



***MODIFICATION REQUEST:
Nundah Bank Third Track
(MP 10_0094 MOD 1)***

Removal of condition C9 – Squirrel Glider Crossing
Zone



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

May 2013

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EXECUTIVE SUMMARY

On 23 September 2011, the then Deputy Director-General, Development Assessment and Systems Performance, under delegated authority, granted project approval to Australian Rail Track Corporation (ARTC) for a new third track and ancillary infrastructure adjacent to the existing Main North Rail Line (between Singleton and Camberwell) within the Singleton local government area being the Nundah Bank Third Track (NBTT). The project was approved under Part 3A of the *NSW Environmental Planning and Assessment Act 1979*.

The approval included a condition (Condition C9) requiring the installation of a Squirrel Glider crossing zone in the vicinity of the Integra Coal Rail Loop to provide access and connectivity to fauna habitat across the project site. The Integra Coal Rail Loop is situated in the middle section of the project and is where a small balloon rail loop junctions off the main rail line to serve one of the adjacent open cut coal mines and reconnects in the same area.

ARTC (the Proponent), is now seeking to modify the project approval by removing condition C9. The Proponent has identified that the land on which the currently required Squirrel Glider crossing zone is to be situated is affected by significant physical constraints and that the proposed Squirrel Glider crossing poles would also impact on the operation of trains within this section of the corridor. The Proponent has also retained vegetation as a result of the detailed design, which maintains an existing viable crossing point across the NBTT site that is suitable for effective Squirrel Glider movement.

The NSW Department of Planning & Infrastructure (the Department) has undertaken an assessment of the project modification based on the modification request and its consultation with the NSW Office of Environment & Heritage (OEH). The Department considers that the removal of the requirement to provide a Squirrel Glider crossing zone at the NBTT site will not result in significant environmental impact. The Department also notes that OEH has raised no objection to the modification request.

The Department has received a Biodiversity Offset Package for the Nundah Bank Third Track project as required under condition C10, which also provides an opportunity to protect the Squirrel Glider habitat at a nominated offset site in this part of the Hunter region. This Package was approved by the Department on 24 April 2013.

The Department recommends approval of the modification request.

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1. BACKGROUND

On 23 September 2011, the then Deputy Director-General, Development Assessment and Systems Performance, under delegated authority, granted project approval to Australian Rail Track Corporation (ARTC) for the Nundah Bank Third Track project (MP 10_0094) under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The approval allows ARTC to construct, operate and maintain a new third track (4 km in section) and ancillary infrastructure adjacent to the existing Main North Rail Line (MNRL) between Singleton and Camberwell in the Singleton local government area, in the NSW Hunter Valley (refer to Figure 1). The NBTT will provide for improved rail freight capacity within this section of the MNRL.

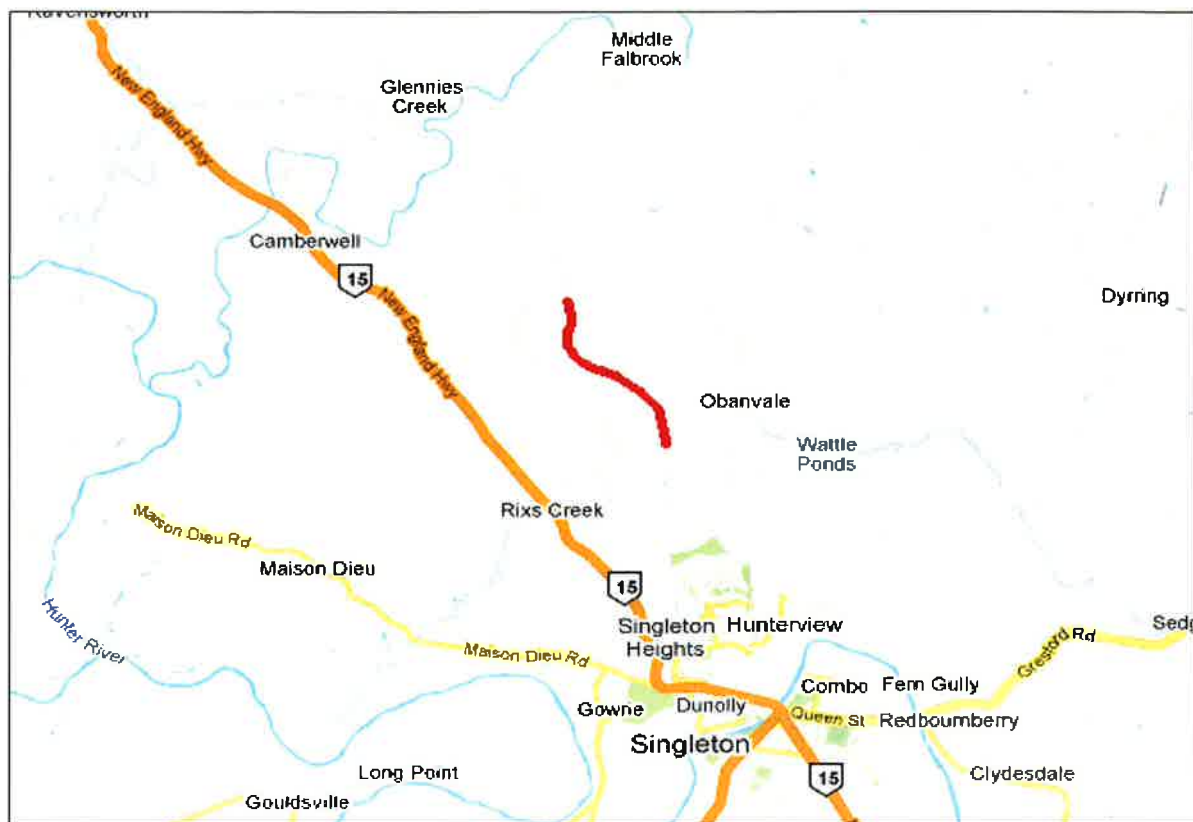


Figure 1: Location of the Nundah Bank Third Track (outlined in red) and surrounding development.

The project is in its final stages of construction and operational access commenced in early 2013 for the Stage 1 works. Further works (Stages 2-4) are continuing on the project which will not be fully completed until 2016.

2. PROPOSED MODIFICATION

Due to the concerns raised during the public exhibition period with the project's potential impact on the Squirrel Glider habitat, the following condition was included in the project approval for the Nundah Bank Third Track Project:

- C9. *The Squirrel Glider crossing zone in the vicinity of the Integra Coal rail loop shall be established prior to works which affect identified Squirrel Glider habitat, unless otherwise agreed by the Director-General. The crossing zone shall consist of untreated hardwood power poles 30cm diameter and stand 12m above the ground (henceforth 'glider poles'). The spacing and location of the glider poles and the provision of artificial refuges and at least one horizontal crossbar for use as a launching site on each glider pole shall follow the methodology of Ball and Goldingay (2008). Any variation to this requirement shall be undertaken in consultation with the OEH and approved by the Director-General.*

Following project approval, the Proponent assessed condition C9 and investigated two (2) possible options for a Squirrel Glider Crossing Zone at the NBTT site. Based on the assessment undertaken, the Proponent formed the view that the need to provide a Squirrel Glider Crossing Zone for the NBTT site is affected by significant physical land constraints and the installation of such a crossing would also impact on the operation of trains within this section of the corridor.

The Proponent also considers that it has implemented a range of mitigation measures and minor design changes, which provide greater capability to protect Squirrel Glider habitat. The Proponent also considers that the Biodiversity Offset Package for the NBTT project submitted to the Department in accordance with condition C10 (and approved by the A/Director Infrastructure Projects on 24 April 2013) also provides benefit to the protection of viable Squirrel Glider habitat in the Hunter region through the creation of a 160 ha offset area (Shirbin Property).

On 7 March 2013, the Proponent lodged a Modification Request (refer to Appendix A) with the Department requesting approval under Part 3A of the EP&A Act to remove Condition C9 from the project approval.

3. STATUTORY CONTEXT

3.1. MODIFICATION OF THE MINISTER'S APPROVAL

In accordance with Clause 3 of Schedule 6A of the EP&A Act, section 75W of that Act as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A, continues to apply to transitional Part 3A projects.

Section 75W of the Act provides that a Proponent can request the Minister for Planning & Infrastructure (the Minister) to modify the approval of a project. The Minister's approval is not required if the project, as modified, is consistent with the original approval. However, in this instance, the proposal seeks to delete a condition of approval and therefore a section 75W modification approval is required.

3.2. DELEGATED AUTHORITY

On 27 February 2013, the Minister delegated his powers and functions under section 75W of the EP&A Act to the Executive Director, Development Assessment Systems and Approvals. The delegation applies to modification requests where the relevant Council has not made an objection, a political disclosure donation statement has not been made and there are less than 25 public submissions in the nature of objections received in respect of the modification request.

The modification request complies with the delegation requirements and the Executive Director, Development Assessment Systems and Approvals, may determine the modification request under delegated authority.

4. CONSULTATION AND SUBMISSIONS

In accordance with section 75X of the EP&A Act and clause 8G of the *Environmental Planning and Assessment Regulation 2000*, the modification request was made available on the Department's website.

On 18 March 2013, the Department referred the Modification Request to the NSW Office of Environment & Heritage (OEH) for their assessment and comment and a response was received by the Department on 22 March 2013 (refer to Appendix B).

OEH did not object to the removal of condition C9 from the project approval and they recognise that the option to provide a Squirrel Glider Crossing Zone at the NBTT site is significantly constrained by land constraints including topography and nearby land uses.

Due to the minor nature of the proposed modification, the modification request was not publicly exhibited by any other means.

5. ASSESSMENT

The Department considers that ecological issues are the key issues relating to the assessment of the proposed modification request. There are no other issues relevant to the assessment of the proposed modification.

5.1 ECOLOGY

Issue

The Squirrel Glider is listed as vulnerable under the *Threatened Species Conservation Act 1995* (TSC Act) and was observed as being present in the patch of vegetation near the Integral Coal Rail Loop, which is a spur loop off the MNRL which provides rail freight access to the Integra Coal open cut coal mine.

The vegetation at the Integra Coal Rail Loop comprises dry open forest and was observed as being in a moderate condition (Chainage 246500 and 247800). The vegetation includes Central Hunter Ironbark species in four (4) different locations, on either side of the MNRL and in between the rail loop. The forest exists in a linear arrangement adjacent to existing rail lines and is more concentrated closer to the rail loop and is sparse towards the east near an existing un-named north-south access road.

During the assessment of the original project application, potential fragmentation and connectivity impacts of the Squirrel Glider, particularly near the Integra Coal rail loop, where

an increased separation of habitat of up to 75 m is likely to affect dispersal, were identified. Condition C9 of the project approval therefore stipulated the requirement of establishing a Squirrel Glider crossing zone (in the vicinity of the Integra Coal rail loop) prior to works to protect and enhance Squirrel Glider habitat. The objective of this condition was the avoidance of further barrier effects that already occur along the existing corridor of the MNRL and to enable the Squirrel Glider to access vegetation occurring to the south of the Integra Coal Rail Loop.

Potential Sites for the Squirrel Glider Crossing Zone

To comply with condition C9, the Proponent investigated two possible options (refer to **Figure 2**) for a Squirrel Glider crossing zone. The key requirement was having suitable upper canopy vegetation for a fauna crossing on corresponding sides of the rail track.



FIGURE 2 – TWO OPTIONS INVESTIGATED FOR THE SQUIRREL GLIDER CROSSING ZONE

The first option was suggested in proximity to chainage 247000 to east of the Integra Coal Rail Loop (Camberwell Loop), however, this option was discounted by the Proponent due to the need to provide the project ancillary rail infrastructure and a vehicle access road adjacent to the track which would therefore increase the distance for effective Squirrel Glider movement.

The Proponent considered that the second option to the south of the Integra Coal Rail Loop had some potential due to retention of vegetation in this area which can provide access and connectivity to suitable habitat on either side of the rail corridor and includes an acceptable gliding distance width of 50 m.

However after further consideration of Option 2, the Proponent ultimately concluded that the alternative crossing zone is not suitable for an arboreal fauna crossing due to the following:

- Surrounding land uses which includes fragmented land ownership and have largely been cleared for open cut mining, agricultural and rail transport uses;
- The land topography in the vicinity of the potential crossing zone site (which comprises undulating hills), provides a substantial elevation change in the track which affects the opportunity for optimal movement of the Squirrel Glider at this location;
- The limited space available for crossing poles at the desired location due to the live rail environment dissecting the site and interaction with live rail infrastructure and other issues related to maintenance, which all undermine the ability of the crossing zone to enhance movement of the Squirrel Glider at this location; and
- Land cleared of native vegetation provides limited habitat for fauna, which is largely the case at the subject site.

The Proponent therefore considers that the removal of the Squirrel Glider Crossing will not result in a significant ecological impact with the NBTT project. The Proponent has confirmed that during construction, a continual process of revising and reducing the clearing limits occurred to avoid direct removal of vegetation. The outcome was that vegetation clearing, which was originally approved, has now been reduced through retention of pockets of vegetation at drainage lines and on steeper slopes where highly erodible soils are present. The Proponent has stated that there has been a reduction of cleared land of approximately 5 ha since project approval.

Consideration

The Squirrel Glider is listed as vulnerable under the TSC Act as identified in the project EA and Director-Generals Assessment Report. The project EA identified that the Squirrel Glider was found to be within the proposal area and is a species that would be most affected by clearing. The DG's report also assessed the potential impact of potential fragmentation from the associated clearing of vegetation with the project, which may impact its movement towards vegetation to the south. The vegetation clearing would have resulted in a separation distance of 75 m, which is beyond the maximum gliding distance for the Squirrel Glider (being 50 m between trees suitable for effective Squirrel Glider movement).

The area around the Integra Coal Loop was identified as an area of concern which could potentially impact on dispersal of the Squirrel Glider species. OEH recommended to the Department that placement of a Squirrel Glider crossing zone at the Integra Coal rail loop could potentially reduce impacts on the habitat of the Squirrel Glider, hence condition C9 was included in the project approval to avoid further barrier effects that already occur along the MNRL rail corridor.

The Department agrees that the two (2) options for the Squirrel Glider crossing zone investigated by the Proponent are impacted by land topography, the physical separation between vegetated areas and also the extent of cleared land surrounding the nominated crossing zone.

Furthermore, OEH has confirmed that it is satisfied with the Proponent's reasons for not providing the crossing zone (Refer to Attachment No.2). OEH also considers that the option to provide a viable Squirrel Glider crossing zone is affected by a number of land constraints such as the proximity to an open cut coal mine area, disturbed nature of understorey and connectivity issues for this species.

The concerns raised by the Proponent regarding the impact of the crossing poles within the rail corridor are also relevant due to potential impacts to the safety and accessibility of freight and passenger trains using this section of the MNRL.

The Department notes that there is a fauna crossing point, near the Integra Coal Rail Loop which is located within an area containing the optimal vegetation for the Squirrel Glider habitat and movement. This vegetation area, which was originally proposed to be removed but has now been retained, will maintain access and connectivity for the Squirrel Glider to suitable habitat on either side of the rail corridor with an appropriate distance of less than 50 m.

Therefore, given that vegetation has been retained in this area which would provide habitat connectivity for the Squirrel Glider, the Department considers the requirement to establish a separate Squirrel Glider crossing zone is no longer necessary.

Whilst the proposed removal of the Squirrel Glider crossing zone may be viewed as a reduced ecological outcome, the Proponent has confirmed that through careful construction management, the delivery of the project has resulted in a reduction of direct project impacts on Squirrel Glider habitat. This has occurred with the realignment of the final route of the third track to adjoin the existing rail alignment which resulted in less ecological and habitat disturbance. In particular, the Department notes that 20% less clearing of Grey Iron Bark – Spotted Gum – Grey Box has occurred from what was originally anticipated.

The Department also notes that the Proponent, through the detailed design and careful placement of ancillary infrastructure, has retained the most suitable existing vegetation for the Squirrel Glider (in one patch in the middle of the NBTT site at chainage 247 000, within the vicinity of the Integra Coal Rail Loop). This further represents a positive outcome for the Squirrel Glider which is known to inhabit these tree species.

The Department also considers that the Proponent's mitigation measures are satisfactory to further reduce the potential impact on the Squirrel Glider. These are provided below:

- Installation of habitat boxes for the Squirrel Glider to offset the seven (7) potentially hollow bearing trees cleared;
- Use of non barbed wire for boundary fencing in area of potential Squirrel Glider habitat, to prevent harm or injury to the species; and
- Retention of a vegetation corridor comprising of mature canopy trees, which provides the shortest glide distance and highest launch level results in the Project mitigating impact and "maintaining or not net loss" of fauna connectivity.

In March 2013, ARTC has submitted the Nundah Bank Third Track Biodiversity Offset Package for approval by the Director-General. On 24 April 2013, the Department approved this Package. The Biodiversity Offset Package nominates the Shirbin Property as a biobank property to offset the vegetation clearing associated with the NBTT project.

The Shirbin Property is a 160 ha site located at Butterwick NSW, which is 70 km east of the NBTT site. The property forms part of a continuous vegetated area located on the fringe of the Scone Gloucester Foothills. The Shirbin property contains hollow-bearing trees (e.g. *Corymbia maculata*, *Eucalyptus moluccana* and *Eucalyptus crebra*) which are suitable for Squirrel Glider habitat, which is a species that is predicted to occur on this property.

The Department considers that the Proponent's Biodiversity Offset Package¹ will therefore support the protection of viable Squirrel Glider habitat in the Hunter Region.

¹ Nundah Bank Rail Upgrade – Biodiversity Offset Package, prepared by Parsons Brinckerhoff, March 2013

6. CONCLUSION AND RECOMMENDATIONS

The Department has assessed the Modification Request with consideration of the response from OEH and the Biodiversity Offset Package for the Nundah Bank Third Track project.

The Department, as well as OEH, acknowledge that the installation of a Squirrel Glider crossing zone is affected by significant land constraints, including topography and by surrounding land uses, including open cut coal mines. It is also noted that the glider poles which are to form part of the crossing zone would impact on rail operations. The Department considers that the removal of condition C9 from the project approval is unlikely to result in significant impacts to the movement of Squirrel Gliders at this section of the Main North Rail Line given an existing crossing point for the species has been retained.

The Department is satisfied that the Proponent's construction planning which has resulted in less vegetation clearing, as well as the implementation of specific mitigation measures, will allow for protection of viable habitat and continued Squirrel Glider movement across the Nundah Bank Third Track project site.

Further, the Department considers that the implementation of the approved Biodiversity Offset Package for the project will also provide for the long term protection of valuable Squirrel Glider habitat in the Hunter Region.

Consequently, the Department recommends approval of the modification request.

Prepared by:
David White
Senior Planning Officer

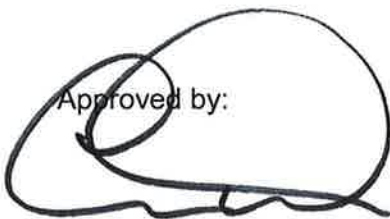
Reviewed by:

 06.05.13

Swati Sharma

**A/Team Leader, Rail and Ports
Infrastructure Projects**

Approved by:



13.5.13

Chris Wilson

**Executive Director
Development Assessment Systems and Approvals**

APPENDIX A - MODIFICATION REQUEST

See the Department's website at:

www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=5376

**APPENDIX B - SUBMISSION FROM NSW OFFICE OF ENVIRONMENT
& HERITAGE**



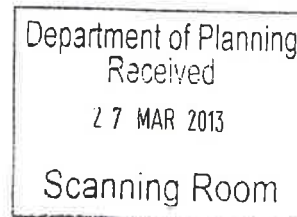
Office of
Environment
& Heritage



Your reference: MP 10_0094_MOD1
Our reference: DOC13/10527; FIL10/7926
Contact: David Paull; 4908 6837

Mr Glenn Snow
Manager Rail and Ports, Infrastructure Projects
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Attention: David White



Dear Mr Snow

RE: RESPONSE FOR NUNDAH BANK THIRD TRACK MODIFICATION REQUEST (MP 10_0094)

I refer to your letter dated 18 March 2013, requesting comments from the Office of Environment and Heritage (OEH) regarding the Modification Application prepared by Upper Hunter Valley Alliance. The modification seeks to remove Condition C9, the requirement for a Squirrel Glider Crossing Zone, from the project approval for the Nundah Bank Third Track Project.

OEH acknowledges the retention of some trees that were earmarked for clearing, and the other facets of the offset strategy, including the provision of nest-boxes to offset hollow loss due to the removal of 9.1 hectares of Grey Ironbark - Spotted Gum - Grey Box open forest. The area of habitat to the west of the proposed crossing area for the Squirrel Glider has a number of habitat constraints, notably, proximity to open cut area, disturbed nature of understorey and connectivity issues for this species.

Consequently, OEH has no objection to the removal of approval condition C9 requiring the construction of glider poles in the vicinity of the 'Integra Rail Loop'.

If you require any further information regarding this matter please contact David Paull, Regional Biodiversity Conservation Officer, on 4908 6837.

Yours sincerely

22 MAR 2013

RICHARD BATH
Head – Hunter Planning Unit
Regional Operations

APPENDIX C - RECOMMENDED MODIFYING INSTRUMENT
