

1 November 2023

Managing noise and vibration

John Holland is delivering the Upper South Creek Advanced Water Recycling Centre (AWRC) and associated pipelines in Western Sydney on behalf of Sydney Water. Construction to build the AWRC and connected pipelines started August 2023 and will continue to until 2026.

This fact sheet provides information on how we're managing noise and vibration while we build the project.

Our work activities that may create noise and vibration

Site establishment, mobilisation, and earth works to sample and test soil, topsoil stripping and removal by drilling rigs, excavators, and vacuum trucks. Small construction vehicles such as mowers, street sweepers, graders, bobcats, and trucks.

Utility investigations or potholing to locate underground services like water, power, and gas. We will use machinery like pavement saws, excavators, vacuum trucks, and jackhammers.

Trenching to install our services using jackhammers, excavators, road saws, excavator hammers and compaction machines.

Installing our pipelines safely using excavators, small construction vehicles, road compactors and vibratory rollers to smooth out the above ground areas, using small hand tools and welding equipment.

Horizontal directional drilling (HDD) to create an underground passage for the pipelines. This is a surface-to-surface drilling method using a drilling rig and a ground underbore machine.

Clearing trees, shrubs and plants to create space using chainsaws, chippers, excavators and elevated working platforms.

Piling work to drill and drive piles into the ground to create permanent bridge structures and foundations using piling rigs, cranes, excavators and concrete trucks.

Construction traffic with construction vehicles for delivering materials and equipment (small or oversize) and concrete deliveries.

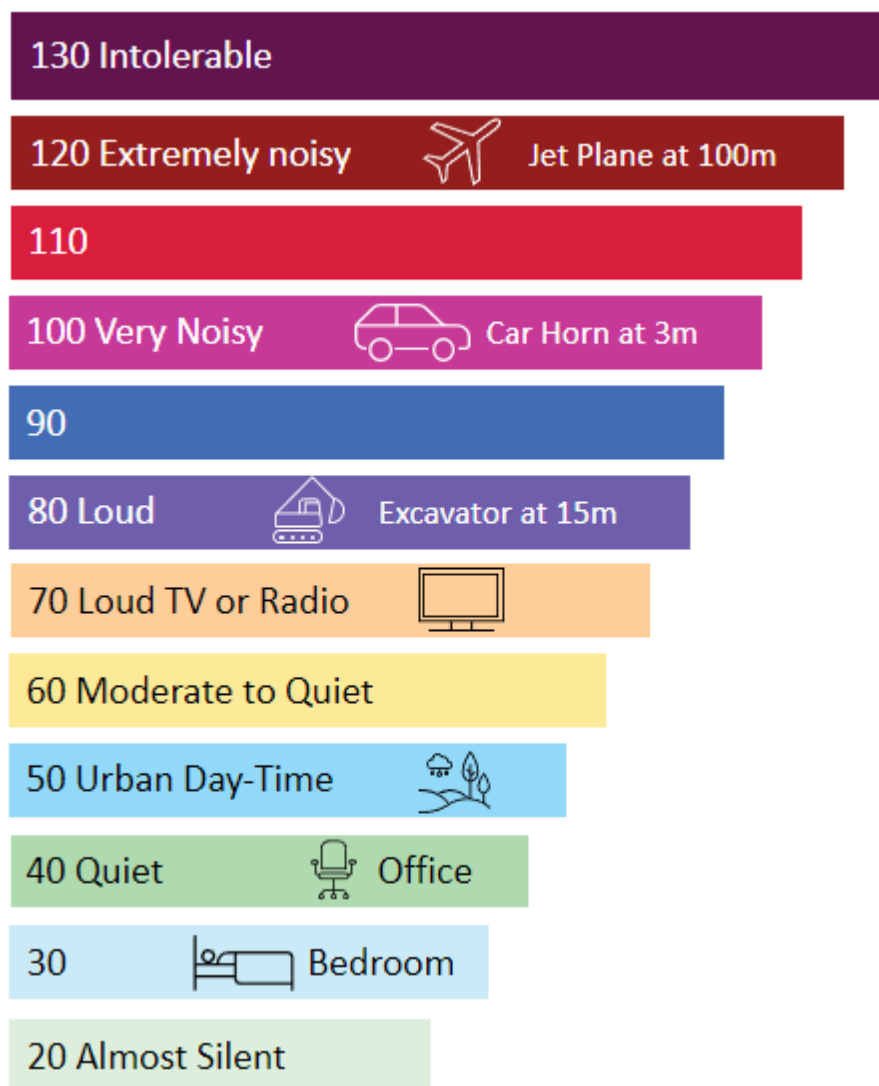
Landscaping and rehabilitation of the area once the project is finished. We will use machinery like a compactor, excavator, light hand tools, and small construction vehicles such as water carts and street sweepers.

How we measure noise

We measure noise in decibels (dBA). Everyone hears and interprets noise differently. Many people can hear an increase of 10 decibels, however some activities can sound much louder than the actual increase.

For example, a lawnmower is about 90 decibels and a motorcycle is about 100 decibels. To the ear, a motorcycle sounds almost twice as loud as a lawnmower.

The noise level chart below outlines the different levels of noise we all experience.



How we are managing construction noise and vibration

As part of the requirements under a Critical State Significant Infrastructure (CSSI) project, construction approvals have been developed to guide the project's construction activities, and any subsequent noise and vibration levels.

This includes an Environmental Protection Licence (EPL) assigned by the NSW Environmental Protection Authority (EPA).

We have also developed a Construction Noise and Vibration Management Plan, which identifies the potential impacts of our work and also provides solutions to reduce these impacts. Some of these solutions include:

- limiting the duration of higher noise activities as much as possible
- active and consistent noise and vibration monitoring
- stopping higher noise activities earlier, where possible
- limiting the use of multiple equipment at the same time and location
- using quieter reversing alarms on equipment instead of beeper alarms
- installing temporary noise blankets with fencing, around our work areas and machinery, if possible
- turning off plant and equipment when not in use
- using two-way radios to avoid shouting
- training staff to be noise conscious and regular toolbox talks to the workforce (no shouting or swearing, no stereos or radios, no slamming doors, obeying reduced speed limits when driving in and out of site. and no dropping or throwing of materials).

We will inform all impacted residents of the work before it takes place.

Construction work hours

Our standard working hours are **7am to 6pm, Monday to Friday** and **8am to 1pm, Saturday**.

From time to time, we will work at night to maintain safety for road users and workers and to keep people moving during peak travelling times.

If you are directly affected, we will notify you before night work occurs.

Frequently asked questions

Do you have to carry out night work?

We carry out night work from time to time to minimise the disruption to road users and public transport during peak travelling periods and for the delivery of oversized plant or structures.

Night work may also include emergency and utility improvement work for water supply.

How long will I be affected by the night work?

- No more than two (2) consecutive evenings and/or nights at any time
- No more than three (3) evenings and/or nights per week
- No more than 10 evenings and/or nights per month.

For more information about the Upper South Creek Advanced Water Recycling Centre project, visit our project website by scanning the QR code below.

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