; PMCID: PMC4936040.
- Fields, J.M., Jong, R.G., Gjestland, T., Flindell, I.H., Job, R.F., Kurra, S., Lercher, P., Vallet, M., Yano, T., Guski, R., Felscher-Suhr, U., & Schumer, R. (2001). Standardized general-purpose noise reaction questions for community noise surveys: research and a recommendation. *Journal of Sound and Vibration*, 242, 641-679.
- Fionda, Francesca. (2017). Camp life takes toll on Canada’s transient workers. *The Discourse*. Available: [Camp life takes toll on Canada's transient workers – The Discourse](#).
- First Nations Health Authority (FNHA). 2017. Overdose data and First Nations in BC: Preliminary findings. Accessed March 1, 2024 from: [https://www.fnha.ca/AboutSite/NewsAndEventsSite/NewsSite/Documents/FNHA\\_OverdoseDataAndFirstNationsInBC\\_PreliminaryFindings\\_FinalWeb\\_July2017.pdf](https://www.fnha.ca/AboutSite/NewsAndEventsSite/NewsSite/Documents/FNHA_OverdoseDataAndFirstNationsInBC_PreliminaryFindings_FinalWeb_July2017.pdf).
- First Nations Information Governance Centre (FNIGC) (2012). First Nations Regional Health Survey (RHS) 2008/10: National report on adults, youth and children living in First Nations communities. Ottawa: FNIGC. Accessed February 28, 2024 from: [ccd66b67e9debb2c92f4a54703e1d050 First-Nations-Regional-Health-Survey-RHS-2008-10-National-Report.pdf \(fnigc.ca\)](https://www.fnigc.ca/First-Nations-Regional-Health-Survey-RHS-2008-10-National-Report.pdf).
- First Nations Studies Program. (2009). Marginalization of Aboriginal Women. *First Nations & Indigenous Studies at the University of British Columbia*. [https://indigenousfoundations.arts.ubc.ca/marginalization\\_of\\_aboriginal\\_women/](https://indigenousfoundations.arts.ubc.ca/marginalization_of_aboriginal_women/).

- Fischer, B., & Argento, E. (2012). Prescription opioid related misuse, harms, diversion and interventions in Canada: A Review. *Pain Physician*, 15, ES191-ES203. Accessed February 29, 2024 from <https://www.painphysicianjournal.com/current/pdf?article=MTcxNg%3D%3D&journal=68>.
- FNFNES (First Nations Food, Nutrition and Environment Study). (2013). Results from Webequie First Nation, Ontario. University of Northern British Columbia, Universite de Montreal Assembly of First Nations. Draft October 25, 2013.
- FNIAH (First Nations, Inuit and Aboriginal Health). (n.d). Literature review: Evaluation strategies in Aboriginal substance abuse programs: A discussion. Ottawa, ONL Author. Retrieved November 25, 2011 [As cited in Reading & Halseth, 2013]
- Food and Agricultural Organization. (1996). Rome declaration on food security. Rome: UN.
- Food Secure Canada. Affordable food in the north n.d. <https://foodsecurecanada.org/resources-news/news-media/we-want-affordable-food-north>
- Foulds, H.J.A., Bredin, S.S.D., & Warburton, D.E.R. (2011). The effectiveness of community based physical activity interventions with Aboriginal peoples. *Preventative Medicine*, 53(6), 411-416. Accessed Feb 28, 2024 from <https://www.sciencedirect.com/science/article/abs/pii/S0091743511003756?via%3Dihub>
- Fuentes, L., Asselin, H., Bélisle, A. C., & Labra, O. (2020). Impacts of environmental changes on well-being in indigenous communities in eastern Canada. *International Journal of Environmental Research and Public Health*, 17(2), 637. <https://doi.org/10.3390/ijerph17020637>
- Fuller-Thomson, E., & Nimigon, J. (2008). Factors associated with depression among individuals with chronic fatigue syndrome: findings from a nationally representative survey. *Family practice*, 25 6, 414-22.
- Galesloot, S., McIntyre, L., Fenton, T.R., & Tyminski, S. (2012). Food insecurity in Canadian adults receiving diabetes care. *Canadian journal of dietetic practice and research : a publication of Dietitians of Canada = Revue canadienne de la pratique et de la recherche en dietetique : une publication des Dietetistes du Canada*, 73 3, e261-6 .
- Gates, M., Hanning, R., Gates, A., Stephen, J., Fehst, A., & Tsuji, L. 2015. Physical activity and fitness of First Nations youth in a remote and isolated Northern Ontario Community: A needs assessment. *J Community Health*, 41, 46-56. [Physical Activity and Fitness of First Nations Youth in a Remote and Isolated Northern Ontario Community: A Needs Assessment | Journal of Community Health \(springer.com\)](https://doi.org/10.1007/s10995-015-1511-1)
- Gee, G.C., & Takeuchi, D.T. (2004). Traffic stress, vehicular burden and well-being: A multilevel analysis. *Soc. Sci. Med.* 59, 405–414. doi:10.1016/j.socscimed.2003.10.027
- Gibson, G., & Klinck, J. (2005). Canada’s Resilient North: The Impact of Mining on Aboriginal Communities. *Pimatisiwin: A Journal of Aboriginal and Indigenous Community Health*, 3(1), 115-140.
- Gibson, G., K. Yung, L. Chisholm, and H. Quinn with Lake Babine Nation and Nak’azdli Whut’en. (2017). *Indigenous Communities and Industrial Camps: Promoting healthy communities in settings of industrial change*. Victoria, B.C.: The Firelight Group. Available: <https://firelight.ca/assets/publications/reports/firelight-work-camps-feb-8-2017.pdf>

- Goldenberg, S., Shoveller, J., Ostry, A., & Koehoorn, M. (2008). Youth sexual behaviour in a boomtown: implications for the control of sexually transmitted infections. *Sex Transm Infect*, 84, 220-223. doi:10.1136/sti.2007.027219.
- Government of Canada. (2013). What Makes Canadians Healthy or Unhealthy? Retrieved from: [What Makes Canadians Healthy or Unhealthy? - Canada.ca](#) . Accessed February 28, 2024.
- Government of Canada. (2017). Missing and Murdered Indigenous Women and Girls. *Department of Justice Canada, Research and Statistics Division*. Accessed: <https://www.justice.gc.ca/eng/rp-pr/jr/jf-pf/2017/july04.html>
- Government of Canada. (2019). *Impact Assessment Act*, SC 2019, c. 28, s. 1.
- Government of Canada. (2020). Household food insecurity in Canada: Overview. Accessed: <https://www.canada.ca/en/health-canada/services/food-nutrition/food-nutrition-surveillance/health-nutrition-surveys/canadian-community-health-survey-cchs/household-food-insecurity-canada-overview.html>.
- Government of Canada. (n.d.). Biodiversity, conservation, and Indigenous Peoples' well-being. Available at: <https://natural-resources.canada.ca/natural-resources-indigenous-peoples/biodiversity-conservation-indigenous-peoples-well-being>
- Greenwood, M., & de Leeuw, S. (2012). Social determinants of health and the future well-being of Aboriginal children in Canada. *Paediatr Child Health* 2012;17(7):381-384.
- Gucciardi, E., Vogt, J.A., Demelo, M., & Stewart, D. (2009). Exploration of the Relationship Between Household Food Insecurity and Diabetes in Canada. *Diabetes Care*, 32, 2218 - 2224.
- Hahad, O., Kuntic, M., Al-Kindi, S., Kntic, I., Gilan, D., Petrowski, K., Daiber, A., & Munzel, T. (2024). Noise and mental health: evidence, mechanisms, and consequences *J Expo Sci Environ Epidemiol*. <https://doi.org/10.1038/s41370-024-00642-5>.
- Hallmark, T., & Reed, T. (2016). Lessons from Ontario: An analysis of Indigenous post-secondary education. *Contact North: Ontario's Distance Education & Training Network*. Accessed March 15, 2024 from: <https://contactnorth.ca/wp-content/uploads/2023/05/2016-lessons-from-ontario.pdf>.
- Halseth, R. & Greenwood, M. (2019). *Indigenous early childhood development in Canada: Current state of knowledge and future directions*. Prince George, BC: National Collaborating Centre for Aboriginal Health.
- Halseth, R. and Murdock, L. (2020). Supporting Indigenous self-determination in health: Lessons learned from a review of best practices in health governance in Canada and internationally. Prince George, BC: National Collaborating Centre for Indigenous Health. Available: [https://www.nccih.ca/495/Supporting\\_Indigenous\\_self-determination\\_in\\_health\\_Lessons\\_learned\\_from\\_a\\_review\\_of\\_best\\_practices\\_in\\_health\\_governance\\_in\\_Canada\\_and\\_Internationally.nccih?id=317](https://www.nccih.ca/495/Supporting_Indigenous_self-determination_in_health_Lessons_learned_from_a_review_of_best_practices_in_health_governance_in_Canada_and_Internationally.nccih?id=317)
- Harris, P. & Bartlett, Cheryl & Marshall, M. & Marshall, A. (2010). Mi'kmaq Night Sky Stories; Patterns of Interconnectiveness, Vitality and Nourishment. *Communicating Astronomy with the Public Journal*.
- Health Council of Canada. (2005). The health status of Canada's First Nations, Métis and Inuit peoples. A background paper to accompany Health Care Renewal in Canada: Accelerating Change.

- Retrieved from <http://healthcouncilcanada.ca.c9.previewyoursite.com/docs/papers/2005/BkgrdHealthyCdnsENG.pdf>
- Health Officers Council of British Columbia. (2005). A Public Health Approach to Drug Control in Canada. Retrieved from: <http://www.cfdp.ca/bchoc.pdf> [As cited in CAMHA, n.d.]
- Helin, C. (2008). Dances with Dependency: Out of Poverty through Self-Reliance. Retrieved June 2, 2023. Available: Cubbie Blue Publishing, Inc.
- Hobbs, M., & Rice, C. (2018). Gender and womens studies: Critical terrain. Toronto: Womens Press. Available: <http://www.webequie.ca/article/education-136.asp>
- International Association of Impact Assessment (IAIA). (2021). International Best Practice Principles – Health Impact Assessment. Special Publication Series No. 5. April 2021. Available: [https://www.iaia.org/uploads/pdf/SP5%20HIA\\_21\\_5.pdf](https://www.iaia.org/uploads/pdf/SP5%20HIA_21_5.pdf)
- Imbeault, P., Haman, F., Blais, J. M., Pal, S., Seabert, T., Krümmel, E. M., & Robidoux, M. A. (2011). Obesity and type 2 diabetes prevalence in adults from two remote First Nations communities in northwestern Ontario, Canada. *Journal of obesity*, 2011.
- Indian and Northern Affairs Canada. Fall 2003 survey of First Nations people living on-reserve: integrated final report. Ottawa, ON: Ekos Research Associates Inc; 2004. Available from: [www.ainc-inac.gc.ca/pr/pub/fns/2004/srv04\\_e.pdf](http://www.ainc-inac.gc.ca/pr/pub/fns/2004/srv04_e.pdf).
- Indigenous and Northern Affairs Canada (INAC). (2016). The Community Well-Being (CWB) Index. Available: <https://open.canada.ca/data/en/dataset/56578f58-a775-44ea-9cc5-9bf7c78410e6>
- Indigenous Services Canada (n.d.) Leadership selection in First Nations. Available: <https://www.sac-isc.gc.ca/eng/1323195944486/1565366893158>
- InterGroup Consultants Ltd. (InterGroup). (2024). GBA+ Webequie Supply Road. Prepared for AtkinsRéalis. DRAFT January 2024.
- Intrinsic. (2023a). Intrinsic Health Survey administered to Webequie First Nation.
- Intrinsic (2023b). Intrinsic Key Person Interviews and focus groups with Webequie First Nation members.
- Intrinsic (2024). Intrinsic Key Person Interviews and focus groups with Webequie First Nation members.
- Irving, C. (2021) The Modern Effects of Colonialism on Indigenous Communities in Canada. Available at SSRN: <https://ssrn.com/abstract=4060051> or <http://dx.doi.org/10.2139/ssrn.4060051>
- Jardine, M., Bourassa, C., and Legare, M. 2021. Addiction treatment models: Sources of resilience and empowerment among Indigenous peoples. *Turtle Island Journal of Indigenous Health*, 1(2), 84-95. DOI: 10.33137/tijih.v1i2.36048. Accessed March 1, 2024 from: <https://jps.library.utoronto.ca/index.php/tijih/article/view/36048/28714>.
- Jiwa, A., Kelly, L., and St Pierre-Hansen, N. 2008. Healing the community to heal the individual: Literature review of Aboriginal community-based alcohol and substance abuse programs. *Canadian Family Physician*. 54:1000.e1-7. Accessed Mar 1, 2024 from: <https://www.cfp.ca/content/cfp/54/7/1000.full.pdf>.
- Joly, T. L., & Westman, C. N. (2017). Taking research off the shelf: Impacts, benefits, and participatory processes around the oil sands industry in northern Alberta. Saskatoon: University of Saskatchewan; Perkins, 2017.

- Kanate, D., Folk, D., Cirone, S., Gordon, J., Kirlew, M., Veale, T., Bocking, N., Rea, S., and Kelly, L. 2015. Community-wide measures of wellness in a remote First Nations community experiencing opioid dependence: Evaluation outpatient buprenorphine-naloxone substitution therapy in the context of a First Nations healing program. *Canadian Family Physician*. 61(2) 160-165. Accessed March 1, 2024 from: <https://www.cfp.ca/content/cfp/61/2/160.full.pdf>.
- Karam, M. (2016). Trafficking in persons in Canada, 2014. Statistics Canada, Canadian Centre for Justice Statistics. Catalogue no. 85-002-X.
- Katzmarzyk, P.T. (2008). Obesity and Physical Activity Among Aboriginal Canadians. *Epidemiology*, 16, 184-190. DOI: [10.1038/oby.2007.51](https://doi.org/10.1038/oby.2007.51)
- Kenny, K.S., Wall-Wieler, E., Frank, K., Courchene, L., Burton, M., Dreaver, C., Champagne, M., Bennett, M., Rocke, C., Brownwell, M., Anderson, M., & Urquia, M.L. (2024). Infant rates of child protective services contact and termination of parental rights by First Nations status from 1998 to 2019: An example of intergenerational transmission of colonial harm. *Child Abuse & Neglect*, 154, 106760. <https://doi.org/10.1016/j.chiabu.2024.106760>.
- Kielland, N., & Simeone, T. (2014). Current issues in mental health in Canada: The mental health of First Nations and Inuit Communities. Publication No. 2014-02-E. *Legal and Social Affairs Division. Parliamentary Information and Research Service, Ottawa ON*. Available: [https://publications.gc.ca/collections/collection\\_2014/bdp-lop/eb/2014-02-eng.pdf](https://publications.gc.ca/collections/collection_2014/bdp-lop/eb/2014-02-eng.pdf).
- Kim, P.J. 2019. Social determinants of health inequalities in Indigenous Canadians through a life course approach to colonialism and the residential school system. *Health Equity*. 3(1):378-381. Accessed March 13, 2024 from: <https://www.liebertpub.com/doi/epdf/10.1089/heq.2019.0041>.
- Kirmayer, L.J., Brass, G.M., Holton, T., Paul, K., Simpson, C., & Tait, C. (2007). Suicide Among Aboriginal People in Canada. Kirmayer LJ, Brass GM, Holton T, Paul K, Simpson C, Tait C.
- Kolahdooz, F., Nader, F., Yi, K.J., & Sharma, S. (2015). Understanding the social determinants of health among Indigenous Canadians: Priorities for health promotion policies and actions. *Global Health Action*, 8, 27968. DOI: 10.3402/gha.v8.27968
- Korpal, D., & Wong, A.K. (2015). Education and the Health of the First Nations People of Canada. *AlterNative: An International Journal of Indigenous Peoples*, 11, 132 - 146.
- Kovesi, T., Mallach, G., Schreiber, Y., McKay, M., Lawlor, G., Barrowman, N., ... & Miller, J. D. (2022). Housing conditions and respiratory morbidity in Indigenous children in remote communities in Northwestern Ontario, Canada. *Cmaj*, 194(3), E80-E88.
- Lambden, J., Receveur, O., Marshall, J., and Kuhnlein, H. V. (2006). Traditional and Market Food Access in Arctic Canada is Affected by Economic Factors. *International Journal of Circumpolar Health*, 65 (4): 331–340.
- Laszlo, H. E., McRobie, E. S., Stansfeld, S. A., & Hansell, A. L. (2012). Annoyance and other reaction measures to changes in noise exposure—A review. *Science of the total environment*, 435, 551-562.
- Lavalley, J., Kastor, S., Valleriani, J., and McNeil, R. 2018. Reconciliation and Canada’s overdose crisis: responding to the needs of Indigenous Peoples. *Canadian Medical Association Journal*, 190(50), E1466-7. Doi: 10.1503/cmaj.181093. Accessed March 1, 2024 from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6291395/pdf/190e1466.pdf>.

- Liard Aboriginal Women's Society. (2021). *Never Until Now: Indigenous and Racialized Women's Experiences Working in Yukon and Northern British Columbia Mine Camps*. Available: [https://emrlibrary.gov.yk.ca/ebooks/Never\\_until\\_now\\_indigenous\\_racialized\\_womens\\_experiences\\_working\\_in\\_yukon\\_northern\\_british\\_columbia\\_mine\\_camps\\_Aug2021.pdf](https://emrlibrary.gov.yk.ca/ebooks/Never_until_now_indigenous_racialized_womens_experiences_working_in_yukon_northern_british_columbia_mine_camps_Aug2021.pdf)
- Likhar, A., Baghel, P., & Patil, M. (2022). Early Childhood Development and Social Determinants. *Cureus*, 14(9), e29500. <https://doi.org/10.7759/cureus.29500>
- Loppie, C., & Wien, F. (2022). Understanding Indigenous health inequalities through a social determinants model. National Collaborating Centre for Indigenous Health. Available: [https://www.nccih.ca/Publications/Lists/Publications/Attachments/10373/Health\\_Inequalities\\_EN\\_Web\\_2022-04-26.pdf](https://www.nccih.ca/Publications/Lists/Publications/Attachments/10373/Health_Inequalities_EN_Web_2022-04-26.pdf)
- Lyeo, J.S., Wong, M.D., Clyke, N., Canoe, B.B., Kinnear, P., Stopps, H., Spence, N.D., Haines, S.R. (2024). Ten questions concerning First Nations on-reserve housing in Canada. *Building and Environment*, 257, 111544.
- MacDonald, C., & Steenbeck, A. (2015). The Impact of Colonization and Western Assimilation on Health and Wellbeing of Canadian Aboriginal People, *International Journal of Regional and Local History*, 10:1, 32-46, DOI:10.1179/2051453015Z.00000000023
- Makinde, O., Björkqvist, K., & Österman, K. (2016). Overcrowding as a risk factor for domestic violence and antisocial behaviour among adolescents in Ejigbo, Lagos, Nigeria. *Global Mental Health*, 3, e16-e16.
- Malli, A., Monteith, H., Hiscock, E.C. et al. (2023). Impacts of colonization on Indigenous food systems in Canada and the United States: a scoping review. *BMC Public Health* 23, 2105. <https://doi.org/10.1186/s12889-023-16997-7>.
- Mamakwa, S., Kahan, M., Kanate, D., Kirlew, M., Fold, D., Cirone, S., Rea, S., Parsons, P., Edwards, C., Gordon, J., Main, F., and Kelly, L. (2017). Evaluation of 6 remote First Nations community-based buprenorphine programs in Northwestern Ontario. *Canadian Family Physician*, 63(2), 137-145. Accessed March 1, 2024 from: <https://www.cfp.ca/content/cfp/63/2/137.full.pdf>.
- Manca, A. R. (2014). Social cohesion. *Encyclopedia of quality of life and well-being research*, 6026-6028.
- Marchildon, G.P., Lavoie, J.G., & Harrold, H.J. (2021). Typology of Indigenous health system governance in Canada. *Canadian Public Health Administration*, 64(4), 561-586.
- McIntosh, C.N., Finés, P., Wilkins, R., & Wolfson, M.C. (2009). Income disparities in health-adjusted life expectancy for Canadian adults, 1991 to 2001. *Statistics Canada*. Component of Statistics Canada Catalogue no. 82-003-X.
- Mckinley, C. E., Liddell, J., & Lilly, J. (2021). All work and no play: Indigenous women “pulling the weight” in home life. *Social Service Review*, 95(2), 278-311.
- McLeod, L.C., & Veall, M.R. (2006). The dynamics of food insecurity and overall health: evidence from the Canadian National Population Health Survey. *Applied Economics*, 38, 2131 - 2146.
- McMahon, R. (2024). Ontario first nations sue the federal government over alleged deadly underfunding of fire protection on reserves. *Indigenous Watchdog*.
- McMahon, R. & Cribb, R. (2024). Ontario first nations sue the federal government over alleged deadly underfunding of fire protection on reserves. *Investigative Journalism Bureau, Dalla Lana School of Public Health Sciences, University of Toronto*. Available:

- <https://ijb.utoronto.ca/news/ontario-first-nations-sue-the-federal-government-over-alleged-deadly-underfunding-of-fire-protection-on-reserves/>
- McNally, M., & Martin, D. (2017). First Nations, Inuit and Metis health: Considerations for Canadian health leaders in the wake of the Truth and Reconciliation Commission of Canada report. *Reflections on Healthcare Leadership Ethics*, 30(20), 117-122.
- Middleton, J., Cunsolo, A., Jones-Bitton, A., Wright, C. J., & Harper, S. L. (2020). Indigenous mental health in a changing climate: A systematic scoping review of the global literature. *Environmental Research Letters*, 15(5), 053001. <https://doi.org/10.1088/1748-9326/ab68a9>
- Mignone, J., & O’Neil, J. (2005). Social Capital and Youth Suicide Risk Factors in First Nations Communities. *Canadian Journal of Public Health / Revue Canadienne de Sante’e Publique*, 96, S51–S54. <http://www.jstor.org/stable/41994450>
- Mikkonen, J., & Raphael, D. (2013). Social Determinants of Health: A Quick Guide for Health Professionals 1.
- Milne, E. (2017). Implementing Indigenous education policy directives in Ontario public schools: Experiences, challenges and successful practices. *The International Indigenous Policy Journal*, 8(3), 1-20. DOI: 10.18584/iipj.2017.8.3.2
- Ministry of Children, Community and Social Services. (2021a). Early Child Development. *Government of Ontario*. Accessed March 18, 2024 from: <https://ontario.ca/page/early-child-development>.
- Ministry of Children, Community and Social Services. (2021b). Pathways to safety: Ontario’s strategy in response to the Final Report of the National Inquiry into Missing and Murdered Indigenous Women and Girls. Available: <https://www.ontario.ca/page/pathways-safety-ontarios-strategy-response-final-report-national-inquiry-missing-and-murdered>
- Ministry of Children, Community and Social Services. (n.d.). Women’s social and economic opportunity. Accessed April 25, 2025. Available: <https://www.ontario.ca/page/womens-social-and-economic-opportunity>
- Ministry of the Environment, Conservation and Parks (MECP). (2024). Guide to Eating Ontario Fish. Updated June 24, 2024 from: <https://www.ontario.ca/page/guide-eating-ontario-fish>
- Ministry of Public Safety and Solicitor General. (2019). Report in response to Forsaken: The report of the Missing Women Commission of Inquiry – 2019 status update. Government of British Columbia.
- Ministry of Transport. (2016). Contribution of transport to economic development. Economic development and transport project. Summary report. Available: <https://www.transport.govt.nz/assets/Uploads/Report/edt-Contribution-of-transport-to-economic-development.pdf>
- Monteiro, C.A., Cannon, G., Moubarac, J.C., Levy, R.B., Louzada, M.L.C., & Jaime, P.C. (2017). The UN Decade of Nutrition, the NOVA food classification and the trouble with ultra-processing. *Public Health Nutrition*, 21(1), 5-17.
- Moody, C & Onysko, R. 2007. <https://winnipeg.sun.com/news/provincial/indigenous-infants-in-manitoba-have-exceptionally-high-cfs-contact-study>. Ontario Association of Children’s Aid Societies Journal, 51 (2): 17-23.

- Muirhead, V., Quiñonez, C., Figueiredo, R., and Locker, D. (2009). Oral health disparities and food insecurity in working poor Canadians. *Community Dentistry and Oral Epidemiology*, 37(4), 294-304. <https://doi.org/10.1111/j.1600-0528.2009.00479.x>.
- Myette, E., & Riva, M. (2021). Surveying the complex social-ecological pathways between resource extraction and Indigenous Peoples' health in Canada: A scoping review with a realist perspective. *The Extractive Industries and Society*, 8(2), 100901.
- Nadybal, S., Collins, T., & Grineski, S. (2020). Light pollution inequities in the continental United States: A distributive environmental justice analysis. *Environmental Research*. <https://doi.org/10.1016/j.envres.2020.109959>
- National Centre for Truth and Reconciliation (NCTR). (n.d.a). Residential School History. Retrieved December 4, 2023. Available: <https://nctr.ca/education/teaching-resources/residential-school-history/>
- National Centre for Truth and Reconciliation (NCTR). (n.d.b). St. Anne's (Fort Albany). Available: <https://nctr.ca/residential-schools/ontario/st-annes-fort-albany/>
- National Collaborating Centre for Aboriginal Health (2017b). Employment as a social determinant of First Nations, Inuit and Métis health. Prince George, BC: National Collaborating Centre for Aboriginal Health. Available: <https://www.ccsa-nccah.ca/docs/determinants/FS-Employment-SDOH-2017-EN.pdf>
- National Collaborating Centre for Aboriginal Health (NCCAH) (2017a). Education as a social determinant of First Nations, Inuit and Métis Health. Prince George, BC: National Collaborating Centre for Aboriginal Health. Available: <https://www.ccsa-nccah.ca/docs/determinants/FS-Education-SDOH-2017-EN.pdf>
- National Collaborating Centre for Indigenous Health (NCCIH). (2014). Indigenous Experiences with Racism and its Impacts. Prince George, BC: Author. ISBN: 978-1-988426-95-2. Available at: <https://www.nccih.ca/docs/determinants/FS-Racism2-Racism-Impacts-EN.pdf>
- National Collaborating Centre for Indigenous Health (NCCIH). (2022). Climate Change and Indigenous Peoples' Health in Canada. In P. Berry & R. Schnitter (Eds.), *Health of Canadians in a Changing Climate: Advancing our Knowledge for Action*. Ottawa, ON: Government of Canada.
- National Inquiry into Missing and Murdered Indigenous Women and Girls. (2019). *Reclaiming Power and Place: The final report of the National Inquiry into Missing and Murdered Indigenous Women and Girls, Volume 1a*. Available: <https://www.mmiwg-ffada.ca/final-report/>
- National Research Council (2011). *A Framework and Guidance for Health Impact Assessment. Improving Health in the United States: The Role of Health Impact Assessment*. Available: <https://www.nationalacademies.org/our-work/a-framework-and-guidance-for-health-impact-assessment>
- Native Women's Association of Canada (NWAC) (2020). *Indigenous Women and Impact Assessment - Final Report*. Available: <https://www.nwac.ca/assets-knowledge-centre/NWAC-Impact-Assessment-Final-Report-ENG-2020.pdf> [Accessed September 12, 2024].
- Nelson, S.E., & Wilson, K. (2017). The mental health of Indigenous peoples in Canada: A critical review of research. *Social Science & Medicine*, 176, 93-122.
- Nguyen, P., Srivastava, P., Ye, L. & Boymal, J. (2022). Housing and occupant health: Findings from Vietnam. *Social Indicators Research*. 164. 10.1007/s11205-022-02983-w.

- NIAAA (National Institute on Alcohol Abuse and Alcoholism). (2003). State of the science report on the effects of moderate drinking. Washington, DC: Author; National Institutes of Health, Department of Health and Human Services. [As cited in Reading & Halseth, 2013]
- The Nyéléni 2007 International Steering Committee. Nyéléni 2007: forum for food sovereignty. Sélingué, Mali; 2007. [https://nyeleni.org/DOWNLOADS/Nyeleni\\_EN.pdf](https://nyeleni.org/DOWNLOADS/Nyeleni_EN.pdf)
- Noon, K., & De Napoli, K. (2022). *Astronomy: Sky country*. Thames & Hudson Australia.
- Office of the Provincial Health Officer. (2009). Pathways to health and healing: 2nd report on the health and well-being of Aboriginal people in British Columbia – Provincial Health Officer’s Annual Report 2007. Victoria, BC: Province of British Columbia, Ministry of Healthy Living and Sport.
- Öhrström, E. (2004). Longitudinal surveys on effects of changes in road traffic noise—annoyance, activity disturbances, and psycho-social well-being. *The Journal of the Acoustical Society of America*, 115(2), 719-729.
- Öhrström, E., Skånberg, A., Svensson, H., & Gidlöf-Gunnarsson, A. (2006). Effects of road traffic noise and the benefit of access to quietness. *Journal of sound and vibration*, 295(1-2), 40-59.
- Ontario Native Women’s Association. (2018). Indigenous women, intimate partner violence and housing. Available: [http://www.vawlearningnetwork.ca/our-work/issuebased\\_newsletters/Issue-25/Issue\\_25.pdf](http://www.vawlearningnetwork.ca/our-work/issuebased_newsletters/Issue-25/Issue_25.pdf)
- Oster, R., Grier, A., Lightning, R., Mayan, M., & Toth, E. (2014). Cultural continuity, traditional Indigenous language, and diabetes in Alberta First Nations: a mixed methods study. *International Journal for Equity in Health*. 13:92.
- Parian, A. M., & Mullin, G. E. (2016). Fish consumption and health: the yin and yang. *Nutrition in Clinical Practice*, 31(4), 562-565.
- Peiris, D., Brown, A., & Cass, A. (2008). Addressing inequities in access to quality health care for indigenous people. *Canadian Medical Association Journal*, 179(10), 985-986. doi:10.1503/cmaj.081445
- PHO (Public Health Ontario). (2019). CCO and Ontario Agency for Health Protection and Promotion (Public Health Ontario). The burden of chronic diseases in Ontario: key estimates to support efforts in prevention. Toronto: Queen’s Printer for Ontario; 2019. Available: [https://www.publichealthontario.ca/-/media/documents/c/2019/cdburden-report.pdf?sc\\_lang=en](https://www.publichealthontario.ca/-/media/documents/c/2019/cdburden-report.pdf?sc_lang=en)
- PHO (Public Health Ontario). (2023). Household Food Insecurity in Ontario. 4 April 2023. Available at: <https://www.publichealthontario.ca/en/About/News/2023/04/Household-Food-Insecurity-Ontario#:~:text=Latest%20estimates%20from%20PROOF%20show,a%20problem%20rooted%20in%20income>.
- Public Health Agency of Canada (PHAC). (2020). The Chief Public Health Officer of Canada’s Report on the State of Public Health in Canada 2020 - From Risk to Resilience: An Equity Approach to COVID-19. Available: <https://www.canada.ca/content/dam/phac-aspc/documents/corporate/publications/chief-public-health-officer-reports-state-public-health-canada/from-risk-resilience-equity-approach-covid-19/cpho-covid-report-eng.pdf>
- Public Health Agency of Canada and the Canadian Institute for Health Information. (2011). Obesity in Canada. Accessed April 10, 2024 from: <https://www.canada.ca/content/dam/phac-aspc/migration/phac-aspc/hp-ps/hl-mvs/oic-oac/assets/pdf/oic-oac-eng.pdf>.

- Public Health Agency of Canada. (2010). What determines health? Date Modified May 18, 2010. Retrieved from <http://www.phac-aspc.gc.ca/ph-sp/determinants/index-eng.php>
- Public Health Agency of Canada. (2013). The Chief Public Health Officer's Report on the State of Public Health in Canada, 2013: Infectious Disease—The Never-ending Threat. *Government of Canada*. Accessed: <http://publichealth.gc.ca/CPHOREport>.
- Public Safety Canada. (2020). Addressing gendered violence against Inuit women: A review of police policies and practices in Inuit Nunangat. Government of Canada. Retrieved June 14, 2021 from <https://www.publicsafety.gc.ca/cnt/rsrscs/pblctns/rvw-plc-prctcs-pauk/index-en.aspx>
- Quinn, A., Fallon, B., Joh-Carnella, N., & Saint-Girons, M. (2022). The overrepresentation of First Nations children in the Ontario child welfare system: A call for systemic change, *Children and Youth Services Review*, Volume 139, 2022, 106558, ISSN 0190-7409, <https://doi.org/10.1016/j.childyouth.2022.106558>.
- Raghupathi, V., & Raghupathi, W. (2020). The influence of education on health: an empirical assessment of OECD countries for the period 1995–2015. <https://doi.org/10.1186/s13690-020-00402-5>
- Raphael, D. (2016). *Social determinants of health Canadian perspectives*. Toronto: Canadian Scholars Press.
- Raphael, D., Bryant, T., Mikkonen, J., & Raphael, A. (2020). *Social Determinants of Health: The Canadian Facts*. Oshawa: Ontario Tech University Faculty of Health Sciences and Toronto: York University School of Health Policy and Management. Accessed: <http://www.thecanadianfacts.org/>.
- Reading, C.L., & Wien, F. (2009). *Health inequalities and social determinants of Aboriginal Peoples' health*. Prince George, BC: National Collaborating Centre for Aboriginal Health. Available: <https://www.cnsa-nccah.ca/docs/determinants/RPT-HealthInequalities-Reading-Wien-EN.pdf>
- Reading, D. J., & Halseth, R. (2013). *Pathways to Improving Well-being for Indigenous Peoples: How living conditions decide health*. Prince George, BC: National Collaborating Centre for Aboriginal Health. Available at: <https://www.nccih.ca/docs/determinants/RPT-PathwaysWellBeing-Reading-Halseth-EN.pdf>
- Retallack, A. E., & Ostendorf, B. (2019). Current Understanding of the Effects of Congestion on Traffic Accidents. *International journal of environmental research and public health*, 16(18), 3400. <https://doi.org/10.3390/ijerph16183400>
- Rheault, D. (1999). *Anishinaabe Mino-Bimaadiziwin the Way of a Good Life*. Available: <http://eaglefeather.org/series/Native%20American%20Series/Anishinaabe%20Tradition%20D%27Arcy%20Rheault.pdf>
- Robidoux, M. A., Batal, M., Imbeault, P., Seabert, T., Blais, J. M., Pal, S., ... & Haman, F. (2012). Traditional foodways in two contemporary northern First Nations communities. *The Canadian Journal of Native Studies*, 32(1), 59.
- Rocchetta, M.J. (2019). A critical examination of the factors that influence school performance of Indigenous students in Northern Ontario. *Interrogating Models of Diversity within a Multicultural Environment*. Accessed abstract online March 15, 2024 from: [https://link.springer.com/chapter/10.1007/978-3-030-03913-4\\_2](https://link.springer.com/chapter/10.1007/978-3-030-03913-4_2)
- Ross, C. L., Orenstein, M. and Botchwey, N. (2014). *Health Impact Assessment in the United States* (New York: Springer, 2014). Available: <https://doi.org/10.1007/978-1-4614-7303-9>

- Salerno, T., Tam, J., Page, J., Gosling, S. and Firelight Research Inc. (2021). Indigenous Mental Wellness and Major Project Development: Guidance for Impact Assessment Professionals and Indigenous Communities. Prepared for the Impact Assessment Agency of Canada. Available: <https://www.canada.ca/content/dam/iaac-acei/documents/research/indigenous-mental-wellness-and-ia-en.pdf> [Accessed September 11, 2024].
- San Francisco Department of Public Health (2019). Children’s Environmental Health Promotion Program, Population Health Division, and the Maternal, Child & Adolescent Health Section, San Francisco Health Network. Available: [https://www.sfdph.org/dph/files/EHSdocs/ehsCEHPdocs/Housing\\_Insecurity\\_SFDPH\\_Report.pdf](https://www.sfdph.org/dph/files/EHSdocs/ehsCEHPdocs/Housing_Insecurity_SFDPH_Report.pdf) Accessed: September 10, 2024.
- Schollen & Company Inc. (2024). Webequie Supply Road – Visual Impact Assessment. Webequie First Nation. Prepared for AtkinsRéalis. Project No: 2021055. June 2024.
- Settee, P., Shukla, S., editors. Indigenous food systems: concepts, cases, and conversations. Toronto: Canadian Scholars; 2020. ISBN: 9781773381091.
- Seven Generations Education Institute. (2009). Anishinaabe Mino Bimaadizwin – Principles for Anishinaabe Education. Available: <https://www.renaud.ca/public/Aboriginal/Mino-Bimaadizwin-Principles-for-Education.pdf>
- Shapiro, G. D., Sheppard, A. J., Mashford-Pringle, A., Bushnik, T., Kramer, M. S., Kaufman, J. S., & Yang, S. (2021). Housing conditions and adverse birth outcomes among Indigenous people in Canada. *Canadian Journal of Public Health*, 112(5), 903-911.
- Shaw, M. (2004). ‘Housing and Public Health’. *Annual Reviews Public Health*, 25, 397–418. <https://doi.org/10.1146/annurev.publhealth.25.101802.123036>
- Shewaybick (2017). Webequie youth taking action against suicides. *Wawatay News*. Available: <https://wawataynews.ca/community/webequie-youth-taking-action-against-suicides> [Last accessed Aug 2, 2024]
- Singh, B., & Kiran, U.V. (2014). Recreational activities for senior citizens. *IOSR Journal of Humanities And Social Science (IOSR-JHSS)*, 19 (4), 24-30. Retrieved Feb 28, 2024 from: [https://d1wqtxts1xzle7.cloudfront.net/67183001/Recreational\\_Activities\\_for\\_Senior\\_Citiz20210505-19605-v0of8f.pdf?1620230479=&response-content-disposition=inline%3B+filename%3DRecreational\\_Activities\\_for\\_Senior\\_Citiz.pdf&Expires=1709062782&Signature=HiLf~SkoaCmSaQkAv9p5qwdHiSG8L-EXkRMh34578aDoNUpvLtCeuhjajFc8DVg1QEklxrc7xDrXQPkFndXwAFQnnQKioxwqwGOE-U2X88iXQM5w40-6Y--cKTPpy6rSNLw4Gs5ZMml0txwOIF9sCcfyKAVbuS6hJbile4S3qqhekXDgH0iSMwjHG4ZcKaelRrIGCpsxHg0ESKjU95HL3sAfkRzTMHSRI~53naduOqmAi1BRruT0Z68EcwdJ6ZnUnvhq5k8R5w6oESG5ADnZLSUiwsOAURWDHenix~R0a2W9QFRFN3S21ZihaKvp7~gQRaNkOqvKqZHteSQsSA\\_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA](https://d1wqtxts1xzle7.cloudfront.net/67183001/Recreational_Activities_for_Senior_Citiz20210505-19605-v0of8f.pdf?1620230479=&response-content-disposition=inline%3B+filename%3DRecreational_Activities_for_Senior_Citiz.pdf&Expires=1709062782&Signature=HiLf~SkoaCmSaQkAv9p5qwdHiSG8L-EXkRMh34578aDoNUpvLtCeuhjajFc8DVg1QEklxrc7xDrXQPkFndXwAFQnnQKioxwqwGOE-U2X88iXQM5w40-6Y--cKTPpy6rSNLw4Gs5ZMml0txwOIF9sCcfyKAVbuS6hJbile4S3qqhekXDgH0iSMwjHG4ZcKaelRrIGCpsxHg0ESKjU95HL3sAfkRzTMHSRI~53naduOqmAi1BRruT0Z68EcwdJ6ZnUnvhq5k8R5w6oESG5ADnZLSUiwsOAURWDHenix~R0a2W9QFRFN3S21ZihaKvp7~gQRaNkOqvKqZHteSQsSA_&Key-Pair-Id=APKAJLOHF5GGSLRBV4ZA).
- Skinner, K., Hanning, R.M, & Tsuji, L.J.S. (2005). Barriers and Supports for Healthy eating and physical activity for First Nations Youths in Northern Canada. *International Journal of Circumpolar Health*, 65(2), 148-161. Accessed Feb 28, 2024 from: [Barriers and supports for healthy eating and physical activity for first nation youths in northern Canada \(tandfonline.com\)](https://www.tandfonline.com)

- SLR Consulting (Canada) Ltd. (2024). Noise and Vibration Technical Report: Existing Conditions and Impact Assessment. Webequie Supply Road Environmental Assessment. Webequie First Nation. SLR Project No.: 241.V20141.00000. June 21, 2024.
- Smye, V.; Browne, A.J.; Josewski, V.; Keith, B.; Mussell, W. Social Suffering: Indigenous Peoples' Experiences of Accessing Mental Health and Substance Use Services. *Int. J. Environ. Res. Public Health* 2023, 20, 3288. <https://doi.org/10.3390/ijerph20043288>
- Smylie, J., Fell, D., Ohlsson, A., & The Joint Working Group on First Nations, Indian, Inuit, and Métis Infant Mortality of the Canadian Perinatal Surveillance System. (2010). A Review of Aboriginal Infant Mortality Rates in Canada: Striking and Persistent Aboriginal/Non-Aboriginal Inequities. *Can J Public Health*, 101(2), 143-148. DOI: 10.1007/BF03404361.
- SNC-Lavalin Inc. (2022a). Transcripts from Interviews and Focus Groups with Webequie Knowledge Holders.
- SNC-Lavalin Inc. (2022b). Webequie Supply Road Webequie First Nation Socio-Economic Survey.
- SNC-Lavalin Inc. (2022c). Webequie Supply Road Webequie First Nation Country Foods Consumption and Use Survey.
- SNC-Lavalin Inc. (2023). Webequie First Nation Supply Road Draft Socio-Economic Existing Conditions Report. August 15, 2023.
- Snook, J., Cunsolo, A., Borish, D., Furgal, C., Ford, J.D., Shiwak, I., et al. We're made criminals just to eat off the land: colonial wildlife management and repercussions on Inuit well-being. *Sustainability*. 2020;12: 8177. <https://doi.org/10.3390/su12198177>
- Snowshoe, A., Crooks, C. V., Tremblay, P. F., Craig, W. M., & Hinson, R. E. (2015). Development of a Cultural Connectedness Scale for First Nations youth. *Psychological assessment*, 27(1), 249–259. <https://doi.org/10.1037/a0037867>
- Solomon, E. M., Wing, H., Steiner, J. F., & Gottlieb, L. M. (2020). Impact of Transportation Interventions on Health Care Outcomes: A Systematic Review. *Medical Care*, 58(4), 384–391. <https://doi.org/10.1097/MLR.0000000000001292>
- Song, Y., Gee, G.C., Fan, Y., Takeuchi, D.T. (2007). Do physical neighborhood characteristics matter in predicting traffic stress and health outcomes? *Transp. Res. Part F Traffic Psychol. Behav.* 10, 164–176. doi:10.1016/j.trf.2006.09.001
- Speaker of the House of Commons. (2016). Declaration of Health Emergency by First Nations Communities in Northern Ontario. Report of the Standing Committee on Indigenous and Northern Affairs. Available: [www.ourcommons.ca/Content/Committee/421/INAN/Reports/RP8279761/inanrp03/inanrp03-e.pdf](http://www.ourcommons.ca/Content/Committee/421/INAN/Reports/RP8279761/inanrp03/inanrp03-e.pdf) [Accessed Aug 2, 2024].
- Stansfeld, S. A., Marmot, M., & Wilkinson, R. (2006). Social support and social cohesion. *Social determinants of health*, 2, 148-71.
- Starbird, L. E., DiMaina, C., Sun, C.-A., & Han, H.-R. (2019). A Systematic Review of Interventions to Minimize Transportation Barriers Among People with Chronic Diseases. *Journal of Community Health*, 44(2), 400–411. <https://doi.org/10.1007/s10900-018-0572-3>

- Stark, K. (2021). Anishinaabe Inaakonigewin: Principles for the Intergenerational Preservation of Mino-Bimaadiziwin. *Montana Law Review*. Volume 82. Issue 2. Available: <https://scholarworks.umt.edu/cgi/viewcontent.cgi?article=2483&context=mlr>
- Statistics Canada. (2016). Community Well-being Index Map. Available at: <https://www.sac-isc.gc.ca/SAC-ISC/CWB/index-map-en.html>
- Statistics Canada. (2017a). 2016 Census of Population. Available: <https://www12.statcan.gc.ca/census-recensement/2016/dp-pd/index-eng.cfm>
- Statistics Canada. (2021a). Census Profile, 2021 Census of Population. Available: <https://www12.statcan.gc.ca/census-recensement/2021/dp-pd/prof/details/page.cfm?Lang=E&SearchText=canada&GENDERlist=1,2,3&STATISTIClist=1&DGUIDlist=2021A000259>
- Statistics Canada. (2021b). Health Reports - Mortality among First Nations people, 2006 to 2016. Canadian Census Health and Environment Cohort, 10-year (2006 to 2016) mortality follow-up period. Catalogue no. 82-003-X, ISSN 1209-1367. Available: <https://www150.statcan.gc.ca/n1/pub/82-003-x/2021010/article/00001-eng.htm#>
- Statistics Canada. (2022). *Highest level of education by census year, visible minority and generation status: Canada, provinces and territories, census metropolitan areas and census agglomerations*. Government of Canada. Accessed March 13, 2024 from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810042901&pickMembers%5B0%5D=1.54&pickMembers%5B1%5D=6.1&pickMembers%5B2%5D=5.1&pickMembers%5B3%5D=4.1&pickMembers%5B4%5D=3.15&pickMembers%5B5%5D=2.1>
- Statistics Canada. (2022). Housing Experiences in Canada: Persons with disabilities by Zach Thurston and Jeff Randle Release date: June 10, 2022. Available at : chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/<https://www150.statcan.gc.ca/n1/en/pub/46-28-0001/2021001/article/00011-eng.pdf?st=A81u7yyu>.
- Statistics Canada. (2022c). Violent victimization and perceptions of safety: Experiences of First Nations, Métis and Inuit women in Canada. by Loanna Heidinger Release date: April 26, 2022. Catalogue no. 85-002-X ISSN 1209-6393. Available: <https://www150.statcan.gc.ca/n1/pub/85-002-x/2022001/article/00004-eng.htm>
- Statistics Canada. (2023). Dictionary, Census of Population, 2021 Low-income measure, after tax (LIM-AT). Available: <https://www12.statcan.gc.ca/census-recensement/2021/ref/dict/az/Definition-eng.cfm?ID=fam021>
- Statistics Canada. (2023). *Highest level of education by census year, Indigenous identity and Registered Indian status: Canada, provinces and territories*. Government of Canada. Accessed March 13, 2024 from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810041301&pickMembers%5B0%5D=1.7&pickMembers%5B1%5D=6.1&pickMembers%5B2%5D=5.1&pickMembers%5B3%5D=4.1&pickMembers%5B4%5D=3.2&pickMembers%5B5%5D=2.1>
- Statistics Canada. 2022. Income statistics by Indigenous identity and residence by Indigenous geography: Canada, provinces and territories. Accessed March 13, 2024 from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=9810028101&pickMembers%5B0%5D=1.7&pickMembers%5B1%5D=2.1&pickMembers%5B2%5D=3.2&pickMembers%5B3%5D=4.1&pickMembers%5B4%5D=5.1&pickMembers%5B5%5D=6.1>

- Statistics Canada. 2023. Income of individuals by age group, sex and income source, Canada, provinces and selected census metropolitan areas. Accessed March 13, 2024 from: <https://www150.statcan.gc.ca/t1/tbl1/en/tv.action?pid=1110023901&pickMembers%5B0%5D=1.8&pickMembers%5B1%5D=2.1&pickMembers%5B2%5D=3.1&pickMembers%5B3%5D=4.1&cubeTimeFrame.startYear=2021&cubeTimeFrame.endYear=2021&referencePeriods=20210101%2C20210101>.
- Statistics Canada. 2023b. Primary health care access among First Nations people living off reserve, Métis and Inuit, 2017 to 2020. by Kelsang Yangzom, Huda Masoud and Tara Hahmann Release date: October 6, 2023. Catalogue no. 41-20-0002 ISBN 978-0-660-67619-7. Available: <https://www150.statcan.gc.ca/n1/pub/41-20-0002/412000022023005-eng.htm>
- Stevenson, W. (2011). Colonialism and First Nations Women in Canada. In M. Cannon & L. Sunseri (Eds.), *Racism, colonialism, and indigeneity in Canada: A reader* (pp. 44-56). Don Mills, ON: Oxford University Press.
- Street, G., James, R., & Cutt, H. (2007). The relationship between organised physical recreation and mental health. *Health Promotion Journal of Australia*, 18(3), 236-239. Accessed February 28, 2024 from: <https://onlinelibrary.wiley.com/doi/epdf/10.1071/HE07236>
- Su, C.L., Lee, C.J., & Shinger, H.S. (2014). Effects of involvement in recreational sports on physical and mental health, quality of life of the elderly. *The Anthropologist*, 17(1), 45-52. <https://doi.org/10.1080/09720073.2014.11891413>
- Suicide among Aboriginal people in Canada. *The Aboriginal Healing Foundation*. Accessed online April 10, 2024 from <https://gladue.usask.ca/sites/gladue1.usask.ca/files/gladue//resource473-2e15042f.pdf>.
- Suntai, Z., Won, C. R., & Noh, H. (2020). Access Barrier in Rural Older Adults' Use of Pain Management and Palliative Care Services: A Systematic Review. *American Journal of Hospice and Palliative Medicine*®, 1049909120959634. <https://doi.org/10.1177/1049909120959634>
- Syed, S. T., Gerber, B. S., & Sharp, L. K. (2013). Traveling Towards Disease: Transportation Barriers to Health Care Access. *Journal of Community Health*, 38(5), 976–993. <https://doi.org/10.1007/s10900-013-9681-1>
- Thomas, D. (2020). "Transforming relations: Anishnawbe Natural Law in the "Ring of Fire"". Theses and Dissertations (Comprehensive). 2303. Available: <https://scholars.wlu.ca/etd/2303>
- Thomas, L. V., Wedel, K. R., & Christopher, J. E. (2017). Access to Transportation and Health Care Visits for Medicaid Enrollees With Diabetes. *The Journal of Rural Health*, 34(2), 162–172. <https://doi.org/10.1111/jrh.12239>
- Thompson, N. (2021). Fire deaths 10 times more likely for residents of Ontario first nations: report. Toronto Star.
- TPH (Toronto Public Health). (2006). The Impacts of Traffic on Health. Board of Health report. Available: <http://www.toronto.ca/legdocs/2006/agendas/committees/hl/hl060410/it011.pdf>
- Truth and Reconciliation Commission of Canada. (2015). *Canada's residential schools: The final report of the Truth and Reconciliation Commission of Canada*. McGill-Queen's University Press.
- Tucker, A. (2016). *Media and the perpetuation of western bias: Deviations of ideality*. Institute for Community Prosperity, Mount Royal University.

- United Nations, n.d. The human right to adequate housing. Fact sheet from The Office of the High Commissioner for Human Rights. Available: <https://www.ohchr.org/en/special-procedures/sr-housing/human-right-adequate-housing>
- Urbanoski, K.A. 2017. Need for equity in treatment of substance use among Indigenous people in Canada. Canadian Medical Association Journal. 189(44): E1350-E1351. doi: [10.1503/cmaj.171002](https://doi.org/10.1503/cmaj.171002). Accessed March 1, 2024 from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5675540/>.
- US EPA (United States Environmental Protection Agency) (n.d.). Sources of Greenhouse Gas Emissions. Available: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>
- US EPA, n.d. Should I Be Concerned about Eating Fish and Shellfish? Available: <https://www.epa.gov/choose-fish-and-shellfish-wisely/should-i-be-concerned-about-eating-fish-and-shellfish>
- US EPA (2016). The Health Impact Assessment (HIA) Resource and Tool Compilation: A Comprehensive Toolkit for New and Experienced HIA Practitioners in the U.S. Available: [https://www.epa.gov/sites/default/files/2017-07/documents/hia\\_resource\\_and\\_tool\\_compilation.pdf](https://www.epa.gov/sites/default/files/2017-07/documents/hia_resource_and_tool_compilation.pdf)
- Vozoris, N. T., & Tarasuk, V. S. (2003). Household food insufficiency is associated with poorer health. The Journal of nutrition, 133(1), 120-126.
- Walker, J. D., Slater, M., Jones, C. R., Shah, B. R., Frymire, E., Khan, S., ... & Green, M. E. (2020). Diabetes prevalence, incidence and mortality in First Nations and other people in Ontario, 1995–2014: a population-based study using linked administrative data. Cmaj, 192(6), E128-E135.
- Webequie First Nation. (2014). Webequie First Nations Community Well-Being Baseline Study Summary. Summary Report 2 – June 2014.
- Webequie First Nation. (2021). Comprehensive Community Plan- Draft. January 2021. Internal Document Review.
- Webequie First Nation. (2023a). Webequie First Nation: Religion. Retrieved July 3, 2023. Available: <http://www.webequie.ca/article/religion-125.asp>
- Webequie First Nation. (2023b). Governance. Webequie First Nation. Retrieved June 23, 2023. Available: <http://www.webequie.ca/article/governance-130.asp>
- WHO (World Health Organization). (1999). Gothenburg consensus paper. Health Impact Assessment: main concepts and suggested approach, World Health Organization.
- WHO (World Health Organization). (2000). Transportation, Environment and Health. WHO Regional Publications, European Series, No. 89. Edited by Dora C and Phillips M. ISBN 92 890 1356 7. Available: [http://www.euro.who.int/\\_data/assets/pdf\\_file/0003/87573/E72015.pdf](http://www.euro.who.int/_data/assets/pdf_file/0003/87573/E72015.pdf)
- WHO (World Health Organization). (2009). Night noise guidelines for Europe. WHO Regional Office for Europe. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0017/43316/E92845.pdf](http://www.euro.who.int/_data/assets/pdf_file/0017/43316/E92845.pdf)
- WHO (World Health Organization). (2011). Burden of disease from environmental noise: Quantification of healthy life years lost in Europe. WHO Regional Office for Europe. [http://www.euro.who.int/\\_data/assets/pdf\\_file/0008/136466/e94888.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0008/136466/e94888.pdf?ua=1)
- WHO (World Health Organization). (2018a). Climate change and health. World health Organization. Available at: <http://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

- WHO (World Health Organization). (2023). Promoting Physical Activity for Older People: A toolkit for Action. 3. Licence: CC BY-NC-SA 3.0 IGO.
- WHO (World Health Organization). (1946). Preamble to the Constitution of WHO as adopted by the International Health Conference, New York, 19 June–22 July 1946; signed on 22 July 1946 by the representatives of 61 States (Official Records of WHO, no. 2, p. 100) and entered into force on 7 April 1948. <https://www.who.int/about/who-we-are/frequently-asked-questions>
- WHO (World Health Organization). (1986). The Ottawa Charter for Health Promotion. Available: [https://bp-net.ca/program/the-ottawa-charter-for-health-promotion/#:~:text=The%20Charter%20identifies%20five%20components,for%20Health%20Promotion%20\(PDF\).](https://bp-net.ca/program/the-ottawa-charter-for-health-promotion/#:~:text=The%20Charter%20identifies%20five%20components,for%20Health%20Promotion%20(PDF).)
- WHO (World Health Organization). (2006). Guidelines for safe recreational water environments. Volume 2 Swimming Pools And Similar Environments. Available: [https://iris.who.int/bitstream/handle/10665/43336/9241546808\\_eng.pdf](https://iris.who.int/bitstream/handle/10665/43336/9241546808_eng.pdf)
- Wilk, P., Maltby, A., & Cooke, M. (2017). Residential schools and the effects on Indigenous health and well-being in Canada—a scoping review. *Public Health Reviews* (2017) 38:8.
- Willows, N., Johnson-Down, L., Kenny, T.A., Chan, H.M., & Batal, M. (2019). Modelling optimal diets for quality and cost: examples from Inuit and First Nations communities in Canada. *Appl. Physiol. Nutr. Metab.*, 4, 696-703. <https://doi.org/10.1139/apnm-2018-0624>.
- Willows, N., Veugelers, P., Raine, K., & Kuhle, S. (2011). Associations between household food insecurity and health outcomes in the Aboriginal population (excluding reserves). *Health reports*, 22(2), 15.
- Willows, N.D., Hanley, A.J.G., & Delormier, T. (2012). A socioecological framework to understand weight-related issues in Aboriginal Children in Canada. *Applied Physiology, Nutrition, and Metabolism*, 37(1), 1-13. Accessed February 28, 2024 from: [A socioecological framework to understand weight-related issues in Aboriginal children in Canada \(cdnsciencepub.com\)](https://cdnsciencepub.com/doi/10.1139/apnm-2018-0624).
- Winkleby, M.A. (1992) Socioeconomic Status and Health: How Education, Income, and Occupation Contribute to Risk Factors for Cardiovascular Disease. *American Journal of Public Health* 82, no. 6: 816 –820
- Winnipeg Sun. 2024. Indigenous infants in Manitoba have exceptionally high CFS contact: study. Available online: <https://winnipegsun.com/news/provincial/indigenous-infants-in-manitoba-have-exceptionally-high-cfs-contact-study>.
- Women and Gender Equality Canada (WAGE). (2022). “What is Gender-based Analysis Plus?,” last modified June 16, 2022. Available: <https://women-gender-equality.canada.ca/en/gender-based-analysis-plus/what-gender-based-analysis-plus.html>
- Yen, I. H. and S. L. Syme. (1999). "The social environment and health: a discussion of the epidemiologic literature." *Annual Review of Public Health* 20(1): 287-308.