APPENDIX

E

Environmental risk assessment

NARROMINE TO NARRABRI ENVIRONMENTAL IMPACT STATEMENT

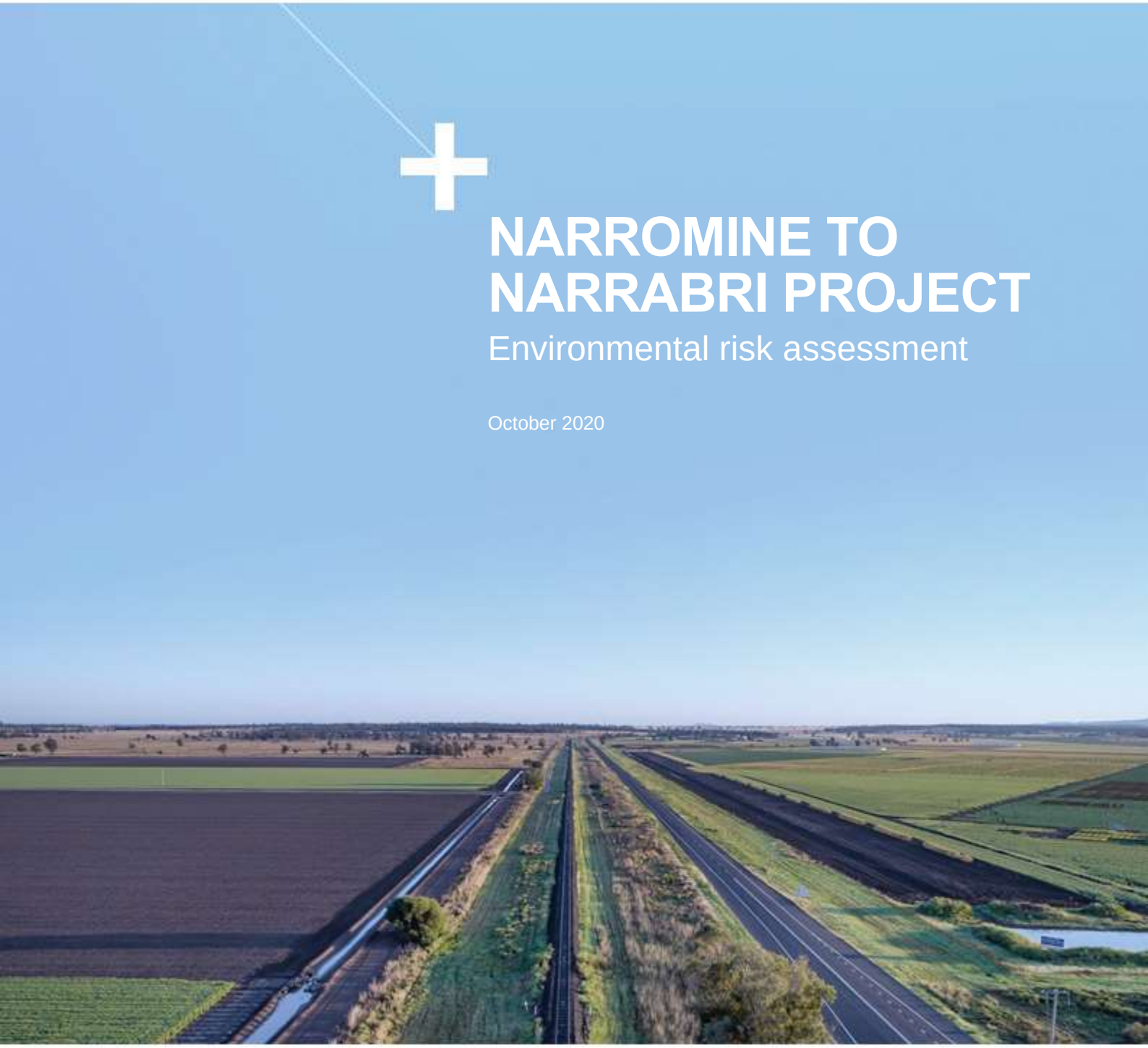
The Australian Government is delivering Inland Rail through the Australian Rail Track Corporation (ARTC), in partnership with the private sector.

INLAND RAIL

NARROMINE TO NARRABRI PROJECT

Environmental risk assessment

October 2020



ARTC

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

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1 Introduction

1.1 Background

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

ARTC is seeking approval to construct and operate the Narromine to Narrabri section of Inland Rail ('the proposal'). The proposal consists of about 306 kilometres of new single-track standard gauge railway with crossing loops. The proposal also includes changes to some roads to facilitate construction and operation of the new section of railway, and ancillary infrastructure to support the proposal.

The proposal would be constructed to accommodate double-stacked freight trains up to 1,800 metres long and 6.5 metres high. It would include infrastructure to accommodate possible future augmentation and upgrades of the track, including a possible future requirement for 3,600 metre long trains.

The land requirements for the proposal would include a new rail corridor with a minimum width of 40 metres, with some variation to accommodate particular infrastructure and to cater for local topography. The corridor would be of sufficient width to accommodate the infrastructure currently proposed for construction, as well as possible future expansion of crossing loops for 3,600 metre long trains. Clearing of the proposal site would occur to allow for construction and to maintain the safe operation of the railway.

The proposal would be located between the towns of Narromine and Narrabri in NSW. The proposal would link the Parkes to Narromine section of Inland Rail located in central west NSW with the Narrabri to North Star section of Inland Rail located in north-west NSW.

Further information on the proposal and proposal site is provided in Part A of the environmental impact statement (EIS).

1.2 Purpose of this report

As part of the environmental impact assessment process for the proposal, an environmental risk assessment has been undertaken. The purpose of the risk assessment process was to identify key potential impacts and risks to be incorporated into the impact assessment.

The EIS, and this environmental risk assessment, addresses the issues identified as key issues by the Secretary's environmental assessment requirements (the SEARs) (see section 2). SEAR 2(c) requires, for each key issue identified by the SEARs, that the proponent must 'Identify, describe and quantify (if possible) the impacts associated with the issue, including the likelihood and consequence (including worst case scenario) of the impact (comprehensive risk assessment), and the cumulative impacts.'

This environmental risk assessment has been prepared to assist in addressing this requirement. The aim of the assessment was to identify – for each key issue – key potential impacts for consideration as part of the detailed impact assessments, which may be in addition to those specified by the SEARs.

2 Environmental risk assessment process

2.1 Approach

The approach to the environmental risk assessment was informed by the principles of the Australian/New Zealand Standard *AS/NZS ISO 31000:2009 Risk management – Principles and guidelines* (Standards Australia, 2009). The assessment involved a preliminary, desktop level risk assessment, supported by a workshop, to broadly identify potential environmental impacts and risks associated with constructing and operating the proposal.

For each key issue (see section 2.2), potential impacts and risks were identified based on the results of preliminary investigations, previous experience and professional judgement. The risk analysis involved assessing the risk level of each identified potential impact by identifying the consequences of the impact and the likelihood that the impact can occur (see section 2.3).

The environmental risk assessment identifies and ranks potential impacts with the aim of refining and prioritising the scope of the environmental assessment including the specialist studies that support the EIS.

The assessment was also prepared in accordance with the Inland Rail Environmental Assessment Procedure's approach to environmental risk assessment.

2.2 Issue scoping

The first step of the impact assessment process involved identifying key potential environmental issues, impacts and risks that would be subject to detailed assessment as part of the EIS. The SEARs identify the following as key issues for the EIS:

- socio-economic, land use and property
- biodiversity
- protected and sensitive lands
- transport and traffic
- water – flooding
- water – resources
- water – quality
- soils
- air quality
- heritage
- noise and vibration – amenity and structural
- rehabilitation (of borrow sites)
- visual amenity
- waste
- climate change risk
- sustainability.

A preliminary scoping of potential impacts and risks was then undertaken for each key issue. The consequence and likelihood of each was ranked as described in the following section.

2.3 Evaluating consequence and likelihood

Consequence is defined as the implication of an impact. The consequences of an impact require a degree of subjective assessment as the likely consequences of an impact may consist of several elements.

In accordance with the Inland Rail Environmental Assessment Procedure, the elements that have been considered in this risk assessment are described in Table 2.1.

Table 2.1 Consequence definitions

Consequence level	Definition
Extreme	▸ Multiple but localised fatalities occur ▸ More than 5 days track closure ▸ More than 5% of programme budget (ie > $500 million in $10 billion) ▸ More than 10% of project budget (eg > $10 million in $100 million) ▸ Widespread long term or permanent environmental damage – remediation required ▸ Prosecution of the company and/or its office holders ▸ Corporate loss of shareholder and/or customer support (tangible business impact >3 years) ▸ Influences schedule >10% of programme approved schedule period ▸ Influences schedule >20% of project approved schedule period
Major	▸ Single fatality occurs ▸ More than 48 hours to 5 days track closure ▸ More than 1.5% to 5% of programme budget (ie >$150 million to $500 million in $10 billion) ▸ More than 2.5% to 10% of project budget (eg $2.5 million to $10 million in $100 million) ▸ Considerable environmental damage requiring remediation ▸ Prohibition notice or fine(s) ▸ Strategic intervention required (more than 18 months to 3 years) ▸ Influences schedule more than 5% to 10% of programme approved schedule period ▸ Influences schedule more than 10% to 20% of project approved schedule period
Moderate	▸ Serious injury occurs ▸ More than 24 hours to 48 hours track closure ▸ More than 0.5% to 1.5% of programme budget (ie more than $50 million to $150 million in $10 billion) ▸ More than 0.5% to 2.5% of project budget (eg more than $500,000 to $2.5 million in $100 million) ▸ Localised/clustered environmental damage – requiring remediation ▸ Improvement notice or threatened action ▸ Tactical (business unit/divisional) intervention required (more than 3 months to 18 months) ▸ Influences schedule (more than 2.5% to 5% of programme approved schedule period ▸ Influences schedule more than 5% to 10% of project approved schedule period
Minor	▸ Lost time injury results OR medical treatment required ▸ More than 6 hours to 24 hours track closure ▸ More than 0.05% to 0.5% of programme budget (ie > $5 million to $50 million in $10 billion) ▸ More than 0.1% to 0.5% of project budget (eg > $100,000-$500,000 in $100 million) ▸ Isolated environmental damage – minimal ARTC remediation required ▸ Notice to produce information ▸ Management intervention required (more than 7 days to 3 months) ▸ Influences schedule more than 1% to 2.5% of programmed approved schedule period ▸ Influences schedule more than 2% to 5% of project approved schedule period

Consequence level	Definition
Not significant	▸ No medical treatment required ▸ Up to 6 hours track closure ▸ Up to 0.05% of programme budget (ie to $4 million in $10 billion) ▸ Up to 0.1% of project budget (eg to $100,000 in $100 million) ▸ Contained environmental damage – fully recoverable (no cost or ARTC action required) ▸ Minimal or no regulatory involvement ▸ Isolated event able to be resolved (up to 7 days) ▸ Influences schedule up to 1% of programme approved schedule period ▸ Influences schedule up to 2% of project approved schedule period

The likelihood of an impact occurring can be described in terms of probability. Overlaying this is the need to recognise the uncertainty that may be associated with the possible impacts, particularly during the initial risk assessment process. Where there is scientific uncertainty a cautious approach will identify a higher level of risk (worst-case scenario).

Each identifiable impact can be assigned likelihood between rare and almost certain (refer to Table 2.2). In simplifying the possible impacts for the purpose of a risk assessment, an element of subjectivity is introduced. The purpose of the risk assessment is not necessarily to agree on the probability of any particular impact, but to facilitate an understanding of the relative probability of different impacts.

Table 2.2 Likelihood definitions

Likelihood	Description	Frequency of occurrence	Percentile
Almost certain	Expected to occur in most circumstances	Once per month	> 90%
Likely	Probably occur in most circumstances	Between once a month and once a year	60% - 90%
Possible	Might occur at some time	Between once a year and once in five years	30% - < 60%
Unlikely	Could occur at some time	Between once in five years and once in 20 years	10% - < 30%
Rare	May occur in exceptional circumstances	Once in more than 20 years	< 10%

2.4 Environmental risk assessment

Based on the assessment of likelihood and consequence, the identified impacts and risks were assigned a risk level (from low to very high) using the matrix shown in Table 2.3, in accordance with ARTC's Inland Rail Environmental Assessment Procedure.

Table 2.3 Environmental risk assessment matrix – risk/impact ratings

	Consequence				
Likelihood	**Not significant**	**Minor**	**Moderate**	**Major**	**Extreme**
Almost certain	Medium	Medium	High	Very high	Very high
Likely	Low	Medium	High	Very high	Very high
Possible	Low	Low	Medium	High	High
Unlikely	Low	Low	Low	Medium	Medium
Rare	Low	Low	Low	Low	Medium

Very high impacts were considered the highest priority and were the focus of the concept design and environmental assessment. In general, the following was applied, in conjunction with the SEARs, when scoping requirements for the environmental assessment.

- **Very high impacts** – Assessment and planning is necessary to avoid these impacts on the greatest extent possible.
- **High impacts** – Detailed specialist investigation and assessment is necessary to enable identification of appropriate management and mitigation options.
- **Medium impacts** – Further investigation as part of the environmental assessment is desirable, to address some uncertainties. Impacts could be mitigated through the application of relatively standard environmental mitigation measures.
- **Low impacts** – May not require specialist investigations, particularly where identifiable management/mitigation guidelines exist then potentially only broad or desktop investigation is necessary. Impacts could be mitigated through other working controls (such as detailed design requirements, normal working practice, safety and quality controls).

3 Environmental risk assessment

The results of the environmental risk assessment are presented in Table 3.1.

Table 3.1 Environmental risk assessment

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
Socio-economic	Construction	Temporary impacts on amenity for residents, visitors, businesses and other sensitive receivers, as a result of noise, dust and visual impacts during construction.	Possible	Moderate	Medium
		Direct impacts on community recreation facilities as a result of the proposal's land requirements, particularly in State forests.	Possible	Moderate	Medium
		Direct impacts on other community infrastructure as a result of the proposal's land requirements.	Unlikely	Minor	Low
		Indirect impacts on the use and amenity of community infrastructure, including as a result of access changes and amenity impacts.	Possible	Minor	Low
		Increased demand for accommodation driving up prices for local residents and potentially causing a shortage of emergency accommodation.	Unlikely	Minor	Low
		Impacts on the surrounding community (including amenity impacts, and impacts of anti-social behaviour) as a result of the use of temporary workforce accommodation facilities.	Possible	Moderate	Medium
		Impacts on services and utilities during construction resulting in a loss of services.	Possible	Minor	Low
	Operation	Impacts on amenity for residents, visitors, businesses and other sensitive receivers as a result of train operations along the new rail line.	Possible	Moderate	Medium
		Increased demand for accommodation driving up prices for local residents and potentially causing a shortage of emergency accommodation.	Unlikely	Minor	Low
		Safety risks associated with the presence of a new operational rail line (and associated infrastructure such as level crossings) and the movement of trains.	Possible	Extreme	High

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
		Changes to connectivity and access in and around the proposal site, affecting access to community facilities and infrastructure.	Possible	Minor	Low
		Direct impacts on community infrastructure as a result of the proposal's permanent land requirements.	Unlikely	Moderate	Low
Land use and property	Construction	Effects on access to and within properties as a result of changes to private access roads and internal access arrangements.	Possible	Minor	Low
		Indirect impacts on agricultural land use/production and livestock from construction activities, including impacts from changes to access, noise and air pollution.	Possible	Moderate	Medium
		Temporary changes to land use as a result of the proposal's land requirements during construction - temporary leasing of additional areas outside the operational footprint to facilitate construction negatively affects the availability of land for other uses.	Unlikely	Minor	Low
		Disruption to forestry practices as a result of works within State forests.	Possible	Moderate	Medium
		The movement of construction machinery and materials introduces biosecurity risks, including the spread of weeds.	Possible	Moderate	Medium
		Effects on access to and along travelling stock reserves.	Unlikely	Minor	Low
		Effects on mining leases and licences, such that viability is affected.	Unlikely	Minor	Low
	Operation	Severance of properties resulting in smaller lot sizes that may affect existing use and/or development potential.	Likely	Moderate	High
		Severance of properties resulting in changes to the arrangement of properties that may affect agricultural use and productive capacity.	Likely	Moderate	High
		Effects on access to and within properties as a result of changes to private access roads and internal access arrangements.	Possible	Moderate	Medium
		Land permanently required for the proposal affects the productive capacity of individual properties.	Possible	Major	High

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
		Land permanently required for the proposal results in a change to land use in the study area, negatively affecting the availability of land for non-transport related uses (including changes to the availability of agricultural and forestry zoned land).	Unlikely	Major	Medium
Biodiversity	Construction	Clearing of native vegetation (including vegetation in the Pilliga State forests) resulting in loss of fauna habitat, habitat fragmentation and loss of connectivity.	Almost certain	Moderate	High
		Direct impacts on listed threatened flora species and endangered terrestrial ecological populations and communities.	Almost certain	Moderate	High
		Impact on potential habitat for listed threatened fauna species.	Almost certain	Moderate	High
		Increased potential for pest plants and animals during construction from movement of vehicles, machinery and materials in and out of the site.	Possible	Minor	Low
		Indirect impacts on fauna species due to increased dust, sedimentation and erosion, noise and light.	Possible	Minor	Low
		Native fauna mortality from vehicle strikes.	Unlikely	Minor	Low
		Potential impacts on groundwater dependant ecosystems.	Unlikely	Minor	Low
		Potential impacts on aquatic ecology and threatened species, including as a result of removal of riparian vegetation and fish passage blockages during construction of watercourse crossings.	Possible	Moderate	Medium
		Water quality impacts and changes to flow regimes affect aquatic ecosystems.	Possible	Moderate	Medium
		Potential impacts on protected and sensitive lands.	Possible	Moderate	Medium
	Operation	Injury and mortality of fauna from train strikes.	Possible	Minor	Low
		Impacts on connectivity (and associated impacts on population viability and genetics), particularly for terrestrial fauna in the Pilliga forests, as a result of the presence of the new rail corridor.	Likely	Moderate	High
		Impacts on fauna from noise, vibration and light during operation.	Unlikely	Minor	Low

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
		Increased potential for pest plants and animals during maintenance from movements along the rail corridor.	Unlikely	Minor	Low
		Water quality impacts during operation affect aquatic ecosystems.	Unlikely	Minor	Low
Transport and traffic	Construction	Changes to road network performance due to additional construction vehicles.	Unlikely	Moderate	Low
		Construction traffic impacts, including temporary delays to local and regional traffic due to road closures and diversions.	Likely	Minor	Medium
		Impacts to emergency services through delays in access due to works.	Unlikely	Moderate	Low
		Impacts to rural roads unsuitable for construction traffic.	Possible	Moderate	Medium
	Operation	Increases in travel distances due to changes (realignments or closures) to the local public road network.	Unlikely	Moderate	Low
		Increase in travel times due to introduction of new level crossings, resulting in wait times associated with length and frequency of trains.	Almost certain	Minor	Medium
Water - flooding	Construction	Temporary impact to the behaviour of local surface water systems during construction.	Possible	Minor	Low
		Impact of flooding on unprotected areas during construction resulting in wash-outs or erosion.	Possible	Moderate	Medium
		Sedimentation and changes to geomorphology in watercourses.	Possible	Moderate	Medium
		Presence of, or change to, structures associated with the proposal could impact upstream and downstream local flood behaviour.	Possible	Major	High
	Operation	Potential changes to road overtopping frequencies and levels impacting emergency service management.	Possible	Major	High
		Presence of structures associated with the proposal and track height could impact upstream and downstream regional flood behaviour.	Likely	Major	Very high
		Changes to flood characteristics as a result of impacts on the hydraulics of the catchment.	Possible	Moderate	Medium

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
Water - resources	Construction	Temporary impact to the behaviour of local surface water systems during construction due to the presence of construction features, including erosion and sedimentation control structures.	Possible	Moderate	Medium
		Changes to flow patterns and altered hydrology due to construction in watercourses.	Possible	Moderate	Medium
		Extraction of groundwater may cause drawdown of the groundwater table, impacting sub-surface flows and water availability.	Possible	Major	High
		Potential for bulk excavations to intersect the water table and lead to groundwater level drawdown, impacting nearby groundwater bores, groundwater dependent ecosystems, and watercourse base flow.	Possible	Moderate	Medium
		Potential to create groundwater flow pathways between groundwater systems as a result of groundwater extraction from the bore field bores.	Unlikely	Major	Medium
Water - quality	Construction	Increased sediment loads during rainfall events and from discharge of sediment-laden wastewater.	Possible	Major	High
		Increased alkalinity and pH of watercourses due to runoff from concrete batching plant operations.	Unlikely	Major	Medium
		Increased sediment loads due to changes in surface water flow from the presence of construction infrastructure.	Possible	Moderate	Medium
		Litter from construction activities polluting downstream watercourses.	Unlikely	Moderate	Low
		Erosion and sediment transport downstream due to works in watercourses.	Possible	Major	High
	Operation	Potential for pollution of watercourses due to operation (freight materials, contaminants from train operation).	Rare	Moderate	Low
		Introduction of drainage infrastructure and culverts resulting in water quality impacts.	Likely	Moderate	High
		Impact to surface water quality and receiving environments due to increased runoff from increase in impervious surfaces.	Likely	Moderate	High

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
Soils	Construction	Erosion as a result of the disturbance of soils during construction, particularly in soil landscapes characterised by dispersive soils, given their susceptibility to erosion.	Likely	Moderate	High
		Potential to disturb contaminated soils during construction and mobilise contamination.	Possible	Moderate	Medium
		Contamination of soils/groundwater due to spills and leaks during construction.	Likely	Minor	Medium
		Exposure of acid sulfate soils or saline soils and subsequent erosion.	Possible	Moderate	Medium
		Potential to disturb hazardous materials during the demolition of buildings and structures.	Possible	Moderate	Medium
	Operation	Erosion during operation maintenance works.	Possible	Moderate	Medium
		Contamination of soils/groundwater due to spills and leaks during maintenance works.	Unlikely	Moderate	Low
Air quality	Construction	Emissions from vehicles or plant during construction.	Likely	Minor	Medium
		Generation of dust during construction (from exposed soil/stockpiles, excavation and vehicle movements) and impacts on sensitive receivers.	Likely	Minor	Medium
	Operation	Impacts on local air quality during operation from train emissions including idling trains at crossing loop locations.	Possible	Moderate	Medium
		Emissions from vehicles or plant and generation of dust during maintenance works.	Likely	Minor	Medium
Non-Aboriginal heritage	Construction	Potential direct impacts on the two heritage listed sites partially located within the proposal site and any potential heritage items located within/near the proposal site.	Likely	Moderate	High
		Impacts to heritage items from vibration during construction.	Possible	Moderate	Medium
	Operation	Visual impacts on heritage items and close to the proposal site.	Possible	Moderate	Medium
		Impacts on heritage items from vibration during operation.	Possible	Moderate	Medium

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
Aboriginal heritage	Construction	Potential impacts on registered Aboriginal heritage items/sites in the proposal site.	Possible	Major	High
		Impacts on unrecorded Aboriginal sites and/or areas of archaeological sensitivity or cultural value.	Possible	Major	High
		Impacts on areas predicted to have moderate to high archaeological potential.	Possible	Major	High
		Indirect impacts on registered Aboriginal sites outside the proposal site by the movement of vehicles and/or construction machinery.	Unlikely	Moderate	Low
Noise and vibration	Construction	Noise impacts on sensitive receivers, particularly during work outside recommended standard working hours.	Likely	Moderate	High
		Noise impacts on sensitive receivers from construction traffic.	Possible	Minor	Low
		Human comfort vibration (amenity) impacts on sensitive receivers as a result of works close to receivers.	Possible	Moderate	Medium
		Damage to structures, including heritage structures, from vibration caused by construction activities.	Possible	Moderate	Medium
	Operation	Noise impacts on sensitive receivers from the movement of trains along the new rail line.	Likely	Moderate	High
		Human comfort vibration (amenity) impacts on sensitive receivers the movement of trains along the new rail line.	Unlikely	Minor	Low
		Noise impacts from warning signals and horns at level crossings.	Likely	Minor	Medium
		Noise impacts on sensitive receivers from maintenance activities.	Possible	Minor	Low
		Noise impacts on sensitive receivers from traffic on realigned sections of road.	Unlikely	Minor	Low
		Damage to structures, including heritage structures close to the proposal site, from vibration caused by the movement of trains along the new rail line.	Possible	Minor	Low
		Damage to structures, including heritage structures close to the proposal site, from vibration caused by other proposal operations.	Unlikely	Minor	Low

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
Rehabilitation of borrow sites	Construction	Clearing of vegetation and subsequent establishment of weed species.	Likely	Moderate	HIgh
		Creation of voids and unstable landforms that may be unsafe for livestock or wildlife.	Possible	Moderate	Medium
		Alteration of landscape character through fill removal activities.	Likely	Moderate	HIgh
		Rehabilitated areas are not effectively monitored following rehabilitation resulting in poorly established vegetation and risk of erosion hazard and dust.	Possible	Moderate	Medium
	Operation	Soil structure decline.	Possible	Moderate	Medium
		Challenges to revegetation establishment including post-rehabilitation livestock, fauna and feral species.	Possible	Moderate	Medium
Visual amenity	Construction	Light impacts from out-of-hours work during construction.	Unlikely	Minor	Low
		Temporary visual impacts on sensitive visual receivers in the vicinity of construction work and from areas with views of the proposal site.	Possible	Minor	Low
		Adverse impacts on landscape character during construction.	Possible	Minor	Low
	Operation	Visual impact of operational lighting.	Unlikely	Minor	Low
		Permanent visual impacts on sensitive visual receivers as a result of the introduction of new infrastructure visible from a number of viewpoints (including new rail overbridges, crossing loops, ancillary infrastructure and access road).	Likely	Moderate	High
		Introduction of double-stacked trains into the landscape.	Possible	Minor	Low
Waste	Construction	Generation of about 1.3 million cubic metres of excess spoil which cannot be reused on site (unsuitable for reuse or insufficient space) and needs to be disposed of.	Possible	Moderate	Medium
		Inappropriate management of waste generated during construction resulting in environmental, health and amenity impacts, including contamination, water quality impacts, odour and dust.	Possible	Moderate	Medium

Key issue	Phase	Potential impact/risk	Assessment of pre-mitigated potential risks		
			Likelihood	Consequence	Risk rating
		Inappropriate management of waste generated during construction resulting in excessive waste being directed to landfill.	Unlikely	Moderate	Medium
	Operation	Inappropriate management of waste generated during operation resulting in environmental, health and amenity impacts, including contamination, water quality impacts, odour and dust.	Unlikely	Minor	Low
		Inappropriate management of waste generated during construction resulting in excessive waste being directed to landfill.	Unlikely	Minor	Low
Climate change risk	Operation	Impacts to infrastructure due to increased rainfall/flooding.	Possible	Major	High
		Impacts to infrastructure due to more frequent and severe heat events or droughts.	Possible	Moderate	Medium
		Increase in incidence of dangerous fire weather conditions posing risks to infrastructure and access roads around the Pilliga State Forest.	Possible	Major	High
		Inappropriate design and/or construction exacerbating flood-related impacts on surrounding lands and the environment.	Unlikely	Extreme	Medium
Sustainability		Increased demand on local and regional resources during construction.	Almost certain	Minor	Medium