

WEBEQUIE SUPPLY ROAD (WSR) PROJECT

GEOLOGY, TERRAIN, AND SOILS WORK PLAN FACT SHEET

What is the primary purpose of this assessment?



- To collect baseline data on the geology, geochemistry, geological hazards, terrain, soils and sediment in the study area to characterize existing conditions;
- To identify and consider the effects of the Webequie Supply Road (WSR) on geology, terrain and soils by examining changes and/or effects such as
 - the amount and distribution of terrain units (e.g., peatlands - bogs, fens) in the landscape- soil quality that refers to physical, chemical and biological properties of soils (e.g., soil compaction, erosion or contamination);
- Potential risk of acid rock drainage and/or metal leaching (i/e., geochemical hazards) from aggregate and rock materials that may release contaminants (metals, sulphuric acid) to the environment;
- Changes to permafrost conditions (frozen ground); and
- Potential increase in geohazards (e.g., sinkholes, landslides).



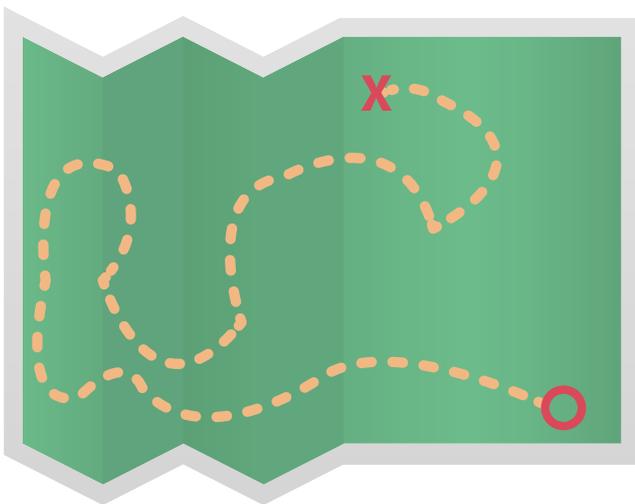
How will information be collected?

This Assessment will draw on the following secondary sources:

- Previously conducted environmental studies, including Indigenous Knowledge information obtained through consultation with Indigenous communities;
- Terrain and soil mapping;
- Bedrock and quaternary geology data;
- GIS databases; and
- Information obtained from regulatory agencies and other stakeholders;

The following field studies have been proposed to provide a more comprehensive assessment:

- Light Detection and Ranging (LiDAR) data collection;
- Soil and Terrain Investigations;
- Peat Thickness and Aggregate Source Investigations; and
- Geotechnical Investigations.



What is the study area for the potential effects on geology, terrain, and soils?

Study areas define the geographic boundaries to which the Project may have environmental effects. At this stage, there are three study areas:

- **Project Footprint (PF):** The area of direct disturbance (i.e., the physical area required for Project construction and operation);
- **Local Study Area (LSA):** The area where largely direct, and indirect effects of the Project are likely to be measurable; and
- **Regional Study Area (RSA):** The area where potential, largely indirect and cumulative effects of the Project in the broader, regional context may occur.

What are some of the potential effects that the WSR could have on geology, soils, and terrain?

- Rock and aggregate may generate acid rock drainage and/or metal leaching, which may adversely affect water, soils, animals and vegetation consumed by surrounding communities;
- Infrastructure that diverts or lowers the water table;
- Thawing of permafrost; and
- Increase potential for geohazards such as landslides or sinkholes.