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Webequie Supply Road

Visual Environment Work Plan
Webequie First Nation

24 August 2020
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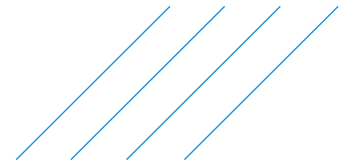


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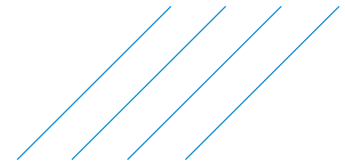


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1. Introduction

The proposed Webequie Supply Road Project is a new all-season road of approximately 107 km in length from Webequie First Nation to the mineral deposit area near McFaulds Lake (also referred to as the Ring of Fire). A Location Plan for the Project is shown on **Figure 1**. The preliminary proposed corridor for the road consists of a northwest-southeast segment running 51 km from Webequie First Nation to a 56 km segment running east before terminating near McFaulds Lake. A total of 17 km of the corridor is within Webequie First Nation Reserve lands.

The goals and objectives of the Webequie Supply Road Project are as follows:

- › To facilitate the movement of materials, supplies and people from the Webequie Airport to the area of existing mineral exploration activities and proposed mine developments in the McFaulds Lake area;
- › To provide employment and other economic development opportunities to WFN community members and businesses that reside in or around the community's reserve and traditional territory, while preserving their language and culture; and
- › To provide experience/training opportunities for youth to help encourage pursuit of additional skills through post-secondary education.

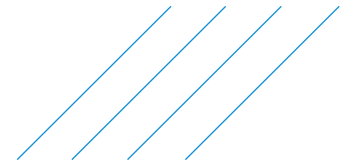
On May 3, 2018, the Ontario Minister of the Environment, Conservation and Parks (then Minister of the Environment and Climate Change) signed a voluntary agreement with Webequie First Nation to make the Webequie Supply Road Project subject to an Individual Environmental Assessment under Ontario's *Environmental Assessment Act*. The Project is also subject to meeting the requirements of the federal *Impact Assessment Act*. For the purposes of this work plan, the term "EA" is meant to include both the provincial environmental assessment and the federal impact assessment.

The Visual Environment Work Plan is being submitted to the Impact Assessment Agency of Canada (IAAC, the Agency) and the Ontario Ministry of the Environment, Conservation and Parks (MECP) requesting that a coordinated review be undertaken with the objective of providing Webequie with technical guidance in meeting the requirements of the federal Tailored Impact Statement Guidelines (TISG) and provincial Terms of Reference (ToR) for the Project, which is pending approval by Ontario. It should be noted that Ontario's review of the work plan is preliminary and secondary to any further review and decisions related to a final ToR.

1.1. Defining Spatial and Temporal Boundaries

1.1.1. Visual Aesthetics Spatial Boundaries

Spatial boundaries define the geographic extent within which the potential environmental effects of the Project are considered. As such, these spatial boundaries define the study areas for the effects assessment. Spatial boundaries to be established for the EA will vary depending on the valued component and will be considered separately for each. The spatial boundaries to be used in the EA will be refined and validated through input from federal and provincial government departments and ministries, Indigenous groups, the public and other interested parties. Spatial boundaries will be defined considering the appropriate scale and spatial extent of potential effects of the Project; community knowledge and Indigenous Knowledge; current or traditional land and resource use by Indigenous



communities; exercise of Aboriginal and Treaty rights of Indigenous peoples, including cultural and spiritual practices; and physical, ecological, technical, social, health, economic and cultural considerations. The Project Team will consult and engage with Indigenous communities and the public to determine the appropriate LSA and RSA as well as the spatial and temporal boundaries for the visual environment impact assessment.

At this stage in the EA process, the spatial boundaries for the EA will include the following three (3) study areas to capture the potential direct and indirect effects of the Project for each valued component:

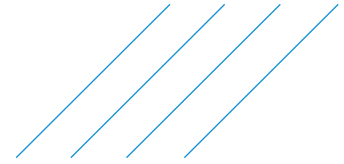
- › **Project Footprint (PF)** – Strictly speaking, these are the identified areas of direct disturbance (i.e., the physical area required for Project construction and operation). The PF is defined as the 35 m right-of-way (ROW) width for the WSR and temporary or permanent areas needed to support the Project, including laydown/storage yards, construction camps, access roads and aggregate extraction sites. For the purposes of the visual environment assessment, direct effects of the Project on the visual aesthetics criteria will be recorded and assessed from foreground (less than 1 km) viewing distances.
- › **Local Study Area (LSA)** - is identified as the area where most effects of the Project are likely to be measurable; therefore, along the PF, the LSA will be the focus of data collection to characterize existing environmental conditions. The LSA for most valued components will extend or buffer approximately 1 km from the supply road ROW boundary, and 500 metres (m) from the temporary or permanent supportive infrastructure. For the purposes of the visual environment assessment, local direct and indirect effects of the Project on the visual aesthetics criteria will be recorded and assessed from both foreground and middle-ground (1-5 km) viewing distances. These distances are measured from the ROW boundary, not the centreline of the ROW, to ensure the LSA and Regional Study Area includes the full buffer distance beyond the area of direct disturbance.
- › **Regional Study Area (RSA)** – encompasses the areas outside of the LSA used to measure broader-scale existing environment conditions and provide regional context for the maximum predicted geographic extent of direct and indirect effects of the Project (e.g., potential effects of the Project from background viewing distances where changes to the landscape may be visible but are less discernible than at foreground and middle-ground distances). Cumulative effects of the Project in combination with past, present, and reasonably foreseeable developments are typically assessed at this larger spatial scale. The rationale for this spatial boundary is to assess regional and cumulative effects on the visual aesthetics criteria by providing a broader, regional landscape context. For the purposes of the visual environment assessment, effects would be recorded and assessed from background (greater than 5 km) distances.

The study areas were selected to characterize existing environmental conditions and predict the direct and indirect changes from the Project on valued components on a continuum of increasing spatial scales from the Project Footprint to broader, regional levels.

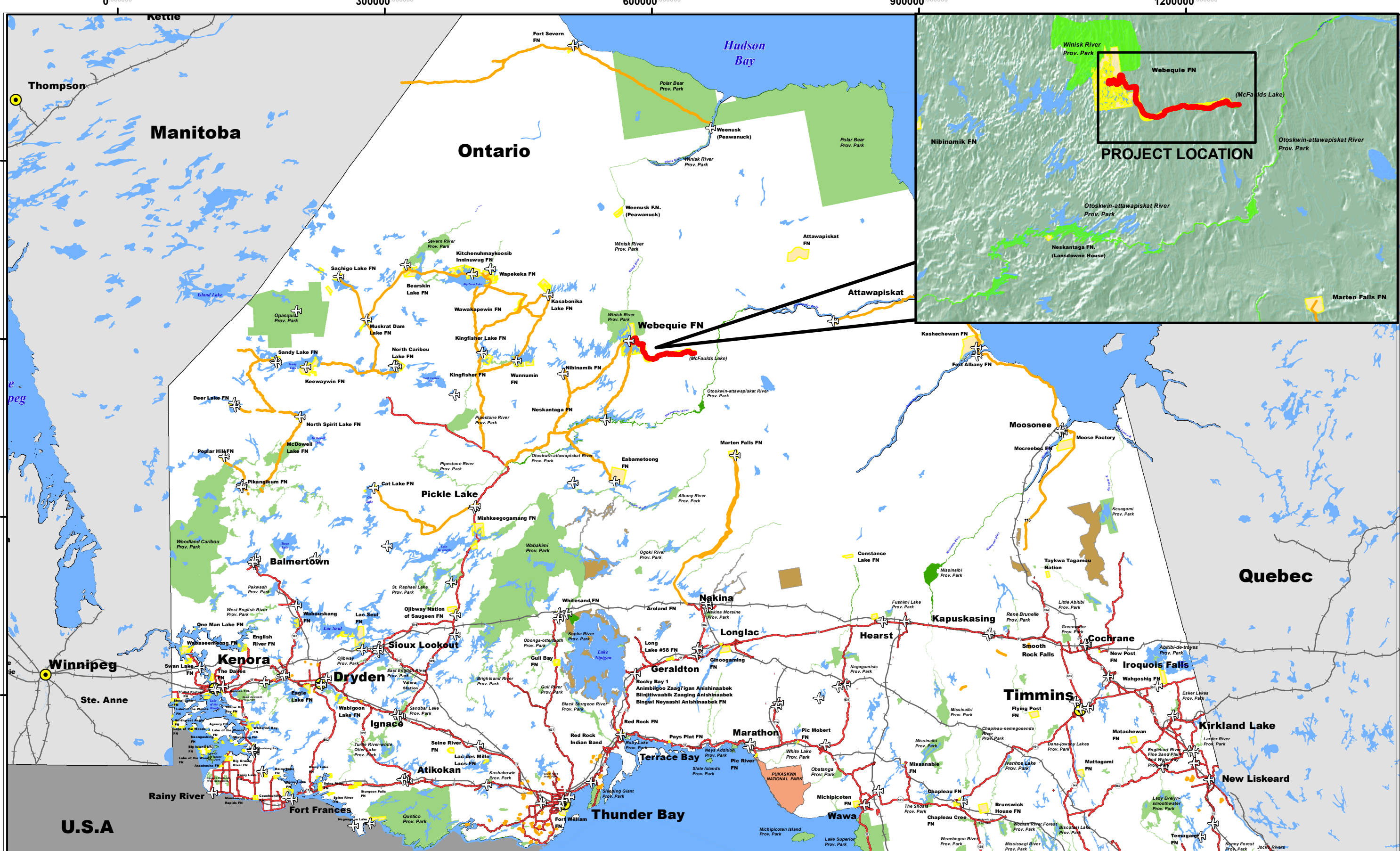
The baseline data collection and effects assessment relative to the spatial boundaries will focus on the set of supply road conceptual alternatives within the preliminary proposed corridor, as identified in the federal Impact Assessment Detailed Project Description (November 2019) and the provincial Environmental Assessment draft Terms of Reference (September 2019). The alternatives include the Webequie First Nation community's preferred route for the supply road (35 m right-of-way width) along the centreline of an approximately 2 km wide preliminary proposed corridor and the optimal geotechnical route within the same corridor. The route alternatives are shown in **Figure 2** with the LSA and RSA



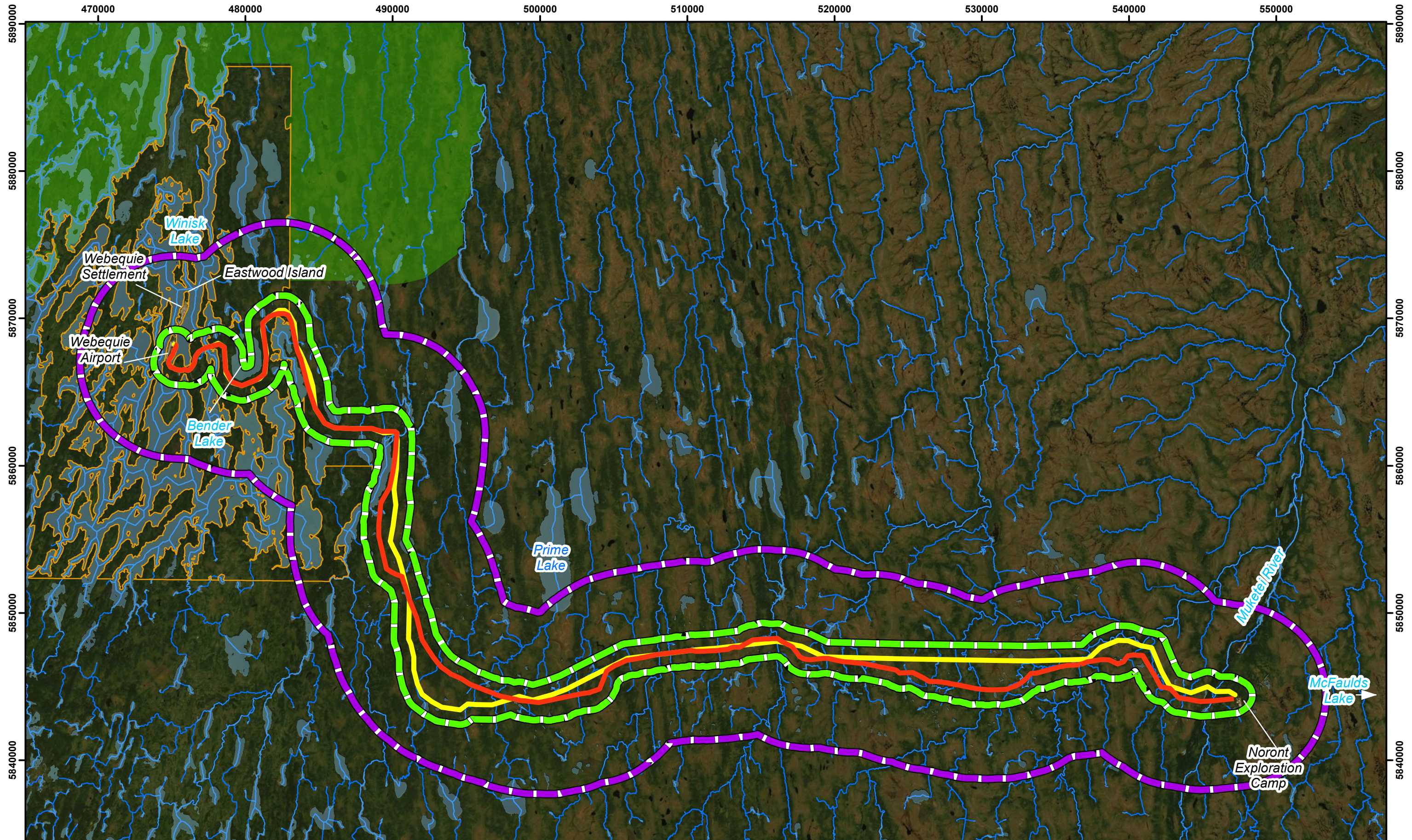
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boundaries for each route alternative combined to reflect the study area for the Project. At this stage of the EA process the supportive infrastructure components have yet to be determined. It is anticipated that additional alternative routes may be developed during the EA. For example, a route that may be based on optimizing the geometric design of the community preferred route or optimal geotechnical route may be included. Where such additional alternatives are identified, the study area will be adjusted.

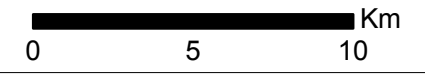


Legend Optimal Geotechnical Route Community Preferred Route Airports City/Town		Winter Roads All-Season Roads Rail		First Nation Reserve Federal National Park Provincial Park		Conservation Reserve Waterbody	
				 Canada Lambert Conformal Conic Projection		Webequie Supply Road Project Location Date: 2020/05/12 Figure Number: 1 File Number: 649920 Sub Code: 0000 Rev: 0	



Legend

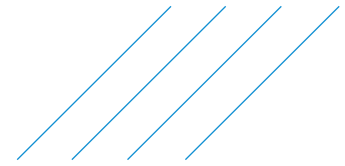
Optimal Geotechnical Route	Local Study Area (LSA 1km From Alternative Footprints)	Webequie First Nation Reserve
Community Preferred Route	Regional Study Area (RSA 5km From Alternative LSA's)	Waterbody
		Watercourse
		Winisk River Provincial Park



NAD 83
UTM Zone 16N

Webequie Supply Road
Preliminary Route Alternatives
and Combined Study Areas

Date: 2020/06/03	File Number: 649920	Sub Code: 0000
Figure Number: 2		Rev. 0



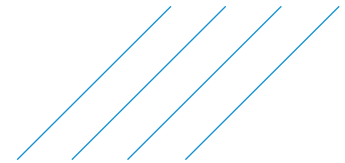
1.1.2. Temporal Boundaries

The EA process was designed to evaluate the short-term and long-term changes resulting from the implementation of the Project and associated effects on the environment, including where project activities may overlap such as the restoration (e.g., revegetation) of temporary access roads that could occur during the operation.

Implementation of the Project will occur in phases (refer to Section 4.3.4 of the ToR). The potential interactions with the natural, cultural and socio-economic environments and the potential occurrence of residual impacts are anticipated to be different in each phase. To focus the impact assessment, the key activities can be divided into the three main phases:

- › **Construction Phase:** All the activities associated with the initial development of the road and supportive infrastructure. Both temporary and permanent changes in visual quality due to construction will be assessed.
- › **Operations Phase:** All activities associated with operation and maintenance of the road and any other permanent supportive infrastructure (e.g., operations and maintenance yard, aggregate pits) that will start after construction and continue indefinitely. Effects on visual quality will be assessed for this phase based on the full, permanent infrastructure footprint.
- › **Decommissioning/Abandonment/Closure Phase:** The Project will be operated for an indeterminate period; therefore, retirement (decommissioning/abandonment/closure) is not anticipated and will not be addressed in the EA. Note that clean-up and site restoration, including the decommissioning and removal of temporary infrastructure (e.g., access roads) will be addressed in the construction phase.

Although generally based on the planned stages described above, the final selection of temporal boundaries is criteria-specific and further detail will be provided in the discipline-specific assessment sections of the EAR/IS.



2. Work Plan

2.1. Methodology

The following sections describe the planned approach to baseline data collection and the assessment of the potential impacts on the visual environment within the study area for the Project to address the requirements of the TISG (Sections 8.1, 12.2, 14.1, 16.2, 17.2, 19.1 and 19.2) and, where applicable, meet the expectations of the MECP and other provincial ministries as identified in the ToR. The Work Plan also addresses relevant elements of TISG Section 13 (Effects assessment), Section 20 (Mitigation and enhancement measures) and Section 25 (Description of the project's contributions to sustainability).

2.1.1. Baseline Characterization

As a means of establishing a snapshot of existing visual conditions, an inventory of visual resources will be undertaken. Included in this inventory will be the following secondary sources:

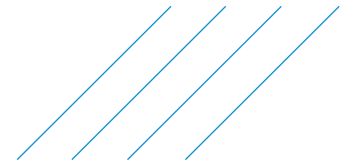
- › Indigenous Knowledge information obtained through consultation with Indigenous communities will be reviewed, and dated information will be updated as required;
- › LiDAR-derived Digital Terrain Model (DTM) for 2 km wide road corridor, 2017;
- › Physiographic/landscape data, including ecozones, ecodistricts (Land Information Ontario, LIO);
- › ELC mapping, where available;
- › Ontario Provincial Digital Elevation Model (DEM, 30 m resolution) - North, 2013 (obtained from Land Information Ontario, LIO);
- › High-resolution (15 cm) aerial imagery, obtained Oct 6-10, 2017; and
- › Ontario provincial land cover data, 2000 (Land Information Ontario, LIO).

The primary purpose of the visual environment baseline assessment will be to characterize the visual environment that could potentially be affected by the construction or operation of the Webequie Supply Road.

2.1.2. Visual Quality Baseline Characterization - Preliminary Visibility Analysis

Visibility analysis identifies those areas over a landscape that can be seen from various land or water based viewpoints. Modeling of visibility will be conducted using a Geographic Information System and other relevant geospatial data. The basis for assessment of visibility will be a combination of a 2 km wide LiDAR-derived high-resolution DTM extending along the supply road corridor and the Ontario Provincial Digital Elevation Model for those areas outside of the 2 km LiDAR swath. The visibility mapping exercise will identify those areas where there would likely be views of the Project Footprint, which includes all permanent, project-related infrastructure: pits/quarries and related access roads, the road corridor itself, crossing structures and any areas set aside for support to road maintenance and operations. These areas would then be further vetted to identify locations requiring field assessment and photographic field surveys. Such areas will include, where applicable:

- › Easily, publicly accessible areas, including roads, trails, lakes, rivers and settlements;
- › Locations used for recreation and tourism; and
- › Locations identified by community consultation, identified in **Section 2.1.3.**



2.1.3. Initial Community Consultation for Preliminary Viewpoint Identification

Initial community meetings for the purposes of conducting the visual impact analysis will be undertaken in Indigenous communities, focusing significant effort on Webequie First Nation, given its proximity to the project area. In parallel, a public open house will be conducted in Thunder Bay, which is intended to garner public, stakeholder and First Nation off-reserve member input. The purpose of these initial meetings will be to obtain input through: (1) general comments provided on comment forms; and (2) individual interviews or discussions with Indigenous community members/attendees. The primary focus of these efforts will be preliminary identification of sensitive receptors locations. This will be done through directly/interactively marking potential sensitive receptor locations on maps and recording any associated descriptive information.

The purpose of this exercise is to identify potential locations from which to assess the visibility of all temporary and permanent, project-related infrastructure, as identified in **Section 2.1.2**. Such locations could include:

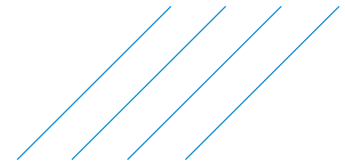
- › Vistas / locations of relatively high altitude (i.e., heights of land);
- › Commonly navigated and recreationally used waterbodies and watercourses;
- › Important views to and from culturally significant locations, including, for example:
 - Regularly navigated waterways;
 - Sacred hills;
 - Other spiritually significant locations;
 - Gravesites;
 - Camps / hunting blinds;
 - Harvesting areas (plants and animals); and
 - Recreation and tourism sites

It should be noted that the sensitive receptors identified through the community consultation process-human receptors-will be combined with identified ecological receptors, which include species at risk. Each of the identified sensitive receptors, including the ecological receptors, will be described, as will the differential effects at different point in time. Oblique and aerial drone video will be taken from and around these locations to further complement the viewshed analysis identified in **Section 2.1.5**.

2.1.4. Identification of Viewsheds from Sensitive Receptors

Having undertaken a preliminary visibility analysis to identify those areas where there would likely be views of the Project Footprint, followed by initial consultation with Indigenous communities and the general public to identify additional sensitive receptor/viewpoint locations on a preliminary basis, the assessment locations will be finalized and used as the basis for viewshed analysis. This analysis from the individual sensitive receptor locations will show all permanent project-related infrastructure components (i.e., pits/quarries and associated access roads, supply road corridor, crossing structures, and road maintenance and operations areas) at an average observer height of 1.5 m.

It should be noted that each of the finalized sensitive receptor/viewpoint locations will have its setting characterized from a landscape perspective using the distinct units of landscape character, based on recognized Ecological Land Classification units (Crins et al., 2009), as well as from an aerial perspective.



2.1.5. Photographic Field Surveys at Sensitive Receptor Locations

To confirm that the visibility mapping properly identified sensitive viewpoints, photographic field surveys will be conducted at each of the identified sensitive receptor locations. GPS locations and photo direction locations will be recorded. Photographs will be taken with a digital camera using a lens with a focal length similar in size to that perceived by the human eye field of view. A shorter focal length will also be used to provide a broader field of view.

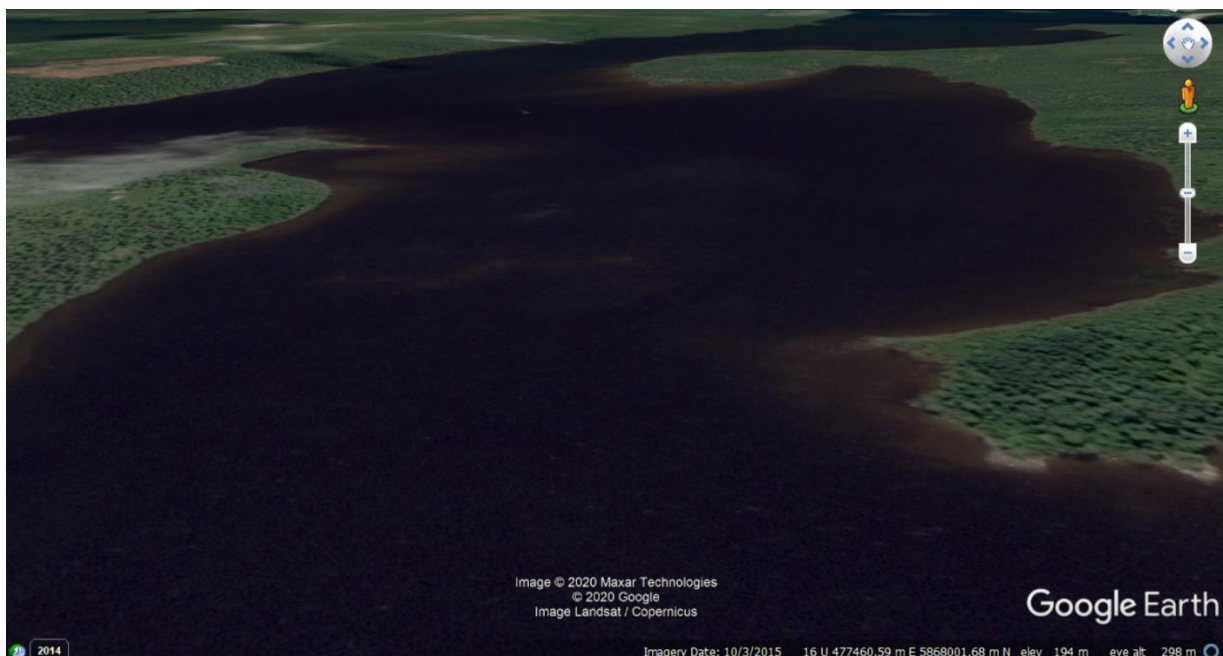
Further insight into project footprint visibility from sensitive receptor locations will be provided by low level drone overflights. These will be particularly useful at the major water crossings, where high-resolution video and still imagery can be captured from a variety of heights, and experiences from a boat approaching these larger crossing structures can be simulated.

2.1.6. Photographic Field Surveys and 3D View Modeling at Major Crossing Locations

There are three major crossing locations along the proposed Webequie Supply Road: Winisk Lake (east of the Webequie settlement, a span of 254 m); Winiskisis Channel (span of 48m); and the Muketei River (span of 33 m). These will require significant crossing structures that will be in contrast to the surrounding visual environment. Due to this fact, these locations will not only be the subject of the photographic surveys described in **Section 2.1.5**, but will also be the subject of 3D modelling exercises.

Three-dimensional digital models of typical crossing structures will be positioned geospatially in GIS-based 3D scenes. These models will facilitate a higher level of analysis, as they will be true 3D simulations of the crossing locations both before and after bridge construction. **Figures 3 and 4** below provide a simple Google Earth example of these scenes.

Figure 1: Google Earth Image of Winisk Lake Crossing Looking South



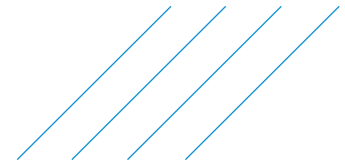


Figure 2: Google Earth Image of Winisk Lake Crossing with Proposed Crossing Structure Looking South

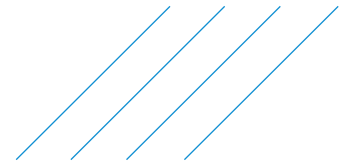


2.1.7. Ambient Night-time Light Levels at the Project Site

The visual assessment team will work with the project’s Engineering Team to identify any permanent lighting requirements associated with the supply road, crossing structures, aggregate/rock extraction areas and production facilities needed for construction and operation of the road, including access roads to these sites, temporary laydown/storage areas and construction camps. Night-time ambient light levels at these project facilities will be assessed and described at different project stages and will also be characterized during different weather conditions and seasons. More specifically, the project Engineering Team will conduct this assessment by estimating the number and intensity of light sources required at different project locations under these scenarios.

2.2. Criteria and Indicators

Criteria are components of the environment that are considered to have economic, social, biological, conservation, aesthetic or cultural value (Beanlands and Duinker 1983). The assessment will focus on valued components, and applicable specific criteria, that have physical, biological, social, economic or health importance to the public, Indigenous groups, federal and provincial authorities and interested parties, and have the potential for change because of the Project. Valued components have been identified in the federal TISG and are, in part, based on what Indigenous communities and groups, the public and stakeholders identify as valuable to them in the EA process to date. The list of valued components identified to date include the following:



- › Geology, Soil and Terrain;
- › Surface Water;
- › Groundwater;
- › Air Quality;
- › Climate Change;
- › Noise;
- › Vegetation and Wetlands;
- › Fish and Fish Habitat;
- › Wildlife, including migratory birds;
- › Archaeological Resources;
- › Built Heritage and Cultural Heritage Resources;
- › Socio-economic Environment;
- › Aboriginal Land and Resource Use;
- › **Visual/Aesthetic Environment** (subject of this work plan);
- › Human Health; and
- › Aboriginal and Treaty Rights and Interests.

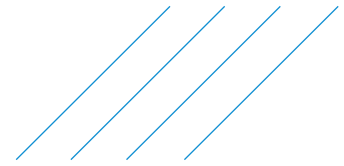
The list of valued components will be informed, validated and finalized through engagement and consultation process, including those to whom these concerns are important and the reasons why, such as environmental, cultural, spiritual, historical, health, social, economic and their relation to the exercise of Aboriginal and Treaty rights.

The list of identified valued components and associated criteria will be validated and finalized by the Project Team through a variety of means and consideration of factors that include, but are not limited to the following:

- › Engagement with Indigenous communities and groups and the extent to which the valued component is linked to the interests or exercise of Aboriginal and Treaty rights of Indigenous peoples;
- › Stakeholder engagement, including discussions with interest holders, and government authorities;
- › Extent to which the effects (real or perceived) of the Project and related activities have the potential to interact with the valued component;
- › Ecological, social and economic value to Indigenous communities, municipalities, stakeholders, government authorities, and the public; and
- › Traditional, cultural and heritage importance to Indigenous peoples.

The visual aesthetics criteria and indicators that have been selected to assess possible project impacts, together with their rationale, are listed below.

Criterion	Rationale	Indicators
Visual Quality	<ul style="list-style-type: none"> • Important to the general well-being of the community and its members • Visual quality is a major component of the experience 	<ul style="list-style-type: none"> • Visual contrast of the project relative to the existing landscape from selected viewpoints identified through consultation and landscape analysis



<p>associated with land and resource activities</p>	<ul style="list-style-type: none"> Project visibility from selected viewpoints identified through consultation and landscape analysis
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The condition of visual resources such as topography, vegetation, cultural resources and hydrology network together define visual quality. Visual quality is of great value to the general well-being of local community members, as well as tourists visiting for recreational purposes.

The indicators serve as a measure of the visual quality criterion. Project visibility will be a critical measure of visual quality, with community-based identification of key viewpoints being important to ensure that the consideration of experiences when engaging in both traditional practices and recreational activities is comprehensively assessed.

2.3. Effects Assessment Approach

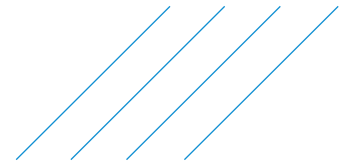
The approach for the assessment has been developed to satisfy regulatory requirements under the *Environmental Assessment Act* and is based on the *MECP Code of Practice: Preparing and Reviewing Terms of Reference for Environmental Assessments in Ontario* (MOECC 2014), and the Terms of Reference for the Project that is currently pending approval from the MECP. The approach for the assessment has also been developed to meet the requirements of the federal TISG and specifically Section 13 – Effects Assessment.

2.3.1. Consideration and Evaluation of Alternatives

The EA process requires that two types of project alternatives be considered: “alternatives to” the Undertaking (i.e., functionally different ways of addressing an identified problem or opportunity to arrive at the preferred planning solution) and “alternative methods” of carrying out the Undertaking (options for implementing the preferred planning solution). The consideration and evaluation of alternatives to the Undertaking were documented in the federal Impact Assessment Detailed Project Description (November 2019) and the provincial Environmental Assessment draft Terms of Reference (September 2019) and concluded that developing a new all-season road between Webequie and the McFaulds Lake area is the preferred alternative. This analysis and conclusion are not proposed to be re-examined as part of the EA process but will be documented in the EAR/IS. Therefore, in keeping with the focussed approach the preferred planning alternative (developing a new all-season road) has been carried forward to the initial consideration of alternative methods of carrying out the Undertaking.

The consideration of alternative methods will focus on the supply road conceptual alternatives within the proposed preliminary corridor, as identified in the Detailed Project Description (November 2019) and the draft Terms of Reference (September 2019). These alternatives include the Webequie First Nation community’s preferred route for the supply road along the centreline of an approximately 2 km wide preliminary preferred corridor and the optimal geotechnical route within the same corridor (Refer to Figure 2). In addition, the following alternative methods related to supportive infrastructure and the preferred supply route will be examined.

- › Alternative sites for temporary and/or permanent aggregate extraction pits and production facilities needed for construction and operation of the road, including access roads to these sites;



- › Alternative sites for supportive infrastructure (i.e., temporary laydown and storage areas, construction camps, including access roads to these areas);
- › Watercourse crossing structure types (i.e., culverts, bridges), span length, lifecycle, and construction staging methods at waterbody crossings;
- › Road attributes, including roadbed foundation; horizontal alignment, vertical alignment (elevation/profile), and adjustments to the cross-section and right-of-way (ROW) width of the corridor.

The assessment of alternatives will include environmental, socio-economic, cultural and technical factors using criteria and indicators for the comparative analysis. This will also include specific consideration of community based Indigenous land and resource uses (e.g., fishing, hunting) and cultural (e.g., built; sacred or spiritual resources) criteria of value to Indigenous communities within the broader factors. As noted previously the criteria and indicators will be developed in detail as part of the EA through input from the engagement and consultation activities with Indigenous communities, the public and stakeholders. Both a quantitative and/or qualitative assessment of alternatives for each criterion will be conducted to allow for a comparison of the advantages and disadvantages and selection of a preliminary recommended route for the WSR and the sites/access routes for supportive infrastructure.

2.3.2. Assessment of Net Effects

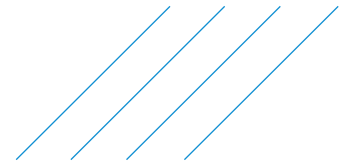
A step-wise process will be used to assess the environmental effects of the Project in a systematic and transparent manner once the relevant project elements and activities and their interactions, assessment boundaries, and relevant environmental criteria and indicators are identified and finalized through the engagement and consultation process. The net effects assessment method will include the following primary steps:

- › Identification of potential environmental effects;
- › Identification of technically and economically feasible impact management measures;
- › Prediction of net effects following implementation of impact management measures; and
- › Evaluation of the predicted net effects (i.e., describe and determine the magnitude, duration, extent, frequency, and significance of the predicted net effects).

2.3.2.1. Identification of Potential Environmental Effects

The net effects assessment will consider the potential interactions between the project components and activities and the criteria within the identified spatial boundaries and phases of the Project (i.e., construction and operation). Potential effects of the Project on valued components (VC) will be determined by comparing baseline conditions to those expected to result from the construction and operation and maintenance of the Project. Potential effects will be described for each assessment criterion, including an indication of whether they are expected to be direct (i.e., because of a project component or activity affecting a valued component), or indirect (i.e., because of a change to one VC affecting another VC). Relevant project works and activities will be analysed individually to determine if there is a plausible pathway for an effect on VCs.

The assessment of potential project-related effects to visual aesthetics focuses on those activities during construction and operation, as well as the project components themselves. The effects assessment will initially consider the anticipated magnitude of visual change in relation to the sensitivity of a landscape to visual change. Additional indicators will be considered in characterizing net effects (refer to **Section 2.3.2.4**).



Changes in the indicators identified in Section 2.2 will be measured relative to the existing baseline characterization of the visual environment. Visual contrast between the project relative to the existing landscape conditions will be qualitatively measured based on selected viewpoints that will be identified through community consultation and landscape analysis. Project visibility analysis will be conducted to objectively and quantitatively predict the visibility of project components from the selected viewpoints.

2.3.2.2. Identification of Impact Management Measures

Once potential effects are identified, technically and economically feasible impact management measures (or “mitigation measures”) to avoid and minimize potential adverse effects will be identified for each phase of the Project. Design considerations and impact management measures for visual aesthetics will be identified to offset or eliminate potential adverse effects and will be described in the EAR/IS. Examples of these measures could include vegetation or earth berm screening, minimizing the number of bridge piers in waterbodies, keeping bridge elevations below ridges where possible, softening of edges along cleared areas, as well as road vertical alignment and profile adjustments. Refinements to these measures may also be made in the future detail design phase of the Project. Impact management measures will be developed for the Project based on:

- › Knowledge and experience of the Project Team with linear infrastructure developments;
- › Industry best management practices and applicable agency requirements and guidance; and
- › Measures identified by Indigenous communities, the public and stakeholders through feedback received as part of the engagement and consultation program.

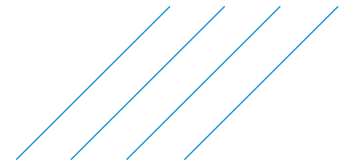
It is understood that impact management measures are not always fully effective; therefore, WFN will identify a compliance monitoring and effects monitoring program as part of the EA for implementation during the project phases (refer to **Section 2.3.2.6**).

2.3.2.3. Prediction of Net Effects

A net effect, or the alternative term residual effect, is considered an environmental (biophysical), social, economic or health effect from the Project and its related activities that is predicted to remain after the implementation of impact management measures. A potential effect is considered to occur where anticipated future conditions resulting from the Project differ from the conditions otherwise expected from natural change without the Project. In some situations, the recommended impact management measures will eliminate a potential adverse effect, while in other situations impact management measures may reduce, but not eliminate the effect. Impact management measures may also enhance positive effects. A potential effect that will be eliminated, or considered unlikely after impact management measures, will be identified as not resulting in a net effect (i.e., no net effect) and will not be considered further in the net effects assessment. An effect that may remain after the application of impact management measures will be identified as a net effect and will be further considered in the effects assessment. Positive effects will also be considered further in the effects assessment, including means of enhancing benefits of the Project. Neutral changes will not be carried forward for the characterization of net effects, but where identified will be characterized in terms of the confidence in the predictions and the likelihood of the effect.

2.3.2.4. Characterizing the Net Effects

The characterization of net effects will provide the foundation for determining the significance of incremental and cumulative effects from the Project for each assessment criterion. The objective of the method is to identify and predict net adverse and positive effects that have sufficient magnitude, duration, and geographic extent to cause fundamental changes to the self-sustainability or ecological function of a valued component, and therefore, result in significant combined effects.

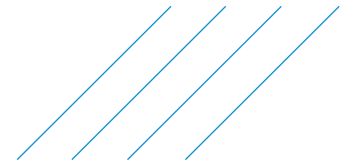


Using the visual environment as an example, the magnitude of the potential effect will be qualitatively assessed by inferring the anticipated changes relative to baseline conditions, using the identified preliminary criterion of visual quality and associated visual contrast and project visibility indicators. The magnitude of potential effects to visual contrast will be qualitatively assessed from each selected viewpoint through the assignment of a contrast rating (i.e., negligible/low/moderate/strong/severe) for each visual dimension (i.e., colour, form, line, texture, scale dominance, spatial dominance). This assessment will be undertaken using BLM's Visual Resource Contrast Rating System (USDI BLM, 1986b). This visual contrast rating system is a systematic approach that is used to assess proposed projects and associated activities. Qualitative assessments of visual contrast will be conducted through application of the Visual Resource Inventory BLM Manual Handbook H-8431-1.

Potential effects relating to project visibility will be measured using visible area from the selected viewpoint, and the viewing distance zone that the viewpoint sits within, with a description/classification of potential visibility being provided (i.e., visible/not visible).

In general, the magnitude is the intensity of the effect or a measure of the degree of change from existing conditions and will be defined by each discipline assessment. If a significant effect is identified, the contribution of the Project to the combined effect will be described. The assessment of significance of the net effects of the Project on the visual environment and other valued components will be informed by the interaction between significance factors (as defined below), in addition to those concerns raised by Indigenous groups, interested agencies, and individuals during the consultation and engagement for the EA. Therefore, predicted net effects, where identified, will be described in terms of the following significance factors that are consistent with the assessment methodology identified in the TISG.

- › **Direction** – The direction of change in effect relative to the current value, state or condition, described in terms of Positive, Neutral, or Negative.
- › **Magnitude** - The measure of the degree of change from existing (baseline) conditions predicted to occur in the criterion.
- › **Geographic Extent** - The spatial extent of which an effect is expected to occur/can be detected and described in terms of the PF, LSA and RSA.
- › **Severity** - The level of damage to the valued component from the effect that can reasonably be expected; typically measured as the degree of destruction or degradation within the spatial area of the PF, LSA and RSA. Severity would be characterized as: Extreme; Serious, Moderate or Slight.
- › **Duration/Reversibility** - Duration is the period of time over which the effect will be present between the start and end of an activity or stressor, plus the time required for the effect to be reversed. Duration and reversibility are functions of the length of time a valued component is exposed to activities. Reversibility is an indicator of the degree to which potential effects can be reversed and the valued component restored at a future predicted time. For effects that are permanent, the effect is deemed to be irreversible. Duration/Reversibility would be characterized for each adverse effect as: Short-Term (0- 5 years), Medium-Term (6-20 years), Long-Term (21 to 100 years) or Permanent (>100 years).
- › **Frequency** – Is the rate of occurrence of an effect over the duration of the Project, including any seasonal or annual considerations. Frequency would be characterized as: Infrequent; Frequent or Continuous.
- › **Probability or Likelihood of Occurrence** – Is a measure of the probability or likelihood an activity will result in an environmental effect. Probability or likelihood of occurrence would be characterized as: Unlikely, Possible; Probable and Certain.



The definitions and description of the above factors will be described in detail in the EAR/IS. An effort will be made to express expected changes quantitatively / numerically. For example, the magnitude (intensity) of the effect may be expressed in area (in hectares) of project footprint visible from a specific viewpoint. Additionally, the definition of effect levels may vary from one valued component or criterion to another, recognizing that the units and range of measurement are distinct for each. Lastly, effects may impact communities, Indigenous groups and stakeholders in different ways, including through a gender-based lens (refer to **Section 2.3.3**) and they may respond differently to them. Therefore, determining and characterizing effects will be based largely on the level of concern expressed through engagement with the Indigenous groups and community members.

2.3.2.5. Assessment of Significance

The determination of significance of net effects and cumulative effects from the Project and other previous, existing, and reasonably foreseeable developments will generally follow the guidelines and principles of the *Draft Technical Guidance Determining Whether a Designated Project is Likely to Cause Significant Adverse Environmental Effects under the Canadian Environmental Assessment Act* (CEA Agency, 2017) and the *Operational Policy Statement: Determining Whether a Designated Project is Likely to Cause Significant Adverse Environmental Effects under the Canadian Environmental Assessment Act, 2012* (CEA Agency, 2015).

In general, the assessment of significance of net effects will be applied to each valued component for which net effects are predicted, and net adverse effects or positive effects will be classified as significant or not significant (i.e., binary response). Additional details on the application of biophysical, cultural, socio-economic and health criteria and definitions that would describe “significant” and “not significant” will be provided in the EAR/IS.

2.3.2.6. Identification of a Monitoring Framework

Webequie First Nation will develop a monitoring framework during the EA process for each project phase (construction and operation and maintenance). The two primary types of monitoring to be developed will include:

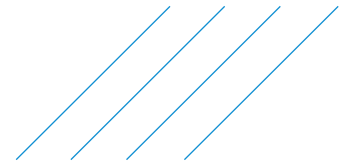
- › Compliance monitoring; and
- › Effects monitoring.

The compliance monitoring will assess and evaluate whether the Project has been constructed, implemented and/or operated in accordance with commitments made during the EA process, and any conditions of the federal IA and provincial EA approval and other approvals required to implement the Project.

The effects monitoring will be designed to verify the prediction of the effects assessment, and to verify the effectiveness of the impact management measures. This would include construction and operational monitoring that would identify actual effects, assess the effectiveness of the measures to minimize or eliminate adverse effects, and evaluate the need for any additional action to ensure that environmental commitments and obligations are fulfilled and mitigation measures are effective.

2.3.3. Gender Based Analysis Plus (GBA+)

Information and data collected will be disaggregated by diverse subgroups (women, youth, elders, etc.), as part of applying a Gender Based Analysis Plus (GBA+) lens. This will include qualitative and



quantitative data that help to characterize and describe the importance of the visual environment to Indigenous community members' experience on the land and water, as well as capture real or perceived impacts on the visual environment resulting from the Project. Through Survey Monkey, the data will be filtered and disaggregated based on the demographic questions answered (i.e., gender, age, Indigenous community membership, etc.).

The Project Team will work with the Indigenous communities to identify the appropriate participants for each of the subgroups that are willing to contribute to the baseline data collection through surveys and key informant interviews. The Project Team will tailor how they engage with these groups based on community protocols (i.e., it is expected that elders would prefer in-person dialogue and will require a community translator vs. youth who would participate in online survey).

3. Consideration of Input from the Public and Indigenous Peoples

3.1. Public Participation

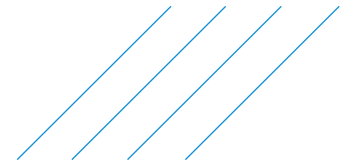
EA study participants as identified in the *Agency Public Participation Plan* dated February 24, 2020 for the WSR Project will be engaged and consulted. The Public Participation Plan was developed by the Agency to set out proposed opportunities for participation during the impact assessment process for Agency-led activities. The proponent, or its subject matter experts, may participate in activities as requested by the Agency.

The ToR provides a plan for engaging and consulting government ministries and agencies, the public and stakeholders based on EA study milestones similar to those for Indigenous communities.

All identified affected and/or interested stakeholders and members of the public will be notified at the EA study milestones. The public and stakeholders will have the opportunity to attend two (2) open house sessions that will be held in the City of Thunder Bay, focussing on:

1. Project and EA process overview; baseline data collection; spatial and temporal boundaries for assessment; criteria and indicators; and identification and preliminary evaluation of alternatives; and
2. Presentation of the selected preferred alternatives/the Project, including potential effects, mitigation, net effects and their significance and follow-up monitoring.

The open houses will include display materials and handouts containing information on the Project, the EA study process, known existing environmental conditions, the results of studies that have been conducted to date; the development and evaluation of alternatives, including the rationale for use of criteria and indicators; the project schedule; and the results of the consultation program. The Webequie Project Team will be available to receive and respond to questions and have an open dialogue regarding the EA process. Written comments may be prepared and left at the open house venue or sent to the Project Team within a specified period following the event. It should be noted that all materials presented at the Open House will available via the project website at the same time and will remain available on www.supplyroad.ca afterwards.



The public and stakeholders will be notified regarding the commencement of the EA and submission of the Draft and Final EAR/IS. The EAR/IS will be available for review on the Project Website, and at municipal offices or nearby public libraries in:

- › City of Thunder Bay
- › Municipality of Greenstone
- › Township of Pickle Lake
- › City of Timmins
- › Municipality of Sioux Lookout

In summary, the methods and activities for engagement and consultation with the public will include:

- › Notification letters;
- › Public notices and newspaper advertising at key EA milestones – Notice of Commencement; Notice of Open Houses; Notices for Draft and Final EAR/IS;
- › Open houses;
- › Communication materials for use at meetings such as slide decks, project fact sheets, handouts, etc.;
- › Project Website; and
- › Opportunities to review and provide comments on the Draft and Final EAR/IS.

All comments received from the public engagement and consultation activities will be tracked (i.e., Record of Consultation) and considered by the Project Team with the objective that the public be provided meaningful opportunities to participate, including in meaningful discussions in the EA process.

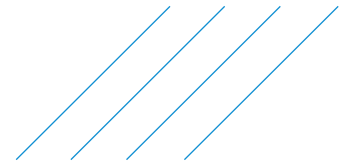
3.2. Indigenous Engagement and Consultation

3.2.1. Communities to be Included in the Assessment

The assessment of the visual environment component will include the 22 identified Indigenous communities that are to be consulted as part of the EA process, as shown in **Table 1** below. These communities have been identified by the MECP and Agency as communities whose established or asserted Aboriginal and/or treaty rights may be adversely affected by the Project and/or may have interests in the project. Communities marked with an asterisk are those whose Aboriginal and Treaty rights may be affected by the Project.

The table also includes those communities that have been identified by Webequie First Nation based on Elders' guiding principles and Webequie's Three-Tier approach to Indigenous consultation and engagement. WFN identified communities and assessed them based on the following criteria:

- › Geographically closer to the project area than others;
- › Known to have traditionally used some of the potentially affected lands in the past, or currently;
- › Downstream of the Project and may experience impacts because of effects to waterways;
- › Considered to have closer familial/clan connections to the members of WFN; and/or
- › Have been involved in all-season road planning in the Region, either directly with the WFN, or in consideration of all-season road planning that the WFN has been involved with in recent years.



Based on these factors, the communities identified by WFN will be offered the deepest or intensive consultation/engagement.

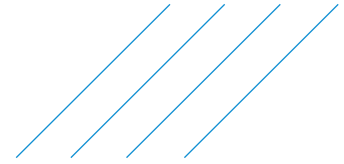
Table 1: Indigenous Communities to be Consulted

Indigenous Community	Identified by WFN	Identified by MECP	Identified by IAAC
Webequie First Nation	✓	✓*	✓*
Aroland First Nation		✓*	✓*
Attawapiskat First Nation	✓	✓*	✓*
Constance Lake First Nation		✓*	✓
Eabametoong First Nation	✓	✓	✓*
Fort Albany First Nation		✓*	✓*
Ginoogaming First Nation		✓	✓
Kasabonika First Nation	✓	✓*	✓*
Kashechewan First Nation		✓*	
Kitchenuhmaykoosib Inninuwig		✓*	✓
Kingfisher Lake First Nation		✓*	
Long Lake #58 First Nation		✓	✓
Marten Falls First Nation	✓	✓*	✓*
Mishkeegogamang First Nation		✓	
Neskantaga First Nation	✓	✓*	✓*
Nibinamik First Nation	✓	✓*	✓*
North Caribou Lake First Nation		✓	
Wapekeka First Nation		✓*	
Wawakapewin First Nation		✓*	
Weenusk (Peawanuck) First Nation	✓	✓*	✓*
Wunnumin Lake First Nation		✓*	
Metis Nation of Ontario – Region 2		✓	

3.2.2. Approach and Methods

The Project Team will consult and engage with Indigenous communities throughout the assessment process, and specifically the visual environment component, with focus on providing input to define the visual environment study areas, identify preliminary viewpoints, collect relevant Indigenous Knowledge, identify and characterize potential effects and discuss mitigation and monitoring measures. It is also the Project Team’s objective that the EA captures Indigenous Knowledge and any issues, concerns or other information being provided by Indigenous communities accurately and appropriately. As such, Indigenous communities will have the opportunity to provide input and feedback during the following steps of the EA and more specifically the assessment of the visual environment as outlined in this work plan:

- › Provide input to defining the visual environment study areas or spatial boundaries for the purposes of the baseline data collection and effects assessment;
- › Provide input on the criteria and indicators, such as viewpoints from which to measure changes to visual contrast and project visibility because of the Project;



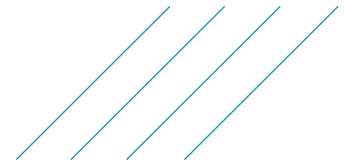
- › Provide input on methods and types of baseline data and information to be collected, including opportunity to provide Indigenous Knowledge, most notably key viewpoints from which to assess project visibility and visual contrast;
- › Validate how baseline information is captured and used in the EA;
- › Provide input on the effects assessment methodology, including alternatives;
- › Discuss potential effects based on predicted changes to visual aesthetics; and,
- › Provide input to identify mitigation measures and any follow-up monitoring programs during the construction and/or operation phases of the Project, including predicted overall net effects and significance, including those that may interfere with the exercise of rights of Indigenous peoples.

A variety of activities and materials will be used to provide information and receive input from Indigenous communities during the EA process. These are outlined and detailed in the provincial ToR which includes the mechanisms, activities and events that are planned for various stages throughout the EA process and will be used at milestone points to ensure optimal engagement with Indigenous communities. In summary this includes the following:

- › Notification letters sent by registered mail to all of the identified Indigenous communities and groups (i.e., Tribal Councils inform them at key milestone (e.g., Commencement of provincial EA; Submission Draft EAR/IS and Submission of Final EAR/IS;
- › Community visits throughout for those communities identified (or any other interested Indigenous communities as well) by IACC and MECP whose established or asserted Aboriginal and/or treaty rights may be adversely affected by the Project;
- › Meetings (2) with off-reserve community members of the 22 Indigenous communities to be consulted as part of the EA;
- › Information meetings with Métis Nation of Ontario;
- › Engagement with Tribal Councils and Nishnawbe Aski Nation (NAN), with meetings held upon request;
- › Communication materials for use at meetings such as slide decks, project fact sheets, handouts, etc., including where requested translation to native language;
- › Audio and visual products for those Indigenous communities that have the capability, community meetings and presentations will be live-streamed through local community media to allow for a wider audience to participate in the meetings;
- › Use of surveys (e.g., “Survey Monkey”) or focused community-based meetings to obtain information (e.g., socio-economic, human health, etc.) and identify concerns from Indigenous people;
- › Project Website (www.supplyroad.ca) for the public to review project related information and documents, including informative video tutorials (e.g. EA studies); and
- › Project Newsletter letters.

Engagement with Indigenous groups has been undertaken as part of the ToR phase and included components of the work plan (e.g., baseline studies for valued components, spatial and temporal boundaries, criteria and indicators, EA alternatives, etc.) and will continue as part of the planned EA engagement activities for the Project.

All outreach efforts and consultation activities will be recorded as part of the Record of Consultation to allow for validation by the Agency and the MECP. The Record of Consultation will be made available publicly to allow for validation by MECP, IAAC, the public Indigenous communities, agencies and any



other interested party. The EAR/IS will describe how input from Indigenous communities and public was incorporated into the and visual environment assessment and other valued components.

3.2.3. Indigenous Knowledge

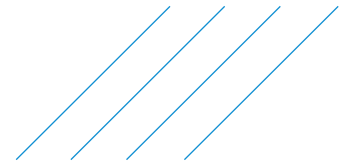
Through engagement activities, the Project Team will also collect Indigenous Knowledge relevant to the WSR study area and specific valued components, where available, from the 16 Indigenous communities identified by Ontario and the 10 Indigenous communities identified by the Agency. The project proponent, Webequie First Nation, is open to receiving and considering any Indigenous Knowledge provided by other communities. Indigenous Knowledge will assist in describing existing conditions (e.g., characterizing the study area, natural environment conditions, social and economic conditions, cultural characteristics, community characteristics, past and current land uses and other values of importance. Indigenous Knowledge will be used to assist in developing mitigation measures, monitoring commitments and accommodation measures, where necessary. The Project Team will document efforts to obtain Indigenous Knowledge. It is recognized that each community may have its own protocols and procedures to be followed in transferring Indigenous Knowledge to outside parties such as WFN and the Project Team. The Project Team will ensure that related protocols are respected and will work with each community to understand how the information will be transferred, securely stored, and applied. Additionally, the Project Team will ensure that the Indigenous Knowledge provided will be protected and kept confidential. The Project Team will seek guidance from the community as to how the information will be used and published. Specific examples of visual environment Indigenous Knowledge will include, but not be limited to:

- › Regularly and historically navigated waterways;
- › Sacred hills;
- › Other spiritually significant locations;
- › Gravesites;
- › Camps / hunting blinds;
- › Harvesting areas (plants and animals); and
- › Recreation and tourism sites.

As Indigenous Knowledge is holistic it can provide insights related to interrelationships between the natural, social, cultural, and economic environments, community health and will being, Indigenous governance and resource use. Therefore, Indigenous Knowledge, where provided, will be included in all of aspects of the technical assessments of potential impacts of the Project on Indigenous peoples, or, given is holistic nature, may be presented in one section of the EAR/IS. It will also be considered in technical sections or chapters of the documents (e.g., baseline data on the visual environment will include baseline information gathered through collection of Indigenous Knowledge). It is recognized that it is important to capture the context in which Indigenous groups provide their Indigenous Knowledge and to convey it in a culturally appropriate manner. Indigenous Knowledge will only be will be incorporated in the EAR/IS where written consent has been granted. It should be noted that even if Indigenous Knowledge is not explicitly included in the EA, it will still be considered in the assessment process, including effects and mitigation measure identification.

3.2.4. Aboriginal and Treaty Rights

The Webequie Project Team will be engaging with Indigenous communities regarding potential impacts of the Project on the exercise of rights, and where possible, the project's interference with the exercise of rights. Potential effects to be considered will include both adverse and positive effects on the current



use of land and resources for traditional purposes, physical and cultural heritage, and environmental, health, social and economic conditions of Indigenous peoples impacted by the Project. For example, this will include such effects as reductions in the quantity and quality of resources available for harvesting (e.g., species of cultural importance, including traditional and medicinal plants; or interference with the current and future availability and quality of country foods (traditional foods). Webequie First Nation and the Project Team will discuss with Indigenous communities their views on how best to reflect and capture impacts on the exercise of rights in the EAR/IS. Should impacts on the exercise of Aboriginal and Treaty rights be identified, Webequie First Nation and the Project Team will work with Indigenous communities to determine appropriate mitigation measures to reduce or eliminate such impacts. Where no mitigation measures are proposed, or mitigation is not possible, the Project Team will identify the adverse impacts or interference to the exercise of Aboriginal and Treaty rights and this will be described (e.g., level of severity) and documented in the EAR/IS. Webequie First Nation and the Project Team will advise Ontario and the Government of Canada on concerns Indigenous communities may have in relation to their exercise of Aboriginal and Treaty rights and whether their concerns cannot be addressed or mitigated by the Project Team.

4. Contribution to Sustainability

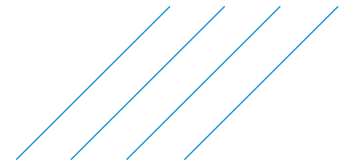
4.1. Overarching Approach

As recognized in the Agency's current guides to considering how a project will contribute to sustainability, it is not until baseline information has been collected and the potential effects of the Project are assessed that a full understanding or determination of the project's contribution(s) can be achieved/made. However, information and data requirements for sustainability have been considered from the outset of the WSR Project for planning purposes. In the absence of the potential effects assessment, this section outlines the general approach to determining sustainability contributions for this valued component.

The approach is based on the goal of providing a broad or holistic description of the project's potential positive and negative effects, including the interactions among those effects and the long-term consequences of the effects. In the context of the IAA requirements, sustainability means "the ability to protect the environment, contribute to the social and economic well-being of the people of Canada and preserve their health in a manner that benefits present and future generations", with the aim of "protecting the components of the environment and the health, social and economic conditions that are within the legislative authority of Parliament from adverse effects caused by a designated project", recognizing that the Minister's or the Governor in Council's public interest determination must include sustainability as one of five factors to be considered in rendering a final decision.

The approach also considers the level of effort required to assess a project's contribution to sustainability to be scalable, depending on the phase of the process and the context of the project, and can/will be adjusted/scoped as the impact assessment proceeds. For example, effects on future generations requires temporal scoping (i.e., consideration of next generation to "seventh generation"), based on expectations as to how many generations it will take for effects to become fully apparent, including return to VC baseline conditions; resilience of the VC; and whether a VC is expected to recover from effects.

As part of the public participation and Indigenous peoples engagement programs described in Section 3.2.2, the Project Team has (and will continue to) facilitate early identification of values and issues to



better inform the assessment of the project's contribution to sustainability; and identify VCs that should be carried forward into that assessment, scoping related criteria and indicators to reflect the project context. As part of sustainability considerations, this information has also been used (regarding which VCs are considered most important to Webequie First Nation) to identify alternative means of carrying out the Project and select alternatives to be carried forward for an assessment of sustainability contributions. Ultimately, with the appropriate input from the engagement and consultation program, the sustainability assessment will culminate with the development of commitments to ensuring the sustainability of Indigenous livelihood, traditional use, culture and well-being.

In identifying and scoping key VCs for sustainability contributions, the Project Team will consider VCs that:

- › could experience long-term effects, including how those effects could change over time, and how they could affect future generations;
- › may interact with other VCs;
- › may interact with potential effects of the designated project; and/or
- › may interact with project activities.

4.2. Assessment of Contribution to Sustainability

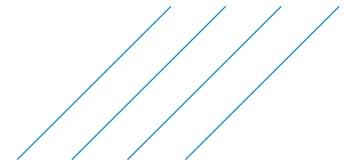
During preparation of the Impact Statement, the four (4) Sustainability Principles identified in the Agency's guides and the TISG will be applied as follows:

Principle 1 - Consider the interconnectedness and interdependence of human-ecological systems

A systems approach will be used to determine/express VC interconnectedness. The degree of interconnectedness within systems and/or subsystems may vary greatly (may be characterized as very intricate and tight/direct, or quite loose and indirect). The focus will be on those aspects that are most important to communities, the social-ecological system and to the context of a project. All interactions, pathways and connections among effects to the environment, and to health, economic and social conditions will be described, as will how these interactions may change over time. The Project Team will ensure that the description of systems and the direct and indirect relationships are guided by input from Indigenous Knowledge. It is expected that a graphic with simple pictorial images will be developed to visually represent the connections between human and ecological systems to facilitate comprehension and encourage input/feedback.

Principle 2 - Consider the well-being of present and future generations

The long-term effects on the well-being of present and future generations will be assessed. To conduct an analysis on future generations, the Project Team will first determine the potential long-term effects on well-being. This will entail consideration of the elements of environmental, health, social and economic well-being, across a spectrum of VCs, that communities identified as being valuable to them. In the context of subject VC (visual environment), well-being could include community cohesion, protection of the environment, culture, stress, or livelihoods. Available Comprehensive Community Plans (CCP) will be consulted to determine whether sustainability is a CCP central theme. How the environmental, health, social and economic effects on well-being could change over time will also be assessed, as information permits. Although effects on future generations could include effects beyond the lifecycle of a project, this is not expected to be major consideration for the WSR Project, as no expected decommissioning or



abandonment timeframe has been identified. With respect to temporal scoping, there is still a need to determine what the “future generation” is (i.e., how far into the future the project effects will be considered). Predicted potential effects on future generations will be assessed based on the supporting data or uncertainty; any uncertainty will be documented.

Principle 3 - Maximize overall positive benefits and minimize adverse effects of the designated project

The Impact Statement will include a consideration of ways to maximize the positive benefits of the Project and consider mitigation measures that are technically and economically feasible and would mitigate any adverse effects of the Project. Sustainability considerations will include: whether additional mitigation measures are required; have additional benefits been identified and, if so, how can they be maximized; does the direction of the impact (i.e., positive or negative) shift between different groups and sub-populations; are there particular strengths or vulnerabilities in the potentially affected communities that may influence impacts; do the impacts cause regional inequities; and do the near term benefits come at the expense of disadvantages for future generations.

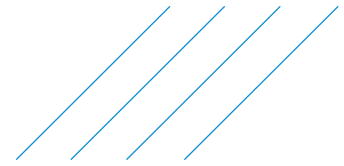
Principle 4 - Apply the precautionary principle and consider uncertainty and risk of irreversible harm

The precautionary principle states that “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. All uncertainties and assumptions underpinning an analysis will be described. A precautionary approach will be applied in cases where there is risk of irreversible harm (irreversible harm refers to project-related effects from which a VC is not expected to recover; reversibility is influenced by the resilience of the VC). Taking such a conservative approach may include setting out worst-case scenarios for decision-makers to consider, particularly when there is uncertainty about the significance or irreversibility of potential effects. As appropriate, the precautionary approach may be extended to commitments regarding the project’s design (to prevent adverse effects, prevent pollution, deal with unplanned events) and the development of monitoring and follow-up programs to verify effects predictions, or gauge the effectiveness of mitigation measures. Uncertainty may be characterized quantitatively (e.g., description of confidence levels of modelled predictions) or qualitatively (e.g., through descriptors such as “high”, “medium”, and “low”). Qualitative descriptions of uncertainty will explain how the level of uncertainty was determined, identify sources of uncertainty and data gaps, and describe where and how professional judgment was used.

5. Schedule

The preparation and completion of the work described in this work plan is expected to start in August 2020 and to be completed by the end of March 2021. The more detailed schedule is as follows:

- › Assembly and setup of geospatial layers- August to September 2020;
- › Visual quality baseline characterization- preliminary visibility analysis- September 2020



- › Initial community consultation for preliminary viewpoint identification- September to October 2020
- › Identification of viewsheds from sensitive receptors- October 2020
- › Photographic field survey at sensitive receptor locations- October to November 2020
- › Baseline report/deliverable- December 2020 to March 2021

6. Reporting

The outcome from the work described will be presented in the Visual Environment deliverable.

7. Closure

Prepared by:

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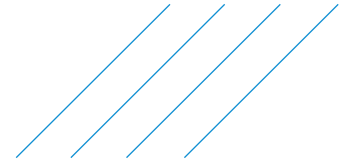
Engineering, Design and Project Management

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