

# Narwonah Material Distribution Centre

RESPONSE TO SUBMISSIONS

ARTC

INLAND  
RAIL  
An Australian Government Initiative

## COVER IMAGE

Railway sleepers sitting in a rail yard.

## ACKNOWLEDGEMENT OF COUNTRY

Inland Rail acknowledges the Traditional Custodians of the land on which we work and, pay our respect to their Elders past, present and emerging.

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## Abbreviations

AADT	Annual average daily traffic
ACHAR	Aboriginal Cultural Heritage Assessment Report
AHIP	Aboriginal Heritage Impact Permit
ALCAM	Australian Level Crossing Assessment Model
ARTC	Australian Rail Track Corporation
BDAR	Biodiversity Development Assessment Report
CEMP	Construction Environmental Management Plan
CNVMP	Construction Noise and Vibration Management Plan
CPESC	Certified Professional in Erosion and Sediment Control
Cth	Commonwealth
DAWE	Commonwealth Department of Agriculture, Water and the Environment
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW)
EP&A Regulation	Environment Planning and Assessment Regulation 2021
EPA	NSW Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Cth)
I2S	Illabo to Stockinbingal
ICNG	Interim Construction Noise Guideline
km	Kilometre
m	Metre
MDC	Material Distribution Centre
MNES	Matters of national environmental significance
N2N	Narromine to Narrabri
NS2B	North Star to Border
NSC	Narromine Shire Council
proponent	Australian Rail Track Corporation
proposal	The construction and operation of the MDC, and the subdivision of Lot 16 DP755131, Lot 17 DP755131, Lot 1 DP1198931, Lot 232 DP755131 and Lot 233 DP755131 to create two lots.
proposal site	The area to be used for the construction and operation of the MDC (Lot 16 DP755131, Lot 1 DP1198931, Lot 232 DP755131 and Lot 233 DP755131)
RAPs	Registered Aboriginal Parties
RCP	Rail Corridor Program
REF	Review of Environmental Factors
S2P	Stockinbingal to Parkes
SEPPs	State Environmental Planning Policies
SIS	Species Impact Statement
SWMP	Site Waste Management Plan
TfNSW	Transport for NSW
TIA	Traffic Impacts Assessment
TLM	Track Laying Machine
TMP	Traffic Management Plan
WM Act	Water Management Act 2000 (NSW)

# 1 Introduction

## 1.1 Inland Rail

The Australian Government has committed to delivering a significant piece of national transport infrastructure by constructing a high-performance and direct interstate freight rail corridor between Melbourne and Brisbane, via central-west New South Wales (NSW) and Toowoomba in Queensland. Inland Rail is a major national program that will enhance Australia's existing national rail network and serve the interstate freight market.

The Inland Rail route, which is about 1,700 kilometres (km) long, involves:

- ▶ using the existing interstate rail line through Victoria and southern NSW
- ▶ upgrading about 400 km of existing track, mainly in western NSW
- ▶ providing about 600 km of new track in NSW and south-east Queensland.

The Inland Rail Program has been divided into 13 sections, 7 of which are in NSW.

The objectives of the Inland Rail Program are to:

- ▶ provide a rail link between Melbourne and Brisbane that is interoperable with train operations to Perth, Adelaide, and other locations on the standard-gauge rail network, to serve future rail freight demand, and stimulate growth for inter-capital and regional/bulk rail freight
- ▶ provide an increase in productivity that will benefit consumers through lower freight transport costs
- ▶ provide a step-change improvement in rail-service quality in the Melbourne to Brisbane corridor and deliver a freight rail service that is competitive with road
- ▶ improve road safety, ease congestion and reduce environmental impacts by moving freight from road to rail
- ▶ bypass bottlenecks within the existing metropolitan rail networks, and free up train paths for other services along the coastal route
- ▶ act as an enabler for regional economic development along the Inland Rail corridor.

Further information on Australian Rail Track Corporation (ARTC) and Inland Rail can be found at [artc.com.au](http://artc.com.au) and [inlandrail.com.au](http://inlandrail.com.au).

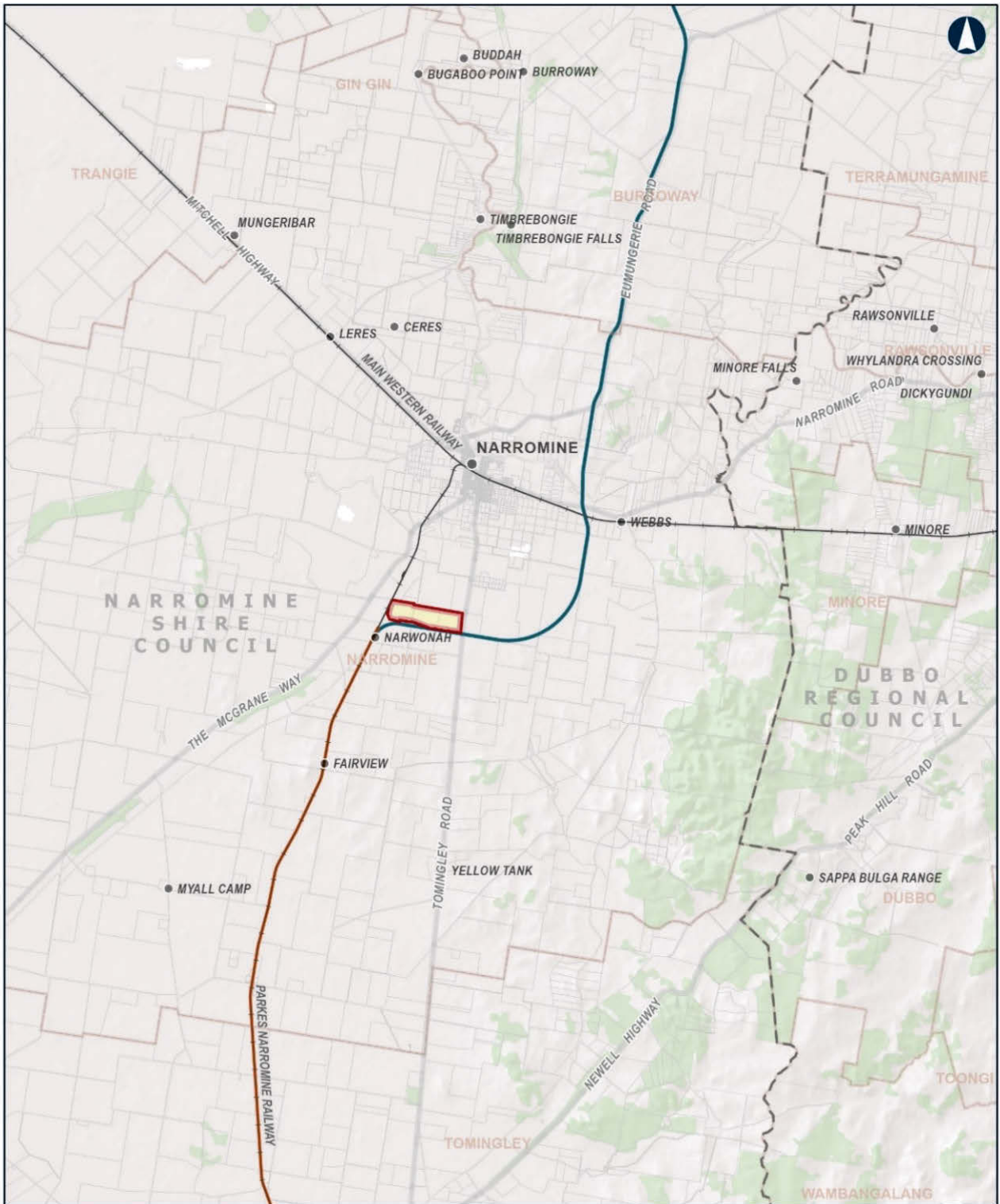
## 1.2 Overview of the proposal

The Narwonah Material Distribution Centre (MDC) forms a key component of the Inland Rail Program. It is in regional NSW, south of the township of Narromine (see Figure 1-1).

The proposed MDC will be used for temporary track material storage and management prior to their distribution to multiple Inland Rail projects and sections across NSW, including Narromine to Narrabri (N2N), North Star to Border (NS2B), Illabo to Stockinbingal (I2S), Stockinbingal to Parkes (S2P) and, potentially, other projects along the Inland Rail route.

ARTC is seeking to commence detailed design and construction from Q2 2022 so it can be receiving material by Q3 2022.

The proposal also involves the subdivision of Lot 16 DP755131, Lot 17 DP755131, Lot 1 DP1198931, Lot 232 DP755131 and Lot 233 DP755131 to create two lots (Lot A and Lot B). The MDC would be located on the section of Lot B to the east of the Parkes to Narromine (P2N) rail line, in the new subdivision (see Figure 1-2).



**INLAND RAIL** Narwonah Material Distribution Centre - Proposal Location

5 0 5 Km

Coordinate System: GDA 1994 MGA Zone 55

Date: 16/03/2022 Paper: A4

Author: IR GIS (JB) Scale: 1:250,000

Approver: Haidar Etemadi Rev: 0

Data Sources: NSW DCDB, DTDB

- Proposal site
- Inland Rail Alignment**
- N2N - Narramine to Narrabri
- P2N - Parkes to Narramine
- Existing rail
- Locality
- Local Government Area (LGA)

This data is provided for information purposes only. As this GIS plan has been prepared from material provided to ARTC by an external source, ARTC cannot and does not attest to its completeness, accuracy or suitability. While every care is taken to ensure the accuracy of the data, ARTC makes no representation or warranty and assumes no duty of care or other responsibility as to the completeness, accuracy or suitability of the information contained in this GIS plan. ARTC will not be responsible for any loss or damage suffered as a result of any person who places reliance upon the information contained within this GIS plan.

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FIGURE 1-1: PROPOSAL LOCATION



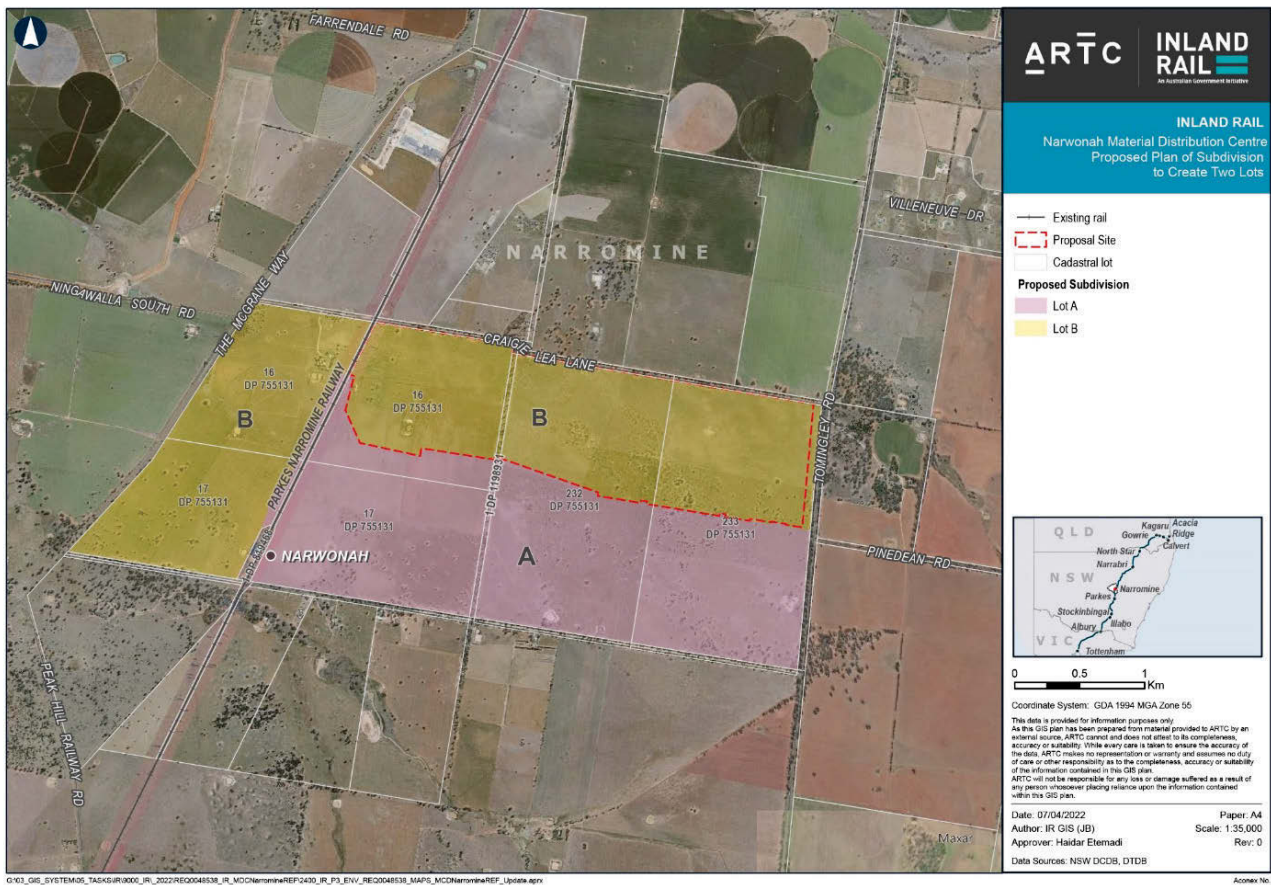


FIGURE 1-2: PROPOSED PLAN OF SUBDIVISION

### 1.3 Review of Environmental Factors

ARTC prepared a Review of Environmental Factors (REF) to consider the environmental factors listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) and to discharge its responsibilities under section 5.5 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) to, 'examine to the fullest extent possible all matters affecting, or likely to affect the environment, by reason of the (proposal's) activities'.

The REF considered, among other things:

- ▶ whether the proposal is likely to have a significant environmental impact
- ▶ the significance of any impact on listed species and the requirement for a Species Impact Statement (SIS), Biodiversity Development Assessment Report (BDAR), or an Environmental Impact Statement (EIS)
- ▶ whether the proposal will impact a matter of national environmental significance (MNES) requiring a referral to be made to the Commonwealth Government under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act)
- ▶ measures to reduce and manage the likely impacts of the proposal.

The REF was prepared in accordance with:

- ▶ Clause 171 of the EP&A Regulation
- ▶ ARTC's Code of Practice for Environmental Impact Assessment of Development Proposals in NSW, January 2016
- ▶ ARTC's Work Instruction for Review of Environment Factors (Version 2), February 2022.

The REF was placed on public exhibition from 5 to 18 May 2022 and submissions were invited from the community and other stakeholders. The actions taken by ARTC to notify the community and stakeholders of the REF public exhibition and the opportunity to make comment are detailed in section 3 of this report. During this period, the REF was also available on the Inland Rail website.

Submissions could be made via post, email to [inlandrailnsw@artc.com.au](mailto:inlandrailnsw@artc.com.au), or on the Inland Rail website: [inlandrail.artc.com.au/n2n-narromine-materials-distribution-centre-ref](http://inlandrail.artc.com.au/n2n-narromine-materials-distribution-centre-ref).

## **1.4 Purpose of the report**

The purpose of this report is to:

- ▶ address the issues raised in submissions received during public exhibition
- ▶ outline any further community engagement and impact assessment to support the responses to submissions, if required
- ▶ recommend an approval outcome.



## 2 Submissions received

During the REF exhibition period, three submissions were received. Table provides a summary of the submissions received. Copies of the actual submissions are provided in Appendix A.

**TABLE 2-1 SUBMISSIONS RECEIVED AND KEY THEMES**

<b>Stakeholder</b>	<b>Themes of the submission</b>
<b>Narromine Shire Council (NSC)</b>	<ul style="list-style-type: none"><li>▶ Subdivision</li><li>▶ Road infrastructure</li><li>▶ Water usage</li><li>▶ Operation hours</li><li>▶ Traffic and access impacts</li><li>▶ Hydrology/surface water</li></ul>
<b>Heritage NSW (within the NSW Department of Planning and Environment (DPE))</b>	<ul style="list-style-type: none"><li>▶ No previous recorded Aboriginal sites identified within the study area</li><li>▶ The study area is unlikely to be greater than low-to-moderate archaeological potential</li><li>▶ Heritage NSW has no additional comments or concerns in response to the REF.</li></ul>
<b>Ningawalla Farming</b>	<ul style="list-style-type: none"><li>▶ Hydrology/surface water</li></ul>

## 3 Actions taken since exhibition

A summary of the actions taken since the start of the exhibition on 5 May 2022 are summarised in this section.

### 3.1 Community and stakeholder engagement

#### 3.1.1 Request for submissions

Actions to notify the community and stakeholders of the REF public exhibition and the opportunity to make submissions included:

- ▶ letters sent to all residents within 500 metres (m) of the proposal site, including a link to the REF on the Inland Rail website
- ▶ phone call to adjacent landowners to advise them of the public exhibition and opportunity to make a submission
- ▶ presentation to N2N Community Consultative Committee Narromine Sub-Committee regarding the exhibition and ability to make a submission
- ▶ email to all elected representatives to advise of REF public exhibition and provide a link to the document on the Inland Rail website
- ▶ two articles in the N2N project news
- ▶ pop up stand held in Narromine on Friday 4 February 2022 to talk to people about the project and REF process
- ▶ print advertisements placed with the Narromine Star and Dubbo Daily News on 5 and 12 May 2022 advertising public exhibition period and requesting submissions
- ▶ formal REF document and accompanying appendices uploaded to the Inland Rail website
- ▶ email reminder to make a REF submission sent to Narromine/Narwonah community on 6 May
- ▶ fact sheet outlining the MDC and the REF process
- ▶ Facebook post targeted at Narwonah and Narromine communities published during the period 11–18 May.

#### 3.1.2 Agency and stakeholder engagement

The following agencies and stakeholders were notified of the commencement of public exhibition via email on 7 May 2022:

- ▶ NSC
- ▶ Department of Planning, Industry and Environment (Water)
- ▶ Heritage NSW—Department of Premier and Cabinet
- ▶ Narromine SES
- ▶ Transport for NSW (TfNSW)
- ▶ Gilgandra Shire Council
- ▶ The Australian National University

Meetings were held with Members of Parliament for electorates on relevant parts of the Inland Rail alignment, to provide a proposal update, information regarding public exhibition and the submissions process.

### 3.2 EPBC referral

The REF determined that the proposal would not impact MNES to the extent that a referral is required; however, the proposal was referred to the Australian Minister for the Environment on 28 April 2022 for assessment to confirm that approval under the EPBC Act is not required. A decision on the referral is still outstanding at the time of this report being developed.

## 4 Response to submissions

ARTC considered the issues raised in the three submissions and provided responses to address these issues.

Table 4-1 outlines the issues raised by all stakeholders in their submissions along with ARTC’s specific responses.

**TABLE 4-1 ISSUES RAISED IN SUBMISSIONS AND ASSOCIATED RESPONSE**

Theme	Issue raised	Response
<b>Narromine Shire Council</b>		
<b>Alternatives and options</b>	<p>The REF states: <i>‘the area located immediately to the south of the proposal site. This was identified for potential use as part of the N2N Project, in the N2N Project EIS; however, it is planned to be used by the civil-works contractors constructing the N2N Project for their camp and laydown area’</i></p> <p>NSC questioned, is this referencing proposed Lot A, which is included in this subdivision proposal?</p>	<p>‘Lot A’ is the area immediately south of the proposed N2N main line alignment, which is under consideration for the proposed uses as contained in the N2N EIS. These uses are not subject to approval under this REF.</p>
<b>Alternatives and options</b>	<p>The REF states: <i>‘the area located immediately to the south of the proposal site. This was identified for potential use as part of the N2N Project, in the N2N Project EIS; however, it is planned to be used by the civil- works contractors constructing the N2N Project for their camp and laydown area’.</i></p> <p>NSC suggested that a holistic approach should be undertaken for the servicing strategy, which should consider the servicing of the camp with services such as drinking water, sewer, waste and stormwater collection.</p>	<p>Future-proofing services provided to the MDC will be investigated during detailed design; however, as this approval only applies to the MDC, this REF cannot pre-empt outcomes of other project assessments.</p>
<b>Road freight, etc.</b>	<p>NSC stated that road infrastructure should be upgraded if ballast or any material, including water, sewer and waste is being transported via road to/from the MDC to the local authorities’ and TfNSW’s requirements.</p>	<p>The type of road upgrade is currently in discussion with NSC and will depend on the nature and extent of the road impacts caused by the MDC. ARTC will engage further with NSC to ensure the existing conditions of the local road networks are generally maintained by the end of the proposal’s operation.</p>
<b>Description of the development</b>	<p>Subdivision—a plan of the proposed subdivision was not provided. Figure 2 does not demonstrate any proposed easements or existing restrictions or dimensions. Details/plan of the subdivision are not provided at a scale that can be reviewed adequately. As the subdivision does not require the consent of NSC, it is expected that the REF and assessment process will substitute the same rigor of assessment. Including, for example, referral to Essential Energy’s conveyancing team for confirmation that adequate legal provision has been made for services.</p>	<p>The purpose of the REF is to consider all relevant environmental impacts associated with the proposed development.</p> <p>The preparation, certification and registration of a plan of subdivision are, in this context, conveyancing matters that must be carried out for the purposes of the <i>Conveyancing Act 1919</i> (NSW) (Conveyancing Act) and are typically completed after the necessary planning authorisation is obtained.</p> <p>As such, no changes are proposed to the REF; however, ARTC will continue to work with NSC to ensure all relevant requirements for a subdivision are met.</p>

Theme	Issue raised	Response
<b>Description of the development</b>	It is unclear from the REF as to the timing of subdivision and the separation of any works/processes to complete this project component separate to the materials yard (and other Inland Rail project aspects). <i>'The subdivision is a development that forms part of the proposal. It will separate the land to allow Lot A to be specifically used to build the N2N Project under its own contract, while part of Lot B will be used to specifically build the MDC under a different contract.'</i> Page 9 of REF. It is assumed the subdivision plan, i.e. definition of lots, will be required prior to commencement of construction works. Is this correctly assumed? A further subdivision of Lot A will occur to define the rail corridor.	The REF design and construction schedule is not dependent on or linked to the timing of the subdivision. The rail corridor will be subject to provisions outside the requirements of what this REF is seeking approval for.
<b>Construction activities and section 3.7 Haulage and traffic</b>	Road infrastructure should be upgraded if ballast or any material is being transported via road, to the local authorities' and TfNSW's requirements.	The type of road upgrade is currently in discussion with NSC and will depend on the nature and extent of the road impacts caused by the MDC. ARTC will engage further with NSC to ensure the existing conditions of the local road networks are generally maintained by the end of the proposal's operation.
<b>Construction activities and section 3.7 Haulage and traffic</b>	A Traffic Management Plan must be provided to NSC for review and approval prior to construction.	The mitigation measures in Appendix B will be refined as part of the detailed design and the proposed refined measures will be provided to NSC for review prior to construction.
<b>Water usage</b>	Where will drinking water and water for construction purposes be obtained?	Suitable sources of construction and drinking water are currently being investigated. ARTC will continue to liaise with NSC in this regard.
<b>Water usage</b>	How will this water be transported to the MDC?	Mode of transport is dependent on water source locations, and availability. ARTC will continue to liaise with NSC and relevant stakeholders in this regard
<b>Water usage</b>	Clarify whether the estimated construction vehicles in section 3.7.2 included water supply movements?	Estimated heavy vehicle movements include all heavy vehicles.
<b>Operation hours</b>	The REF states that operations will be undertaken 24 hours per day, 7 days per week (page 16).	The MDC is proposed to operate up to 24 hours per day, 7 days per week for up to 5 years, to support the construction of Inland Rail and in alignment with the Interim Construction Noise Guideline (ICNG) requirements. These operating hours have been assessed as part of the Noise and Vibration Assessment for the REF, and mitigation and management measures proposed (see section 8.2 of Appendix F of the REF).

Theme	Issue raised	Response
<b>Operation hours</b>	<p>Section 4.1.I from Appendix F: Noise and Vibration Assessment mentioned that an assessment of sleep disturbance impacts should be completed where construction works are planned to extend over more than two consecutive nights. It is requested that commitment to further investigation be clarified. Will this study be undertaken, and will it include potential productivity impacts to farm animals such as cattle and horses?</p>	<p>A sleep disturbance assessment has been undertaken for the site establishment and operation of the MDC (see section 5.3.3 of Appendix F of the REF). The assessment concluded that two residential receivers are predicted to exceed the sleep disturbance management level during site establishment and four residential receivers during daily operations of the MDC. The MDC operations with the potential for sleep disturbance are anticipated to be:</p> <ul style="list-style-type: none"> <li>▶ rail grinding and sandblasting</li> <li>▶ rail movements over tight rail curves and points, along with potential use of train horns for safety purposes.</li> <li>▶ rail and ballast loading and unloading activities due to the metal-on-metal and stone ‘clanging’ that could occur onsite.</li> </ul> <p>These exceedances were based on a worst-case scenario where all operational activities were occurring at once. Staging of works is the mitigation measure most likely to minimise the effect on nearby sensitive receivers, with monitoring during activities the most practical and reliable way to measure that noise levels are below sleep disturbance. Community engagement is also part of this process.</p> <p>Mitigation measures to avoid sleep disturbance during both site establishment and operation of the MDC are detailed in section 8.2 of Appendix F of the REF.</p> <p>The assessment will be undertaken in accordance with the ICNG; the ICNG does not include assessment criteria for livestock.</p> <p>The mitigation measures in Appendix B will be refined as part of the detailed design.</p>
<b>Statutory requirements</b>	<p>The REF has not referred to assessment and approval for the development of offices and amenities, and associated impacts/activities.</p>	<p>ARTC will consider all other relevant assessment/approvals required for construction and operation of this facility.</p>
<b>Statutory requirements</b>	<p>You should refer to Section 68 and section 68A of the <i>Local Government Act 1993</i>—SEPP approvals are required from NSC for installation of transportable buildings, carrying out of stormwater drainage work, water supply work, and sewerage work, and to operate a system of sewage management (within the meaning of section 68A).</p>	<p>ARTC does not currently consider that any of the activities involved in the MDC require <i>Local Government Act 1993</i> (NSW) approvals but will seek Local Government Act approvals if required.</p>
<b>Statutory consideration of the EP&amp;A Act</b>	<p>The REF omits consideration of EP&amp;A Act 1979 section 6.3 Work or activity that requires certificate under this part—The proposal is described as permitted without development consent pursuant to SEPP (Transport and Infrastructure) 2021. This proposal is not ‘exempt’; as such, the process for requirement of a subdivision certificate should be clarified.</p>	<p>ARTC notes that the requirement for a subdivision certificate arises primarily in the Conveyancing Act context, as a necessary precursor to registering the plan of subdivision. ARTC will obtain a subdivision certificate but matters like this need not be addressed in the REF.</p>
<b>Statutory consideration of the EP&amp;A Act</b>	<p>Section 195A of the <i>Conveyancing Act 1919</i> requires a person to lodge a subdivision certificate when lodging a plan of subdivision for registration under that Act. Council would request the process be clarified and the intention to seek a subdivision certificate (and whether endorsement of NSC is to be sought).</p>	<p>Please refer to the response above.</p>



Theme	Issue raised	Response
<b>Water Management Act</b>	To enable a complete picture of the proposed impacts of the development the following items should be expanded upon: <ul style="list-style-type: none"> <li>▶ Please describe how drinking water is to be supplied and whether it will meet the requirements of the <i>Public Health Act</i>, Australian Drinking Water Guidelines, etc.</li> <li>▶ Please provide the source quality if water is being used for drinking water.</li> </ul>	Suitable sources of construction and drinking water are currently being investigated. ARTC will continue to liaise with NSC in this regard.
<b>Water Management Act</b>	To enable a complete picture of the proposed impacts of the development, the following items should be expanded upon: <ul style="list-style-type: none"> <li>▶ Please describe how construction water is to be supplied</li> </ul>	Mode of transport is dependent on water source locations, and availability. ARTC will continue to liaise with NSC and relevant stakeholders in this regard.
<b>Water Management Act</b>	To enable a complete picture of the proposed impacts of the development the following items should be expanded upon: <ul style="list-style-type: none"> <li>▶ Please describe how stormwater is being treated and disposed of.</li> </ul>	Overland flow entering and exiting the site is to be designed to maintain existing afflux, where practical, while also mitigating sediment as per erosion and sediment control plans, which are to be produced by a Certified Professional in Erosion and Sediment Control (CPESC).
<b>Water Management Act</b>	To enable a complete picture of the proposed impacts of the development, the following items should be expanded upon: <ul style="list-style-type: none"> <li>▶ What is the afflux as a result of the MDC and change in land use characteristics?</li> </ul>	Mitigation measures in Appendix B updated for design drawings and data to be made readily available to council as design matures.
<b>Water Management Act</b>	To enable a complete picture of the proposed impacts of the development the following items should be expanded upon: <ul style="list-style-type: none"> <li>▶ What is the upstream and downstream impacts on stormwater behaviour for post development?</li> </ul>	Mitigation measures in Appendix B have been updated for design drawings and data to be made readily available to Council as design matures.
<b>Traffic impacts</b>	With regard to the note in Table 6 that consultation proposed with Council is not required pursuant to the SEPP, the following comments are made: <ul style="list-style-type: none"> <li>▶ Please provide the Detailed Traffic Impact Assessment for review and support by NSC.</li> </ul>	The Traffic Impact Assessment (TIA) will be updated (and provided in the Traffic Management Plan (TMP)) and ARTC will provide the TMP to NSC for review.
<b>Traffic impacts</b>	With regard to the note in Table 6 that consultation proposed with NSC is not required pursuant to the SEPP, the following comments are made: <ul style="list-style-type: none"> <li>▶ NSC requires that traffic movement be monitored and classified on impacted roads.</li> </ul>	The TIA will be updated (and provided in the TMP) and ARTC will provide the TMP to NSC for review.
<b>Traffic impacts</b>	With regard to the note in Table 6 that consultation proposed with NSC is not required pursuant to the SEPP, the following comments are made: <ul style="list-style-type: none"> <li>▶ NSC expects that the proponent will be responsible for the maintenance of these roads as a result of the increase in traffic movement, to NSC's requirements.</li> </ul>	The TMP will be updated and ARTC will provide to NSC for review.
<b>Traffic impacts</b>	With regard to the note in Table 6 that consultation proposed with Council is not required pursuant to the SEPP, the following comments are made: <ul style="list-style-type: none"> <li>▶ All other roads impacted on as a result of this development must be upgraded and maintained to NSC requirements.</li> </ul>	TIA and further construction monitoring are to occur during design, construction and operations of the site. TfNSW requirements are noted in the REF—dilapidation reports and construction monitoring to occur to ensure road conditions are not deteriorated as a result of the works.
<b>Surface water</b>	Excess stormwater must not be disposed of or irrigated on roads or within the road reserve without prior approval from the Roads Authority.	Mitigation measures in Appendix B have been updated to indicate that excess stormwater must not be disposed of or irrigated on roads or within the road reserve without prior approval from the Roads Authority.

<b>Theme</b>	<b>Issue raised</b>	<b>Response</b>
<b>Surface water</b>	Management measures are to ensure silt and debris must be disposed of appropriately.	As noted in the REF, erosion and sediment control plans and Site Waste Management Plan (SWMP) will be developed and signed off by a Suitably Qualified Person (e.g. CPESC) in accordance with regulatory requirements.
<b>Surface water</b>	NSC would require that 'shaker beds' are to be installed and maintained at both Tomingley and Tullamore (The McGrane Way) for dust control prior to entering on sealed section.	Potential upgrade and modifications to Craigie Lea Lane are in discussion with the Council and TfNSW as part of the design process. ARTC will continue to collaborate with the NSC to achieve mutually beneficial goals.
<b>Surface water</b>	Table 16: Surface water features and Table 17: Surface water control measures: <ul style="list-style-type: none"> <li>▶ The final acceptable performance outcomes are not clear.</li> <li>▶ Post development flows leaving the site should be equal or less than pre-development flows, since impervious areas will increase.</li> <li>▶ What are the upstream and downstream impacts on stormwater and flood behaviour for post development?</li> <li>▶ What is the afflux as a result of the MDC and change in land use characteristics?</li> </ul>	Mitigation measures in Appendix B have been updated for design drawings and data to be made readily available to Council as design matures.
<b>Waste</b>	Liquid waste—where will domestic sewage be disposed? An application to discharge or dispose of liquid waste, including trade/septic waste, must be made to NSC for consideration and approval. As mentioned above, assessment and approval for any onsite effluent disposal is required as part of a separate s68 Approval.	ARTC will continue to work with NSC and/or other relevant authorities and service providers with respect to the disposal of liquid waste.
<b>Traffic and access</b>	The following comments are made in relation to the traffic aspects referenced in the REF. Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard: <ul style="list-style-type: none"> <li>▶ Please provide a TMP considering traffic flow and generation.</li> </ul>	Site- and task-specific TMPs will be provided to the NSC prior to works. TMPs will continue to be provided to the Council as part of the construction approval process.
<b>Traffic and access</b>	The following comments are made in relation to the traffic aspects referenced in the REF. Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard: <ul style="list-style-type: none"> <li>▶ A road safety audit, which considers the level crossings as being operational, is required.</li> </ul>	The level crossing has been and will continue to be subject to ALCAM assessment triggers. No further audits in relation to the level crossing safety are planned.
<b>Traffic and access</b>	The following comments are made in relation to the traffic aspects referenced in the REF. Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard: <ul style="list-style-type: none"> <li>▶ A TMP/s is required for consideration and approval by the Road Authority.</li> </ul>	As stated under the mitigation measures, a TIA will be prepared during design and pre-construction. Mitigation measures in Appendix B have been updated to include the traffic control during the construction and operation stage, where relevant.

Theme	Issue raised	Response
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ The traffic data taken over a 13-day period may be insufficient. The AADT for The McGrane Way is approximately 899 vpd with approximately 19% heavy vehicles (2021).</li> </ul>	<p>The AM and PM peak periods traffic volumes are usually considered to make up 15 per cent of daily traffic.</p> <p>Using the above assumption, the 2020 annual average daily traffic (AADT) using the figures in the base year data along The McGrane Way is approximately 1,773 vehicles per day with approximately 33 per cent heavy vehicles.</p> <p>The AM and PM peak periods traffic is also commonly used to determine the impacts on intersections during peak periods. It is also noted that a growth rate of 3 per cent (compound) to determine the base 2022 traffic volumes would be considered conservative. Therefore, the traffic volumes used in the analysis are considered to be highly conservative.</p> <p>The mitigation measures in Appendix B will be refined as part of the detailed design, and the proposed refined measures will be provided to NSC for review prior to construction.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ The AADT for Tomingley Road is approximately 977 vpd with approximately 20 per cent heavy vehicles (2021).</li> </ul>	<p>The AM and PM peak periods traffic volumes is usually considered 15% of daily traffic.</p> <p>Using the above assumption, the 2020 AADT using the figures in the base year data along Tomingley Road is approximately 1,053 vehicles per day with approximately 30 per cent heavy vehicles.</p> <p>The AM and PM peak periods traffic is also commonly used to determine the impacts on intersections during peak periods. It is also noted that a growth rate of 3 per cent (compound) to determine the base 2022 traffic volumes would be considered conservative. Therefore, the traffic volumes used in the analysis could be considered highly conservative.</p> <p>The mitigation measures in Appendix B, updated for the TIA, will be refined as part of the detailed design, and the proposed refined measures will be provided to NSC for review and approval prior to construction.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ Any works within a road reserve requires an approval under Section 138 of the <i>Roads Act, 1993</i>. The timing of these approvals should be considered in relation to the proposed start of construction.</li> </ul>	<p>ARTC notes the requirement and timing for S138 approvals under the <i>Roads Act 1993</i> (NSW).</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ NSC requires that traffic movement be monitored and classified on impacted roads.</li> </ul>	<p>The mitigation measures in Appendix B will be refined as part of the detailed design, and the proposed refined measures will be provided to NSC for review prior to construction.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ How will construction traffic affect movement of agricultural and other heavy vehicles?</li> </ul>	<p>The TIA prepared during the design and pre-construction stages will provide details on construction periods and finalise the number of heavy vehicles accessing the MDC, if it coincides with agricultural peak and existing heavy vehicles, especially along The McGrane Way and Tomingley Road.</p> <p>The mitigation measures in Appendix B will be refined as part of the detailed design, and the proposed refined measures will be provided to NSC for review prior to construction.</p>

Theme	Issue raised	Response
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ What impact will the level crossing at Narwonah Siding and Craigie Lea Lane have?</li> </ul>	<p>Primary access for vehicles by road will be via Tomingley Road, which does not affect traffic across the level crossing. Increase to train movements crossing the Craigie Lea Lane. Level crossing will be minimal (two per week). An Australian Level Crossing Assessment Model (ALCAM) risk assessment has also been completed—the outcome is that the Craigie Lea Lane level crossing will remain a passive level crossing with signage upgraded to comply with the current Australian Standards (AS 1742.7 and AS 7632).</p> <p>With regard to Narwonah Siding Road, there are no plans for construction traffic to use that road.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ Will the Craigie Lea Lane level crossing be upgraded?</li> </ul>	<p>The Craigie Lea Lane level crossing will be modified. The reviewed design has been provided to NSC. An ALCAM risk assessment has also been completed by certified and competent personnel to inform this design. It is an outcome of this assessment that the level crossing will remain passive, with signage upgraded to comply with the current Australian Standards (AS 1742.7 and AS 7632).</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ Craigie Lea Lane and/or Narwonah Siding roads are unsealed roads and are closed during wet weather events. The proponent will be responsible for the maintenance of these roads as a result of the increase in traffic movement, to NSC's requirements.</li> </ul>	<p>ARTC will continue to collaborate with NSC with respect to Craigie Lea Lane and/or Narwonah Siding roads.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ All other roads impacted on as a result of this development must be upgraded and maintained to NSC requirements.</li> </ul>	<p>ARTC will continue to collaborate with NSC with respect to Craigie Lea Lane and/or Narwonah Siding roads.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ Intersections with Tomingley Road and the McGrane Way to have Rural Auxiliary Left-turn Lane (UAL) treatment.</li> </ul>	<p>ARTC will continue to collaborate with NSC with respect to Craigie Lea Lane and/or Narwonah Siding roads.</p>
<b>Traffic and access</b>	<p>Further assessment and consultation in the detailed assessment phase is requested to be undertaken with NSC staff in this regard:</p> <ul style="list-style-type: none"> <li>▶ Right-turn treatments from Tomingley Road and the McGrane Way to have Rural Auxiliary turn Lane UAL treatments with a passing lane.</li> </ul>	<p>ARTC will continue to collaborate with NSC with respect to Craigie Lea Lane and/or Narwonah Siding roads.</p>
<b>Cumulative impacts</b>	<p>Cumulative impact assessment has referred to the N2N track construction as highly likely to have cumulative impacts. Future detailed assessments should also provide more clarity around the interaction with the civil-works contractors constructing the N2N Project for any camp/layout areas.</p>	<p>Narwonah MDC will be operational prior to construction of the N2N civil camp or N2N. Considering the timeline of both projects, ongoing assessment based on monitoring of factors (noise, vibration, lighting, traffic, etc.) at the operational Narwonah MDC will provide the most practical measurement of cumulative impacts, to inform further design proposals and effective planning of the N2N civil camp.</p>
<b>Environmental management measures</b>	<p>It is suggested that due to the multi-faceted commitments in the REF, and need for future assessments and approvals, that a 'compliance register' be created prior to any works commencing.</p>	<p>Noted.</p>

Theme	Issue raised	Response
<b>Heritage NSW</b>		
<b>No objection</b>	Heritage NSW has no additional comments or concerns with respect to the findings in the REF.	Noted.
<b>Ningawalla Farming</b>		
<b>Hydrology/ surface water</b>	Ningawalla Farming requests that ARTC, with whatever environmental/industrial changes that are made to existing land at the NMDC (Lot16 and 17 DP755131), construct no infrastructure developments that will lead to the restriction of runoff rainfall/flood water towards the north-west corner of the site.	ARTC does not intend to alter afflux into or out of the property to any extent except to the extent required to ensure only appropriate water quality exits the property. A sediment settlement basin may therefore be required, which will be kept minimal in size to ensure overland flow water is not retained on the property unnecessarily.
<b>Hydrology/ surface water</b>	Ningawalla Farming requests that If ARTC is concerned about increases in surface water flow heading north west and heading along the Boggy Cowell, that we as local landowners be consulted about improving drainage to increase water runoff in a north-west direction.	Consultation with local landowners would be ongoing as required prior to and during construction of the proposal.



## 5 Updated proposal justification

The proposal, as part of Inland Rail, is needed to respond to the growth in demand for freight transport and address existing freight capacity and infrastructure issues. The REF has been prepared in accordance with the provisions of Section 5.5 of the EP&A Act, taking into account, to the fullest extent possible, all matters affecting or likely to affect the environment as a result of the proposal.

Environmental investigations were undertaken during preparation of the REF to assess the potential impacts of the proposal. The approach to environmental management was initially provided in Chapter 6 of the REF. The development of submissions responses has necessitated modifications to existing mitigation measures or additional mitigation measures. These revisions are identified in Chapter 4 and Appendix B of this report.

No further community engagement and impact assessment is proposed to address the issues raised in the submissions. The community would be informed prior to works commencing.

With the implementation of the proposed mitigation measures, the potential environmental impacts of the proposal would be adequately managed. The environmental impact assessment (REF and Response to submissions report) is recommended to be approved subject to the proposed mitigation and environmental management measures in Appendix B.

## References

Australian Rail Track Corporation (ARTC). (2021). *Narwonah Material Distribution Centre: Review of Environmental Factors*.

# Appendices

Narwonah  
Material  
Distribution  
Centre

RESPONSE TO SUBMISSIONS

ARTC

INLAND  
RAIL  
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**APPENDIX**

# A

## **Submissions**

**NARWONAH MATERIAL DISTRIBUTION CENTRE RESPONSE TO SUBMISSIONS**



File No: SC116  
18 May 2022

Australia Rail Track Corporation (ARTC)  
Via email:  
inlandrailnsw@artc.com.au

Dear Sir/Madam,



**RE: REVIEW OF ENVIRONMENTAL FACTORS (REF) FOR THE NARWONAH MATERIAL DISTRIBUTION CENTRE**

Thank you for the opportunity to provide comment on the proposal for the Narwonah Material Distribution Centre. Council is supportive of the project overall, however would seek clarification on matters as noted or require certain aspects to be addressed, in particular where there are potential impacts to Council assets.

Please refer to the comments attached and references to details included in the REF. We look forward to your response and future applications.


Please contact Emma Yule, Manager Planning or the undersigned on 6889 9999 if you have any queries or would like to discuss the comments further.

Yours faithfully



**Andre Pretorius**  
**Director Infrastructure & Engineering Services**

**Attachment 1 – Comments**





## **ATTACHMENT 1 – Comments**

### **Section 2.2 Alternatives and options**

The REF states: *“the area located immediately to the south of the proposal site. This was identified for potential use as part of the N2N Project, in the N2N Project EIS; however, it is planned to be used by the civil-works contractors constructing the N2N Project for their camp and laydown area”* page 5.

- Is this referencing proposed Lot A which is included in this subdivision proposal?
- A holistic approach should be undertaken for the servicing strategy which should consider the servicing of the camp with services such as drinking water, sewer, waste and stormwater collection.

### **Section 2.3 – Road freight etc**

- Road infrastructure should be upgraded if ballast or any material, including water, sewer and waste is being transported via road to/from the MDC, to the Local Authority's and TfNSW's requirements.

### **Section 3 of REF - Description of the Development**

- Subdivision - a plan of the proposed subdivision was not provided. Figure 2 does not demonstrate any proposed easements or existing restrictions or dimensions. Details/Plan of the subdivision are not provided at a scale that can be reviewed adequately. As the subdivision does not require the consent of Council, it is expected that the REF and assessment process will substitute the same rigor of assessment. Including for example, referral to Essential Energy's conveyancing team for confirmation adequate legal provision has been made for services.
- It is unclear from the REF as to the timing of subdivision and the separation of any works/processes to complete this project component separate to the materials yard (and other Inland Rail project aspects).

*“The subdivision is a development that forms part of the proposal. It will separate the land to allow Lot A to be specifically used to build the N2N Project under its own contract, while part of Lot B will be used to specifically build the MDC under a different contract.”* Page 9 of REF

It is assumed the subdivision plan i.e. definition of lots will be required prior to commencement of construction works. Is this correctly assumed?

A further subdivision of Lot A will occur to define the rail corridor.

### **Section 3.4 Construction activities and section 3.7 Haulage and Traffic**

- Road infrastructure should be upgraded if ballast or any material is being transported via road, to the Local Authority's and TfNSW's requirements.
- A Traffic Management Plan must be provided to Council for review and approval prior to construction.

### **Section 3.8 Water usage**

- Where will drinking water and water for construction purposes be obtained?
- How will this water be transported to the MDC?
- Clarify whether the estimated construction vehicles s3.7.2 included water supply movements?

### **Section 3.11 Operation Hours**

- The REF states that operations will be undertaken 24 hours per day, 7 days per week (page 16).
- Section 4.1.1 from Appendix F - Noise and Vibration Assessment mentioned that an assessment of sleep disturbance impacts should be completed where construction works are planned to extend over more than two consecutive nights.
- It is requested that commitment to further investigation be clarified. Will this study be undertaken and will it include potential productivity impacts to farm animals such as cattle and horses?

### **Section 4 Statutory Requirements**

- The REF has not referred to assessment and approval for the development of offices and amenities and associated impacts/activities.
- You should refer to Section 68 and section 68A of the Local Government Act 1993 – SEPP approvals are required from Council for installation of transportable buildings, carrying out of stormwater drainage work, water supply work, and sewerage work, and to Operate a system of sewage management (within the meaning of section 68A)

#### **Section 4.2.1 – Statutory Consideration of the EP& A Act**

- The REF omits consideration of EP&A Act 1979 section 6.3 *Work or activity that requires certificate under this Part* – The proposal is described as permitted without development consent pursuant to SEPP (Transport and Infrastructure) 2021. This proposal is not 'exempt', as such the process for requirement of a subdivision certificate should be clarified.

- Section 195A of the Conveyancing Act 1919 requires a person to lodge a subdivision certificate when lodging a plan of subdivision for registration under that Act. Council would request the process be clarified and the intention to seek a subdivision certificate (and whether endorsement of Council is to be sought).

#### **Section 4.3.9 – Water Management Act**

To enable a complete picture of the proposed impacts of the development the following items should be expanded upon:

- Please describe how drinking water is to be supplied and whether it will meet the requirements of the Public Health Act, Australian Drinking Water Guidelines, etc. Please provide the source quality if water is being used for drinking water.
- Please describe how construction water is to be supplied.
- Please describe how stormwater is being treated and disposed off.
- What is the afflux as a result of the MDC and change in land use characteristics?
- What is the upstream and downstream impacts on stormwater behaviour for post development?

#### **Section 4.4.3 Narromine Local Environmental Plan 2011 (NLEP 2011)**

Subdivision layout should consider the ability to separate land not planned to be utilised for rail purposes west of the existing rail alignment, and is physically discrete.

Clause 4.1 of the NLEP 2011 is only applicable to subdivision that requires development consent. The objectives of the zone may better be served to allow the land to the west of the existing rail alignment be separately titled, which would facilitate unconstrained use for primary production purposes.

#### **Section 5.3.5 – Traffic impacts**

With regard to the note in Table 6 that consultation proposed with Council is not required pursuant to the SEPP, the following comments are made:

- Please provide the Detailed Traffic Impact Assessment for review and support by Council.
- Council requires that traffic movement be monitored and classified on impacted roads.
- Council expects that the proponent will be responsible for the maintenance of these roads as a result of the increase in traffic movement, to Council's requirements.
- All other roads impacted upon as a result of this development must be upgraded and maintained to Council requirements.

### **Section 6.4 Surface water**

The following comments are provided:

- Excess stormwater must not be disposed of or irrigated on roads or within the road reserve without prior approval from the Roads Authority.
- Management measures are to ensure silt and debris must be disposed of appropriately.
- Council would required that "Shaker beds" are to be installed and maintained at both Tomingley and Tullamore (The McGrane Way) for dust control prior entering on sealed section.

### **Table 16 Surface Water Features and Table 17 Surface Water control measures**

- The final acceptable performance outcomes are not clear.
- Post development flows leaving the site should be equal or less than pre-development flows, since impervious areas will increase.
- What is the upstream and downstream impacts on stormwater and flood behaviour for post development?
- What is the afflux as a result of the MDC and change in land use characteristics?

### **Section 6.11 Waste**

Liquid waste - Where will domestic sewage be disposed?

- An application to discharge or dispose of liquid waste, including trade/septic waste must be made to Council for consideration and approval. As mentioned above, assessment and approval for any onsite effluent disposal is required as part of a separate s68 Approval.

### **Section 6.6 Traffic and Access**

The following comments are made in relation to the Traffic aspects referenced in the REF. Further assessment and consultation in the detailed assessment phase is requested to be undertaken with Council staff in this regard.

- Please provide a traffic management plan considering traffic flow and generation.
- A Road Safety Audit, which considers the level crossings as being operational is required.
- A traffic control plan(s) is required for consideration and approval by the Road's Authority.
- The traffic data taken over a 13 day period may be insufficient. The AADT for The McGrane Way is approximately 899 vpd with approximately 19% Heavy Vehicles (2021).
- The AADT for Tomingley Road is approximately 977 vpd with approximately 20% Heavy Vehicles (2021).
- Any works within a road reserve requires an approval under Section 138 of the Roads Act, 1993. The timing of these approvals should be considered in relation to the proposed start of construction proposed.
- Council requires that traffic movement be monitored and classified on impacted roads.
- How will construction traffic affect movement of agricultural and other heavy vehicles?
- What impact will the level crossing at Narwonah Siding and Craigie Lea Lane have?

- Will the Craigie Lea Lane level crossing be upgraded?
- Craigie Lea Lane and/or Narwonah siding roads are unsealed roads and are closed during wet weather events. The proponent is responsible for the upgrade of these roads as a result of the increase in traffic movement. The proponent will be responsible for the maintenance of these roads as a result of the increase in traffic movement, to Council's requirements.
- All other roads impacted upon as a result of this development must be upgraded and maintained to Council requirements.
- Intersections with Tomingley Road and the McGrane Way to have Rural Auxiliary Left-turn Lane (UAL) treatment.
- Right turn treatments from Tomingley Road and the McGrane Way to have Rural Auxiliary turn Lane) treatments with a passing lane.

### **Section 6.13 Cumulative Impacts**

- Cumulative impact assessment has referred to the N2N track construction as highly likely to have cumulative impacts. Future detailed assessments should also provide more clarity around the interaction with the civil-works contractors constructing the N2N Project for any camp/laydown areas.

### **Section 7 Environmental Management Measures**

- It is suggested that due to the multi-faceted commitments in the REF and need for future assessments and approvals that a "compliance register" be created prior to any works commencing.

**From:** Nicole Davis <Nicole.Davis@environment.nsw.gov.au>  
**Sent:** Friday, 13 May 2022 6:28 PM  
**To:** Louise Johnson <LJohnson@ARTC.com.au>  
**Subject:** [EXT] Heritage NSW Reply - LETTER: Narwonah (Narromine) Materials Distribution Centre - Review of Environmental Factors Exhibition

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---

Hi Louise,

Thank you for your referral to Heritage NSW in relation to Aboriginal cultural heritage (ACH) and the Narwonah (Narromine) Materials Distribution Centre - Review of Environmental Factors - Exhibition.

I have reviewed the relevant section of the REF with respect to ACH and I note that several sites were identified to the immediate south of the study area, and an Aboriginal site (Site MDC-AS01) was also identified and is a low-density artefact scatter. There are no previously recorded Aboriginal sites identified within the study area and no other findings regarding Aboriginal Heritage were identified within the proposal site. I note that the REF concludes that based on local modelling, the study area is unlikely to be of greater than low-moderate archaeological potential. Heritage NSW has no additional comments or concerns with respect to the findings in the REF.

Please contact me directly should you require any additional information.

Kind Regards  
Nicole Davis

**Nicole Davis**  
Manager Assessments  
Heritage NSW  
**Department of Planning and Environment**

T 02 4927 3156 M 0409 394 343 E [nicole.davis@environment.nsw.gov.au](mailto:nicole.davis@environment.nsw.gov.au)

Locked Bag 5020 Parramatta 2124

**Working Days** Monday to Friday



**FIGURE A-2: HERITAGE NSW SUBMISSION**



**From:** [Anderson Brad](#)  
**To:** [Inland Rail NSW](#)  
**Cc:** [Craig Davies](#)  
**Subject:** [EXT] Narwonah Material Distribution Centre Submission  
**Date:** Wednesday, 11 May 2022 7:23:10 PM

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To ARTC,

I am a cropper/grazier located on Mallowa/Ningawalla 357 Farrendale Rd Narromine. (NW of the Narwonah Material Distribution Centre) We also have access to our property via the Ningawalla South Lane, west of Craigie-Lee Road.

Our property is split in half by the natural water system locally known as the Boggy Cowell. (The Boggy Cowell meets the Backwater Cowell further downstream). The land where the NMDC is located is part of the small local catchment area that feeds into the Boggy Cowell, underneath the McGrane Way ( or over in big flooding events). Not completed understanding the jargon of the NMDC Environmental Review I ask the following:

1. That ARTC with what ever enviromental/industrial changes that are made to existing land at the NMDC, (Lot16 and 17 DP755131) no infrastructure developments are constructed that will lead to the restriction of runoff rainfall/flood water towards the NW corner of the site.
2. If ARTC are concerned about increases in surface water flow heading towards North West and heading along the Boggy cowell, that we as local land owners be consultant about improving drainage to increase water runoff in a north west direction.

Please feel free to call or email to discuss further.

Regards

Brad Anderson Ningawalla

Farming 599 Farrendale Rd

Narromine NSW 2821

Mob: 0439391791

Email: [bsanderson@live.com.au](mailto:bsanderson@live.com.au)

### FIGURE A-3: NINGAWALLA FARMING SUBMISSION

**APPENDIX**

**B**

# **Updated mitigation measures**

**NARWONAH MATERIAL DISTRIBUTION CENTRE RESPONSE TO SUBMISSIONS**



## Appendix B Updated mitigation measures

Table B-1 is a summary of proposal-specific control measures that have either been identified through the assessment undertaken in the REF, amendments identified in the Response to Submissions Report or are standard best practice environmental management controls that are over and above contemporary standard practice for environmental management. They will be incorporated into the detailed design phase of the proposal, and during the construction and operation of the proposal, should it proceed. Amendment to the mitigations measures as identified in the Response to Submissions Report are shown with additional wording in **bold** and removed wording ~~struck out~~.

**TABLE B-1 SUMMARY OF SITE SPECIFIC CONTROL MEASURES**

Aspect	Control measures	Proposed MDC phase
<b>Biodiversity</b>	<p>A flora and fauna management sub-plan will be prepared prior to construction, and implemented as part of the construction environmental management plan (CEMP).</p> <p>The plan will be prepared in accordance with the relevant guidelines, legislation and standards, and will include but not be limited to:</p> <ul style="list-style-type: none"> <li>▶ establishing protocols for the staged clearing of vegetation and safe tree felling and log removal to reduce the risk of fauna mortality</li> <li>▶ an unexpected finds protocol.</li> <li>▶ processes for notification of a wildlife rescue organisation (e.g. WIRES) in case any injured fauna are found. All animals encountered will be treated humanely, ethically, and in accordance with relevant codes under the Prevention of Cruelty to Animals Act 1979 (NSW).</li> </ul>	Design and Pre-construction
<b>Biodiversity</b>	Measures to suppress dust, prevent erosion and sedimentation will be implemented during clearing and site work.	Construction / Operation
<b>Biodiversity</b>	Temporary and permanent stockpiles are to be located within cleared areas (and not within areas of adjoining native vegetation) or within the dripline of trees.	Construction / Operation
<b>Biodiversity</b>	All workers will be provided with an environmental induction prior to starting work onsite. This will include information on the ecological values of the site, protection measures to be implemented to protect biodiversity, and penalties for breaches.	Pre-clearing
<b>Biodiversity</b>	<p>A suitably qualified ecologist is to be present during clearing activities for habitat identified during pre-clearing surveys, in order to identify areas to be avoided, and manage the rescue or relocation of fauna as necessary.</p> <p>If a Koala is observed in the area during vegetation clearing, works are to cease and not recommence until the Koala has moved on of its own accord or with the assistance of an ecologist.</p>	Pre-clearing
<b>Biodiversity</b>	<p>A weed and pest species management protocol will be prepared as part of the CEMP to manage weeds and pathogens during site activities. It will include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>▶ process to identify, control and remove all priority weeds in accordance with the requirements of the Biosecurity Act 2015</li> <li>▶ process to minimise the introduction and spread of weeds, such as exclusion areas for native vegetation, driving instructions, etc.</li> <li>▶ communication of responsibilities of all site personnel regarding the management of weeds and pathogens, through site inductions and toolbox talk meetings</li> <li>▶ measures to ensure all trucks transporting weed waste from the site are covered to avoid the spread of weed-contaminated material. Disposal must be documented and evidence of appropriate disposal must be kept.</li> </ul>	Pre-clearing
<b>Biodiversity</b>	So far as is practicable, suitable bush rock habitat, hollow-bearing logs or limbs, and woody debris will be relocated to nearby adjacent areas outside of the proposal site footprint by the supervising ecologist or contractor.	Pre and during clearing
<b>Biodiversity</b>	Disturbance of vegetation will be limited to the minimum necessary to undertake the proposal. Clearing boundaries and any features to be retained, e.g. hollow bearing trees, need to be clearly marked on-ground before clearing commences.	During clearing

Aspect	Control measures	Proposed MDC phase
<b>Biodiversity</b>	All machinery entering the site must be appropriately washed down and disinfected, as far as practicable, prior to mobilisation onsite to prevent the potential spread of weeds, Cinnamon Fungus ( <i>Phytophthora cinnamomi</i> ) and Myrtle Rust ( <i>Pucciniales</i> fungi), in accordance with the national best practice guidelines for <i>Phytophthora</i> (O’Gara et al., 2005) and the <i>Myrtle Rust factsheet</i> (DPI, 2015b) for hygiene control. Weed inspections of vehicles should also be undertaken and documented as part of the CEMP.	Prior to any plant or machinery being brought onsite, where practicable
<b>Biodiversity</b>	Protocols to prevent introduction or spread of chytrid fungus will be implemented following hygiene guidelines for wildlife, protocols to protect priority biodiversity areas in NSW from <i>Phytophthora cinnamomi</i> , myrtle rust, amphibian chytrid fungus and invasive plants (DPIE, 2020b).	Pre-clearing, during construction and operation
<b>Biodiversity</b>	Sediment controls are to be established around the proposal site perimeter as a minimum, in accordance with the Blue Book and the contractor’s environmental management plan.  Measures will be implemented to minimise the risk of movement of materials in the event of a significant rainfall, such as covering stockpiles with impervious covers (tarps) or temporary trenching upslope of stockpiles to divert surface runoff around stockpiles.  In the event of forecast heavy rainfall, additional measures will be implemented, or works will be postponed, to prevent the potential for sediment laden run-off into adjacent properties or waterways.	Pre-clearing, during construction and operation
<b>Noise and Vibration</b>	Develop and implement a Construction Noise and Vibration Management Plan (CNVMP).	Design and Pre-construction Construction/ Operation
<b>Noise and Vibration</b>	The construction noise impact assessment in this report should be refined following any changes in design refinement, to reflect the final locations of construction activities and scheduling to inform the development of the CVNMP.	Design and Pre-construction
<b>Noise and Vibration</b>	Building condition surveys will be undertaken for sensitive receivers within 200 m of the proposed MDC to ensure there is sufficient information to respond to any potential complaints. Surveys are to take place prior to commencement and on completion of vibration-generating works.	Design and Pre-construction
<b>Noise and Vibration</b>	Review construction staging method to identify opportunities to schedule noisy works during the day or, where relevant, evening time period.	Design and Pre-construction
<b>Noise and Vibration</b>	Review construction staging method to identify opportunities where simultaneous operation of noisy equipment can be separated out to operate individually.	Design and Pre-construction
<b>Noise and Vibration</b>	Selection of quieter construction equipment should be investigated where feasible and practicable. This is especially important for any out-of-hours works where predicted noise levels indicate high levels of noise impacts to nearby sensitive receivers.	Design and Pre-construction
<b>Noise and Vibration</b>	Staff training is to be undertaken so that unnecessary sources of noise and vibration are avoided. Training must include the understanding and adoption of the CNVMP and best-practice behaviours onsite to minimise noise and vibration. The behaviours and implementation of CNVMP should be enforced through regular checks and reminders.	Construction/ Operation
<b>Noise and Vibration</b>	Where feasible and practicable, plant and equipment used intermittently, or no longer in use, will be throttled or shut down.	Construction/ Operation
<b>Noise and Vibration</b>	Equipment will be operated and maintained in a manner as detailed by the manufacturer. This includes the replacement of engine covers, repair of defective silencing equipment, tightening of rattling components and repair of leakages in compressed air lines.	Construction/ Operation

Aspect	Control measures	Proposed MDC phase
<b>Noise and Vibration</b>	<p>All mechanical plant near sensitive receivers should be modified to reduce noise, where feasible and practicable, such as:</p> <ul style="list-style-type: none"> <li>▶ internal combustion engines are fitted with a suitable muffler in good repair, operating as per the manufacturer's specifications</li> <li>▶ pneumatic tools are fitted with an effective silencer on their air exhaust port</li> <li>▶ aggregate bins, loaders and chutes are lined with a rubber material to dampen the vibration of the structure</li> </ul> <p>suitable rubber pads on wagons, loaders and ground are installed prior to unloading of rails, ballast and sleepers to minimise short-term noise impacts.</p>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Localised acoustic shielding in the form of acoustic semi-enclosures and blankets will be installed to shield noisy construction equipment from the nearest residences, where practicable:</p> <ul style="list-style-type: none"> <li>▶ acoustic enclosures should be installed as close to the works area as possible</li> <li>▶ acoustic blankets should be arranged to overlap such that no air gaps are present between blankets.</li> </ul> <p>Acoustic shielding is particularly effective for stationary plant that is scheduled to work for lengthy periods. Guidance for acoustic enclosures should be taken from AS 2436-2010 -Guide to noise and vibration control on construction, demolition, and maintenance sites.</p>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Non-tonal reversing beepers (or an equivalent mechanism) will be fitted and used on all construction vehicles and mobile plant regularly used on the site and for any out-of-hours works, where practicable.</p>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Site access points and roads should be sited as far as practicable from sensitive receivers.</p>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Delivery vehicles shall be fitted with straps rather than chains where feasible.</p>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Sites are to be designed so that reversing of delivery vehicles is minimised so that they can drive through the site where possible.</p>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Where feasible and practicable:</p> <ul style="list-style-type: none"> <li>▶ unsealed haul roads should be regularly graded. Sealed access roads and hardstand areas should have potholes filled in a timely fashion</li> <li>▶ night-time construction traffic should be limited. If unavoidable, they should be redirected away from noise-sensitive receivers, in accordance with the Construction Traffic Management Plan</li> <li>▶ appropriate construction traffic speed limits should be established and enforced near noise-sensitive receivers.</li> </ul>	Construction/ Operation
<b>Noise and Vibration</b>	<p>Regular communications on the activities and progress of the proposal should be provided to the community (e.g. via newsletter, email and/or website).</p>	Construction/Operation
<b>Noise and Vibration</b>	<p>The operational works staging method will be reviewed to identify opportunities to schedule noisy works during the day or, where relevant, evening.</p>	Operation
<b>Noise and Vibration</b>	<p>The provision of at-property treatment could be considered for any noise impacts, given the 24-hour operational duration of the MDC. This may include:</p> <ul style="list-style-type: none"> <li>▶ investigating potential for local at-property solid fencing</li> <li>▶ offering alternative ventilation where the windows are to remain closed</li> <li>▶ upgrading the acoustic performance of specific elements of the building envelope (e.g. windows and doors).</li> </ul> <p>Note that these at-property treatments would require prior detailed investigations and assessments of the existing conditions to assess the most effective acoustic treatment. If these treatments are considered effective, works would be executed only if specific agreements between the property owners and the proponent are reached.</p>	Operation

Aspect	Control measures	Proposed MDC phase
<b>Indigenous and non-indigenous heritage</b>	<p>The MDC design should be formulated to avoid impacts to Site MDC-AS01, in which case, the location of MDC-AS01:</p> <ul style="list-style-type: none"> <li>▶ is protected with a 10-m fenced no-go zone through the period of ground-disturbing construction works</li> <li>▶ is marked on site mapping</li> <li>▶ restrictions regarding it must be discussed at site inductions and toolbox meetings for works in the site vicinity.</li> </ul> <p>If impacts to Site MDC-AS01 cannot be avoided:</p> <ul style="list-style-type: none"> <li>▶ surface salvage of artefacts in Site MDC-AS01 must be carried out</li> <li>▶ salvage of artefacts in Site MDC-AS01 must be carried out in consultation with RAPs</li> <li>▶ artefacts collected from Site MDC-AS01 must be subject to repatriation in accordance with consultation with RAPs</li> <li>▶ an AHIP will be required to permit any impacts, including surface collection salvage, to Site MDC-AS01</li> <li>▶ an ACHAR will be required in support of the AHIP application.</li> </ul>	Design/ Pre-Construction
<b>Indigenous and non-indigenous heritage</b>	Mature trees in Lot 1 DP 1198931 are to be inspected for evidence of cultural modification.	Design/ Pre-Construction
<b>Indigenous and non-indigenous heritage</b>	A program of archaeological sub-surface testing must be completed for areas where gilgais are evident in the proposal site, in accordance with the <i>Code of Practice for archaeological investigation of Aboriginal objects in NSW</i> .	Design/ Pre-Construction
<b>Indigenous and non-indigenous heritage</b>	<p>The following steps should be carried out to manage potential minor indirect (visual) impacts to Craigie Lea homestead:</p> <ul style="list-style-type: none"> <li>▶ The homestead should be inspected by a heritage specialist to determine whether the homestead retains heritage significance, or whether it has been substantially altered.</li> <li>▶ If the homestead is confirmed to be of local heritage significance, or a significance assessment is not completed, design of the MDC should minimise visual impacts through reduction of height adjacent to the item, or consideration of additional screening.</li> </ul>	Design/ Pre-Construction
<b>Indigenous and non-indigenous heritage</b>	An Unexpected Heritage Finds procedure must be prepared and implemented for any ground-disturbance works.	Pre-Construction
<b>Indigenous and non-indigenous heritage</b>	Staff engaged in onsite works should receive a heritage induction that will make them aware of the nature of potential heritage finds and their obligations under the <i>National Parks &amp; Wildlife Act 1974</i> and the <i>Heritage Act 1977</i> .	Pre-Construction
<b>Surface water</b>	<p>Flood assessment will be undertaken based on design calculations using existing hydraulic modelling for the MDC and surrounding area, to confirm requirements for design provisions and mitigation measures under the following scenarios:</p> <ul style="list-style-type: none"> <li>▶ proposed MDC without N2N rail infrastructure in place</li> <li>▶ proposed MDC with N2N rail infrastructure in place (i.e., cumulative impact assessment) if deemed required.</li> </ul>	Design and Pre-construction
<b>Surface water</b>	A risk assessment will be undertaken to identify opportunities for relaxation of flood immunity/protection requirements of various site elements on a case-by-case basis (in consideration of the impacts to adjacent landholdings and receptors, and extents of infrastructure required in achieving such requirements) and in consultation with relevant parties.	Design and Pre-construction
<b>Surface water</b>	Site elements will be strategically placed to minimise impacts to overland flow conveyance and storage, in so far as is possible.	Design and Pre-construction
<b>Surface water</b>	Appropriate cross- and open-drain features will be provided to maintain designated flow regime and avoid flow redirection and/or flood impacts on external properties. If required, adequate design allowance should be included to accommodate changes in flow distribution resulting from the N2N Project. This would also include appropriate scour protection measures.	Design and Pre-construction



Aspect	Control measures	Proposed MDC phase
Surface water	Appropriate flood protection will be provided to protect hazardous material storage facilities.	Design and Pre-construction
Surface water	Erosion and sediment control plans and SWMP will be developed and be signed off by a Suitably Qualified Person (e.g. CPESC) in accordance with regulatory requirements.	Construction
Surface water	Requirements for construction water (volumes, quality, demand curves, approvals requirements and lead times) would be defined during detailed design.	Construction
Surface water	Any discharge of construction water (e.g. from sediment basins and excavation dewatering etc.) to the drainage systems or receiving waters would comply with the trigger values so that the proposed MDC does not have an adverse impact on water quality.	Construction
Surface water	Inspection and maintenance of any erosion and sediment controls would be carried out throughout the works to ensure they are operating effectively.	Construction and Operation
Surface water	<b>Excess stormwater must not be disposed of or irrigated on roads or within the road reserve without prior approval from the Roads Authority.</b>	<b>Construction and Operation</b>
Surface water	The proposed MDC would be managed in accordance with the water quality management requirements specified in state policy, procedures and guidelines.	Operation
Air quality	Where sensitive receivers are located within 200 m of proposed activities, or visible dust is generated from work areas or unsealed access roads, watering would be implemented where practicable.	Construction and operation
Air quality	Dust will be visually monitored every day and, when excessive, controls such as watering, changed work practices or use of polymers will be used where practicable.	Construction and operation
Air quality	Vehicle and machinery movements would be restricted to existing access roads where possible.	Construction and operation
Air quality	Contractor plant and machinery, including generators, will be regularly checked and maintained in a proper and efficient condition.	Construction and operation
Air quality	Plant and machinery would be switched off when not in use, and not left idling.	Construction and operation

Aspect	Control measures	Proposed MDC phase
Traffic and access	<p>A Traffic Impacts Assessment (TIA) will be undertaken during detailed design, which should address the following issues and all relevant matters in accordance with the <i>Austrroads Guide to Traffic Management Part 12</i> (Austrroads, 2020b) and <i>Guide to Traffic Generating Developments 2002</i> (Roads and Traffic Authority (RTA), 2002):</p> <ul style="list-style-type: none"> <li>▶ traffic generation assessment with reference to RTA Guide to Traffic Generating Developments in order to determine traffic generation associated with the MDC (<b>including additional daily traffic generated during construction and operation period on key roads</b>)</li> <li>▶ <b>impacts of construction traffic on the existing movement of agricultural peak and other heavy vehicles, particularly along the McGrane Way and Tomingley Road</b></li> <li>▶ reference <i>Guide to Traffic Management Part 6</i> (Austrroads, 2020c) warrants for turning treatments. Swept path diagrams are to be provided to demonstrate the following: <ul style="list-style-type: none"> <li>▶ the proposed direction or directions of access and egress to and from the proposal site</li> <li>▶ all vehicles can enter and exit the proposal site in a forward direction</li> <li>▶ the design vehicle can access the proposal site and will not result in adverse impacts to The McGrane Way or Tomingley Road</li> <li>▶ the width of the driveways are adequate to accommodate the swept path of the largest vehicle required to access the proposal site</li> </ul> </li> <li>▶ the software, AutoTurn Pro 10.2 is to be used to depict the vehicle swept paths. The parameters used to generate the swept path diagrams are to be noted on the plans</li> <li>▶ an assessment of the type of intersection design required for access and egress points to and from classified roads, either directly or preferably via local roads. Safe Intersection Sight Distance (SISD) in accordance with the <i>Austrroads Guide to Road Design</i> is to be provided at these access/egress points</li> <li>▶ confirmation that the proposed design vehicle is legally able to access Craigie Lea Lane and Narwonah Siding Road</li> <li>▶ any proposed signage may be subject to State Environmental Planning Policy (Industry and Employment) 2021 and the Transport Corridor Outdoor Advertising and Signage Guidelines. Referral to TfNSW may be required subject to clause 3.15 and 3.16 of the SEPP.</li> <li>▶ <b>monitor and classify traffic movement on impacted roads</b></li> </ul> <p><b>The TIA should be provided to Narromine Shire Council for review and approval prior to construction.</b></p>	Design and Pre-construction
Traffic and access	The McGrane Way/Craigie Lea Lane and Tomingley Road/Craigie Lean Lane intersection treatment will be determined based on final detailed design.	Design and Pre-construction
Traffic and access	Detailed design would consider the pavement impact assessment by carrying out a SIDRA Analysis of intersections subject to potential impacts.	Design and Pre-construction
Traffic and access	A dilapidation survey should be undertaken of the made public roads within the proposed haulage routes, prior to and following completion of construction, and provided to the relevant road authority.	Design and Pre-construction
Traffic and access	Detailed design would aim to minimise the potential for impacts to the surrounding road and transport network, and property access.	Design and Pre-construction
Traffic and access	A Traffic Management Plan (TMP) <b>and traffic control plan(s)</b> will be prepared for the proposal as part of the CEMP, in consultation with council. <b>The TMP is to consider traffic flow and generation.</b>	Design and Pre-construction <b>and Operation (where relevant)</b>
Traffic and access	Temporary diversions and closures of existing rail and road traffic would be undertaken in consultation with relevant stakeholders, and alternative arrangements would be provided as required.	Construction and Operation
Traffic and access	<p><b>Road safety audits will be undertaken at the level crossings post construction in accordance with the Austrroads guidelines (Austrroads, 2019). Level crossings will be reviewed to confirm:</b></p> <ul style="list-style-type: none"> <li>▶ <b>The level of protection continues to be appropriate</b></li> <li>▶ <b>The infrastructure is appropriate for the traffic conditions.</b></li> </ul>	Post construction and pre-operation

<b>Aspect</b>	<b>Control measures</b>	<b>Proposed MDC phase</b>
<b>Land use and property</b>	Access to the construction area for stock, as well as non-construction related vehicles and people would be restricted via fencing and other measures.	Design and Pre-Construction
<b>Land use and property</b>	Fencing will be provided in accordance with the Inland Rail fencing standards applicable to the adjacent land use and be constructed prior to the removal of existing fencing or any works being carried out on the subject land, unless otherwise agreed with the landowner.	Design and Pre-Construction
<b>Land use and property</b>	If required, land for the construction of the works would be acquired in accordance with the requirements of the relevant state land acquisition legislation, including the <i>Land Acquisition (Just Terms Compensation) Act 1991</i> (NSW).	Design and Pre-Construction
<b>Land use and property</b>	Property owners, tenants and occupants would be consulted to ensure they are informed about the timing and scope of activities in their area and any potential property impacts/changes, particularly in relation to potential impacts to access, services, or farm operational arrangements.	Design and Pre-Construction
<b>Socio-economics</b>	ARTC would continue to manage and deliver Program-wide community and stakeholder engagement for Inland Rail in accordance with the Inland Rail Communications and Engagement Strategy.	Design/Pre-construction
<b>Socio-economics</b>	The CEMP would define the requirements for the complaints management system to be implemented during construction.	Design/Pre-construction
<b>Socio-economics</b>	The project will include measures to ensure ongoing consultation with local emergency services providers to inform them about the locations of level crossings, and changes to access routes and road conditions.	Design/Pre-construction
<b>Socio-economics</b>	To manage the implementation of the proposed socio-economic mitigation measures, contractual mechanisms will be put in place and specific management action and targets will be developed in response to these measures.	Design/Pre-construction
<b>Socio-economics</b>	ARTC would continue to support local employment in accordance with the <i>Australian Jobs Act 2013</i> (Cth) and Australian Industry Participation National Framework, and through the Inland Rail Academy, to leverage training programs, upskill residents and young people, and connect businesses with Inland Rail opportunities and key regional industries.	Design/Pre-construction
<b>Socio-economics</b>	Key stakeholders (including local councils, emergency service providers, public transport providers, the general community, and surrounding landowners/occupants) would continue to be consulted in accordance with the Engagement Implementation Plan.	Design and Pre-Construction/Construction
<b>Socio-economics</b>	A temporary workforce accommodation plan would be prepared to guide the design and provision of temporary accommodation. The plan would be developed in accordance with ARTC's Inland Rail Program Accommodation Principles, relevant council development codes and guidelines.	Design/Pre-construction
<b>Socio-economics</b>	Residents, landholders, landowners, businesses, affected social and recreation facilities and other relevant stakeholders would be notified before work starts, in accordance with the communication management plan, and be regularly informed of construction activities.	Construction/operation
<b>Socio-economics</b>	Complaints during construction would be managed in accordance with the complaints management system defined by the communication management plan.	Construction/operation
<b>Landscape character and visual amenity</b>	A Landscape and Rehabilitation Strategy should be developed during the detailed design stage in line with the ARTC Landscape Strategy, Landscape Framework and the Landscape Specification.	Design/Pre-construction
<b>Landscape character and visual amenity</b>	Vegetation will be retained, where feasible, and supplemented with further planting to strengthen the existing screening value. This would be considered along Craigie Lea Lane, Narwonah Siding Road and to the east of Parkes Narromine Railway.	Design/Pre-construction
<b>Landscape character and visual amenity</b>	The detailed MDC layout would be refined so that, while not in use, construction machinery is stored in suitable locations to minimise views and disturbance.	Design/Pre-construction
<b>Contamination and soil</b>	A Contaminated Land and Hazardous Materials Management Plan would be prepared and implemented as part of the CEMP.	Design and Pre-Construction

Aspect	Control measures	Proposed MDC phase
<b>Contamination and soil</b>	An unexpected finds protocol should be included as part of the CEMP or as a stand-alone document if potentially contaminated fill material or buried unexpected finds are encountered during construction earthworks.	Design and Pre-Construction
<b>Contamination and soil</b>	Personnel involved in ground-disturbing works must be familiar with the unexpected finds protocol/procedure and be trained in the identification of potential contaminated soil/material and relevant controls.	Design and Pre-Construction
<b>Contamination and soil</b>	The reuse or retention of contaminated or potentially contaminated material onsite (i.e. soil, ballast and timbers) will be subject to a risk assessment and/or occur as per the relevant components of the CEMP.	Design and Pre-Construction
<b>Contamination and soil</b>	Hazardous materials surveys would be undertaken during detailed design for all proposed demolition activities.	Design and Pre-Construction
<b>Contamination and soil</b>	A hazardous substances and dangerous goods risk management strategy will be developed to manage the potential for risks.	Design and Pre-Construction
<b>Contamination and soil</b>	The proposed activities will adhere to the <i>Safe Work Australia Model Code of Practice—How to Manage and Control Asbestos in the Workplace 2016</i> (Safe Work Australia, 2020) and <i>Safe Work Australia Model Code of Practice – How to Safely Remove Asbestos 2018</i> (Safe Work Australia, 2018).	Design and Pre-Construction
<b>Contamination and soil</b>	If ASS are encountered, they would be managed in accordance with <i>the Acid Sulfate Soils Assessment Guidelines</i> (ASSMAC, 1998), and the <i>Waste Classification Guidelines - Part 4: Acid Sulfate Soils</i> (NSW EPA, 2014).	Design and Pre-Construction
<b>Contamination and soil</b>	During construction works, surplus soil waste requiring offsite disposal must be assessed and classified prior to being transported to an appropriately licenced landfill, in accordance with the NSW EPA <i>Waste Classification Guidelines 2014</i> .	Construction
<b>Contamination and soil</b>	Topsoil would be stripped progressively in areas designated for construction and stockpiled separately onsite for use in rehabilitation/stabilisation works.	Construction
<b>Contamination and soil</b>	Drilling and excavation activities during construction will make use of drilling fluids and chemicals that are environmentally neutral and biodegradable, where practical.	Construction
<b>Contamination and soil</b>	Vehicle and plant maintenance activities will be undertaken in suitable areas, with hardstand to minimise risk of contaminants from incidental spills or leaks from entering aquifers via infiltration or surface runoff.	Construction and Operation
<b>Contamination and soil</b>	The freight transportation of dangerous goods of the proposed MDC will be in accordance with the <i>Australian Code for the Transport of Dangerous Goods by Road and Rail</i> (National Transport Commission, 2020). Freight carts will be required to display appropriate Hazchem signage, including placards, and carry appropriate spill-containment equipment to be used by emergency services personnel in the event of an emergency.	Construction and Operation
<b>Contamination and soil</b>	A contamination assessment report (with sampling and analysis conducted) should be undertaken post the MDC and demobilisation to demonstrate the proposal site was not contaminated as a result of the MDC and the land is suitable for use or development.	Post decommissioning

Aspect	Control measures	Proposed MDC phase
<b>Waste</b>	<p>A waste management plan would be prepared for the proposed MDC, including:</p> <ul style="list-style-type: none"> <li>▶ waste targets for the MDC</li> <li>▶ estimated waste generation (volumes and types of waste arisings)</li> <li>▶ waste mitigation and management measures for the waste types and quantities, and contingencies for any unexpected waste volumes</li> <li>▶ general protocols and performance objectives for keeping the worksite clean and tidy</li> <li>▶ processes for monitoring, documenting and reporting waste types, volumes and how these arisings compare to waste targets (e.g. describe waste streams and estimated volumes, temporary waste storage areas and disposal locations on and offsite (including stockpiles and landfilling), as well as waste disposal NEPM criteria for disposal sites</li> <li>▶ requirements for waste segregation (e.g. inert—including virgin excavated material, vegetation, building and demolition waste, concrete and asphalt; solid—such as food waste and litter, industrial/regulated—such as asbestos; hazardous—such as flammable liquids; liquid—such as sewage</li> <li>▶ requirements for secure temporary storage, collection frequency and disposal/recycling requirements</li> <li>▶ effluent management for construction staff amenities</li> <li>▶ procedures and reporting/documentation requirements for ensuring waste transporters and receivers are appropriately licensed according to the type of waste</li> <li>▶ requirements for training, inspections, audits, corrective actions, notification and classification of environmental incidents, record keeping, monitoring and performance objectives for handover on completion of construction</li> <li>▶ any other requirements necessary to comply with conditions of approval, subsequent approvals or regulatory requirements.</li> </ul>	Design/Pre-construction
<b>Waste</b>	<p>During detailed design, a waste reduction review would be undertaken to identify opportunities to meaningfully achieve the waste reduction through design, construction and operation, including the consideration of the following:</p> <ul style="list-style-type: none"> <li>▶ decommissioning of redundant track</li> <li>▶ opportunities for designing out waste</li> <li>▶ alternative approaches to materials used during construction, operation and maintenance to ensure resource efficiencies, in accordance with relevant design standards.</li> </ul>	Design/Pre-construction
<b>Waste</b>	Detailed design would include measures to minimise excess spoil generation. This would include a focus on optimising the design to minimise spoil volumes, and the reuse of material onsite.	Design/Pre-construction
<b>Waste</b>	Consideration of alternative approaches to materials used, construction and operational techniques, and maintenance of a process to achieve a less resource-intensive and more efficient process, in accordance with relevant design standards.	Construction / Decommissioning
<b>Waste</b>	All waste generated would be classified in accordance with the Waste Classification Guidelines and disposed of in accordance with the relevant requirements of the Protection of the Environment Operations (Waste) Regulation 2014.	Construction / Decommissioning
<b>Waste</b>	Arrangements would be made with landfill operators prior to the delivery of waste and recyclables to any rural facility to ensure that the waste types and quantities can be accepted.	Construction / Operation / Decommissioning
<b>Waste</b>	Any hazardous or dangerous waste (e.g. asbestos, chemicals, oils) would be correctly stored and managed onsite and, if necessary, disposed of by a licensed contractor or facility and in accordance with the relevant state occupational health and safety legislative and regulatory obligations. This includes wastes generated because of demolition.	Construction and Operation
<b>Waste</b>	Waste management plans/procedures would be included in the Operators EMP.	Operation

<b>Aspect</b>	<b>Control measures</b>	<b>Proposed MDC phase</b>
<b>Hazard and risk</b>	Local emergency services would be engaged with to discuss and coordinate emergency response procedures, including (but not limited to) temperature, high wind and container topple.	Design and Pre-Construction
<b>Hazard and risk</b>	A workforce safety plan that references the ARTC Safety Management System would be prepared and would outline any specific actions to ensure the safety of workers across the proposal site.	Construction
<b>Hazard and risk</b>	Maintenance program/operational policy would be developed to monitor bushfire risk.	Operation
<b>Engagement</b>	<b>Detailed design drawings and data to be made readily available to council as design matures</b>	<b>Design and Pre-Construction</b>