



NOISE AND VIBRATION FIELD STUDY FACT SHEET

Sound monitoring installation.

This fact sheet provides information about VIA HFR's noise and vibration study program. It tells you how to get answers to your questions and give us your comments. Your insight will help shape the program.

What is a noise and vibration study?

The 2024 noise and vibration study will focus on documenting and understanding existing noise and vibration conditions at sensitive receptors (schools, elderly housing) near the project. This will help HFR planners understand some of the project's potential impact on the surrounding environment during the construction and operation phases.

Key terms

Ground-borne Vibration (VdB)

How the ground moves in response to nearby activity. Ground-borne vibration is typically described using vibration velocity decibels (VdB).

A-weighted Sound Level (dBA)

Sound level adjusted to how humans perceive different frequencies. The greater the level, the louder the sound.

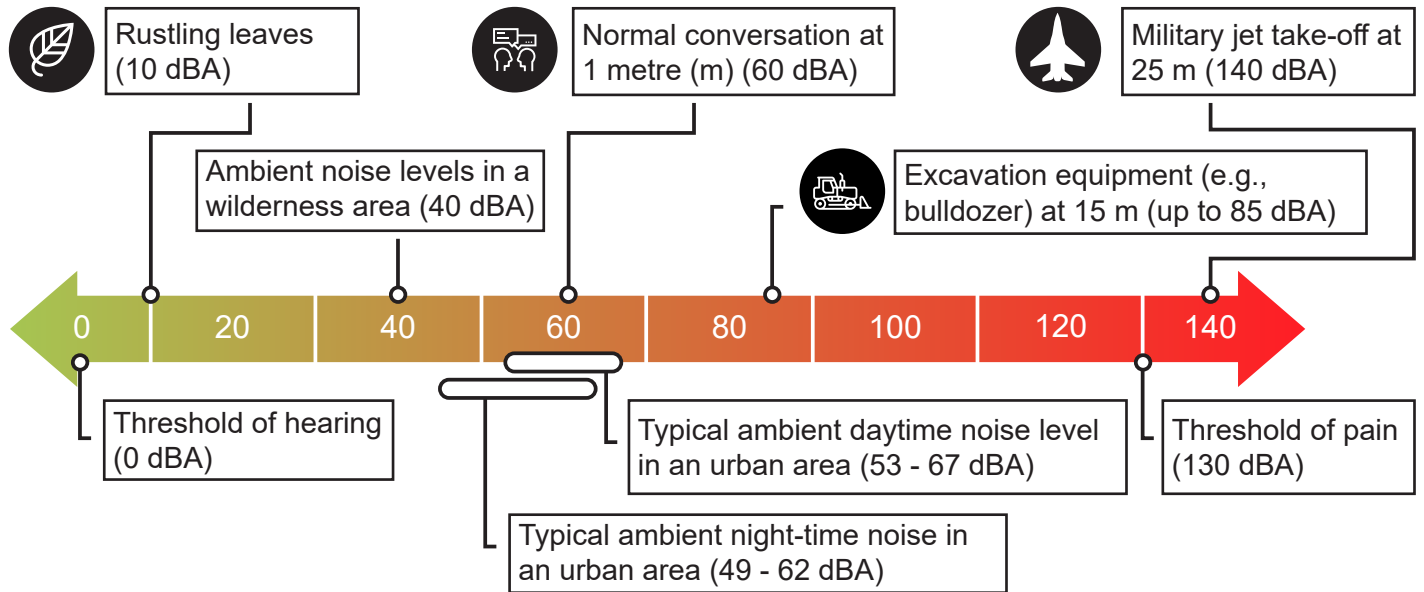
Sensitive receptors/ locations

Areas where occupants may be more sensitive to noise and vibration, such as dwellings, hospitals, schools, daycare facilities and elderly housing.



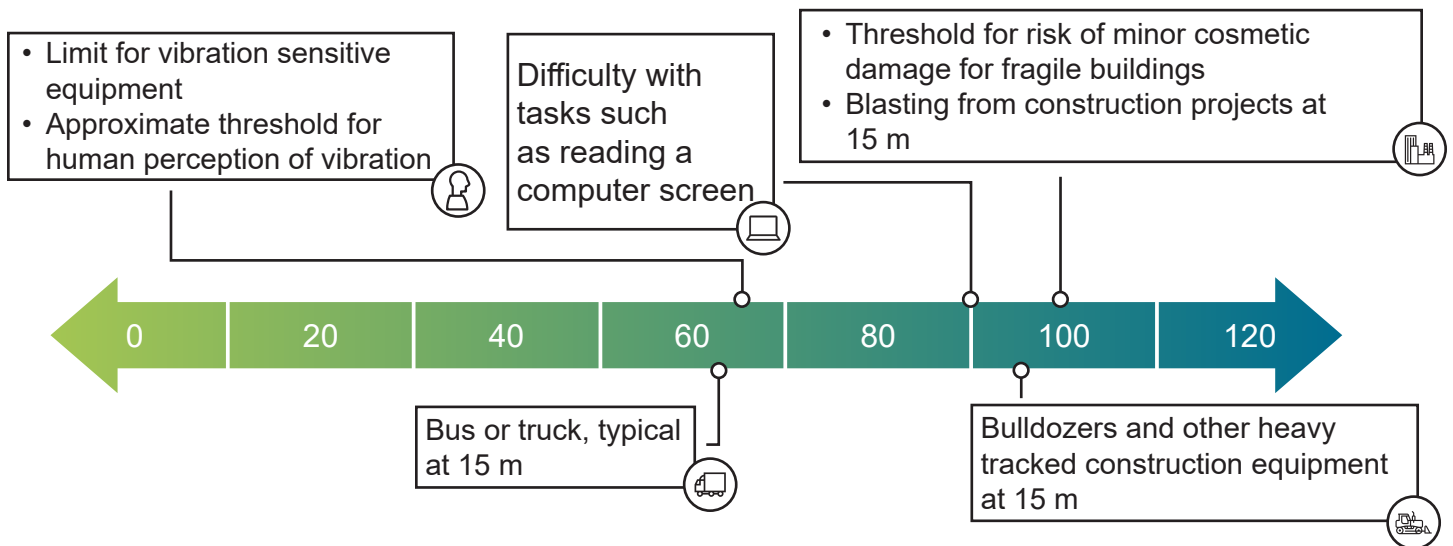
Comparing sources of noise in decibels (dBA)

The graphic below compares sources of noise and their associated noise levels in dBA.



Comparing sources of vibration (VdB)

The graphic below compares sources of vibration and their associated vibration levels in VdB.





Why study noise and vibration?

Passenger rail operation and construction emits noise and vibration. Sound and vibration monitors will be used to measure existing conditions along possible routes. Measuring noise and vibration levels before railway construction will help decision-makers determine a baseline for assessing and reducing potential negative effects.



Vibration monitoring installation.



Vibration recorder.

What do noise and vibration studies involve?



Noise and vibration studies involve establishing existing conditions and identifying and describing those conditions.



To establish baseline sound conditions, a sound monitor will be installed to capture ambient (surrounding) sound over a 48-hour period.



Vibration monitors will be used to capture vibration measurements from passing existing trains.

This will help us establish baseline vibration conditions at sensitive locations and determine local ground-borne vibration characteristics.

The data collected from these devices will then be used to inform the impact assessment. These studies will be complemented by other sources of information, including Indigenous knowledge (when provided).



When will noise and vibration studies occur?

Noise and vibration studies will take place from June to October, 2024. Sound and vibration monitors can be installed at any point during the study period to collect data (HFR planners will check on the devices periodically to verify proper function).

Study Type	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Noise and Vibration												

Where are noise and vibration studies taking place?

The 2024 noise and vibration studies will take place along sections of existing railway routes in Ontario, from Twin Elm up to Ottawa and down to Vars, and in Québec near Laval to the 740 highway in Québec City.



Where can I learn more about HFR?

If you're interested in getting more information, or if you have a question or comment, please visit www.hfr-tgf.ca. You may also contact the HFR Team via email at: questions@hfr-tgf.ca

For more information on Canada's impact-assessment process, visit <https://www.canada.ca/en/impact-assessment-agency.html>