GOVERNMENT OF WESTERN AUSTRALIA

METRONET

BUILDING FOR TOMORROW.

Managing Construction Impacts

The 14.5km Yanchep Rail Extension is a significant project, and while construction impacts to the local community will be minimised as much as possible, some disruption will be experienced.

Noise, dust, and vibration may be noticeable to those living or working nearby, with activities required including earthworks, compaction, rail installation, road and bridge construction and the building of three station buildings.

We will keep residents informed about upcoming construction activities, and all works will be undertaken in accordance with the project's approved management plans:

- Construction Environmental Management Plan
- Stockpile Development, Management and Rehabilitation Plan
- Noise and Vibration Management Plan
- Traffic Management Plan
- Dust Management Plan

Standard construction hours are 7am to 7pm, Monday to Saturday.

Some out-of-hours works are required, including at night, to avoid disruption to road or rail operations, or for the safety of the workforce. All out-of-hours works require approval from the City of Wanneroo, and residents and businesses will be provided notice prior to works starting.

Noise Decibel Scale (dBA)

How are noise impacts being managed?

While every effort will be made to reduce noise impacts where possible, there will be some level of noise due to the various activities and equipment used during construction works.

A range of control measures are being put in place to minimise noise disturbance including:

- ensuring equipment is well-maintained to reduce noise emissions
- using vehicles fitted with a low-noise reversing croaker, instead of beepers where possible
- reducing the number of vehicle movements through careful planning
- scheduling noisy works at less-sensitive hours, where possible
- notifying residents about out of hours or particularly noisy works
- using the quietest equipment reasonably available.

How are vibration impacts being managed?

We will aim to keep vibration to a minimum and work within the limits set by the Australian standards for construction vibration. However, nearby residents are likely to feel some vibrations from the construction activities.

Some measures being implemented for the project include:

- undertaking a detailed vibration impact assessment and implementing vibration monitoring
- operating equipment on the lowest effective vibration setting
- maintaining low speed limits for construction trucks and machinery
- maintaining equipment
- selecting appropriate machinery and equipment
- considering alternative construction methodologies where possible
- notifying residents about activities with excessive vibration and the works duration

Although vibration may be unsettling, property owners can be assured that as the limits set by the Australian standards are well below those capable of causing structural damage, we do not expect property damage as a result of construction works.

Before starting major construction, an independent building inspection company will conduct a pre-condition survey to any home or business owners within 50m of a project site (including the rail corridor).

A pre-condition survey includes an independent surveyor visiting the property and taking a photographic record of the building's or structures existing conditions. The pre-condition survey reports can be used to compare the condition of a property pre and post the completion of construction works.

If an owner believes damage has occurred to their property as a direct result of construction, they should contact us immediately.

Peak Particle Velocity (mm/s)

(mm/s)	Impact	Activity	(mm/s)
10.0 or greater	Likely to cause damage in residential areas	Driving in nails	22.4
		Compactor at a distance of approx. 5m	20
		Door slams	12.7
6.0	Strongly noticeable	Jumping	7.1
		General external construction activity	1-5
		Pile driving/removal at a distance of 25 - 50m (depends on the soil conditions and the energy of the pile driving hammer)	1-3
2.2	Easily noticeable	Compactor at a distance of approx. 15m	2
		Bulldozers at a distance of approx. 5m	1-2
		Vibratory Roller at a distance of 25m (higher levels could occur at closer distances)	1.5
1.0	Noticeable	Walking	0.8
0.15	Human perception		

Millimetres Per Second (mm/s): a measurement which shows how fast vibration travels.

How is air quality and dust being managed?

Given the project's coastal location along with the works required, dust from construction activities is likely to occur.

The main dust sources from construction are likely to be excavation and loading of excavated material into trucks, heavy vehicle movement on unsealed areas and wind erosion on exposed surfaces.

To help minimise the impact of dust, a range of measures are being implemented, including:

- utilising water trucks and water sprays to suppress dust
- careful selection of machinery
- limiting on-site vehicle speeds
- monitoring environmental factors influencing dust, including wind levels
- postponing dust producing activities during high winds
- regular surveillance and responding to feedback from residents
- applying dust suppression crusting agents to stockpiles and areas that will not be accessed for long periods of time to stabilise surfaces.

As part of road construction, a road sealing product is used to bind the road base material (aggregate) together and assist in enhancing the roads long term durability and performance. This product is not harmful to health but can smell like diesel to some people when being laid on the road, as an active ingredient is kerosene. If wind levels are low, the smell may linger. The team will apply as little as possible to minimise potential discomfort.

MORE INFORMATION

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Public Transport Authority