Managing noise and vibration

FACT SHEET

How we assess and manage operational rail noise

When Inland Rail is operational it will have the potential to generate noise for residents in locations including their own homes, schools and in hospitals. We term people in the community who may be impacted by noise as ‘sensitive receivers’.

We acknowledge some residents may not have experienced rail noise before and be understandably concerned about potential impacts. We also recognise some residents currently live in areas where there are existing noise impacts from rail and want to know if Inland Rail will cause additional impacts.

All impacts associated with the operation of Inland Rail (including noise and vibration) are evaluated as part of detailed environmental assessments.

Noise and vibration studies determine potential impacts and identify mitigation measures as part of the project environmental assessment and approval process.

Inland Rail Noise and Vibration Strategy

We have developed the Inland Rail Noise and Vibration Strategy to guide the management of noise and vibration levels across the program.

Operational rail noise and vibration is assessed in accordance with relevant state guidelines as part of this, e.g. the New South Wales Environment Protection Agency’s Rail Infrastructure Noise Guideline (RING). Similar guidelines are also under development in Queensland.

These guidelines provide the levels at which noise and vibration are deemed reasonable, and therefore above which noise would reasonably need to be reduced.

Noise modelling

We gather noise data from a range of locations along the proposed alignment and use that data to model the potential noise impacts during Inland Rail operations.

Detailed noise modelling aims to predict where we may exceed trigger levels and list potential noise mitigation measures, including noise walls, property treatments and other forms of track and rail infrastructure to mitigate potential noise impacts.

Our operational noise modelling includes noise and vibration caused by:

- trains passing, changing speeds, braking or idling
- movement of train wagons
- operation of bells and alarms at level crossings and the use of train horns by train operators
- standard operational maintenance activities, involving upkeep work.

It looks at the potential noise impacts at the following points in time:

- on opening of each project
- on opening of the completed Inland Rail between Melbourne and Brisbane (2025)
- one year after Inland Rail is operating at full capacity (full capacity is likely in 2040).
What happens after planning approval?
If planning approval is granted, the noise assessment will be refined through detailed design. The refined assessment is known as the Operational Noise and Vibration Review. At this point, we will start discussing specific noise mitigation measures with impacted community members.

Our voluntary noise management program
We are continuing to refine our Rail Noise Abatement Program (RNAP) to address emerging issues as a result of increased growth in rail traffic.

The RNAP applies to those who may be impacted by Inland Rail noise, and who meet eligibility criteria, in a fair and sustainable way.

Noise and vibration during construction
Some sections of Inland Rail will involve works to existing level crossings, as well as upgrades to existing structures and tracks along the rail corridor. New sections of track and new level crossings will also be constructed.

We will take every measure to reduce construction impacts on communities, buildings, structures and sensitive receivers. Noise and vibration from construction activities will be short-term and localised in specific work areas.

We will work with contractors to ensure targeted community and stakeholder engagement is undertaken prior to and during any high intensity noisy works, night works and/or 24-hour construction periods.

A Construction Noise and Vibration Management Plan will guide the delivery of construction works and mitigate, where possible, impacts on communities.

More information
For more information please refer to the following resources:
- Environment Protection Authority Victoria – epa.vic.gov.au

Want to know more?
ARTC is committed to working with landowners, communities, state and local governments as a vital part of our planning and consultation work, and we value your input. If you have any questions or comments about this fact sheet, please let us know.

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The Australian Government is delivering Inland Rail through the Australian Rail Franchise Corporation (ARTC), in partnership with the private sector.