

APPENDIX

D

Operational Noise and Vibration Assessment

Attachment H Sensitive Receivers and Noise Impact Management

NARRABRI TO NORTH STAR SUBMISSIONS PREFERRED INFRASTRUCTURE REPORT





MEMO

TO: Wayne Window and Sam Blanco, ARTC

FROM: Adam Cook, WSP
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SUBJECT: **Inland Rail – Narrabri to North Star – Noise receiver categories**

OUR REF: PS106716-ACO-MEM-0002 Rev0.docx

DATE: **28 November 2019**

This memo serves as an addendum to the ONVR and addresses further outcomes of the noise modelling undertaken for the Narrabri to North Star component of Inland Rail (N2NS).

The N2NS Operational Noise and Vibration Report (ONVR) was prepared during the detailed design stage of the project. Particularly, all receiver's locations and categories are based on data sourced in the Environmental Impact Statement (EIS).

Several receivers have been incorrectly categorised in the EIS or changed category since the preparation of the EIS. This memo details the impacts on the noise predictions for these receivers.

RECEIVERS UNDER CONSIDERATION

The receivers considered in this memo are the following:

- TAFE Agricultural Skills Centre – Labelled as NNS_Rx2251 and previously considered as a residential receiver. Its new label is NNS_EDUx0010 and is an education facility.
- Moree Family Day Care – Labelled as NNS_Rx1645 and previously considered as a residential receiver. Its new label is NNS_CCFx0001 and is an education facility (child care centre).
- Moree Tennis Courts – Labelled as NNS_REAx008. This receiver does not exist anymore.
- North Star Golf Course – Not included in the ONVR. Its new label is NNS_REAx0029 and is an open space (active use). It is noted it is over 300m from the alignment.
- Jehovahs Witnesses Hall – Labelled as NNS_Rx1016 and previously considered as a residential receiver. Its new label is NNS_WORx0013 and is a place of worship.

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PREDICTED LEVELS

The predicted rail noise levels for these receivers, sourced in the ONVR, are detailed below. All predictions hypotheses and criteria are detailed in the ONVR.

Table 1 Rail noise modelling results – No mitigation

RECEPTOR	CRITERIA (EXTERNAL) [1]	YEAR 2025	YEAR 2040
NNS_Rx2251 NNS_EDUx0010	58 dB $L_{Aeq,1h}$	58 dB $L_{Aeq,1h}$	61 dB $L_{Aeq,1h}$
NNS_Rx1645 NNS_CCFx0001	58 dB $L_{Aeq,1h}$	49 dB $L_{Aeq,1h}$	52 dB $L_{Aeq,1h}$
NNS_REAx0029	65 dB $L_{Aeq,15h}$	≤ 52 dB $L_{Aeq,15h}$	≤ 54 dB $L_{Aeq,15h}$
NNS_Rx1016 NNS_WORx0013	58 dB $L_{Aeq,1h}$	50 dB $L_{Aeq,1h}$	52 dB $L_{Aeq,1h}$

[1] It is noted that non-residential receivers do not have a relative increase or a L_{max} criteria.

CONCLUSIONS

All receivers are predicted to comply for Year 2025 and therefore, no mitigation measures are required.

WSP trusts this information is suitable for your immediate purposes. Please contact the undersigned if you have any queries.

Regards,

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