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Mr Mick Fallon  
Team Leader  
Transport Assessments  
Department of Planning, Industry and Environment  
GPO Box 39  
Sydney NSW 2001

Email [mick.fallon@planning.nsw.gov.au](mailto:mick.fallon@planning.nsw.gov.au)

Dear Mr Fallon

**Inland Rail – Narromine to Narrabri (SSI 9487)  
Advice on Environmental Impact Statement (EIS)**

I am writing to you in reply to your invitation to the Environment Protection Authority (EPA) to provide comment on the Environmental Impact Statement (EIS) for the above project.

The EPA understand the project involves the construction and operation of 306 km of new single-track standard gauge railway, with seven crossing loops to accommodate double-stacked freight trains up to 1,800 metres long and 6.5 metres high. The project will include new rail connections; level crossings and possible future connections with existing ARTC and Country Regional network lines; bridges over rivers and other water courses, floodplains and roads; and will include road realignments at various locations including Pilliga Forest way for 6.7 km.

The EPA has reviewed relevant EIS documents including:

- *Environment Impact Statement*, prepared by ARTC (WSP and AECOM), dated 30 November 2020 (EIS main report)
- *Technical Paper 8: Noise and Vibration – Construction and Other Operations*, prepared by JacobsGHD, dated October 2020 (CNVIA)
- *Technical Paper 9: Noise and Vibration Assessment – Operational Rail*, prepared by SLR, undated (ONVIA)
- *Technical Paper 5: Surface Water Quality Assessment*, prepared by JacobsGHD, dated 2020 (SWIA)

Based on the information provided, the proposal will require an environment protection licence (EPL) under Clause 33 of Schedule 1 of the *Protection of the Environment Operations Act 1997* (the POEO Act) for railway activities – railway infrastructure construction. Under Schedule 1, Clause 33 of the POEO Act, an activity requires a licence if there is construction of a railway outside a metropolitan area of 5 kilometres or more in length. ARTC (the proponent) currently holds an environment protection licence (EPL no. 3142) for carrying out activities associated with railways systems.

The EPA provides comments and seeks additional clarification in relation to noise and vibration impacts at **Appendix A**. Comments are also made for water quality, air quality and contamination in Appendix A.

Phone 131 555  
Phone +61 2 9995 5555  
(from outside NSW)

TTY 133 677  
ABN 43 692 285 758

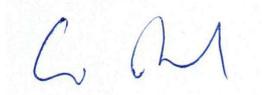
Locked Bag 5022  
Parramatta  
NSW 2124 Australia

4 Parramatta Square  
12 Darcy St, Parramatta  
NSW 2150 Australia

[info@epa.nsw.gov.au](mailto:info@epa.nsw.gov.au)  
[www.epa.nsw.gov.au](http://www.epa.nsw.gov.au)

Should you require clarification of any of the above please contact Anna Timbrell on 9274 6345 or email [anna.timbrell@epa.nsw.gov.au](mailto:anna.timbrell@epa.nsw.gov.au)

Yours sincerely

A handwritten signature in blue ink, appearing to read 'G Orel', is positioned above the typed name.

**GEORGE OREL**  
**A/ Unit Head – Regulatory Operations – Metropolitan North**  
**Environment Protection Authority**

## APPENDIX A

### 1. Noise and Vibration

#### Construction noise and vibration sensitive receivers

The study area for noise impacts was limited to 3 km. It is not clear why 3 km was chosen and if there are receivers outside of this distance that may be impacted by the works. Background noise levels are typically low in this region and high noise generating activities have the potential to impact people at large distances. **The EPA requests clarification be provided on impacts to receivers further than 3km from the works.**

Section 4.2.1 of the CNVIA states “The sensitive receivers used in this assessment differ slightly from those used in [the ONVIA].” **The EPA requests clarification be provided as to which sensitive receivers are used, and why the receivers are different.**

The receiver labelling between the CNVIA and ONVIA is inconsistent. This makes it difficult to understand the extent of the impacts from both the construction and operational phases of the project. **The EPA requests clarification of receiver labelling used in the CNVIA and ONVIA be provided.**

#### Proposed construction working hours

Section 3.4.1 of the CNVIA states that noise generating works would be completed on a 7-day schedule from 6 am to 6 pm. Some of these hours are outside of the recommended standard working hours set out in the *Interim Construction Noise Guideline* (EPA, 2009) (ICNG).

The CNVIA uses the “Out of Hours” nomenclature to define any work outside of the above proposed construction hours. However, the EPA advises that the proposed primary construction hours contain time periods that would be defined as “Out of Hours” works under the ICNG.

Notwithstanding the above, works outside of standard hours should only be undertaken with appropriate justification in accordance with the ICNG; where works would not impact receivers above the NMLs; or where there is a community agreement in place.

The CNVIA also states that community consultation has been undertaken to determine if the extended construction hours are acceptable to the community, with “about half indicating they would support the primary proposal construction hours”. However, a more detailed breakdown of the outcome of this consultation has not been provided or referenced in the CNVIA. Further, it is not an indication of written agreements in place. There is also no indication of what differences in mitigation approach can be expected between receivers that do and don’t have agreements in place.

The EPA notes that written agreements are a requirement of ARTC’s own Construction Noise and Vibration framework document.

There does not appear to be sufficient justification to undertake work outside of standard hours within the CNVIA. **The EPA requests that further information and justification be provided if work outside of standard hours is proposed.**

#### Construction camp/compound assessment

For the Narromine to Narrabri portion of the Inland Rail project, the construction compounds have been assessed as part of the construction process, that is, according to the ICNG. However, it is noted that this is inconsistent with other portions of inland rail such as North Star to NSW/Queensland Border, which assess these same sources according to the *Noise Policy for Industry* (EPA, 2017) (NPfI).

Although there are no specific criteria for assessing camp operations, the EPA notes that some aspects of camp operation, especially during peak periods, may impact on the sleep of nearby receivers. The SEARs Key Issue 15-1 requires that the characteristics of noise emissions are considered in the assessment. **In accordance with the requirements of the NPfl, the EPA requests assessment of the construction camp include an assessment of modifying factors according to Fact Sheet C of the NPfl.**

Maximum noise levels ( $L_{max}$ ) from the construction camp during night-time operations such as shift changeover have not been included within the assessment. Section 5.2 of the CNVIA states “Due to the numbers of potential sleep disturbance and awakening impacts a detailed assessment is to be undertaken as part of the CNVMP once further detail of construction locations, timing, and methods are known.” **The EPA advises that significant impacts, including sleep disturbance, from construction camps are required to be assessed and addressed prior to CNVMP stage.**

### Construction noise mitigation

Section 9.2 generally states that most construction noise mitigation measures are proposed in a post-approvals Noise Management Plan. Therefore, it is not clear what mitigation measures may be applied to the source, path or receiver. **The EPA requests that further information and clarification be provided for the potential noise mitigation measures available to reduce impacts at receivers, including administrative measures such as respite, engineering controls and community engagement.**

The ONVIA has identified that some receivers are eligible for consideration of at property treatment. **The EPA recommends that these treatments be considered for implementation prior to construction works starting to provide a noise reduction benefit from construction in additional to operational noise.**

### Operational rail noise mitigation

The ONVIA has identified some receivers where the predicted noise levels from the operation of the rail line exceed the screening levels presented within the *Rail Infrastructure Noise Guidelines* (EPA, 2013) (RING). Specific remediation measures for these properties have been deferred to detailed design. The validation of the noise levels as well as the to-be-selected mitigation have also been assigned to a later date, under the expected requirements of a post-approval Operational Noise and Vibration Review (ONVR).

Waiting for a post approvals process to determine adequate mitigation measures for receivers adversely impacted by the operation of inland rail does not provide receivers with enough clarity at this stage of the project. This is especially pertinent as it is can be the final opportunity to comment on the proposal.

Some treatments, be they in the path or at the receiver, can affect the visual amenity of the property or the built form of their dwelling. Given that the rail alignment is unlikely to change, and the noise levels presented within the report are given as an accurate representation of the noise impacts, **the EPA considers that it is possible to provide more specific descriptions of proposed treatments for discrete sections of the Narromine to Narrabri project.**

## **2. Water Quality**

The SWIA has identified the key threats to water quality during construction and operation. Construction and operation would be undertaken in accordance with management measures outlined in section 8.2 of the SWIA. **The EPA recommends Conditions of Approval include the requirement to prepare a Soil and Water Management sub-plan as part of a Construction Environmental Management Plan (CEMP) and a Water Quality Monitoring Programme to**

underpin protection to waterways. The EPA advises that any water that is captured on site will need to be treated to appropriate levels prior to discharge.

### **3. Air Quality**

The EPA has considered Chapter B10 of the EIS regarding air quality. It is noted that mitigation measures to control air quality impacts during construction may overlap with those for the control of erosion and sedimentation, as the major pollutant of concern is dust. **The EPA recommends Conditions of Approval include the requirement for the preparation and implementation of an Air Quality Management Plan as part of the CEMP.**

The EPA notes the EIS included consideration of the potential operational impacts associated with the idling of freight trains at crossing loop locations. This is the highest-risk impact from rail exhaust emissions. Air dispersion modelling was carried out based on NO<sub>2</sub> emissions from two locomotives idling at each crossing loop. The modelling predicted compliance with the NO<sub>2</sub> criteria at an approximate 25 metres distance from the emission source. No sensitive receivers are located within crossing loop locations. The EPA notes that during operation, air quality would be managed to achieve air quality management requirements in the EPL.

### **4. Contamination**

The EPA notes that the risk of contamination associated with the project is low. **The EPA requests that an unexpected finds protocol be included as a condition of Approval.**