

LAKE MANITOBA LAKE ST. MARTIN

OUTLET CHANNELS PROJECT

ATMOSPHERIC ENVIRONMENT

Includes air quality, noise levels, and lighting

Environmental Impact Statement—Summary by Valued Component (VC)

Why is Atmospheric Environment a VC?

Atmospheric Environment is a VC because there is potential for reduction in air quality, increased noise and ambient light issues due to Project activities.

What is the current state of Atmospheric Environment?

The Project will be located in a rural setting with gravel roads away from industrial activity. The closest community is 4.6 km away, and the largest urban centre, Winnipeg, is at least 180 km away. The atmospheric environment includes air quality, noise levels, and lighting.

Existing air quality for the Project area was based on information collected at existing monitoring stations. The baseline air quality generally meets appropriate air quality guidelines. Greenhouse gases were characterized based on reports of provincial and national inventories.

Valued components (VCs) are components of the natural and human environment that are considered by the proponent, public, Indigenous Peoples, scientists and other technical specialists and government agencies involved in the assessment process to have scientific, ecological, economic, social, cultural, archaeological, historical, or other importance.

The existing sound levels are assumed to be below the threshold suggested in Health Canada guidance (35 dBA—similar to the sound of a whisper or water flowing in a creek), typical of a quiet rural area.

Existing light levels were estimated based on satellite imagery and regional geography and included forms of light pollution such as sky glow, light trespass and glare.

What effects might the Project have on Atmospheric Environment?

The Project will require the mobilization of various types of heavy equipment (loaders, graders, dozers, excavators, pile drivers, large dump trucks, etc.) to the site to carry out construction activities such as clearing, channel excavation and building the Project infrastructure (water control structures, bridges, road realignment).

These activities will cause local increases in dust, vehicle exhaust and noise, and activities during night-time will require lighting. Construction will occur over three years, with another one or two for site cleanup, etc.

Air quality can be affected during construction due to exhaust emissions from construction equipment and dust from traffic, movement of heavy equipment, and moving earth.

Noise levels may increase above 35 dBA to 50–57 dBA during the operation of construction equipment (up to 24 hours/day) during the construction period.

Lighting: Although most construction will take place during the day, portable lighting units may be used as days become shorter and are required for worker safety. Minimal sources of permanent lighting will be required on the structures.



How will the Project mitigate Atmospheric Environment effects?

The Project will follow best management practices and federal and provincial health and safety standards to minimize atmospheric effects. Other than some permanent lighting expected on the control structures, effects such as increased noise, dust, and emissions in the Project area will be limited to the construction period.

Air Quality

- Maintain construction equipment, reduce idling times, and use a work camp to reduce vehicular traffic to minimize atmospheric emissions
- Use only water or approved dust suppressants to control dust; petroleum products will not be permitted
- Require tarpaulins for vehicles hauling dusty/ loose material to minimize dust and prevent material from falling out of vehicles
- Cover stockpiles of material, where required, to minimize dust

Noise Levels

- Notify residents near moderate to high noise-generating activities
- Use noise abatement barriers where necessary
- Keep machinery in good working order and minimize idling
- Restrict loud activities (e.g., pile driving) to daytime periods
- Implement a noise complaint procedure

Lighting

- Direct any lighting used on the construction activity and away from surrounding areas
- Avoid excessive lighting and turn off lights when not required

FOLLOW-UP AND MONITORING

Follow-up and monitoring are not proposed for atmospheric environment. Noise monitoring may be required in the event of residential complaints related to construction.

CONCLUSIONS

Air Quality

With the proposed mitigation measures, changes in air quality are not expected to be greater than existing levels that currently occur in nearby communities.

Noise levels

During construction, increased noise may occur along the provincial and municipal roads used for access and transport of materials, equipment and crews in the Project area, but with the proposed mitigation measures, this is not expected to be a concern for nearby communities.

Following construction, the operation of the channel infrastructure is not anticipated to result in increased sound levels to the Project area.

Lighting

Lighting used for the Project during construction will be limited since most of the construction will occur during daytime hours. The use of lighting may occur for short periods of time during the fall and winter seasons when the working day extends into the dark or during times when nighttime construction is required to meet schedule demands.

During operation and maintenance, some nighttime safety lighting may be required for water control structures.

Increased lighting is not expected to be at levels that cause concerns for nearby communities.

For more information or if you would like to share your concerns:

Visit www.gov.mb.ca/mit/wms/lmbismoutlets/ or email outletchannel@gov.mb.ca