



Executive Summary

Introduction

What is Proposed

ARTC proposes to construct a third train line on the Main Northern Railway in an area known as the Minimbah Bank. The southern end of the proposed Minimbah Bank Third Track (the Project) is located approximately 16 kilometres south of Singleton in the Hunter Valley of New South Wales. The Project would facilitate the more efficient movement of coal to the Port of Newcastle by improving the grade of the track.

The Project would widen the existing rail formation to accommodate the third track. Key construction activities include earthworks (cut and fill), two new under bridges, the grade-separation of an existing level crossing (Range Road), the replacement and re-alignment of an existing highway overpass (Golden Highway) and the relocation of existing services and signal works. The Project would also require the strip acquisition of property adjoining the rail corridor.

Need for the Project

The Project is needed to increase the ability of the of the Hunter Valley rail network to carry additional capacity and reduce operational conflicts currently experienced in the Minimbah area. The steep grade of the existing railway line in this area requires a longer time for coal trains to traverse and disrupts the flow of rail traffic, producing flow-on effects for the capacity and efficiency of the coal export transport system.

Approximately ninety five percent of coal trains from the Hunter Valley are required to negotiate the Minimbah Bank. Industry forecasts predict that the demand for the transport of coal by rail will increase substantially in the future. ARTC proposes to implement a series of rail improvement projects to enable rail capacity to accommodate increased demand and keep the rail system capacity in line with industry demands.

Location of the Project

The Project is located within the Singleton Local Government Area (LGA) in the Hunter Valley of New South Wales. The Project would extend from approximately 16 kilometres south of Singleton for a distance of 10.8 kilometres to an area known as Whittingham.

Key Features of the Study Area

The Study Area is defined as land likely to be affected by construction and acquisition. Land uses in the Study Area are predominantly rural, and include grazing land and associated rural residences. The New England Highway is located to the east of the railway and runs parallel or in close proximity to the Project. Several public and private roads cross the Project, including the Golden Highway (via an overbridge), Range Road (via a level crossing) and a private level crossing. An airstrip is adjacent to the northern section of the Project, while a nursery and landscaping supply business is located between the New England Highway and the Main Northern Railway at Whittingham.



The northwestern portion of the Study Area is generally flat, comprising the floodplain areas of the Hunter River and its tributaries. The majority of the northwestern portion of the site has been cleared for grazing.

The Study Area rises towards the southeast, and contains more undulating topography. This section of the Study area is known as Minimbah Bank. A number of creeks and drainage lines including Mudies Creek run through the Study Area and drain into the Hunter River. Vegetation towards the southern end of the Study Area is partially disturbed and cleared to the southeast.

Consultation

Consultation activities began in February 2008 at the commencement of the detailed design and Environmental Assessment process. Stakeholders were identified which included adjoining landowners that would likely be directly impacted by the Project, Singleton Council, statutory agencies and the broader community.

Communication techniques to inform stakeholders of the Project included:

- The establishment of a 1800 free call number;
- A Project website;
- Provision of Project team member's e-mail addresses;
- Project advertisements including a community newsletter;
- Project fact sheets;
- Meetings with individual property owners; and
- Meetings with statutory agencies.

Feedback from the Project consultation activities has been incorporated into the Environmental Assessment.

Statutory Framework

The *Environmental Planning and Assessment Act 1979* (EP&A Act) forms the statutory framework for planning and environmental assessment in New South Wales.

The EP&A Act contains three parts, which set out requirements for development approval:

- Part 3A provides for the assessment of 'major infrastructure or other Projects' that require Project approval or other approval from the Minister for Planning;
- Part 4 provides for the assessment of 'local development' that requires development consent from the local Council; and
- Part 5 provides for the assessment of activities by public authorities that do not require development consent or approval of the Minister for Planning.

In accordance with Schedule 1 of the *State Environmental Planning Policy (Major Projects) 2005*, namely Clause 23(1)(a) (the Project is a heavy railway line associated with mining, with a capital value of more than \$30 million), the Minister for Planning has determined the Project to be a Major Project in accordance with the EP&A Act. The Project is therefore to be assessed under Part 3A of the EP&A Act, and ARTC is seeking Project Approval from the NSW Minister for Planning.



Environmental Assessment

The Director-General of the NSW Department of Planning issued the environmental assessment requirements (Director-General's Requirements or DGRs), and were received by ARTC on 18 April 2008. The key issues identified in the DGRs and where they are assessed in this Environmental Assessment are outlined below.

Environmental Assessment Requirement	Where Addressed
Strategic and Project Justification	Section 5
Ecology	Section 7
Cultural Heritage	Section 8
Landuse and Access	Section 9
Noise and Vibration	Section 10
Hydrology	Section 11
Soils and Geology	Section 12
Consultation	Section 3

Main Benefits of the Project

The Project would provide strategic and ongoing economic benefits to the region in the form of an expansion to the capacity of the coal transport system and a reduced loss of revenue for the region from delays in the coal transportation network and reduced rail maintenance costs.

The Project would benefit the environment by reducing transportation-associated greenhouse gas emissions and noise from trains struggling to negotiate the existing steep grade (1:80) of the Minimbah Bank.

Main Adverse Impacts of the Project

The main adverse impacts that would be caused from the construction and operation of Project would be:

- Visual impacts;
- Property acquisition;
- Altered access arrangements;
- Loss of vegetation; and
- Short-term construction related impacts such as noise, vibration, air and water quality issues.

How Will Impacts be Managed?

The route options development and preferred route selection processes have been undertaken with the aim of avoiding or minimising potential negative impacts. The design process has further refined the preferred route, and incorporated environmental management measures with the aim of removing or reducing potential negative impacts.



This Environmental Assessment identifies proposed measures to minimise, manage and mitigate the remaining impacts of the construction and operation of the Project.

Draft Statement of Commitments

Section 75F(6) of the EP&A Act states that *'the Director-General may require the proponent to include in an environmental assessment a statement of the commitments the proponent is prepared to make for environmental management and mitigation measures on the site'*.

In accordance with this requirement, ARTC has prepared a Draft Statement of Commitments to detail the proposed environmental mitigation, management and monitoring for the Project. These proposed measures are discussed in Sections 7 to 14. A draft Statement of Commitments, which lists the proposed outcomes and actions to be achieved, is provided in Appendix B.

Commenting on the Project and the Environmental Assessment

The NSW Department of Planning will make the Environmental Assessment public for a minimum period of 30 days. Any person (including a public authority) may make a written submission to the Director-General of the NSW Department of Planning during the exhibition period. Submissions should be made to:

Director, Manager Infrastructure Assessments

Department of Planning

GPO Box 39

Sydney NSW 2001

Fax: (02) 9228 6355



Certification by Author

Submission of Environmental Assessment

Prepared under the *Environmental Planning and Assessment Act 1979*, Section 75H.

Environmental Assessment Prepared by:

Name: Bernadette Wilkinson
Qualifications: Bachelor of Environmental Science
Address: GHD Pty Ltd
352 King Street
Newcastle NSW 2300

Project to which Part 3A Applies

Applicant name: Australian Rail Track Corporation
Applicant address: PO Box 10343
Gouger Street
Adelaide SA 5000
Land to be developed: Minimbah Bank, starting from Belford to the north of
Whittingham Junction, in the Singleton Local Government Area,
NSW.
Proposed development: Seek Project Approval to construct the Minimbah Bank Third
Track and associated works from Belford to the north of
Whittingham Junction.
Environmental Assessment: An Environmental Assessment is attached.
Certificate: I certify that I have prepared the contents of this document and
to the best of my knowledge:

- It is in accordance with the requirements of Part 3A;
- It contains all available information that is relevant to the
Environmental Assessment of the development to which it
relates; and
- The information contained in the document is neither false
nor misleading.

Signature:

Verifier:

Shaun Taylor

Signature:

Date:

8 October 2008



Glossary of Terms

Acid Sulfate Soil (ASS)	Soil containing pyrite, which produces sulfuric acid when exposed to oxygen.
Ambient	Surrounding, background or existing.
Chainage	Chainage is generally the location in kilometres of the position of railway in relation to Sydney (NSW only) based on the 0.00 km being located at the end of Central No. 1 Platform.
Construction Environmental Management Plan (CEMP)	A document that details the management measures (including controls, monitoring and other safeguards) to be implemented during construction of the Project.
Corridor	Refers to the rail corridor, usually bounded by a safety fence that runs generally parallel to the railway lines. 'Rule of thumb' corridor width was originally in the order of one Chain (approximately 20 metres) but this varies depending on the location and corridor.
Cumulative impact	An impact produced by the accumulation of successive additions of individual impacts.
Danger Zone	Everywhere within 3m horizontally from the nearest rail and any distance above or below this 3m.
Development consent	Approval to undertake a development. Also known as a development approval.
Down Main	Primary (main) rail line that trains traverse when they are heading away from Sydney and is usually positioned on the left when your back is to Sydney.
Emission	The release of material into the environment (eg dust).
Environmental Management Plan (EMP)	A document that details the management measures (including controls, monitoring and other safeguards) to be implemented during a development. The Plan is implemented to minimise the potential environmental impacts of the development identified during the environmental impact assessment process.
Headway	The headway is the closest spacing between the front of two following trains, so that the second train can safely maintain the same speed as the first.
Hydrology	The science dealing with water on the land or under the surface and its properties, distribution and other characteristics.
Key Threatening Processes	A threatening process is defined as a key threatening process if it threatens or may threaten the survival, abundance or evolutionary development of a native species or ecological community.



Local Environmental Plan	The principal Planning Instrument for controlling development at the council level. The zoning provisions establish permissibility of uses and standards regulate the extent of development. They are prepared by councils and approved by the Minister (after public exhibition).
Noxious Weed	A declared noxious weed is a weed that must be controlled by law. The level of control is determined by the weed control category as defined by the <i>Noxious Weeds Act 1993</i> . Noxious weeds can be agricultural weeds, environmental weeds, or weeds that have other impacts (eg on human health).
Project	The Project includes the following key elements: ▸ Approx. 10.8 km of track and earthworks; ▸ Two new rail under bridges; ▸ Grade separation of Range Road level crossing; ▸ Replacement and realignment of the Golden Highway overbridge; ▸ Services relocation; ▸ Signalling works; and ▸ Property acquisition.
Ramsar Wetland/Site	A wetland protected under the EPBC Act, listed on the List of Wetlands of International Importance kept under the Ramsar Convention, or a wetland declared to be a Ramsar wetland by the Commonwealth Environment Minister.
Regional Environmental Plan (REPs)	REPs are made under the <i>Environmental Planning and Assessment Act 1979</i> and provide the framework for detailed local planning by councils. Regional environmental plans (REPs) cover issues such as urban growth, extractive industries, and heritage and conservation.
State Environmental Planning Policy (SEPP)	A planning instrument made by the Minister for Planning that deals with matters of significance for environmental planning in NSW.
Threatened species	Species of flora and fauna, populations or ecological communities that are listed under the <i>Threatened Species Conservation Act 1995</i> , <i>Fisheries Management Act 1994</i> and/or the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
Up Main	Primary (main) rail line that trains traverse when they are heading toward Sydney and is usually positioned on the right when your back is to Sydney.
Up Relief	Secondary rail line that runs parallel with the main line(s) that trains traverse when they are heading toward Sydney and is usually positioned on the right of the main line when your back is to Sydney.



List of Abbreviations

ABS	Australian Bureau of Statistics
ARI	Average Recurrence Interval
ARTC	Australian Rail Track Corporation
ASS	Acid Sulfate Soil
BoM	Bureau of Meteorology
CAMBA	China-Australia Migratory Bird Agreement
CCA	Controlled Activity Approval
CCTV	Closed Circuit Television
CEMP	Construction Environmental Management Plan
CLM Act	<i>Contaminated Lands Management Act 1997</i>
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CP Act	<i>Coastal Protection Act 1979</i>
DCF	Discounted Cash Flow
DCP	Development Control Plan
DECC	Department of Environment and Climate Change (formally DEC)
DEWHA	Department of Environment, Water, Heritage and the Arts (formerly DEH)
DG('s)	Director-General('s)
DGRs	Department of Planning's Director-General's Requirements
DoP	Department of Planning
DPI	Department of Primary Industries (NSW Fisheries)
DWE	Department of Water and Energy
EA	Environmental Assessment
EEC	Endangered Ecological Community
EMP	Environmental Management Plan



EMS	Environmental Management System
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environment Protection Agency
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPL	Environmental Protection Licence
ERA	Environmental Risk Assessment
ESCP	Erosion and Sediment Control Plan
ESD	Ecologically Sustainable Development
FM Act	<i>Fisheries Management Act 1994</i>
GHG	Greenhouse Gases
Ha	Hectares
HREP	Hunter Regional Environmental Plan
JAMBA	Japan-Australia Migratory Bird Agreement
km	Kilometres
LEP	Local Environmental Plan
LGA	Local Government Area
LHCCREMS	Lower Hunter Central Coast Regional Environmental Management Strategy
Major Projects SEPP	<i>State Environmental Planning Policy (Major Projects) 2005</i>
ms / cm	Microsiemens / Centimetre
mtpa	Million Tonnes Per Annum
NES	National Environmental Significance
NMVOC	Non-methane Volatile Organic Compounds
NO _x	Oxides of Nitrogen
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPWS	National Parks and Wildlife Service (Department within DECC)
NSW	New South Wales
NV Act	<i>Native Vegetation Act 2003</i>



NW Act	<i>Noxious Weeds Act 1993</i>
PMF	Probable Maximum Flow
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
REF	Review of Environmental Factors
REP	Regional Environmental Plan
RIC	Rail Infrastructure Corporation
ROTAP	Rare or Threatened Australian Plant
RTA	Roads and Traffic Authority
SEPP	State Environmental Planning Policy
SIS	State Infrastructure Strategy
SMP	Safety Management Plan
SoC	Statement of Commitments
SRA	State Rail Authority
SWMP	Soil and Water Management Plan
TSC Act	<i>Threatened Species Conservation Act 1995</i>
WIE	Whittingham Industrial Estate
WM Act	<i>Water Management Act 2000</i>
XPT	Express Passenger Train