MAJOR PROJECT ASSESSMENT: Nundah Bank Third Track (MP10_0094)

Director-General's
Environmental Assessment Report
Section 75I of the
Environmental Planning and Assessment Act 1979

September 2011

ABBREVIATIONS

CIV	Capital Investment Value
Department	Department of Planning and Infrastructure
Director-General	Director-General of the Department of Planning and Infrastructure
DGRs	Director-General's Requirements
EA	Environmental Assessment
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	Environmental Planning and Assessment Regulation 2000
EPI	Environmental Planning Instrument
MD SEPP	State Environmental Planning Policy (Major Development) 2005
Minister	Minister for Planning
PAC	Planning Assessment Commission
Part 3A	Part 3A of the *Environmental Planning and Assessment Act 1979*
PEA	Preliminary Environmental Assessment
PFM	Planning Focus Meeting
PPR	Preferred Project Report
Proponent	Australian Rail Track Corporation (ARTC)
RtS	Response to Submissions

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EXECUTIVE SUMMARY

The Australian Rail Track Corporation has sought project approval for the construction, operation and maintenance of a new third track and ancillary infrastructure adjacent to the existing track on the Main Northern Railway between Singleton and Camberwell in the NSW Hunter Valley. The proposed third track is approximately 4km in length and wholly located within the Singleton Local Government Area.

Currently, there is substantial pressure on the Hunter Valley Rail Network, with bottlenecks constraining the efficient operation of the network. The steep section of track at Nundah Bank is expected to become a constraint on the network by the third quarter of 2012. Additionally, due to the forecast increase in coal throughput at the Port of Newcastle, ARTC has proposed a number of improvements to the Hunter Valley Rail Network, including the proposed third track at Nundah Bank.

Following a detailed assessment of the Proponent's Environmental Assessment, the submissions received during the exhibition period for the project, and the Proponent's Submissions Report, the Department has identified the project's key issues as:

- Biodiversity,
- Non-Aboriginal and Aboriginal heritage, and
- Noise.

These issues were particularly reflected within the nine submissions from State Government agencies, local council, and the local community during the exhibition of the Environmental Assessment.

Potential impacts have been addressed through the design of the project and further design refinements proposed. There is also an appropriate level of reliance on management and mitigation measures to minimise these impacts and disruption to the community. This is reflected within the recommended conditions of approval and the Proponent's statement of commitments.

Consequently, the Department recommends that the Deputy Director General, Development Assessment and Systems Performance, approve the Nundah Bank Third Track project subject to the recommended conditions of approval.

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1. BACKGROUND

1.1 Project Background

The Australian Rail Track Corporation ARTC is a Commonwealth Agency which manages approximately 10,000 kilometres of standard gauge interstate track in South Australia, Queensland, Victoria, Western Australia, and New South Wales. On 5 September 2004, ARTC commenced a 60 year lease of the interstate and Hunter Valley Rail Network in NSW.

The Hunter Valley Rail Network extends broadly from the Port of Newcastle north to Narrabri, and from Muswellbrook west to Ulan (refer to Figure 1). The Hunter Valley coal chain is an interdependent network of coal handling and rail infrastructure extending across a number of coal basins and includes public and private coal handling infrastructure.

Due to the forecast increase in coal throughput at the Port of Newcastle, ARTC have proposed a number of improvements to the Hunter Valley Rail Network, and have released annual Hunter Valley infrastructure enhancement strategies that set out how they plan to ensure rail corridor capacity stays ahead of the expected rapid growth in coal production. Additionally, between the Port of Newcastle and Muswellbrook, there are identified sections of track where trains must climb steep grades resulting in the minimum headway between trains greater than desired. These are at Allandale, Minimbah and Nundah Bank.

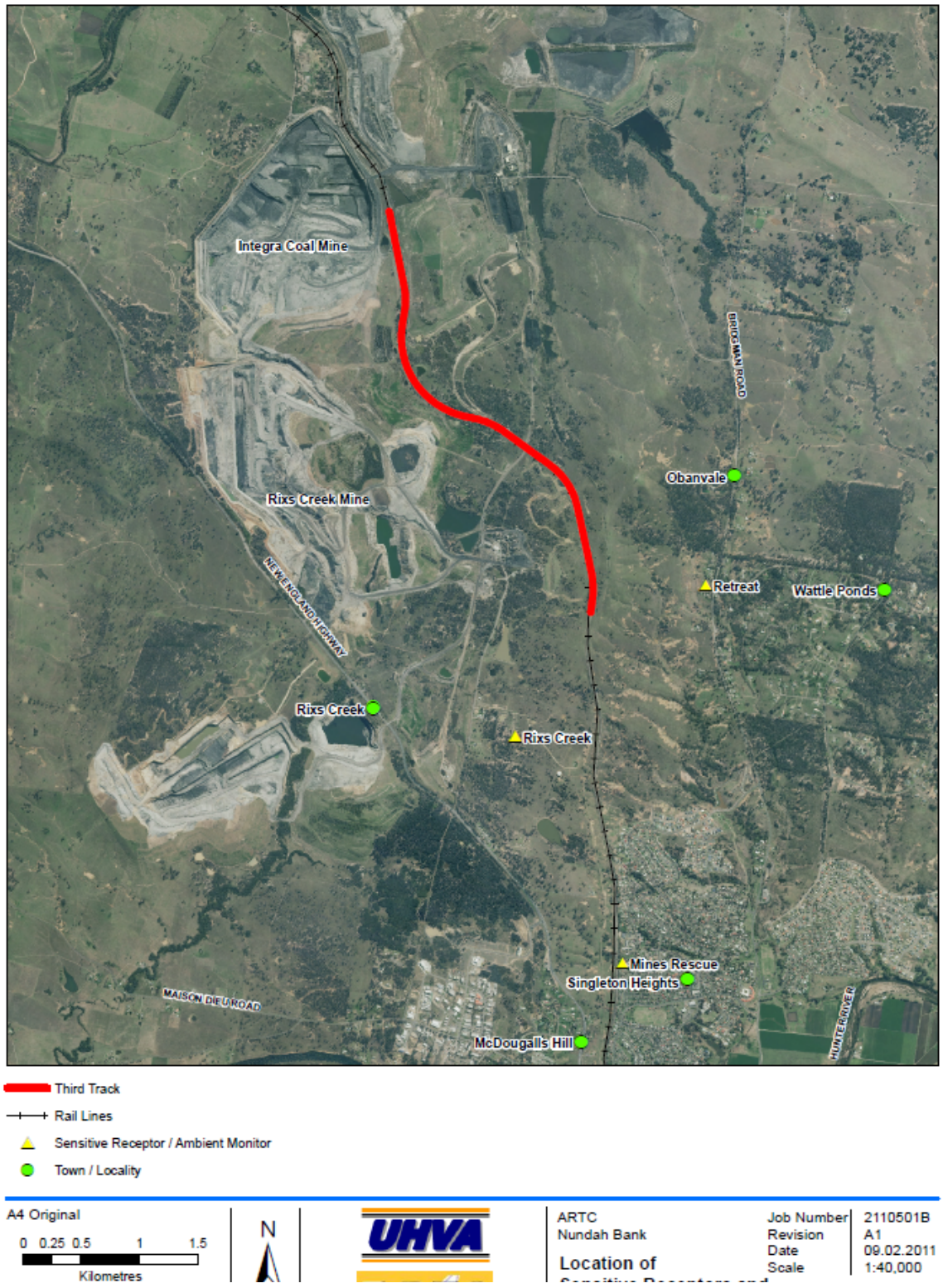
The *2009-2018 Hunter Valley Corridor Capacity Strategy 2009* (ARTC 2009a) (the Strategy) identifies that the steep section of track at Nundah Bank will become a constraint on the network by the third quarter of 2012. Unless this section of the track is upgraded, it will act as a bottleneck upon the overall capacity of the Main North Line to deliver coal and other exports to the Port of Newcastle. As well, the constraint will have flow on effects to other parts of the network and will substantially reduce the economic benefits associated with other recently completed and ongoing capacity upgrades by the ARTC at other locations in the Hunter Valley, including at Allandale Bank and Minimbah Bank.

The ARTC therefore proposes to construct, operate and maintain a third track and associated infrastructure at Nundah Bank Third Track, adjacent to the existing tracks on the Main North Line between Singleton and Camberwell in the NSW Hunter Valley (refer to Figure 2). The Project is located within the Singleton Local Government Area, and is located approximately 6km northwest of Singleton.

The Project would involve the construction of approximately 4km of new single, at grade track on the up side of the existing main track. Other elements of the project involve ancillary infrastructure, property acquisition, new maintenance vehicle tracks, drainage works, construction facilities, modifications to signalling infrastructure and modification to the configuration of the Camberwell rail loop.

Figure 1:Hunter Valley Rail Network

Figure 2: Project Location



1.2 Surrounding Land Uses

Topography in the vicinity of the project consists of undulating lowlands and gently rolling hills. The predominant adjoining land use is open cut coal mining. Located adjacent to the existing railway line is the Integra coal mine with access to an existing haul route via a bridge over the railway line. The Rixs Creek coal mine is also located adjacent to the project. Surrounding land uses are also characterised by stock grazing.

Vegetation communities within the region vary and vegetation within the project area has been highly modified as a result of past and current agricultural and mining activities. There a number of dams within the surrounding area that have been modified as a result of coal mine operations, agricultural practices and existing rail infrastructure. Adjoining watercourses include Station Creek.

Transport infrastructure within the vicinity includes the New England Highway, a National Highway which carries the majority of traffic through the Upper Hunter Valley. The project would also connect to the Camberwell railway line. The nearest urban centre is located at Singleton.

2. PROPOSED PROJECT

2.1. Project Description

The project involves the construction, operation and maintenance of approximately 4km of new third track and ancillary infrastructure adjacent to the existing tracks on the Main North Line between Singleton and Camberwell. The key components of the project are listed in Table 1.

Table 1: Key Project Components

Aspect	Description
Third Track	Approximately 4km of a new at grade track on the up side located between chainages 245-249 km along the existing Main North Line. Swing nose turnouts would be installed at each end of the third track**.**
Maintenance Vehicle Access Tracks	New vehicle access tracks parallel to proposed third track on both sides of the rail corridor.
Property Acquisition	Permanent acquisition from three landowners of approximately 20.6 hectares of land.
Signalling	Relocation and installation of signalling infrastructure within the rail corridor on the down side.
Camberwell Rail Loop	Camberwell Junction would be reconfigured with two new turnouts and two crossovers to the Camberwell Rail Loop.
Biodiversity Offset	Establishment of a biodiversity offset to compensate for the effects of vegetation clearing.
Earthworks	A number of cut and fill earthworks along the route, with preliminary spoil estimates at 232,500m3.
Upgrade existing infrastructure	Structural upgrade of Station Creek Bridge. Structural modifications to existing Rix's Creek mine road rail overbridge. Existing drainage to be upgraded including 12 drainage culverts to be extended under the third track.

NB: The *Down side* is the side of the track on which trains travel when they are heading away from Sydney and is usually positioned to the right when facing towards Sydney. The *Up side* is the side of the track on which trains travel when they are heading towards Sydney and is usually positioned on the left when facing towards Sydney.

The capital value of the project is approximately $44 million and ARTC anticipates that a construction workforce of 55 personnel would be required at the height of construction.

Construction is expected to take approximately 18 months to complete. The main construction phases can be broadly described as:

- preconstruction – site establishment, including compound locations, fencing and access tracks;
- construction – cut, fills and general earthwork activities along the corridor; drainage works; bridge works; station modifications; track works, including laying of new track, track slews, turnouts, landscaping and environmental controls; and
- de-commissioning – operation of site, handover and demobilisation including site clean up and removal of compounds.

2.2. Project Need and Justification

Australia is the world's largest exporter of coal and the Port of Newcastle is Australia's oldest and one of the largest tonnage throughput ports, with coal exports representing more than 90% of total throughput tonnage. The Hunter Valley rail network plays an important role in transporting coal and other freight from Muswellbrook to Newcastle.

The ARTC *Hunter Valley Corridor Capacity Strategy* has identified that the Nundah Bank line will reach capacity in early 2012. While the headway limitation at Minimbah Bank will be eased following completion of the Maitland to Minimbah Stage 1 project, the full capacity of this upgrade cannot be achieved until the constraint at Nundah Bank is removed.

Under the 'Do Nothing' option, the headway of trains travelling up Nundah Bank will limit the performance of the Hunter Valley rail network and constrain the delivery of coal and other exports at the port in the third quarter of 2012. The reduction of headways on Nundah Bank from their current 16.5 minutes is therefore necessary to alleviate this constraint on the network and to fully harness the benefits of other projects in planning and already implemented by the ARTC in the Hunter Valley.

The two options proposed to increase capacity on Nundah Bank and reduce headways, include re-signalling of the current track for loaded trains, or an additional track. Reducing headways would be achieved by both alternatives providing an increase in rail capacity, although the amount of capacity varies between the two options as well as other inherent differences and risks.

While resignalling would allow two trains to pass at the same time, the additional capacity provided by the reduced headways would not be sufficient to ensure export forecasts are met at the port. There would also be the risk that trains stopping at the bank would be unable to resume the climb, producing further delays.

Provision of a new third track would double the capacity of the track and would allow for two trains to pass each other without the need for the second train to come to a stand. The third track would also allow for passenger trains to overtake freight trains and reduce the impact of the capacity by passenger trains to 'shadow' trains on the track.

The preferred option, the subject of the EA, achieves the project objectives, as well as achieving reduced environmental and social impacts and associated costs, the ability to provide a future extension; and reduced civil works.

The project is consistent with the objectives of the *NSW 2021* Plan, specifically renovating infrastructure and returning quality services in transport. This includes:

- Goal 3 – drive economic growth in regional NSW, and
- Goal 19 – invest in critical infrastructure.

Should the project not proceed, the coal industry and other rail users, freight and passenger, would continue to rely on the existing two bi-directional tracks, limiting capacity of the lines and creating service disruptions and increased rail wear.

3. STATUTORY CONTEXT

3.1. Major Project

The proposal is a major project under Part 3A of the *Environmental Planning and Assessment Act* 1979 (EP&A Act) because it is development for the purpose of 'heavy railway lines associated with mining, extractive industries or other industry' that has a capital investment value of more than $30 million under clause 23(a) of Schedule 1 of *State Environmental Planning Policy (Major Development)* 2005. Therefore the Minister for Planning and Infrastructure is the approval authority.

On 6 July 2010, the Director of Infrastructure Projects as a delegate of the Minister for Planning declared the project to be subject to Part 3A of the EP&A Act under section 75B of that Act. Therefore the Minister for Planning is the approval authority.

On 25 January 2010, the then Minister for Planning delegated responsibility for the determination of project applications under Part 3A of the EP&A Act to the Deputy Director-General, Development Assessment and Systems Performance where:

- there are fewer than 25 submissions in the nature of objections in respect of the project application, and
- the project is not a critical infrastructure project under section 75C of the EP&A Act.

The Minister for Planning and Infrastructure has confirmed this delegation, subject to the local council not objecting to the proposal. The local council has not objected to this proposal.

3.2. Permissibility

The project is located within the Singleton local government area. The proposal is located on land zoned 1(a) Rural Zone in the Singleton Local Environment Plan. Within this zone, the proposed development is permissible with development consent.

Notwithstanding the LEP provisions, clause 79(1) of *State Environmental Planning Policy (Infrastructure) 2007* states that "Development for the purposes of a railway or rail infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land". Clause 5 defines public authority as: "in respect of development connected with rail corridors or railway infrastructure facilities, includes the Australian Rail Track Corporation Limited (ACN 081 455 754)". All works will be carried out by or on behalf of the Proponent and therefore the project is permissible.

3.3. Environmental Planning Instruments

There are no additional environmental planning instruments to those described above that substantially govern the carrying out of the project as described.

However, the Department did consider the potential for land contamination consistent with the objectives and requirements of *State Environmental Planning Policy No. 55 – Remediation of Land* (SEPP 55).

No records relating to contamination or remediation notices were found on DECCW's contaminated land register for the site, however as a result of past and present rail activities, it is considered that there is potential for contamination to exist. Potential impacts would primarily occur during the construction phase through the demolition, excavation and handling of potentially contaminated materials. The Proponent has proposed the preparation and implementation of a Hazard and Risk Management Plan to manage potential interaction with contaminated land and materials, including further analysis, sampling, classification and disposal methods.

Whilst the Department notes that ongoing risk to health and the environment will be limited due to the nature of existing and proposed uses on site and adjoining areas, the Department considers it prudent for the Proponent to prepare a Soil Contamination and Hazardous Materials Report, to ensure that contaminated land is appropriately managed and mitigated.

3.4. Objects of the EP&A Act

Decisions made under the EP&A Act must have regard to the objects of the Act, as set out in Section 5 of the Act. The relevant objects are:

(a) to encourage:
- *(i) the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment,*
- *(ii) the promotion and co-ordination of the orderly and economic use and development of land,*
- *(iii) the protection, provision and co-ordination of communication and utility services,*
- *(iv) the provision of land for public purposes,*
- *(v) the provision and co-ordination of community services and facilities, and*
- *(vi) the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and*
- *(vii) ecologically sustainable development, and*
- *(viii) the provision and maintenance of affordable housing, and*

(b) to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and

(c) to provide increased opportunity for public involvement and participation in environmental planning and assessment.

The objects stipulated under Section 5 are significant factors informing determination of the application, except for 5(a)(v) (iv) and (viii), as the project does not raise significant issues relating to community services and facilities, the provision of land for public purposes, or affordable housing.

The Department in its assessment has considered: the need to encourage the proper management and conservation of natural resources such as natural areas, water resources; the orderly development of land; the protection of communication and utility services; and the protection of the environment.

In addition to the above, the agency and community consultation undertaken as part of the assessment process (see Chapter 4 of this report), address objects 5(b) and (c) of the EP&A Act.

3.5. Ecologically Sustainable Development

The EP&A Act adopts the definition of Ecologically Sustainable Development (ESD) found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) the precautionary principle
(b) inter-generational equity
(c) conservation of biological diversity and ecological integrity
(d) improved valuation, pricing and incentive mechanisms.

The principles of ESD have been addressed in the EA prepared by the Proponent for the project. The EA includes detailed studies, including in the form of Technical Papers prepared by specialists in the areas of ecology, noise and vibration, traffic and transport, non-Indigenous heritage. The results of the abovementioned investigations and specialist studies have been summarised within the main body of the EA to ensure that the principles of ESD have been adequately addressed as part of the assessment of the project.

Mitigation and management measures have been committed to by the Proponent and would be implemented as part of the project to ensure that project impacts are minimised. On this basis, and the Department's assessment of key issues outlined in Section 5 of this report, the Department is satisfied that the project promotes the principles of ESD.

3.6. Statement of Compliance

In accordance with section 75I of the EP&A Act, the Department is satisfied that the Director-General's environmental assessment requirements have been complied with.

4. CONSULTATION AND SUBMISSIONS

4.1. Exhibition

Under section 75H(3) of the EP&A Act, the Director-General is required to make the environmental assessment (EA) of an application publicly available for at least 30 days. After accepting the EA, the Department publicly exhibited it from 30 March 2011 until 2 May 2011 (30 days) on the Department's website, and at the following exhibition locations:

- Department of Planning and Infrastructure
- Nature Conservation Council
- Singleton Council Administration Centre
- Singleton Council Library.

The Department also advertised the public exhibition in the Newcastle Herald and Hunter Valley News on 6 April 2011.

The Department received nine submissions during the exhibition of the EA – seven submissions from public authorities and two submissions from the general public and special interest groups.

A summary of the issues raised in submissions is provided below.

4.2. Public Authority Submissions

Table 2- Key issues raised by public authorities

Agency	Key Issues Raised
Roads and Traffic Authority (RTA)	• A requirement relating to the preparation of a Construction Traffic Management Plan to be submitted to the RTA and Council for acceptance.
Office of Environment and Heritage formerly the Heritage Branch, the Department of Planning	• Provided comments that the heritage management measures provided by the Proponent are inadequate and in subsequent correspondence concurred with revised measures.
Office of Environment and Heritage, formerly the Department of Environment, Climate Change and Water	• Recommended conditions on ecological impacts, Aboriginal cultural heritage ; and noise and vibration impacts.
Transport NSW	• Stated the importance and benefits of this freight task to the NSW economy and supports the project. • Noted that consultation and agreement with the RTA needs to occur over any proposed changes to road infrastructure at both construction and operational stages of the project.
NSW Office of Water (NoW)	• No objection to the proposal but requested that recommended conditions relating to approvals and licenses required for groundwater and surface water. • Requested that the Construction Environmental Management Plan be provided to them for review.
Singleton Council	• No objection to the proposal but raised concern with the potential impact on local road infrastructure including potential damage to the Middle Falbrook Road Bridge and requested that the approval include a requirement in relation to the rectification of damage and Council approval under the Roads Act. • The approval includes conditions relating to the rectification of road damage and identifying that the Proponent seek all relevant licences, permits and approvals.
NSW Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS), formally the NSW Department of Industry and Investment (I&I NSW)	• No objection to the proposal provided the coal title holders, DTIRIS and the Mine Subsidence Board are continued to be consulted with.

4.3. Public Submissions

Two submissions were received from special interest groups, Two More Trains for Singleton, and Hunter Environment Lobby Inc. Neither submission objected to the proposal, but raised concerns regarding the following aspects of the proposal. The key issues raised included:

- the EA fails to recognise relevant proposals in the Singleton Land Use Strategy 2008 including a future road crossing of the Main Northern Railway line at the southern end of the third track and a potential future Singleton Heights Railway Station location;
- consideration given to the location of future infrastructure including railway crossings and stations;
- review of the impacts on the four threatened species including proposed mitigation measures; and
- review of the adequacy of biodiversity impacts and offsets.

The Department has considered the issues raised in submissions in its assessment of the project.

4.4. Proponent's Response to Submissions

A report containing the response to submissions and a Preferred Project Report, was received by the Department on 2 June 2011. The Preferred Project Report proposed the following minor changes to the project:

- change to access arrangements to the down side of the rail corridor from Rix Creek Lane
- the extension of the project area to include five locations to the edge of water stores on the adjoining Integral Coal and Rixs Creek Mine properties
- as a result of the first two amendments, an increase in the amount of Endangered Ecological Community vegetation to be cleared from 22.1 to 22.5 hectares.

5. ASSESSMENT

5.1. Biodiversity

Issue

The project is located within the Sydney Basin Bioregion, which is a highly variable region in terms of geology, topography and climate resulting in one of the most species diverse areas in Australia. An assessment of flora and fauna impacts along the corridor, including field surveys of the study area and surrounding landscape has identified that the majority of vegetation within the site has been previously cleared and extensively modified as a result of historic and current grazing, rail construction, coal mining and associated works.

The project has been designed along the principles of avoidance, minimisation and mitigation, and therefore, construction works and access tracks have been located in existing disturbed areas where possible. The proposal will, however, include the removal of 65.8 ha of native vegetation.

Flora

Using vegetation mapping and site surveys, five distinct vegetation types were identified on the site as listed in Table 3.

Table 3 – Vegetation Clearing

Vegetation community/ Fauna habitat	Vegetation clearing (hectare)
Vegetation	65.8
Central Hunter Spotted Gum- Ironbark- Grey Box Forest	9.1
Central Hunter Spotted Gum- Ironbark-Grey Box- Derived grassland	14.3
Weed dominated area	40.6
Aquatic vegetation along drainage lines and dams	0.4
Swamp Oak	1.0
Plantation	0.4
Total area EEC clearing	**22.5**
Fauna habitats	
Dry open forest	10.5
Aquatic habitat	0.4
Cleared land	54.9

The project involves the removal of 65.8 ha of vegetation including 9.1 ha of *Central Hunter Spotted Gum- Ironbark - Grey Box Forest*, which is listed as an Endangered Ecological Community under the *NSW Threatened Species Conservation Act 1995* (TSC Act), and is generally of moderate condition. The project also includes the removal of 14.3ha of *Central Hunter Spotted Gum- Ironbark - Grey Box Derived grassland*, which is of poor condition due to low species diversity.

A total of 226 species of plant was recorded in the study area of which 167 species (74%) were native. A total of 39 threatened flora species are known or predicted to occur in the locality. While no threatened plant species were recorded in the study

area, two threatened species were considered to have a low to moderately likelihood to occur on the site: *Diuris tricolor (*vulnerable under the TSC Act) and *Bothriochloa bibola* (vulnerable under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)).

Significance assessments for threatened ecological communities and threatened species concluded that the proposal is not likely to result in any significant impact due to the small area (22.5ha) of native vegetation communities likely to be affected and the existing disturbed nature of the subject site.

Fauna

The suitability, size and configuration of fauna habitats correlated broadly with the vegetation communities and provide habitat for a range of birds, mammals and amphibians. A total of 67 threatened species listed under the TSC Act and/ or EPBC Act have been recorded or predicted to have habitat in the locality. It was found that not all species would be impacted by the project and that 33 threatened species were likely to have a low likelihood of occurrence based on the availability of habitat. Four threatened fauna species listed under the TSC Act and/ or the EPBC Act were recorded in the study area during field surveys as identified in Table 4.

Table 4 – Impacted Fauna Species

Common Name	Scientific Name	EPBC Act listing	TSC Act listing
Grey-headed Flying fox	*Pteropus poliocephalus*	V	V
Grey-crowned Babbler	*Pomatostomus temporalis temporalis*		V
Squirrel Glider	*Petaurus norfolcensis*		V
Little Lorikeet	*Glossopsitta pusilla*	V	V

V – Vulnerable

Key impacts and threatening processes related to the project include the spread of existing weeds, loss of hollow bearing trees, and fragmentation impacts. Fragmentation through the clearing of vegetation may impact on the Squirrel Glider, inhibiting the species accessing vegetation to the south. While the Squirrel Glider may still access such vegetation, the increased separation distance of up to 75m is likely to hinder this dispersal.

Notwithstanding, significance assessments for threatened species concluded that the proposal is unlikely to have a significant impact due to the site containing disturbed easements with no recorded preferred habitats, the highly fragmented nature of the site area with isolated regrowth/ remnant vegetation, the lack of important microhabitat elements such as roosting and breeding habitat, and that identified species were highly mobile.

In consideration of the impacts of the project, the Proponent has committed to a range of measures to minimise the level of impacts to fauna and flora species, including:

- areas of vegetation to be retained would be managed as environmentally sensitive areas,
- clearing protocols to minimise impacts to hollow dwelling species would be implemented,

- tree felling protocols during construction would be implemented, and
- residual impacts would be offset through biobanking and the development of an offset strategy.

Consideration

The Department notes that the project will result in the clearing of 22.5 ha of EEC and subsequently has the potential to impact on biodiversity values of the area. Whilst the Department would prefer that these impacts be avoided, it does recognise that clearing will be minimised through the positioning of the third track alongside the existing track, and considers on balance, that the impacts are acceptable and can adequately mitigated.

The OEH raised concern about flora and fauna species survey methodology, particularly in relation to seasonal constraints. In its response, the Proponent advised that it had taken a precautionary approach in its impact assessment based on habitat opportunities. The Department considers this conservative approach acceptable and is generally satisfied with the ecological assessment of the project.

The Department notes that whilst the project will not result in significant ecological impacts, it does consider that the clearing of up to 22.5ha of EEC should be minimised where possible and will require offsetting. The OEH has requested that offsets be provided prior to the clearing of native vegetation and that it meets its Biobanking requirements or Biodiversity offsetting principles. In its response to submissions, the Proponent has identified that it is currently preparing a strategy in consultation with OEH.

The Department also notes that BioBank credits have been identified and calculations relating to the Biobanking assessment tool were used to provide a calculation of the number and class of biodiversity credits required to ensure maintenance or improvement in biodiversity. OEH has stated they support the Proponent's proposal to use the Biobanking program for the vegetation offsets, however considers that further details in relation to a quantitative appraisal of the offset package that would offset the predicted impacts are required.

To ensure that the clearing of native vegetation is minimised and the completion of the offset strategy, the Department has recommended conditions requiring that native vegetation clearing be minimised where practical and that the Biodiversity Offset Package be finalised no later than six months following commencement of construction work.

The Department notes that the project could have fragmentation and connectivity impacts for Squirrel Gliders, particularly near the Integra Coal rail loop where an increased separation of habitat of up to 75m is likely to affect dispersal. The OEH has also recommended a condition requiring a Squirrel Glider crossing zone be established in this location. Accordingly, the Department has recommended a condition of approval that a crossing zone be established prior to commencement of works which affect identified Squirrel Glider habitat. With this management measure, the Department is generally satisfied that the project would not significantly alter barrier effects that already occur along the existing rail corridor.

To ensure protection of native flora and fauna during construction, the Department has recommended a condition which requires the preparation and implementation of a Fauna and Flora Management Plan, which would include pre-clearing surveys and procedures, weed management measures, and details of work practices to minimise potential for damage to native vegetation and riparian zones.

The OEH has also recommended that data on fauna species observed and translocated during the clearing stage should be collected and made available in order to gain a greater understanding of the range and density of hollow-dependent species in the local area and the local requirements of artificial hollows to be established. Whilst the Proponent has provided a commitment generally to this effect, the Department has recommended a condition to re-iterate this requirement to ensure the accurate recording of hollow-bearing trees and threatened flora species is undertaken by a qualified and experienced ecologist.

The Department considers that potential impacts on biodiversity as a result of construction and operation of the project can be appropriately addressed through mitigation measures and offsets. The mitigation measures proposed in the EA and the Proponent's statement of commitments, as well as the Department's recommended conditions of approval, would ensure that potential impacts to native flora and fauna would be minimised.

5.2. Non-Aboriginal Heritage

Issue

The study area was identified in terms of its archaeological context, historical context, and physical context. The non-Aboriginal history of the area falls into three key phases:

1. Early land grants, land clearing and grazing (1820-1860);
2. Coal mining and the Great Northern Railway (1860-1909); and
3. Decline to the resumption of coal mining (1909 to present).

There are no listed heritage items located within the project area. However, two items were identified within the vicinity of the project (within 1km of the project) and are listed in Schedule 3 of the Singleton Local Environment Plan (LEP):

- Rixs Creek Coke Ovens: located west of Rixs Creek at the southern end of the study area; and
- Dulwich Homestead: located to the west of Middle Falbrook Road.

The Middle Falbrook Road Bridge over Glennies Creek is listed on the State Heritage Register, the Road and Traffic Authority's Heritage and Conservation Register and the Register of National Estate. However, the item is located over 3km from the project area, and would not be impacted by the proposal.

Dulwich Homestead is the key physical evidence of the land clearing and grazing period. In relation to the mining period, sections of the Great Northern Railway are situated within the southern half of the study area, including the platform at Rixs Creek and the junction with the tramway which connected the railway to the Rixs Creek coal mine. The railway was rerouted between the Hunter River and Nundah to the present route of the Main Northern railway in 1952.

Additional research and field study identified a number of features which provided evidence of activities and events within and in the vicinity of the project area over time. These are listed in Table 5.

Table 5 – Survey Results

Identified Item	Significance
Potential archaeological relics of mining and settlement activity at Rixs Creek (Item 01)	Local
Evidence of Historical Uses such as fence posts, remnant roadways & slab buildings (Items 02-1, 02-2 & 02-3)	Local
Former Great Northern Railway (including the embankment, box culvert, Rixs Creek platform and tramway junction) (Items 03 and 04)	Local
Timber beam bridge on Middle Falbrook Road over Station Creek (Item 05)	Local

The main construction activities that may potentially impact on identified heritage items include:

- stockpile sites – however, areas of heritage or archaeology sensitivity can be avoided;
- the secondary site compound – potential impacts to the former Great Northern Railway Embankment, box culvert, and the former Rixs Creek Railway platform. However, impacts can be avoided through the implementation of exclusion zones and the embankment is considered sturdy enough to support compound elements with minimal impact;
- Rixs Creek Road Extension - proposed works may involve the removal of isolated fence posts that may have some interpretative value in representing the width of the track to Rixs Creek Platform; and
- access to the Project Area via Middle Falbrook Road – there is no proposal to modify the existing roadway, however it is proposed to upgrade the Station Creek timber beam bridge structure to support construction traffic.

Consideration

The Department notes that the project will not impact listed heritage items and considers that the proponent has undertaken a satisfactory heritage assessment and that construction impacts can be appropriately mitigated and managed generally through avoidance and protection of identified areas and items of heritage sensitivity.

The Department notes that the heritage assessment has recommended that areas of heritage sensitivity should be identified in exclusion zones and avoided, timber posts within the road extension be avoided and that stockpile areas or compounds not be positioned in identified areas of heritage or archaeological sensitivity.

It was identified that the Secondary Compound could potentially impact on the former Great Northern Railway embankment (04-3), the box culvert (04-1) and the former Rixs Creek Railway Platform (03). The embankment would be utilised only to support compound elements such as temporary site sheds. Levelling of the embankment would only occur as necessary and not where heritage items have been identified. Any levelling undertaken would be made good at the completion of the works.

In relation to the timber beam bridge over Station Creek, and upgrades to support construction traffic, the heritage assessment identified that this would be acceptable subject to traditional materials being used consistent with that which would be used for maintenance of this type of bridge. This would be undertaken in consultation with Singleton Council, and include archival recording if necessary.

The Department notes that the Proponent's proposed statement of commitments will partially address potential impacts to heritage items, in particular the need to manage and avoid impacts at identified areas of heritage sensitivity. Furthermore, the Department notes that the heritage listed Middle Falbrook Road Bridge is located over 3km from the project area and would not be significantly impacted and notes that the Proponent has committed to not using the bridge for heavy construction vehicles. The Heritage Branch, Office of the Environment and Heritage, has advised that it considers that any impacts on non-Aboriginal heritage within the project area can be adequately managed.

To ensure this objective is achieved, the Department has recommended that the heritage assessment recommendations (listed in Section 7 of the technical paper) be implemented and that the Proponent prepare a Construction Non-Aboriginal Heritage Management Plan. The intent of the Plan is to:

- identify heritage items and archaeological sites impacted by the project;
- detail management measures to be implemented to prevent impact in the vicinity of heritage items and sites;
- detail protocols for archival recording of items to be impacted or modified;
- detail training and induction requirements for all staff;
- detail monitoring and reporting requirements for impacts on heritage items; and
- detail procedures and protocols for engaging the Department, OEH and specialists to provide heritage and conservation advice.

The Department has also recommended a condition to address potential finds of unidentified heritage during construction, including consultation with OEH and the Department and the implementation of required actions.

The Department considers that through the implementation of the listed mitigation measures and the implementation of the Construction Non-Aboriginal Heritage Management Plan, that impacts to heritage items and areas of heritage sensitivity would generally be avoided or managed to acceptable levels.

5.3. Aboriginal Heritage

Issue

In the past, the local area would have provided ideal conditions for Aboriginal occupation due to the availability of water, resources provided by endemic plants and animals, a hospitable climate and useful geological material. Throughout the locality, artefact scatters and isolated finds are the dominant archaeological site type, comprising 97% of known site types and it was predicted that this would also be the expected site type in the project area. However, the integrity of artefact scatters and isolated finds was expected to be low due to past land modification processes, such as land clearing, grazing, cultivation, mining, dam works and the like.

The Proponent undertook background desktop research, heritage register searches and a field survey to identify Aboriginal heritage within and in the immediate vicinity of the project area. The Aboriginal Heritage Information Management System (AHIMS) register, listed nine sites located within or in the immediate (100m) vicinity of the project area. The Proponent also reported that there were no lands determined to have native title, no registered native title claims or Indigenous land use agreements located within the project area.

Field inspections were undertaken, including participants from local Aboriginal groups. During the field inspections, a total of 18 previously undocumented Aboriginal cultural sites were identified, including one in the immediate vicinity of the project. Within the identified sites, nine stone artefact scatters and eight isolated stone artefacts were recorded. This is consistent with the prediction that open stone artefact scatters and isolated finds are the most likely issues to be identified within the project area. It was also noted that a number of disturbances within the project area were identified, including disturbances from geomorphic processes such as erosion, and human activities such as rail infrastructure and surrounding mining activities.

The Aboriginal heritage assessment found that all 18 Aboriginal archaeological sites recorded were assessed to be of low archaeological significance at the local and regional context due to:

- the type of small artefact scatters are common site types in the local area;
- the integrity of the sites is low and there is unlikely to be potential for archaeological deposits given the disturbance of the area by human activities and erosion; and
- there is no evidence of connectivity or complexity among the sites.

As a result of the project, impacts to 13 sites of low archaeological significance could occur. As a result the assessment identified the following principles to manage Aboriginal heritage impacts:

1. Continued consultation with the registered Aboriginal parties;
2. Development of a Conservation Heritage Management Sub Plan;
3. Conservation opportunities through avoidance (including the identification of exclusion zones); and
4. Further Archaeological work (including surface salvage in areas that can not be avoided).

Consideration

The Department notes the highly modified nature of the project area, its relatively low archaeological potential and the low archaeological value of the identified sites. It considers that the Proponent has undertaken a satisfactory Aboriginal heritage assessment and that construction impacts can be appropriately mitigated and managed through ongoing consultation with the Aboriginal community, avoidance and protection of identified sites, and surface salvage (where necessary).

The OEH submission raised concern about a lack of evidence of consultation with the Aboriginal community on the project. The Proponent, in response, provided further evidence of consultation with registered Aboriginal stakeholders in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECC 2010). Accordingly, the Department considers that the

Proponent has adequately consulted with Aboriginal stakeholders during the preparation of the EA. Notwithstanding, and consistent with the recommended mitigation measures the Department has recommended a requirement that a Construction Aboriginal Heritage Management Plan be prepared in consultation with Aboriginal Stakeholders and the OEH and that it include procedures for ongoing Aboriginal stakeholder consultation, involvement and monitoring.

OEH also submitted that the Aboriginal cultural assessment provided did not adequately address the cultural significance of the Aboriginal heritage identified within the project area. The Proponent, in consulting with the Aboriginal community, specifically requested stakeholders to describe the cultural significance of Aboriginal cultural heritage relevant to the project area. However, no comments relating to the cultural significance of the area or identified sites were provided. The Department is satisfied that the Proponent has adequately sought the views of the Aboriginal community to ascertain the significance of the Aboriginal heritage identified within the project area. Additionally, the Department has recommended conditions of approval to ensure that any new items discovered prior or during construction, are managed appropriately, and in consultation with Aboriginal stakeholders.

The Department considers that through the implementation of the Proponent's Statement of Commitments, the recommended Construction Aboriginal Heritage Management Plan and the implementation of the mitigation measures identified in the Aboriginal Heritage Assessment, that Aboriginal heritage items would be appropriately protected, salvaged (where necessary) and recorded during the construction and operation of the project.

5.4. Noise

Issue

The surrounding land uses include mining and associated infrastructure, and rural uses such as stock grazing. The nearest residential property to the proposed third track is located approximately 770m to the east of the line, on Bridgman Road. Residential properties adjoin the existing Main North Line towards Singleton, where resignalling works would take place as part of the project.

Noise and vibration impacts would occur during construction and operation of the third track and along the existing rail line. Noise monitoring was undertaken at two locations to determine the existing acoustic environment. Monitoring location A, 140 metres from the rail line, was selected to calibrate the model in the event that train noise at the receiver was not able to be clearly identified above ambient noise. Monitoring location B, at 427 Bridgman Road, is the nearest residential receiver to the proposal. The potential noise and vibration impacts and proposed management measures, are discussed below.

Construction noise

Construction is proposed to take approximately 18 months and include:

- site establishment and clearing;
- bulk earthworks;
- rail construction;
- bridge works;
- demobilisation and rehabilitation; and
- primary compound and access road.

No blasting would be carried out during the construction of the third track.

The Proponent undertook a construction noise assessment in accordance with the *Interim Construction Noise Guidelines* (ICNG). Noise levels during construction are predicted to be within ICNG goals at the nearest sensitive receivers, except for a 1 dB exceedance when a hydraulic hammer would be used in an exposed location. The predicted noise level exceedance, which represents a worst-case scenario is considered minor, and would be managed through community consultation, monitoring, and potential modification to work practices, if required. The Proponent has also committed to a number of management measures to implement during construction in an effort to minimise the impacts of construction noise.

Some night time works are expected to be required during rail possessions to facilitate works that are required on the existing line. These works would be limited, typically occurring over 1-4 consecutive nights. Predicted noise levels indicate that awakening reactions are unlikely to occur. Nearby receivers would be notified of planned night works.

Operational noise

Freight train numbers are expected to increase in response to increasing demand for coal, with the predicted train numbers on the Nundah Bank line provided in Table 6.

Table 6 – Current and future freight train numbers

Year	Freight train pass-bys per 24 hours		
	Daytime (7am -10pm)	Night time (10pm- 7am)	Total (24- hour)
2010	54	32	86
2018	128	76	204

The Proponent undertook a noise assessment of the operational noise impacts of the third track in accordance with the *Interim Guideline for the Assessment of Noise from Rail Infrastructure Projects* (IGANRIP) (2007). Modelling was undertaken for the proposal to ascertain if base IGANRIP trigger levels would be exceeded and verified with measured data from the existing rail lines. The modelling undertaken was based on the increase of up to 204 train movements per day until 2018.

Table 7 presents the worst case increase in $L_{Aeq,\ 1hr}$ with the introduction of the development. In order for mitigation measures to be considered, a noise increase of greater than 2dBA and an exceedance of noise trigger levels is required. The noise modelling results show that whilst there would be an increase in noise levels, noise levels are predicted to be well within relevant IGANRIP trigger levels for both day and night time periods.

Table 7 – Existing and 'Existing + Proposal / Future' $L_{Aeq\ 1hr}$ Rail Noise Levels

Rec. ID	IGANRIP		Predicted level (dBA)		Difference	IGANRIP	
	Day time trigger level	Night time trigger level	Existing (2010)	Future (2018)	(>2dB for IGANRIP)	'Difference trigger'	'Base level trigger'
1	60dBA	55dBA	44.7	48.9	4.2	YES	NO
2	60dBA	55dBA	44.2	48.3	4.1	YES	NO
3	60dBA	55dBA	43.6	47.8	4.2	YES	NO

Vibration

Vibration impacts for both construction and operation of the project are expected to be negligible. The nearest residential receivers are located approximately 770 m from the proposal, therefore due to this distance, potential vibration would not exceed the goal levels outlined in the *Assessing Vibration: A Technical Guideline* of 0.2mm/s peak particle velocity (PPV) for the assessment of continuous vibration occurring at night with regard to human comfort. Vibration impacts would also be well within the relevant building damage criteria detailed in international standards.

Consideration

Construction noise

The Department acknowledges that relatively minor noise impacts would occur as a result of the construction of the project, and considers that these would be limited given the scope of construction works within the vicinity of the third track, and the distance from sensitive receivers.

The Department considers that potential construction noise impacts could generally be managed through the proposed measures identified by the Proponent, and the recommended conditions of approval, which identify noise and vibration goals and require the preparation of a Construction Noise and Vibration Management Plan. This Plan would ensure that the project addresses the following matters:

- details of construction activities, in particular potential noise generating activities;
- details of actions or measures to be implemented to minimise noise impacts;
- procedures for notifying potentially affected sensitive receivers;
- description of how the effectiveness of actions and measures is to be monitored; and
- preparation of an out-of-hours work protocol for any works not otherwise subject to an Environmental Protection Licence.

Operational noise

The Department notes that the operational noise impact assessment has focused on the third track component of the project and that modelling has been carried out to 2018. Whilst this assessment is not inconsistent with IGANRIP, the Department notes that rail noise assessments generally extend to a 10 year period after operation and sought clarification from the Proponent on this matter.

The Proponent advised that forecasted train numbers were derived from ARTC's *2009-2018 Hunter Valley Capacity Strategy,* and that following the preparation of the noise assessment, the *2011-2020 Hunter Valley Capacity Strategy* had been released. The 2011-2020 Strategy forecasts train movements which are

comparable with, but lower than, the number of movements forecast in the 2009-2018 Strategy. Therefore, it is reasonable to assume that the noise impacts of the project should be no greater in 2020 based on the forecasts.

The Department also queried the scope of the assessment and impacts beyond the third rail track. Whilst IGANRIP does not specifically require this assessment, the Proponent provided advice on the applicability of Environmental Protection Licence No.3142 and the associated Pollution Reduction Program (PRP). This licence has noise goals consistent with IGANRIP levels and has identified as an objective, to progressively reduce noise levels to the noise goals through the implementation of Pollution Reduction Programs. The Department considers that the PRP is the most appropriate way to address this issue and is satisfied that this measure will address noise impacts beyond the third rail track and has included a note to this effect in the approval.

In noting the above and that the predicted noise levels do not trigger a need for additional detailed assessment of noise mitigation measures in accordance with IGANRIP, the Department is satisfied with the assessment undertaken. Notwithstanding, as there is predicted to be an increase in the noise levels experienced at sensitive receivers as a result of the third track, the Department considers that operational noise levels should be monitored and mitigation measures implemented, if necessary.

The Department has therefore recommended a condition requiring the Proponent to design and operate the project with the objective of not exceeding the noise trigger levels as presented in IGANRIP and to undertake monitoring 1 and 5 years after operation. If the monitoring and assessment indicates an exceedance of the identified noise and vibration goals, the Proponent would be required to implement reasonable and feasible measures to mitigate these exceedances, in consultation with affected receivers. This is also consistent with OEH's recommendation that the Proponent implement all feasible and reasonable noise and vibration measures in accordance with IGANRIP.

Vibration

The Department notes that a quantitative vibration impact assessment was not undertaken as the nearest residential receiver is located 770m away. Notwithstanding, the Department considers that vibration impacts would be negligible due to the significant distance of receivers and that no blasting is to be undertaken. Based on the Department's previous assessment of vibration impacts from this distance, it is considered that any vibration impacts would be negligible and within current standards.

However, to ensure that residences are not adversely impacted, the Department has recommended conditions identifying construction and operation vibration goals, as outlined in relevant standards and guidelines, that the Proponent is required to achieve. Potential construction vibration impacts would be managed and monitored through the implementation of the Construction Noise and Vibration Management Plan, and potential operational vibration impacts would be reviewed through the Noise and Vibration Monitoring and Assessment requirement.

The Department considers that through the implementation of the recommended Construction Noise and Vibration Management Plan and the implementation of the operational noise and vibration compliance monitoring, that construction and operational noise and vibration impacts would be appropriately managed.

5.5. Other Environmental Issues

Surface and Ground Water

The Hunter River is located approximately three kilometres southeast of the project and Glennies Creek is located approximately one kilometre northwest of the project. There are 12 railway drainage structures crossing beneath the railway corridor within the project area, variously comprised of reinforced concrete and galvanised iron culverts and pipes.

The Proposal would involve conventional bulk earthworks, and would require consideration and management of scour and erosion impacts, particularly near creeks and drainage lines. Erosion and sediment control would be undertaken, consistent with the principles of *Managing Urban Stormwater: Soils and Construction* (Landcom 2004). The Proposal would incorporate water management controls such as sediment ponds and where possible, permanent locations for the controls would be identified so that they can also be used during operation. All drains and slopes would be designed in accordance with the ARTC guidelines and good engineering practice.

To further mitigate the potential construction impacts, the Proponent has committed to preparing and implementing a Soil and Water Management Plan, and to conduct upstream and downstream water quality monitoring of waterways pre and post discharge from sediment basins.

The Department considers that with the implementation of the Proponent's commitments, and the Department's recommended condition identifying the level of detail required by the Construction Soil and Water Quality Management Plan, the potential impacts on surface water and groundwater as a result of construction of the project can be appropriately managed. It is also noted that the NoW raised no significant issues with the project subject to recommended conditions, which have been incorporated by the Department, including requiring that it be consulted during the preparation of the Construction Soil and Water Quality Management Plan.

The Department is also satisfied that the Proponent has demonstrated that impacts to surface water as a result of the operation of the project would also be minor subject to drainage structures and water crossings/culverts being appropriately designed, and noted that upgrading existing culverts would improve drainage efficiency and reduce the potential for flooding. Notwithstanding, to ensure the project does not significantly increase flooding characteristics or impact adjoining stormwater retention structures, the Department has recommended a condition requiring that these impacts be limited and that appropriate mitigation works be undertaken if required.

The Proponent identified that works required for the Station Creek Bridge upgrade would not impact on water quality, due to the minor nature of the works. However, if foundation works are required, appropriate water quality controls would be implemented to protect the creek and dependent ecosystems. The NoW

recommended that geomorphic assessment of stream sections where crossings are to be constructed should be conducted prior to construction. The Department considers that should detailed design identify the need for works within the Station Creek channel, the Proponent would be required to undertake an assessment of Station Creek in consultation with NoW and DTIRIS, and has recommended a condition of approval to this effect.

The Department considers that with the Proponent's commitments, and the Department's recommended conditions, the potential impacts to surface water and groundwater would be adequately managed.

Construction Traffic

Construction traffic would access the project area via Bridgman, Stony Point and Middle Falbrook Roads. The proposed access to the main compound and satellite compound would be via a proposed haulage route that would utilise the New England Highway at intersections with Rixs Creek Lane and Bridgman Road. A lesser proportion of construction traffic would use Rixs Creek Lane for down side access track construction and signalling works. Two temporary extensions to Rixs Creek Lane would be established to allow for construction access and the land would be rehabilitated following use.

Construction activities would generate traffic as a result of equipment and material delivery. This additional traffic is not expected to have a significant impact on the surrounding local road network, and the New England Highway/ Bridgman Road intersection would continue to operate above its practical capacity.

The Department considers that with the implementation of the Proponent's commitments, and the Department's recommended conditions, the potential impacts on the road network as a result of construction traffic would be minimised. In particular, the Department has recommended a condition of approval for the implementation of a Construction Traffic and Access Management Plan to manage construction traffic and access impacts of the project.

Air Quality

During construction, the main sources of air emission are anticipated to be dust emissions from earthworks and exhaust emissions from motor vehicles and construction machinery. In noting that sensitive receivers are not in close proximity to significant earthworks, the Department is satisfied that air emissions can be appropriately managed by the Proponent's committed mitigation measures and the Department's recommended conditions, including a requirement for the Proponent to construct the project in a manner that minimises dust emissions from the site and that site rehabilitation and stabilisation measures be implemented and maintained to manage exposed and disturbed areas.

During operation of the rail line the main source of air emissions are anticipated to be:

- coal dust from a range of diffuse sources generated by passing trains and wagons;
- coal dust emissions from uncovered wagons; and
- diesel train exhaust emissions.

However, predictions of the potential impacts of pollutants during operations identified that the minor incremental increases in NO_2 and PM_{10} were not considered significant. The Department is satisfied with the assessment methodology undertaken for the operation of the project and considers that the predicted incremental and marginal increase in NO_2 and PM_{10} is not significant. Additionally, the Pollution Reduction Program requirement of the Proponent's Environment Protection Licence will assist in providing long term improvements to air quality from trains across the network.

The Department has also assessed the project in relation to Land Use, Visual, Waste, Energy Demand, Socio Economic, Hazards and Risks, and Cumulative impacts and considers that these matters have been adequately addressed in the Environmental Assessment, Response to Submissions and the Proponent's Statement of Commitments.

6. RECOMMENDATION

The Main Northern Railway carries the majority of coal produced in the Hunter Valley to the Port of Newcastle for export. The objective of the Nundah Bank Third Track project is to reduce headways on Nundah Bank to alleviate the expected constraints, and fully harness the benefits of the other capital improvement projects currently in planning or implemented by the ARTC in the Hunter Valley.

The Department considers that the Nundah Bank Third Track project is justified on the basis that it is an integral component of the freight network and is in the public's interest. Should the project not proceed, coal and other freight industries would continue to rely on the existing two tracks for transportation, limiting capacity of the network and creating service disruptions and increased rail wear.

Following a detailed assessment of the Proponent's Environmental Assessment and Submissions and Preferred Project Report, and the submissions received from agencies, council and the public during the exhibition period for the project, the Department is satisfied that the impacts of the project can be appropriately mitigated or managed to acceptable levels.

The Department acknowledges that there will be residual impacts on the environment. However, the Department considers that the recommended conditions of approval for the project would provide for the mitigation and management of key impacts associated with the project during detailed design, construction and operational phases. These include specific environmental conditions for noise and vibration impacts, traffic and transport impacts, ecological impacts, air quality and dust impacts, soil and water impacts, spoil and waste management, heritage impacts and property impacts.

The Department has also recommended conditions of approval for environmental management, including the requirement for a Construction Environmental Management Plan, and associated plans including a Construction Traffic Management Plan, a Construction Noise and Vibration Management Plan, a Construction Soil and Water Quality Management Plan, and an Aboriginal Heritage Management Plan. Operational noise and vibration compliance monitoring and

assessment would also be required to confirm compliance with relevant noise goals and limits.

The Department believes that these requirements would provide for the implementation of best management practices during all phases of the project, and would ensure that the construction and operational impacts of the project on the surrounding environment and the amenity of local residents are managed to acceptable levels.

Consequently, the Department recommends that the Deputy Director General, Development Assessment and Systems Performance approve the Nundah Bank Third Track project, subject to the recommended conditions of approval.

21/9/11

A/Director
Infrastructure Projects

21.9.11

Executive Director
Major Projects Assessment

23/9/11

Deputy Director-General
Development Assessment & Systems Performance

APPENDIX A ENVIRONMENTAL ASSESSMENT

See the Department's website at http://majorprojects.planning.nsw.gov.au/page/.

APPENDIX B SUBMISSIONS

See the Department's website at http://majorprojects.planning.nsw.gov.au/page/.

APPENDIX C PROPONENT'S RESPONSE TO SUBMISSIONS

See the Department's website at http://majorprojects.planning.nsw.gov.au/page/.

APPENDIX D DISCLOSURE OF CONTACT WITH LOBBYISTS

Disclosure of Contact with Registered Lobbyists

Telephone Call (T) / Meeting (M)	Date	Participants	Registered Lobbyist(s) (Name)	Organisation / Individual Represented	Matters Discussed
Meeting	18/07/11	Sam Haddad Richard Pearson	Brian Dale Dale Fitzell and Associates P/L	Australian Rail Track Corporation	Assessment time frames
Email	08/08/11	Richard Pearson Circulated to Daniel Keary and Glenn Snow	Brian Dale Dale Fitzell and Associates P/L	Australian Rail Track Corporation	Response to draft conditions
Email	06/09/2011	Richard Pearson Circulated to Glenn Snow and Karen Rae	Brian Dale Dale Fitzell and Associates P/L	Australian Rail Track Corporation	Update on progress of application
Telephone	06/09/2011	Richard Pearson	Brian Dale Dale Fitzell and Associates P/L	Australian Rail Track Corporation	Status of application
Telephone	20/09/2011	Glenn Snow	Brian Dale Dale Fitzell and Associates P/L	Australian Rail Track Corporation	Status of application

APPENDIX E RECOMMENDED CONDITIONS OF APPROVAL