



Existing Conditions Fact Sheet: Atmospheric Environment and Greenhouse Gases

Issued: October 2023

Understanding the existing conditions of an area is an important step during project planning. Studies that measure air quality and greenhouse gases take place in a local study area that is made of a 3 km wide corridor along the length of the proposed community access road.

Our Studies

To gain an accurate understanding of the local air quality and greenhouse gas conditions, a year long air monitoring program was conducted within the community of Marten Falls First Nation. There was a focus on identifying air contaminants related to transportation. The field program tested for different types of compounds (e.g., particulate matter, ozone, nitrous oxides, sulphur dioxide, and a class of compounds that includes benzene, toluene, ethylbenzene, and xylene) and while most of these fell within expected ranges, some contaminants exceeded the normal criteria for air quality monitoring.

Our Findings

Particulate matter (suspended particles in the air) were found at levels exceeding the Canadian Ambient Air Quality Standards and Ontario Ambient Air Quality Criteria. It is possible that this was caused by forest fires, community wood burning, and dust from vehicles driving on unpaved roads. Benzo(a)pyrene also surpassed the air quality standards and may have come from wood burning or diesel engines within the community.



Study Areas

Study areas identify the geographic limit where potential effects of the road may occur. The existing conditions are documented for three study areas:

- Project Development Area (PDA): the area of direct disturbance
- Local Study Area (LSA): the area where direct effects of the road are likely to take place
- Regional Study Area (RSA): the area where indirect effects are likely to occur



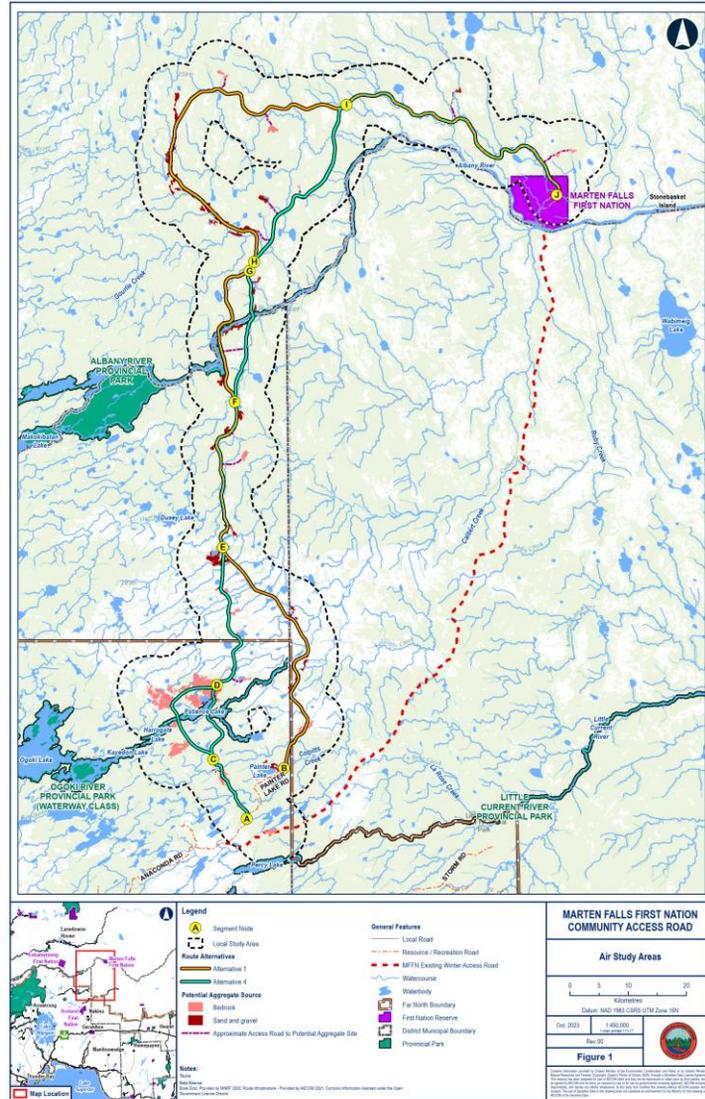


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The field program also assessed local greenhouse gas emissions, from activities such as air travel, fuel usage, and local traffic. Greenhouse gas sinks will also be factored into the future greenhouse gas assessment. Greenhouse gas sinks are anything that stores carbon, such as peatlands. Assessments of greenhouse gases are still being finalized.

The existing conditions data collection for air quality and greenhouses gases is complete. Information on existing conditions will be used to measure whether there are changes in air quality related to the construction and operation of the road.



Contact Information

You are welcome to contact the Project Team at any time with questions or comments.

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