

APA Technical Note - Western Outer Ring Main - Environment Effects Statement

TECHNICAL NOTE NUMBER: TN24

DATE: 16 September 2021

SUBJECT: Specialist Area: Noise and vibration
Response to RFI # 94 and 97

SUMMARY This Technical Note provides responses to the Request for Further Information received from the Inquiry in relation to Technical Report F *Noise and vibration* of the Western Outer Ring Main (**WORM**) Environment Effects Statement (**EES**).

REQUEST:

94. Explain how the changing land use context (and potential increase in sensitive receptors) will be considered and responded to in the assessment and management of potential construction noise impacts.

97. Explain how the changing land use context (and potential increase in sensitive receptors) will be considered and responded to in the assessment and management of potential construction vibration impacts.

NOTE:

Response to RFI # 94: Changing land use context and noise considerations

- 1 The noise and vibration assessment for the Project considered existing receptors and future receptors where planning approval has been attained. To avoid and minimise the risk of harm from impacts on these receptors during construction, a number of environmental management measures will be implemented including those that reduce noise on-site and at the source (such as EMM NV1, NV2, NV4), as well as notification of residents (EMM NV6) and off-site management measures including alternative temporary accommodation or other respite options (EMM NV7).
- 2 For any new or additional receptors (that have commenced since preparation of Technical Report F *Noise and vibration*), these same environmental management measures will apply and the Project will be required to avoid and minimise impacts to any existing sensitive receptors at the relevant time of construction.
- 3 Technical Note 01 – EP Act update re Noise and Vibration sets out changes to the Noise section of the Construction Environmental Management Plan (**CEMP**) recommended as a result of the commencement of the *Environment Protection Act 2017* and these are considered to be appropriate to address any risks of harm arising from new sensitive receptors.

Response to RFI # 97: Changing land use context and vibration considerations

- 4 As explained in Technical Report F *Noise and vibration*, construction activities may result in short term vibration impacts on residential and commercial receptors, the impact of which will depend on the distance of the receptor to the construction corridor. Environmental management measures (**EMMs**) to avoid and minimise the impacts are detailed in Technical Report F *Noise and vibration* and include (where feasible and necessary):

- Substituting equipment or work methods that produce high levels of vibration for alternatives that produce less vibration where appropriate (EMM NV2)
 - Adopting engineering noise controls at the source (for example, silencer, mufflers) (EMM NV2)
 - Restricting the hours that vibration-generating activities can occur (respite periods) (EMM NV1 and NV5)
 - Increasing the distance between a sensitive receptor and vibration source through strategic placement of stationary equipment (e.g. generators) (EMM NV4)
- 5 As per paragraph 2 above, the environmental management measures that address vibration from construction will also apply to any new or additional receptors (that have not been specifically considered in Technical Report F *Noise and vibration*). This includes implementation of measures to meet the standards for structural damage and human perception in EMM NV10.
- 6 Prior to any blasting, a Blast Management Plan would be developed to detail proposed blast methodology and design, proposed location of blasting including consideration of sensitive receptors, and identify blast impacts and all management measures during blasting activities (EMM NV3). Any new or additional receptors will be identified and considered in the blast study and the environmental management measures will also apply to these receptors if necessary.
- 7 Technical Note 01 – EP Act update re Noise and Vibration sets out changes to the Vibration measures in the CEMP recommended as a result of the commencement of the *Environment Protection Act 2017* and these are considered to be appropriate to address any risks of harm arising from new sensitive receptors.