



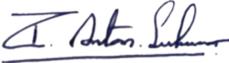
Mulgoa Road Upgrade Stage 1 Jeanette Street to Blaikie Road, Jamisontown

Addendum Review of Environmental Factors

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Approval and authorisation

Title:	Mulgoa Road Upgrade Stage 1 Jeanette Street to Blaikie Road, Jamisontown Addendum Review of Environmental Factors
Accepted on behalf of transport for NSW by:	Rajkumar Anton Sukumar Project / Contract Manager Western Sydney Project Office Infrastructure and Place
Signed:	
Dated:	09/12/2021

Executive summary

The proposed modification

Transport for NSW proposes to modify the Mulgoa Road Upgrade Stage 1 (Jeanette Street to Blaikie Road, Jamisontown) (the project) by making various changes to the project boundary for property and utilities adjustments and adding new construction compounds / stockpiling locations. Key features of the proposed modification would include:

- Property adjustment works at various locations along Mulgoa Road including associated project boundary adjustment
- Establishment of new business identification signs for Penrith Homemaker Centre and associated project boundary adjustment
- Sydney water asset relocation works at Peter Court and associated project boundary adjustment
- Temporary restriction of access via lane way between Cornelius Place and open space area at Lot 111 DP260265 and associated project boundary adjustment
- Adjustment to drainage and roadside batter at the Western Motorway westbound off ramp to Mulgoa Road and associated project boundary adjustment
- Removal of Wolseley Street tunnel signage and associated project boundary adjustment
- Inclusion of additional compound / stockpile sites adjacent to Blaikie Road.

Need for the proposed modification

The proposed modification reflects further design development, construction planning and consultation with property owners, business operators and utility asset owners. Specifically, the proposed modification:

- Ensures adequate area for the construction of the project taking into account refinements made during the detailed design process
- Addresses construction requirements through the provision of additional compound / stockpile / laydown areas located near the works area
- Reflects consultation with property and business owners during the development of property adjustment plans
- Reflects consultation with utility providers regarding asset adjustments / relocations
- Prevents unauthorised / inadvertent access to a construction compound from Cornelius Place.

Proposal objectives

Section 2.3 of the project REF identifies the proposal objectives that apply to the proposed modification.

Options considered

A do nothing option was considered but discarded because the proposed modification is better aligned with the project objectives.

The proposed modification would allow the more efficient and complete delivery of the project and the realisation of project benefits (including support for growth, traffic efficiency and freight productivity). Some aspects of the proposed modification support the agreed property

adjustments which directly align with the project objective of minimising environmental and community impacts.

Statutory and planning framework

The proposed modification is categorised as development for the purpose of a road and/or road infrastructure facilities and is being carried out by or on behalf of a public authority.

Under clause 94 of ISEPP the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from Council is not required.

A referral to Australian Government Department of Agriculture, Water and the Environment under the EPBC Act is not required.

Community and stakeholder consultation

A number of the proposal modification elements are the result of negotiations with property owners regarding property adjustments. Other aspects are considered low impact changes not requiring broader community consultation.

ISEPP consultation was carried out during the preparation of the project REF. The proposed modification does not trigger the need for any further consultation with Council, although Council has been notified of the proposed changes.

Environmental impacts

The main environmental impacts for the proposed modification are discussed below.

Noise and vibration

While some minor changes to the project boundary have been proposed, construction noise is expected to be generally consistent with the assessments in the project REF and the Submissions Report.

New construction noise impacts are expected due to the proposed additional compounds / stockpile sites on Blaikie Road. Noise levels above 75 dBA are not expected at the nearest receivers, but noise levels are likely to exceed the noise management level for most of the time when equipment is in use. The use of quieter equipment, shielding using compound sheds and an increase in the distance between the source and receiver would result in a reduced noise impact.

The existing safeguards identified in the Submissions Report would apply to address the impacts of the proposed modification. One additional measure has also been proposed to further reduce impacts.

Landscape character and visual

The proposed modification represents a relatively small incremental change to the approved project and would not affect the landscape character impact ratings included in Table 6-32 of the project REF. One new Landscape Character Zone was considered (LCZ 6 – Semi rural) to cover the proposed additional compound / stockpile sites. The presence of compound sites within this zone would substantially alter the semi-rural landscape character, however this impact would be temporary, with sites to be restored following completion of construction.

The proposed modification would not obscure or reduce the quality of any scenic views and would have minimal impact on assessed viewpoints. The proposed business identification sign for the Penrith Homemaker Centre would be visible to road users but would be an expected feature given the adjacent use. Sensitive uses to the east would have limited visual access to the sign following construction of the new noise wall along the eastern side of Mulgoa Road.

The existing safeguards identified in the Submissions Report are adequate to address the impacts of the proposed modification.

Justification and conclusion

The proposed modification reflects further design development, construction planning and consultation with property owners, business operators and utility asset owners.

While there are environmental impacts associated with the proposed modification associated with longer periods of night works, they are minor, temporary and are mostly addressed through the current safeguards. Some additional / amended safeguards have been proposed to further reduce impacts

The benefits of the proposed modification are considered to outweigh the adverse impacts and risks.

Contents

1	<i>Introduction</i>	1-7
1.1	Proposal identification	1-7
1.2	Purpose of the report	1-10
2	<i>Need and options considered</i>	2-1
2.1	Strategic need for the proposed modification	2-1
2.2	Proposal objectives and development criteria	2-1
2.2.1	Proposal objectives	2-1
2.3	Alternatives and options considered	2-1
2.3.1	Methodology for selecting the preferred option	2-1
2.3.2	Identified options	2-1
2.3.3	Analysis of options	2-1
2.4	Preferred option	2-2
3	<i>Description of the proposed modification</i>	3-3
3.1	The proposed modification	3-3
3.2	Further assessment and clarifications	3-7
3.2.1	Trees between Wolseley Street and Blaikie Road	3-7
3.2.2	Utility adjustments – Hutchinson Crescent / Clyburn Ave	3-7
3.3	Design	3-9
3.3.1	Design criteria	3-9
3.3.2	Engineering constraints	3-9
3.3.3	Main features of the modification	3-9
3.4	Construction activities	3-14
3.4.1	Work methodology	3-14
3.4.2	Construction hours and duration	3-14
3.4.3	Plant and equipment	3-14
3.4.4	Earthworks.....	3-14
3.4.5	Source and quantity of materials.....	3-14
3.4.6	Traffic management and access	3-14
3.5	Ancillary facilities	3-15
3.6	Public utility adjustment	3-15
3.7	Property acquisition	3-15
4	<i>Statutory planning framework</i>	4-1
4.1	Environmental Planning and Assessment Act 1979	4-1
4.1.1	State Environmental Planning Policies	4-1
4.1.2	Local Environmental Plans	4-1
4.1.3	Development control plans	4-2
4.2	Other relevant NSW legislation	4-1
4.3	Commonwealth legislation	4-1
4.3.1	Environment Protection and Biodiversity Conservation Act 1999	4-1
4.4	Confirmation of statutory position	4-1
5	<i>Consultation</i>	5-1

5.1	Consultation strategy	5-1
5.2	Consultation outcomes	5-1
5.3	Ongoing or future consultation	5-1
6	<i>Environmental assessment</i>	6-1
6.1	Noise and vibration	6-1
6.1.1	Methodology.....	6-1
6.1.2	Existing environment.....	6-1
6.1.3	Potential impacts	6-2
6.1.4	Safeguards and management measures.....	6-5
6.2	Landscape Character and visual impacts	6-6
6.2.1	Methodology.....	6-6
6.2.2	Existing environment.....	6-6
6.2.3	Potential impacts	6-8
6.2.4	Safeguards and management measures.....	6-10
6.3	Other impacts	6-11
6.3.1	Existing environment and potential impacts	6-11
6.3.2	Safeguards and management measures.....	6-12
6.4	Cumulative impacts	6-13
6.4.1	Potential impacts	6-13
6.4.2	Safeguards and management measures.....	6-13
7	<i>Environmental management</i>	7-14
7.1	Environmental management plans (or system)	7-14
7.2	Summary of safeguards and management measures	7-15
7.3	Licensing and approvals	7-37
8	<i>Conclusion</i>	8-1
8.1	Justification	8-1
8.2	Objectives of the EP&A Act	8-1
8.2.1	Ecologically sustainable development	8-2
8.2.2	Intergeneration equity	8-2
8.2.3	Conservation of biological diversity and ecological integrity	8-2
8.2.4	Improved valuation, pricing and incentive mechanisms	8-2
8.3	Conclusion	8-3
8.3.1	Significance of impact under NSW legislation	8-3
8.3.2	Significance of impact under Australian legislation	8-3
9	<i>Certification</i>	9-1
10	<i>References</i>	10-2

Tables

Table 3-1: Aborigicultural Impact Assessment outcomes	3-7
Table 4-1: Consistency with RU4 (Primary Production Small Lots) Zone	4-1
Table 4-2: Review of relevant Penrith DCP 2014 controls.....	4-3
Table 6-1: Noise management levels – residential receivers (Blaikie Road).....	6-1
Table 6-2: Construction noise assessment results	6-2
Table 6-3: Safeguards and management measures – noise and vibration.....	6-5
Table 6-4: Landscape character zones affected by the proposed modification	6-6
Table 6-5: Viewpoints assessed for the proposed modification	6-7
Table 6-6: Landscape character assessment (project inclusive of proposed modification).....	6-8
Table 6-7: Visual impact assessment for the proposed modification	6-9
Table 6-8: Existing environment and potential impacts – other issues	6-11
Table 6-9: Safeguards and management measures – other issues.....	6-12
Table 7-1: Summary of safeguards and management measures.....	7-15
Table 7-2: Summary of licensing and approvals required.....	7-37
Table 8-1: Objects of the EP&A Act	8-1

Figures

Figure 1-1: Location of the project.....	1-8
Figure 1-2: The proposed modification	1-9
Figure 3-1: Proposed modification – map 1	3-4
Figure 3-2: Proposed modification – map 2	3-5
Figure 3-3: Proposed modification – map 3	3-6
Figure 3-4: Tree removal – Hutchinson Crescent / Clyburn Ave	3-8
Figure 3-5: Tree removal – Hutchinson Crescent / Clyburn Ave - photograph.....	3-9
Figure 3-6: Pedestrian lane way – to be temporarily closed.....	3-9
Figure 3-7: Business identification sign – Penrith Homemaker Centre – location	3-11
Figure 3-8: Business identification sign – Penrith Homemaker Centre – design	3-11
Figure 3-9: Business identification sign – Penrith Homemaker Centre – facing northbound	3-12
Figure 3-10: Business identification sign – Penrith Homemaker Centre – facing southbound.....	3-13
Figure 3-11: Existing tunnel clearance sign to be removed.....	3-14
Figure 6-1: Extent of construction noise impact – additional compound (night).....	6-4
Figure 6-2: Landscape character and visual impact assessment matrix.....	6-6
Figure 6-3: Viewpoints assessed for the proposed modification.....	6-8

Appendices

Appendix A – Consideration of clause 228(2) factors and matters of national environmental significance and Commonwealth land

Appendix B – Statutory consultation checklists

1 Introduction

1.1 Proposal identification

Transport for NSW proposes to modify the Mulgoa Road Upgrade Stage 1 (Jeanette Street to Blaikie Road, Jamisontown) (the project) by making various changes to the project boundary for property and utilities adjustments and adding new construction compounds / stockpiling locations. Key features of the proposed modification would include:

- Property adjustment works at various locations along Mulgoa Road including associated project boundary adjustment
- Establishment of new business identification signs for Penrith Homemaker Centre and associated project boundary adjustment
- Sydney water asset relocation works at Peter Court and associated project boundary adjustment
- Temporary restriction of access via lane way between Cornelius Place and open space area at Lot 111 DP260265 and associated project boundary adjustment
- Adjustment to drainage and roadside batter at the Western Motorway westbound off ramp to Mulgoa Road and associated project boundary adjustment
- Removal of Wolseley Street tunnel signage and associated project boundary adjustment
- Inclusion of additional compound / stockpile sites adjacent to Blaikie Road.

The location of the proposed modification is shown in Figure 1-1 and the proposed modification is shown in Figure 1-2. Chapter 3 describes the proposed modification in more detail.

A review of environmental factors (REF) was prepared for the project in August 2018 (referred to in this addendum REF as the project REF). The project REF was placed on public display between 27 August 2018 and 21 September 2018 for community and stakeholder comment. A submissions report, dated March 2020 was prepared to respond to issues raised.

In addition to describing and assessing the proposed modification, the addendum REF also provides clarification regarding tree removal along the western side of Mulgoa Road between Wolseley Street and Blaikie Road, and on Clyburn Avenue.

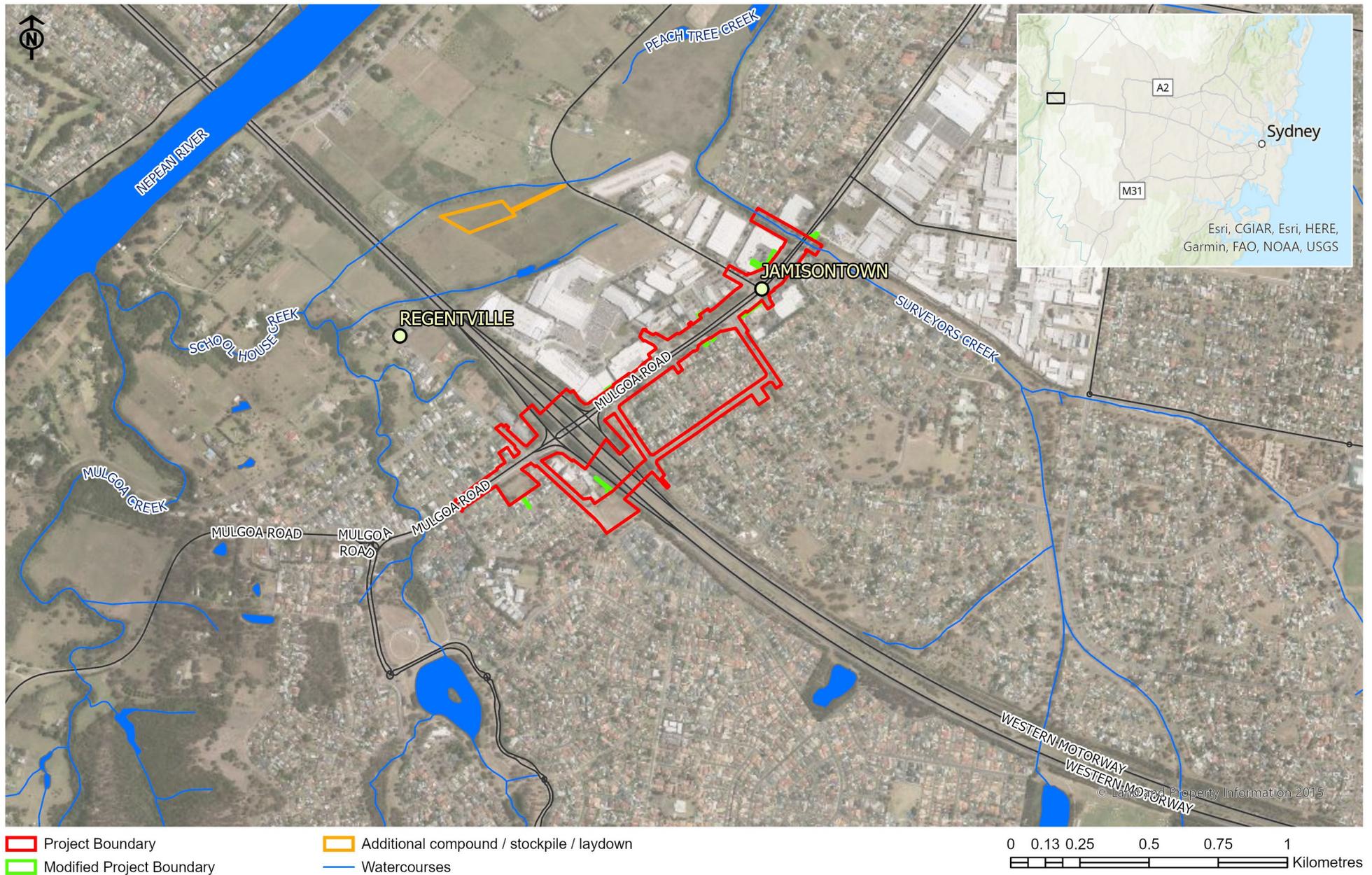


Figure 1-1: Location of the project

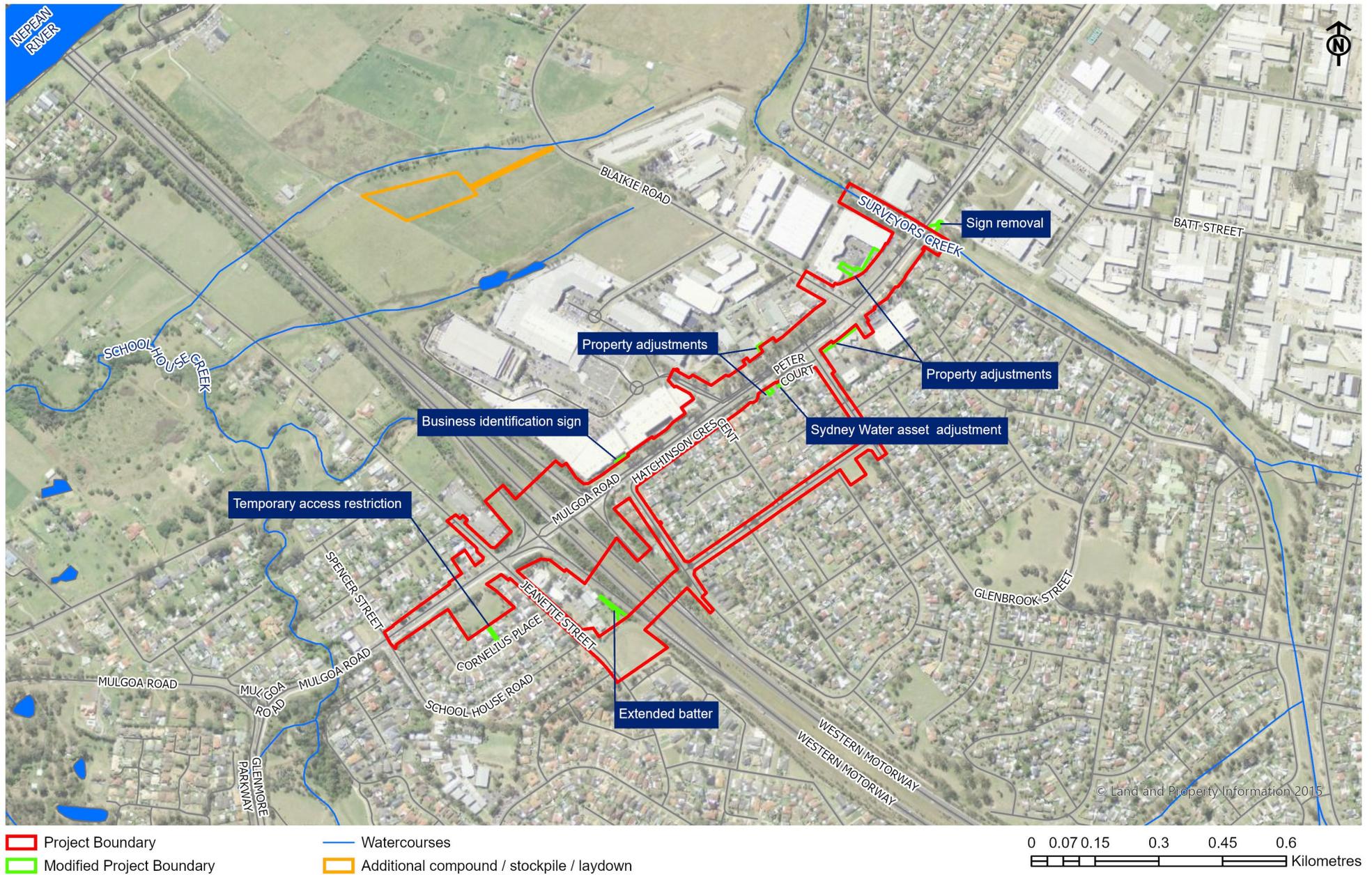


Figure 1-2: The proposed modification

1.2 Purpose of the report

This addendum review of environmental factors (REF) has been prepared by Hills Environmental on behalf of Transport for NSW. For the purposes of these works, Transport for NSW is the proponent and the determining authority under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This addendum REF is to be read in conjunction with the project REF, submissions report and previous addendum REFs for the project. The purpose of this addendum REF is to describe the proposed modification, to document and assess the likely impacts of the proposed modification on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposed work and assessment of associated environmental impacts has been undertaken in the context of clause 228 of the Environmental Planning and Assessment Regulation 2000, the factors in Is an EIS Required? Best Practice Guidelines for Part 5 of the Environmental Planning and Assessment Act 1979 (Is an EIS required? guidelines) (DUAP, 1995/1996), Roads and Related Facilities EIS Guideline (DUAP 1996), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

In doing so, the addendum REF helps to fulfil the requirements of:

- Section 5.5 of the EP&A Act including that Transport for NSW examine and take into account to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity

The findings of the REF would be considered when assessing:

- Whether the proposal is likely to have a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The significance of any impact on nationally listed biodiversity matters under the EPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and whether offsets are required and able to be secured
- The potential for the proposal to significantly impact any other matters of national environmental significance or the environment of Commonwealth land and the need, subject to the EPBC Act strategic assessment approval, to make a referral to the Australian Government Department of the Agriculture, Water and the Environment for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

2 Need and options considered

2.1 Strategic need for the proposed modification

Chapter 2 of the project REF addresses the strategic need for the project, the project objectives and the options that were considered. The proposed modification described and assessed in this addendum REF is consistent with the strategic need for the project.

The proposed modification reflects further design development, construction planning and consultation with property owners, business operators and utility asset owners. Specifically, the proposed modification:

- Ensures adequate area for the construction of the project taking into account refinements made during the detailed design process
- Addresses construction requirements through the provision of additional compound / stockpile / laydown areas located near the works area
- Reflects consultation with property and business owners during the development of property adjustment plans
- Reflects consultation with utility providers regarding asset adjustments / relocations
- Prevents unauthorised / inadvertent access to a construction compound from Cornelius Place.

2.2 Proposal objectives and development criteria

2.2.1 Proposal objectives

Section 2.3 of the project REF identifies the proposal objectives and development criteria that apply to the proposed modification. No additional objectives or criteria specific to the proposed modification have been identified.

2.3 Alternatives and options considered

2.3.1 Methodology for selecting the preferred option

The proposed modification primarily involves design refinements and additional compounds / stockpiles as a result of construction planning. In this context, it was not necessary to consider other broader options. The process of option evaluation had two broad stages:

- A consideration of whether the proposed changes in any configuration can be justified. This is an evaluation of the 'do nothing' option
- An evaluation of a proposed modification by reference to the project objectives and its respective impacts and benefits.

2.3.2 Identified options

Transport for NSW investigated the 'do nothing' option and the option of proceeding with the proposed modification.

2.3.3 Analysis of options

The do nothing option was discarded because the proposed modification is better aligned with the project objectives.

The proposed modification would allow the more efficient and complete delivery of the project and the realisation of project benefits (including support for growth, traffic efficiency and freight productivity). Some aspects of the proposed modification support the agreed property adjustments which directly align with the project objective of minimising environmental and community impacts.

2.4 Preferred option

The preferred option is to proceed with the proposed modification as evaluated in Section 2.3.3.

The preferred option addresses the identified need. The proposed modification is based on the preferred option and is described in detail in Chapter 3.

3 Description of the proposed modification

3.1 The proposed modification

Transport for NSW proposes to modify the Mulgoa Road Upgrade Stage 1 (Jeanette Street to Blaikie Road, Jamisontown) by making various changes to the project boundary for property and utilities adjustments and adding new construction compounds / stockpiling locations. The proposed modification is shown in Figure 1-2 and in Figure 3-1 to . Key features of the proposed modification would include:

- Property adjustment works at various locations along Mulgoa Road including associated project boundary adjustment
- Establishment of new business identification signs for Penrith Homemaker Centre and associated project boundary adjustment
- Sydney water asset relocation works at Peter Court and associated project boundary adjustment
- Temporary restriction of access via lane way between Cornelius Place and open space area at Lot 111 DP260265 and associated project boundary adjustment
- Adjustment to drainage and roadside batter at the Western Motorway westbound off ramp to Mulgoa Road and associated project boundary adjustment
- Removal of Wolseley Street tunnel signage and associated project boundary adjustment
- Inclusion of additional compound / stockpile sites adjacent to Blaikie Road.



- ▭ Project Boundary
- ▭ Modified Project Boundary

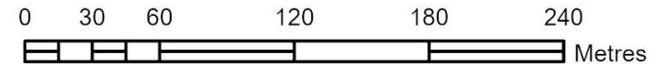


Figure 3-1: Proposed modification – map 1



Figure 3-2: Proposed modification – map 2



Figure 3-3: Proposed modification – map 3

3.2 Further assessment and clarifications

3.2.1 Trees between Wolseley Street and Blaikie Road

The project as described in the project REF required the removal of 0.81 hectares of Forest Red Gum trees (*Eucalyptus tereticornis*) on the western side of Mulgoa Road, between Wolseley Street and Blaikie Road. The removal of these trees was identified as necessary to avoid property acquisition on the eastern side of Mulgoa Road and to allow sufficient space for construction and road widening.

During the preparation of the Submissions Report, Transport engaged a suitably qualified arborist to provide arboricultural advice in relation to the Forest Red Gums, in accordance with AS 4970 Protection of Trees on Development Sites. This included a visual tree inspection and assessment of 99 trees (refer to the Preliminary Arborist Visual Tree Assessment in Appendix D of the Submissions Report). The Submissions Report committed to the preparation of Arboricultural Impact Assessment during detailed design.

A revised Arboricultural Impact Assessment has now been completed. The assessment includes an additional 23 trees, which are generally juvenile to semi-mature specimens which have grown in the period since the initial assessment to the extent that they are now of sufficient size to warrant consideration. Table 3-1 provides a comparison between the preliminary and updated assessments and presents the worst-case outcome in terms of tree removal. Design refinement is continuing at this location with the potential to further reduce impacts on these trees. At the completion of the design process a Tree Protection Plan and Tree Protection Specification will be prepared for those trees to be retained.

Table 3-1: Arboricultural Impact Assessment outcomes

Retained / removed	Preliminary report		Updated report	
	High value	Low value	High value	Low value
Higher value trees to be removed	41	-	38	-
Lower value trees to be removed	-	30	-	49
Dead trees to be removed	-	-	-	2
Removal subtotals	71		87 (excluding dead trees)	
Higher value trees to be retained	13	-	10	
Lower value trees to be retained	-	8		11
Potential retention	-	7		12
Retention sub totals	21 (with 7 potential)		21 (with 12 potential)	
TOTALS	99		122	

3.2.2 Utility adjustments – Hutchinson Crescent / Clyburn Ave

The submissions report (in Chapter 3) identified a number of the changes to the then proposal following further design development. The submissions report identified the need for a trenchless excavation for the high-pressure gas main sewer rising main under the M4 Western Motorway and made adjustments to the project boundary to accommodate this change.

The area on the southern side of Hutchinson Crescent / Clyburn Ave (opposite Warragamba Crescent) is required for the underbore receiving pits and it is expected that up to five trees would need to be removed for this work (refer to Figure 3-4).

While these are within the project boundary (as amended by the Submissions Report), the removal of the tree was not specifically acknowledged on the submissions report. While the removal of these trees does not form part of the proposed modification, it has been considered within this addendum REF for completeness.



Figure 3-4: Tree removal – Hutchinson Crescent / Clyburn Ave



Figure 3-5: Tree removal – Hutchinson Crescent / Clyburn Ave - photograph

3.3 Design

3.3.1 Design criteria

Design criteria for the project are identified in Section 3.2.1 of the project REF. There are no additional design criteria for the proposed modification.

3.3.2 Engineering constraints

Engineering constraints relevant to the project are identified in Section 3.2.2 of the project REF. There are no additional engineering constraints for the proposed modification.

3.3.3 Main features of the modification

Access restriction

The proposed modification includes a temporary closure of the pedestrian lane way between Cornelius Place and the open space area at 111 Mulgoa Road, Regentville (Lot 111 DP260265), which is to be used as a construction compound for the project. The temporary closure would be in the form of temporary mesh fencing (or equivalent) and an appropriate sign / notice indicating a suitable alternative route.

The pedestrian laneway would be reopened at completion of construction, following the removal of the compound and the restoration of the open space area.



Figure 3-6: Pedestrian lane way – to be temporarily closed

Property and utilities adjustments

The following property and utility adjustments are proposed for five locations (refer to Figure 3-1 and Figure 3-2) and would involve:

- 7 Peter Court, Jamisontown – Driveway adjustment, construction of concrete verge, relocation of gates and water meter and communication system
- 283-287 Mulgoa Road, Jamisontown – Driveway adjustment and pavement widening to accommodate vehicle manoeuvring. No tree removal is proposed for this adjustment. Should tree removal be preferred to assist vehicle manoeuvring the property owner would need to seek the necessary approval from Penrith City Council.
- 130-132 Mulgoa Road, Jamisontown (Red Rooster) – Minor relocation of business identification signs (one pole sign and one banner sign) within private property
- 124-128 Mulgoa Road, Jamisontown (BP) – Driveway adjustments, relocation of water isolation valve meter and pipes, relocation of light pole and cabling, and modify garden bed on property frontage
- 241 Mulgoa Road, Jamisontown – concrete paving, new kerbing, kerb ramp, marking of car spaces and installation of wheel stops.
- Peter Court – adjustment/connection to existing Sydney Water asset to be undertaken within the private property in consultation and by agreement with property owner.

Batter adjustment and drainage works

Some adjustments to the fill batter on the western side and of the M4 Western Motorway westbound off ramp to Mulgoa Road may be required subject to a review of options to avoid property impacts. If required, this work would involve localised excavation and earthworks, but no tree removal. Consultation with the property owner would occur as part of the property adjustment process should this work be required.

Compound / stockpile sites

An additional compound / stockpiles is proposed on Blaikie Road, Jamisontown (refer to Figure 3-3). The proposed additional compound has an area of about 11,500 square metres. Consistent with the project REF, the compound / stockpile has been sized and positioned to meet the following criteria where possible:

- At least 40 metres away from the nearest waterway
- Of low ecological and heritage conservation significance
- Located away from residential dwellings and other land uses that may be sensitive to noise
- On relatively level ground
- Outside the 1-in-10-year ARI floodplain.

Business identification signage

To provide adequate visibility for the Penrith Homemaker Centre for northbound traffic and additional business identification sign is proposed. The sign would be eight metres high and three metres wide. The sign would be internally illuminated (i.e. the light source would not be visible) and luminance levels would comply with the recommended values of AS4282 Control of the Obtrusive Effects of Outdoor Lighting. The position of the proposed sign is shown in Figure 3-7, the design is shown in Figure 3-8 and a photomontage is provided in Figure 3-9



Figure 3-7: Business identification sign – Penrith Homemaker Centre – location

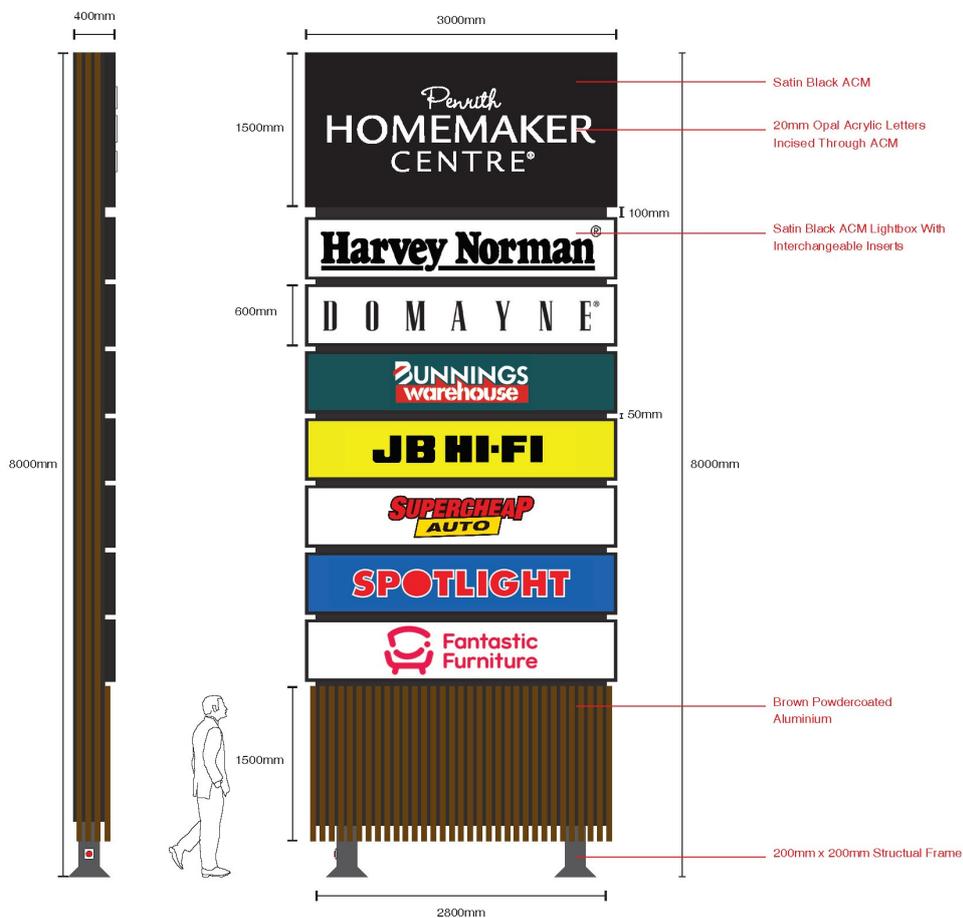


Figure 3-8: Business identification sign – Penrith Homemaker Centre – design



Figure 3-9: Business identification sign – Penrith Homemaker Centre – facing northbound

A second sign in the same form would replace the existing sign at the Wolseley Street intersection. The second sign would be within the project boundary and would be oriented towards southbound traffic. The second sign would be 8.0 metres high by 3.0 metres wide, which is smaller than the existing sign (8.65 metres high by 7.53 metres wide).



Figure 3-10: Business identification sign – Penrith Homemaker Centre – facing southbound

Sign removal

With the removal of the tunnel at the Wolseley Road intersection as described in the project REF, the existing tunnel clearance sign for southbound traffic will no longer be required. As part of the proposed modification this sign would be removed. The existing sign is shown in Figure 3-11.



Figure 3-11: Existing tunnel clearance sign to be removed

3.4 Construction activities

3.4.1 Work methodology

The work methodology for the proposed modification would be consistent with Section 3.1.1 of the project REF.

3.4.2 Construction hours and duration

Construction hours and duration remain as described in Section 3.1.2 of the project REF.

3.4.3 Plant and equipment

No changes to plant and equipment are proposed.

3.4.4 Earthworks

No changes to earthworks are proposed.

3.4.5 Source and quantity of materials

No changes to sources and/or quantity of materials are proposed.

3.4.6 Traffic management and access

The proposed additional compound / stockpile sites would be accessed via the Mulgoa Road / Blaikie Road intersection and then directly from Blaikie Road (left-in right-out movements).

3.5 Ancillary facilities

The proposed additional compound / stockpile sites are described in Section 3.3.3.

3.6 Public utility adjustment

Except for the Sydney Water asset adjustment described in Section 3.3.3, no additional public utility adjustment and/or protection works are required for the proposed modification.

3.7 Property acquisition

The proposed modification does not require additional property acquisition. The proposed additional compound / stockpile sites would be subject to agreement with the relevant property owners and a suitable construction lease.

4 Statutory planning framework

4.1 Environmental Planning and Assessment Act 1979

4.1.1 State Environmental Planning Policies

State Environmental Planning Policy (Infrastructure) 2007

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 94 of ISEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed modification is for a road and road infrastructure facilities and is to be carried out by Transport for NSW, it can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979*. Development consent from council is not required.

The proposed modification is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under State Environmental Planning Policy (Coastal Management) 2018, State Environmental Planning Policy (State and Regional Development) 2011 or State Environmental Planning Policy (State Significant Precincts) 2005.

Part 2 of ISEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. Consultation, including consultation as required by ISEPP (where applicable), is discussed in Chapter 5 of the project REF. No additional ISEPP consultation is required.

Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River

The requirements of Sydney Regional Environmental Plan No. 20 – Hawkesbury-Nepean River are addressed in Section 4.1.1 of the project REF.

4.1.2 Local Environmental Plans

The discussion of Penrith Local Environmental Plan (LEP) 2010 in Section 4.1.2 of the project REF remains applicable to the proposed modification. In addition to the land use zones considered in the project REF, the proposed modification (the additional compound / stockpile sites component) would also traverse the RU4 – Primary Production Small Lots zone. The consistency of the proposed modification with the RU4 zone objectives is considered below in Table 4-1

Table 4-1: Consistency with RU4 (Primary Production Small Lots) Zone

Zone objectives	Construction
<ul style="list-style-type: none">To enable sustainable primary industry and other compatible land uses.To encourage and promote diversity and employment opportunities in relation to primary industry enterprises, particularly those that require smaller lots or that are more intensive in nature.To minimise conflict between land uses within this zone and land uses within adjoining zones.	The proposed modification is not directly aligned with the zone objectives. However, the proposed compound stockpile use is temporary, and it is expected the site would return to its current use following completion of the project.

Zone objectives

Construction

- To ensure land uses are of a scale and nature that is compatible with the environmental capabilities of the land.
 - To preserve and improve natural resources through appropriate land management practices.
 - To maintain the rural landscape character of the land.
 - To ensure that development does not unreasonably increase the demand for public services or facilities.
-

4.1.3 Development control plans

While development control plans do not directly apply to proposals that are assessed under Division 5.1 of the EP&A Act, in some circumstances they can provide useful assessment guidance. In this context the provision of section C9 Advertising and Signage of the Penrith Development Control Plan 2014 have been considered below in relation to the proposed additional business identification sign for the Penrith Homemaker Centre.

Table 4-2: Review of relevant Penrith DCP 2014 controls

Section	Subsection	Control	Comment
9.1	1) a) General	Signs are to be designed and located to:	The proposed sign is not affixed to a building.
		i) relate to the use of the building;	
		ii) be visually interesting and exhibit a high level of design quality;	The proposed sign has a contemporary design and legible layout. Brown powder coated aluminium has been used to screen the structural frame of the sign.
		iii) be constructed of high quality, durable materials;	To comply.
		iv) be wholly contained within the property;	The proposed sign is to be located on Penrith Homemaker Centre land.
		v) have only a minimal projection from the building;	The proposed sign is not affixed to a building.
		vi) be integrated and achieve a high degree of compatibility with the architectural design of the supporting building having regard to its composition, fenestration, materials, finishes and colours, and ensure that architectural features of the building are not obscured;	The proposed sign is not affixed to a building.
		vii) have regard to the view of the sign and any supporting structure, cabling and conduit from all angles, including visibility from the street level and nearby higher buildings and against the skyline; and	Brown powder coated aluminium has been used to screen the structural frame of the sign. Cabling and conduit for the sign would be placed underground and would not be visible following installation. The sign would be partly backdropped by the adjacent buildings but would encroach the skyline from some viewing angles.
	viii) be sympathetic to the existing character of the area and the particular architectural/urban design utilised in any improvements scheme.	The proposed sign would be consistent with the character of the adjacent business precinct.	
	1) b) General	Signs that contain additional advertising promoting products or services not related to the approved use of the premises or site (such as the logos or brands of products; e.g. soft drinks, brewers, photographic film, etc) are not permitted.	The proposed sign would be limited to business identification.
	1) c) General	Signs painted or applied on the roof are prohibited;	The proposed modification does not involve a roof sign.

Section	Subsection	Control	Comment
	1) d) General	Corporate colours, logos and other graphics are encouraged to achieve a very high degree of compatibility with the architecture, materials, finishes and colours of the building and the streetscape.	The proposed sign is not affixed to a building. There would be minimal impact on the streetscape, as the sign would be consistent with other business identification signage along this part of Mulgoa Road.
	1) e) General	Flat standing signs are only permissible where the main building is set back 3 metres or more from the street alignment.	Complies.
	1) f) General	In considering applications for new signs, Council must have regard to the number of existing signs on the site and in its vicinity; whether that signage is consistent with the provisions of this section; and whether the cumulative impact gives rise to visual clutter.	While there are other business identification signs along this part of Mulgoa Road, adequate separation avoids visual clutter.
	1) g) General	Signs must not involve damage, removal or pruning to trees or other vegetation and must not result in pruning or removal for visibility purposes.	No tree removal is required for the proposed sign.
	1) h) General	The dominant design of any sign must relate to business identification rather than product advertising.	The proposed sign would be limited to business identification.
	2) a) Signs and road safety	Signs are regarded as prejudicial to the safety of the travelling public and are therefore prohibited if they:	The proposed sign would not obscure driver views to road traffic signs or traffic lights.
		i) Obscure or interfere with road traffic signs and signals or with the view of oncoming vehicles or pedestrians;	
		ii) Obscure or interfere with the view of a road hazard or an obstruction which should be visible to drivers or other road users;	The proposed sign would not be located near a road hazard or other obstruction.
		iii) Give instructions to traffic by use of the word 'stop' or other directions, which could be confused with traffic signs;	The proposed sign does not include any symbols or words that could be confused with traffic signs.
		iv) Include variable messages or intensity of lighting sufficient to impair drivers' vision or distract drivers' attention; or	The proposed sign would be internally lit but static.

Section	Subsection	Control	Comment
		v) Are located in places where drivers' require greater concentration, such as at major intersections or merging and diverging lanes.	The proposed sign is would be positioned about 100 metres beyond the M4 Western Motorway interchange traffic signals and about 200 metres before the Wolseley Street traffic signals. In both cases the position of the sign would be offset from the line of site to the traffic signals and is unlikely to cause distraction.
	3) a) Inappropriate signs	<p>Council will not support an application for an advertisement of a form, type or size described below (see Figure C9.1 for example illustrations):</p> <ul style="list-style-type: none"> i) Roof signs; ii) Sky signs controlled from the land; iii) Signs painted on or applied on the roof; iv) Flashing signs; v) Signs made of canvas, calico or the like (other than a temporary sign); vi) Signs displayed on an awning blind or external window blind; vii) Hoardings (excluding those required during construction); viii) Billboards; ix) Bulletin boards; x) Signs in the nature of posters attached directly onto walls, roof surfaces or any street furniture; xi) Signs mounted on parked or stationary motor vehicles, trailers (both registered and unregistered) where the principal purpose of the vehicle or trailer is not for the transportation of goods or people but is parked in a location and position as an advertising medium; xii) A-frame or sandwich board signs (except where specific controls have been prepared and adopted by Council); xiii) Pole or pylon signs, except for industrial, business park, service station or shopping centre uses which are permitted one pole or pylon signs with the maximum height not in excess of 7.0m; 	In relation to item xiii it is noted that the proposed sign will exceed the specified maximum height by about 1.0 metre. This exceedance is required to ensure the sign is visible to road users at an appropriate distance, allowing them enough time to prepare for the left-turn to Wolseley Street. The context of the sign location, this exceedance would not result in any substantial visual impacts.

Section	Subsection	Control	Comment
		<p>xiv) Signs that are located on land which advertises businesses that are not being conducted on that land;</p> <p>xv) Vertical or horizontal projecting signs;</p> <p>xvi) Fin signs; and</p> <p>xvii) Above awning signs.</p>	
9.4 Commercial, Mixed Use and Industrial Zones	1)	Applicants intending to erect a sign (advertisement) should first consult the relevant environmental planning instrument applying to the subject property to determine whether or not an advertisement requires development consent	The proposed sign is for the purposes of roads or road infrastructure facilities as it relates to property adjustments for the Mulgoa Road Upgrade. It is being assessed under Division 5.1 of the EP&A Act and does not require development consent from council. Transport for NSW is the proponent and determining authority.
	2)	<p>All advertising is to be –</p> <p>a) constructed of high quality, durable materials;</p> <p>b) considered in conjunction with design and construction of buildings;</p> <p>c) restricted to one sign identifying the name of the occupants and/or products manufactured or produced on the site; and</p> <p>d) contained wholly within the site.</p>	The proposed sign is positioned with the Penrith Homemaker Centre premises. It is needed to adequately identify the centre to northbound traffic. A second sign, which is a replacement for the existing sign at the Wolseley Street intersection, would be positioned within the existing project boundary and would be oriented towards southbound traffic.
	3)	Signs should generally be confined to the ground level of the building, awning or fascia, unless it can be demonstrated that the building is of a scale, architectural style and in a location that would be enhanced by signage at different elevations (see Figure C9.3 below).	The proposed sign is not a building, awning or fascia sign.
	4)	The sign is to be contained fully within the confines of the wall or awning to which it is mounted.	The proposed sign is not a wall or awning sign.

Section	Subsection	Control	Comment
	5)	<p>In the case of multiple occupancy of a building or site:</p> <p>a) Each development should have a single directory board listing each occupant of the building or site (see Figure C9.4 below). Multiple freestanding signs will not be supported;</p> <p>b) Only one sign is to be placed on the face of each premises either located on or over the door of the shop, unit, office, suite, etc.;</p> <p>c) One under awning sign shall be permitted for each shop, unit, office, suite, etc. (see Figure C9.5). In the case where the shop, office, suite etc. has more than one street frontage, one under awning sign may be permitted to each street frontage;</p> <p>d) The minimum distance between under awning signs shall be 3m (see Figure C9.6); and</p> <p>e) Where possible, multiple tenancies in the same building should use consistent sign size, location and design to avoid visual clutter and promote business identification.</p>	<p>The proposed sign adequately displays the multiple occupants of the site. In this case two freestanding signs are required in order to achieve adequate visibility to both northbound and southbound traffic.</p>
	6)	<p>Projecting wall signs, generally, will not be supported unless it can be demonstrated to be of an architectural style which is particularly suited to that building in relation to its design.</p>	<p>The proposed sign is not a wall sign.</p>
	7)	<p>Illuminated signs are not to detract from the architecture of the supporting building during daylight.</p>	<p>The proposed sign is not a building sign.</p>
	8)	<p>Illumination (including cabling) of signs is to be:</p> <p>a) Concealed; or</p> <p>b) Integral with the sign; or</p> <p>c) Provided by means of carefully designed and located remote or spot lighting.</p>	<p>The proposed sign would be internally illuminated.</p> <p>The proposed sign will comply with the illuminance, luminous intensity and threshold increment values specified in AS4282-1997 - Control of the Obtrusive Effects of Outdoor Lighting*.</p>
	9)	<p>The ability to adjust the light intensity of illuminated signs is to be installed where Council considers it necessary.</p>	<p>The proposed sign will comply with the illuminance, luminous intensity and threshold increment values specified in AS4282-1997 - Control of the Obtrusive Effects of Outdoor Lighting*.</p>

Section	Subsection	Control	Comment
	10)	A curfew may be imposed on the operation of illuminated signs where continuous illumination may impact adversely on the amenity of residential buildings, serviced apartments or other tourist and visitor accommodation, or have other adverse environmental effects.	The proposed sign location would not have any impacts on residences, noting that a noise wall will be constructed along the eastern side of Mulgoa Road limiting visual access to the corridor from the adjacent residential area. In this context a curfew is not considered necessary.
	11)	Up-lighting of signs is prohibited. Any external lighting of signs is to be downward pointing and focused directly on the sign and is to prevent or minimise the escape of light beyond the sign.	The proposed sign would be internally illuminated, and no up lighting is proposed. The lighting elements would not be visible.

* Note: AS4282-1997 does not specifically apply to internally illuminated signs with the forward to the standard noting that internally illuminated signs often require the evaluation of additional factors such as colour, movement and cyclic operation. Notwithstanding, the standard is commonly used in the assessment of illuminated advertising signs.

4.2 Other relevant NSW legislation

The discussion of other relevant legislation in section 4.2 of the project REF is applicable to the project inclusive of the proposed modification. No additional NSW legislation relevant to the proposed modification has been identified.

4.3 Commonwealth legislation

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act a referral is required to the Australian Government for proposed 'actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land. These are considered in Appendix A and chapter 6 of the addendum REF.

A referral is not required for proposed road actions that may affect nationally listed threatened species, endangered ecological communities and migratory species. This is because requirements for considering impacts to these biodiversity matters are the subject of a strategic assessment approval granted under the EPBC Act by the Australian Government in September 2015.

Potential impacts to these biodiversity matters are also considered as part of Chapter 6 of the addendum REF and Appendix A.

Findings – matters of national environmental significance

The assessment of the proposed modification's impact on matters of national environmental significance and the environment of Commonwealth land found that there is unlikely to be a significant impact on relevant matters of national environmental significance or on Commonwealth land. Accordingly, the proposal has not been referred to the Australian Government Department of Agriculture, Water and the Environment under the EPBC Act.

4.4 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of a road and/or road infrastructure facilities and is being carried out by or on behalf of a public authority.

Under clause 94 of ISEPP the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development. The proposed modification can be assessed under Division 5.1 of the EP&A Act. Consent from Council is not required.

A referral to Australian Government Department of Agriculture, Water and the Environment under the EPBC Act is not required.

5 Consultation

5.1 Consultation strategy

The consultation strategy relevant to the proposed modification remains consistent with Section 5.1 of the project REF.

5.2 Consultation outcomes

Consultation is ongoing with stakeholders impacted by the proposed modifications. A number of the proposal modification elements are the result of negotiations with property owners regarding property adjustments.

ISEPP consultation was carried out during the preparation of the project REF. The proposed modification does not trigger the need for any further consultation with Council, although Council has been notified of the proposed changes.

Noting that the proposed additional compound / stockpile site is within the extent of the 100 year Annual Recurrence Interval flood, the State Emergency Service was consulted via letter dated 18 October 2021. A response was received on 18 November 2021 noting that the proposal would likely have minimal impact on NSW State Emergency Service operations (refer to Appendix B).

5.3 Ongoing or future consultation

Ongoing consultation would be consistent with section 5.6 of the project REF and as outlined in the submissions report.

6 Environmental assessment

This section of the addendum REF provides a detailed description of the potential environmental impacts associated the proposed modification. All aspects of the environment potentially impacted by the proposed modification are considered. This includes consideration of:

- Potential impacts on matters of national environmental significance under the EPBC Act
- The factors specified in the guidelines Is an EIS required? (Department of Planning, 1995) as required under clause 228(1) of the Environmental Planning and Assessment Regulation 2000 and the Roads and Related Facilities EIS Guideline (Department of Urban Affairs and Planning, 1996). The factors specified in clause 228(2) of the Environmental Planning and Assessment Regulation 2000 are also considered in Appendix A.

Site-specific safeguards and management measures are provided to mitigate the identified potential impacts.

6.1 Noise and vibration

6.1.1 Methodology

Most of the proposed modification elements would have negligible construction and operation noise impacts in the context of the broader project that has been assessed as part of the project REF and submissions report. The only aspect of the proposed modification with the potential to generate new impacts on different noise sensitive receivers is the proposed compounds / stockpiles on Blaikie Road.

Construction noise impacts for the compounds have been considered in accordance with the Construction Noise and Vibration Guideline (Roads and Maritime Services, 2016) and associated Construction and Maintenance Noise Estimator tool. The 'distance-based construction scenario' worksheet was used with the 'compound operation' scenarios selected.

Noise management levels (NMLs) were established for the proposal using the Rating Background Level (RBL) for the R2 representative environment defined in the noise estimator. This level best reflects the distance road traffic noise from Mulgoa Road and the M4 Western Motorway. The selected ground type used in the assessment was for 'undeveloped green fields, rural areas with isolated dwellings'. Line of sight between noise sources and receivers was assumed.

6.1.2 Existing environment

The existing environment relevant to noise and vibration is consistent with Section 6.2.2 of the project REF. The proposed location of compound / stockpile on Blaikie Road introduces additional sensitive receivers in the form of large lot rural residential dwellings. For these receivers the following representative noise environments and noise management levels from the Transport for NSW Construction and Maintenance Noise Estimator have been adopted as provided in Table 6-1.

Table 6-1: Noise management levels – residential receivers (Blaikie Road)

Period	RBL (dDA)	NML
Standard hours	45	55
Day out of hours	45	50

Period	RBL (dDA)	NML
Evening out of hours	40	45
Night out of hours	35	40

Standard hours: 7am-6pm, Monday to Friday, 8am-1pm Saturday
 Out of hours day: 7am-8am and 1pm-6pm Saturday
 Out of hours evening: 6pm-10pm Monday to Sunday
 Out of hours night: 10pm-7am Sunday to Friday, 10pm-8am Saturday

6.1.3 Potential impacts

Construction

While some minor changes to the project boundary have been proposed, construction noise is expected to be consistent with Section 6.2.4 of the project REF and Section 4.4 of the Submissions Report.

New construction noise impacts are however expected due to the proposed additional compounds / stockpile site on Blaikie Road. The results of the construction noise assessment for these compounds are provided in Table 6-2. The extent of impacts for the worst case period (night) are shown in Figure 6-1.

The noise assessment results should be considered conservative and worst case. Specifically it is noted that:

- Receivers on the eastern side of Mulgoa Road would benefit from barrier attenuation provided by the Penrith Homemaker Centre Buildings
- Receivers on the southern side of the M4 Western Motorway would benefit from barrier attenuation provided by the motorway
- For all affected residential areas, including the Nepean Shores community, the closes row of buildings would provide from barrier attenuation for those at greater distances.

The actual noise impact would depend on several factors such as the specific location of the compound / stockpile, equipment, duration, shielding (which has not been assumed in calculations), distance equipment-receiver, etc. Noise levels above 75 dBA are not expected at the nearest receivers, but noise levels are likely to exceed the noise management level for most of the time when equipment is in use. The use of quieter equipment, shielding using compound sheds and an increase in the distance between the source and receiver would result in a reduced noise impact.

Table 6-2: Construction noise assessment results

Impact types	Period	Distance	No. receivers
Affected distance (>NML)	Day	170	3
	Day (OOHW)	250	5
	Evening	360	7
	Night	525	43
Noticeable (5-10 dBA > Background)	Day	-	-
	Day (OOHW)	-	-
	Evening	-	-
	Night	525	43

Impact types	Period	Distance	No. receivers
Clearly audible (10-20 dBA > Background)	Day	-	-
	Day (OOHW)	170	3
	Evening	250	5
	Night	360	7
Moderately intrusive (20-30 dBA > Background)	Day	65	0
	Day (OOHW)	65	0
	Evening	115	1
	Night	170	3
Highly intrusive (>30 dBA > Background)	Day	20	0
	Day (OOHW)	20	0
	Evening	35	0
	Night	65	0
Highly noise affected (> 75 dBA)	-	20	0
Sleep disturbance (LAmax 65 dBA)	Night	85	0

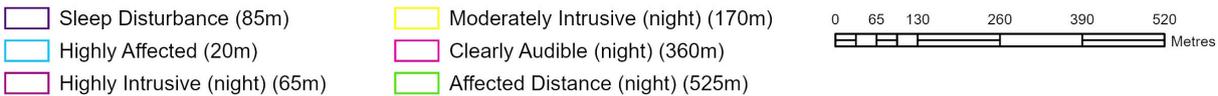


Figure 6-1: Extent of construction noise impact – additional compound (night)

Operation

The proposed modification would not alter traffic volumes, change the traffic mix or change the road geometry so as to bring traffic closer to receivers. Operational road traffic noise traffic noise impacts are therefore expected to be consistent with those described in the project REF and the submissions report.

6.1.4 Safeguards and management measures

Safeguards NV1 through NV14 as documented in the submissions report will apply to the project including the proposed modification. Safeguard NV8 has been modified to include additional controls for the Blaikie Road compound / stockpile site.

Table 6-3: Safeguards and management measures – noise and vibration

No.	Impact	Safeguard	Responsibility	Timing
NV8	Noise and vibration	<p>The following controls would be included in the NVMP:</p> <ul style="list-style-type: none"> • Where practical, the layout and positioning of noise-producing plant and activities at each work site would be optimised to minimise noise emission levels • Where practical, at the site compound, locate spoil mounds towards the north-west of the site and noisy stationary plant (ie. Generators) behind site offices, hoarding/screens or other spoil mounds to shield receivers • Where practical, equipment would be selected to minimise noise emissions. Equipment would be fitted with appropriate noise control equipment and be in good working order • Where possible, non-beeper reversing movement alarms would be used such as broadband (non-tonal) alarms or ambient noise sensing alarms. Work sites would also be designed to reduce the need for reversing, potentially minimising the use of reversing beepers • Vehicles, plant and equipment would be regularly inspected and maintained to avoid increased noise levels from rattling hatches, loose fittings etc • All vehicles, plant and equipment would be shut off when not in use • Resilient damping material would be fitted on bin trucks to minimise noise impacts from loading materials • Where feasible and reasonable, localised temporary acoustic hoardings/screens would be installed near high noise-generating activities. 	Contractor	Pre-construction

No.	Impact	Safeguard	Responsibility	Timing
		<p>Hoardings/screens would be located as close to the noise source as possible, and would be an appropriate height as structurally feasible to minimise noise emissions.</p> <ul style="list-style-type: none"> The compound / stockpile site on Blaikie Road would be configured to maximise offset distances and noise shielding for the nearest sensitive receivers. 		

6.2 Landscape Character and visual impacts

6.2.1 Methodology

The methodology used for visual impact assessment of the proposed modification is consistent with the Environmental Impact Assessment Practice Note: Guidelines for Landscape Character and Visual Impact Assessment (Transport for NSW, 2020).

The guidelines establish an assessment process with reference to the sensitivity of an area and magnitude of the proposal in that area.

		MAGNITUDE			
		HIGH	MODERATE	LOW	NEGLIGIBLE
SENSITIVITY	HIGH	HIGH	HIGH - MODERATE	MODERATE	NEGLIGIBLE
	MODERATE	HIGH - MODERATE	MODERATE	MODERATE - LOW	NEGLIGIBLE
	LOW	MODERATE	MODERATE - LOW	LOW	NEGLIGIBLE
	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE	NEGLIGIBLE

Figure 6-2: Landscape character and visual impact assessment matrix

The landscape character assessment determines the impact of the proposal on the area's character and sense of place, while the visual impact assessment determines the impact of a proposal on key existing views.

For the assessment of the proposed modification landscape character zones referred to in the project REF have been adopted. Viewpoints from the project REF have also been adopted.

6.2.2 Existing environment

The existing environment for the proposed modification is consistent with the description in Section 6.7.2 of the project REF.

Landscape character zones used for the project REF (and one additional zone) and their relationship to elements of the proposed modification are provided in Table 6-4.

Table 6-4: Landscape character zones affected by the proposed modification

No	Name	Modification elements	Sensitivity
1	Residential: south of the M4 Motorway to the west and east of Mulgoa Road (Regentville) and north of the M4 Motorway to the east of Mulgoa Road (Jamisontown).	Temporary access restriction from Cornelius Place. Property / infrastructure adjustments.	Moderate

No	Name	Modification elements	Sensitivity
2	Urban green space: including the Council reserve located south of the M4 Motorway, the area next to Wolseley Street, and the area on the eastern side of Mulgoa Road north of Blaikie Road.	Sign removal	Moderate
3	Green forest gateway: covering the M4 Motorway interchange and approaches.	Batter / drainage works adjacent to M4 westbound off ramp	Low
4	Commercial and retail: including north of the M4 Motorway on both sides of Mulgoa Road (Jamisontown), and the fire stations south of the M4 Motorway on the eastern side of Mulgoa Road.	Penrith Homemaker Centre business identification sign. Property adjustments. Batter / drainage works adjacent to M4 westbound off ramp.	Low-moderate
5	Green user experience: covering the Mulgoa Road corridor north of the M4 Motorway.	Penrith Homemaker Centre business identification sign. Property adjustments.	Low-moderate
6	Semi-rural: covering the large lot rural residential lands along Blaikie Road, generally west of Pattys Place.	Additional compounds / stockpiles	Low-moderate

The proposed modification would affect some of the viewpoints assessed in the project REF, while additional viewpoints have also been included for assessment (refer below to Table 6-5 and to Figure 6-3).

Table 6-5: Viewpoints assessed for the proposed modification

No	Description	Direction	Sensitivity
5	Homemaker Centre	South-west	Low
6	Peter Court	North-east	Moderate
7	Blaikie Road: shopping centre edge	Generally south	Low
8	Fairfield Place intersection	North-east	Moderate
9	Blaikie Road - additional viewpoint	West	Moderate
10	M4 westbound off ramp - additional viewpoint	North	Low



Figure 6-3: Viewpoints assessed for the proposed modification

6.2.3 Potential impacts

The proposed modification represents a relatively small incremental change to the approved project and would not affect the landscape character impact ratings included Table 6-32 of the project REF. The landscape character ratings and associated assessment for the proposed modification are included below in Table 6-6.

Table 6-6: Landscape character assessment (project inclusive of proposed modification)

No	Name	Sensitivity	Magnitude	Impact	Comment
1	Residential	Low	Moderate	Moderate	The proposed modification would not change the rating provided in the project REF. Property adjustment works would not change the character of this zone. The physical elements of the access restriction would be limited to temporary fencing.
2	Urban green space	Moderate	Low	Low	The proposed modification would not change the rating provided in the project REF. Sign removal would have no impact on landscape character.
3	Green forest gateway	Low	Low	Low	The proposed modification would not change the rating provided in

No	Name	Sensitivity	Magnitude	Impact	Comment
					the project REF. Batter works adjacent to M4 westbound off ramp would not impact landscape character.
4	Commercial and retail	Low-moderate	High	Moderate - High	The proposed modification would not change the rating provided in the project REF. Both the property adjustments and the proposed new business identification sign are consistent with the commercial character of this zone.
5	Green user experience	Low-moderate	High	Moderate - High	The proposed modification would not change the rating provided in the project REF. There would be no additional tree removal
6	Semi-rural	Moderate	High	Moderate - High	The presence of compound sites within this zone would substantially alter the semi-rural landscape character. This impact would be temporary, with sites to be restored following completion of construction.

The proposed modification would not obscure or reduce the quality of any scenic views and would have minimal impact on assessed viewpoints. Table 6 7 provides an assessment of the project (inclusive of the proposed modification) for key viewpoints.

Table 6-7: Visual impact assessment for the proposed modification

No	Sensitivity	Magnitude	Impact	Comment
5	Low	High	Moderate	The proposed modification would not change the rating provided in the project REF. The proposed business identification sign would be visible to road users but would be an expected feature given the adjacent use. Sensitive uses to the east would have limited visual access to the sign following construction of the new noise wall along the eastern side of Mulgoa Road.
6	Moderate	High	Moderate-high	The proposed modification would not change the rating provided in the project REF.
7	Low	Moderate	Moderate-low	The proposed modification would not change the rating provided in the project REF. The property and Sydney Water asset adjustments

No	Sensitivity	Magnitude	Impact	Comment
				within this viewpoint would have minimal visual effect.
8	Moderate	Low	Moderate-low	The proposed modification would not change the rating provided in the project REF.
9	Moderate	High	Moderate-high	The presence of compound site within this zone would substantially alter this viewpoint. The impact would be experienced primarily by motorists, with few stationary viewers or active transport users expected at this location. This impact would be temporary, with sites to be restored following completion of construction.
10	Low	Low	Low	The drainage works and batter adjustments within this viewpoint would have minimal visual effect.

The up to five trees to be removed near the intersection of Warragamba Crescent and Hutchinson Crescent (refer to Section 3.3.2) would be noticeable to road users and immediately adjacent residences, making the northern embankment of the M4 Western Motorway and associated noise wall more visible (although some screening would be retained). This impact is considered moderate and would be addressed as part of the Urban Design Plan for the project (measure LV2 in Table 7-1).

6.2.4 Safeguards and management measures

Safeguards LV1 through LV14 as documented in the submissions report will apply to the project including the proposed modification. No additional measures are required to address the impacts of the proposed modification.

6.3 Other impacts

6.3.1 Existing environment and potential impacts

Table 6-8: Existing environment and potential impacts – other issues

Environmental factor	Existing environment	Potential impacts
Traffic and transport	Refer to Section 6.1.2 of the project REF.	There would be some additional traffic on Blaikie Road with vehicles accessing the additional compounds / stockpile sites. This traffic can be adequately accommodated by the Blaikie Road and the Blaikie Road / Mulgoa Road intersection. Existing safeguards are adequate.
Biodiversity	Refer to section 6.3.2 of the project REF.	<p>No additional impacts. The proposed modification does not require additional tree removal. The proposed compound site on Blaikie Road is cleared grassland and is not mapped as a plant community type (or corresponding threatened ecological community) by Cumberland Plain vegetation mapping</p> <p>A search of the Bionet Atlas conducted on 12 September 2021 did not return any records within on adjacent to the site of the proposed compounds / stockpiles on Blaikie Road. The nearest records are for highly mobile fauna species including the Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>). The site of the proposed modification does not include habitat on which this species would be reliant.</p> <p>One additional safeguard has been proposed to address vegetation removal on the site of the proposed additional compounds / stockpiles.</p> <p>The up to five trees to be removed near the intersection of Warragamba Crescent and Hutchinson Crescent (refer to Section 3.2.2) were considered as part of the revised Biodiversity Assessment Report included in Appendix C of the Submissions Report. These trees were identified as planted street trees and do not form part of a threatened ecological community.</p>
Soils, geology and contamination	Refer to section 6.4.2 of the project REF.	No additional impacts. Existing safeguards are adequate.
Hydrology and flooding	Refer to Section 6.5.2 of the project REF.	No additional impacts. Existing safeguards are adequate.

Environmental factor	Existing environment	Potential impacts
Surface and groundwater	Refer to Section 6.6.2 of the project REF.	No additional impacts. Existing safeguards are adequate.
Aboriginal heritage	Refer to Section 6.8.2 of the project REF and Section 4.3 of the submissions Report.	No additional impacts. A search of the Aboriginal Heritage Information Management System (AHIMS) conducted on 10 September 2021 (ID 621263) did not identify any sites that would be affected by the proposed modification.
Socio-economic	Refer to Section 6.9.2 of the project REF.	No additional impacts. Several of the proposed modification elements are the result of consultation with property owners. The proposed compounds / stockpiles represent a temporary change to land use with these areas to return to their current use post work. Existing safeguards are adequate.
Air quality	Refer to Section 6.10.1 of the project REF.	No additional impacts. Existing safeguards are adequate.
Non-Aboriginal heritage	Refer to Section 6.10.1 of the project REF	No additional impacts. Existing safeguards are adequate.
Waste and resource use	Refer to Section 6.10.1 of the project REF.	No additional impacts. Existing safeguards are adequate.
Greenhouse gas and climate change	Refer to Section 6.10.1 of the project REF	No additional impacts. Existing safeguards are adequate.

6.3.2 Safeguards and management measures

Existing safeguards are considered adequate to address the impacts identified in Table 6-8. One addition measure is proposed.

Table 6-9: Safeguards and management measures – other issues

No.	Impact	Safeguard	Responsibility	Timing
B21	Biodiversity	There is to be no clearing of trees (with a diameter at breast height of >150mm) within the nominated additional compound / stockpile area on Blaikie Road.	Contractor	Construction

6.4 Cumulative impacts

6.4.1 Potential impacts

Cumulative impacts associated with the proposed modification are not expected given the limited scope of the changes and the minimal incremental impacts identified.

Minimising impacts of the proposed modification is the best way to address any potential cumulative effects. Various measures have been proposed as part of the approved project to address impacts and additional measures have been identified in this addendum REF to address biodiversity impacts.

6.4.2 Safeguards and management measures

Various measures have been proposed as part of the approved project to address impacts – refer to Table 7-1.

7 Environmental management

7.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposed modification. Should the proposed modification proceed, these management measures would be addressed if required during detailed design and incorporated into the Project Environmental Management Plan (PEMP) and Contractors Environmental Management Plan (CEMP) and applied during the construction and operation of the proposed modification.

7.2 Summary of safeguards and management measures

Environmental safeguards and management measures for the [insert the name of the overall project] are summarised in Table 7-1. Additional safeguards and management measures identified in this addendum REF are included in bold and italicised font. The safeguards and management measures will be incorporated into the detailed design phase of the proposed modification, the CEMP and the PEMP and implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment.

Table 7-1: Summary of safeguards and management measures

No.	Impacts	Environmental safeguards	Responsibility	Timing
GEN1	General - minimise environmental impacts during construction	<p>A CEMP will be prepared and submitted for review and endorsement of the Roads and Maritime Environment Manager prior to commencement of the activity.</p> <p>As a minimum, the CEMP will address the following:</p> <ul style="list-style-type: none"> • any requirements associated with statutory approvals • details of how the project will implement the identified safeguards outlined in the REF • issue-specific environmental management plans • roles and responsibilities • communication requirements • induction and training requirements • procedures for monitoring and evaluating environmental performance, and for corrective action • reporting requirements and record-keeping • procedures for emergency and incident management • procedures for audit and review. <p>The endorsed CEMP will be implemented during the undertaking of the activity.</p>	Contractor / Roads and Maritime project manager	Pre-construction / detailed design
GEN2	General - notification	All businesses, residential properties and other key stakeholders (eg schools, local councils) affected by the activity will be notified at least five working days prior to commencement of the activity.	Contractor / TfNSW manager	Pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
GEN3	General – environmental awareness	<p>All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings.</p> <p>Site-specific training will be provided to personnel engaged in activities or areas of higher risk.</p>	Contractor / TfNSW project manager	Pre-construction / detailed design
TT1	Traffic and transport	<p>A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Roads and Maritime Traffic Control at Work Sites Manual (2018 2018 2020) and QA Specification G10 Control of Traffic (Roads and Maritime, 2018c). The TMP will include:</p> <ul style="list-style-type: none"> • Confirmed haulage routes • Confirmed temporary diversion routes • Road condition and dilapidation surveys pre-and-post construction plus repair commitments for local roads only • Measures to maintain access to local roads and properties • Site-specific traffic control measures (including signage) to manage and regulate traffic movement • Measures to maintain pedestrian and cyclist access • Requirements and methods to consult and inform the local community of impacts on the local road network • Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads • A response plan for any construction traffic incident • Consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic • Monitoring, review and amendment mechanisms • Stipulated parking restrictions including not allowing staff, contractors or delivery vehicles to park on public roads 	Contractor	Detailed design / Pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
TT2	Traffic and transport	Consultation will be carried out with potentially affected residences prior to the commencement of and during works in accordance with the Roads and Maritime Stakeholder Engagement Toolkit (Transport for NSW, 2017a). Consultation will include but not limited to door knocks, newsletters or letter box drops providing information on the proposed works, working hours and a contact name and number for more information or to register complaints.	Transport project manager	Detailed design / pre-construction
TT3	Traffic and transport	Business needs, including peak customer periods, would be considered within the TMP where feasible and reasonable.	Contractor	Pre-construction
TT4	Access	Requirements for any changes to local access arrangements will be confirmed during detailed design in consultation with the local road authority and any affected landowners	Transport project manager	Construction
TT5	Access	Disruptions to property access and traffic will be notified to landowners at least five days in accordance with the relevant community consultation processes outlined in the TMP	Contractor	Construction
TT6	Pedestrians and cyclists	Pedestrian and cyclist access will be maintained throughout construction. Where that is not feasible or necessary, temporary alternative access arrangements will be provided following consultation with affected landowners and the local road authority.	Contractor	Construction
TT7	Public transport and school buses	Access for public transport services, including school bus services, will be maintained. The requirements for any temporary changes will be confirmed following consultation with local bus operators and the community.	Contractor	Construction
TT8	Threshold treatments	Threshold treatments would be considered during detailed design to provide traffic calming effects such as installing line markings, signage and other traffic calming measures	Transport	Detailed design
TT9	Traffic light phasing	Transport will review the phasing of the traffic lights during detailed design to see if there are opportunities to reduce delays and queuing along Glenbrook Street	Transport	Detailed design
NV1	Noise and vibration	A Noise and Vibration Management Plan (NVMP) would be prepared and implemented as part of the CEMP. The NVMP would	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		<p>generally follow the approach in the Interim Construction Noise Guideline (ICNG, DECC, 2009) and identify:</p> <ul style="list-style-type: none"> • All potential significant noise and vibration generating activities associated with the activity • Feasible and reasonable mitigation measures to be implemented, taking into account Beyond the Pavement: urban design policy, process and principles (Transport for NSW, 2014a) • A monitoring program to assess performance against relevant noise and vibration criteria • Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures • Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria. 		
NV2	Noise and vibration	<p>Work would be generally carried out during normal hours:</p> <ul style="list-style-type: none"> • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays • No construction on Sundays or Public Holidays 	Contractor	Construction
NV3	Noise and vibration	Any variations to the standard construction hours will follow the approach in Practice Note VII of the RTA Environmental Noise Management Manual and/or the RTA Environmental Facts Sheet – Noise Management and Night Works, including consultation with the affected local community.	Contractor	Detailed design / pre-construction
NV4	Noise and vibration	A sleep disturbance assessment would be carried out before the planned out-of-hours work. The assessment would consider the maximum noise level, and the extent and the number of times that the maximum noise level exceeds the RBL.	Contractor	Detailed design / pre-construction
NV5	Noise and vibration	Where feasible and reasonable, the permanent noise wall would be built as part of the early works and before the main work.	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
NV6	Noise and vibration	<p>All sensitive receivers (e.g. schools, residents) likely to be affected would be notified at least five days prior to commencement of any work associated with the activity that may have an adverse noise or vibration impact. The notification would provide details of:</p> <ul style="list-style-type: none"> • The proposal • The construction period and construction hours • Contact information for project management staff • Complaint and incident reporting • How to obtain further information 	Contractor	Pre-construction
NV7	Noise and vibration	All personnel working on site would receive training to provide awareness of requirements of the NVMP. Site-specific training will be given to personnel when working in the vicinity of sensitive receivers.	Contractor	Pre-construction
NV8	Noise and vibration	<p>The following controls would be included in the NVMP:</p> <ul style="list-style-type: none"> • Where practical, the layout and positioning of noise-producing plant and activities at each work site would be optimised to minimise noise emission levels • Where practical, at the site compound, locate spoil mounds towards the north-west of the site and noisy stationary plant (i.e. Generators) behind site offices, hoarding/screens or other spoil mounds to shield receivers • Where practical, equipment would be selected to minimise noise emissions. Equipment would be fitted with appropriate noise control equipment and be in good working order • Where possible, non-beeper reversing movement alarms would be used such as broadband (non-tonal) alarms or ambient noise sensing alarms. Work sites would also be designed to reduce the need for reversing, potentially minimising the use of reversing beepers • Vehicles, plant and equipment would be regularly inspected and maintained to avoid increased noise levels from rattling hatches, loose fittings etc 	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> All vehicles, plant and equipment would be shut off when not in use Resilient damping material would be fitted on bin trucks to minimise noise impacts from loading materials Where feasible and reasonable, localised temporary acoustic hoardings/screens would be installed near high noise-generating activities. Hoardings/screens would be located as close to the noise source as possible, and would be an appropriate height as structurally feasible to minimise noise emissions. The compounds / stockpile site on Blaikie Road would be configured to maximise offset distances and noise shielding for the nearest sensitive receivers. 		
NV9	Noise and vibration	Consistent with any specific requirements of the approved NVMP a monitoring program will be implemented during construction for six months or otherwise directed by Transport for NSW to assess effective implementation of noise and vibration safeguards, identify any unexpected or inadvertent impacts, and identify recommended revisions or improvements.	Contractor	Construction
NV10	Noise and vibration	After considering the outcomes and recommendations arising from the monitoring program, and any other relevant information that becomes available during construction, appropriate measures will be implemented to address identified deficiencies or undertake actions needed to address noise and vibration impacts. If necessary, the NVMP will be reviewed and updated to include any additional measures.	Contractor	Construction
NV11	Noise and vibration	Ensure the use of vibratory rollers <100 kN (typically two to four tonnes) and hydraulic hammers 300 kg (five to 12 tonne excavator) are used during construction. Where this is not feasible or reasonable, carry out additional vibration impact assessment and/or pre-conditional surveys on the potentially affected buildings and affected receivers within the associated safe working distances. Carry out additional vibration monitoring during construction as needed to respond to any received complaints, and if needed carry out post-conditional surveys on the potentially affected buildings	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
NV12	Noise and vibration	Construction respite periods would be implemented as per Appendix C of the NVMP. In addition, for the key noise-impacting activities, this would be scheduled to be ideally carried out during standard work hours otherwise these activities would be carried out before midnight. Where feasible, these activities should only restart after 7 am the next day.	Contractor	Construction
NV13	Noise and vibration	<p>Within six months of the project becoming operational a noise review will be in accordance with Roads and Maritime Preparing a Post Construction Noise Assessment Brief. The review will generally follow the approach provided in Practice Note VIII of the RTA Environmental Noise Management Manual, and will:</p> <ul style="list-style-type: none"> • Assess actual noise performance compared to predicted noise performance • Assess the performance and effectiveness of noise and vibration mitigation measures • Where deficiencies in performance are identified, provide recommendations for additional feasible and reasonable measures in accordance with the NMG. 	Transport for NSW project manager	Pre-construction / operation
NV14	Noise and vibration	After considering the outcomes and recommendations arising from the operational noise review, and any other relevant available information (including consultation with sensitive receivers), additional measures may be implemented to ensure adequate management of operational noise impacts.	Transport for NSW project manager	Pre-construction / operation
B1	Biodiversity	<p>A Flora and Fauna Management Plan (FFMP) will be prepared in accordance with Roads and Maritime Biodiversity Guidelines: Protecting and Managing Biodiversity on RTA Projects (RTA, 2011a) and implemented as part of the CEMP. It would include, but not be limited to:</p> <ul style="list-style-type: none"> • Plans showing areas to be cleared and areas to be protected, including exclusion zones, protected habitat features and revegetation areas • Requirements set out in the Landscape Guideline (Roads and Maritime, 2018a) 	Transport project manager / contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> • Pre-clearing survey requirements • Procedures for unexpected threatened species finds and fauna • Handling • Protocols to manage weeds and pathogens 		
B2	Biodiversity	<p>Measures to avoid and minimise impacts will be prioritised in the following order:</p> <ul style="list-style-type: none"> • Critical habitat • Threatened species, endangered ecological communities or their habitat • Native vegetation and habitat supporting flora and fauna connectivity and/or that supports other • Environmental objectives such as protecting water quality, hydrology or erosion and sediment controls • Native vegetation of higher quality condition • Other native vegetation. 	Transport project manager / contractor	Detailed design / pre-construction
B3	Biodiversity	All personnel working on site will receive training to ensure awareness of requirements of the FFMP and relevant statutory responsibilities. Site specific training will be given to personnel when working in the vicinity of areas of identified biodiversity value that are to be protected.	Contractor	Pre-construction / construction
B4	Biodiversity	A pre-construction check of native flora and fauna species and habitat would be carried out in accordance with the Biodiversity Guidelines - Protecting and managing biodiversity on RTA projects. Biodiversity management measures identified during the pre-construction check would be included in the FFMP.	Contractor	Pre-construction
B5	Biodiversity	Consistent with the Biodiversity Guidelines - Protecting and managing biodiversity on RTA projects, and any specific requirements of the approved FFMP, an unexpected finds procedure would be implemented in the event that a threatened species or ecological community that had not been identified and assessed by the REF are unexpectedly encountered during the construction process	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
B5	Biodiversity	<p>Consistent with the approved FFMP:</p> <ul style="list-style-type: none"> The limits of clearing within the construction site will be delineated using appropriate signage and barriers, identified on site construction drawings and during construction staff induction Vegetation and habitat features to be retained, such as hollow bearing trees, will be clearly identified and protected by suitable fencing, signage or markings Identified areas containing habitat for hollow-dependent species will not be cleared during the breeding season May to September. 	Contractor	Construction
B7	Weeds and pathogens	<p>Declared noxious weeds and potential pests and pathogens are to be managed according to requirements under the Biosecurity Act 2015 and Guide 6 (Weed Management) of the Transport for NSW Services Biodiversity Guidelines 2011 and Guide 7: Pathogen management of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA, 2011a). Topsoil from the site that contains or potentially contains weed species or propagules:</p> <ul style="list-style-type: none"> Will not be reused for future rehabilitation or revegetation works Will be removed from the construction site and disposed of at an appropriately licensed facility Until removal occurs, will be stockpiled in cleared or disturbed areas and managed in accordance with the Roads and Maritime Stockpile Site Management Guideline (Roads and Maritime, 2015b). 	Contractor	Construction
B8	Biodiversity	<p>Consistent with any specific requirements of the FFMP, a monitoring program will be implemented during construction to ensure effective implementation of the safeguards, identify any unexpected or inadvertent impacts, and identify recommended revisions or improvements to the safeguards. A register of inspections will be established.</p>	Contractor	Construction
B9	Biodiversity	<p>After considering the outcomes and any recommendations arising from the monitoring program, and any other relevant information</p>	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		that becomes available during construction, additional measures may be implemented to ensure adequate protection of native flora and fauna. If necessary, the Flora and Fauna Management Plan will be reviewed and updated to include any additional measures.		
B10	Biodiversity	<p>The above safeguards would be developed in accordance with the provisions State Regional Environmental Plan No.20 (Hawkesbury Nepean River, No.2 1997) that are aimed at protected catchment values.</p> <p>Therefore, the mitigation would specifically consider the need to:</p> <ul style="list-style-type: none"> • Avoid aquatic plant areas, significant fauna and wetland habitat • Re-establish and replant impacted riparian flora and fauna habitat. 	Contractor	Construction
B11	Removal of native vegetation	Measures to further avoid and minimise the revised REF proposal footprint and native vegetation removal will be investigated further during detailed design and implemented where practicable	Contractor	Detailed design
B12	Loss of trees	An AQF5 qualified arborist will be engaged to undertake a formal assessment of the Forest Red Gum trees and develop an Arboricultural Impact Assessment and tree protection plan prior to construction, to confirm which trees can be retained.	Contractor	Pre-construction
B13	Removal of vegetation	<p>Vegetation removal will be carried out in accordance with Guide 4:</p> <ul style="list-style-type: none"> • Clearing of vegetation and removal of bushrock of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011). • Limit disturbance of vegetation to the minimum necessary to construct works. • The boundaries of vegetation removal are to be clearly defined as 'no go zones' clearly signposted and fenced to prevent unauthorised clearing and vehicular and/or foot traffic. No go zones should include any retained trees within the revised REF proposal footprint. • Pre-clearing surveys to be conducted by a qualified ecologist or arborist 24 hours before clearing. 	Contractor	During construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
B14	Hollow-bearing Tree Removal	<p>That the following mitigation measures will be implemented for the removal of the hollow-bearing trees:</p> <ul style="list-style-type: none"> • Marking trees to be removed and preparing an inventory of trees and hollows (if observed) to be removed. • Pre-clearance surveys to be completed by an appropriately qualified ecologist or arborist. • A qualified ecologist will be present during the removal of hollow bearing trees to relocate any displaced fauna. • If practical, removal of hollow-bearing trees will be carried out outside of the breeding period of May – September which is the main breeding season for hollow-dependant fauna. 	Contractor	Construction
B15	Nest Box Strategy	<p>A Nest Box Strategy will be developed in association with Council, the local community and potentially other organisations such as Cumberland Land Conservancy. The Nest Box Strategy will investigate opportunities such as:</p> <ul style="list-style-type: none"> • To relocate and reuse significant hollow-bearing tree features and hollows • Providing species specific nest boxes targeting fauna species recorded • Installing nest boxes in the same habitat type • Nest boxes to be installed pre-clearing • Monitoring and replacement of nest boxes where required <p>The loss of all hollows observed to be being used will be compensated at a ratio of one nest box for every used hollow lost</p>	Contractor	Detailed design, during pre-construction, construction and post construction
B16	Unexpected threatened species	<p>The unexpected species find procedure is to be followed under Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011) if threatened fauna, not assessed in the biodiversity assessment, are identified in the proposal site.</p>	Contractor	Construction
B17	Erosion and sediment control	<p>Increased storm water runoff volume and velocity potentially leading to soil erosion and sedimentation. Ensure appropriate erosion and sediment control measures are implemented during the construction-phase to minimise potential indirect and direct impacts.</p>	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
B18	Revegetation	Any exposed soil surfaces post-construction should be revegetated preferably with native species, where such planting does not impede the function of the drainage works	Contractor	Post-construction
B19	Injury and mortality of fauna	Fauna will be managed in accordance with Guide 9: Fauna handling of the Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects (RTA 2011). All fauna captured during clearing is to be relocated. Any fauna injured during clearing should be taken to closest vet for treatment. All ecologists to have appropriate Lyssavirus vaccinations for the handling of any displaced bats.	Contractor	During construction
B20	Invasion and spread of weeds	Declared priority weeds are to be managed according to requirements under the Biosecurity Act 2015 and Guide 6 (Weed Management) of the Roads and Maritime Biodiversity Guidelines 2011.	Contractor	Pre-construction / construction
B21	Biodiversity	<i>There is to be no clearing of trees (with a diameter at breast height of >150mm) within the nominated additional compound / stockpile areas on Blaikie Road.</i>	Contractor	Construction
B20	Invasion and spread of weeds	Declared priority weeds are to be managed according to requirements under the Biosecurity Act 2015 and Guide 6 (Weed Management) of the Roads and Maritime Biodiversity Guidelines 2011.	Contractor	Pre-construction and during construction
SW1	Soil and water	A Soil and Water Management Plan (SWMP) would be prepared and implemented as part of the CEMP. The SWMP would identify all reasonably foreseeable risks relating to soil erosion and water pollution and describe how these risks would be addressed during construction.	Contractor	Detailed design / pre-construction
SW2	Soil and water	A site-specific Erosion and Sediment Control Plan (ESCP) would be prepared and implemented as part of the SWMP. The Plan would include arrangements for managing wet weather events, including monitoring of potential high-risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
SW3	Contaminated land	<p>A Contaminated Land Management Plan (CLMP) would be prepared in accordance with the Guideline for the Management of Contamination (Transport for NSW, 2013) and implemented as part of the CEMP. The Plan would include, but not be limited to:</p> <ul style="list-style-type: none"> • Capture and management of any surface runoff contaminated by exposure to the contaminated land • Further investigations required to determine the extent, concentration and type of contamination, as identified in the detailed site investigation (Phase 2) • Management of the remediation and subsequent validation of the contaminated land, including any certification required • Measures to ensure the safety of site personnel and local communities during construction. 	Contractor	Detailed design / pre-construction
SW4	Contaminated land	<p>If contaminated areas are encountered during construction, appropriate control measures would be implemented to manage the immediate risks of contamination. Refer to the Unexpected Finds Procedure (Roads and Maritime, 2015). This may include but not be limited to:</p> <ul style="list-style-type: none"> • Diversion of surface runoff • Capture of any contaminated runoff • Temporary capping. <p>All other works that may impact on the contaminated area would cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport Environment Manager and/or EPA.</p>	Contractor	Detailed design / pre-construction
SW5	Asbestos	<p>An Asbestos Management Plan will be developed and implemented. The plan will include:</p> <ul style="list-style-type: none"> • Identification of potential asbestos on site • Procedures to manage and handle any asbestos • Mitigation measures if asbestos is encountered during construction. 	Contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		Procedures for disposal of asbestos in accordance with NSW EPA guidelines, Australian Standards and relevant industry codes of practice.		
SW6	Soil and water	A Spill Management Plan will be prepared and implemented as part of the CEMP to minimise the risk of pollution arising from spillage or contamination on the site and adjoining areas. The Spill Management Plan will address, but not necessarily be limited to: management of chemicals and potentially polluting materials; any bunding requirements; maintenance of plant and equipment; and emergency management, including notification, response and clean-up procedures.	Contractor	Pre-construction / construction
SW7	Soil and water	All stockpiles will be designed, established, managed and decommissioned in accordance with the Stockpile Site Management Procedure Guideline (Transport for NSW, 2015b)	Contractor	Pre-construction / construction
SW8	Soil and water	In addition to the implementation of general erosion, sediment and water quality control safeguards (above), any sediment basins, stockpiles, washdowns, batch plants, refuelling and chemical storage sites will be lined and/or bunded.	Contractor	Construction
SW9	Water sensitive urban design	Transport for NSW will consider the requirements of Penrith City Council's Water Sensitive Urban Design (WSUD) policy during detailed design.	Transport	Detailed design / pre-construction
H1	Hydrology and flooding	Prior to construction commencing, final flood and hydrology assessments will be carried out to inform detail design measures to minimise risks to the environment, properties and the project. If Mulgoa Road is still shown to flood during an extreme event, additional design controls would be included to reduce impacts to acceptable levels	Transport project manager	Detailed design
H2	Hydrology and flooding	A contingency and evacuation plan would be prepared for a potential flood event during construction. The plan would: <ul style="list-style-type: none"> Evaluate what flood event would trigger the plan Include evacuation procedures 	Contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		<ul style="list-style-type: none"> • Include a map indicating the area that is flood prone and the locations where to evacuate. 		
LV1	Landscape character and visual impact	<p>An Urban Design Plan (UDP) would be prepared to support the final detailed project design and implemented as part of the CEMP. The UDP would present an integrated urban design for the project, providing practical detail on the application of design principles and objectives identified in the environmental assessment. The Plan would include design treatments for:</p> <ul style="list-style-type: none"> • Location and identification of existing vegetation and proposed landscaped areas, including species to be used • Built elements including retaining walls, bridges and noise walls • Pedestrian and cyclist elements including footpath location, paving types and pedestrian crossings • Fixtures such as seating, lighting, fencing and signs • Details of the staging of landscape works taking account of related environmental controls such as erosion and sedimentation controls and drainage • Procedures for monitoring and maintaining landscaped or rehabilitated areas. <p>The UDP would be prepared in consultation with Council in accordance with relevant guidelines, including:</p> <ul style="list-style-type: none"> • Beyond the Pavement urban design policy, process and principles (Transport for NSW, 2014a) • Landscape Guideline (RTA, 2008bRoads and Maritime, 2018a) • Bridge Aesthetics (Roads and Maritime 2019) • Noise Wall Design Guidelines (RTA, 2006Roads and Maritime, 2016a) • Shotcrete Design Guideline (RTA, 2005Roads and Maritime, 2016b). 	Transport project manager / contactor	Detailed design / pre-construction
LV2	Landscape character and visual impact	Detailed design solutions to minimise the visual impacts of noise wall along the eastern side of Mulgoa Road will be developed in consultation with property owners, residents and Penrith City Council and implemented during construction. The design will be	Transport project manager	Detailed design

No.	Impacts	Environmental safeguards	Responsibility	Timing
		prepared in accordance with the RTA Roads and Maritime Noise Wall Design Guideline.		
LV3	Landscape character and visual impact	The Landscape Management Plan will be refined to ensure cost effective and consistent management of landscape works will be developed in consultation with property owners, residents and Penrith City Council and implemented during construction. The plan will be prepared in accordance with the RTA Transport for NSW Landscape guideline (Transport for NSW, 2018a).	Transport project manager	Detailed design
LV4	Lighting	A detailed lighting plan will be developed for the proposal in consultation with property owners, residents and Penrith City Council	Transport project manager	Detailed design
LV5	Landscape character and visual impact	Detailed design solutions to screen properties alongside Mulgoa Road will be developed in consultation with property owners, residents and Penrith City Council and implemented during construction.	Transport project manager	Detailed design
LV6	Tree loss	Measures to reduce the tree loss alongside Mulgoa Road and local roads would be considered in developing the detailed design.	Transport project manager	Detailed design
LV7	Landscape character and visual impact	Project work sites, including construction areas and supporting facilities (such as storage compounds and offices) will be managed to minimise visual impacts, including appropriate storage of equipment, parking, stockpile screening and arrangements for the storage and removal of rubbish and waste materials.	Contractor	Construction
LV8	Lighting impacts	Temporary site lighting will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting.	Contractor	Pre-construction / construction
AH1	Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015c) will be followed in the event that an unknown or potential Aboriginal object/s, including skeletal remains, is found during construction. This applies where Transport for NSW does not have approval to disturb the object(s) or where a specific safeguard for managing the disturbance (apart from the Procedure)	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		is not in place. Work will only re-commence once the requirements of that Procedure have been satisfied.		
SE1	Socio-economic	<p>A Communication Plan (CP) would be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The CP would include (as a minimum):</p> <ul style="list-style-type: none"> • Mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions • Contact name and number for complaints. <p>The CP would be prepared in accordance with the Stakeholder Engagement Toolkit (Transport for NSW, 2017a).</p>	Transport project manager / contractor	Detailed design / pre-construction
SE2	Tree loss	An arborist will be engaged to carry out a detailed tree survey in accordance with AS4970: 2009: Protection of Trees on Development Sites (Standards Australia, 2009). This information would be used to inform the detailed design and reduce tree loss where feasible and reasonable.	Transport project manager / contractor	Pre-construction / construction
SE3	Property acquisition	All property acquisition would be carried out in accordance with the Land Acquisition Information Guide (Roads and Maritime, 2014c), the supporting NSW Government Land Acquisition Reform 2016, and the Land Acquisition (Just Terms Compensation) Act 1991.	Transport project manager	Pre-construction / construction
SE4	Socio-economic	Consultation will be undertaken with potentially affected residences prior to the commencement of and during works in accordance with the Roads and Maritime Stakeholder Engagement Toolkit (Transport for NSW, 2017a). Consultation will include but not limited to door knocks, newsletters or letter box drops providing information on the proposed works, working hours and a contact name and number for more information or to register complaints.	Transport project manager / contractor	Pre-construction / construction
SE5	Socio-economic	Consultation will be undertaken with all affected property owners during detailed design and construction to develop and implement measures to mitigate impacts on land use viability, infrastructure and severance. This would include but not be limited to the Public School and Penrith City Council about school bus services, access	Transport project manager / contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		requirements, and any key calendar periods (i.e. exams), and the Rural Fire Service and Fire & Rescue to ensure emergency access to and from Jeanette Street.		
SE6	Socio-economic	Consultation will occur with the commercial properties alongside Mulgoa Road to identify appropriate management strategies to avoid or minimise impacts on access and operations, especially during peak customer periods. This will include consideration of measures such as additional signage and alternative access arrangements.	Transport project manager / contractor	Pre-construction / construction
SE7	Tree loss	An arborist will carry out a pre-construction check of the site to confirm that all preserved trees are clearly and effectively marked and suitable protection zones are in place to prevent any impact on the canopy or root zones	Transport project manager / contractor	Pre-construction / construction
SE8	Socio-economic	A complaint handling procedure and register will be included in the CEMP.	Contractor	Construction
SE9	Access	Disruptions to property access and traffic will be notified to landowners at least five days in accordance with the relevant community consultation processes outlined in the TMP.	Contractor	Construction
SE10	Socio-economic	Road users and local communities will be provided with timely, accurate, relevant and accessible information about changed traffic arrangements and delays owing to construction activities.	Contractor	Construction
SE11	Tree loss	Access for emergency vehicles would be maintained at all times during construction. Any site-specific requirements will be determined in consultation with the relevant emergency services agency.	Contractor	Construction
SE12	Access	Any tree removal or pruning would be carried out by a qualified specialist and in accordance with AS4970: 2009: Protection of Trees on Development Sites (Standards Australia, 2009) and AS4373:2007: Pruning of Amenity Trees and WorkCover Amenity Tree Industry Code of Practice 1998.	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
AQ1	Air quality	<p>An Air Quality Management Plan (AQMP) would be prepared and implemented as part of the CEMP. The AQMP would include, but not be limited to:</p> <ul style="list-style-type: none"> • Potential sources of air pollution • Air quality management objectives consistent with any relevant published EPA and/or OEH guidelines • Mitigation and suppression measures to be implemented • Methods to manage work during strong winds or other adverse weather conditions • A progressive rehabilitation strategy for exposed surfaces. 	Contractor	Detailed design / pre-construction
AQ2	Air quality	<p>All sensitive receivers (e.g. schools, residents) likely to be affected would be notified at least five days prior to commencement of any works associated with the activity that may have an adverse impact on local air quality. The notification would provide details of:</p> <ul style="list-style-type: none"> • The proposal • The construction period and construction hours • Contact information for project management staff • Complaint and incident reporting • How to obtain further information. 	Contractor	Pre-construction / construction
AQ3	Air quality	All personnel working on site will receive training to ensure awareness of requirements of the AQMP. Site-specific training will be given to personnel when working in the vicinity of sensitive receivers.	Contractor	Pre-construction / construction
AQ4	Air quality	Consistent with the approved AQMP, mitigation and suppression measures will be implemented to protect local air quality.	Contractor	Construction
AQ5	Air quality	No burning of timber or other materials will occur, other than vegetation debris that is unsuitable for any other purpose, and subject to any necessary approval of Penrith City Council and/or EPA, and provision of any required notification to the Rural Fire Service. No burns will be undertaken during total fire bans.	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
NA1	Non-Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015c) will be followed in the event that any unexpected heritage items, archaeological remains or potential relics of Non-Aboriginal origin are encountered. Work will only recommence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design / pre-construction
W1	Waste	<p>A Waste Management Plan (WMP) would be prepared and implemented as part of the CEMP. The WMP would include but not be limited to:</p> <ul style="list-style-type: none"> • Measures to avoid and minimise waste associated with the project • Classification of wastes and management options (re-use, recycle, stockpile, disposal) • Statutory approvals required for managing both on and off-site waste, or application of any relevant resource recovery exemptions • Procedures for storage, transport and disposal • Monitoring, record keeping and reporting. <p>The WMP would be prepared taking into account the Environmental Procedure - Management of Wastes on Roads and Maritime Services Land (Roads and Maritime, 2014b) and relevant Roads and Maritime Waste Fact Sheets.</p>	Contractor	Pre-construction
W2	Waste	Prior to land being used for ancillary construction purposes (compounds, storage, parking, etc) a pre-construction land assessment will be undertaken to identify the presence of any pre-existing wastes. The assessment will be prepared in accordance with the RMS Environmental Procedure - Management of Wastes on Roads and Maritime Services Land. Where the land is privately owned, a copy of the assessment will be provided to the landowner	Contractor	Construction
W3	Waste	Waste materials (such as soils and aggregates) obtained from the project and to be exported to a non-road construction site or project will be sampled and managed in accordance with relevant Roads and Maritime Waste Fact Sheets.	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
W4	Waste	Any removed trees would be reused as millable timber wherever feasible and reasonable. Other removed vegetated material would be mulched and reused onsite for landscaping, habitat replacement or rehabilitation purposes if consistent with the approved FFMP. Weed species, or vegetation not considered appropriate for reuse onsite, would be removed and disposed of to an appropriately licenced facility	Contractor	Construction
W5	Waste	A post-construction land assessment would be carried out on land used for ancillary construction purposes (compounds, storage, parking, etc) to determine the suitability for hand-back to the landowner. The assessment would be prepared in accordance with the RMS Environmental Procedure - Management of Wastes on Transport for NSW Services Land. Where the land is privately owned, a copy of the assessment will be provided to the landowner.	Transport project manager / contractor	Post-construction
U1	Utilities	<p>Prior to the commencement of works:</p> <ul style="list-style-type: none"> The location of existing utilities and relocation details would be confirmed following consultation with the affected utility owners If the scope or location of proposed utility relocation works falls outside of the assessed proposal scope and revised REF proposal footprint, further assessment would be undertaken 	Contractor	Detailed design / pre-construction
GHG1	Greenhouse gas and climate change	<p>Specific measures would be outlined in the CEMP to ensure that construction minimises any potential impacts on or from climate change including:</p> <ul style="list-style-type: none"> Energy efficiency and related carbon emissions would be considered during the development of construction methodologies, procurement of low carbon alternatives and the selection of efficient plant vehicles, and equipment Plant, vehicles and machinery must be operated efficiently in accordance with the manufacturers guidelines to ensure optimal performance and be switched off when not in use Procedures would be set out for the management of extreme events including flooding, heatwaves and bushfires. 	Contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
C1	Cumulative impacts	Consultation would take with other developers in the area to coordinate traffic management in the wider area, especially during peak periods.	Transport project manager / contractor	Detailed design / pre-construction
C2	Cumulative impacts	All environmental management plans would be prepared to consider other developments in the area.	Contractor	Pre-construction

7.3 Licensing and approvals

All relevant licenses, permits, notifications and approvals needed for the Mulgoa Road Upgrade Stage 1 and when they need to be obtained are listed in Table 7-2.

Table 7-2: Summary of licensing and approvals required

Instrument	Requirement	Timing
Roads Act 1993	Licence from Penrith City Council and the Transport Management Centre to occupy roads during construction.	Prior to start of the activity requiring road occupancy.

8 Conclusion

8.1 Justification

The proposed modification reflects further design development, construction planning and consultation with property owners, business operators and utility asset owners.

While there are some environmental impacts associated with the proposed modification, they are minor, temporary and are addressed through the safeguards listed Table 7-1. The most affected receivers have also raised no objection to the proposed modification.

The benefits of the proposed modification are considered to outweigh the adverse impacts and risks.

8.2 Objectives of the EP&A Act

Table 8-1 reviews the consistency of the proposal with the objects of the EP&A Act.

Table 8-1: Objects of the EP&A Act

Environmental factor	Construction
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	Not directly relevant to the proposed modification.
1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.	The principles of ecological sustainable development are considered in Section 8.2.1.
1.3(c) To promote the orderly and economic use and development of land.	Not directly relevant to the proposed modification.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not directly relevant to the proposed modification.
1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.	The potential environmental impacts of the proposed modification have been assessed. Existing safeguards and management measures are considered largely adequate. Some additional safeguards have been proposed.
1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	The proposed modification would have no heritage impacts.
1.3(g) To promote good design and amenity of the built environment.	Most elements of the proposed modification relate to the construction phase only. The proposed additional business identification sign for the Penrith Homemaker Centre has a contemporary design with supporting structure largely screened from view.

Environmental factor	Construction
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	Not directly relevant to the proposed modification.
1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.	Not directly relevant to the proposed modification.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	Broad community consultation was not considered necessary for the proposed modification. Targeted consultation has occurred with property owners. Refer to Section 5.2.

8.2.1 Ecologically sustainable development

Ecologically sustainable development (ESD) is development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends. The principles of ESD have been an integral consideration throughout the development of the proposal.

ESD requires the effective integration of economic and environmental considerations in decision-making processes. The four main principles supporting the achievement of ESD are discussed below.

The precautionary principle

The precautionary principle deals with certainty in decision-making. It provides that where there is a threat of serious or irreversible environmental damage, the absence of full scientific certainty should not be used as a reason to postpone measures to prevent environmental degradation.

The precautionary principle has guided the assessment of environmental impacts for this assessment and the development of mitigation measures.

8.2.2 Intergeneration equity

Social equity is concerned with the distribution of economic, social and environmental costs and benefits. Inter-generational equity introduces a temporal element with a focus on minimising the distribution of costs to future generations.

The impacts of the proposed modification are primarily short term and manageable. Permanent elements, such as new signs, are consistent with the character of the area.

8.2.3 Conservation of biological diversity and ecological integrity

The twin principles of biodiversity conservation and ecological integrity have been a consideration during the design and assessment process with a view to identifying, avoiding, minimising and mitigating impacts.

The proposed modification would have negligible biodiversity impacts.

8.2.4 Improved valuation, pricing and incentive mechanisms

The principle of internalising environmental costs into decision making requires consideration of all environmental resources which may be affected by a project, including air, water, land and living things.

While it is often difficult to place a reliable monetary value on the residual, environmental and social effects of the proposed modification, the value placed on environmental resources within and around the corridor is evident in the extent of environmental investigations, planning and design of impact mitigation measures to prevent adverse environmental impacts.

8.3 Conclusion

The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration (where relevant) of conservation agreements and plans of management under the NPW Act, biodiversity stewardship sites under the BC Act, wilderness areas, areas of outstanding value, impacts on threatened species and ecological communities and their habitats and other protected fauna and native plants. It has also considered potential impacts to matters of national environmental significance listed under the Federal EPBC Act.

The proposed modification is aligned with the project objectives but would still result in some impacts associated with a slightly larger construction footprint and additional compound / stockpile areas. Safeguards and management measures as detailed in the project REF and previous addendum would ameliorate or minimise these expected impacts. The proposed modification responds to the outcomes consultation with property owners and allows for more efficient construction. On balance the proposed modification is considered justified, and the following conclusions are made.

8.3.1 Significance of impact under NSW legislation

The proposed modification would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposed modification is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

8.3.2 Significance of impact under Australian legislation

The proposed modification is not likely to have a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999*. A referral to the Australian Department of the Agriculture, Water and the Environment is not required.

9 Certification

This addendum review of environmental factors provides a true and fair review of the proposed modification in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposed modification.



Stuart Hill
Environmental Planner
Hills Environmental
Date: 19 November 2021

I have examined this review of environmental factors and accept it on behalf of Transport for NSW.



Name: Brett Martin
Position: Project Director, WSPO
Transport for NSW
Date: 09/12/2021

10 References

Department of Planning. (1995). *Is an EIS required?* Sydney: Department of Planning.

Department of Urban Affairs and Planning. (1996). *Roads and Related Facilities EIS Guideline*. Sydney: Department of Urban Affairs and Planning.

Transport for NSW. (2020). *Environmental Impact Assessment Practice Note: Guidelines for Landscape Character and Visual Impact Assessment*. Sydney: Roads and Maritime Services.

Terms and acronyms used in this REF

Term / Acronym	Description
BC Act	Biodiversity Conservation Act 2016 (NSW).
CEMP	Construction environmental management plan
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i> (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
Heritage Act	Heritage Act 1977 (NSW)
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
NPW Act	National Parks and Wildlife Act 1974 (NSW)
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
QA Specifications	Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Roads and Maritime Services.

Appendix A

Consideration of clause 228(2) factors and matters of national environmental significance and Commonwealth land

Clause 228(2) Checklist

In addition to the requirements of the Is an EIS required? guideline (DUAP 1995/1996) and the Roads and Related Facilities EIS Guideline (DUAP 1996) as detailed in the REF, the following factors, listed in clause 228(2) of the Environmental Planning and Assessment Regulation 2000, have also been considered to assess the likely impacts of the proposal on the natural and built environment.

Factor	Impact
a) Any environmental impact on a community? The incremental impact of the proposed modification on the community would be minor.	Minor short-term negative
b) Any transformation of a locality? The proposed modification would not transform a locality.	Nil
c) Any environmental impact on the ecosystems of the locality? The proposed modification would have a minor impact on ecosystems.	Minor short-term negative
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality? The proposed modification would have minor visual impacts, primarily during construction. The new business identification sign for the Penrith Homemaker Centre would not affect sensitive viewers and would be consistent with the character of the adjacent commercial use. There would be some short-term noise impacts associated with the use of additional compounds / stockpiles on Blaikie Road.	Minor short-term negative
e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations? The proposed modification would not affect Aboriginal or non-Aboriginal heritage. Safeguards have been proposed to address this impact.	Nil
f) Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)? There would be no impact on habitat for native species.	Nil
g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air? The proposed modification would not endanger animals, plants or other forms of life.	Nil
h) Any long-term effects on the environment? Impacts of the proposed modification would be short-term.	Nil
j) Any risk to the safety of the environment? The proposed modification does not represent a risk to the safety of the environment.	Nil
k) Any reduction in the range of beneficial uses of the environment? The proposed modification would not reduce the range of beneficial uses of the environment.	Nil
l) Any pollution of the environment? No pollution of the environment would result from the proposed modification.	Nil

Factor	Impact
<p>m) Any environmental problems associated with the disposal of waste? No environmental problems are anticipated for the disposal of waste. The proposed modification would substantially change waste volumes or types.</p>	Nil
<p>n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply? The proposed modification would not increase demand for resources, which are, or are likely to become, in short supply.</p>	Nil
<p>o) Any cumulative environmental effect with other existing or likely future activities? The proposed modification is not expected to have cumulative impacts.</p>	Nil
<p>p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? The proposed modification would not influence coastal processes and/or coastal hazards.</p>	Nil

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act 1999, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposal should be referred to the Australian Government Department of Agriculture, Water and the Environment.

A referral is not required for proposed actions that may affect nationally listed threatened species, endangered ecological communities and migratory species. Impacts on these matters are still assessed as part of the REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
a) Any impact on a World Heritage property? The proposed modification would not have any impact on a World Heritage property.	Nil
b) Any impact on a National Heritage place? The proposed modification would not have any impact on a National Heritage Place.	Nil
c) Any impact on a wetland of international importance? The proposed modification would not affect a wetland of international importance.	Nil
d) Any impact on a listed threatened species or communities? Some Commonwealth listed threatened species have the potential to occur in the local area. The proposed modification would have no impact on these species.	Nil
e) Any impacts on listed migratory species? Some Commonwealth listed migratory species have the potential to occur in the local area. The proposed modification would have no impact on these species.	Nil
f) Any impact on a Commonwealth marine area? The proposed modification would not have any impact on a Commonwealth marine area.	Nil
g) Does the proposal involve a nuclear action (including uranium mining)? The proposed modification does not involve a nuclear action.	Nil
h) Additionally, any impact (direct or indirect) on the environment of Commonwealth land? The proposed modification would not impact Commonwealth land.	Nil

Appendix B

Statutory consultation checklists and correspondence

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Car Park	Does the project include a car park intended for the use by commuters using regular bus services?	No		ISEPP cl. 95A
Bus Depots	Does the project propose a bus depot?	No		ISEPP cl. 95A
Permanent road maintenance depot and associated infrastructure	Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities?	No		ISEPP cl. 95A

Development within the coastal zone

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Development with impacts on certain land within the coastal zone	Is the proposal within a coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?	No		ISEPP cl. 15A

Council related infrastructure or services

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Stormwater	Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	No		ISEPP cl.13(1)(a)
Traffic	Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?	No		ISEPP cl.13(1)(b)
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?	No		ISEPP cl.13(1)(c)

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	No		ISEPP cl.13(1)(d)
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	No	Previous consultation is adequate	ISEPP cl.13(1)(e)
Road & footpath excavation	Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	No	Previous consultation is adequate	ISEPP cl.13(1)(f)

Local heritage items

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	No		ISEPP cl.14

Flood liable land

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent?	No		ISEPP cl.15

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Flood liable land	Are the works located on flood liable land? (to any extent). If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance.	Yes Response is attached below.	State Emergency Service	ISEPP cl.15AA

Public authorities other than councils

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	No	Office of Environment and Heritage	ISEPP cl.16(2)(a)
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	Office of Environment and Heritage	ISEPP cl.16(2)(b)
Aquatic reserves	Are the works adjacent to an aquatic reserve or a marine park declared under the <i>Marine Estate Management Act 2014</i> ?	No	Department of Industry	ISEPP cl.16(2)(c)
Sydney Harbour foreshore	Are the works in the Sydney Harbour Foreshore Area as defined by the <i>Sydney Harbour Foreshore Authority Act 1998</i> ?	No	Sydney Harbour Foreshore Authority	ISEPP cl.16(2)(d)
Bush fire prone land	Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land?	No	Rural Fire Service	ISEPP cl.16(2)(f)
Artificial light	Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)	No	Director of the Siding Spring Observatory	ISEPP cl.16(2)(g)

Development type	Description	Yes / No	If 'yes' consult with	ISEPP clause
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhardt LEP 2012, Narrandera LEP 2013 and Urana LEP 2011.	No	Secretary of the Commonwealth Department of Defence	ISEPP cl.16(2)(h)
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i> ?	No	Mine Subsidence Board	ISEPP cl.16(2)(i)



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November 2021