



Flora and Fauna Management Plan

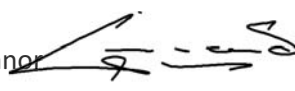
Parkes to Narromine Inland Rail Project


Project # 808 – J013

A large, semi-transparent watermark of the INLink logo is positioned at the bottom of the page, overlaid on a background image of railway tracks receding into the distance. The watermark consists of the letters 'INLink' in a large, bold, sans-serif font.

Job No.: 808 - J013

Principal: Australian Rail Track Corporation, (ARTC)

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Flora and Fauna Management Plan (FFMP)

Parkes to Narromine Inland Rail
Project # 808 – J013

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Attachment A – Pesticide Application Record Sheet

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Glossary of Terms

Term	Definition
ARTC	Australian Rail Track Corporation
CEEC	Critically Endangered Ecological Communities
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CSSI	State Significant Infrastructure
DE&E	Department of Environment and Energy
DLWC	Department of Land, Water and Conservation
DNG	Derived native grasslands
DoEE	Department of Environment and Energy (Commonwealth)
DPIE	Department of Planning, Industry and Environment
EEC	Endangered Ecological Communities
EIS	Environmental Impact Statement
EMS	Environmental Management System
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
ER	Environmental Representative
ESC	Erosion and sediment control
FFMP	Flora and Fauna Management Plan
FM Act	<i>Fisheries Management Act 1994</i>
LVAMP	Landscape and Visual Amenity Management Plan
MNES	Matters of National Environmental Significance
OEH	Office of Environment and Heritage
P2N	Parkes to Narromine
PESCP	Progressive Erosion and Sediment Control Plan
PIRMP	Pollution Incident Response Management Plan
PWMP	Pest and Weed Management Plan
TEC	Threatened Ecological Communities

1. Scope

1.1 Purpose

This Flora and Fauna Management Plan (FFMP) focuses on the management of known and unexpected impacts on both terrestrial biodiversity and aquatic ecosystems that may result from the construction phase of the Inland Rail Parkes to Narromine (P2N) project (the Project). Potential impacts were described and assessed prior to project determination including potential impacts on Commonwealth Matters of National Environmental Significance (MNES) (Environmental Protection and Biodiversity Conservation (EPBC) Referral reference 2016/7731), as well as, threatened species and endangered ecological communities (EECs) (NSW infrastructure approval under the *Environmental Planning and Assessment Act 1979* (SSI 7475)).

The flora and fauna aspect of the project was assessed by the NSW Office of Environment and Heritage (OEH) in accordance with the bilateral agreement made (between New South Wales and the Commonwealth Governments) under section 45 of the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) relating to environmental assessment.

To ensure that impacts to EECs and threatened species protected under the BC Act and/or the EPBC Act, are appropriately managed and minimised where possible, the Department of Planning, Industry and Environment (DPIE) requires the preparation and implementation of a Flora and Fauna Management Plan (FFMP).

To ensure the risks of transmitting noxious weeds are minimised and due to the uncertainty of the presence of *Phytophthora cinnamomi* within the study area, DPIE has recommended the preparation and implementation of a Weed Management Plan and hygiene protocol as part of the Construction FFMP Sub-plan. As such, consideration of weeds and pest management is provided in a separate Pest and Weed Management Plan (PWMP) as attached to this plan (Attachment A).

The CoA will take precedence where there are inconsistencies between the CoA and the Inland Rail NSW Construction FFMP.

The Environmental Management System (EMS) and project overview are outlined in Section 1 of the Construction Environmental Management Plan (CEMP). This FFMP will be submitted to DPIE along with, or subsequent to, the submission of the CEMP.

1.2 Area of Disturbance

This FFMP covers the section of Inland Rail between Parkes and Narromine (refer Figure 1-1). The maximum potential impact associated with the project was calculated by the Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report (refer Section 1.1.1).

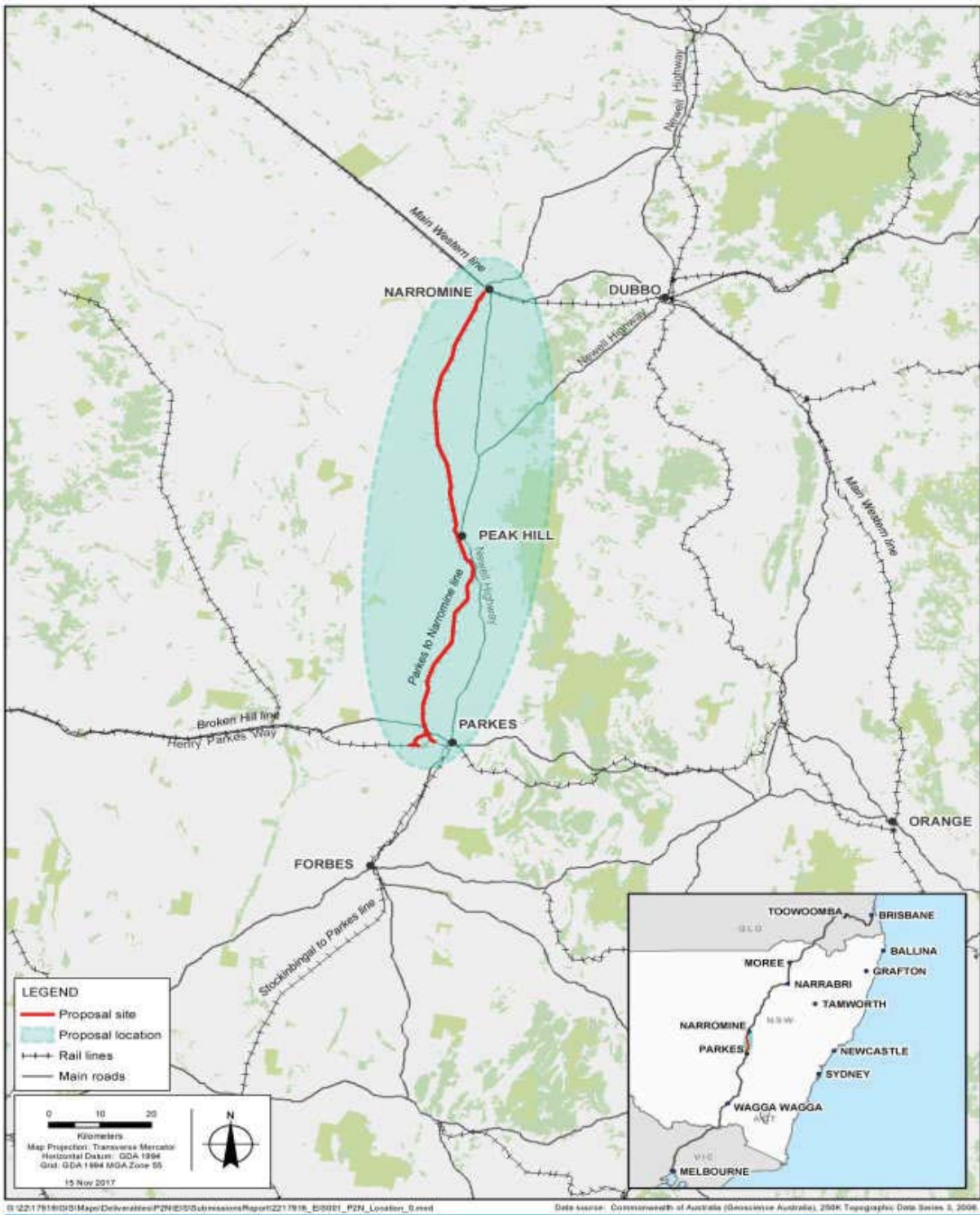


Figure 1-1 Route and location of the P2N section of Inland Rail (Source: Inland Rail P2N Submissions Report (February 2018))

1.2.1 Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report

At the request of OEH ARTC re-assessed all native vegetation within the development site in order to determine a maximum potential impact associated with the proposal and update the BioBanking Credit Calculator to add in those areas of the development site that were previously mapped as temporary impacts and not subject to credit generation.

Remapping was undertaken using a desktop approach. Regional mapping (OEH regional mapping 2016) was overlaid on the site-specific mapping completed as part of the EIS (Umwelt, 2017) to identify areas of native vegetation in areas previously mapped as non-native. This was then cross checked against NSW Land-use Map (2013) and site-specific data (Umwelt, 2018). This revised mapping was approved by OEH on 11 April 2018.

The development site was previously divided into two areas of impact, permanent and temporary. The revised assessment conservatively assumed that all areas would be fully cleared / impacted. Thus the maximum quantum of credits that would be required to offset the proposal was determined.

The revised vegetation zones were then entered into the BioBanking Credit Calculator. In addition to changes to the vegetation mapping, the complete removal of the site values has been assumed across the development site within the BioBanking Credit Calculator.

The updated ecosystem credit and species credit requirements (as a result of the vegetation mapping amendments and inclusion of temporary impacts in the assessment of direct impacts) are detailed in Table 4-1.

Impacts to plant community types must not exceed those identified in Table 4-1.

1.2.2 Addendum to the Inland Rail - Consistency Assessments

A Consistency Assessment is required if there proposed change (major or minor) in scope due to design or construction methodology, resulting in additional impact-based assessments to be undertaken. Consistency Assessments are required to be consistent with the Division 5.2 Approval and the EPBC Approval. Works cannot exceed the permitted clearing of Plant Community Types (PCTs) listed within the Conditions of Approval.

As part of the consistency assessment process, vegetation mapping and the CIZ is updated through information provided by field vegetation assessments undertaken by an Ecologist for areas not previously assessed.

2 Objective

The overall objective of this plan is to provide a guidance document to contractor personnel to understand their roles and responsibilities regarding management of potential impacts on flora and fauna during construction of the Project and to detail specific mitigation measures to manage known or potential impacts to flora and fauna.

Specific roles and responsibilities as they relate to management of weeds and pests are included in the PWMP (refer to Attachment A).

2.1 Biodiversity Objectives

The following flora and fauna performance objectives will apply to the construction phase of the project:

- No vegetation clearance without authorisation
- 100% implementation of preclearance surveys (refer to Section 5.1)
- No exceedance in amount or type of vegetation cleared to that approved by the EPBC Act controlled action approval (EPBC 2016/7731) and the EP&A Act infrastructure approval (SSI 7475)
- No unexpected finds of fauna and/or flora species unreported. The Environmental Manager will notify the client, the ER, DPIE and OEH immediately if any threatened flora and/or fauna are identified
- No impacts on flora, fauna and or terrestrial or aquatic ecosystems requiring mandated reporting to State or Commonwealth agencies
- Works exclusion fencing to be erected prior to clearing works and maintained for the life of the construction phase of the Project for all retained trees and vegetation
- Any fauna injured during construction transported to nearest vet for assessment and treatment

It should be noted weed and pest management performance objectives are considered in the PWMP (refer to Attachment A).

2.2 Biodiversity Targets

The following performance target will be assessed are detailed in Table 2-1.

For reference, the 'SEARS desired performance outcomes' in Table 2-1 relate to those included in Table 7.4 of the Submissions report.

Table 2-1 - Compilation of Environmental Performance Outcomes

SEARS desired performance outcomes	Proposal specific environmental performance outcomes	Where addressed?
The project design considers all feasible measures to avoid and minimise impacts on terrestrial and aquatic biodiversity.	<p>The proposal is designed to minimise the surface footprint and impacts on biodiversity. Potential impacts on biodiversity are managed in accordance with relevant legislation, including the EP&A Act, BC Act, FM Act, EPBC Act, and Biosecurity Act 2015.</p> <p>The biodiversity outcome is consistent with the Framework for Biodiversity Assessment (OEH, 2014a).</p>	<p>FFMP – Section 5</p> <p>A number of potential environmental impacts to biodiversity from the Proposal have been avoided or reduced during the option development and assessment contained in the EIS. The majority of Inland Rail would be located on upgraded tracks in existing rail corridors, minimising as far as practicable the potential for biodiversity impacts.</p> <p>FFMP – Section 3.1 and 3.2.</p> <p>FFMP – Section 3.2.</p>
Offsets and/or supplementary measures are assured which are equivalent to any remaining impacts of project construction and operation.	Offsets are provided in accordance with the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014c).	N/A – This is not related to the scope of work of this FFMP, being the construction of Inland Rail Parkes to Narromine. This will be completed separate to this document. However, biodiversity credits are detailed in Table 4-1.

3 References

3.1 Key Legislative Requirements

Legislation applicable to the management of potential impacts on biodiversity during the construction phase of the Project include:

- *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
- *Biodiversity Conservation Act 2016* (replaces the *Threatened Species Conservation Act 1995*)
- *Biosecurity Act 2015* (replaces the *Noxious Weeds Act 1993*)
- *Environmental Planning and Assessment Act 1979*
- *Water Management Act 2000*
- *Fisheries Management Act 1994*.

3.2 Standards and Guidelines

Key standards and guidelines applicable to the management of potential impacts on biodiversity during the construction phase of the project include:

- Framework for Biodiversity Assessment – NSW Biodiversity Offsets Policy for Major Projects
- Policy and guidelines for fish habitat conservation and management (DPI 2013)

- Fisheries Guidelines (2004) Why do fish need to cross the road? Fish passage requirements for waterway crossings
- Natural Resources Access Regulator (NRAR) Guidelines for controlled activities on waterfront land
- Weeds of National Significance Weed Management Guide
- Matters of National Environmental Significance - Significant impact guidelines 1.1 (2013)
- NSW State Groundwater Dependent Ecosystems Policy (DLWC 2002)
- EPBC Act referral guidelines for the vulnerable koala (DotE 2014)

3.3 Qualifications for Fauna Handlers

Any fauna handlers on the project must be suitably qualified and as a minimum meet the legislative requirements for undertaking such activity. This includes an appropriate licence under the NSW *Biodiversity Conservation Act 2016* for fauna handling and capture.

3.4 State and Commonwealth Approval Requirements

Under Part 5.1 of the NSW *Environmental Planning and Assessment Act* a declared Critical State Significant Infrastructure (CSSI) project is assessed and must be approved by the Minister for Planning. Table 3-1 outlines Conditions of Approval (CoA) (June 2018) for the Project from the DPIE related to flora and fauna management during the Project.

Under the EPBC Act, a person must not take an action that has, will have, or is likely to have a significant impact on any of the MNES without approval from the Australian Government Environment Minister or the Environment Minister's delegate. A referral must be made to the NSW OEH in accordance with the bilateral agreement made (between New South Wales and the Commonwealth Governments) if actions may have a significant impact on matters listed in Part 3 of the EPBC Act. Under s130 of the EPBC Act the Environment Minister will determine if the action is a controlled action for which approval can be granted. The approval is granted under s133 of the EPBC Act. The Project has been made a referral (EPBC Referral reference 2016/7731) and this was assessed as a controlled action.

CSSI projects are exempt from the following State legislation relating to biodiversity:

- *Fisheries Management Act 1994* – SSI projects approved under Part 5.1 of the EP&A Act are exempt from permits required under sections 201, 205 or 219.

No additional approvals are anticipated. However, a project modification will be triggered if additional or unassessed impacts to flora or fauna protected by NSW or Commonwealth legislation are proposed. A project modification may also be required if the scope or design of the project changes and results in additional environmental impacts.

Any exceedance in the amount or type of vegetation required to be cleared to that approved by EPBC "controlled action" approval or the areas assessed as part of the EIS or and as amended by the Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report (Umwelt, dated 12 April 2018) will trigger a project modification in accordance with CoA E15.

The following tables outline the compliance requirements relevant to INLink’s construct-only scope of work for Inland Rail Parkes to Narromine.

Table 3-1 – Conditions of Approval

Ref ID	Details	Where addressed	How addressed
A5	Where the terms of this approval require a document to be prepared or a review to be undertaken in consultation with identified parties, consultation must be carried out in accordance with the Communications Strategy required by Condition B1. Evidence of the consultation undertaken must be submitted to the Secretary with the document. The evidence must include:	Section 3.7	Consultation has been carried out with OEH, Parkes Shire Council, Narromine Shire Council and the ER as outlined in Section 3.7. Attachment E contains the evidence of consultation.
A5a)	Documentation of the engagement with the party(ies) identified in the condition for approval that has occurred prior to submitting the document for approval.	Section 3.7	Consultation has been carried out with OEH, Parkes Shire Council, Narromine Shire Council and the ER as outlined in Section 3.7 Attachment E contains the evidence of consultation.
A5b)	A log of the points of engagement or attempted engagement with the identified party (ies) and a summary of the issues raised by them.	Section 3.7	The log of comments from OEH, Parkes Shire Council, Narromine Shire Council and the ER is identified within Table 3-5. Attachment E contains the evidence of consultation.
A5c)	Documentation of the follow-up with the identified party (ies) where feedback has not been provided to confirm that they have none or have failed to provide feedback after repeated requests.	Section 3.7	Feedback from OEH, Parkes Shire Council, Narromine Shire Council and the ER is identified within Table 3-5. Attachment E contains the evidence of consultation.
A5d)	The evidence must include: An outline of the issues raised by the identified party (ies) and how they have been addressed.	Section 3.7	Issues raised from OEH, Parkes Shire Council, Narromine Shire Council and the ER is addressed within Table 3-5. Attachment E contains the evidence of consultation.

Ref ID	Details	Where addressed	How addressed						
A5e)	A description of the outstanding issues raised by the identified party (ies) and the reasons why they have not been addressed.	Section 3.7	Issues raised from OEH, Parkes Shire Council, Narromine Shire Council and the ER is addressed within Table 3-5. Attachment E contains the evidence of consultation.						
A19d)	For the duration of the works until the completion of construction, the approved ER must: Review documents identified in Conditions C1, C4, and C13 and any other documents that are identified by the Secretary, to ensure they are consistent with requirements in or under this approval and if so: i) make a written statement to this effect before submission of such documents to the Secretary (if those documents are required to be approved by the Secretary); or ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Secretary / Department for information or are not required to be submitted to the Secretary / Department)	Section 5.15	The ER has reviewed the identified documents. The works as described in this FFMP will not commence until approval is received from DPIE.						
A19e)	For the duration of the works until the completion of construction, the approved ER must: Regularly monitor the implementation of the document listed in Conditions C1, C4 and C13 to ensure implementation is being carried out in accordance with the document and the terms of this approval.	Section 5.11	Inspections and audits will be undertaken in accordance with this condition, as outlined in Section 5.11.						
C4	The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies and relevant councils identified for each CEMP Sub-plan and be consistent with the CEMP referred to in the EIS. <table border="1" data-bbox="320 1615 842 1850"> <thead> <tr> <th></th> <th>Required CEMP Sub-plan</th> <th>Relevant government authorities to be consulted for each CEMP Sub-plan</th> </tr> </thead> <tbody> <tr> <td>(c)</td> <td>Flora and Fauna</td> <td>OEH and relevant councils</td> </tr> </tbody> </table>		Required CEMP Sub-plan	Relevant government authorities to be consulted for each CEMP Sub-plan	(c)	Flora and Fauna	OEH and relevant councils	Section 3.7	This FFMP has been prepared in consultation with the OEH and the relevant council and is consistent with the CEMP referred to in the EIS.
	Required CEMP Sub-plan	Relevant government authorities to be consulted for each CEMP Sub-plan							
(c)	Flora and Fauna	OEH and relevant councils							
C5	The CEMP Sub-plans must state how:	–	–						

Ref ID	Details	Where addressed	How addressed
(a)	the environmental performance outcomes identified in the EIS and Submissions Report, as modified by these conditions, will be achieved;	Section 2.2 Section 5.6	The environmental performance targets are outlined in Section 2.2 and will be achieved through the implementation of this FFMP, including the mitigation measures presented in Section 5.6.
(b)	the mitigation measures identified in the EIS and Submissions Report, as modified by these conditions will be implemented;	Section 5.6	The mitigation measures relevant to hazardous and contaminated material are outlined in Section 5.6 and will be applied through the implementation of this FFMP, including the preparation of Site Environmental Plans.
(c)	the relevant terms of this approval will be complied with; and	This plan	The relevant terms of this approval will be complied with through the preparation and implementation of this FFMP.
(d)	issues requiring management during construction, as identified through ongoing environmental risk analysis, will be managed.	Section 4.2 Section 4.3	The environmental risk assessment is outlined in Section 4.2. The ongoing risk assessment process is outlined in Section 3.2 of the CEMP and Section 4.3 of this FFMP, with identified risks managed through Site Environmental Plans.
C6	The CEMP Sub-plans must be endorsed by the ER and then submitted to the Secretary for approval no later than one month before the commencement of the construction activities to which they apply.	Section 3.7 CEMP – Attachment H	This FFMP will be approved by DPIE in accordance with this condition before the commencement of construction activities, as outlined in Section 3.7. This FFMP was endorsed by the ER on 14 November 2018. Refer to Attachment H in the CEMP for the ER endorsement letter.

Ref ID	Details	Where addressed	How addressed
C7	Any of the CEMP Sub-plans may be submitted to the Secretary along with, or subsequent to, the submission of the CEMP.	Section 3.7	The FFMP will be submitted to DPIE along with, or subsequent to, the submission of the CEMP.
C8	The Flora and Fauna Management Sub-plan must include:	–	–
(a)	A weed management plan.	Attachment A – PWMP	A pest and weed management plan (PWMP) has been included in Attachment A.
(b)	A hygiene protocol which includes best-practice management measures for the prevention of contamination by pathogens, non-indigenous regenerative plant material and seed. The protocol must apply to the movement of all tools, vehicles, machinery and personnel.	Section 5.3 Attachment A – PWMP	The hygiene protocol is included in FFMP – Section 5.3, which is also included in the PWMP (Attachment A).
(c)	Measures to protect EPBC listed threatened species and ecological communities.	Section 4.5 Section 5.6	EPBC listed threatened species and ecological communities are identified in Section 4.5. A list of mitigation measures is provided in Section 5.6.
C12	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Secretary. The CEMP Sub-plans, as approved by the Secretary, including any minor amendments approved by the ER, must be implemented for the duration of the construction. Where the CSSI is being staged, construction of the at stage is not to commence until the relevant CEMP and sub-plans have been endorsed by the ER and approved by the Secretary.	Section 3.7	As outlined in Section 3.7, construction will not commence until this FFMP has been approved by the Secretary. This FFMP, as approved by DPIE, including any minor amendments approved by the ER, will be implemented for the duration of construction.
E14	Any works associated with the CSSI must limit the clearing of native vegetation to the greatest extent practicable.	Section 5.6	Clearing of native vegetation will be limited to the greatest extent practicable, as outlined in Section 5.6.

Ref ID	Details	Where addressed	How addressed
E15	Impact to plant community types must not exceed those identified in the EIS and as amended by the Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report comprising vegetation mapping amendments and inclusion of temporary impacts.	Section 1.1.1 Section 5.6 Table 4.1	Section 1.1.1 details the changes made as a result of the Addendum to the BAR. Table 4.1 provides the impact areas. FF1 includes specific mitigation measures to not exceed impacts to plant and community types beyond that specified in this condition.

The EPBC Act Approval Requirements are outlined in Table 3-2.

Table 3-2 EPBC Act Approval Requirements

Ref ID	Details	Where addressed	How addressed
EBPC CoA 1a	Implement conditions A 1 - A4 of Part A, Schedule 2 of the State Infrastructure approval, where they relate to monitoring, managing, avoiding, mitigating, offsetting, recording, or reporting on, impacts to protected matters.	Section 1.1 Section 3.1	The Project will be carried out in accordance with the CoA, procedures and commitments made in the EIS, the Addendum BAR (Umwelt, 2018) and the Response to Submissions (RtS)
EBPC CoA 1b	Implement environmental management conditions C1 - C8 of Part C, Schedule 2 of the State Infrastructure approval, where they relate to monitoring, managing, avoiding, mitigating, offsetting, recording, or reporting on, impacts to protected matters.	PWMP – Attachment A FFMP – Section 5.3 FFMP – Section 5.6	C1-C7 relate to the CEMP. A PWMP is included in Attachment A. The hygiene protocol from the PWMP has been included in section 5.3. Measures to protect EPBC listed threatened species and ecological communities in included in Section 5.6.
EBPC CoA 1c	Implement Biodiversity conditions E14 - E20 of Part E, Schedule 2 of the State Infrastructure approval, where they relate to monitoring, managing, avoiding, mitigating, offsetting, recording, or reporting on, impacts to protected matters.	FFMP – Section 5 FFMP - Section 5.6	The option development in the EIS was used to minimise the disturbance footprint. Furthermore 65 per cent of Inland Rail would be located within existing rail corridors minimising biodiversity impacts.

Ref ID	Details	Where addressed	How addressed
		<p>Table 4-1</p> <p>FFMP – Section 5.6.1</p> <p>N/A to the FFMP</p> <p>FFMP – Section 5</p>	<p>E15 – Mitigation Measure FF39.</p> <p>E16 and E17 – This relates to the biodiversity offset strategy - This will be completed separate to this document. However, biodiversity credits are detailed in Table 4-1.</p> <p>E18 and E19 – Additional impact assessments are covered in Section 5.6.1.</p> <p>E20 – This relates to the biodiversity offset strategy - This will be completed separate to this document.</p> <p>General management, mitigation, recording and reporting is contained in Section 5.</p>
EBPC CoA 1d	Notify the Department in writing of any application to modify the State Infrastructure approval no later than 2 weeks after lodgement, where the modification relates to a matter identified in Conditions 1 a, 1 b or 1 c.	FFMP – section 5.6.1	Additional impact assessments are covered in section 5.6.1.
EBPC CoA 1e	Notify the Department in writing of any approved modification to the State Infrastructure approval no later than 2 weeks after being notified by the NSW Government, where the modification relates to a matter identified in Conditions 1 a, 1 b or 1 c.	FFMP – Section 5.6.1	Additional impact assessments are covered in Section 5.6.1.

Ref ID	Details	Where addressed	How addressed												
EBPC CoA 2	<p>The person taking the action must not exceed the maximum disturbance limits, provided in Table 1, within the proposal location as per Map 1, to protect the EPBC listed threatened species habitat and ecological communities.</p> <p>Table 1: Maximum disturbance limits</p> <table border="1"> <thead> <tr> <th>EPBC Act listed threatened species and ecological communities</th> <th>Area of Maximum Disturbance (hectares)</th> </tr> </thead> <tbody> <tr> <td>White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered</td> <td>33.22</td> </tr> <tr> <td>Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia - Endangered</td> <td>61.74</td> </tr> <tr> <td>Potential habitat for the Regent Honeyeater (<i>Anthochaera phrygia</i>) - Critically Endangered</td> <td>21.22</td> </tr> <tr> <td>Potential habitat for Superb Parrot (<i>Polytelis swainsonii</i>; - Vulnerable)</td> <td>160.47</td> </tr> <tr> <td>Potential habitat for the Swift Parrot (<i>Lathamus discolor</i>) – Critically Endangered</td> <td>21.22</td> </tr> </tbody> </table>	EPBC Act listed threatened species and ecological communities	Area of Maximum Disturbance (hectares)	White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered	33.22	Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia - Endangered	61.74	Potential habitat for the Regent Honeyeater (<i>Anthochaera phrygia</i>) - Critically Endangered	21.22	Potential habitat for Superb Parrot (<i>Polytelis swainsonii</i> ; - Vulnerable)	160.47	Potential habitat for the Swift Parrot (<i>Lathamus discolor</i>) – Critically Endangered	21.22	FFMP – Section 4.5	Disturbance limits are outlined in Section 4.5
EPBC Act listed threatened species and ecological communities	Area of Maximum Disturbance (hectares)														
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland – Critically Endangered	33.22														
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Potential habitat for the Swift Parrot (<i>Lathamus discolor</i>) – Critically Endangered	21.22														
EBPC CoA 3	<p>The approval holder cannot retire biodiversity credits that relate to EPBC Act protected matters by making payments into an offset fund that has been developed by the NSW Government, as referred to in Condition E20(b) of Part E, Schedule 2 of the conditions of State Infrastructure approval SSI-7475 dated June 2018, unless approved in writing by the Minister.</p>	N/A – This issue is not related to the FFMP	This relates to the Biodiversity Offset Strategy which will be completed as a separate document.												
EBPC CoA 4	<p>Within 20 business days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement of the action.</p>	FFMP – Section 5.9	This requirement has been added to Section 5.9.												

Ref ID	Details	Where addressed	How addressed
EBPC CoA 5	Unless otherwise agreed to in writing by the Minister, the approval holder must publish all management plans, reports, strategies and agreements referred to in these conditions of approval on their website. Each management plan, report, strategy and agreement must be published on the website within 1 month of being approved by the Secretary and remain there until at least 12 months following the completion of the action.	FFMP – Section 5.10	This requirement has been added to Section 5.10.
EBPC CoA 6	The approval holder must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the management plans, reports, strategies and agreements required by this approval, and make them available upon request to the Department. Such records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the Department's website. The results of audits may also be publicised through the general media.	FFMP – Section 5.9	This requirement has been added to Section 5.9.
EBPC CoA 7	Within three months of every 12-month anniversary of the commencement of the action, the approval holder must publish a report on its website addressing compliance with each of the conditions of this approval, as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the Department at the same time as the compliance report is published. The approval holder must continue to make the report available on its website until such time as agreed in writing by the Minister.	FFMP – Section 5.10	This requirement has been added to Section 5.10.
EBPC CoA 8	Any contravention of the conditions of this approval (including contravention of a commitment made in a management plan, strategy, or agreement required by this approval) must be reported to the Department within 5 business days of the approval holder becoming aware of the contravention.	FFMP – Section 5.9	This requirement has been added to section 5.9.

Ref ID	Details	Where addressed	How addressed
EBPC CoA 9	<p>Upon the direction of the Minister, the approval holder must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the Minister. An independent auditor nominated by the approval holder must be approved by the Minister prior to a direction being given. Audit criteria must be agreed to by the Minister and the audit report must address the criteria to the satisfaction of the Minister.</p> <p>The direction will allow at least 8 weeks for the audit to be conducted and submission of the report.</p>	FFMP – Section 5.11	Annual audits covered in section 5.11.
EBPC CoA 10	If, at any time after 5 years from the date of this approval, the approval holder has not substantially commenced the action, then the approval holder must not substantially commence the action without the written agreement of the Minister.	N/A – This issue is not related to the FFMP	N/A – This issue is not related to the FFMP.

3.5 Response to Submissions Requirements

Revised mitigation measures (RMMs) from the Response to Submissions (RtS) which are applicable to this FFMP are listed in Table 3-3 below.

The mitigation measures, D3.1 - D3.6 and C3.1 - C3.3 refer to Table 7.1 and Table 7.2 respectively within the main report of the Response to Submissions..

Table 3-3 – Revised Mitigation Measures

Ref ID	Details	Where addressed
D3.1	<p>The biodiversity offset strategy for the proposal would be finalised, in accordance with the requirements of the Framework for Biodiversity Assessment (OEH, 2014a) and the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014c).</p> <p>The offset strategy would be approved by the Department of Planning and Environment prior to the commencement of construction work that would result in the disturbance of relevant ecological communities, threatened species, or their habitat, unless otherwise agreed.</p>	Biodiversity Offset Strategy
D3.2	Detailed design and construction planning would minimise the construction footprint and avoid impacts to native vegetation as far as practicable.	Section 5.6
D3.3	Compounds and stockpile sites would be located an appropriate distance from riparian vegetation to avoid impacts on aquatic habitat. This includes (for the proposal site) a minimum of 50 metres for type 2, classes 2 and 3 watercourses (Burrill Creek), and 10 to 50 metres for type 3, classes 2 to 4 watercourses (other watercourses).	Section 5.6 Soil and Water Management Plan (SWMP)

Ref ID	Details	Where addressed
	Direct impacts to in-stream vegetation and native vegetation on the banks of watercourses would be avoided as far as practicable.	Section 5.6
D3.4	Detailed design and construction planning would minimise the potential for impacts to fish passage. To ensure that fish passage is maintained, watercourse crossing structures would be designed in accordance with the guideline Why do fish need to cross the road? Fish passage requirements for waterway crossings (Fairfull and Witheridge, 2003) and the minimum design requirements specified in Table 4.1 of Technical Report 3.	Section 5.6
D3.5	A rehabilitation strategy would be prepared to guide the approach to rehabilitation of disturbed areas following the completion of construction. The strategy would include: <ul style="list-style-type: none"> • clear objectives and timeframes for rehabilitation works (including the biodiversity outcomes to be achieved) • details of the actions and responsibilities to progressively rehabilitate, regenerate, and/or revegetate areas, consistent with the agreed objectives • identification of flora species and sources • procedures for monitoring the success of rehabilitation • corrective actions should the outcomes of rehabilitation not conform to the objectives adopted. 	ARTC Rehabilitation Strategy
D3.6	Pre-clearing surveys and inspections would be undertaken prior to construction. The surveys and inspections, and any subsequent relocation of species, would be undertaken in accordance with the biodiversity management sub-plan in the CEMP.	Section 5.1
C3.1	Areas of biodiversity value outside the Project Corridor would be marked on plans, and fenced or signposted where practicable, to prevent unnecessary disturbance.	Section 5.6
C3.2	Noxious weeds would be managed in accordance with the <i>Biosecurity Act 2016</i> . Weeds of national environmental significance would be managed in accordance with the <i>Weeds of National Significance Weed Management Guide</i> . Any herbicides would be applied such that impacts on surrounding agricultural properties are avoided.	PWMP (included as Attachment A of this FFMP)
C3.3	Rehabilitation of disturbed areas would be undertaken progressively and in accordance with the rehabilitation strategy.	Section 5.6 LVAMP

3.6 Construction Environmental Management Framework Requirements

ARTC has prepared the Inland Rail Phase 3 Parkes to Narromine Construction Environmental Management Framework (CEMF) (3-2400-0001-EEC-PL-0001) which sets out the environmental management requirements for construction. The CEMF provides a link between the planning approval

phase, detailed design and the construction environmental management documentation. Relevant CEMF items requiring the preparation of a FFMP are outlined in Table 3-4 below.

Table 3-4 – Construction Environmental Management Framework Requirements

Ref ID	Details	Where addressed
7.3	The construction contractor must develop and implement a Flora and Fauna Management Plan which must include, as a minimum:	–
a)	The ecological mitigation measures as detailed in the Project approval documentation; and Project conditions of approval	Section 5.6
b)	The responsibilities of key project personnel with respect to the implementation of the plan	Section 5.7
c)	The identification and clear statement of any requirements for qualifications and/or competencies of fauna handlers. Meeting legislative or project approval conditions as a minimum	Section 3.3
d)	The identification and reference to any relevant approvals, licences and permits obtained (/to be obtained) to handle and relocate fauna, as per relevant legislative requirements	Section 3.3
e)	Procedures for clearing vegetation and relocation of fauna	Section 5.2
f)	Procedures for demarcation and protection of retained vegetation	Section 5
g)	Plan/s for areas impacted and adjoining areas showing vegetation communities, locations where threatened species, populations or ecological communities have been recorded	Section 4 CEMP Attachment A
h)	Identification of measures to reduce disturbance to sensitive fauna	Section 5
i)	Reinstatement and Rehabilitation details, including identification of flora species and sources, measures for the management and maintenance of rehabilitated areas (including duration of the implementation of such measures) and the targets and outcomes planned for the different landscapes/areas being reinstated and rehabilitated	LVAMP
j)	Weed management measures, focusing on early identification of invasive weeds and effective management controls	PWMP (included as Attachment A of the FFMP)
k)	A procedure for dealing with unexpected EEC or threatened species identified during construction	Section 5.3 Attachment C
l)	Details on the methodology for vegetation mapping and survey	Section 5.1
m)	Ecological, reinstatement and rehabilitation monitoring requirements	LVAMP
n)	Appropriate details on the criteria used to determine suitably qualified person/s for the activities specified in this plan/s	Section 3.3 Section 5.6

Ref ID	Details	Where addressed
o)	Compliance record generation and management, as per the contract (and associated referenced document).	Section 5.14 CEMP - Section 7.4 CEMP - Section 8.3

3.7 Stakeholder Consultation and Approval

In accordance with the CoA, this FFMP has been developed in consultation with the Office of Environment and Heritage (OEH), Parkes Shire Council and Narromine Shire Council.

This FFMP as a Sub-plan to the CEMP is required to be approved by the DPIE no later than one month before the commencement of construction activities. This FFMP will be endorsed by the Environmental Representative (ER) prior to the commencement of construction as required by the CoA. Construction will not commence until this FFMP has been approved by DPIE. This FFMP as approved by the DPIE, including any minor amendments approved by the ER, will be implemented for the duration of construction.

This consultation is intended to assist in development and finalisation of this FFMP. Table 3-5 summarises relevant stakeholder reviews and response to review. For further detail refer to Table F1 in Attachment F of this Plan.

Table 3-5 – Summary of Consultation

Agency	Requirement	Status *	Initial contact date	Stakeholder response	INLink response	Close out date
DPIE	Approval	C	14 November 2018	Comments provided in the DPIE review table.	Comments incorporated in the FFMP	22 January 2019
ER	Endorsement	C	16 August 2018	Tabulated comments in email from ER	Endorsement received after comments from ER addressed and verified	14 November 2018
OEH	Consultation	C	2 October 2018	Letter with comments – refer to Attachment F for details	Revised FFMP addressing OEH comments. For further detail refer to Table E1 in Appendix E	18, 19 December 2018

Agency	Requirement	Status *	Initial contact date	Stakeholder response	INLink response	Close out date
OEH	Consultation	C	N/A	Letter with comments dated 25 Jan 2019 – refer to Attachment F for details	Revised FFMP addressing OEH comments of 25 Jan 2019.	31 January 2019
Narromine Shire Council	Consultation	C	8 October 2018	Letter with comments	Revised FFMP addressing NSC comments provided to NSC	12 October 2018
Parkes Shire Council	Consultation	C	26 September 2018	Letter of support with no comments	No response required supported no comments	N/A
Parkes Shire Council	Consultation	C	21 August 2018	Presentation by INLink on project and consultation process	N/A	N/A
Narromine Council	Consultation	C	21 August 2018	Presentation by INLink on project and consultation process	N/A	N/A

* Status P – Pending and C- Complete

4 Key Risks

4.1 Existing Environment

The ecological environment adjacent the rail corridor between Parkes and Narromine passes predominately through rural lands. Several townships with a developed urban environment are also passed by on route. Numerous highly modified and remnant native vegetation areas have been identified along the Project corridor as have numerous first order watercourses and associated riparian environments (Umwelt 2017). Detailed vegetation mapping is shown in Attachment A of the CEMP - Environmental Constraints Maps and Vegetation Mapping within Attachment E of this sub plan.

Of the watercourses that cross and/or are located near the Project corridor, most are either cleared or contain non-native vegetation. Few native aquatic plant species occur in the weed-dominated vegetation characterising the bed and banks of watercourses.

Most watercourses that cross the Project corridor are first order streams with intermittent flow following rain events, little or poorly defined channels, and no native aquatic flora species. These watercourses contain minimal aquatic fauna habitat with little or no defined drainage channels, and little or no flow or freestanding water. Some watercourses support areas of intermittent flow and sporadic refuge, and breeding or feeding areas for aquatic fauna.

Given current drought conditions across most of NSW the likelihood of significant flows being experienced under current conditions in most of the watercourses identified within the Project corridor is considered low.

4.2 Risk Assessment Undertaken in EIS

Construction will impact vegetation within and around the footprint of the Project. A risk assessment was undertaken in the EIS (GHD 2017) that included the use of desktop database searches, field surveys and habitat mapping. ARTC has also undertaken additional Biodiversity Impact Assessment and mapping.

The environmental risk assessment for the proposal (provided in Appendix B of the EIS) included an assessment of the potential risks of the proposal in relation to biodiversity. The assessed risk level for the majority of potential risks to biodiversity was between low and medium. Risks with an assessed level of medium or above include:

- Clearing of native vegetation resulting in loss of fauna habitat, habitat fragmentation and loss of connectivity
- Direct impacts on terrestrial threatened species and endangered populations and communities from clearing
- Direct impacts on aquatic threatened species and endangered populations and communities from clearing

- Increased potential for the occurrence and spread of pest plants and animals during construction and maintenance from movement of vehicles, machinery and materials in and out of the site, particularly in greenfield sections such as the Parkes north west connection
- Indirect impacts due to increased dust, sedimentation and erosion, noise, light
- Disturbance to aquatic habitats and reduced water quality as a result of fugitive sediments and altered hydrology
- Alterations to surface water flow regimes and interruptions to fish passage
- Fauna mortality from vehicle strikes.

It should be noted that the risk assessment and mitigation measures to avoid or minimise the impacts of weeds and pests will be considered in a separate PWMP (refer to Attachment A).

4.3 On-Going Risk Assessment

A risk management approach will be used to determine the severity and likelihood of an activity's impact on the environment and to prioritise its significance. This process considers potential regulatory and legal risks as well as taking into consideration the concerns of community and other key stakeholders.

The objectives of risk assessments are to:

- Identify activities that have the potential to adversely affect the local environment and/or human health
- Qualitatively evaluate and categorise each risk item
- Assess whether risk issues can be managed by environmental protection measures
- Quantitatively evaluate and categorise each risk item
- Assess whether risk issues can be managed by environmental protection measures.

Risk assessments for the Project are based on AS/NZS ISO 31000:2009, the Australian and New Zealand Standard for Risk Assessments. The purpose of risk evaluation is to separate risk to be tolerated from those to be treated, by determining the severity of each risk and developing a prioritised list of risks that require treatment. The severity of each risk is determined from the Project Risk Level Matrix.

A risk register has been developed (Risk and Opportunities Register Attachment D of the CEMP) and includes a list of activities associated with the Project, related aspects and corresponding risks.

Measures to minimise the identified environmental risks are also provided (Section 3 of the CEMP). On-going risk assessment will be implemented throughout the construction program in accordance with Section 3.2 of the CEMP including through inclusion of identified risks in site environmental plans for management on site. This will ensure new and changed environmental issues are identified and appropriately addressed.

4.4 Biodiversity NSW Project Approval

Table 4-1 outlines information on the impact to native and non-native vegetation including threatened ecological communities. Additional clearing of threatened species or communities will require modification to the areas of impact and any additional offset will need to be included. Conversely, if detailed design reduces the Project footprint, ARTC may apply to reduce their offset liability.

Table 4-1 - Biodiversity Assessment Report (Umwelt 2016) Impact Areas (Umwelt April 2018)

Veg Zone	PCT ID (BVT IDs) and PCT Name	Condition Class	TEC	Area Impacted (ha)
1	PCT26 (CW205, LA212) Weeping Myall open woodland of the Riverina Bioregion and NSW South Western Slopes Bioregion.	Moderate to Good	Yes	2.53
2	PCT36 (CW183, LA193) River Red Gum tall to very tall open forest / woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion.	Moderate to Good	Not Listed	0.14
3	PCT36 (CS183, LA193) River Red Gum tall to very tall open forest / woodland wetland on rivers on floodplains mainly in the Darling Riverine Plains Bioregion.	Low Regeneration	Not Listed	0.57
4	PCT55 (CW104, LA105) Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions.	Moderate to Good	Not Listed	0.14
5	PCT55 (CW104, LA105) Belah woodland on alluvial plains and low rises in the central NSW wheatbelt to Pilliga and Liverpool Plains regions.	Moderate to Good_ derived native grasslands (DNG)	Not Listed	22.55
6	PCT70 (CW220, LA223) White Cypress Pine woodland on sandy loams in Central NSW wheatbelt	Moderate to Good	Not Listed	0.83
7	PCT76 (CW145, LA154) Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions.	Moderate to Good	Yes	7.80
8	PCT76 (CW145, LA154) Western Grey Box tall grassy woodland on alluvial loam and clay soils in the NSW South Western Slopes and Riverina Bioregions.	Moderate to Good-DNG	Yes	32.27
9	PCT244 (CW172, LA178) Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt).	Moderate to Good	Not Listed.	2.32
10	PCT244 (CW172, LA178) Poplar Box grassy woodland on alluvial clay-loam soils mainly in the temperate (hot summer) climate zone of central NSW (wheatbelt).	Moderate to Good_DNG	Not Listed.	13.69

Veg Zone	PCT ID (BVT IDs) and PCT Name	Condition Class	TEC	Area Impacted (ha)
11	PCT201 (CW138, LA145) Fuzzy Box Woodland on alluvial brown loam soils mainly in the NSW South Western Slopes Bioregion.	Moderate to Good	Yes	1.82
12	PCT267 (CS213, LA218) White Box – White Cypress Pine – Western Grey Box shrub / grass / forb woodland in the NSW South Western Slopes Bioregion.	Moderate to Good	Yes	2.56
13	PCT267 (CW213, LA218) White Box – White Cypress Pine – Western Grey Box shrub / grass / forb woodland in the NSW South Western Slopes Bioregion.	Moderate to Good_DNG	Yes	4.13
14	PCT276 (CW226, LA226) Yellow Box grassy tall woodland on alluvium or parna loams and clays on flats in NSW South Western Slopes Bioregion.	Moderate to Good	Yes	2.87
15	PCT276 (CW226, LA226) Yellow Box grassy tall woodland on alluvium or parna loams and clays on flats in NSW South Western Slopes Bioregion.	Moderate to Good_DNG	Yes	7.86
-	Cleared / non-native vegetation	-	-	448.99
Total				548.63

4.5 Biodiversity EPBC Act

The Project was identified as a controlled action under the EPBC Act, with the controlling provision being 'listed threatened species and communities', specifically in relation to the potential for impacts to the:

- Removal of up to 33.22 ha of critically endangered White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecosystem Communities (CEEC)
- Removal of up to 61.74 ha Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia CEEC
- Removal of up to 21.22 ha potential habitat for the Regent Honeyeater (*Anthochaera phrygia*) – Critically Endangered
- Removal of up to 160.47 ha potential habitat for the Superb Parrot (*Polytelis swainsonii*) – Vulnerable
- Removal of up to 21.22 ha potential habitat for the Swift Parrot (*Lathamus discolor*) – Critically Endangered

- the DoEE considers that *Tylophora linearis* may be present within the proposed action area and a significant impact on this species from the proposed action is possible.

All EPBC Act listed threatened species and ecological communities will be protected in accordance with the mitigation measures outlined in Section 5.6.

4.6 Aquatic Ecosystems

Desktop database searches identified possible threatened species, endangered populations and aquatic MNES which may occur in the Project corridor. Importantly none of the listed threatened species or endangered populations were assessed as likely to occur within aquatic habitats identified within the Project corridor.

The Project corridor does not contain any threatened aquatic ecological communities. However, it occurs within the mapped distribution of two threatened communities listed as endangered under the Fisheries Management (FM) Act:

- Aquatic Ecological Community in the Natural Drainage System of the Lowland Catchment of the Darling River
- Aquatic Ecological Community in the Natural Drainage System of the Lowland Catchment of the Lachlan River.

Ephemeral waterways in the biodiversity assessment area are likely to be fed by both surface water and groundwater and the associated riparian vegetation is therefore likely to be dependent, at least in some part, on groundwater (Groundwater Dependant Ecosystems).

All watercourses except for Burrill Creek are considered to have minimal habitat sensitivity and minimal key fish habitat. Burrill Creek is the only watercourse crossing in the Project Corridor that was classified as a 'type 2 moderately sensitive habitat' and 'class 2 moderate fish habitat'.

Two groundwater dependent ecosystems (GDEs) have been identified within the project footprint

- River Red Gum Forest along Burrill Creek
- Belah Woodland associated with Tomingley Creek.

The GDE Artesian Springs Ecological Community in the Great Artesian Basin, which is listed as critically endangered under the Biodiversity Conservation Act and endangered under the EPBC Act, is predicted to occur in the proposal area but was not identified during the vegetation surveys (Umwelt, 2018).

As the Project, will not require groundwater extraction or significant changes to the surface water regime, the risk of impact on GDEs is predicted to be low.

5 Management

A number of potential environmental impacts to biodiversity from the Project have been avoided or reduced during the option development and assessment. As noted in chapter 6 of the EIS, the shortlist of route options was subject to a detailed assessment, and the proposed alignment was refined based on the evaluation of key considerations, including environmental impacts. The majority of Inland Rail (about 65 per cent) would be located on upgraded tracks in existing rail corridors, minimising as far as practicable the potential for biodiversity impacts. Management of potential impacts on biodiversity are discussed in this chapter including measures to protect threatened species and ecological communities as listed in sections 4.4 and 4.5 in accordance with COA C8(c).

5.1 Pre-Clearance Survey

Pre-clearance surveys will be completed by the Project Ecologist and approved by the Environmental Manager (or delegate) prior to the commencement of clearing activities.

At least 48 hours prior to the pre-clearing survey, high visibility fencing will be erected along the boundary of approved vegetation clearance (with reference to AS 4970–2009 Protection of trees on development sites). Similarly, this fencing will be installed around the watercourse works areas prior to the completion of the pre-clearance assessment. The installation of fencing prior to the pre-clearance survey will allow for an accurate assessment of the biodiversity values to be cleared.

The methodology applied for the surveys will vary depending on the location and surrounding flora and fauna constraints but will typically record the following information:

- Plant species contained in the clearance area
- Variations to the mapped boundaries of threatened ecological communities
- Threatened flora species that occur within the area to be cleared, including:
 - whether these are expected or unexpected finds
 - the number of plants that will be impacted by the clearance activities
- The adequacy of signage and high visibility fencing along the clearance boundary to minimise the risk of unintentional or inadvertent clearing
- The presence of any hollow bearing trees
- The presence and occupation status of any nests or dreys
- Details of any fauna microhabitat (e.g. submerged logs) or in-stream features to be salvaged and relocated prior to clearing (including a suitable translocation site)
- The location of any noxious weeds within the vegetation to be cleared.

Any fauna identified within an area marked for clearance during the pre-clearance survey will be captured and relocated by an appropriately qualified and licenced fauna handler prior to the commencement of clearing.

This information will be recorded and stored on a standardised Pre-clearance Checklist (Attachment B) and will include sign off from the person completing the assessment (e.g. Project Ecologist) and the Environmental Manager.

5.2 Vegetation Clearing

The commencement of vegetation clearing will rely on the completion of the Pre-clearance Checklist (Attachment B) by the Project Ecologist and sign off by the Environmental Manager (or delegate).

Hollow bearing trees and microhabitat features (such as submerged logs or fallen trees) to be appropriately marked (using flagging tape, spray-paint or similar) so that they can be readily identified by tree clearing contractors.

To prevent impacts to plant community types, beyond what was approved in the CoA, pre-clearance surveys will be conducted to identify protected plant community types (including those protected by the EPBC Act). These areas will be demarcated accordingly creating no-go zones.

Vegetation clearing mitigation measures are outlined in Table 5-1 (mitigation measures FF14-FF29, and FF39-FF41).

5.3 Hygiene Protocol

A hygiene protocol is required by CoA C8(b) and will form part of the briefing provided to all employees, sub-contractors and visitors on the risks of spreading pathogens and weeds and risk mitigation strategies.

The seeds of the noxious weeds and pathogens are predominantly spread by the movements of people, equipment, wind and water. To minimise this dispersal, a hygiene protocol will be implemented. During clearing and grubbing and topsoil stripping activities in areas containing Weeds of National Significance (WoNS and potential pathogens all vehicles and plant will be required to adhere to the hygiene protocol outlined below to ensure that weed seeds and pathogens are not transferred within and outside the Project corridor.

5.3.1 Hygiene Protocol - Vehicle Wash-down

The vehicle wash-down and personal wash-down areas will be located in areas known to contain WoNS which cannot be physically eradicated and potential plant pathogens at the site entrance.

The hygiene protocol will include:

- Restrict movements of vehicles and plant during topsoil stripping activities
- Schedule topsoil stripping activities outside of dominant seeding period for weed species present in that particular location
- Develop and restrict access to designated haul roads and access tracks
- All vehicles and plant to undertake a wash-down (to remove weed seed) prior to moving into locations in which pre-construction weed species are significantly different or Weeds of National Significance (WoNs) are present and before exiting. A wash-down will involve the following:

- Remove excessive gross material – ideally done away from decontamination area and where material can be left or collected for disposal. Use dry cleaning methods before wet where possible
- Apply disinfectant/detergent. Use a wash-down facility for vehicles and machinery if available, or wash-down on a hard, well-drained surface, for example a road, and on ramps if possible. Note: pay particular attention to cleaning mud flaps and tyres
 - Start at top of the vehicle or equipment and work toward the ground
 - Moving parts of vehicles or equipment e.g. wheels, tracks, tipper tray, buckets have to be moved during decontamination to access all areas
- Dispose of wash-down water so that it drains back into a low area of the infested zone away from waterways. If this is not possible, empty it into a waste container for responsible disposal offsite
- Don't allow wash-down water to drain into clean bushland
- In areas in which pathogens have been identified all plant and vehicles will undertake a wash-down to remove weed seeds and pathogens prior to entering the project boundary and before exiting. A wash-down will involve the following:
 - Remove excessive gross material – ideally done away from decontamination area and where material can be left or collected for disposal. Use dry cleaning methods before wet where possible.
 - Apply disinfectant/detergent. Use a wash-down facility for vehicles and machinery if available, or wash-down on a hard, well-drained surface, for example a road, and on ramps if possible. Note: pay particular attention to cleaning mud flaps and tyres.
 - Start at top of the vehicle or equipment and work toward the ground
 - Moving parts of vehicles or equipment e.g. wheels, tracks, tipper tray, buckets have to be moved during decontamination to access all areas
 - Dispose of wash-down water so that it drains back into a low area of the infested zone away from waterways. If this is not possible, empty it into a waste container for responsible disposal offsite.
 - Don't allow wash-down water to drain into clean bushland

5.3.2 Hygiene Protocol - Personal Wash-down

- Restrict movement of people in areas in which pathogens have been identified
- Develop and restrict access to designated haul roads and access tracks

- Avoid working in wet conditions
- All persons to undertake a personal wash-down (to remove weed seed) prior to moving into locations in which pre-construction weed species are significantly different or Weeds of National Significance (WoNs) are present and before exiting. A personal wash-down will involve the following:
 - Set up a personal wash-down area to wash and dry their face and hands and clean their footwear before entering and exiting the site.
 - Use a brush or a stick to remove as much mud or dirt from boots as possible
 - Disinfecting with a solution of 70% ethanol or methylated spirits in 30% water—applied through a spray bottle or a footbath
 - Collect all removed mud, soil and organic matter in a bag or bucket, and keep it out of clean bushland.
- In areas in which pathogens have been identified all people traversing into the area will undertake a clean of their shoes to remove pathogens prior to and after completion of works in the area in which the pathogen is present. A personal wash-down will involve the following:
 - Set up a personal wash-down area to wash and dry their face and hands and clean their footwear before entering and exiting the site.
 - Use a brush or a stick to remove as much mud or dirt from boots as possible
 - Disinfecting with a solution of 70% ethanol or methylated spirits in 30% water—applied through a spray bottle or a footbath
 - Collect all removed mud, soil and organic matter in a bag or bucket, and keep it out of clean bushland.

Note: Several changes of footwear bagged between sites might be a practical alternative to cleaning.

5.4 Unexpected Finds

During the pre-clearance survey and marking of vegetation clearance boundaries it is possible that previously unidentified species of significance (such as Koalas) may be identified. If unexpected species of significance are identified during pre-clearance surveys, they must be documented, and their locations recorded. Clearing of such locations will not commence until further assessment is undertaken which can include but is not limited to assessment by specialist ecologists and referral of findings to Regulatory Authorities.

A flow chart depicting the process to be implemented in the event of an unexpected species find is provided in Attachment C.

5.5 Micro Bats

During construction there is the minor potential to encounter micro bats. A procedure for managing micro bats is outlined in Attachment D.

5.6 Mitigation Measures

Any direct or indirect impacts on flora, fauna and aquatic ecosystems will be investigated upon receiving a complaint, or upon request by the Client or Regulatory Authority. Any assessment and monitoring will be conducted as per Regulatory requirements and the relevant Australian Standard and reviewed against relevant assessment criteria outlined in this plan. Consultation will be undertaken with relevant stakeholder groups, community, local state and commonwealth governments regarding Construction Monitoring Programs for flora, fauna and aquatic ecosystems.

On-going checks will be carried out to ensure no work activities are causing direct and indirect impacts to flora, fauna and aquatic ecosystems.

Weekly inspections will be performed by project staff and documented in Weekly Environmental Checklist. Daily visual monitoring of potential problem areas including stockpiles, access tracks, site access points, exposed earthworks, culvert work areas to be carried out by foremen and supervisory personnel and recorded in their daily diary.

Detailed mitigation measures to manage impacts to flora and fauna during construction are outlined in Table 5-1.

Table 5-1 – Mitigation and Management Measures

Ref ID	Mitigation measures	Responsibility	Source
FF1	Impacts to plant community types will not exceed those identified in the Conditions of Approval, EIS, CIZ Consistency Assessments, and as amended by the Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report (BAR) comprising vegetation mapping amendments and inclusion of temporary impacts (Umwelt, dated 12 April 2018).	Environmental Manager	CoA E15
FF2	Trees near the construction zone will be managed in accordance with the AS 4970-2009 Protection of trees on development sites (incorporating Amendment No.1 (March 2010)).	Environmental Manager	Good practice
FF3	The location of sensitive areas (e.g. trees/vegetation to be retained) on environmental constraints maps	Environmental Manager	Good practice
FF4	Environmental constraints maps will be supplied to construction managers and workers.	Environmental Manager	Good practice
FF5	Any death or injury to state or Commonwealth listed fauna species will be reported to the applicable government departments.	Environmental Manager	Good practice
FF6	Pre-clearance surveys and relocation of fauna will be undertaken by experienced and authorised fauna	Environmental Manager	RMM D3.6

Flora and Fauna Management Plan

Parkes to Narromine Inland Rail Project



Ref ID	Mitigation measures	Responsibility	Source
	identification and handling specialist, as outlined in Section 5.1.		
FF7	Areas for protection will be demarcated (through the installation of permanent fencing or no-go flagging) and signposted.	Environmental Manager	Good practice
FF8	Habitat resources and habitat trees which will be remaining on site shall be identified and marked for protection.	Environmental Manager	Good practice
FF9	Where identified, the presence of threatened flora and fauna species, endangered populations will be reported to the Client, ER and OEH immediately.	Environmental Manager	Good practice
FF10	Visual inspections of trees for koalas will be undertaken prior to clearing in areas of koala habitat.	Environmental Manager	Good practice
FF11	Upon completion of the pre-clearing inspection a HOLD POINT will be signed off by the Environmental Manager (or delegate) prior to continuing works.	Environmental Manager	Good practice
FF12	Vegetation clearing will be avoided when rain is forecast and following periods of significant rain.	Environmental Manager	Good practice
FF13	Tree clearing will commence as close to the completion of the signed off pre-clearance surveys as practicable.	Environmental Manager	Good Practice
FF14	Habitat trees will be nudged (where appropriate) prior to felling or as advised by an Ecologist. An Ecologist to be present for all habitat tree felling.	Environmental Manager	Good practice
FF15	Visual assessments of habitat trees will be undertaken by the Project Ecologist.	Environmental Manager Project Ecologist	Good practice
FF16	Hollow bearing trees will be lowered to the ground when cut down.	Environmental Manager	Good practice
FF17	If fauna species are identified in a habitat tree on the day of felling, an ecologist or appropriately qualified fauna handler will advise the most appropriate method to minimise potential harm based on site specific considerations.	Environmental Manager	Good practice
FF18	Uninjured animals will be released on the day of capture into nearby suitable secure habitat and will not be held for extended periods of time.	Environmental Manager	Good practice
FF19	Injured animals will be taken to the nearest veterinary clinic or wildlife carer as soon as possible for assessment and treatment.	Environmental Manager	Good practice
FF20	Felling of trees, including any tree with a crown overlapping, will not occur if the tree is occupied by a koala.	Environmental Manager	Good practice

Flora and Fauna Management Plan

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Ref ID	Mitigation measures	Responsibility	Source
FF21	Trees will be left standing until the koala has vacated of its own accord.	Environmental Manager	Good practice
FF22	Felled habitat trees will be inspected for remaining or injured fauna.	Environmental Manager	Good practice
FF23	Felled habitat trees will be left in place for a minimum of one night to allow any fauna still present to move on.	Environmental Manager	Good practice
FF24	Felled timber will be inspected by the Project Ecologist if it has been left for extended periods of time.	Environmental Manager	Good practice
FF25	Minimise open excavations and use barricading or fauna ramps to reduce risk of fauna entrapment.	Environmental Manager	Good practice
FF26	Visual inspections of open excavations will be undertaken prior to commencement of each day's work for entrapped fauna. Any entrapped fauna will be removed and relocated by an authorised fauna handler.	Environmental Manager	Good practice
FF27	Haulage will be planned for daylight hours and avoid dawn and dusk when fauna are more active. Haulage vehicle travel speeds will be reduced around dawn and dusk.	Environmental Manager	Good practice
FF28	Working hours will avoid dawn and dusk periods where native fauna is most active, wherever practical.	Environmental Manager	Good practice
FF29	Night works with excessive use of artificial lighting will be minimised to avoid impact on natural fauna species.	Environmental Manager	Good practice
FF30	Locate spoil and stockpiles outside the drip line of trees in accordance with requirements of SWMP.	Environmental Manager	Good practice SWMP
FF31	Undertake environmental inspections as outlined in Section 5.11. Records will be kept throughout the duration of the construction phase of the Project.	Environmental Manager	CEMF
FF32	Implementation of erosion and sediment control (ESC) measures when work to be undertaken within or with the catchment area of nearby watercourses (using the Progressive Erosion and Sediment Control Plan (PESCP)) including management of sediment that has accumulated upstream to avoid sediment mobilisation.	Environmental Manager	Good practice
FF33	Clearing of native vegetation will be limited to the greatest extent possible and only occur within the approved footprint.	Environmental Manager	CoA
FF34	Impacts to plant community types will not exceed those identified in the EIS, CIZ Consistency Assessments and as amended by the Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report comprising vegetation mapping amendments and inclusion of temporary impacts (Umwelt, dated 12 April 2018).	Environmental Manager	CoA

Ref ID	Mitigation measures	Responsibility	Source
FF35	The construction footprint will be minimised as far as practicable and impacts to native vegetation will be avoided as far as practicable during detailed design and construction planning.	Environmental Manager	EIS
FF36	Compounds and stockpile sites will be located within the approved footprint and at an appropriate distance from riparian vegetation to avoid impacts on aquatic habitat. Appropriate distances (for the Project Corridor) are a minimum of 50m for type 2, classes 2 and 3 watercourses (Burrill Creek), and 10 to 50m for type 3, classes 2 to 4 watercourses (other watercourses).	Environmental Manager	RMM D3.3
FF37	Direct impacts to in-stream vegetation and native vegetation on the banks of watercourses will be avoided as far as practicable and limited to the approved footprint.	Environmental Manager	RMM D3.3
FF38	The potential for impacts to fish passage will be minimised through consideration during detailed design and construction planning. This would include ensuring that fish passage is maintained and that watercourse crossing structures would be designed in accordance with the guideline Why do fish need to cross the road? Fish passage requirements for waterway crossings (Fairfull and Witheridge, 2003), NRAR Guidelines for controlled activities on waterfront land, and the minimum design requirements specified in Table 4.1 of Technical Report 3 (Umwelt 2017).	Environmental Manager	RMM D3.4
FF39	Exclusion zones will be identified and demarcated prior to commencing works (through installation of permanent fencing or no-go flagging) These exclusion zones will be identified on relevant project designs, drawings, maps, machinery guidance or GIS systems.	Environmental Manager	CEMF
FF40	Appropriate barriers, signage, temporary protective fencing or flagging tape will be installed to identify 'no go' or 'no clearing/disturbance' areas, to avoid accidental clearing.	Environmental Manager	CEMF
FF41	Works within watercourses will not commence during periods of rain or high flow events and should be managed as per 'Fish Friendly Waterway Crossings, why do fish need to cross the road? Fish passage requirements for waterway crossings' (Fairfull and Witheridge, 2003).	Environmental Manager	CEMF
FF42	Clearing will be undertaken in accordance with the pre-clearing requirements identified in Project approval documentation.	Environmental Manager	CEMF

Flora and Fauna Management Plan

Parkes to Narromine Inland Rail Project



Ref ID	Mitigation measures	Responsibility	Source
FF43	Remnant native vegetation areas will be cleared in stages or on an as needed basis, and only immediately prior to works occurring within them to minimise flora, fauna and erosion risks and impacts.	Environmental Manager	CEMF
FF44	Identify, obtain and implement any relevant approvals, licences and permits to handle and relocate fauna, as per relevant legislative requirements.	Environmental Manager	CEMF
FF45	Weed management will be undertaken in areas affected by construction prior to any clearing works in accordance with the <i>Biosecurity Act 2015</i> and associated regulations.	Environmental Manager	CEMF
FF46	All vehicles, machinery and equipment will be cleaned, inspected and certified prior to entry to the site or movement between project sites to meet the requirements of the <i>Biosecurity Act 2015</i> and associated regulations.	Environmental Manager	CEMF
FF47	Identify and clearly document any requirements for qualifications and/or competencies of persons undertaking works to meet <i>Biosecurity Act 2015</i> or associated regulations commitments (i.e. weed management, vehicle/machinery/equipment weed inspections and certifications for site entry).	Environmental Manager	CEMF
FF48	All aquatic fauna within watercourses will be translocated before dewatering. Translocation of fauna will be undertaken by a suitably qualified person.	Environmental Manager	EIS
FF49	Minimise the disturbance to riparian zone where practicable, to maximise the preservation of any existing vegetation.	Environmental Manager	EIS
FF50	Large woody debris in the development footprint upstream or downstream will be relocated in consultation with an appropriately qualified specialist.	Environmental Manager	EIS
FF51	Rehabilitation of disturbed areas will be undertaken progressively and in accordance with the rehabilitation strategy.	Environmental Manager	RMM C3.3
FF52	Appropriate site-scale diagrams (in the form of no-go zones) will be provided during construction to outline the boundaries for native and non-native vegetation and TECs.	Environmental Manager Construction Manager	Good practice
FF53	On-going training will be provided to staff on an as-needed basis. This includes as identified by the individual or the Environmental Manager.	Environmental Manager Construction Manager	Good practice

5.6.1 Additional Impact Assessments

Any exceedance in amount or type of vegetation required to be cleared to that approved by EPBC “controlled action” approval or the areas assessed for the CoA will trigger a project modification in accordance with CoA E15 which states:

“Impacts to plant community types must not exceed those identified in the EIS and as amended by the Addendum to the Inland Rail – Parkes to Narromine Biodiversity Assessment Report comprising vegetation mapping amendments and inclusion of temporary impacts.” (Umwelt, dated 12 April 2018)

Appropriate consultants may be commissioned to undertake additional impact assessments if required. Any further impact assessment (if required) and analysis of data will be carried out by an appropriately qualified and experienced consultant. Evidence of competence must be retained. Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are to be raised in accordance with the CEMP and this FFMP and recorded in the Corrective and Improvement Action Database.

Modification to an EPBC approval will trigger consultation requirements in accordance with EPBC CoA 1d (application to modify the approval) which states that the applicant must:

“Notify the Department in writing of any application to modify the State Infrastructure approval no later than 2 weeks after lodgement, where the modification relates to a matter identified in Conditions 1 a, 1 b or 1 c of the EPBC approval”

And 1e (approved modification) which states that the applicant must:

“Notify the Department in writing of any approved modification to the State Infrastructure approval no later than 2 weeks after being notified by the NSW Government, where the modification relates to a matter identified in Conditions 1 a, 1 b or 1 c of the EPBC approval”

Additionally, any amendments to ecosystem credit requirements must be undertaken in consultation with OEH, DoEE and approved by the Secretary.

5.7 Roles and Responsibilities

All site personnel will ensure that environmental nuisance or harm is minimised by adherence to all Project Management Plans and other documentation. Site personnel are also responsible for ensuring they do not act in contravention of any Environmental Approval or the CoA. All site personnel are to maintain familiarity with all key risks to flora and fauna and associated mitigation measures outlined in Table 5.1 of this FFMP.

Supervisors are responsible for implementation and maintenance of Flora and Fauna mitigation measures for all activities and work areas.

The Environmental Manager is responsible for routine surveillance and monitoring, communication of requirements of this Sub-plan, coordination of visual monitoring, and all other responsibilities related to flora and fauna identified within this sub-plan and overall CEMP. The Environmental Manager is also responsible for the immediate notification to ARTC and if requested by ARTC to State and/or Commonwealth government authorities of impacts that have mandatory reporting requirements including impacts on MNES under the EPBC Act.

The Project Manager is responsible for overseeing implementation of this FFMP and the CEMP.

5.8 Environmental Incidents, Non-Compliance and Complaints

Environmental incidents and non-compliances will be managed in accordance with Section 6 of the CEMP.

In the event of a complaint, non-compliance or incident, an investigation will be undertaken to determine the cause of the problem lead by the Environmental Manager. Any identified impacts on flora and fauna, the identified source and corrective actions are to be documented and managed in accordance with Section 6.1 of the CEMP and recorded in the Corrective and Improvement Action Database. Complaints will be handled in accordance with Section 6.3 of the CEMP. Any investigations if required will be undertaken in accordance with Section 6.5 of the CEMP.

In the event of any non-compliance (an occurrence, set of circumstances or development that is a breach of the approval conditions (CoA but is not an incident), the non-compliance will be managed by the Environmental Manager and if required corrective action/s will be raised. All corrective actions and improvements will be entered into the Corrective or Improvement Actions Database and will be closed out as soon as practical (to be reviewed during the using the Weekly Environmental Checklist).

5.9 Reporting

All reporting requirements for the Project are outlined within the CEMP.

Reporting requirements relating to flora and fauna management are also summarised below:

- Any death or injury to state or Commonwealth listed fauna species must be reported by the Environment Manager to applicable government departments
- Report presence of threatened flora and fauna species, endangered populations and to the Client, ER and OEHL immediately
- If the CoA are broken (including contravention of a commitment made in a management plan, strategy, or agreement required by this approval) the incident must be reported to DPIE within 5 business days of the approval holder becoming aware of the contravention.
- Unexpected species discovery must be reported to the Environment Manager and the Environment Manager must then notify the relevant authorities
- Dead or injured microbat is found during the works must be reported to the Environment Manager and the Environment Manager must then notify the relevant authorities
- Pre-clearing inspections checklists should be documented in a post clearance report
- Monthly reporting to client on environmental controls (Project Monthly Reports)
- Results of Annual Independent audit will be submitted to the minister 8 weeks after audit commencement.

- Notify the Department in writing of any application to modify the State Infrastructure approval no later than 2 weeks after lodgement, where the modification relates to a matter identified in Conditions 1 a, 1 b or 1 c of the EPBC approval
- Notify the Department in writing of any approved modification to the State Infrastructure approval no later than 2 weeks after being notified by the NSW Government, where the modification relates to a matter identified in Conditions 1 a, 1 b or 1 c of the EPBC approval
- Where staging is proposed, a Staging Report has been provided to the DPIE containing further information related the staged activities, where they will be completed and when
- Where monitoring determines non-compliance to be a risk or to have occurred, an incident report and corrective actions are to be raised in accordance with the CEMP and this FFMP and recorded in the Corrective and Improvement Action Database.
- Within 20 business days after the commencement of the action, the approval holder must advise the Department in writing of the actual date of commencement of the action.

5.10 Access to Information

Management plans, compliance with CoA, strategies and agreements required by this approval must be made available to DPIE and published on the proponent's website so that they are accessible by the general public. Each management plan, report, strategy and agreement must be published on the website within 1 month of being approved by the Secretary and remain there until at least 12 months following the completion of the action.

5.11 Inspections and Auditing

General inspections and auditing will be undertaken in accordance with Section 7 of the CEMP.

The Environmental Team will undertake environmental inspections to develop and evaluate the effectiveness of environmental controls and will include the following:

- Daily visual inspections
- Weekly inspections using the Weekly Environmental Checklist
- Monthly reporting to the Client on this aspect will be recorded through Project Monthly Reports
- Annual independent audits
- ER quarterly monitoring of the implementation of the documents listed in the CoA.

The annual independent audit must:

- Be completed by an independent auditor approved by the Minister
- Cover criteria agreed to by the Minister
- Address the criteria to the satisfaction of the Minister

- Be submitted to the Minister within 8 weeks of audit commencement.

5.12 Training and Awareness

General training and awareness will be undertaken in accordance with Section 8 and 9 of the CEMP.

All employees and contractors working on site will undergo site induction training related to fauna management issues. The site induction will outline all mitigation measures contained in Table 5.1 of this plan in addition to addressing the following elements:

- Relevant legislation
- Environmental duty of care
- Key sensitive areas
- Flora and fauna management (no-go zones, specific mitigation measures)
- Environmental no go areas
- Weed hygiene
- Incidents including definition, management and reporting requirements
- Stop work types.

Training will also include toolbox talks and prestart meetings in which the topics of the site induction will be revisited. In addition to these daily meetings, on-going training will be provided to staff on an as-needed basis and in response to incidents as required by actions or as a result of incident re-occurrences. This will be managed through the individual and the Environmental Manager.

5.13 Emergency Planning and Response

Emergency planning and response will be undertaken in accordance with Section 10 of the CEMP.

Where any unauthorised impact on known flora, fauna and/or aquatic ecosystems within or downstream to the project area are identified construction activities resulting in impacts will be ceased immediately and appropriate mitigation measures identified and implemented. If required, injured fauna should be transported to nearest vet for assessment and treatment. Finds of unexpected flora or fauna of significance are covered in the Unexpected Finds Procedure in Attachment C.

All such impacts, the identified source and corrective actions are to be documented and managed in accordance with the CEMP and this FFMP and recorded in the Corrective and Improvement Action Database.

On becoming aware of the presence of threatened flora and fauna species, endangered populations or an environmental incident in relation to flora and fauna, the Environment Manager must report the presence to the client immediately and manage any incident as per Section 6 and Table 7-4 of the CEMP.

The Pollution and Incident Response Management Plan (PIRMP) will be used to ensure that management and comprehensive and timely communication regarding pollution incidents, that may affect flora and fauna, are undertaken in accordance with the relevant authorities.

5.14 Record Keeping

The following compliance records, related to flora and fauna management should be kept:

- Pre-clearing inspection
- Release of Hold Point
- Records of environmental inspections
- Monthly Report
- Annual Independent Audits
- Compliance records in accordance with any relevant applicable approvals permits and licences.

The compliance records will be kept throughout the construction phase of the Project by the Environmental Manager or their delegate.

Pre-clearing inspections checklists should be documented in a post clearance report for the relevant sections and/or stages on which these inspections occur.

5.15 Document Review

General document review will be undertaken in accordance with Section 11 of the CEMP.

This FFMP will be reviewed utilising the Corrective and Improvement Action database simultaneously to review of the overarching CEMP and any amendments cited and cross checked against each plan.

For the duration of the works until the completion of construction, the approved ER must:

- Review the CEMP and Sub-plans and any other documents that are identified by the Secretary, to ensure they are consistent with requirements in or under this approval and if so:
 - Make a written statement to this effect before submission of such documents to the Secretary (if those documents are required to be approved by the Secretary); or
 - Make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Secretary / Department for information or are not required to be submitted to the Secretary / Department).



Attachment A Pesticide Application Record Sheet

TANK

Pest and Weed Management Plan

Parkes to Narromine Inland Rail Project



Pesticide Application Record Sheet

Date		Supervisor	
Operator Names			
Operator Address			
Landowner Names			
Address of Landowner			
Property Address			
Time Start		Time Finish	
Location		Chainage	Start Up
Vegetation Description			Finish Down
Personal Protective Equipment Required		Herbicide / Chemical Type	
		Brand	
Equipment		Sequence/Order of Application	
Soil Conditions			
Weather Conditions	Overcast	Cloudy	Sunny
Wind Direction		Gusty:	Yes / No / NA
Wind Speed (Circle)	Medium	Low	Nil
Amount Used (mL of neat)		Concentration	Herbicide (mL) Water (Litre)
MSDS on site	Yes / No	SMARTTRAIN CARD #	
Comments			



Attachment B
Pre-Clearance Checklist

AMTlink

Pre-Clearance Checklist

Purpose

This pre-clearance checklist outlines the process and measures to be implemented prior to, during and after vegetation clearing for construction activities and identifies who is responsible for implementing them.

Scope

This checklist is applicable to all clearing of native and introduced vegetation during the construction phase of the Project.

Induction/Training

All site personnel and subcontractors undertaking clearing or directly involved with works will be trained in this checklist through Toolbox Talks or Pre-Starts.

Pre-Clearing and Ground Disturbance “Permit to Clear” Checklist

Project:				Inspection Date:					
Vegetation Clearing Locations – Attach drawings/sketches/maps if required						No of Attachments:			
Chainage From		Chainage To		Location		Comments			
#	Control Measures			Y/N/NA	Comments/Corrective Actions				
1	Have the clearing limits been established by the Survey Team?								
2	Has the limit of clearing been clearly fenced off with markers being no further than 15m apart to ensure each marker can be seen from the next? Continuous flagging must be in place - no works to proceed unless in place.								
3	Is protective fencing installed around EECs, EPBC listed vegetation, heritage items/items and vegetation to be retained?								
4	Has topsoil in areas containing EEC's, EPBC listed vegetation or threatened species been marked for special treatment?								
5	Have areas of weed infected topsoil been identified and weed eradication carried out where appropriate?								
6	Have all pre-construction surveys been completed, including habitat trees and/or trees to be preserved been identified, marked and the clearing exclusion zone established?								
7	Has Hold Point detailing pre-clearing information been submitted prior to commencement of clearing?								
8	Have the trees to be salvaged for milling or re-snagging been identified and marked onsite?								
9	Have timber storage sites been identified and prepared within the construction boundary for bridge timber and log storage?								
10	Has the mulching and chipping plant been established for timber that is unsuitable or not required for milling/re-snagging or coarse woody debris (CWD)?								
11	Has permission to enter been obtained where access to private property is required?								
12	Have the relevant construction personnel been briefed on the 2-stage clearing process and any specific area issues?								
13	Have boundary limits been established and clearly marked at rivers, creeks, watercourses and drainage lines to indicate to the clearing contractors where to stop clearing?								
14	If near a creek or waterway crossing, ensure riparian zone is managed in accordance with CFFMP - <i>Management and Mitigation Measures</i>								
15	Have sediment control measures been installed before clearing as required by the Erosion and Sediment Control Plan and Soil and Water Management Plan?								
16	Has the Ecologist been notified and scheduled to undertake pre-clearance and clearance activities? Have fauna release sites been identified?								
17	Has translocation of species occurred?								

Flora and Fauna Management Plan

Parkes to Narromine Inland Rail Project



Completed by:		Signature:		Date:	
I have reviewed the "Permit to Clear" checklist and all measures have been implemented as required. The clearing between the above-mentioned chainages may proceed in accordance with this procedure.					
Hold Point Signoff:					
Environmental Site Representative Sign-off					

Pre-Clearing "Fauna and Flora" Assessment

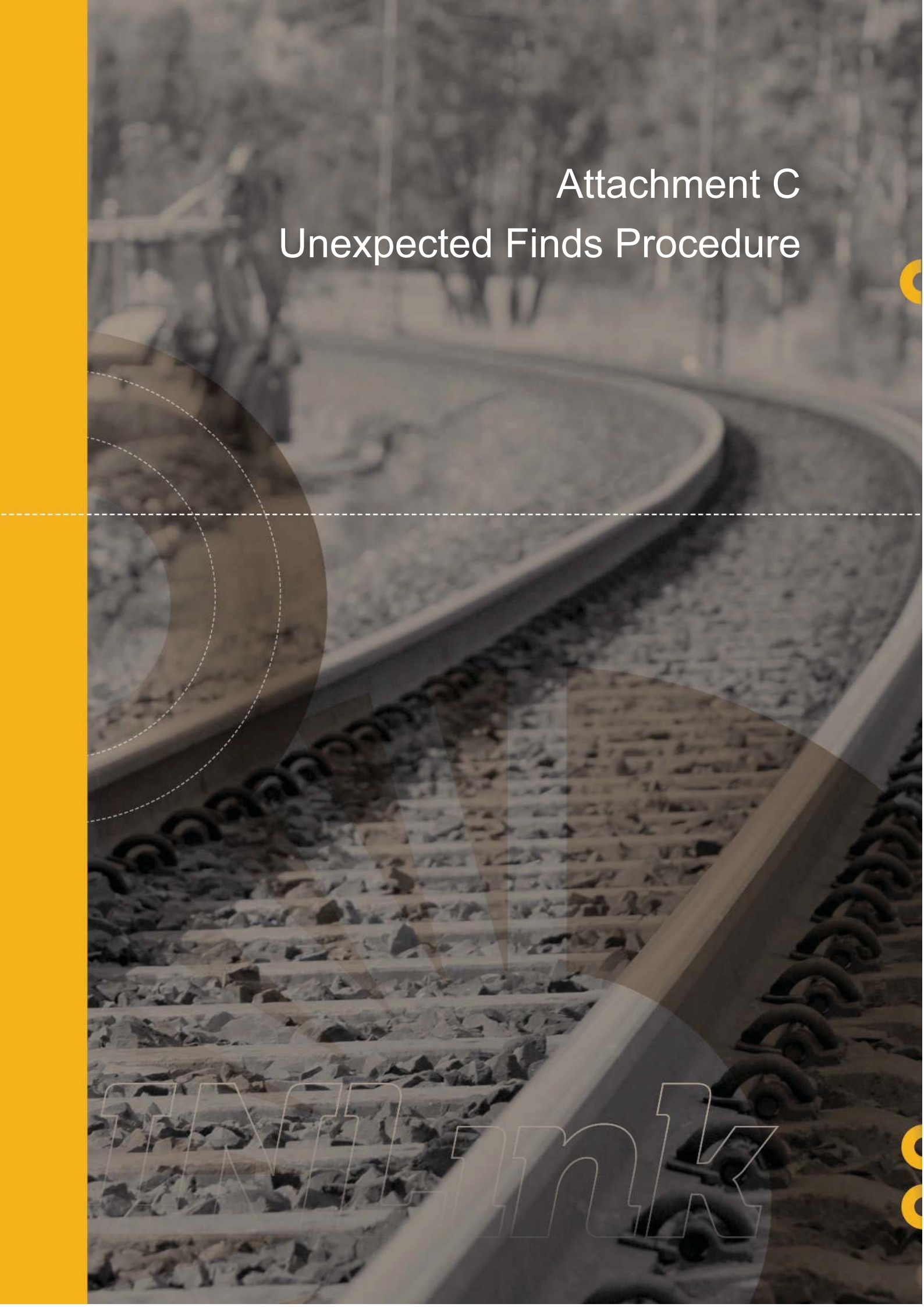
Pre-clearing assessment and completed Checklist must be submitted to BMD Environmental Site Representative prior to clearing commencement. Clearing must not commence in any part of the area until this vegetation clearing permit has been approved.

Project:				Inspection Date:	
Chainage From	Chainage To	Location		Comments	
#	Control Measures		Y/N/NA	Required Actions Undertaken/ Relevant Information Provided/Comments	
Project Ecologist					
1	Have the clearing limits been established by Survey Team?				
2	Has the limit of clearing been clearly fenced off?				
3	Have all areas of weed infestations been identified and clearly marked (i.e. flagging tape)? If yes, provide details of location and species on a plan.				
4	Have EECs been identified and marked in the field? If yes, provide details of location and EEC on plan.				
5	Have all habitat trees been identified and clearly marked on site? Trees are to be spray painted with an individual number/ID (i.e. H01) on two sides of the tree. Provide a map and details of identified habitat trees (i.e. ID, species, DBH, height, no/size/type of hollows).				
6	Were any fauna identified during the pre-clearing assessment. Provide a brief description of fauna and any actions taken.				
7	Were any threatened fauna species identified during the survey? If yes, mark clearly on site (i.e. flagging tape) and follow the <i>Unexpected Finds Procedure</i> .				
8	Were any threatened flora species identified during the survey? If yes, clearly mark on site (i.e. flagging tape) and follow the <i>Unexpected Finds Procedure</i> .				
9	Have any trees outside the clearing limit been deemed unsound? If yes, clearly mark on site.				
10	On the day prior to the disturbance of culverts with the potential to provide roosting habitat for micro-bats has the following been identified: • roosting species (if identifiable) • count/estimate of the number of roosting individuals • location and time of relocation (if applicable) or other actions taken to discourage the roosting of micro-bats.				
11	If roosting bats are identified the bats would be left undisturbed until dusk. At dusk, roosting bats can be captured and released at a location to be agreed during pre-clearance surveys.				
12	Following removal and or departure of all roosting bats, crevices would be removed or blocked off (e.g. by covering the entrance with shade cloth).				

Comments:			
Environmental Site Representative			
1	Are any weed mitigation measures required?		
2	Have EECs identified by the Project Ecologist been marked with appropriate fencing/signage?		
3	Have all habitat trees been marked appropriately?		
4	Were any previously unidentified threatened flora and/or fauna species identified? Are any further surveys/approvals required?		
5	Have any trees deemed to be unsound clearly marked?		
6	Are there any areas of contaminated soil on site? If yes, have relevant mitigation measures been undertaken?		
7	Has flagging has been put in place for the extent of clearing for the day to ensure that only areas inspected by the Ecologist are cleared and no over-clearing is undertaken?		
Environmental Site Representative Signoff			
Completed by:		Signature:	Date:
I have reviewed the above checklist and relevant information and all measures have been implemented as required.			

Hollow Inspection Checklist

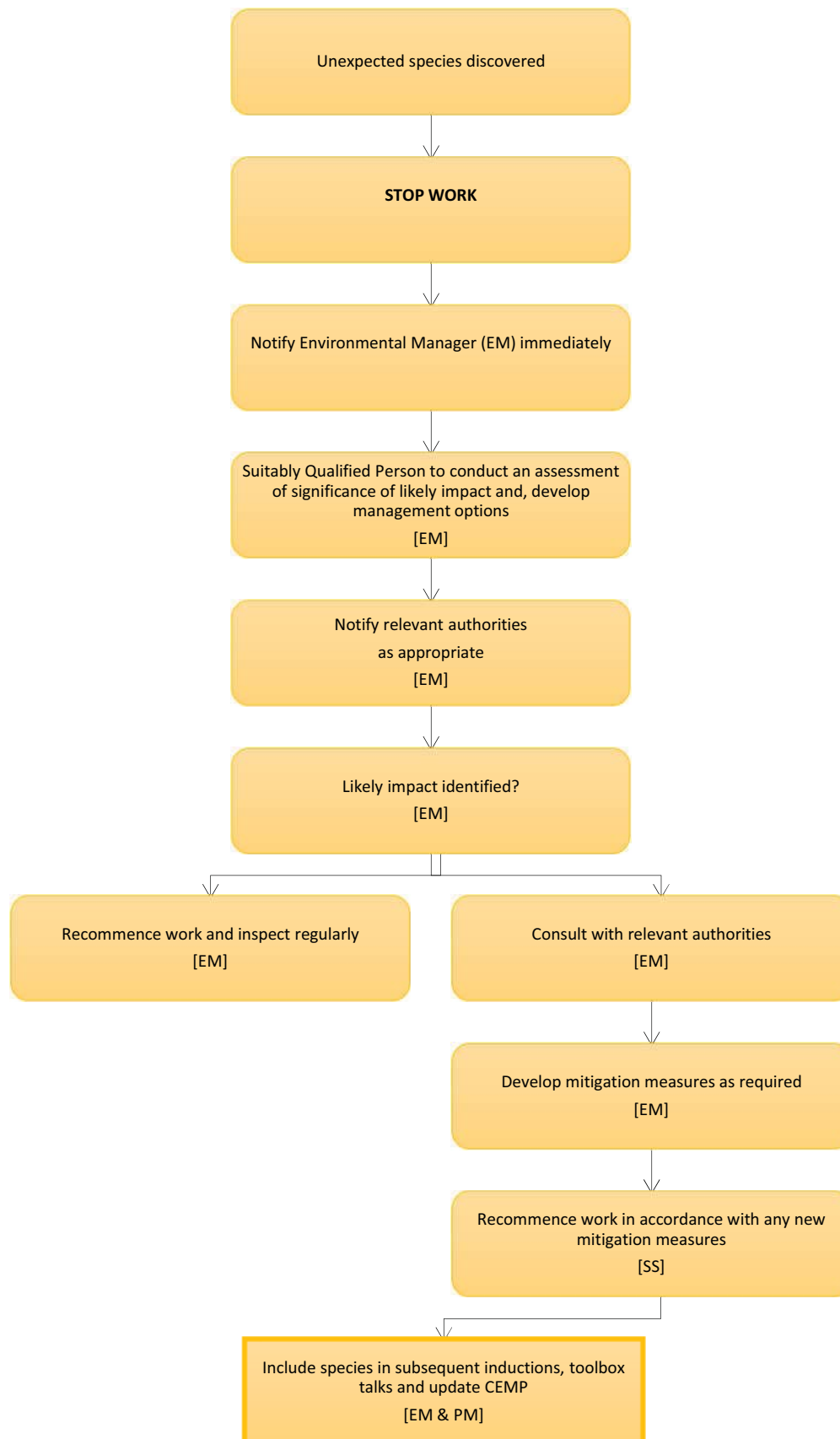
Project:				Inspection Date:			
Criteria			Answer/Comments				
Ecologist:							
Has the habitat tree been inspected immediately after it is felled							
Tree ID:							
Species							
Location: approx. CH							
Hollow Details		Type	Entrance		Depth	Height from ground	Suitability/evidence of fauna
			Shape	Size			
1							
2							
Fauna Observed/Caught		Species		#	Age/breeding status	Treatment	Release Details
1							
2							
Comments:							
Completed by:				Signature:		Date:	



Attachment C Unexpected Finds Procedure

think

Unexpected Finds Procedure





Attachment D
Microbats Procedure

TRANS
link

Microbats Procedure

Purpose

This Microbats Procedure explains the process and measures to be implemented if microbats are discovered during the Project. It also provides measures to be implemented to identify presence of microbats in Project corridor prior to commencing works and outlines measures to provide alternative roosting sites for microbats during the Project. The handling of microbats should be avoided where possible.

Scope

This procedure is applicable to any microbats identified during construction within the project area. This procedure aims to:

- Reduce the potential for handling microbats by inspecting culverts and bridges after dusk when the bats have dispersed, and the entrances can be blocked off;
- Reduce the potential for injury or death to microbats because of the proposed works by discouraging microbats from occupying the subject drainage structures at the time of the construction works; and
- Provide temporary alternative habitat for excluded microbats during the proposed works.

Induction/Training

All site personnel and subcontractors directly involved with construction works will be trained in this procedure through Toolbox Talks or Pre-Starts.

Relevant points to be delivered in this induction in relation to microbat management are as follows:

- Presence on site (identification and potential habitat).
- Education on the potential of microbats to carry disease
- Any microbat found during the works would be reported immediately to the Environmental Team and would not be handled by an untrained or unvaccinated person.
- Clearing/ pre-clearing requirements.
- Location of and instructions not to disturb bat boxes or artificial roost habitat.
- Requirements for works to cease within 100 m of any unexpected microbats detected within drainage structures until authorisation has been given for works to commence from the Environmental Manager.
- Requirements for works to cease if microbats take flight from drainage structures during daylight hours until authorisation has been given for works to commence from the Environmental Manager.

- Personnel be advised not to remove disused Fairy Martin nests or mud dauber wasp nests on the ceiling and sides of culverts or bridges post construction as these provide roosting habitat for cave-dwelling bat species.

Microbat Potential Roost Sites

Culvert roost features within the project area may include:

- Culvert cell joins: Ranged in habitat value from minor hold points providing exposed roosting opportunities, to deep protected cavities. Cell joins were present in most drainage structures.
- Cavities above cell joins caused by cell dislodgment and subsequent erosion of road substrate above. Present in culverts 506051 in Section 6 and culverts 506073 and 506087 in Section 7.
- Culvert cell lift holes: Varied from minor hold points providing exposed roosting opportunities, to deep protected earth cavities. Culvert lift points ranged from being rectangular to circular in shape. Present mainly in the larger (>500 mm diameter) reinforced concrete pipe culverts (RCPC).
- Rough concrete on the culvert obvert: Provide exposed roosting opportunities and were common mainly in reinforced concrete box culvert (RCBC).
- Presence of mud bird nests (*Welcome Swallow* *Hirundo neoxena*, *Hirundo neoxena* and Fairy Martin *Petrochelidon ariel*).

Bridge roost features within the project area may include:

- Cavities between concrete planks/ segments: Provide habitat ranging from protected (though somewhat shallow) cavities to exposed roost points. Some more modern structures also have a foam filling between the planks that may provide a secure hold point for roosting microbats.
- Cavities around piers/ headstocks: provide mainly exposed roosting opportunities.
- Rough concrete, concrete ledges and concrete angles: provide exposed roosting opportunities.
- Blocked scuppers: provide suitable roosting habitat for microbats.

Possible Impacts to Microbats

The Project may have the following potential impacts on microbats:

- Loss of roosting and breeding habitat
- Loss of foraging habitat and reduced prey abundance
- Reduced breeding output
- Habitat fragmentation
- Injury/ mortality to individuals from construction works.

Pre-Work Microbat Clearance Inspection

Pre-work clearance inspections will be undertaken by the Project Ecologist one day prior to starting work on drainage structures and repeated on the day of work. Clearance checks will involve searching the drainage structure for the presence of microbats.

All culverts and bridges that are proposed to be removed should be subject to a pre-clearance survey to determine if they provide habitat for micro-bats.

Where potential habitat is identified, on the day prior to the disturbance of bridges or culvert with the potential to provide roosting habitat for micro-bats, a suitably qualified and experience ecologist should undertake an inspection of the bridge to search for potential micro-bat roost sites under and within the culvert or bridge. If roosting bats are identified under and / or within the culvert or bridge, the bats should be left undisturbed until dusk. Following departure of all roosting bats the culvert or bridge crevices should be removed or blocked off (for example cover the entrance with shade cloth) prior to dawn the following morning. Any remaining bats can be captured and released nearby.

Pre-clearance surveys should record the:

- Roosting species (if identifiable)
- Count / estimate of the number of roosting individuals
- Location and time of the relocation (if applicable) or other actions to discourage the roosting of micro-bat species under (or in) the culver or bridge.

No disturbance to maternity sites in culverts or bridges should occur. Only when the maternity period has ended, and the bats have dispersed should any work commence.

Temporary Replacement Habitat

Bat Box Installation

Bat boxes provide alternate roost habitat for microbats that are excluded from their current roost and are regarded as a temporary measure provided prior to and during construction until roosts within their preferred habitat is replaced (i.e. gaps in culverts and bat boxes beneath bridges/ in culverts etc). If microbats inhabit the bat boxes however, they would be left in place post-construction. Installation of bat boxes would be undertaken or supervised by a suitably qualified person experienced with microbats. Bat boxes that are attached to trees would be installed to not impede sap flow. Each bat box would be given a unique identification number and the location accurately recorded. The following attributes should be recorded when installing bat boxes:

- Date installed
- Identification code. This code is to be consistent with bat boxes installed within Sections 1 and 2, therefore this code would start with MMP and number consecutively from 36 (as MMP 1-28 have been installed within Sections 1 and 2 and MMP 30-35 have already been installed within Section 5)
- Easting and northing (GDA 94)
- Name of closest drainage line

- Box type (e.g. four-chambered, tree mounted, lattice, two-chambered etc.)
- Aspect of box on tree or structure
- Tree species (if relevant)
- Tree health (if relevant)
- Diameter at breast height (DBH) of tree upon which box is mounted
- Box height above ground
- Distance to water (i.e. directly above water, 10 m from creek etc).

Bat Box Design

Variation is required in the design of boxes being used at any one location. Boxes of different designs would increase the chances of uptake, address seasonality and thermoregulatory considerations and address the fact that bats are known to regularly change roost locations.

The following designs are recommended:

- Light weight concrete bat boxes
- Large (four-chambered) hanging bat boxes
- Lattice style bat boxes
- Tree mounted bat boxes (least preferred due to behaviour and habitat preferences of cave-dwelling microbats). If tree mounted bat boxes are installed, these must be near water if not over hanging water.

If bat boxes are custom made they need to meet the following criteria:

- Constructed of hardwood or marine grade ply
- Re-enforced with bracing
- Variable width gaps (2-6 cm)
- Removable (able to be relocated to new drainage structures)
- Roughed/ grooved timber
- Different length landing pads
- Gaps at the top of the wedges/ slats to allow microbats to move between the cavities.

Based on previous observations of microbat behaviour, lattice style boxes are recommended as they can allow for larger colonies and therefore increased ability to thermoregulate and breed.

Bat Box Placement

Placement of bat boxes is critical to their successful uptake. The most important feature is proximity to water. The bat boxes need to be above or as close to water as possible. The location of bat boxes needs to satisfy the following criteria:

- Shaded location overhanging >100 mm of surface water
- >2 m above ground (ideally 3-4 m unless directly over a deep, permanent water body)
- Recipient tree considered robust and in good health
- On land outside the Project clearing limits (where possible)
- Within RMS road reserve or adjacent private land with an agreement.

In the case where the drainage structure is to be removed or extended, at least one temporary bat box would be installed to give bats the opportunity to familiarise themselves with the new bat box structures thereby potentially enhancing uptake following exclusion. These bat boxes would then be moved to a predetermined location during exclusion.

Timing of Bat Box Installation

It is important that time is provided for microbats to recognise the presence of the bat boxes and the potential roosting opportunity they offer prior to microbat exclusion being implemented. Therefore, every attempt would be made to maximise the time between installation of bat boxes and exclusion of microbats from the subject drainage structures. It is preferable to install bat boxes up to 12 months in advance to give microbats time to locate and 'accept' the new structures as a viable roost.

Timing of bat box instalment relative to exclusion and demolition would be recorded. The duration of the lead time would be evaluated and communicated should this appear to be a factor influencing uptake of bat boxes.

Capture and Release of Microbats

While handling of microbats should be avoided where possible, and can be achieved by inspecting culverts and bridges after dusk when the bats have dispersed and entrances are blocked off before they return, the following methodology would be implemented if microbats are found in a drainage structure during works that have not taken to alternative roost sites provided in the form of bat boxes.

All handling of microbats would be undertaken by a suitably qualified person who is vaccinated and experienced in handling bats. The Ecologist must hold an Animal Care and Ethics Committee approval and a NPWS Scientific Licence for handling native flora and fauna.

No disturbance shall occur to maternity site in culverts or bridges. Only when the maternity period has ended, and the bats have dispersed should any work commence.

Spare bat boxes should be held to accommodate for unexpected finds of more than ten microbats. A suitable location for the bat box to be position would need to be determined.

If less than ten microbats are encountered, the microbats would be housed in small cloth bags. Bags containing bats would be hung in a cool, dry place off the ground and out of the direct sun. Bats of the same species would be housed together with no more than three in any one bag. Large bats (head and body 80-95 mm) would not be grouped with smaller bats (head and body <75 mm) as some larger species predate on smaller species. Bats would be released in the evening at the site of capture.

Injured or Killed Microbats

If bats are unexpectedly injured during works, the bat will be carefully removed with a cloth bag by an appropriately qualified person. With a gloved hand encased within the cloth bag the bat would be gently picked up and the bag turned inside out to free the gloved hand and capture the bat. The bag would be tied off at the entrance and hung in a cool, shaded sheltered location.

The local wildlife carer group would be contacted immediately for collection of any injured bat/s captured. Options for treatment and future release would be decided at the discretion of the wildlife carer. Any costs for treatment would be the responsibility of the contractor.

If a dead or injured microbat is found during the works, the Environmental Team must be notified immediately.

All dead microbats would be collected and retained for a suitably qualified person to lodge with the Australian Museum as specimens for future research and study.

Monitoring and Performance Criteria

Bat Boxes:

Objective: Successfully provide alternate roost habitat in suitable locations in proximity to the subject drainage structures. Observe uptake, breeding and persistent use of replacement roosting habitat.

Timing: Day after exclusion from subject drainage structures. Quarterly during construction.

Performance criteria: No evidence of usage within two years of installation.

Corrective action (if required): Re-locate within adjacent vegetation (changing aspect, move closer to water etc). If not inhabited by microbats following completion of construction on the subject drainage structures, bat boxes would be re-located within the new drainage structures.

Pre-Work Clearances

Objective: Low number of injuries/ mortality to microbats from construction activities.

Timing: One day prior to starting work on the subject drainage structure and on the day of work.

Performance criteria: Low number of injuries/ mortality to microbats from construction activities.

Corrective action (if required): Notification to relevant Authorities if a microbat mortality is recorded on the Project. Stop construction and review the Microbat Procedure. Induction of all personnel involved with construction activities would be undertaken to communicate microbat management requirements.

Attachment E Vegetation Communities

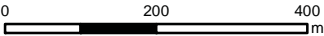
TANlink



Plant Community Type	
	Cleared/Non-native - N/A
	MISC - N/A
	PCT70 - Moderate/Good
	PCT76 - Moderate/Good
	PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping



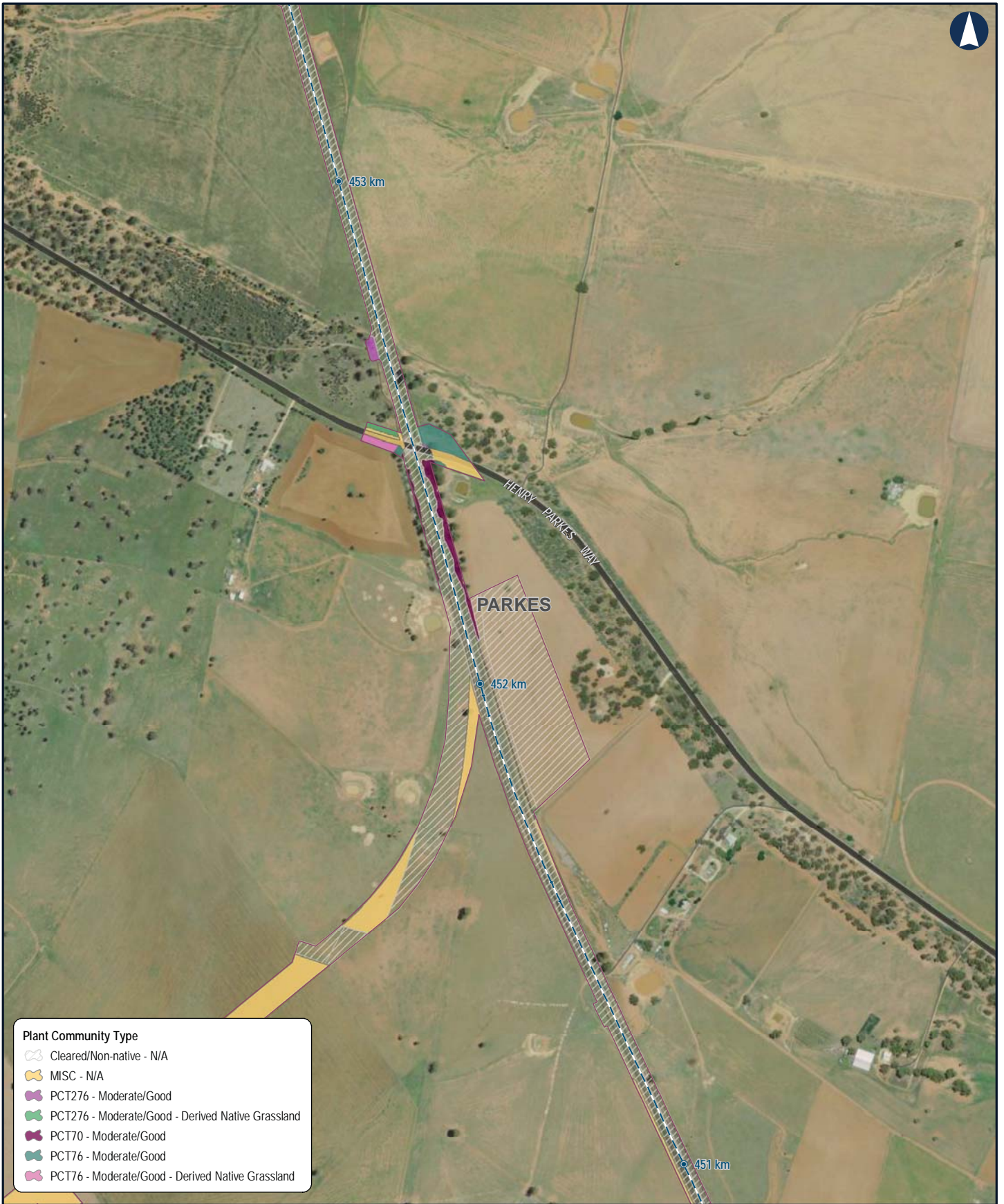
Coordinate System: GDA 1994 MGA Zone 55
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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000
 Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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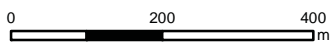


Plant Community Type	
	Cleared/Non-native - N/A
	MISC - N/A
	PCT276 - Moderate/Good
	PCT276 - Moderate/Good - Derived Native Grassland
	PCT70 - Moderate/Good
	PCT76 - Moderate/Good
	PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping

MAP 2 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality







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Plant Community Type

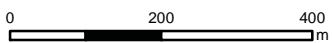
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT276 - Moderate/Good
-  PCT276 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 3 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

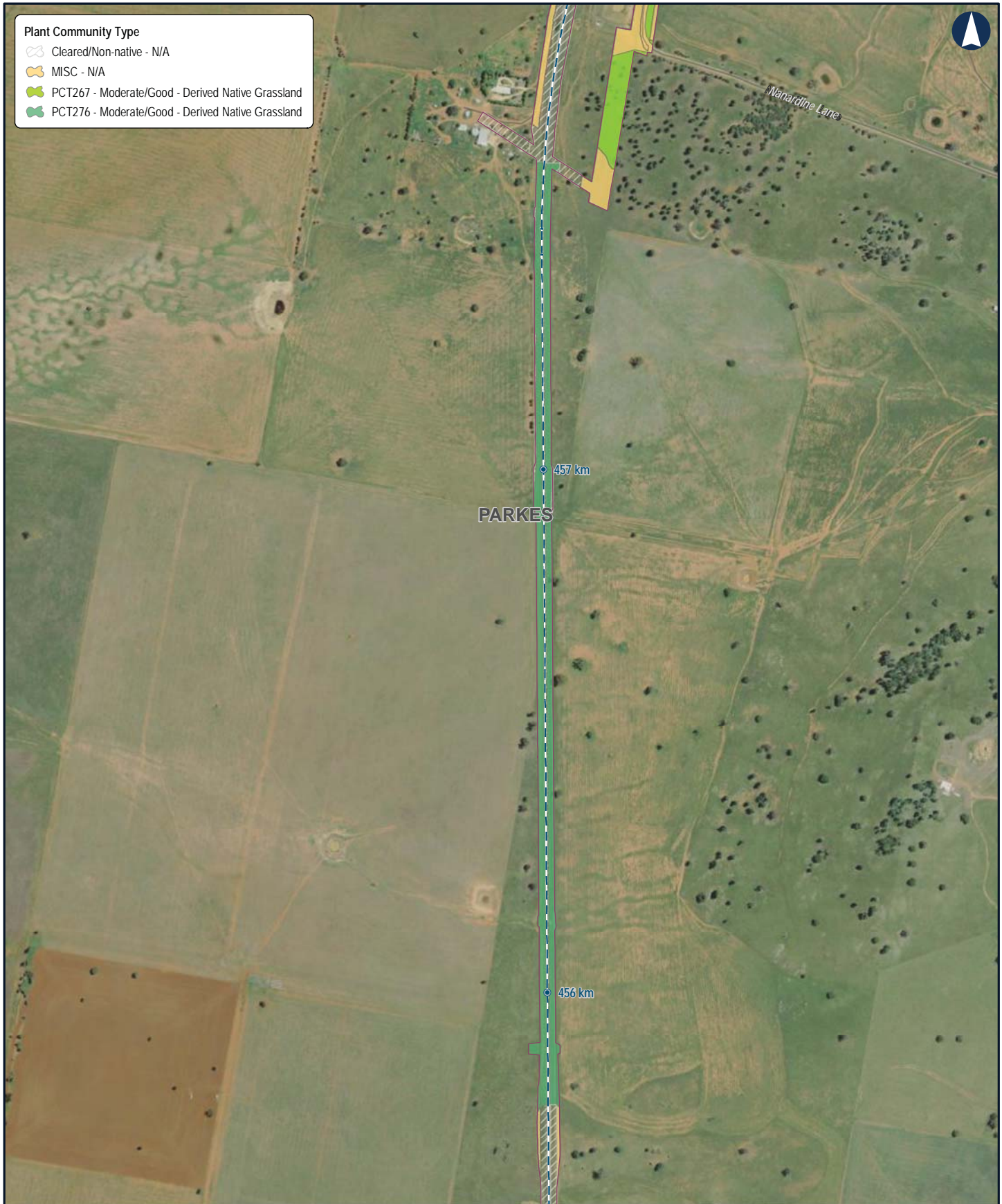
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Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)





-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

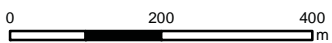
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT267 - Moderate/Good - Derived Native Grassland
-  PCT276 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 4 OF 42







Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)






-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

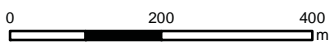
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT267 - Moderate/Good - Derived Native Grassland
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 5 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)






-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

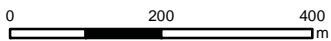
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT276 - Moderate/Good
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 6 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



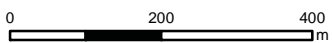
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PARKES TO NARROMINE

Vegetation Mapping

MAP 7 OF 42



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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000





Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

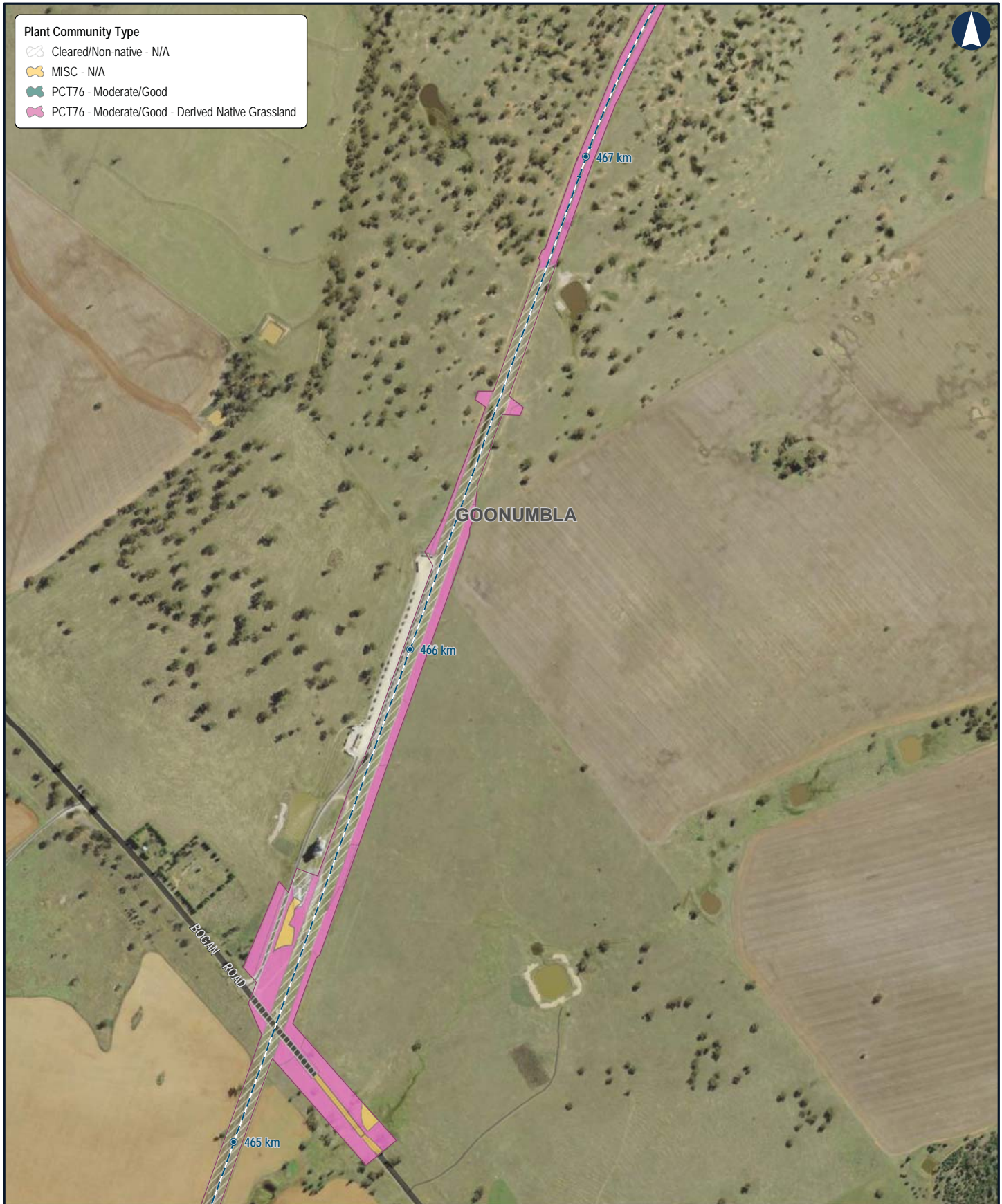
- Chainage (1km)
- - IFC Alignment
- ⊕ CIZ Timjelly (Option 1) boundary
- ⊕ Locality



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Plant Community Type

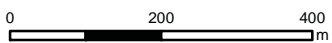
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 8 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000





Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

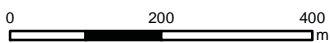
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT276 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 9 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000




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-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

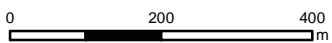
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 10 OF 42







Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)






-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality

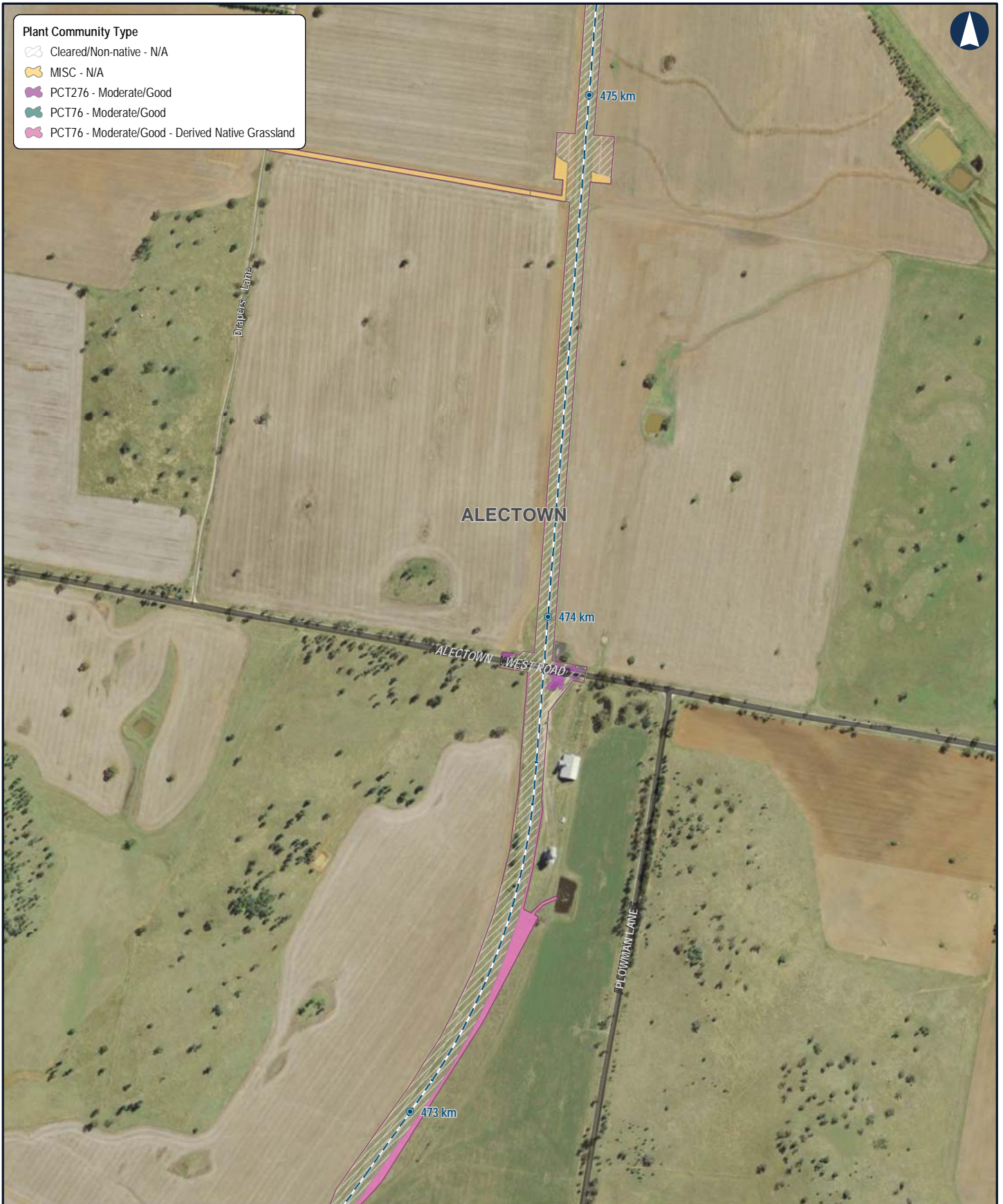


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Plant Community Type

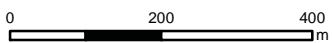
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT276 - Moderate/Good
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 11 OF 42







Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

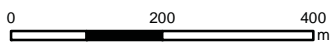
- Cleared/Non-native - N/A
- MISC - N/A
- PCT276 - Moderate/Good



PARKES TO NARROMINE

Vegetation Mapping

MAP 12 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality

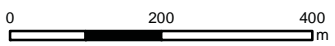


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PARKES TO NARROMINE

Vegetation Mapping



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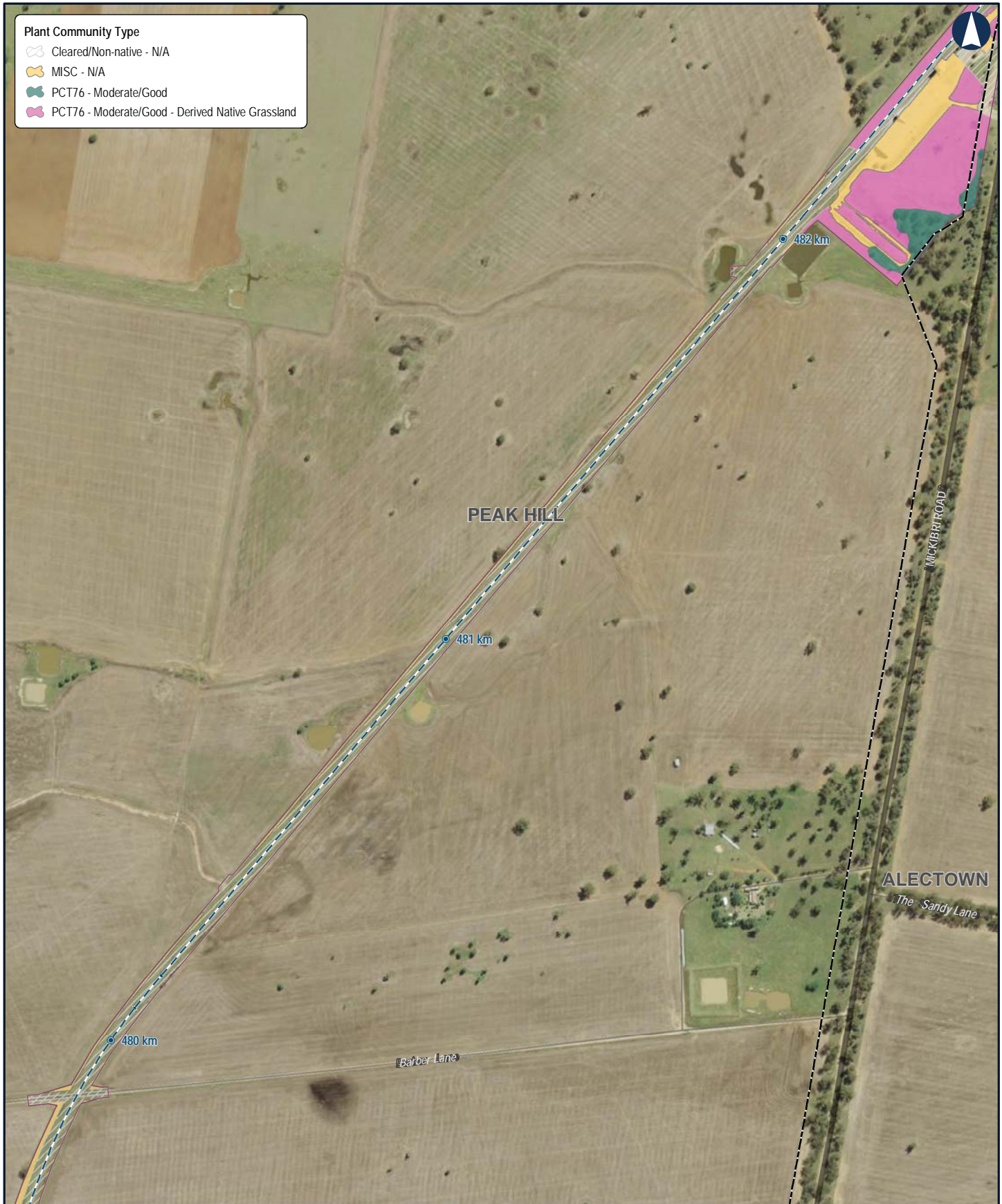
Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- - IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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PARKES TO NARROMINE

Vegetation Mapping

MAP 14 OF 42

0 200 400
m

Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- - IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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Plant Community Type

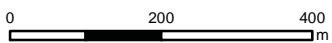
- Cleared/Non-native - N/A
- MISC - N/A
- PCT76 - Moderate/Good
- PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 15 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000



Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

Plant Community Type

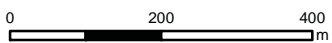
-  Cleared/Non-native - N/A
-  MISC - N/A



PARKES TO NARROMINE

Vegetation Mapping

MAP 16 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



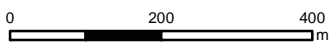
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



PARKES TO NARROMINE

Vegetation Mapping

MAP 17 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- - IFC Alignment
- ▨ CIZ Timjelly (Option 1) boundary
- ⊠ Locality



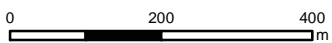
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PARKES TO NARROMINE

Vegetation Mapping

MAP 18 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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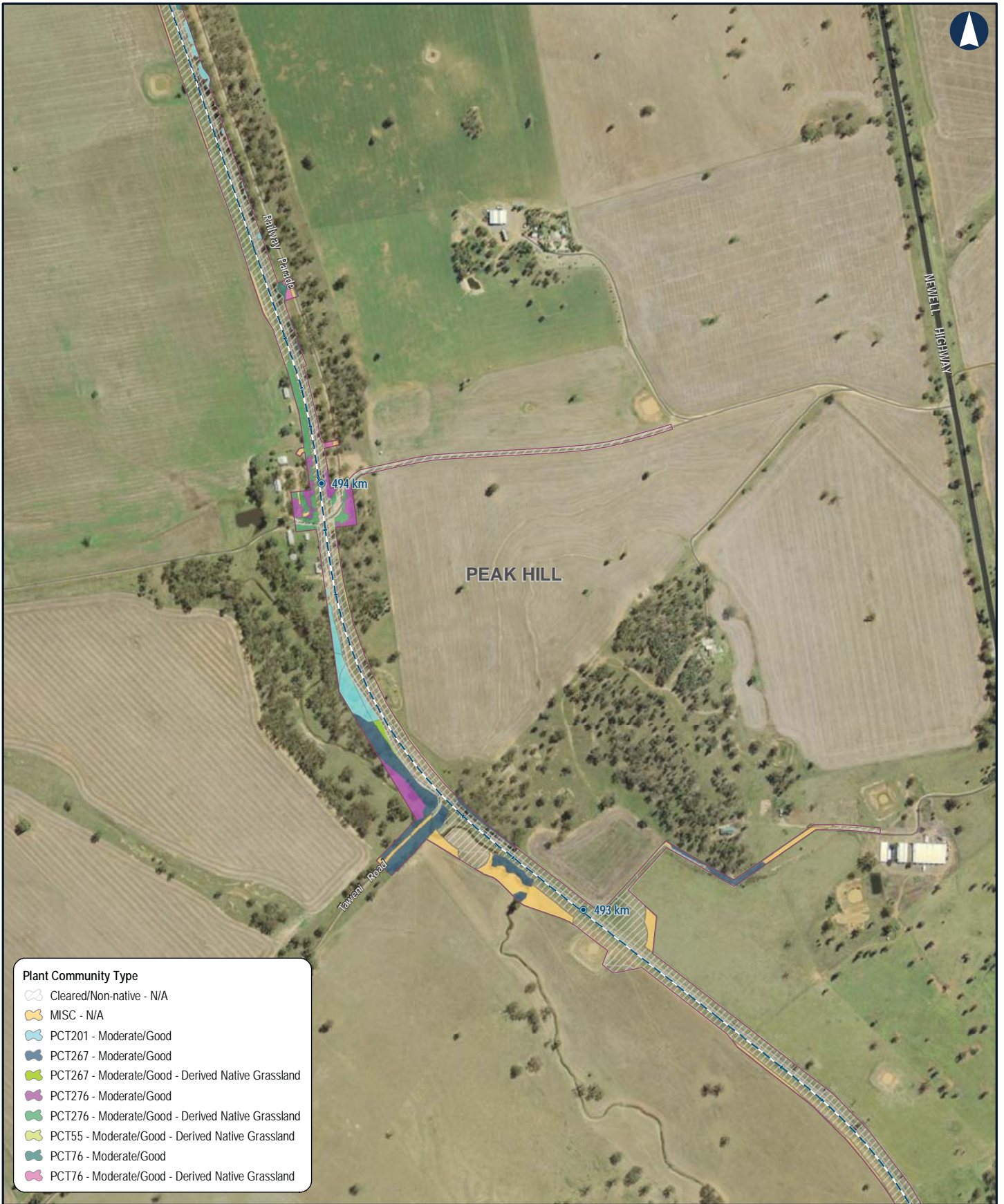
Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- - IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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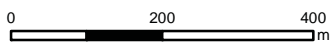
Plant Community Type

- Cleared/Non-native - N/A
- MISC - N/A
- PCT201 - Moderate/Good
- PCT267 - Moderate/Good
- PCT267 - Moderate/Good - Derived Native Grassland
- PCT276 - Moderate/Good
- PCT276 - Moderate/Good - Derived Native Grassland
- PCT55 - Moderate/Good - Derived Native Grassland
- PCT76 - Moderate/Good
- PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping

MAP 19 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

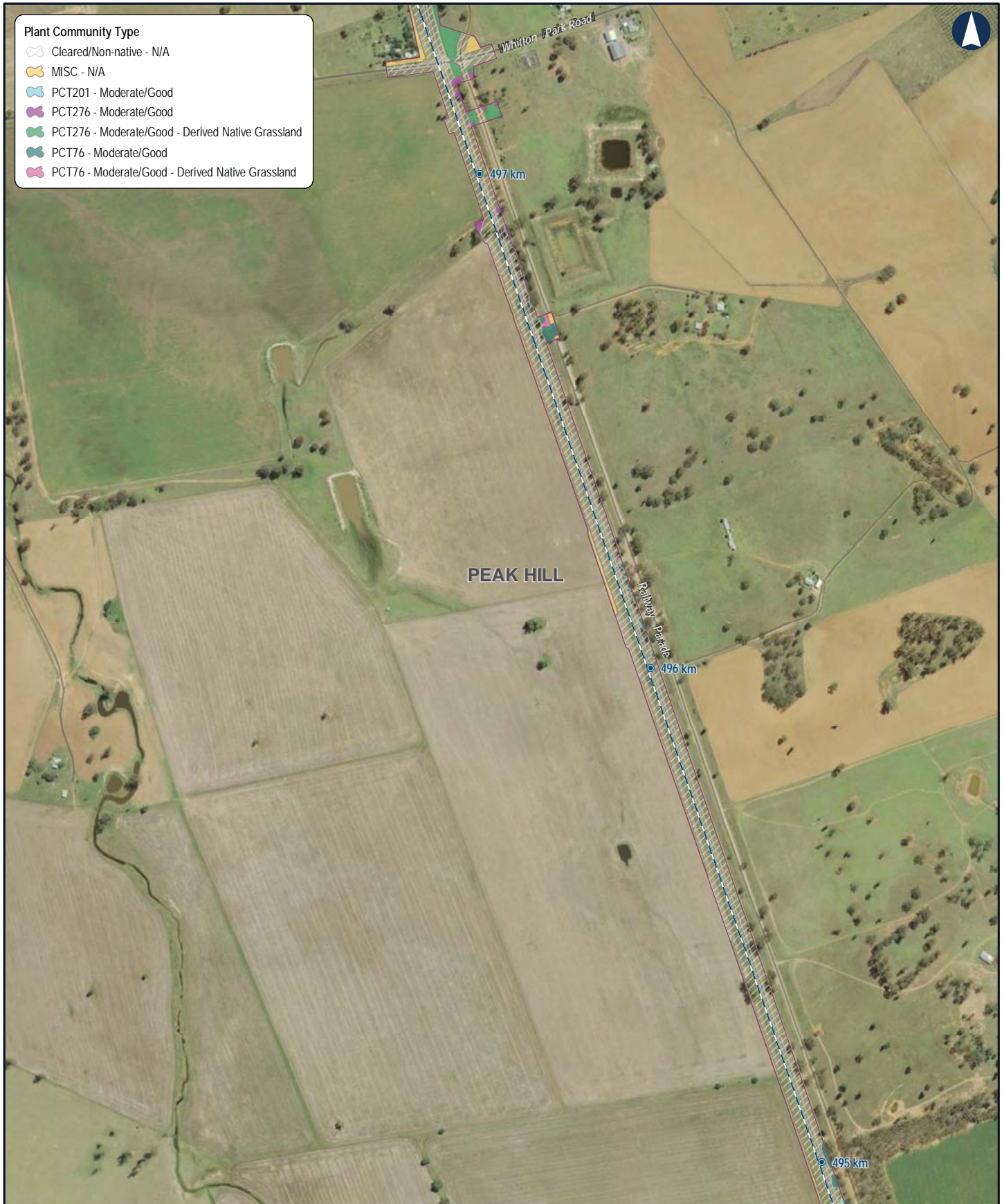
Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIJ Timjelly (Option 1) boundary
- Locality



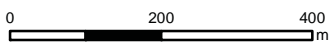
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



- Plant Community Type**
- Cleared/Non-native - N/A
 - MISC - N/A
 - PCT201 - Moderate/Good
 - PCT276 - Moderate/Good
 - PCT276 - Moderate/Good - Derived Native Grassland
 - PCT76 - Moderate/Good
 - PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping



Coordinate System: GDA 1994 MGA Zone 55

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Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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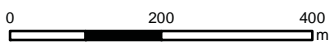


- Plant Community Type**
- Cleared/Non-native - N/A
 - MISC - N/A
 - PCT26 - Moderate/Good
 - PCT276 - Moderate/Good
 - PCT276 - Moderate/Good - Derived Native Grassland
 - PCT76 - Moderate/Good
 - PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping

MAP 21 OF 42



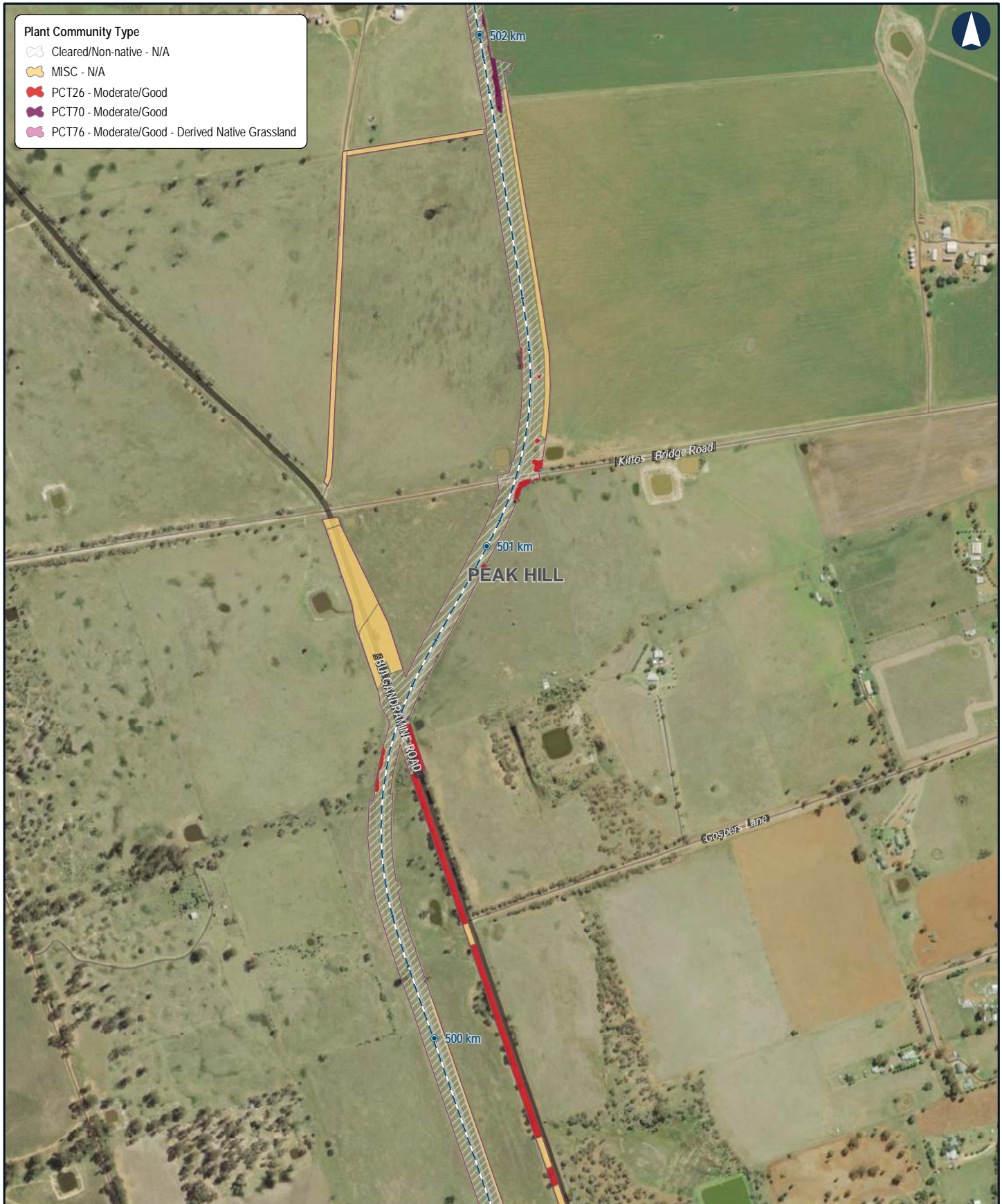
- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality

Coordinate System: GDA 1994 MGA Zone 55
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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000
 Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)



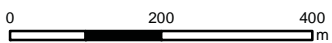
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PARKES TO NARROMINE

Vegetation Mapping

MAP 22 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- - IFC Alignment
- ⊕ CIZ Timjelly (Option 1) boundary
- ⊕ Locality



The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



Plant Community Type

- Cleared/Non-native - N/A
- MISC - N/A
- PCT276 - Moderate/Good
- PCT70 - Moderate/Good
- PCT76 - Moderate/Good
- PCT76 - Moderate/Good - Derived Native Grassland

TOMINGLEY

504 km

NARROMINE SHIRE COUNCIL

PARKES SHIRE COUNCIL

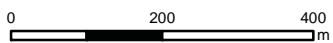
PEAK HILL

503 km

PARKES TO NARROMINE

Vegetation Mapping

MAP 23 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020 Paper: A4
Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)





- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality
- Local government area

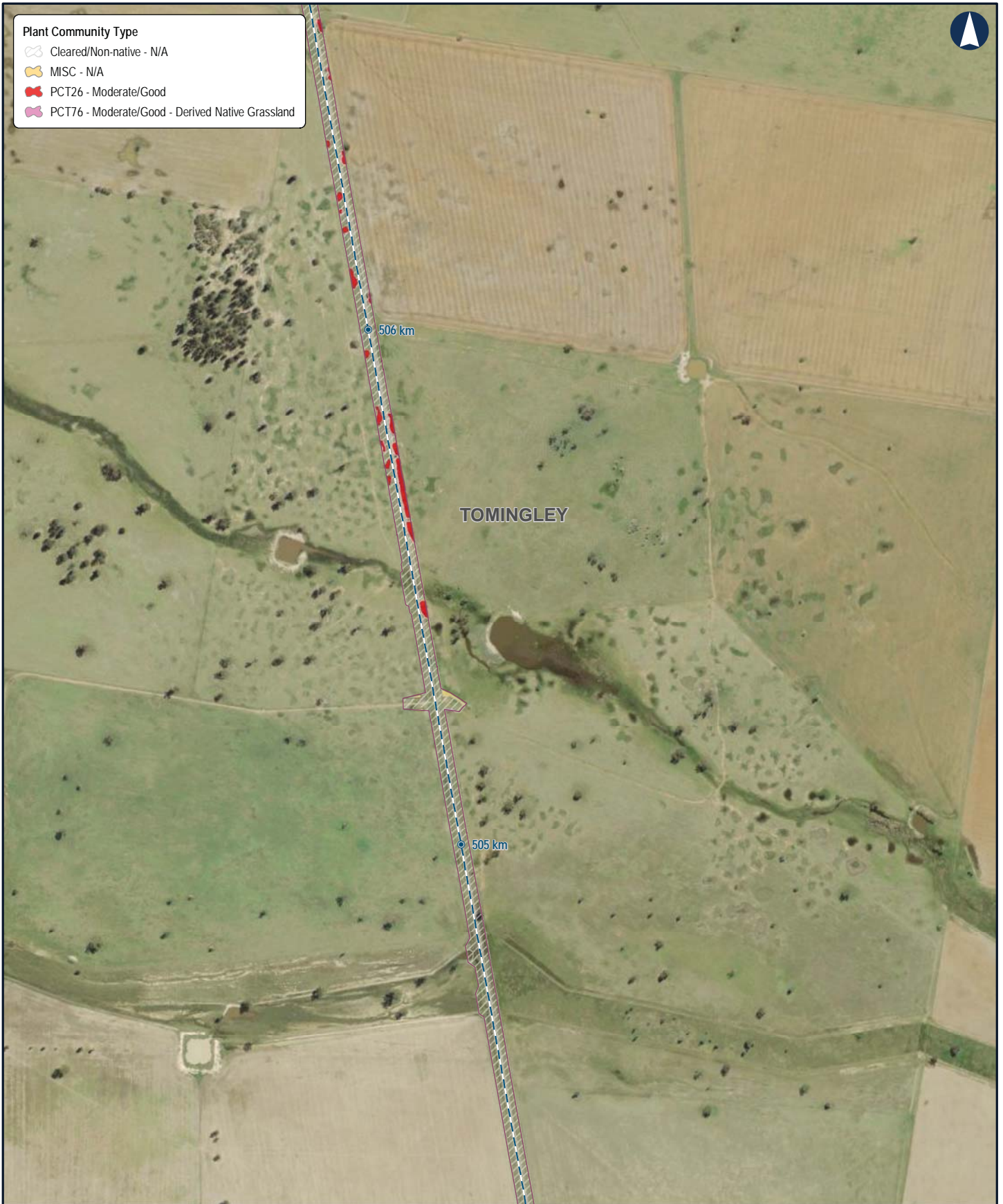


The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



Plant Community Type

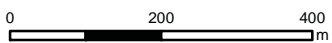
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT26 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 24 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)






-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality

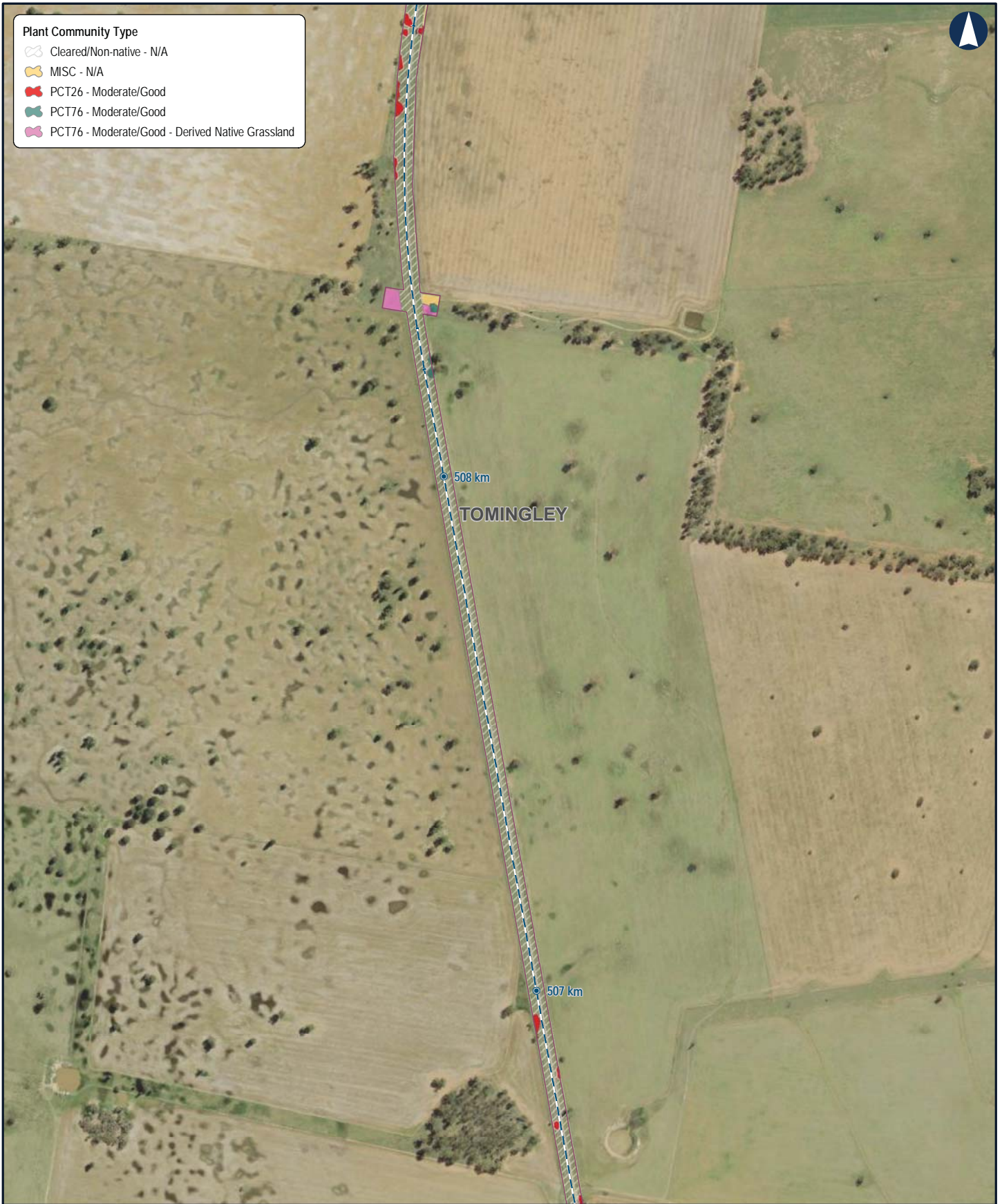


The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



Plant Community Type

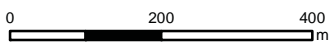
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT26 - Moderate/Good
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 25 OF 42







Coordinate System: GDA 1994 MGA Zone 55

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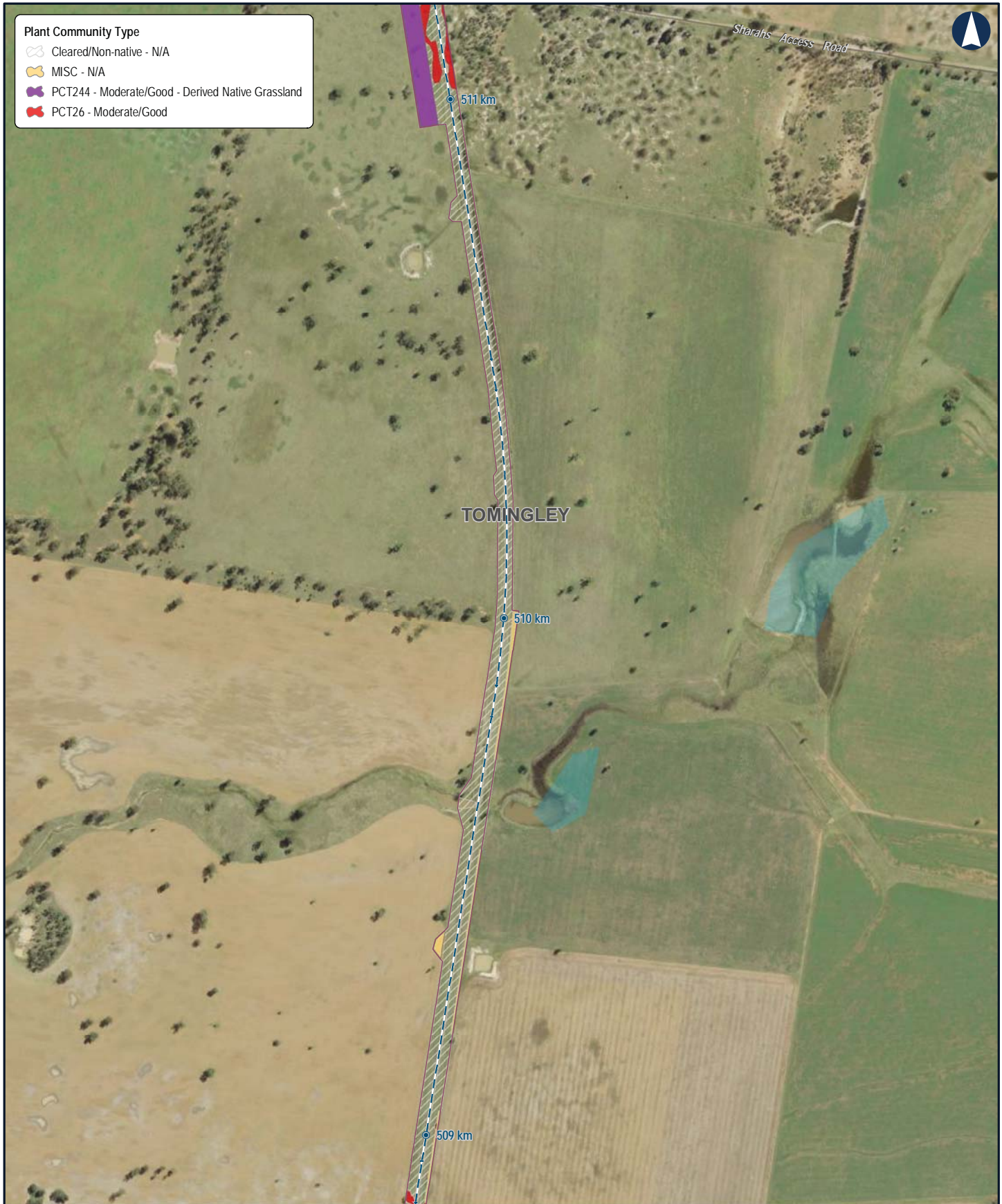
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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000
 Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



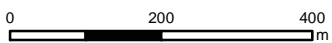
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PARKES TO NARROMINE

Vegetation Mapping

MAP 26 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)






- Chainage (1km)
- - IFC Alignment
- CIZ Timjelly (Option 1) boundary
- ⊞ Locality



The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



Plant Community Type

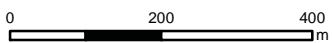
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT244 - Moderate/Good - Derived Native Grassland
-  PCT26 - Moderate/Good
-  PCT76 - Moderate/Good



PARKES TO NARROMINE

Vegetation Mapping

MAP 27 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



INLAND RAIL  **ARTC**

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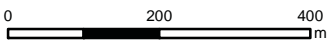
Plant Community Type

- Cleared/Non-native - N/A
- MISC - N/A
- PCT55 - Moderate/Good - Derived Native Grassland
- PCT76 - Moderate/Good
- PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping

MAP 28 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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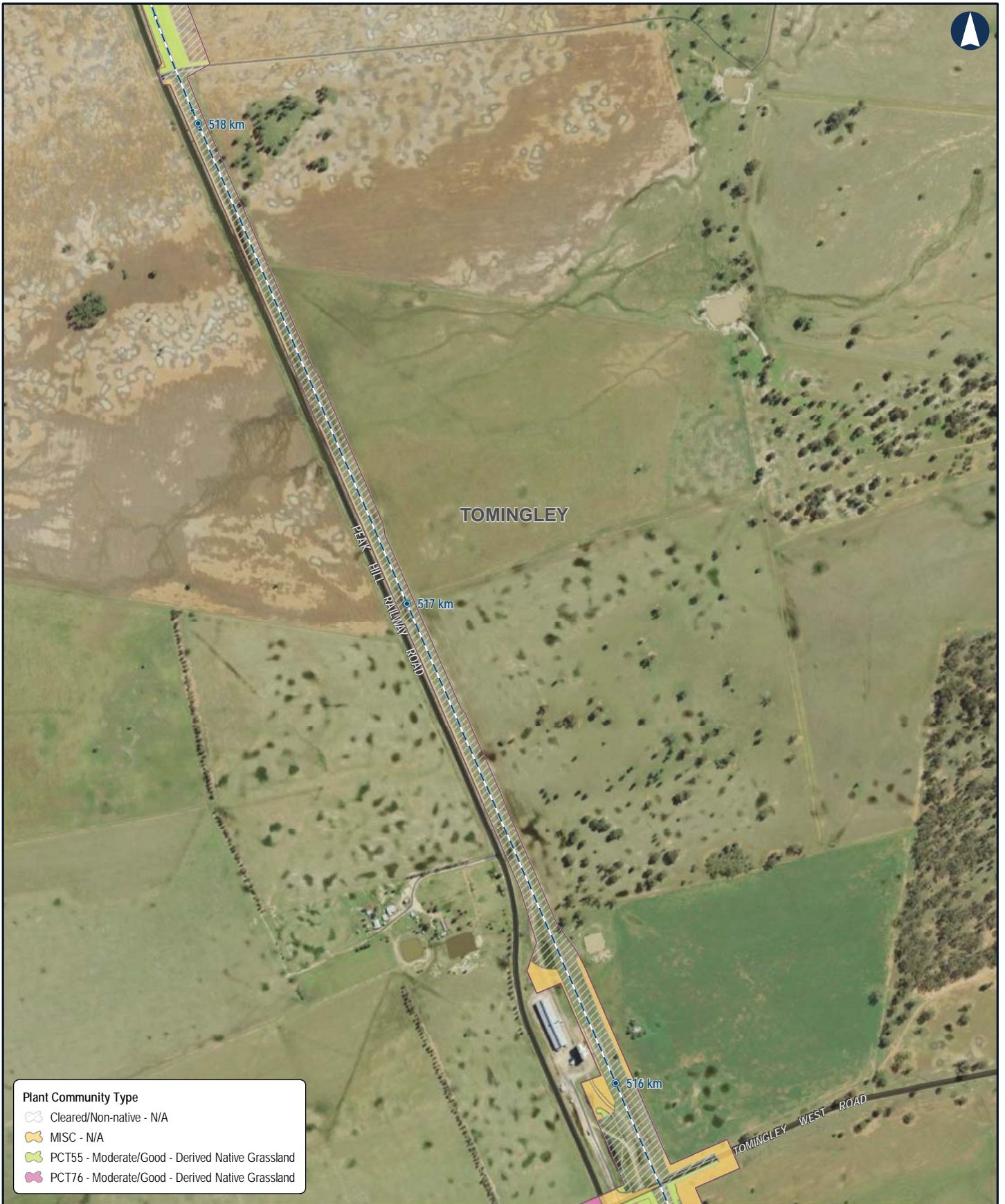
Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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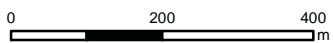


Plant Community Type	
	Cleared/Non-native - N/A
	MISC - N/A
	PCT55 - Moderate/Good - Derived Native Grassland
	PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping

MAP 29 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Paper: A4

Author: IR GIS

Scale: 1:10,000

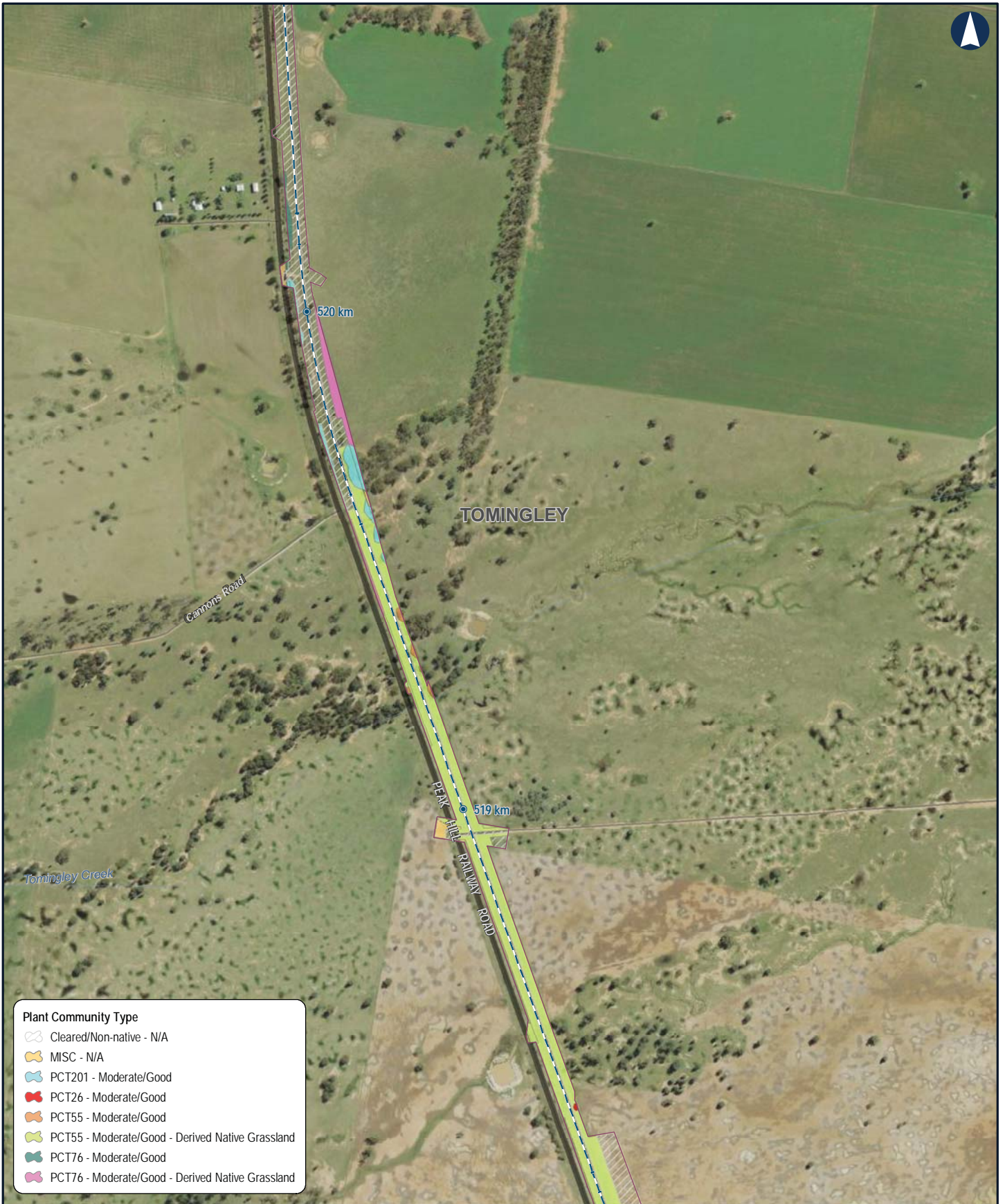
Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



INLAND RAIL **ARTC**

The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



Plant Community Type	
	Cleared/Non-native - N/A
	MISC - N/A
	PCT201 - Moderate/Good
	PCT26 - Moderate/Good
	PCT55 - Moderate/Good
	PCT55 - Moderate/Good - Derived Native Grassland
	PCT76 - Moderate/Good
	PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping

MAP 30 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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Plant Community Type

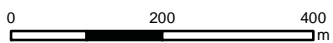
- Cleared/Non-native - N/A
- MISC - N/A
- PCT244 - Moderate/Good
- PCT244 - Moderate/Good - Derived Native Grassland
- PCT76 - Moderate/Good
- PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 31 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



INLAND RAIL **ARTC**

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Plant Community Type

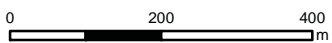
- Cleared/Non-native - N/A
- MISC - N/A
- PCT244 - Moderate/Good
- PCT244 - Moderate/Good - Derived Native Grassland
- PCT76 - Moderate/Good



PARKES TO NARROMINE

Vegetation Mapping

MAP 32 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Paper: A4

Author: IR GIS

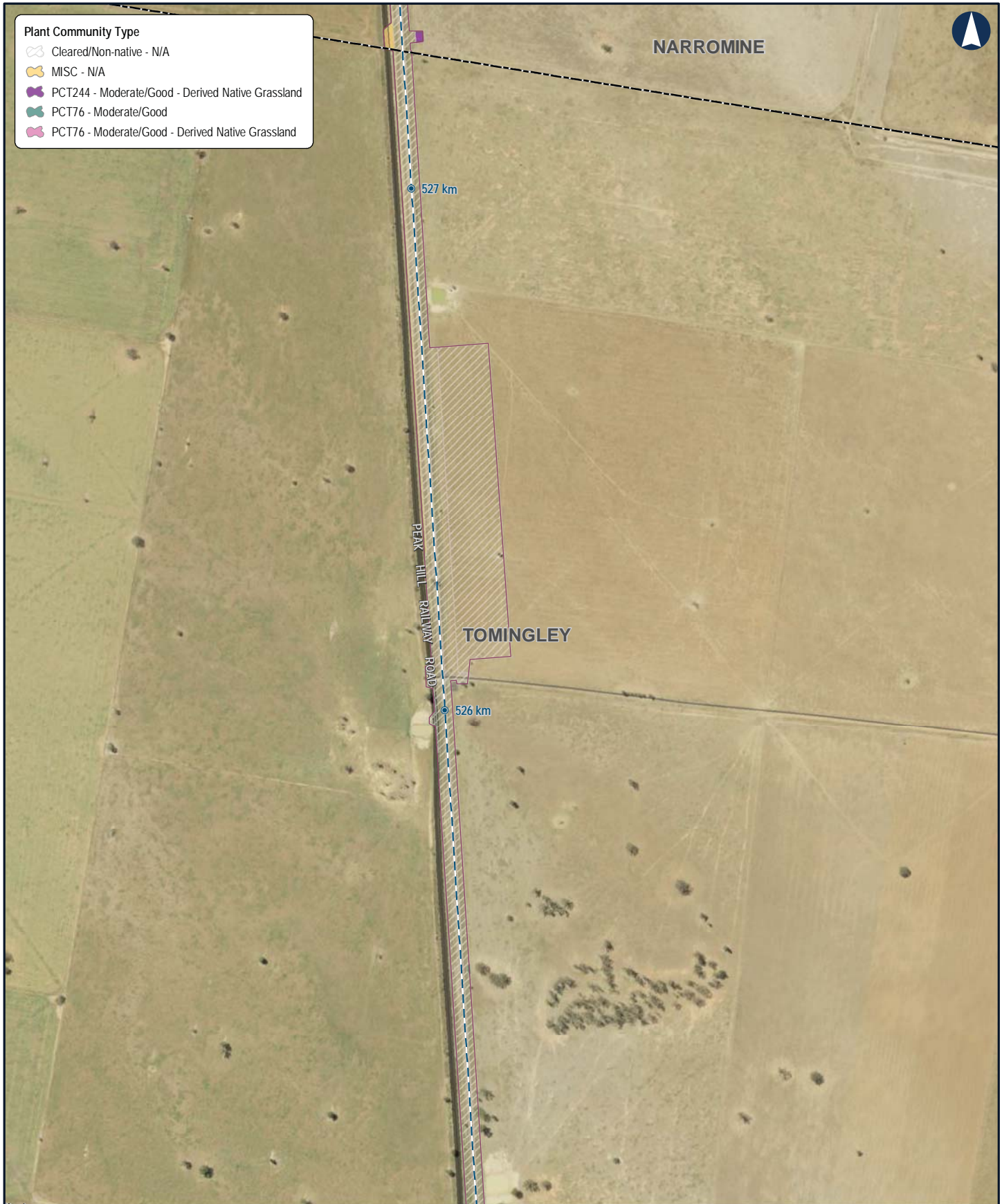
Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



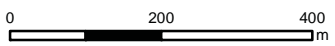
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



- Plant Community Type**
- Cleared/Non-native - N/A
 - MISC - N/A
 - PCT244 - Moderate/Good - Derived Native Grassland
 - PCT76 - Moderate/Good
 - PCT76 - Moderate/Good - Derived Native Grassland

PARKES TO NARROMINE

Vegetation Mapping



Coordinate System: GDA 1994 MGA Zone 55

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Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality

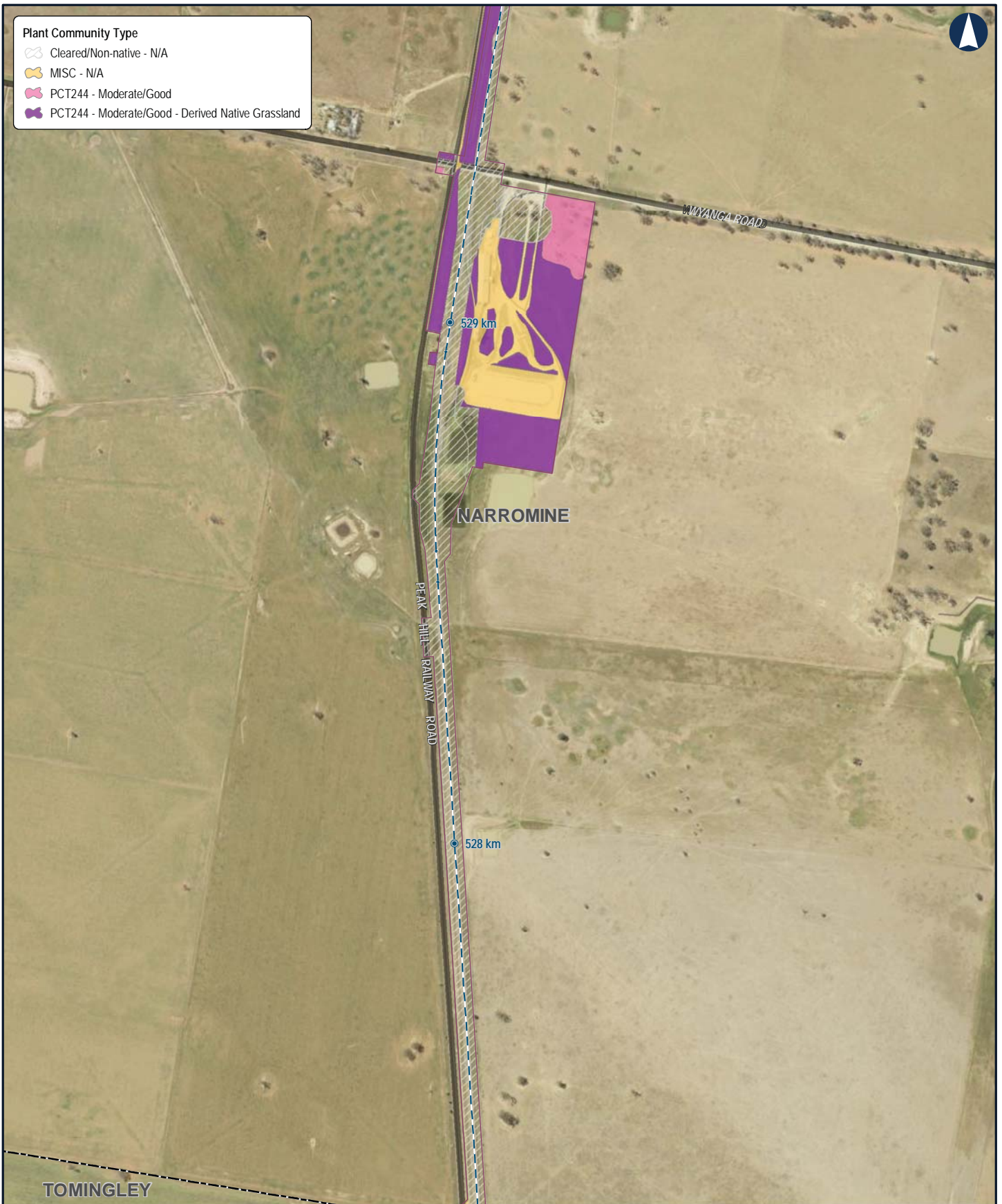


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Plant Community Type

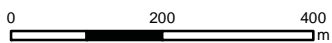
- Cleared/Non-native - N/A
- MISC - N/A
- PCT244 - Moderate/Good
- PCT244 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 34 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)







- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality

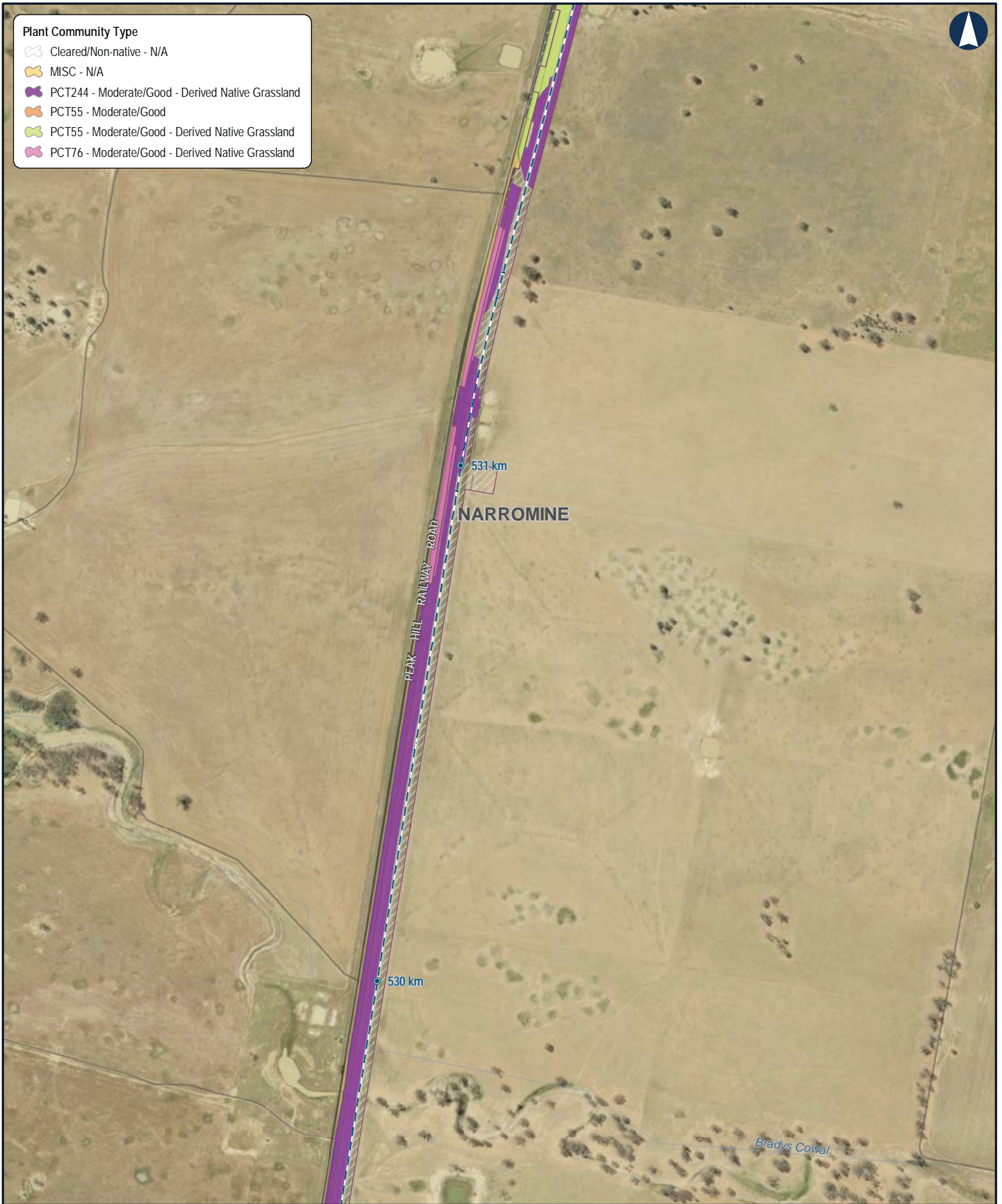


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Plant Community Type

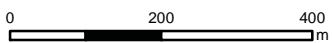
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT244 - Moderate/Good - Derived Native Grassland
-  PCT55 - Moderate/Good
-  PCT55 - Moderate/Good - Derived Native Grassland
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 35 OF 42







Coordinate System: GDA 1994 MGA Zone 55

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Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)








-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality

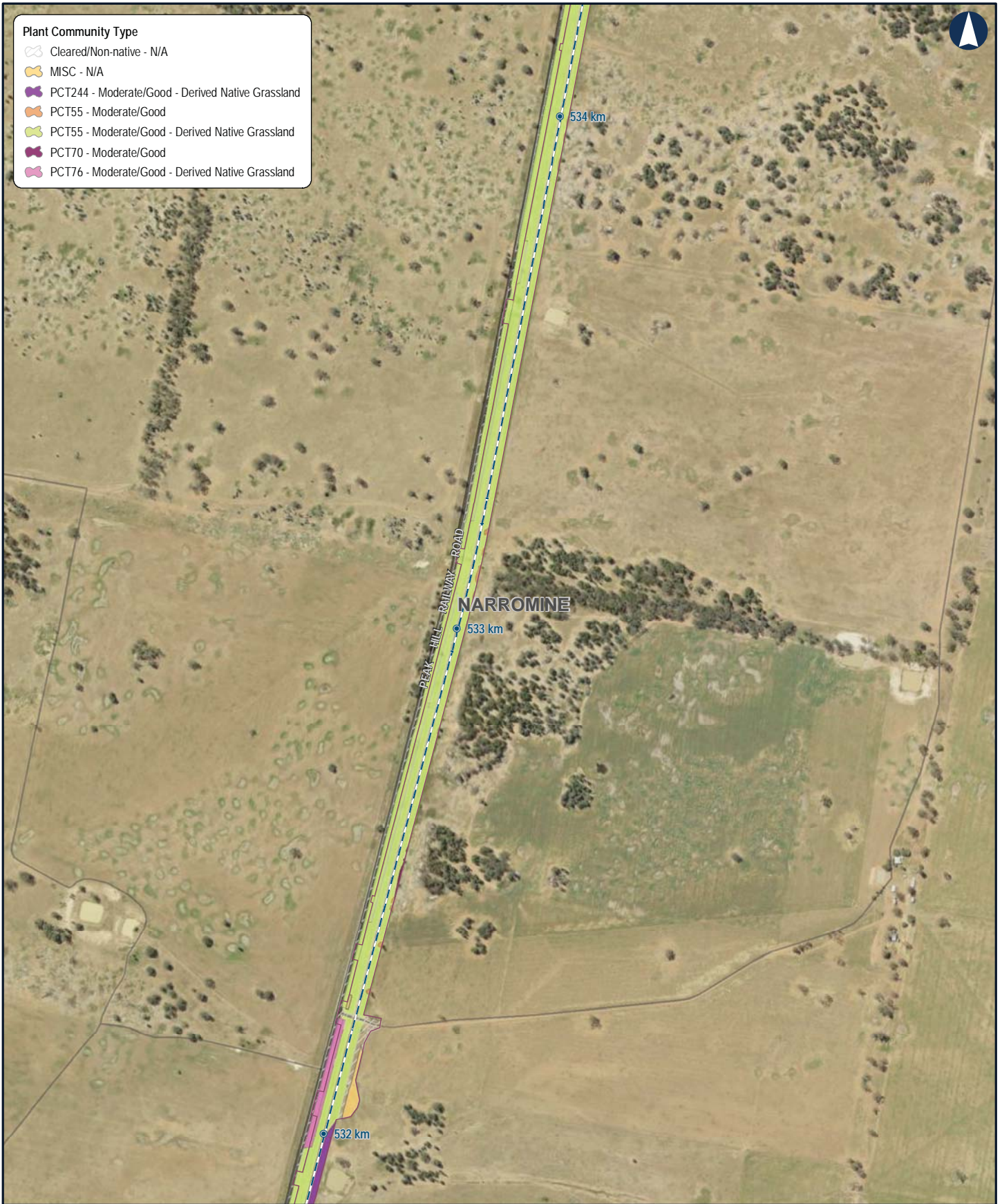


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Plant Community Type

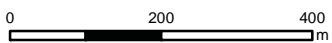
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT244 - Moderate/Good - Derived Native Grassland
-  PCT55 - Moderate/Good
-  PCT55 - Moderate/Good - Derived Native Grassland
-  PCT70 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 36 OF 42







Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020 Paper: A4
 Author: IR GIS Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)






-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality

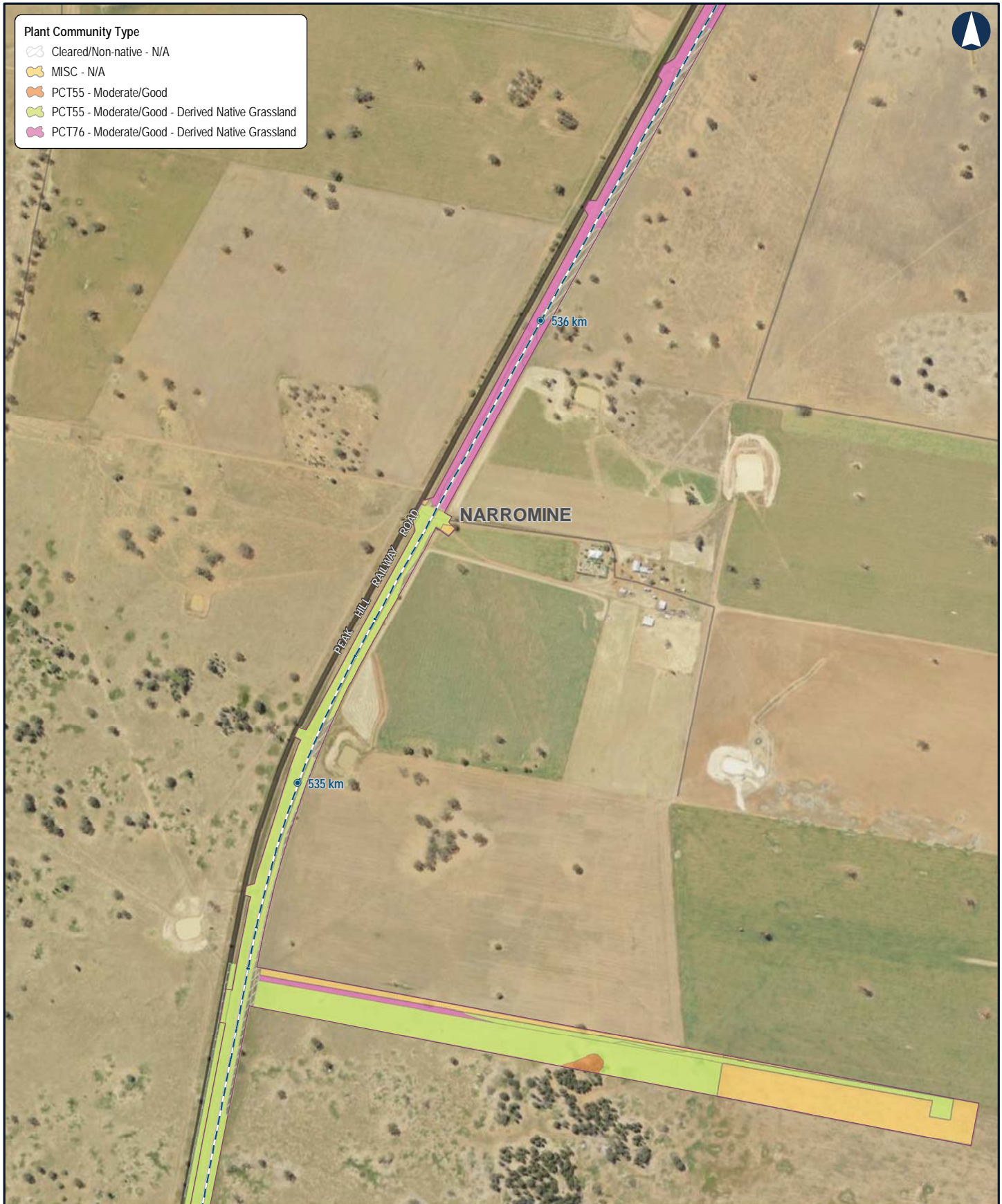


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Plant Community Type

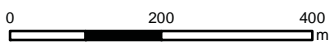
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT55 - Moderate/Good
-  PCT55 - Moderate/Good - Derived Native Grassland
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 37 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000







Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

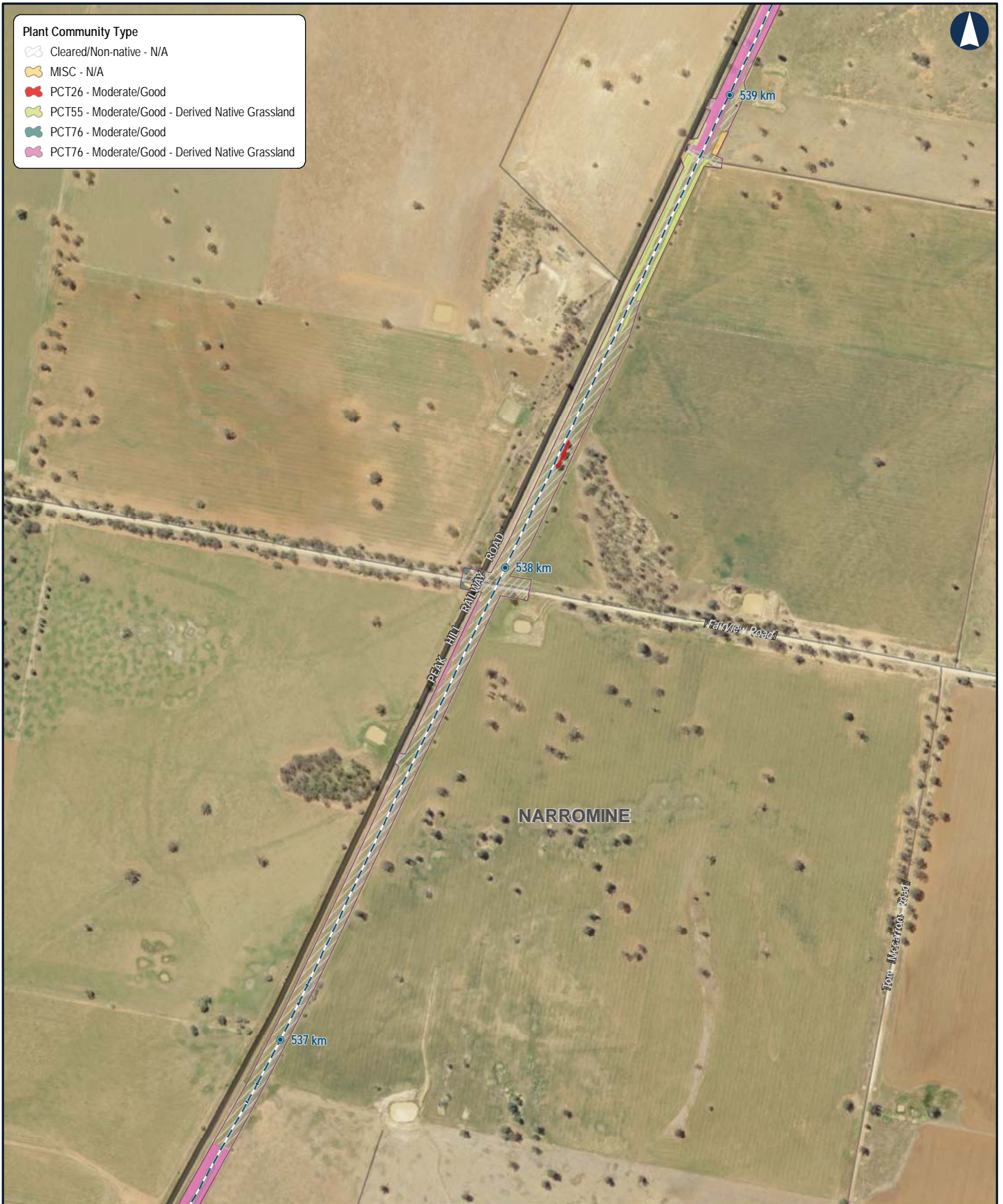
-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

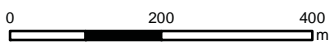
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT26 - Moderate/Good
-  PCT55 - Moderate/Good - Derived Native Grassland
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 38 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality

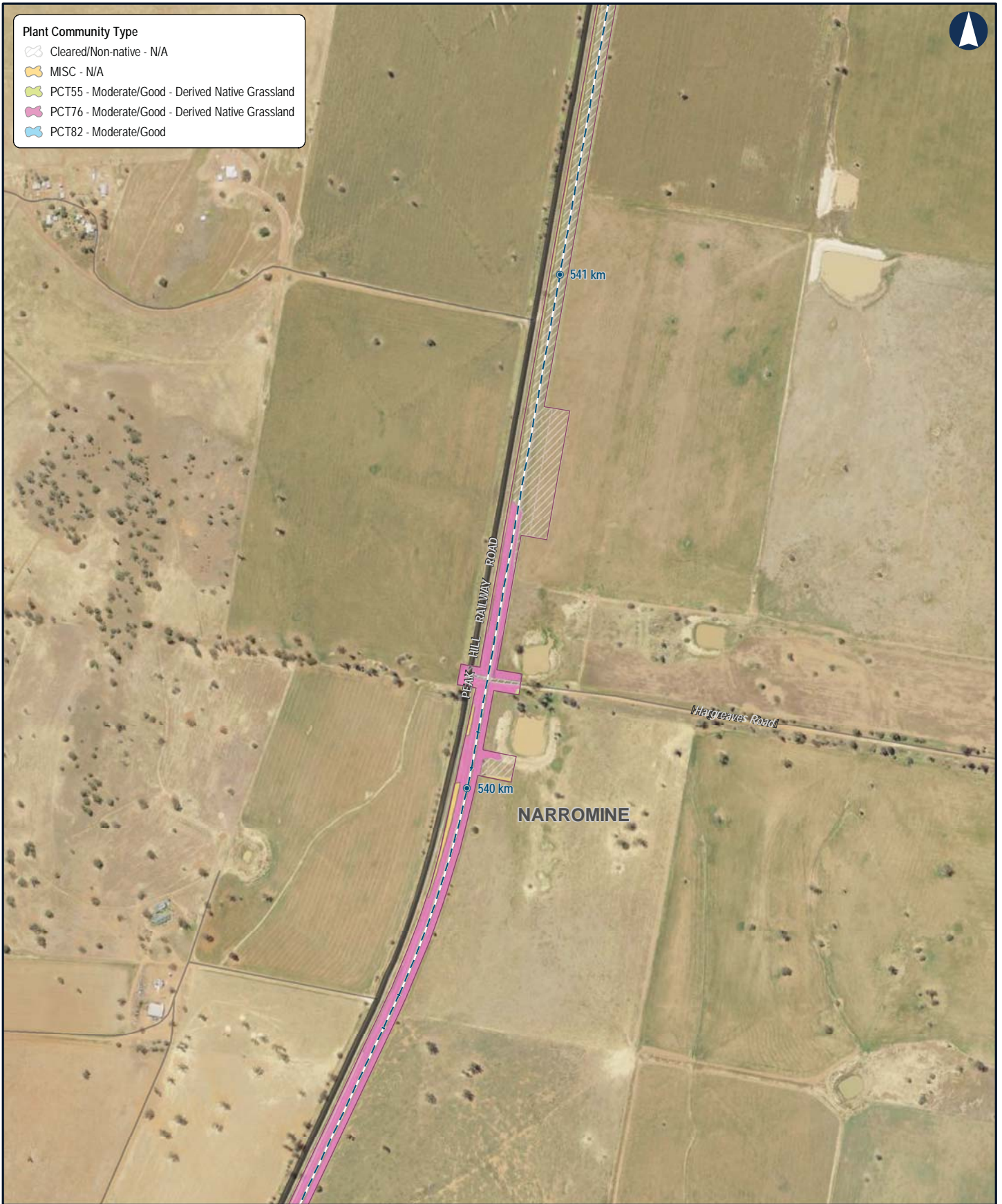


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Plant Community Type

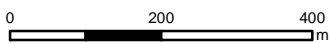
- Cleared/Non-native - N/A
- MISC - N/A
- PCT55 - Moderate/Good - Derived Native Grassland
- PCT76 - Moderate/Good - Derived Native Grassland
- PCT82 - Moderate/Good



PARKES TO NARROMINE

Vegetation Mapping

MAP 39 OF 42



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Date: 06/02/2020 Paper: A4
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Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)




- Chainage (1km)
- IFC Alignment
- CIZ Timjelly (Option 1) boundary
- Locality



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Plant Community Type

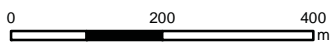
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 40 OF 42



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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)




-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality



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Plant Community Type

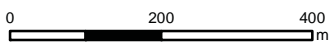
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT26 - Moderate/Good



PARKES TO NARROMINE

Vegetation Mapping

MAP 41 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)





-  Chainage (1km)
-  IFC Alignment
-  CIZ Timjelly (Option 1) boundary
-  Locality

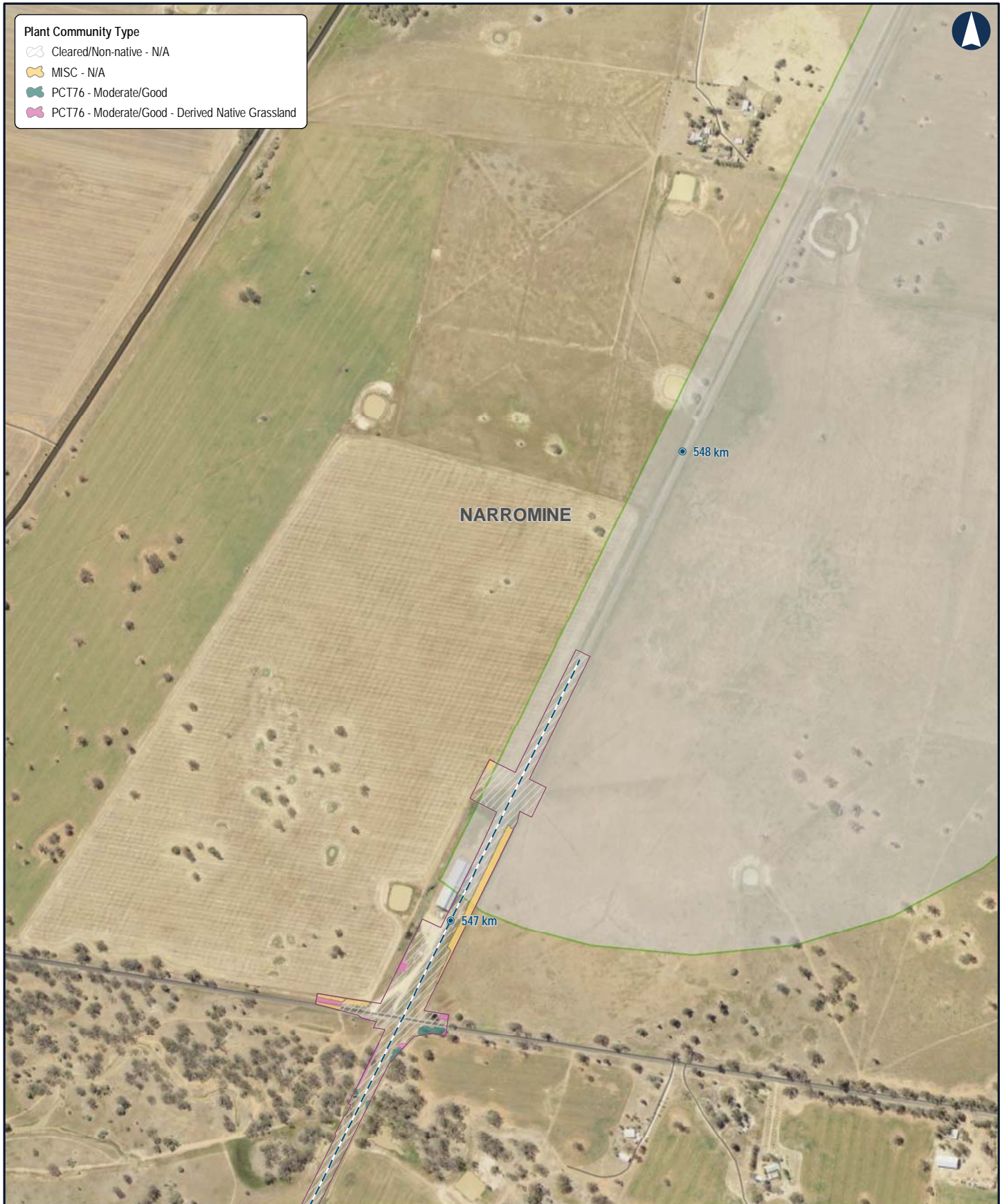


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Plant Community Type

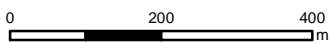
-  Cleared/Non-native - N/A
-  MISC - N/A
-  PCT76 - Moderate/Good
-  PCT76 - Moderate/Good - Derived Native Grassland



PARKES TO NARROMINE

Vegetation Mapping

MAP 42 OF 42



Coordinate System: GDA 1994 MGA Zone 55

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Date: 06/02/2020

Paper: A4

Author: IR GIS

Scale: 1:10,000

Data Sources: Imagery - Spatial Services (NSW Department of Finance and Services)

-  Chainage (1km)
-  IFC Alignment
-  Study Area
-  CIZ Timjelly (Option 1) boundary
-  Locality



The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.



Attachment F
Evidence of Consultation

TRANSPORT
LINK

Roisin Feeney

Senior Environment Advisor – Parkes to Narromine Project
Inland Rail, ARTC
Level 16, 180 Ann Street
Brisbane QLD 4000
RFeeney@artc.com.au

WolfPeak Pty Ltd

Suite 2 | Level 10
189 Kent Street
Sydney 2000

Inland Rail - Parkes to Narromine (SSI 7475)

ER approval of minor revisions to CEMP & Sub Plans

Dear Roisin,

Condition of Approval (CoA) A19 (j) provides the Environmental Representative (ER) with the authority to approve minor amendments to the Construction Environmental Management Plan (CEMP) and its sub plans prepared under Conditions C1 & C2 (CEMP), and C4 (sub plans) of the Project Approval (SSI 7475) for the Parkes to Narromine Inland Rail Project.

I have reviewed the changes in the following revisions to the CEMP and sub plans and consider that they are minor amendments of an updating or administrative nature and are consistent with the CoA and versions of the CEMP and sub plans approved by the Secretary of the Department of Planning, Infrastructure and Environment.

Therefore, in accordance with the provisions of CoA A19 (j), I approve the following revisions to the CEMP and sub plans:

- CEMP, Revision 4, 28 January 2020;
- Waste Management Plan, Revision 3, 10 January 2020;
- Heritage Management Plan, Revision 3, 9 January 2020;
- Hazardous and Contaminated Materials Management Plan, Revision 2, 2 December 2019;
- Flora and Fauna Management Plan, Revision 5, 6 February 2020;
- Primary Erosion and Sediment Control Plan, Revision 2, 16 November 2019;
- Landscape and Visual Amenity Management Plan, Revision 3, 9 January 2020; and
- Flood Emergency Management Plan, Revision 1, 30 September 2019.



Should you have any queries or require further information please do not hesitate to contact me on 0417 170 645 or at sfermio@wolfpeak.com.au

Yours sincerely,



Steve Fermio

Environmental Representative – Parkes to Narromine Project

25 February 2020



Table F1 – Details of Consultation

Agency	Requirement	Items Raised	Response	Date
Parkes Shire Council	Consultation (Completed)	Presentation provided to Council on Inland Rail and Council consultation	<ul style="list-style-type: none"> N/A 	21 August 2018
Narromine Shire Council	Consultation (Completed)	Presentation provided to Council on Inland Rail and Council consultation	<ul style="list-style-type: none"> N/A 	21 August 2018
Parkes Shire Council	Consultation (Completed)	<ul style="list-style-type: none"> ARTC asked Parkes Shire Council for comment on the FFMP Offered a meeting to discuss the FFMP and other upcoming plans related to work on the P2N 	<ul style="list-style-type: none"> N/A 	14 September 2018
Narromine Shire Council	Consultation (Completed)	<ul style="list-style-type: none"> ARTC asked Narromine Shire Council for comment on the FFMP Offered a meeting to discuss the FFMP and other upcoming plans related to work on the P2N 	<ul style="list-style-type: none"> N/A 	14 September 2018
OEH	Consultation (Completed)	<ul style="list-style-type: none"> ARTC asked OEH for comment on their FFMP Offered a meeting to discuss the FFMP and other upcoming plans related to our work on the P2N 	<ul style="list-style-type: none"> N/A 	17 September 2018
Parkes Shire Council	Consultation (Completed) Only FFMP related comments have been included	<ul style="list-style-type: none"> Supported No specific comments were provided 	<ul style="list-style-type: none"> N/A 	26 September 2018
OEH	Consultation	<ul style="list-style-type: none"> Biodiversity objectives and performance criteria require clarification Use of salvaged hollows may need to be reconsidered Biodiversity impacts identified in Section 4.4 - 4.5 should be updated and clarified Handling of microbats should be kept to a minimum Installation of microbat habitat boxes on new bridges should be considered Clarity to the FFMP Address items in Pest and Weed Management Plan 	<ul style="list-style-type: none"> Section 2 of FFMP has been updated Removal of hollows will be identified in conjunction with the Project Ecologist Biodiversity impacts identified in Section 4.4 - 4.5 have been updated and clarified Wording around handling of microbats changed as per OEHs suggestion Placement of nest boxes will be identified in conjunction with the Project Ecologist Updated as per 	2 October 2018

Agency	Requirement	Items Raised	Response	Date
		relating to Hygiene control.	<p>OEHs suggestions</p> <ul style="list-style-type: none"> Hygiene protocol has been updated in Section 5.3 of the PWMP and included as Section 5.3 of the FFMP. 	
OEH	Consultation	<ul style="list-style-type: none"> Follow up with OEH on previous management plan updates and response approaches 	<ul style="list-style-type: none"> Emails sent to OEH on 18 and 19 December 	18, 19 December 2018
OEH	Consultation	<ul style="list-style-type: none"> Additional comments received from OEH on revised FFMP and PWMP 	<ul style="list-style-type: none"> FFMP and PWMP updated to address comments with details provided in Table F2. 	31 January 2019
Narrromine Shire Council	Consultation (Completed)	<ul style="list-style-type: none"> Minor formatting, wording and date changes No reference to finds of Aboriginal Heritage such as scar trees during pre-clearance surveys or under unexpected finds 	<ul style="list-style-type: none"> Sections changed accordingly N/A – This issue is not related to flora and fauna management but will be included in the HMP 	8 October 2018
ARTC to Parkes Shire Council	Consultation (Completed)	ARTC responded to comments from Parkes Shire Council on other management plans. However, there were none for the FFMP.	<ul style="list-style-type: none"> N/A 	15 October 2018
ARTC to Narrromine Shire Council	Consultation (Completed)	<ul style="list-style-type: none"> ARTC responded to comments from Narrromine Shire Council Offered monthly construction briefings Offered tour of the Inland Rail P2N construction site 	<ul style="list-style-type: none"> N/A 	2 November 2018
DP&E	Approval (Pending)	Comments on the FFMP were received on 14 November 2018	<ul style="list-style-type: none"> FFMP was reviewed and comments addressed in Revision H 	14 November 2018
ER	Endorsement (Completed)	No comments	<ul style="list-style-type: none"> Letter of endorsement 	14 November 2018

Table F2 - Responses to OEH comments of 25 Jan 2019

Flora and Fauna Management Plan

Section	Issue / Description raised	Comments by	Response / Date	Date
Section 2.1	OEH notes that the biodiversity targets have been moved from section 5.10 to section 2.2 in the revised FFMP. However, the wording of the third dot point in section 2.1 still lacks clarity. It is suggested this sentence could be reworded to "... to that approved by the EPBC Act controlled action approval (EPBC 2016/7731) and the EP&A Act infrastructure approval (SSI 7475)".	OEH	The sentence has been reworded as advised in Section 2.1.	29-Jan-19
Section 2.2	It appears that the "SEARS desired performance outcomes" in Table 2-1 relate to those included in Table 7.4 of the Submissions Report. This reference should be included in the text in section 2.2. OEH is satisfied that the biodiversity objectives listed in section 2.1 will form adequate objectives to measure performance against.	OEH	The reference has been included in the text in Section 2.2.	29-Jan-19
Section 4.4	OEH notes the addition of Table 4-1. The text added to section 4.4 requires editing. It is suggested that as a minimum the second sentence (starting with "Table 4-1 impacts....") be deleted.	OEH	The second sentence starting with "Table 4-1 impacts..." has been deleted.	29-Jan-19
Section 4.5	The last dot point in Section 4.5 should state "DoEE" rather than "DP&E".	OEH	"DP&E" has been replaced with "DoEE" in the last dot point.	29-Jan-19
General	OEH note that ARTC is not pursuing the implementation of bat structures on new bridges. OEH will be interested in the installation of any bat boxes during the construction works and the subsequent monitoring outcomes.	OEH	ARTC will keep OEH abreast of any design changes that involve the inclusion of bat boxes and subsequent monitoring. This is not included in this FFMP as there is no current provision in the design for bat boxes.	29-Jan-19
General	Ensure consistency throughout the document when referring to "DPE" or "DP&E".	OEH	Instances of DPE have been changed to DP&E to ensure consistency.	29-Jan-19
Section 1.1	There are currently two section 1.1s. Heading numbering should be reviewed.	OEH	Heading numbers were amended where Section 1.1 corresponds to "Purpose" and Section 1.2 corresponds to "Area of Disturbance". Table of Contents have been updated to reflect these changes.	29-Jan-19
Section 1.1	Section 1.1 (Purpose) states that threatened species and EECs were assessed under the BC Act. This is incorrect. OEH suggests that the final sentence of the first paragraph either refers to assessment under the Framework for Biodiversity Assessment, or simply refers to the NSW infrastructure approval under the EP&A Act (SSI 7475).	OEH	The final sentence of the first paragraph now refers to NSW infrastructure approval under the EP&A Act (SSI 7475).	29-Jan-19
Section 1.1	Similarly, the second paragraph of section 1.1 is unnecessary. OEH suggests it could be deleted, or at least the first sentence could be changed from "...is being assessed..." to "...was assessed...".	OEH	The first sentence has been changed from "...is being assessed" to "...was assessed".	29-Jan-19
Section 2.1	An additional dot point is required for the objective relating to the works exclusion fencing currently included in section 2.1 dot point 6.	OEH	The 6th dot point in 2.1 has been split into two.	29-Jan-19
Section 3.2	Section 3.2 – delete second dot point.	OEH	The second dot point has been deleted.	29-Jan-19
Section 3.4	The text in section 3.4 in the paragraph immediately before Table 3-1, does not relate to Table 3-1. Although not stated, it is assumed "CoA E15" refers to condition E15 in the NSW infrastructure approval (SSI 7475), however it is not clear how E15 then relates to condition A5 in Table 3-1. OEH suggests that the text in section 3.4 is reviewed and amended. Simply reinstating the text in section 3.4.1 of version B of the Flora and Fauna Management Plan may be a feasible option.	OEH	Additional text has been included in Section 3.4 to address that the table outlines the compliance requirements relevant to INLink's construct-only scope of work for Inland Rail P2N.	29-Jan-19
Table 3.2	Table 3-2 – Ref ID EPBC CoA2 – should the table refer to FFMP Table 4-1 as stated, or should it refer to section 4.5?	OEH	Ref ID: EPBC CoA 2 has been amended to refer to Section 4.5.	29-Jan-19
Table 3-3	OEH assumes that D3.1-D3.6 in Table 3-3 refers to Table 7.1, and C3.1-C3.3 in Table 3-3 refers to Table 7.2 respectively of the main report of the Response to Submissions document. This reference should be clearly stated in the text or the table.	OEH	The reference to the Response to Submission has been stated in the text.	29-Jan-19
Table 3.4	It is unclear which document the Construction Environmental Management Framework Requirements in Table 3-4 refer to. The cross-reference should be clearly stated in the text in section 3.6.	OEH	Section 3.6 has been updated to clarify the source of CEMF and its requirements. ARTC's Inland Rail Phase 3 Parkes to Narromine Construction Environmental Management Framework (3-2400-0001-ECC-PL-0001).	31-Jan-19

Table F2 - Responses to OEH comments of 25 Jan 2019

Table 3.5	OEH notes that the consultation with OEH in Table 3-5 is "completed". Details of this letter must be added to the table. Section 3.7 should refer to the evidence of consultation included in Appendix E.	OEH	Table 3-5 has been updated to include reference the letter with comments from OEH dated 25 Jan 2019. Details of responses are provided here in Table F2, Attachment F.	31-Jan-19
Section 4.1	Is the reference to section 4.5 (Biodiversity EPBC Act) in the second paragraph of section 4.1 correct, or should it refer to section 4.6 (Aquatic Ecosystems)?	OEH	The reference to Section 4.5 was incorrect and therefore has been deleted.	29-Jan-19
Section 5.1	Section 5.1 states "Clearance surveys should identify the flora and fauna species contained within the clearance area to confirm offset liabilities". OEH is unsure of why this confirmation of offset liabilities is required. OEH suggests that this sentence be deleted.	OEH	The sentence has been deleted.	29-Jan-19
Section 5.6	The cross-referencing error message in section 5.6 should be addressed. It is likely the text should refer to Table 5-1.	OEH	The text has been cross-referenced to Table 5-1.	29-Jan-19
Table 5-1 FF29	FF29 in Table 5-1 states that salvaged hollows will be maintained in host trees during construction. The FFMP currently does not state what is proposed for the hollows postconstruction. The FFMP should clearly state how long the hollows will be monitored and maintained.	OEH	This FFMP deals with INLink's scope of work - construction of Inland Rail Parkes to Narromine, as such monitoring and maintenance of hollow post construction will be managed by ARTC separately.	31-Jan-19
Section 5.6	It is unclear as to why section 5.6 (Construction Monitoring Program) has been deleted from the revised FFMP. Some of the content has been incorporated into section 5.6 (Additional Impact Assessments) of the revised FFMP, however it is suggested that the first three paragraphs of section 5.6 in version B of the FFMP be reinstated.	OEH	The first three paragraphs of section 5.6 in version B of the FFMP have been reinstated into section 5.6.	29-Jan-19
General	OEH recommends that the document is thoroughly reviewed to ensure that the language is consistent, the document is grammatically correct, and the content is correct and logical.	OEH	The document has been reviewed to ensure it is consistent.	31-Jan-19

Table F2 - Responses to OEH comments of 25 Jan 2019

Pest and Weed Management Plan

Section	Issue / Description raised	Comments by	Response / Date	Date
Section 5.9	OEH notes that the performance criteria outlined in section 5.9 of version B of the PWMP have been deleted from version F of the plan. OEH suggests that they be reinstated. Similarly, C5(a) in Table 3-1 in the revised plan states that environmental performance targets are outlined in section 2.2, however there is no section 2.2 in the plan.	OEH	The performance criteria has been reinstated in Section 5.9. The reference to Section 2.2 in C5(a) in Table 3-1 has been amended to Section 5.9.	30-Jan-19
Table 3.1	Table 3-1 in the revised PWMP has been substantially amended compared to version B of the plan. OEH suggests that items A5 and A5(a)-A5(e) could be removed from the revised plan as these issues all relate to the FFMP, and they have been addressed appropriately in that plan.	OEH	The items A5 and A5(a)-A5(e) have been removed from the table.	30-Jan-19
Table 3.2	Table 3-2 refers to D10.7 in the mitigation measures in the Response to Submissions. However, the (incorrect) reference to Table 27.3 (that was included in version B of the plan) has been removed from the table. The correct reference to Table 7.1 in the Submissions Report should be included in the revised PWMP.	OEH	The correct reference to Table 7.1 has been made.	30-Jan-19
Table 3.4	Table 3-4 states that consultation has been completed with OEH. The table should be updated to reflect this correspondence provided by OEH and any response that will be provided by ARTC.	OEH	Table 3-4 has been updated to include reference the letter with comments from OEH dated 25 Jan 2019. Details of responses are provided here in Table F2, Attachment F of the FFMP.	31-Jan-19
Section 4.1.3	Section 4.1.3 states that nine invasive pest species were identified as possibly occurring in the project area. The PWMP should clarify that it is the feral form of the goat, cat, dog and pig that this section of the plan is referring to. In addition, sheep are not generally considered to be an invasive pest species.	OEH	The animals were clarified with its reference to the feral form. Sheeps have been removed from the list.	30-Jan-19
Section 5.1	Section 5.1 discusses pest management. This section is extremely succinct and provides no detail regarding the pest animals that are proposed to be managed (if and when necessary), the type of control methods that would be considered, the communication that will be undertaken with neighbouring landholders, or the monitoring and reporting that will be undertaken if control is pursued. OEH suggests that this section be updated.	OEH	Section 5.1 Pest management has been expanded to address control methods as well as monitoring and reporting.	31-Jan-19
Table 5.1	PW17 in Table 5-1 should be amended to read "Documentation will be maintained for all pest animal and weed control activities and will include requirements for....."	OEH	The sentence has been amended as advised.	30-Jan-19

EVIDENCE OF CONSULTATION

Inland Rail Parkes to Narromine Project – Flora and Fauna Management Plan

Initial Engagement with Stakeholder

From: Nelson Wallis
Sent: Friday, 14 September 2018 2:15 PM
To: Anna Wyllie
Cc: Sam Blanco; council@parkes.nsw.gov.au
Subject: ARTC Inland Rail Flora and Fauna Management Plan
Attachments: 180914 ARTC Inland Rail Fauna and Flora Plan Parkes Council.pdf; 5-0012-240-EEC-00-PJ-0004_B_Flora Fauna.pdf; 5-0012-240-EEC-00-PJ-0005_B_Pest and Weed.pdf

Categories: Blue Category

Hi Anna

Please find attached our Flora and Fauna Management Plan and cover letter for Parkes Shire Council's feedback and comment. This includes the Pest and Weed Management Plan which is also attached.

Regards
Nelson

Nelson Wallis
Stakeholder Engagement Lead NSW, Parkes to Narromine
Inland Rail

ARTC

M. 0447 817 142
E. NWallis@ARTC.com.au

Australian Rail Track Corporation
Level 15, 60 Carrington Street
Sydney NSW 2000

artc.com.au

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Anna Wyllie
Economic & Business Development Manager
Parkes Shire Council
2 Cecile Street
PARKES NSW 2870

Email: Anna.Wyllie@parkes.nsw.gov.au

14 September 2018

RE: Parkes to Narromine – Flora and Fauna Management Plan

Dear Anna,

Following my email on 29 August, ARTC is planning to engage INLink, a joint venture between Fulton Hogan and BMD Constructions to start construction on the Parkes to Narromine (P2N) Project. In accordance with our Environmental Impact Statement, Condition of Approval (CoA) C4 a Flora and Fauna Management Plan (FFMP) is to be developed in consultation with relevant councils, as part of the preparation and endorsement of the P2N Project Construction Environmental Management Plan.

INLink has prepared a draft FFMP for construction of the P2N Project and we invite Parkes Shire Council to provide feedback on this plan. We would also like to offer a meeting with INLink, ARTC and the relevant Council officers to discuss this and other upcoming plans related to our work on the P2N project.

Could Parkes Shire Council please provide feedback on the plan attached on or before close of business on 28 September 2018. In the event that this timeframe is not achievable please contact myself or Sam Blanco on 0409 510 555 as soon as practicable.

We look forward to your feedback. If you have any queries or would like to discuss further, please do not hesitate to contact me.

Yours sincerely,



Nelson Wallis
Parkes to Narromine Stakeholder Lead
Inland Rail

From: Nelson Wallis
Sent: Friday, 14 September 2018 4:27 PM
To: Mick Bell
Cc: Sam Blanco; Jane Redden; Sarah Masonwells
Subject: RE: Parkes to Narromine Inland Rail
Attachments: 5-0012-240-EEC-00-PJ-0004_B_Flora Fauna.pdf; 5-0012-240-EEC-00-PJ-0005_B_Pest and Weed.pdf; 180914 ARTC Inland Rail Flora and Fauna Plan Narromine Council.pdf; 180914 ARTC Inland Rail Air Quality Plan Narromine Council Revised.pdf

Categories: Blue Category

Hi Mick

Please find attached our Flora And Fauna Management Plan which includes our Pest and Weed Management Plan.

I have also attached the cover letter for this plan. Also please find attached revised Air Quality Management Plan Cover letter. The previous letter had the incorrect job title and draft watermark.

Regards
Nelson

Nelson Wallis
Stakeholder Engagement Lead NSW, Parkes to Narromine
Inland Rail



M. 0447 817 142
E. NWallis@ARTC.com.au

Australian Rail Track Corporation
Level 15, 60 Carrington Street
Sydney NSW 2000

artc.com.au

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Mick Bell
Acting Director Infrastructure & Engineering Services
Narromine Shire Council
124 Dandaloo Street
Narromine NSW 2821

Email: mbell@narromine.nsw.gov.au

14 September 2018

RE: Parkes to Narromine – Flora and Fauna Management Plan

Dear Mick

Following on from our meeting on 6 September 2018, ARTC are planning to engage INLink, a joint venture between Fulton Hogan and BMD Constructions to start construction on the Parkes to Narromine (P2N) Project.

In accordance with our Environmental Impact Statement, Condition of Approval (CoA) C4 a Flora and Fauna Management Plan (FFMP) is to be developed in consultation with relevant councils, as part of the preparation and endorsement of the P2N Project Construction Environmental Management Plan.

INLink has prepared a draft FFMP for construction of the P2N Project and we invite Narromine Shire Council to provide feedback on this plan. We would also like to offer a meeting with INLink, ARTC and the relevant Council officers to discuss this and other upcoming plans related to our work on the P2N project.

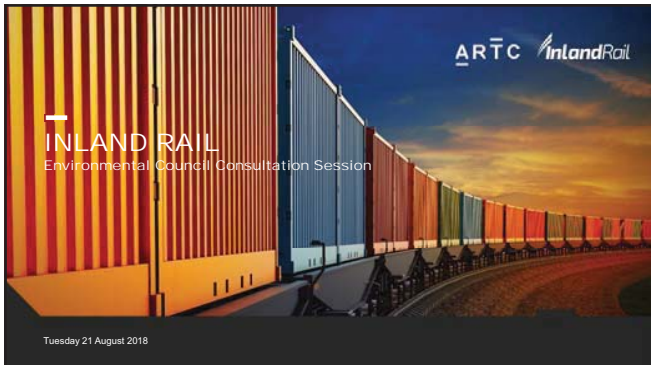
Could Narromine Shire Council please provide feedback on the plan attached on or before close of business on 28 September 2018. In the event that this timeframe is not achievable please contact myself or Sam Blanco on 0409 510 555 as soon as practicable.

We look forward to your feedback. If you have any queries or would like to discuss further, please do not hesitate to contact me.

Yours sincerely,




Nelson Wallis
Parkes to Narromine Stakeholder Lead
Inland Rail




PRESENTATION OUTLINE


- Project approval update - ARTC
- Relevance of today's discussion to the Project Conditions of Approval - ARTC
- Management plan development process – ARTC
- Discuss management plans - INLink
- Next Step - ARTC
- Council feedback - Council

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PROJECT APPROVAL UPDATE

- State and Federal Governments have given consent for the Inland Rail - Parkes to Narromine Project (the Project) to go ahead
- State and Federal Conditions of Approval (CoA) have been provided outlining requirements with which the Project must comply
- The CoA include several post approval deliverables that must be addressed before site works can commence
- ARTC is now working towards fulfilling the relevant CoA




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CoA FOR DISCUSSION – CEMP Sub-plans


- Construction Environmental Sub-plans (CEMP Sub-plans)
- Condition C4: "...construction environmental management sub-plans (CEMP Sub-plans) must be prepared in consultation with the relevant government agencies and councils..."


Required Plan	Stakeholder to be engaged
CEMP Sub-plan: Traffic, transport and access	RMS and relevant councils (as appropriate)
CEMP Sub-plan: Noise and Vibration	EPA and relevant councils
CEMP Sub-plan: Flora and Fauna	OEH and relevant councils
CEMP Sub-plan: Air quality	Relevant Councils
CEMP Sub-plan: Soil and Water	Relevant councils and Crown Lands & Water
Site establishment management plan	Relevant Councils

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CoA FOR DISCUSSION - CEMP Sub-plans

- Under C5 in the CoA, CEMP Sub-plans must state how:
 - The environmental performance outcomes identified in the EIS and Submissions Report, as modified by the CoA, will be achieved;
 - The mitigation measures identified in the EIS and Submissions Report, as modified by the CoA will be implemented;
 - The relevant terms of the CoA will be complied with; and
 - Issues requiring management during construction, as identified through ongoing environment risk analysis will be managed.




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POST APPROVAL DELIVERABLE PROCESS

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CONSULTATION OUTCOMES

- Deliver the project in compliance with the CoA
- Gain regionally valuable feedback to support successful implementation of the Project
- Provide transparency around how environmental impacts potentially associated with the Project will be managed
- Continue building effective and valuable relationships with councils associated with the Project
- To following deliverables will support the Project being able to exemplify compliance with the CoA:
 - A list of comments/queries from councils supplied to ARTC to which ARTC will respond
 - Meeting minutes drafted by ARTC and shared councils

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Environmental Council Consultation Session

PARKES TO NARROMINE - INLAND RAIL PROGRAMME

NARROMINE 20 September 2018
PARKES 21 September 2018

 **INLink**
IN your region. IN it for you.

Environmental Council Consultation Session
PARKES TO NARROMINE - INLAND RAIL PROGRAMME



Who are we?

- INLink is a joint venture between BMD Constructions and Fulton Hogan.
- This JV has been selected as the preferred Contractor for the P2N contract and will deliver the first section of the Inland Rail programme.
- Construction is expected to start in mid-September and continue until mid-2020.

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Environmental Management Overview

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Environmental Council Consultation Session
PARKES TO NARROMINE - INLAND RAIL PROGRAMME



INLink's Commitment


INLink is committed to minimising the environmental and community impact of the Inland Rail – Parkes to Narromine Project through understanding the complex surroundings and utilising new and best practice techniques for management.

INLink have a suite of management plans covering the environmental requirements for the Project. The plans are set out by environmental aspect:

- **Flora and Fauna**
- **Pest and Weed**
- **Heritage**
- **Air Quality**
- **Noise and Vibration**
- **Soil and Water**
- **Primary Erosion and Sediment Control**
- **Waste**
- **Pollution and Incident Response**
- **Flood**
- **Hazardous and Contaminated Materials**
- **Landscape and Visual Amenity**
- **Traffic Transport and Access**

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Environmental Council Consultation Session
PARKES TO NARROMINE - INLAND RAIL PROGRAMME



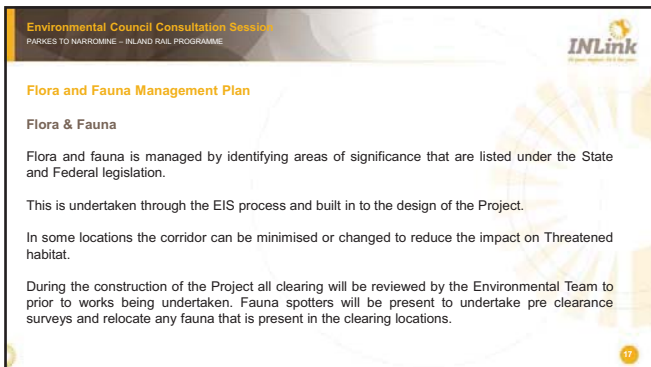
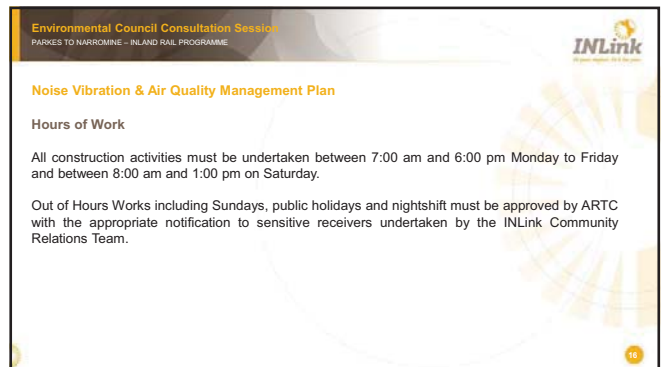
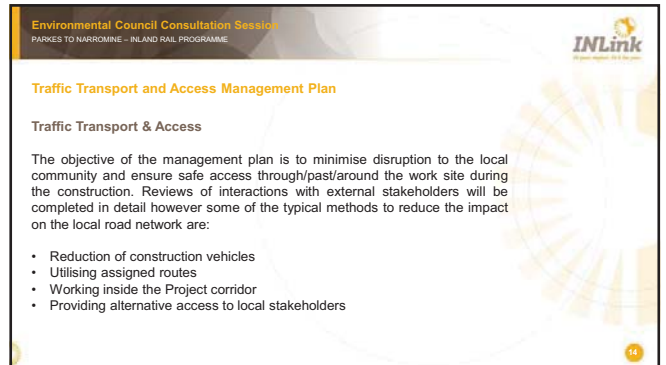
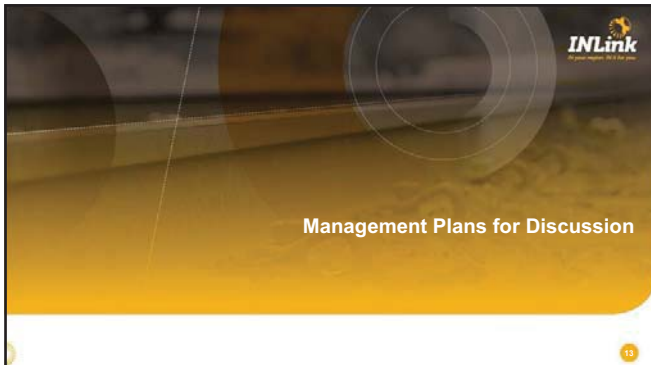
Structure of Plans

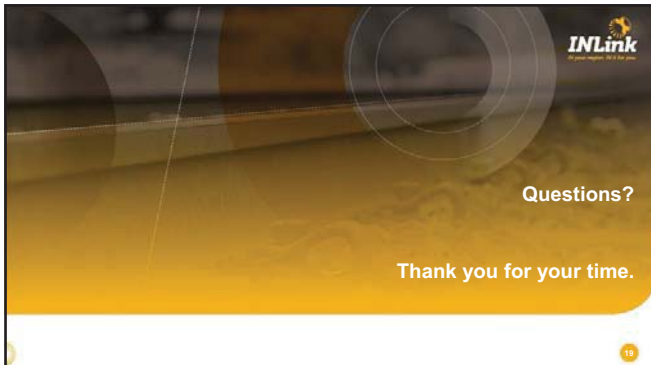
The plans are structured in the following manner:

- Purpose and Objectives
- Existing Environment
- Mitigation Measures
- Inspection Training Audits Monitoring
- Reporting Records Review

INLink welcome local knowledge about the existing conditions and proven mitigation measures.

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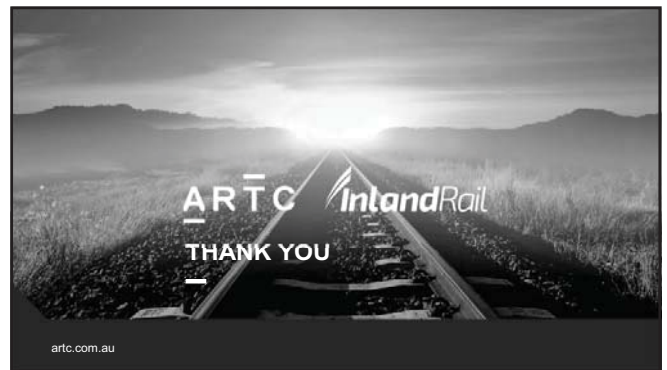




NEXT STEPS

Step	Action	Responsible	Ideal Completion Timeframe
1	Compile and submit minutes to councils	ARTC	2 days
2	Compile comments on plans if desired and submit to ARTC	Councils	2 weeks from receiving plan
3	Assess comments and prepare responses	ARTC	2 days
4	Update plans as necessary	INLink	5 days
5	Submit response to council's comments	ARTC	1 day

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From: Stephanie Mifsud
Sent: Monday, 17 September 2018 1:36 PM
To: Renee Shepherd; 'Samantha Wynn'
Cc: Sam Blanco; Valerie Donat
Subject: P2N - Management Plans for consultation
Attachments: Letter to OEH - Flora and Fauna Plan - 180917 SM.PDF; 5-0012-240-EEC-00-PJ-0004_B_Flora Fauna.pdf; 5-0012-240-EEC-00-PJ-0005_B_Pest and Weed.pdf

Hi Renee

Please see attached the Flora and Fauna and Pest and Weed management Plans for the P2N Main Construction Works.

As previously discussed, we have requested feedback within two weeks, and recognising this is a tight timeframe, we are happy to make ourselves available to walk through the content or discuss any comments or key concerns.

As usual, please do not hesitate to call if you have any questions.

Kind regards

Steph

Stephanie Mifsud
Environment Manager New South Wales
Inland Rail

ARTC

P. 0282935126
M. 0429 146 814
E. SMifsud@ARTC.com.au

Australian Rail Track Corporation
Level 9, 40 Creek Street
Brisbane QLD 4000

artc.com.au

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Renee Shepherd
Senior Conservation Planning Officer
North West Branch, Regional Operations Division

NSW Office of Environment and Heritage
48-52 Wingewarra Street, Dubbo 2830

PO Box 2111, Dubbo 2830

17 September 2018

RE: Parkes to Narromine – Flora and Fauna Management Plan

Dear Renee,

ARTC has engaged INLink, a joint venture between Fulton Hogan and BMD Constructions to start construction on the Parkes to Narromine (P2N) Project. In accordance with our Environmental Impact Statement, Condition of Approval (CoA) C4 a Flora and Fauna Management Plan (FFMP) is to be developed in consultation with relevant government agencies, as part of the preparation and endorsement of the P2N Project Construction Environmental Management Plan.

INLink has prepared a draft FFMP for construction of the P2N Project and we invite the Office of Environment and Heritage to provide feedback on this plan. We would also like to offer a meeting with INLink, ARTC and the relevant OEH officers to discuss this and other upcoming plans related to our work on the P2N project.

Please provide your feedback on the plan attached on or before close of business on 1 October 2018. In the event that this timeframe is not achievable please contact myself or Sam Blanco on 0409 510 555 as soon as practicable. We would also be happy to arrange a meeting to either brief you on the contact or talk through any key issues once you have had a chance to review.

We look forward to your feedback. If you have any queries or would like to discuss further, please do not hesitate to contact me.



Yours sincerely,

Stephanie Mifsud
Environment Manager NSW
Inland Rail



DOC19/51486; DOC19/28313-5
SSI 7475

Mr Sam Blanco
P2N Project Environment Advisor
ARTC
SBlanco@ARTC.com.au

Dear Sam

Parkes to Narromine Inland Rail - Revised Flora Fauna Management Plan (version I) and Pest and Weed Management Plan (version F)

I refer to your email dated 19 December 2018 providing the Office of Environment and Heritage (OEH) with revised copies of the Flora and Fauna Management Plan (FFMP – version I) and Pest and Weed Management Plan (PWMP – version F) for review.

OEH has reviewed the INLink response to OEH's comments and cross-referenced the response to the revised plans. The two items relating to the PWMP that OEH raised in our correspondence to ARTC dated 2 October 2018 have been adequately addressed. Most of the issues relating to the FFMP have also been adequately addressed, except for the following items:

1. OEH notes that the biodiversity targets have been moved from section 5.10 to section 2.2 in the revised FFMP. However, the wording of the third dot point in section 2.1 still lacks clarity. It is suggested this sentence could be reworded to “... to that approved by the EPBC Act controlled action approval (EPBC 2016/7731) and the EP&A Act infrastructure approval (SSI 7475)”.
2. It appears that the “SEARS desired performance outcomes” in Table 2-1 relate to those included in Table 7.4 of the Submissions Report. This reference should be included in the text in section 2.2. OEH is satisfied that the biodiversity objectives listed in section 2.1 will form adequate objectives to measure performance against.
3. OEH notes the addition of Table 4-1. The text added to section 4.4 requires editing. It is suggested that as a minimum the second sentence (starting with “Table 4-1 impacts....”) be deleted.
4. The last dot point in Section 4.5 should state “DoEE” rather than “DP&E”.
5. OEH note that ARTC is not pursuing the implementation of bat structures on new bridges. OEH will be interested in the installation of any bat boxes during the construction works and the subsequent monitoring outcomes.

The revised FFMP appears to have been substantially amended, and in many instances this has resulted in a complex and often confusing document. OEH recommends that the document is thoroughly reviewed to ensure that the language is consistent, the document is grammatically correct, and the content is correct and logical. OEH has specifically identified the following editorial and content changes that should be considered before finalising the FFMP for approval by DPE:

1. Ensure consistency throughout the document when referring to “DPE” or “DP&E”.

2. There are currently two section 1.1s. Heading numbering should be reviewed.
3. Section 1.1 (Purpose) states that threatened species and EECs were assessed under the BC Act. This is incorrect. OEH suggests that the final sentence of the first paragraph either refers to assessment under the Framework for Biodiversity Assessment, or simply refers to the NSW infrastructure approval under the EP&A Act (SSI 7475).
4. Similarly, the second paragraph of section 1.1 is unnecessary. OEH suggests it could be deleted, or at least the first sentence could be changed from "...*is being assessed*..." to "...*was assessed*...".
5. An additional dot point is required for the objective relating to the works exclusion fencing currently included in section 2.1 dot point 6.
6. Section 3.2 – delete second dot point.
7. The text in section 3.4 in the paragraph immediately before Table 3-1, does not relate to Table 3-1. Although not stated, it is assumed "CoA E15" refers to condition E15 in the NSW infrastructure approval (SSI 7475), however it is not clear how E15 then relates to condition A5 in Table 3-1. OEH suggests that the text in section 3.4 is reviewed and amended. Simply reinstating the text in section 3.4.1 of version B of the Flora and Fauna Management Plan may be a feasible option.
8. Table 3-2 – Ref ID EPBC CoA2 – should the table refer to FFMP Table 4-1 as stated, or should it refer to section 4.5?
9. OEH assumes that D3.1-D3.6 in Table 3-3 refers to Table 7.1, and C3.1-C3.3 in Table 3-3 refers to Table 7.2 respectively of the main report of the Response to Submissions document. This reference should be clearly stated in the text or the table.
10. It is unclear which document the Construction Environmental Management Framework Requirements in Table 3-4 refer to. The cross-reference should be clearly stated in the text in section 3.6.
11. OEH notes that the consultation with OEH in Table 3-5 is "*completed*". Details of this letter must be added to the table. Section 3.7 should refer to the evidence of consultation included in Appendix E.
12. Is the reference to section 4.5 (Biodiversity EPBC Act) in the second paragraph of section 4.1 correct, or should it refer to section 4.6 (Aquatic Ecosystems)?
13. Section 5.1 states "*Clearance surveys should identify the flora and fauna species contained within the clearance area to confirm offset liabilities*". OEH is unsure of why this confirmation of offset liabilities is required. OEH suggests that this sentence be deleted.
14. The cross-referencing error message in section 5.6 should be addressed. It is likely the text should refer to Table 5-1.
15. FF29 in Table 5-1 states that salvaged hollows will be maintained in host trees during construction. The FFMP currently does not state what is proposed for the hollows post-construction. The FFMP should clearly state how long the hollows will be monitored and maintained.
16. It is unclear as to why section 5.6 (Construction Monitoring Program) has been deleted from the revised FFMP. Some of the content has been incorporated into section 5.6 (Additional Impact Assessments) of the revised FFMP, however it is suggested that the first three paragraphs of section 5.6 in version B of the FFMP be reinstated.

OEH has identified the following editorial and content changes in the PWMP that should be considered before finalising the plan for approval by DPE:

1. OEH notes that the performance criteria outlined in section 5.9 of version B of the PWMP have been deleted from version F of the plan. OEH suggests that they be reinstated. Similarly, C5(a) in Table 3-1 in the revised plan states that environmental performance targets are outlined in section 2.2, however there is no section 2.2 in the plan.

2. Table 3-1 in the revised PWMP has been substantially amended compared to version B of the plan. OEH suggests that items A5 and A5(a)-A5(e) could be removed from the revised plan as these issues all relate to the FFMP, and they have been addressed appropriately in that plan.
3. Table 3-2 refers to D10.7 in the mitigation measures in the Response to Submissions. However, the (incorrect) reference to Table 27.3 (that was included in version B of the plan) has been removed from the table. The *correct* reference to Table 7.1 in the Submissions Report should be included in the revised PWMP.
4. Table 3-4 states that consultation has been completed with OEH. The table should be updated to reflect this correspondence provided by OEH and any response that will be provided by ARTC.
5. Section 4.1.3 states that nine invasive pest species were identified as possibly occurring in the project area. The PWMP should clarify that it is the feral form of the goat, cat, dog and pig that this section of the plan is referring to. In addition, sheep are not generally considered to be an invasive pest species.
6. Section 5.1 discusses pest management. This section is extremely succinct and provides no detail regarding the pest animals that are proposed to be managed (if and when necessary), the type of control methods that would be considered, the communication that will be undertaken with neighbouring landholders, or the monitoring and reporting that will be undertaken if control is pursued. OEH suggests that this section be updated.
7. PW17 in Table 5-1 should be amended to read "*Documentation will be maintained for all pest animal and weed control activities and will include requirements for.....*"

If you have any further questions regarding this issue please contact Renee Shepherd, Senior Conservation Planning Officer on 02 6883 5355 or renee.shepherd@environment.nsw.gov.au.

Yours sincerely



PETER CHRISTIE
Director North West
Conservation and Regional Delivery

25 January 2019

Contact officer: RENEE SHEPHERD
02 6883 5355

Cc: Jake Shackleton, Department of Planning and Environment

Correspondence from Stakeholder

From: Anna Wyllie <Anna.Wyllie@parkes.nsw.gov.au>

Sent: Wednesday, 26 September 2018 5:03 PM

To: Nelson Wallis <NWallis@ARTC.com.au>

Cc: Michael Carter <Michael.Carter@parkes.nsw.gov.au>; Andrew Francis <Andrew.Francis@parkes.nsw.gov.au>;

Ben Howard <Ben.Howard@parkes.nsw.gov.au>

Subject: [EXT] Document review for Inland Rail, Parkes to Narromine

Hi Nelson,

Thank you for the opportunity to comment on the following Construction Environmental Management Plan (CEMP) Sub-plans, as per condition C4 of Development Consent No SSI 7475, granted by the Minister for Planning on 7 June 2018:

- Traffic, Transport and Access Management Plan
- Noise and Vibration Management Plan
- Flora and Fauna Management Plan
- Air Quality Management Plan
- Soil and Water Management Plan

It is noted that a Site Establishment Management Plan has also been submitted to Council for comment, as per condition C22 of the consent.

The above documents provide a comprehensive suite of environmental management plans for the progressive construction of the ARTC Inland Railway Parkes to Narromine Project in accordance with the development consent and associated Environmental Impact Statement prepared by GHD dated June 2017. Council generally supports the finalisation of these plans subject to the following comments:

- Site Establishment Management Plan
 - Local roads servicing the Parkes and Peak Hill Major Construction Ancillary Facility that will accommodate the mainstay of construction traffic should be bitumen sealed to the existing bitumen sealed road network (for dust mitigation and road safety reasons).
 - That ARTC needs to investigate any approvals needed for any transportable structures and on-site sewage management systems and waste management systems including but not limited to Section 68 Local Government Act 1993. Section 68 Approval Application Forms can be obtained from Council.
 - Dust mitigation, noise control and sediment control will be key management issues at Major Construction Ancillary Facilities.
- Traffic, Transport and Access Management Plan
 - Any works on local roads requires an approval from Council under Section 138 Roads Act 1993. Section 138 Permit Application Forms can be obtained from Council.
 - All local roads that will be used for construction purposes should be listed in the management plan (including roads linking to extractive industries that are contracted to supply materials to the project).
 - Dilapidation reports should be prepared for all local roads used at construction phase.
 - Local roads servicing the Parkes and Peak Hill Major Construction Ancillary Facility that will accommodate the mainstay of construction traffic should be bitumen sealed. Road intersections should comply with Austroads.
 - Section 3.3 dealing with Permits, Licenses and Approvals states that Speed Zone Approvals (SZA) may be required. Speed Zone Approvals are not a responsibility of Council and all should be directed to RMS, which should be noted in this section.
 - Section 4.1.2 dealing with Regional Public Transport only refers to a small amount of bus routes. PSC is currently obtaining all designated bus routes for roads and potential road diversions, which will be furnished to ARTC as soon as possible. All bus routes should be included in this section.

- A site specific Crossing Traffic Management Plan is required for each crossing which should clearly identify all affected roads (including vegetation, drainage and other assets within road corridors) as well as adjoining residents affected. The management plan should detail and options for traffic control / road closure at each crossing site (including full closure, detours, side tracks).
- Noise and Vibration Management Plan
 - Document not yet received.
 - Document should aim to ensure dwellings near the railway at construction phase are not subjected to noise exceedances as per the NSW Interim Construction Noise Guideline 2009.
 - Document should aim to ensure dwellings near the railway at operational phase are not subjected to noise exceedances as defined under the NSW Noise Policy for Industry 2017.
 - The construction of the new rail link to the Broken Hill Railway Line is located in close proximity to dwellings, and noise issues should thoroughly investigated at this location. It is understood Pacific National is currently undertaking similar studies at their site adjoining the Goobang Junction.
 - Council would appreciate being informed of the outcome of any noise mitigation measures / negotiated settlements involving residents in the Parkes Shire.
 - Comments above may change subject to further consideration of Plan.
- Flora and Fauna Management Plan
 - Supported.
 - No specific comments.
- Soil and Water Management Plan
 - Awaiting detail in Appendices to finalise comments.
 - Concerned about increased stormwater impacts on properties downslope of railway drainage infrastructure, especially the velocity of stormwater entering properties / drainage systems from severe storm events.
 - Recommend the development of site specific stormwater management plans for sub-catchments.
 - Recommend the inclusion of robust drainage facilities to cope with stormwater in severe storm events (e.g. catch dams).
 - Comments above may change subject to further consideration of Appendices.
- Air Quality management Plan
 - Supported.
 - No specific comments.

Please do not hesitate to contact me if you require any additional information.

Kind Regards

Anna

Anna Wyllie

Economic & Business Development Manager | Parkes Shire Council

P 02 6861 2333 **M** 0409 739 001 **F** 02 6862 3946

E anna.wyllie@parkes.nsw.gov.au

W parkes.nsw.gov.au

2 Cecile Street Parkes NSW 2870

From: Kayla Robson <krobson@narromine.nsw.gov.au>

Sent: Monday, 8 October 2018 3:37 PM

To: Nelson Wallis <NWallis@ARTC.com.au>

Cc: Jane Redden <jredde@narromine.nsw.gov.au>; Mick Bell <mbell@narromine.nsw.gov.au>; Jordan Richardson <jrichardson@narromine.nsw.gov.au>

Subject: [EXT] Construction Management Plans: Narromine Shire Council Response

Hi Nelson

I refer to your previous emails and the P2N construction management plans provided to date.

Please find attached our response to each management plan noting that whilst we are not required by the CoA to be consulted on the Flood Emergency Management Plan, we felt it was critical to ensure that all flood impacts are identified and have subsequently provided specific comments on this plan. If there is anything within the attachment that is unclear, please do not hesitate to contact me directly and we can discuss further.

Please also let me know as soon as possible when your design team can meet with us to discuss the level crossing designs provided to ensure that we are able to have all relevant staff available.

Thank you.

Kind regards

Kayla Robson
Executive Manager Planning

Narromine Shire Council
124 Dandaloo Street
(PO Box 115)
NARROMINE NSW 2821
Ph: 6889 9954
Fax: 6889 9998
Mob: 0437 680 623
Email: krobson@narromine.nsw.gov.au
Web: www.narromine.nsw.gov.au



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From: Stephanie Mifsud
Sent: Wednesday, 3 October 2018 9:37 AM
To: Samantha Wynn
Cc: Jake.Shackleton@planning.nsw.gov.au; Renee Shepherd; Sam Blanco
Subject: RE: OEH Comments - P2N Inland Rail - Management Plans

Hi Sam

Thanks so much for sending that through. We will pass onto our Contractor and will be in touch if there are any queries.

Kind regards

Steph

Stephanie Mifsud
Environment Manager New South Wales
Inland Rail

ARTC

P. 0282935126
M. 0429 146 814
E. SMifsud@ARTC.com.au

Australian Rail Track Corporation
Level 9, 40 Creek Street
Brisbane QLD 4000

artc.com.au

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From: Samantha Wynn <Samantha.Wynn@environment.nsw.gov.au>
Sent: Tuesday, 2 October 2018 16:47
To: Stephanie Mifsud <SMifsud@ARTC.com.au>
Cc: Jake.Shackleton@planning.nsw.gov.au; Renee Shepherd <Renee.Shepherd@environment.nsw.gov.au>
Subject: [EXT] OEH Comments - P2N Inland Rail - Management Plans

Hi Stephanie

Please find attached OEH comments regarding the Parkes to Narromine Inland Rail Flora and Fauna Management Plan and the Pest and Weed Management Plan.

Regards

Sam

Samantha Wynn
Senior Team Leader Planning - North West
Conservation and Regional Delivery

Office of Environment and Heritage

48-52 Wingewarra Street (PO Box 2111) Dubbo NSW 2830

T: 02 6883 5365 M: 0459 888 603

W: www.environment.nsw.gov.au

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DOC18/689160

Ms Stephanie Mifsud
Environment Manager NSW
Inland Rail
SMifsud@ARTC.com.au

Dear Stephanie

Parkes to Narromine Inland Rail - Flora and Fauna Management Plan, and Pest and Weed Management Plan

I refer to your letter dated 17 September 2018 inviting feedback from the Office of Environment and Heritage (OEH) on the Flora and Fauna Management Plan, and the Pest and Weed Management Plan that has been developed for the Parkes to Narromine Inland Rail project, as per Part C Condition C4 and C8 of the project approval.

OEH provides the following comments and recommendations on the Flora and Fauna Management Plan.

Some biodiversity objectives and performance criteria require clarification

OEH notes that the biodiversity objectives (Section 2.1) are replicated as performance criteria in Section 5.10. Some of these criteria require clarification or reconsideration:

1. 3rd dot point – we suggest that this point also refers to the NSW project approval rather than just the “*EPBC controlled action approval*”, particularly as the NSW approval clearly shows the footprint that has been approved. Whilst disturbance to the amount and type of vegetation in the EPBC approval cannot be exceeded, any disturbance outside of the footprint of the NSW approval will trigger a project modification.
2. 4th dot point – this criterion should also include threatened flora species. All threatened flora and fauna finds should be reported to OEH immediately.

The requirement to notify OEH immediately of any threatened flora and/or fauna finds should also be included in the checklist in Table 5-1 FF5. A sentence could be added to dot point 4 that states “*OEH will be notified immediately if any threatened flora and/or fauna are identified*”.

The use of salvaged hollows may need to be reconsidered

OEH notes that Section 2.1 (dot point 6), 5.10 (dot point 7) and Table 5-1 FF9 refer to the salvage of tree hollows and the proposed performance measures relating to their retention and occupancy rates. FF9 states that salvaged hollows will be erected in suitable host trees. No information has been provided regarding where these suitable host trees may be located – whether they will be within the project footprint or elsewhere. There is currently no approved biodiversity offset site where the hollows could be relocated.

OEH recommends that ARTC considers whether it is feasible to salvage hollows from this project, and if so, where the hollows will be relocated.

In the case that hollows are no longer salvaged, the respective dot points in Section 2.1 and 5.10 will no longer be required. If hollows are salvaged, the performance measure of 90% retention and 70% occupancy should be reviewed to ensure that these targets are achievable.

Additional clarification is also required regarding tree hollows and when they will be salvaged. Parameters such as hollows with signs of use (nesting material, feathers, fur, scratches, etc) and of suitable dimensions for target species occupancy (suitable entrance size and a hollow chamber extending into the branch/trunk) should be defined in the management plan and guide the hollows that are salvaged.

Biodiversity impacts identified in Section 4.4 - 4.5 should be updated and clarified

Sections 4.4 and 4.5 currently only refer to the biodiversity impacts that are identified under the EPBC Act. No reference has been made to the biodiversity impacts approved under the NSW project approval. In addition, the figures included in Section 4.4 do not reflect the amended figures contained within the EPBC Act approval decision.

OEH recommends that Section 4.4 is amended to address biodiversity impacts approved under the NSW project approval. This could simply include a table adapted from Table 1 in the BAR Addendum (the development footprint area identified in the original BAR does not need to be included). Section 4.5 could then refer to the impacts approved under the EPBC Act approval decision. The areas of impact that are currently included in Section 4.4 must be updated to include the areas that were approved in the approval decision.

OEH notes that Attachment E contains diagrams that illustrate where native, non-native and threatened ecological communities (TECs) occur along the length of the project. These diagrams must be updated with the approved vegetation map from the BAR Addendum, as additional native vegetation and TECs were identified in the biodiversity review process.

OEH also recommends that appropriate site-scale diagrams are provided on-site during the construction works so that it is clear where the boundaries exist for native and non-native vegetation and TECs.

Handling of microbats should be kept to a minimum

The *Pre-Work Microbat Clearance Inspection* description in Attachment D is very succinct. OEH recommends that greater detail is added to this section, which could be in the form of adding the pre-clearance survey information from Section 4.2.1.2 of the Biodiversity Assessment Report from the EIS. It is important that the pre-clearance survey applies to bridges and not just drainage structures.

OEH recommends that handling of microbats should be avoided where possible. This can be achieved by inspecting culverts and bridges after dusk when the bats have dispersed and entrances are blocked off before they return.

In addition, no disturbance to maternity sites in culverts or bridges should occur. Only when the maternity period has ended, and the bats have dispersed should any work commence.

Installation of microbat habitat boxes on new bridges should be considered

OEH notes the proposal to provide temporary habitat replacement for microbats in the form of bat boxes as outlined in the Microbats Procedure in Attachment D. It is also noted that no microbats were recorded in bridge structures or culverts during surveys conducted for the EIS.

OEH suggests that a longer-term solution to the provision of microbat habitat would be more beneficial. It is recommended that ARTC consult with a microbat expert to incorporate habitat structures such as bat boxes into the new bridges. The provision of this habitat will become increasingly beneficial in the northern Inland Rail projects as the prevalence of microbats increases.

Following review by OEH, the proposed habitat structure installation, which should include a monitoring and maintenance program, should be incorporated into an updated Flora and Fauna Management Plan.

Addressing the following comments will provide clarity to the plan

The clarity of the document will be enhanced if the following items are addressed:

1. Cross reference links throughout the document should be reviewed to ensure they are valid and current [for example Table 3-1 C5(b, c)].
2. Table 3-1 C8(b) – a hygiene protocol has not been included in Attachment A of the PWMP (instead it is a Pesticide Application Record Sheet).
3. Table 5-1 FF17 – add “*within the approved footprint*” to the end of the sentence.
4. Table 5-1 FF19(a) – amend the first sentence to “...would be located *within the approved footprint and* an appropriate distance from
5. Table 5-1 FF19(b) – add “*within the approved footprint*” to the end of the sentence.

Pest and Weed Management Plan

OEH only has some minor items that we request be addressed in the Pest and Weed Management Plan to provide clarity:

1. Section 5.3 – this section refers to “*best practice hygiene control*” and “*hygiene techniques*” but these activities are not specified. Detail should be added to this section that clarifies the hygiene techniques, including the techniques that will be implemented to exclude weed seeds and pathogens from entering the Project corridor. A hygiene protocol is required by Part C Condition C8(b) of the project approval.
2. Table 5.1 – PW02 – the table states that the contractor must undertake “regular” inspections for weeds and pests – it is recommended that a specific timeframe replaces “regular”. The first dot point in Section 5.9 states that regular inspections are “*at least on an annual basis*”. This timeframe is too long, and consideration should be given to more regular inspections and seasonal conditions, especially given the linear and therefore staged nature of the project.

If you have any further questions regarding this matter please contact Renee Shepherd, Senior Conservation Planning Officer on 02 6883 5355 or renee.shepherd@environment.nsw.gov.au.

Yours sincerely



PETER CHRISTIE
Director North West
Conservation and Regional Delivery

2 October 2018

Contact officer: RENEE SHEPHERD
02 6883 5355

Cc: Jake Shackleton, Department of Planning and Environment

Correspondence back to Stakeholder

From: Nelson Wallis
Sent: Monday, 15 October 2018 9:17 AM
To: Katrina Dwyer
Cc: Anna Wyllie; Sam Blanco
Subject: RE: Document review for Inland Rail, Parkes to Narromine
Attachments: 5-0012-240-EEC-00-CS-0014 (1).xlsx

Hi Katrina

I hope you had a good weekend. Please find attached our response to comments received by Parkes Shire Council on our construction management plans.

If you have any areas where there are still questions please let me know. Once we receive final comments on the Noise and Vibration Management Plan we will update the attached to include these.

Regards
Nelson

Nelson Wallis
Stakeholder Engagement Lead NSW, Parkes to Narromine
Inland Rail

ARTC

M. 0447 817 142
E. NWallis@ARTC.com.au

Australian Rail Track Corporation
Level 15, 60 Carrington Street
Sydney NSW 2000

artc.com.au

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From: Nelson Wallis
Sent: Friday, 2 November 2018 3:29 PM
To: Kayla Robson
Cc: Andre Pretorius; Jordan Richardson; Sam Blanco
Subject: Inland Rail Construction Management Plan comments
Attachments: 5-0012-240-EEC-00-CS-0015 (1).xlsx

Hi Kayla

Thanks again for spending the time in reviewing our construction management plans.

Please find attached our responses to Narromine Shire Council's comments. We would be more than happy to discuss anything further. Once our plans are approved by DPE we will provide you a copy for your records. If there is anything else you would like to discuss please let me know.

Once our work starts, we would like to offer Monthly Construction Briefings to provide you an update on our work. At these meetings we could also brief you on the relevant information Narromine Council has requested such as details about complaints received etc.

As you are aware, our work will start in Parkes. We would be more than happy to provide a tour of our construction site to share with you how Inland Rail will be built early next year.

If you would like to discuss anything further, please don't hesitate to give me a call.

Regards
Nelson

Nelson Wallis
Stakeholder Engagement Lead NSW, Parkes to Narromine
Inland Rail

ARTC

M. 0447 817 142
E. NWallis@ARTC.com.au

Australian Rail Track Corporation
Level 15, 60 Carrington Street
Sydney NSW 2000

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Pathammavong, Sam

From: Sam Blanco [SBlanco@ARTC.com.au]
Sent: Tuesday, 18 December 2018 6:06 PM
To: Samantha.Wynn@environment.nsw.gov.au
Cc: Andrew Skele; Colin Seery; Kyle Robinson; Dan Cahill; Pathammavong, Sam; Valerie Donat
Subject: RE: OEH Comments - P2N Inland Rail - Management Plans
Attachments: 5-0012-240-EEC-00-PJ-0004_I_Clean Copy.pdf; P2N Inland Rail -Flora Fauna and Weed Management Plans - OEH comments.pdf; 5-0012-240-EEC-00-PJ-0005_F_Clean Copy.pdf; OEH Comments Response.pdf

Hello Samantha,

Please see attached a response to the key comments made by OEH in relation to review of the Parkes to Narromine Flora and Fauna Construction Environmental Management Sub-plan (original OEH letter attached). Accompanying (and supporting) this information are revised drafts of the Flora and Fauna Management Plan and Pest and Weed Management Plan.

Should OEH consider any of the identified matters as per the attached letter as still requiring clarification, please give me a call to discuss further.

Thanks and I look forward to your response.

Kind regards

Sam Blanco
P2N Project Environment Advisor



M 0409 510 555
E SBlanco@ARTC.com.au

inlandrail.com.au

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Level 9, 40 Creek Street, Brisbane Qld 4000

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From: Stephanie Mifsud
Sent: Wednesday, 3 October 2018 9:36 AM
To: Sam Blanco <SBlanco@ARTC.com.au>
Subject: FW: OEH Comments - P2N Inland Rail - Management Plans

Hi Sam

FYI

Cheers

Steph

Stephanie Mifsud
Environment Manager New South Wales
Inland Rail

ARTC

P. 0282935126
M. 0429 146 814
E. SMifsud@ARTC.com.au

Australian Rail Track Corporation
Level 9, 40 Creek Street
Brisbane QLD 4000

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From: Samantha Wynn <Samantha.Wynn@environment.nsw.gov.au>
Sent: Tuesday, 2 October 2018 16:47
To: Stephanie Mifsud <SMifsud@ARTC.com.au>
Cc: Jake.Shackleton@planning.nsw.gov.au; Renee Shepherd <Renee.Shepherd@environment.nsw.gov.au>
Subject: [EXT] OEH Comments - P2N Inland Rail - Management Plans

Hi Stephanie

Please find attached OEH comments regarding the Parkes to Narromine Inland Rail Flora and Fauna Management Plan and the Pest and Weed Management Plan.

Regards

Sam

Samantha Wynn

Senior Team Leader Planning - North West
Conservation and Regional Delivery

Office of Environment and Heritage

48-52 Wingewarra Street (PO Box 2111) Dubbo NSW 2830

T: 02 6883 5365 M: 0459 888 603

W: www.environment.nsw.gov.au

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Pathammavong, Sam

From: Sam Blanco [SBlanco@ARTC.com.au]
Sent: Wednesday, 19 December 2018 10:05 AM
To: liz.mazzer@environment.nsw.gov.au
Subject: FW: OEH Comments - P2N Inland Rail - Management Plans
Attachments: 5-0012-240-EEC-00-PJ-0004_I_Clean Copy.pdf; P2N Inland Rail -Flora Fauna and Weed Management Plans - OEH comments.pdf; 5-0012-240-EEC-00-PJ-0005_F_Clean Copy.pdf; OEH Comments Response.pdf

Hello Liz,

Please see the following and attached information shared with Samantha yesterday.

Please give me a call if there are any issues/queries.

Kind regards

Sam Blanco
P2N Project Environment Advisor



M 0409 510 555
E SBlanco@ARTC.com.au

inlandrail.com.au

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Level 9, 40 Creek Street, Brisbane Qld 4000

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From: Sam Blanco
Sent: Tuesday, 18 December 2018 5:06 PM

To: Samantha.Wynn@environment.nsw.gov.au

Cc: Andrew Skele <ASkele@ARTC.com.au>; Colin Seery <CSeery@ARTC.com.au>; Kyle Robinson <KRobinson@ARTC.com.au>; Dan Cahill <Dan.Cahill@bmd.com.au>; Pathammavong, Sam <Sam.Pathammavong@snclavalin.com>; Valerie Donat (VDonat@ARTC.com.au) <VDonat@ARTC.com.au>

Subject: RE: OEH Comments - P2N Inland Rail - Management Plans

Hello Samantha,

Please see attached a response to the key comments made by OEH in relation to review of the Parkes to Narromine Flora and Fauna Construction Environmental Management Sub-plan (original OEH letter attached). Accompanying (and supporting) this information are revised drafts of the Flora and Fauna Management Plan and Pest and Weed Management Plan.

Should OEH consider any of the identified matters as per the attached letter as still requiring clarification, please give me a call to discuss further.

Thanks and I look forward to your response.

Kind regards

Sam Blanco
P2N Project Environment Advisor



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E SBlanco@ARTC.com.au

inlandrail.com.au

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From: Stephanie Mifsud
Sent: Wednesday, 3 October 2018 9:36 AM
To: Sam Blanco <SBlanco@ARTC.com.au>
Subject: FW: OEH Comments - P2N Inland Rail - Management Plans

Hi Sam

FYI

Cheers

Steph

Stephanie Mifsud
Environment Manager New South Wales
Inland Rail



P. 0282935126
M. 0429 146 814
E. SMifsud@ARTC.com.au

Australian Rail Track Corporation
Level 9, 40 Creek Street
Brisbane QLD 4000

artc.com.au

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Sent: Tuesday, 2 October 2018 16:47
To: Stephanie Mifsud <SMifsud@ARTC.com.au>
Cc: Jake.Shackleton@planning.nsw.gov.au; Renee Shepherd <Renee.Shepherd@environment.nsw.gov.au>
Subject: [EXT] OEH Comments - P2N Inland Rail - Management Plans

Hi Stephanie

Please find attached OEH comments regarding the Parkes to Narromine Inland Rail Flora and Fauna Management Plan and the Pest and Weed Management Plan.

Regards
Sam

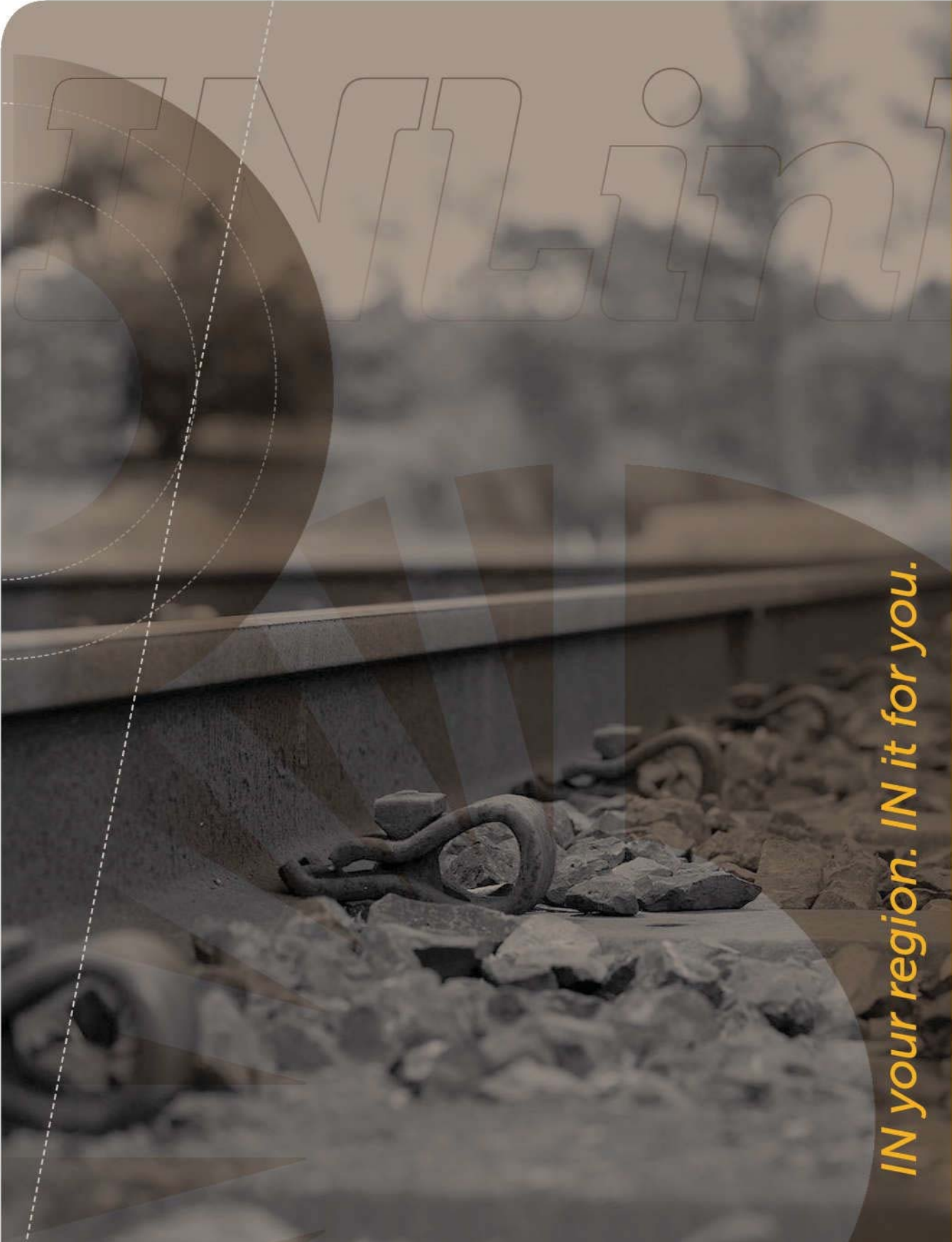
Samantha Wynn
Senior Team Leader Planning - North West
Conservation and Regional Delivery
Office of Environment and Heritage
48-52 Wingewarra Street (PO Box 2111) Dubbo NSW 2830
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