

1 Managing construction noise and vibration

Ara Tūhono - Warkworth to Te Hana will be delivered as a Public-Private Partnership (PPP). The PPP contractor will be responsible for meeting the noise and vibration conditions and managing the impacts.

What will generate noise and vibration?

- Vegetation clearance
- Rock blasting
- Tunnelling
- Earthworks
- Bridge piling
- Works that include excavators, rollers, bulldozers, motor scrapers, dump trucks, compactors, drill rigs, rock crushers and breakers

Vibration - what is felt?

You can often feel vibration during construction. Diggers, drillers, piling machines, heavy rollers and vehicles are the most common causes. In most cases, the project will not cause vibration that would significantly disturb people. The contractor will also manage vibration to avoid damage to properties.

The human body is sensitive to vibration and people can feel movements at low levels. This varies depending on how close they are to the source of vibration.

Vibration can be perceived as annoying if it goes on for a long time or at certain times (eg at night in bed, more vibration may be perceived than during the day).

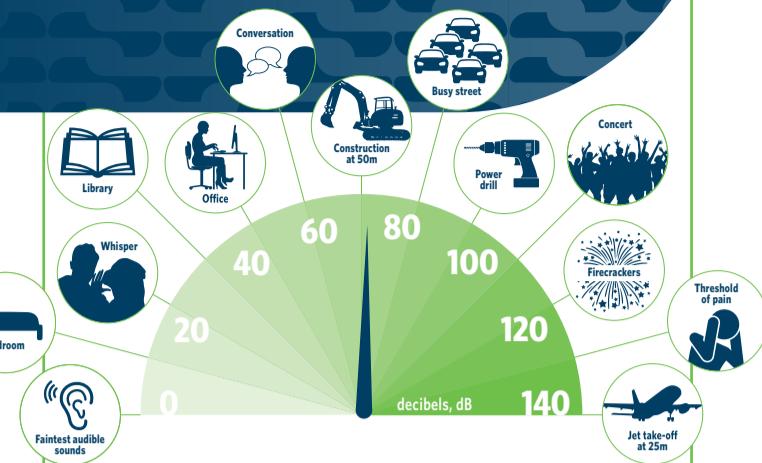
Managing vibration

The vibration criteria the contractor must work to are within the projects designation conditions. The conditions are set well below those that can cause damage to nearby properties.

Managing construction vibration includes:

- assessment of individual activities/locations
- provision of information
- pre-construction building condition surveys and monitoring

Regular monitoring takes place during the work to check the levels of vibration. If vibration is higher than expected, then construction activity and methods are reviewed to see if any changes can be made. An independent specialist may also check the condition of a property.



Noise - typical sound levels

Sound sources cause changes in air pressure which can be detected by our ears and can also be measured by a sound level meter.

The existing ambient noise levels are low, so people in the vicinity of the project will notice a change. The noise you may experience will vary, it depends on location, activity, work duration, size of the worksite, and weather conditions.

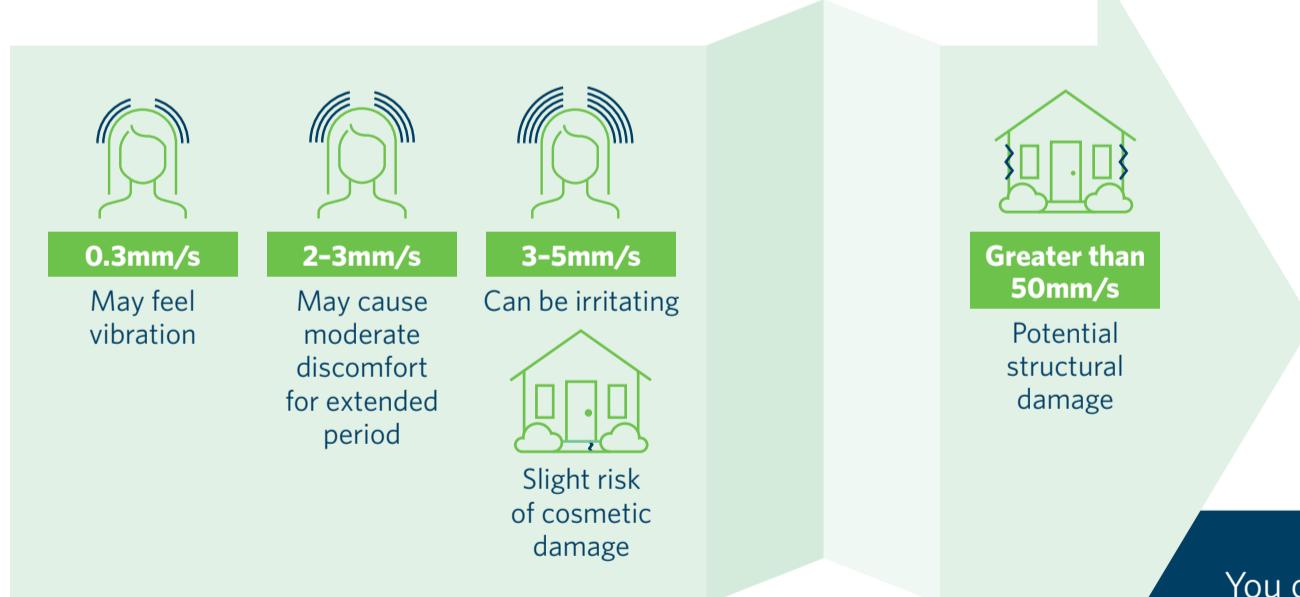
Managing noise

The contractor will manage construction noise and work hours by working within consent and designation conditions and associated management plans.

Ways noise can be managed include:

- turning off machines when not in use
- equipment selection
- site set up and timing

Many construction effects are unavoidable. The contractor must aim to reduce disturbance to communities as much as possible. Regular monitoring takes place during the project works to check noise levels. If noise levels are higher than expected, the construction activity and methods will be reviewed to see if anything can be changed.



You can read the projects construction noise and vibration assessment at www.nzta.govt.nz/assets/projects/ara-tuhono-warkworth-to-wellsford/construction-noise-and-vibration-assessment.pdf

Contact us

If you have any questions, you can contact us on: www.nzta.govt.nz/northland-corridor

More information can be found at: northlandproject@nzta.govt.nz

