

What measures will be put in place to reduce noise?

Mitigation measures are designed to minimize the noise associated with operations and to comply with applicable regulations.

Facilities and equipment

- Installation of silencers on certain fixed equipment (e.g., fans on two silos and on dust extractors)
- Complete or partial closure of both towers to limit equipment noise inside
- Installation of the wagon unloading station and waiting area for trucks south of the site in the area that is farthest away from nearby residential areas.

Operations

- Between 10 p.m. and 6 a.m., as much as possible:
 - Modification of operations to avoid other sources of noise during the train arrival period
 - Limitation of the presence of trucks on the site concurrent with wagons or boats
- Establishment of a formal operational procedure, in consultation with the railway operator, to minimize noise during wagon coupling and uncoupling manoeuvres
- Positioning of the first section of train along Champlain Boulevard to create a noise screen when moving wagons
- Idling reduction of truck machinery
- Light-based rather than sound-based back-up warning systems on vehicles for operations occurring after dark (La Coop fédérée vehicles)
- Noise-generating equipment can be installed inside caissons to limit noise impact.

Monitoring program

- We will establish a mechanism to monitor the annual soundscape over the first five years of operation, in order to compare the actual noise emissions with the guidelines.
- We will establish a system for managing and processing reports (complaints, specific events, etc.)



SOUND CLIMATE

The main sources of noise that can increase the sound level near the grain export terminal are freight arrivals via truck, as well as truck loading and unloading operations (from the west only) and rail transportation. However, it is expected that 72% of the time there will be no receipt or shipping of goods, and for the rest of the time (28%), arrivals will generally take place during the day, when the noise of operations will blend in with the ambient sound.

What has been done

- Measurement of the current soundscape near the project
- Modeling of noise generated by the project
- Comparison with the current soundscape (prior to the project) in residential areas near the project (Cap Blanc and Les Jardins de Mérici)
- Development of mitigation measures that will be implemented prior to and during the operation phase

What will the sources of noise be during project operation?

- Stationary equipment (e.g., dust extractors, fans, conveyors)
- Arrival and unloading of wagons
- Arrival and unloading of trucks
- Loading and unloading from the boat conveyor

What will the noise impact of the project be?

The noise impact of the project will be limited and will, most of the time, blend in with ambient noise. Given the implemented mitigation measures, the project will respect the guidelines in effect.

To limit the noise impact, the guidelines prescribed by the Québec Port Authority were applied to the results of tests conducted in November 2017. These values correspond to the most rigorous limits included in the municipal regulations (No. 978) and MDDELCC guidelines (Instructions 98-01). As the ambient noise level varies during the day, the guidelines were adjusted accordingly, and the noise levels of the project were compared to this reference grid.

Grain transport operations by rail, boat, and truck, as well as loading and unloading operations are the most likely to cause noise, but there will be no receipt of goods 72% of the time.

Evidently, we aim to meet the objectives at all times. To achieve this, we will work closely with the rail operator to establish noise abatement measures during a train's arrival and departure which will usually occur during the day, when noise blends in with ambient noise.

72%
OF THE TIME
NO RECEIPT/SHIPPING
OF GOODS

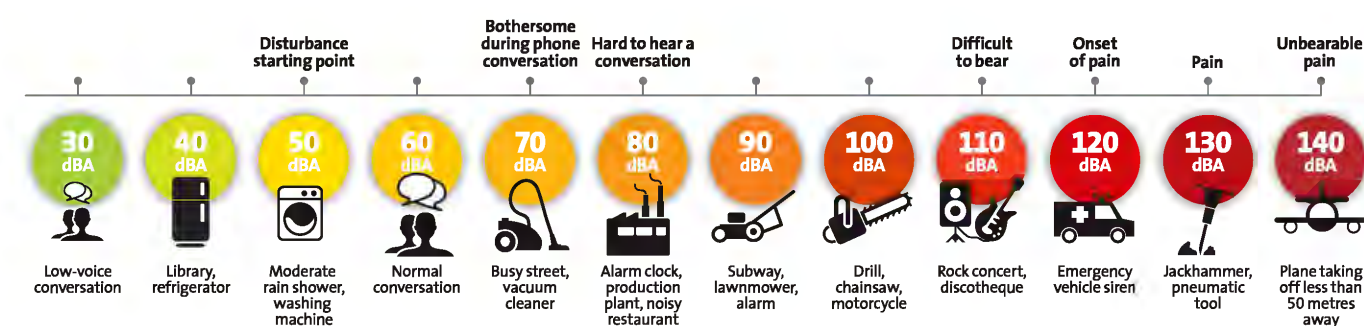
Full operation: an exceptional scenario

Full operation means that all equipment and operations function at their maximum capacity, simultaneously, for a period of 24 hours, which involves the arrival and unloading of 100 trucks, one train, and one boat, as well as the loading of another boat. All steps will be taken to avoid this situation, but it is possible that this exceptional scenario may occasionally occur (4% of the time).

Noise impact of full operation



Example of noise and human reactions



Source : ministère de la Santé et des Services sociaux