Transport for NSW

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

Addendum Review of Environmental Factors (No.3)

November 2023

NSW GOVERNMENT

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Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which the Mulgoa Road Upgrade Stage 1 project is located.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation's First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples' cultural and spiritual connections to the land, waters and seas and their rich contribution to society.

Approval and authorisation

Title	Mulgoa Road Upgrade Stage 1 Jeanette Street to Blaikie Road, Jamisontown – Addendum Review of Environmental Factors (No.3)
Accepted on behalf of Transport for NSW by:	Project / Contract Manager Western Sydney Project Office Infrastructure and Place
Signed	
Date:	

Executive summary

The proposed modification

Transport for NSW (Transport) proposes to modify the Mulgoa Road Upgrade Stage 1 project by adjusting the boundary of a compound / stockpile site on Blaikie Road and allowing for the use of a house at 45 School House Road, Regentville for contractor accommodation, nest box storage and light vehicle parking.

Need for the proposed modification

The proposed modification reflects further construction planning and is needed to ensure adequate area for compound, stockpiling and plant laydown. Only part of Lot 9 DP30354 on Blaike Road was previously assessed for use as a site compound. The use of the entirety of Lot 9 DP30354 is now proposed.

The use of 45 School House Road as contractor site accommodation would support the efficient delivery of the project by providing amenities near the southern end of the southern end of the project boundary. This may help reduce the number of contractor vehicle movements between the southern extent of the project and the main site compound.

Proposal objectives

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

Options considered

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

The do nothing option was not suitable due to the risks and limitations it would have on the project. The proposed modification would reduce the projects risks and limitations caused by limited space of the existing site compound.

The proposed modification would allow the more efficient delivery of the project and the ultimate realisation of project benefits (including support for growth, traffic efficiency and freight productivity). Specifically, the larger compound Lot 9 DP30354 on Blaike Road would provide more flexibility in the layout of the site and additional space for plant laydown and storage. The use of the house at 45 School House Road would provide more convenient access to storage and amenities at the southern extent of the project.

Statutory and planning framework

The proposed modification is categorised as development for the purpose of a road and is being carried out by or on behalf of a public authority. Under section 2.109 of SEPP (Transport and Infrastructure), 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 *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW). Consent from Council is not required.

Community and stakeholder consultation

Community and stakeholder consultation for the project is documented in section 5.2 of the project REF and in the related submissions report. Ongoing consultation would be consistent with section 5.6 of the project REF and as outlined in the submissions report.

Environmental impacts

The main environmental impacts for the proposed modification are:

Noise and vibration

The number of affected receivers (during standard hours) is expected to be comparable to the approved project. While the assessment suggests the extent of noise impacts during the night period could be larger and the number of potentially affected residential receivers could increase, actual noise impacts are expected to be similar to the assessment provided in Addendum REF No.1 and No.2. This is due to the conservative assumptions used in the assessment.

As for the approved project, noise levels above 75 dBA (or highly intrusive noise) are not expected at the nearest receivers, but noise levels could exceed the noise management level for most of the time when equipment is in use. Noise management levels could be exceeded at up to 92 receivers during the night period, while moderately intrusive noise could be experienced during the night at up to five receivers. 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.

As no changes to vehicle movements to/from the compound are proposed, there would be no change to noise levels from vehicles accessing the compound.

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 reduce noise impacts associated with vehicles entering and leaving the site.

Landscape and visual

The proposed modification represents a small incremental change to the approved project and would not affect the landscape character impact ratings included Table 6-6 of Addendum REF No.1 or Table 6-32 of the project REF.

The extension of the compound represents a modest increase in landscape character impact (due to the larger areas disturbed). This impact would be temporary, with the site 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 incremental impact on assessed viewpoints.

Proposed safeguards require that work sites 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.

Justification and conclusion

The proposed modification reflects construction planning and is needed to ensure adequate area for compound, stockpiling and plant laydown, that can be used during standard construction hours and out-of-hours activities.

While there are some environmental impacts associated with the proposed modification (larger compound area), they are minor, temporary and are adequately addressed through proposed safeguards.

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

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1. Introduction

1.1 Proposed modification overview

Transport for NSW (Transport) proposes to modify the Mulgoa Road Upgrade Stage 1 project by adjusting the boundary of a compound / stockpile site on Blaikie Road and allowing for use of 45 School House Road for contractor accommodation, storage of nest boxes and light vehicle parking. .

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.

An addendum REF (Addendum REF No.1) was prepared for the project in November 2021. Addendum REF No.1 assessed various changes to the project boundary for property and utilities adjustments and new construction compounds / stockpiling locations.

An Addendum REF (Addendum REF No.2) was prepared for the project in June 2023. Addendum REF No.2 assessed changes to the compound and extended the hours of operation for that site to include evening and night periods. It also covered provision of water / sewer connections to the compound along Blaike Road, an adjustment to the site boundary at 241 Mulgoa Road, clarification of the night period noise management level and amendments to safeguards for biodiversity.

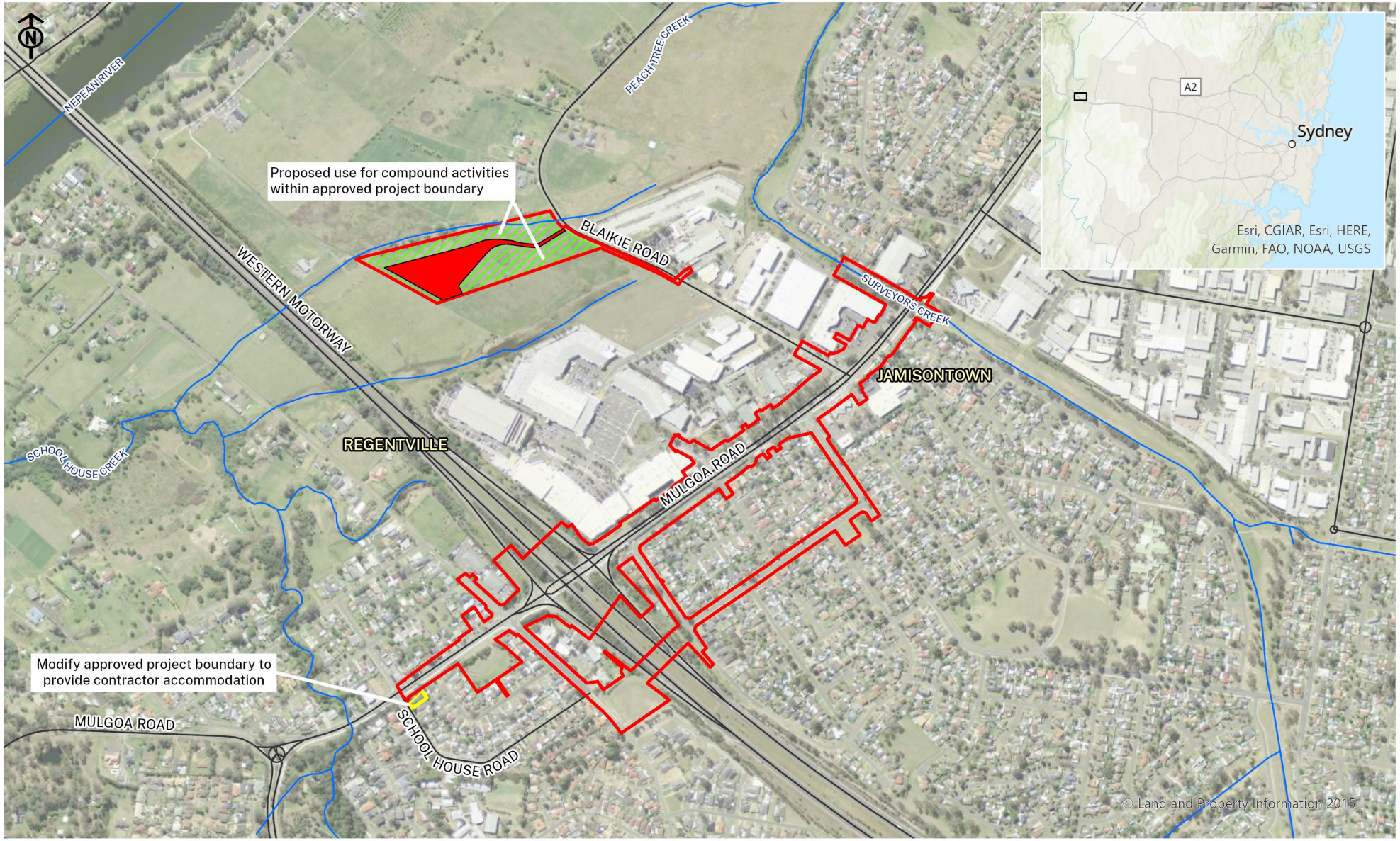


Figure 1-1: Location of the project

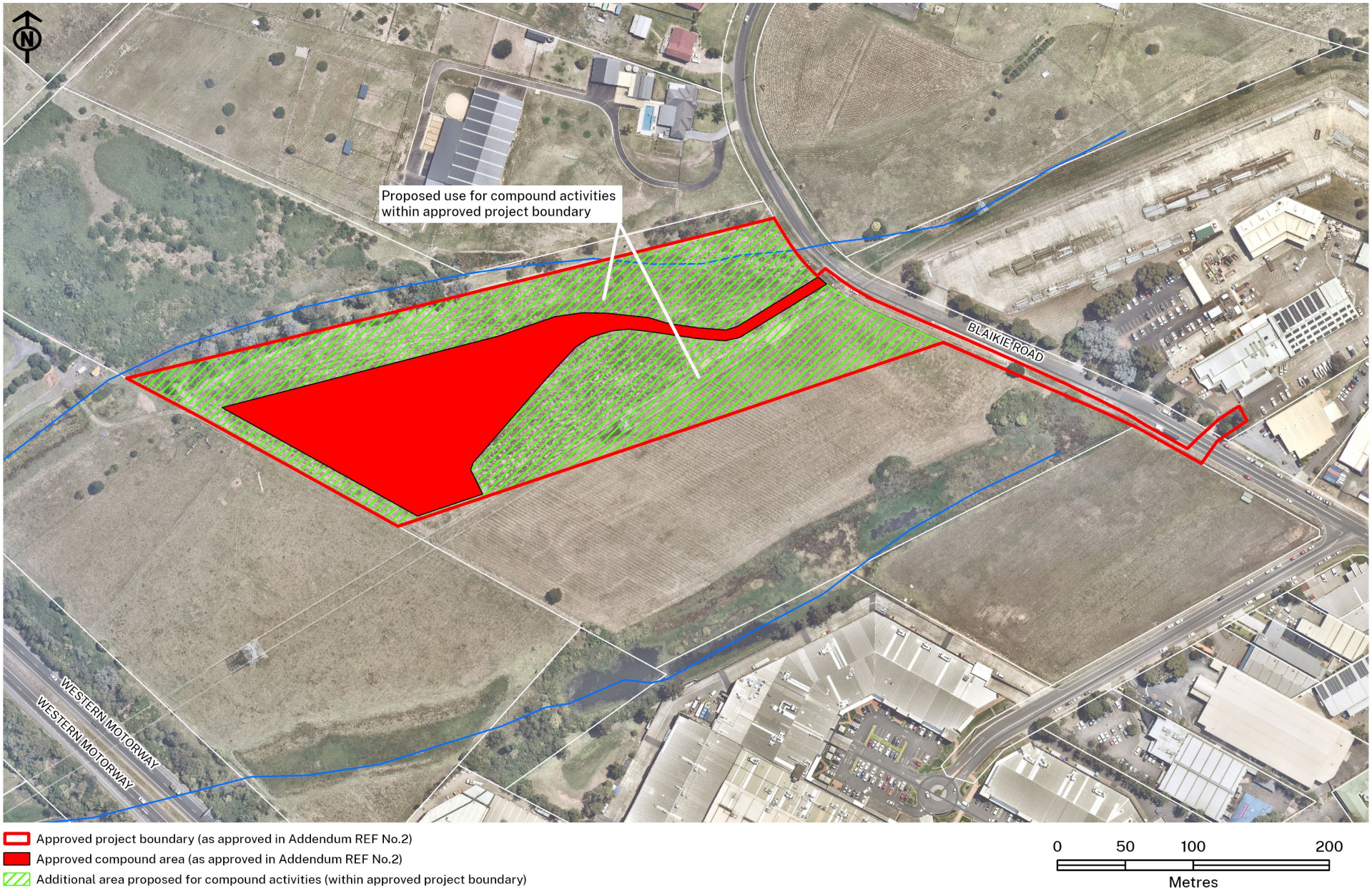


Figure 1-2: The proposed modification – use of additional compound area within approved project boundary

Figure 1-3: The proposed modification – site boundary adjustment for contractor accommodation

1.2 Purpose of the report

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

The purpose of the Addenum REF is to describe the proposal, to document the likely impacts of the proposal 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 Section 171 of the Environmental Planning and Assessment Regulation 2021, Guidelines for Division 5.1 Assessments (DPE 2022), the *Biodiversity Conservation Act, 2016* (NSW) (BC Act), the *Fisheries Management Act 1994* (NSW) (FM Act), and the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (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 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 Addendum 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 sought from the Minister for Planning 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 if offsets are required and able to be secured.
- The potential for the proposal to significantly impact any other matters of national environmental significance or Commonwealth land and the need, subject to the *EPBC Act* strategic assessment approval, to make a referral to the Australian Government Department of Climate Change, Energy, the Environment and Water for a decision by the Commonwealth Minister for the Environment and Water on whether assessment and approval is required under the *EPBC Act*.

2. Need and options considered

This chapter describes the need for the proposal in terms of its strategic setting and operational need. It identifies the various options considered and the selection of the preferred option for the proposal.

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 construction planning and is needed to ensure adequate area for compound, stockpiling and plant laydown. Asbestos management (exclusion zones and associated fencing in accordance with the Asbestos Management Plan) at the approved Blaikie Road compound site (Lot 9 DP30354) have resulted in the entire lot outside the exclusion zones being available for more flexible use of the compound. As a result, potential use of all of Lot 9 DP30354 is now proposed.

The use of the house 45 School House Road as contractor site accommodation would provide additional amenities for construction workers at the southern end of the project footprint and would provide a secure location for the storage of next boxes pending installation. This may help reduce the number of contractor vehicle movements between the southern extent of the project and the main site compound. This property is now owned by Transport.

2.2 Proposal objectives and development criteria

Section 2.3 of the project REF identifies the proposal objectives and development criteria. The proposed modification would assist in meeting these proposal objectives and development criteria initially outlined in the project REF.

2.3 Alternatives and options considered

2.3.1 Methodology for selection of preferred option

The proposed modification primarily involves use of the entirety of Lot 9 DP30354 in addition to use of 45 School House Road as contractor site accommodation. 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 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 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 (with adequate area for compounds, worker amenities, storage, stockpiling and plant laydown) and the realisation of project benefits (including support for growth, traffic efficiency and freight productivity).

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 proposal

3.1 The proposed modification

Blaikie Road compound

The existing Blaikie Road compound impact area shown in Figure 1-2 as 'approved compound area' is proposed to be changed to provide more flexibility in the use of the site. This Addendum REF has assessed the potential environmental impacts of the change from the 'approved compound area' to use of the entire lot as shown on Figure 1-2.

The 'approved compound area' has an area of about 13,400 square metres, while the proposed modification involves use of the entire lot, which is about 43,350 square metres.

As permitted by Addendum REF No. 2, the use of the site compound will be used both during standard construction hours and out-of-hours periods as follows (or as permitted by Environment Protection Licence 21758):

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Works outside the above are subject to EPL requirements (refer to EPL 21758)

As noted in Addendum REF No. 2, establishment of the compound would involve:

- Installation of site fencing
- Fencing of exclusion zones for asbestos management areas (which are currently vegetated)
- Establishment of erosion and sedimentation controls
- Placement of site sheds and worker amenities, connection to services and installation of temporary site lighting
- Construction of access track into the site.

Use of the compound would involve:

- Use of site sheds for pre-start meetings and post work meetings
- Stockpiling material including soil and construction material
- Laydown of plant and equipment
- Access / egress by vehicles before, during and after work shifts.

Water and sewer connections to the new compound were assessed under Addendum REF No. 2.

Use of 45 School House Road

The use of 45 School House Road, Regentville as contractor site accommodation, for storage of nest boxes in garage and for light vehicle parking is proposed. No works are required on the site.

3.2 Design

3.2.1 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.

3.2.2 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 Construction activities

3.3.1 Work methodology

The work methodology is consistent with that described in Section 3.3.1 of the project REF.

3.3.2 Construction hours and duration

The operating hours for the Blaikie Road compound and the use of 45 School House Road are:

- Monday to Friday: 7am to 6pm
- Saturday: 8am to 1pm
- Works outside the above as per the EPL requirements for the project and any amendments (refer to EPL 21758)

3.3.3 Plant and equipment

Proposed plant and equipment remain as described in Section 3.3.3 of the project REF.

3.3.4 Earthworks

No changes to earthworks are proposed.

3.3.5 Source and quantity of materials

Source and quantity of materials remains as described in Section 3.3.5 of the project REF.

3.3.6 Traffic management and access

As per the approved project, the proposed Blaikie Road compound site would be accessed via the Mulgoa Road / Blaikie Road intersection and then directly from Blaikie Road (left-in right-out movements).

Access to 45 School House Road would be via the signalised intersection at Mulgoa Road / School House Road.

3.4 Ancillary facilities

The proposed changes to the Blaikie Road compound are as described in Section 3.1.

3.5 Public utility adjustment

No public utility adjustments are proposed as part of the proposed modification.

3.6 Property acquisition

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

4. Statutory and planning framework

4.1 Environmental Planning and Assessment Act 1979

4.1.1 Environmental Planning and Assessment Regulation

Clause 171A of the Environmental Planning and Assessment Regulation includes requirements for activities proposed to be carried out in regulated catchments, one of is the Hawkesbury-Nepean Catchment. The proposed modification is located wholly within the Hawkesbury-Nepean Catchment and therefore the following need to be considered:

- the matters a consent authority must consider under SEPP (Biodiversity and Conservation) 2021, sections 6.6(1),6.7(1), 6.8(1) and 6.9(1)
- the matters of which a consent authority must be satisfied under the SEPP (Biodiversity and Conservation) 2021, sections 6.6(2), 6.7(2), 6.8(2) and 6.9(2)

An assessment of the proposal against the prescribed Biodiversity and Conservation SEPP matters is provided in Appendix C.

4.1.2 State Environmental Planning Policies

State Environmental Planning Policy (Transport and Infrastructure) 2021

State Environmental Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across the State.

Clause 2.109 of the Transport and Infrastructure SEPP 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 is to be carried out by Transport, it can be assessed under Division 5.1 of the *EP&A Act*. Development consent from council is not required.

The proposal 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 (Resilience and Hazards) 2021, State Environmental Planning Policy (State Significant Precincts) 2005 or State Environmental Planning Policy (Planning Systems) 2021.

Part 2 of the Transport and Infrastructure SEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. No additional Transport and Infrastructure SEPP consultation is required.

4.1.3 Local Environmental Plans

The discussion of Penrith Local Environmental Plan (LEP) 2010 in Section 4.1.2 of the project REF (and in Section 4.1.2 of Addendum REF No.1) remains applicable to the proposed modification.

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 project REF.

A referral is not required for proposed road activities 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 of the proposed modification are considered in Chapter 6 and Appendix A of this Addendum REF.

Findings - matters of national environmental significance

The assessment of the proposal'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 Climate Change, Energy, the Environment and Water under the EPBC Act.

4.4 Confirmation of statutory position

The proposed modification is categorised as development for the purpose of road and is being carried out by or on behalf of a public authority. Under clause 2.109 of the Transport and Infrastructure SEPP the proposal is permissible without consent. The proposal is not State significant infrastructure or State significant development. The proposal can be assessed under Division 5.1 of the *EP&A Act*.

Transport for NSW is the determining authority for the proposal. This addendum REF fulfils Transport's obligation under section 5.5 of the EP&A Act including to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

A referral to Australian Government Department of Climate Change, Energy, the Environment and Water 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 Community involvement

In February 2022, a community notification was distributed to residents and businesses in the area adjacent to 95 Blaikie Road (Appendix D). The notification asked residents and businesses to respond in case of any concerns. No concerns were raised.

In December 2022, the project team emailed and doorknocked residents and businesses in the area to inform them about the set up of a site compound at 95 Blaikie Road. Attached notification (Appendix D) was distributed.

The resident neighbouring the property at 45 School House Road (43 School House Road) was informed about the proposal to use the property for construction workers residential accommodation and storing of nest boxes. The resident was happy to be informed. Further ongoing consultation is proposed with neighbours of the 95 Blaikie Road and 45 School House Road, and a 1800 number (1800 733 084/1) and email address construction.mulgoaroadupgrade@transport.nsw.gov.au has been set up for inquiries and complaints.

5.3 Transport and Infrastructure SEPP consultation

The NSW State Emergency Service (SES) was notified of the Blaikie Road compound during the preparation of Addendum REF No.1. In response, the SES noted that the proposal would likely have minimal impact on SES operations. This previous consultation is considered adequate to address the requirements of Section 2.13 of the State Environmental Planning Policy (Transport and Infrastructure) 2021 for the proposed modification.

5.4 Government agency and stakeholder involvement

Given the minor scale and extent of the proposed modification, no additional government agency and/or stakeholder involvement has been carried out.

5.5 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 with the construction and operation of the proposed modification. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the Guidelines for Division 5.1 assessments (DPE 2022) and the factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021. The factors specified in section 171(2) of the Environmental Planning and Assessment Regulation 2021 are considered in Appendix A.

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

6.1 Noise and vibration

6.1.1 Methodology

The proposed modification would not result in any substantive changes to noise and vibration as set out in section 6.2 of the project REF and Section 6.1 of Addendum REF No.1. Further construction noise assessment has however been carried out to address the increased size of the Blaikie Road compound.

Construction noise from the extended Blaikie Road compound has been assessed in accordance with the Construction Noise and Vibration Guideline (Transport for NSW, 2023) and associated Construction and Maintenance Noise Estimator tool. The 'distance-based construction scenario' worksheet was used with the 'compound operation' scenario and undeveloped green fields, rural areas with isolated dwellings landscape type selected. A line of sight between noise source and receiver was assumed. The whole of Lot 9 DP30354 has been identified for the compound (refer to Figure 6-1).

Noise management levels (NMLs) were established for the proposed compound using the Rating Background Level (RBL) for the R2 representative environment defined in the noise estimator. This level best reflects the distance of road traffic noise from Mulgoa Road and the M4 Western Motorway.

The extension of the site boundary at 45 School house Road, Regentville, would generate minimal noise and is not expected to alter predicted noise levels when compared to the approved project. Noise associated with the use of this site would be similar to typical resident use and no vibration intensive activities are proposed. This aspect of the proposed modification is not considered further.

6.1.2 Existing environment

The existing environment relevant to noise and vibration is consistent with Section 6.2.2 of the project REF. As noted in both Addendum REF No. 1 and No.2, the Blaikie Road compound site is near sensitive receivers in the form of large lot rural residential dwellings. For these receivers the noise management levels from the Transport for NSW Construction and Maintenance Noise Estimator have been adopted as provided in Table 6-1. The adopted noise management levels are the same as those used for Addendum REF No. 1 and No.2.

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

Period	RBL (dBA)	NML
Standard hours: 7am-6pm, Monday to Friday, 8am-1pm Saturday	45	55
Out of hours day: 7am-8am and 1pm-6pm Saturday	45	50
Out of hours evening: 6pm-10pm Monday to Sunday	40	45
Out of hours night: 10pm-7am Sunday to Friday, 10pm-8am Saturday	35	40

6.1.3 Potential impacts

Construction noise

The results of the construction noise assessment for residential receivers are provided in Table 6-2 while the extent of impacts for the worst-case period (night) are shown in Figure 6-1. While the extent of noise impacts would be larger and the number of potentially affected residential receivers would increase, actual noise impacts are expected to be similar to the assessment provided in Addendum REF No.1 and No.2. The noise assessment results should be considered conservative and worst case. Specifically, it is noted that:

- Mitigation measures (such as arranging site sheds to screen noise and limiting noisy activities at night) would reduce impacts on the nearest receivers
- 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 and residences in the south-west extent of Jamisontown, the closest row of buildings would provide 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 from equipment to receiver, etc. As for the approved project, 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 number of affected receivers (during standard hours) is comparable to the approved project. During the night period, noise management levels could be exceeded at up to 92 receivers, while moderately intrusive noise could be experienced at up to five receivers during the night.

Table 6-2: Construction noise assessment – affected residential receivers

Noise impact extent Developed urban settlements	Distance day	Distance out-of-hours day	Distance evening	Distance night
Affected distance	170m Receivers: 5	250m Receivers: 6	360m Receivers: 9	525m Receivers: 92
Noticeable (5 -10 dBA > background)	-	-	-	525m Receivers: 92
Clearly audible (10-20 dBA > background)	-	170m Receivers: 5	250m Receivers: 6	360m Receivers: 9
Moderately intrusive (20-30 dBA > background)	65m Receivers: 1	65m Receivers: 1	115m Receivers: 3	170m Receivers: 5
Highly intrusive (>30 dBA > background)	20m Receivers: 0	20m Receivers: 0	35m Receivers: 0	65m Receivers: 1
Highly noise affected (> 75 dBA > background)	20m Receivers: 0	20m Receivers: 0	20m Receivers: 0	20m Receivers: 0
Sleep disturbance screening criteria (LAmax 65 dBA)	-	-	-	85m Receivers: 1

As shown in Figure 6-1, many of the residential receivers are clustered in subdivisions in the following locations, relative to the proposed compound area:

- Nepean Shores Over 50s lifestyle community, Penrith, to the north of the proposed compound
- Residential area, Jamisontown, north-east of the proposed compound
- Residential area, Regentville, west of the proposed compound
- Residential area, Regentville, south of the proposed compound

As described above, while a line of sight has been assumed for the noise assessment, many of the receivers are screened by industrial and commercial buildings, the M4 motorway, or are located behind other houses, offering a barrier between those receivers and the noise generating source.

When a solid barrier is assumed instead of a line of sight in the Construction and Maintenance Noise Estimator tool, the affected distance is reduced to 360 meters during the night. While this would still affect large lot residences near the compound and dwellings along the edge of the Nepean Shores community and the residential area in Jamisontown, noise is not expected to impact residences beyond those receivers. Overall, due to the effect of screening from existing structures, the incremental increase in noise due to the larger compound use area is likely to be minimal.

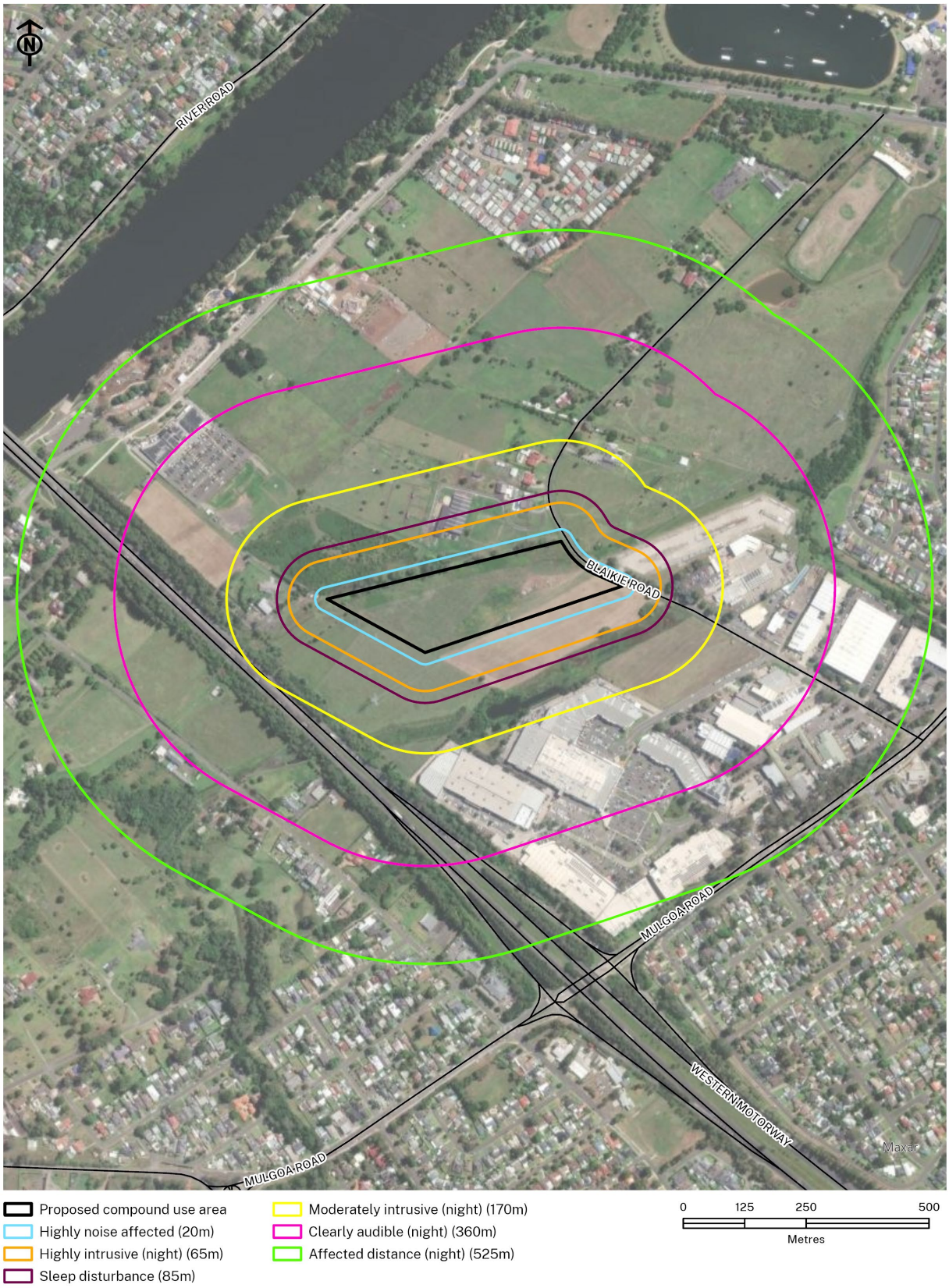


Figure 6-1: Noise assessment results – residential receivers (night)

Construction traffic noise

When construction related traffic moves onto the public road network, vehicle movements are regarded as additional road traffic and are assessed under the Road Noise Policy (Department of Environment, Climate Change and Water, 2011). An initial screening test is applied by evaluating if noise levels would increase by more than 2 dB (an increase in the number vehicles of approximately 60 per cent) due to construction traffic or a temporary detour due to a road closure. In this case, construction traffic generation would not change from the compound approved in REF Addendum No1 and subsequently modified by Addendum No.2, and would use previously identified routes. Therefore, noise levels due to construction traffic are not expected to increase by more than 2 dB due to the proposed modification.

Vibration

The minimum working distances from sensitive receivers for typical items of vibration intensive plant provided in Section 6.1 of the Construction Noise and Vibration Guideline (Transport for NSW, 2023) can be complied with. Exceedance of cosmetic damage (refer British Standard 7385) and human comfort (refer Assessing Vibration: a technical guideline (EPA 2006)) is therefore unlikely during establishment and use of the extended Blaikie Road compound.

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 NV15 as documented in the submissions report (and as modified by Addendum REF No.1 and No.2) will apply to the project including the proposed modification.

6.2 Landscape Character and Visual Impact

6.2.1 Methodology

The proposed modification has been assessed with reference to the Guideline for landscape character and visual impact assessment (Transport for NSW, 2020). The guidelines assess landscape character and visual impacts by reference to the sensitivity of the area and magnitude of the proposal in that area.

Sensitivity	Magnitude: High	Magnitude: Moderate	Magnitude: Low	Magnitude: Negligible
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 rating matrix

For the assessment of the proposed modification the additional landscape character zone (6) and viewpoint (9) identified by Addendum REF No.1 have been adopted. An additional viewpoint (11) has also been considered.

6.2.2 Existing environment

Details of landscape character zone 6 (which is relevant to the Blaikie Road compound) are provided below in Table 6-4.

Table 6-3: Landscape character zone 6 details

Number	Name	Modification elements	Sensitivity
6	Semi-rural: covering the large lot rural residential lands along Blaikie Road, generally west of Pattys Place.	Extended Blaikie Road compound	Moderate

The proposed modification would affect viewpoint 9, assessed in Addendum REF No.1, while one additional viewpoint (viewpoint 11) had also been included for assessment (refer below to Table 6-5 and to Figure 6-3). The sensitivity of both viewpoints is driven by the semi-rural landscape and the local road context.

Table 6-4: Assessed viewpoints for the proposed modification

Number	Name	Direction	Sensitivity
9	Blaikie Road	West	Moderate
11	Blaikie Road residential	South	Moderate

Figure 6-3: Assessed viewpoints for the proposed modification at the Blaikie Road compound

The proposed project boundary change at 45 School House Road would occur within landscape character zone 1 (Residential), which was assessed by the project REF to have moderate sensitivity.

6.2.3 Potential impacts

The proposed modification represents a relatively small change to the approved project and would not affect the landscape character impact ratings included Table 6-6 of Addendum REF No.1 and No.2. The landscape character ratings and associated assessment for the proposed modification are included below in Table 6-6.

Table 6-5: Landscape character assessment (approved project inclusive of the proposed modification)

No	Name	Sensitivity	Magnitude	Impact	Comment
4	Commercial and retail	Low-moderate	High	Moderate-High	The boundary change would have a negligible incremental impact on the character of landscape character zone 4. No trees would be affected. The moderate-high impact rating from the project REF remains unchanged.
6	Semi-rural	Moderate	High	Moderate-High	The extension of the compound within this zone represents a modest increase in impact (due to the larger areas disturbed and actively used for compound activities). This impact would be temporary, with the site 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 to the compound area) for key viewpoints.

The project boundary change at 45 School House Road would not affect any viewpoints considered in the project REF (or any other important views), as this aspect of the proposed modification relates to use of existing structures and would not involve any visible changes to facades or other external features of buildings.

Table 6-6: Visual impact assessment (approved project inclusive of the proposed modification)

No	Sensitivity	Magnitude	Impact	Comment
9	Moderate	High	Moderate-High (same as approved project)	The extension of the compound site within this zone would alter this viewpoint due to the larger area to be used for compound activities (and the associated visual effect of sheds, plant and equipment and stockpiling). The impact would be experienced primarily by road users, 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.
11	Moderate	High	Moderate-High	The extension of the compound site within this zone would alter this viewpoint due to the larger area to be used for compound activities (and the associated visual effect of sheds, plant and equipment and stockpiling). The impact would be experienced primarily by the immediately adjacent residence and by road users. Trees within the narrow parcel

No	Sensitivity	Magnitude	Impact	Comment
				of land immediately to the north (Lot 6 DP30354) provide some limited screening. This impact would be temporary, with sites to be restored following completion of construction.

6.2.4 Safeguards and management measures

Safeguards LV1 through LV8 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 6-7: 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.	While the extent of the Blaikie Road compound would increase, an intensification of site use is not proposed (when compared to the approved project). Additional traffic on Blaikie Road due to the extension of the compound is not anticipated.
Biodiversity	Refer to section 6.3.2 of the project REF.	No additional impacts. The proposed modification does not require 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 the State Vegetation Type Map. A search of the Bionet Atlas conducted on 16 April 2023 did not return any records within or adjacent to the site of the Blaikie Road compound. The nearest records are for highly mobile fauna species including the Grey-headed Flying-fox (*Pteropus poliocephalus*) about 600 metres from the site. The site of the proposed modification does not include habitat on which this species would be reliant.
Soils, geology and contamination	Refer to section 6.4.2 of the project REF.	No additional impacts. Existing safeguards are adequate. Areas where asbestos has been identified on the site will be fenced, and an exclusion zone established for the entire lease period. This is as required by the Asbestos Management Plan for the site and does not form part of the proposed modification.
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 17 April 2023 (ID 773242) did not identify any sites that would be affected by the proposed modification. The nearest sites are along Factory Road on the southern side of the M4 Motorway (about 270 metres away) and along Trench Avenue (about 550 metres to the west).
Socio-economic	Refer to Section 6.9.2 of the project REF	Minor temporary impact on amenity due to the larger Blaikie Road compound footprint. Existing safeguards are adequate. There would be no additional impacts on parking associated with the project boundary change.
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. No additional measures are proposed.

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 an additional measure has been identified in this addendum REF to address potential construction noise 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). This includes measures C1 and C2, which are specifically directed towards addressing any cumulative impacts associated with other developments in the area.

7. Environmental management

This chapter describes how the proposal will be managed to reduce potential environmental impacts during detailed design, construction and operation. A framework for managing potential impacts is provided. A summary of site-specific environmental safeguards is provided and the licence and/or approval requirements required prior to construction are listed.

7.1 Environmental management plans (or system)

Safeguards and management measures have been identified in the project REF in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these safeguards and management measures would be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Construction Environmental Management Plan (CEMP) and associated Environmental Work Method Statements (EWMS) would be prepared to describe the safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP will be prepared prior to construction of the proposal and must be reviewed and certified by the Transport for NSW Environment Officer prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements.

7.2 Summary of safeguards and management measures

Environmental safeguards and management measures outlined in this addendum REF will be incorporated into the detailed design phase of the proposal and 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. The safeguards and management measures are summarised in Table 7-1.

Table 7-1: Summary of safeguards and mitigation measures

No.	Impacts	Environmental safeguards	Responsibility	Timing
GEN1	General - minimise environmental impacts during construction	A CEMP will be prepared and submitted for review and endorsement of the Roads and Maritime Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following: • 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. The endorsed CEMP will be implemented during the undertaking of the activity.	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
GEN3	General – environmental awareness	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. Site-specific training will be provided to personnel engaged in activities or areas of higher risk.	Contractor / TfNSW project manager	Pre-construction / detailed design
TT1	Traffic and transport	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	Contractor	Detailed design / Pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		Work Sites Manual (2022) and QA Specification G10 Control of Traffic (Roads and Maritime, 2018c). The TMP will include: • 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		
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

No.	Impacts	Environmental safeguards	Responsibility	Timing
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 generally follow the approach in the Interim Construction Noise Guideline (ICNG, DECC, 2009) and identify: • 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.	Contractor	Detailed design / pre-construction
NV2	Noise and vibration	Work would be generally carried out during normal hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays • No construction on Sundays or Public Holidays	Contractor	Construction
NV3	Noise and vibration	The standard mitigation measures identified in Appendix A of the Construction Noise and Vibration Guideline (Transport for NSW, 2023) will be implemented. The additional mitigation measures identified in Appendix B of the Construction Noise and Vibration	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		Guideline (Transport for NSW, 2023) will be implemented where noise management levels are expected to be exceeded and where reasonable and feasible.		
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
NV6	Noise and vibration	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: • 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	The following controls would be included in the NVMP: • 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 • All vehicles, plant and equipment would be shut off when not in use	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		• 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
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	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: • Assess actual noise performance compared to predicted noise performance • Assess the performance and effectiveness of noise and vibration mitigation measures	Transport for NSW project manager	Pre-construction / operation

No.	Impacts	Environmental safeguards	Responsibility	Timing
		• Where deficiencies in performance are identified, provide recommendations for additional feasible and reasonable measures in accordance with the NMG.		
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
NV15	Construction noise from Blaikie Road compound	The vehicle access point to the Blaikie Road compound is to be positioned at the maximum distance from the nearest residential receiver (while maintain suitable sightlines for safe access / egress)	Contractor	Construction
B1	Biodiversity	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: • 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) • Pre-clearing survey requirements • Procedures for unexpected threatened species finds and fauna • Handling • Protocols to manage weeds and pathogens	Transport project manager / contractor	Detailed design / pre-construction
B2	Biodiversity	Measures to avoid and minimise impacts will be prioritised in the following order: • 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	Contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		personnel when working in the vicinity of areas of identified biodiversity value that are to be protected.		
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
B5	Biodiversity	Consistent with the approved FFMP: • 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 • Clearing of identified areas containing habitat for hollow-dependent species will occur in accordance with Guide 1: Pre-clearing process from the Biodiversity Guidelines (Roads and Traffic Authority, 2011)	Contractor	Construction
B7	Weeds and pathogens	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: • 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	Consistent with any specific requirements of the FFMP, a monitoring program will be implemented during construction to ensure effective implementation of the safeguards,	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		identify any unexpected or inadvertent impacts, and identify recommended revisions or improvements to the safeguards. A register of inspections will be established.		
B9	Biodiversity	After considering the outcomes and any recommendations arising from the monitoring program, and any other relevant information 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.	Contractor	Construction
B10	Biodiversity	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. Therefore, the mitigation would specifically consider the need to: • 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	Vegetation removal will be carried out in accordance with Guide 4: • 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
B14	Hollow-bearing Tree Removal	That the following mitigation measures will be implemented for the removal of the hollow-bearing trees: • Marking trees to be removed and preparing an inventory of trees and hollows (if observed) to be removed.	Contractor	Construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		• 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. • Removal of hollow-bearing trees will occur in accordance with Guide 1: Pre-clearing process from the Biodiversity Guidelines (Roads and Traffic Authority, 2011).		
B15	Nest Box Strategy	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: • 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 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	Contractor	Detailed design, during pre-construction, construction and post construction
B16	Unexpected threatened species	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.	Contractor	Construction
B17	Erosion and sediment control	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.	Contractor	Construction
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 closet 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 (Roads and Traffic Authority, 2011).	Contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	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 areas on Blaikie Road.	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
SW3	Contaminated land	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: • 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	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: • Diversion of surface runoff • Capture of any contaminated runoff • Temporary capping. 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	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		controls or further actions identified in consultation with the Transport Environment Manager and/or EPA.		
SW5	Asbestos	An Asbestos Management Plan will be developed and implemented. The plan will include: • Identification of potential asbestos on site • Procedures to manage and handle any asbestos • Mitigation measures if asbestos is encountered during construction. Procedures for disposal of asbestos in accordance with NSW EPA guidelines, Australian Standards and relevant industry codes of practice.	Contractor	Pre-construction / construction
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: • Evaluate what flood event would trigger the plan • Include evacuation procedures • Include a map indicating the area that is flood prone and the locations where to evacuate.	Contractor	Pre-construction / construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
LV1	Landscape character and visual impact	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: • 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. The UDP would be prepared in consultation with Council in accordance with relevant guidelines, including: • 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 prepared in accordance with the RTA Roads and Maritime Noise Wall Design Guideline.	Transport project manager	Detailed design
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

No.	Impacts	Environmental safeguards	Responsibility	Timing
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) is not in place. Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design / pre-construction
SE1	Socio-economic	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): • Mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions • Contact name and number for complaints. The CP would be prepared in accordance with the Stakeholder Engagement Toolkit (Transport for NSW, 2017a).	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

No.	Impacts	Environmental safeguards	Responsibility	Timing
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 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.	Transport project manager / contractor	Pre-construction / construction
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
AQ1	Air quality	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:	Contractor	Detailed design / pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		• 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.		
AQ2	Air quality	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: • 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
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 re-commence once the requirements of that Procedure have been satisfied.	Contractor	Detailed design / pre-construction
W1	Waste	A Waste Management Plan (WMP) would be prepared and implemented as part of the CEMP. The WMP would include but not be limited to: • Measures to avoid and minimise waste associated with the project • Classification of wastes and management options (re-use, recycle, stockpile, disposal)	Contractor	Pre-construction

No.	Impacts	Environmental safeguards	Responsibility	Timing
		• 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. 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.		
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
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	Prior to the commencement of works: • 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

No.	Impacts	Environmental safeguards	Responsibility	Timing
GHG1	Greenhouse gas and climate change	Specific measures would be outlined in the CEMP to ensure that construction minimises any potential impacts on or from climate change including: • 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
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

Table 7-2 provides a summary of the licensing and approval requirements relevant to the proposal.

Table 7-2: Approval requirements

Instrument	Requirement	Timing
Roads Act 1993 (section 138)	Licence from Penrith City Council and the Transport Management Centre to occupy roads during construction.	Prior to road occupancy.
Protection of the Environment Operations Act 1997	Environment Protection Licence under Section 48 (scheduled activities – premises based).	Environment Protection Licence 21758 has been issued for the project

8. Conclusion

This chapter provides the justification for the proposal taking into account its biophysical, social and economic impacts, the suitability of the site and whether or not the proposal is in the public interest. The proposal is also considered in the context of the objectives of the EP&A Act, including the principles of ecologically sustainable development as defined in Section 193 of the Environmental Planning and Assessment Regulation 2021.

8.1 Justification

The proposed modification reflects construction planning and and is needed to ensure adequate area for compound, stockpiling and plant laydown, in addition to ensuring contractor site accommodation.

While there are some environmental impacts associated with the proposed modification (larger compound area), they are minor, temporary and are adequately addressed through the safeguards listed in Table 7-1.

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

8.2 Objects 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

Instrument	Requirement
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.
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.	The proposed modification relates to a temporary facility to be used only for the construction phase of the proposal. Measures have been proposed to minimise impacts on amenity during 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 relevant to the proposal.
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 relevant to the proposal.

Instrument	Requirement
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. Pre-work notifications are proposed. 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 project.

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 reconciling scientific uncertainty about environmental impacts 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.

This principle was considered during options development. The precautionary principle has guided the assessment of environmental impacts for this addendum REF and the development of mitigation measures.

Best available technical information, environmental standards and measures have been used to minimise environmental risks and conservative 'worst case' scenarios were considered while assessing environmental impact.

Intergenerational equity

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

The impacts of the proposed modification have been identified as temporary and manageable. The proposed modification supports the approved project, which will support current and future traffic demands and expected growth in the area.

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 is not expected to have significant biodiversity impacts.

Improved valuation, pricing and incentive mechanisms

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

The value placed on environmental resources within and around the proposal footprint 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 to Mulgoa Road Upgrade Stage 1 project is subject to assessment under Division 5.1 of the EP&A Act. The addendum 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 EPBC Act.

The proposed modification, as described in the addendum REF, best meets the project objectives but would still result in some impacts to local amenity. Safeguards as detailed in this addendum REF would ameliorate or

minimise these expected impacts. The proposed modification would also deliver benefis by supporting the approved project, which will support current and future traffic demands and expected growth in the area. On balance, the proposal is considered justified.

Significance of impact under NSW legislation

The proposal would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared nor approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposal is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

Significance of impact under commonwealth legislation

The proposal is not likely to have a significant impact on matters of national environmental significance nor the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

9. Certification

This review of environmental factors provides a true and fair review of the proposal 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 proposal.

Name:	Environmental
Position:	Planner
Company name:	bd infrastructure
Date:	2 November 2023

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

Name:	Project / Contract Manager
Position:	Infrastructure & Place
Transport region/program:	
Date:	

10. References

Department of Environment, Climate Change and Water. (2011). *NSW Road Noise Policy.* Sydney: Department of Environment, Climate Change and Water.

Roads and Traffic Authority. (2011). *Biodiversity Guidelines: Protecting and managing biodiversity on RTA projects.* Sydney: Roads and Traffic Authority.

Transport for NSW. (2020). *Guideline for landscape character and visual impact assessment - Environmental impact assessment practice note EIA-N04.* Sydney: Transport for NSW.

Transport for NSW. (2022e). *Construction Noise and Vibration Guideline.* Sydney: Transport for NSW.

Transport for NSW. (2023). *Construction Noise and Vibration Guideline.* Sydney: Transport for NSW. Retrieved from https://www.transport.nsw.gov.au/system/files/media/documents/2023/EMF-NV-GD-0056_Construction_%20Noise_and_Vibration_Guideline%20_Roads.pdf

Terms and acronyms used in this Addendum REF

Term / Acronym	Description
BC Act	*Biodiversity Conservation Act 2016* (NSW)
CEMP	Construction environmental management plan
DPE	Department of Planning and Environment (NSW)
EP&A Act	*Environmental Planning and Assessment Act 1979* (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPA	NSW Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process
EPL	Environment Protection Licence issued under the POEO Act.
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
FM Act	*Fisheries Management Act 1994* (NSW)
Heritage Act	*Heritage Act 1977 (NSW)*
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
NML	Noise management level
NPW Act	*National Parks and Wildlife Act 1974* (NSW)
POEO Act	*Protection of the Environment Operations Act 1997* (NSW)
QA Specifications	Specifications developed by Transport for use with road work and bridge work contracts let by Transport
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act
SHI	NSW State Heritage Inventory (in relation to section 170 of the Heritage Act)
SoHI	Statement of Heritage Impact
TfNSW	Transport for NSW
Transport	Transport for NSW
Transport and Infrastructure SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021

Appendix A - Consideration of section 171 factors and matters of national environmental significance and Commonwealth land

Section 171 Checklist

In addition to the requirements of the Guidelines for Division 5.1 assessments (DPE 2022) as detailed in the REF, the following factors, listed in section 171 of the Environmental Planning and Assessment Regulation 2021, 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? There is some potential for noise, visual impacts and dust associated with the project that could impact on the community. Safeguards have been proposed (section 7.2) to address these potential impacts.	Minor short-term negative
b	Any transformation of a locality?	Nil
c	Any environmental impact on the ecosystems of the locality? The project would not affect habitats on which terrestrial native plants and animals (including threatened species) would be reliant.	Nil
d	Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality? There is potential for noise and dust associated with the project that could impact on the environmental quality or value of the locality during construction. Safeguards have been proposed (section 7.2) to address these issues.	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. The project includes safeguards to address any unexpected impacts.	Nil
f	Any impact on the habitat of protected fauna (within the meaning of the *National Parks and Wildlife Act 1974*)? 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?	Nil.
h	Any long-term effects on the environment? Long-term negative effects on the environment are not expected. The Blaikie Road compound would be restored to suitable condition following completion of project construction.	Nil
i	Any degradation of the quality of the environment? The proposed modification has some potential to degrade the quality of the environment due to the increased extent of the compound site. Safeguards are adequate to address this risk.	Minor short-term negative
j	Any risk to the safety of the environment? There is a risk to the safety of the environment associated with 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. Most of subject site is not being actively used for rural other purposes.	Nil
l	Any pollution of the environment? There is a risk of pollution from accidental spills or erosion / sedimentation associated disturbed areas. The project safeguards (section 7.2) adequately address these risks.	Nil
m	Any environmental problems associated with the disposal of waste? No environmental problems are anticipated for the disposal of waste. The proposed modification would not substantially change waste volumes or types.	Nil

Factor		Impact
n	Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	Nil
o	Any cumulative environmental effect with other existing or likely future activities? The proposed modification is not expected to have cumulative impacts given the limited scope of the changes and the minimal incremental impacts identified.	Nil
p	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	Nil
q	Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1? • Greater Sydney Region Plan • Western City District Plan • Penrith Local Strategic Planning Statement	Consistent The minor nature of the proposed modification would not affect the priorities and action outlined in these plans.
r	Other relevant environmental factors.	In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to Chapter 6 of this assessment

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, 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 Climate Change, Energy, the Environment and Water.

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 addendum 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 proposal 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 proposal would not have any impact on a Commonwealth marine area.	Nil
g	Does the proposal involve a nuclear action (including uranium mining)? The proposal does not involve a nuclear action.	Nil

Factor		Impact
h	Additionally, any impact (direct or indirect) on the environment of Commonwealth land? The proposal would not impact Commonwealth land.	Nil

Appendix B - Statutory consultation checklists

Transport and Infrastructure SEPP

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP clause
Car Park	Does the project include a car park intended for the use by commuters using regular bus services?	No	N/A	cl. 2.110
Bus Depots	Does the project propose a bus depot?	No	N/A	cl. 2.110
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	N/A	cl. 2.110

Development within the Coastal Zone

Development type	Description	Yes / No	If 'yes' consult with	SEPP 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	N/A	cl. 2.14

Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP clause
Stormwater	Are the works likely to have a *substantial* impact on the stormwater management services which are provided by council?	No	N/A	cl.2.10(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	N/A	cl.2.10(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	N/A	cl.2.10(1)(c)
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	N/A	cl.2.10(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	N/A	cl.2.10(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	No	N/A	cl.2.10(1)(f)

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP clause
	the roads authority and responsible for maintenance?			

Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP 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	N/A	Cl. 2.11

Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP 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	N/A	Cl. 2.12
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	The SES was notified of the Blaikie Road compound during the preparation of Addendum REF No.1.	Cl. 2.13

Public authorities other than councils

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP clause
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the *National Parks and Wildlife Act 1974*, or on land acquired under that Act?	No	Environment, Energy and Science, DPE	cl.2.15(2)(a)
National parks and reserves	Are the works on land in Zone C1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	Environment, Energy and Science, DPE	cl. 2.15(2)(b)
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	cl.2.16
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	cl.2.15(2)(d)

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP 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	cl. 2.15(2)(e)
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961*?	No	Mine Subsidence Board	cl. 2.15(2)(f)

Appendix C – Regulated catchments considerations

Reference	Matter	Comment
6.6(1)(a)	whether the development will have a neutral or beneficial effect on the quality of water entering a waterway,	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.6(1)(b)	whether the development will have an adverse impact on water flow in a natural waterbody,	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.6(1)(c)	whether the development will increase the amount of stormwater run-off from a site,	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.6(1)(d)	whether the development will incorporate on-site stormwater retention, infiltration or reuse,	The proposed modification would not generate additional stormwater. Stormwater retention, infiltration or reuse measures are not required.
6.6(1)(e)	the impact of the development on the level and quality of the water table,	The proposed modification would not intercept groundwater. No changes to groundwater levels or quality are expected.
6.6(1)(f)	the cumulative environmental impact of the development on the regulated catchment	The proposed modification would have negligible impacts on the catchment and therefore the potential for cumulative impacts is limited.
6.6(1)(g)	whether the development makes adequate provision to protect the quality and quantity of ground water.	Safeguards relating to the protection of water quality are included in Section 7.2 of this Addendum REF.
6.6(2)(a)	the effect on the quality of water entering a natural waterbody will be as close as possible to neutral or beneficial, and	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.6(2)(b)	the impact on water flow in a natural waterbody will be minimised.	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.7(1)(a)	whether the development will have a direct, indirect or cumulative adverse impact on terrestrial, aquatic or migratory animals or vegetation,	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.7(1)(b)	whether the development involves the clearing of riparian vegetation and, if so, whether the development will require— (i) a controlled activity approval under the *Water Management Act 2000*, or (ii) a permit under the *Fisheries Management Act 1994*,	*Water Management Act 2000* and/or *Fisheries Management Act 1994* approvals are not required for the proposed modification.
6.7(1)(c)	whether the development will minimise or avoid— (i) the erosion of land abutting a natural waterbody, or (ii) the sedimentation of a natural waterbody,	The proposed modification would not affect a natural waterbody.
6.7(1)(d)	whether the development will have an adverse impact on wetlands that are not in the coastal wetlands and littoral rainforests area,	There are no wetlands near the proposal.
6.7(1)(e)	whether the development includes adequate safeguards and rehabilitation measures to protect aquatic ecology,	The proposal does not involve the disturbance of aquatic environment.
6.7(1)(e)	if the development site adjoins a natural waterbody—whether additional measures are required to ensure a neutral or beneficial effect on the water quality of the waterbody.	The proposal site does not adjoin a natural waterbody.

Reference	Matter	Comment
6.7(2)(a)	the direct, indirect or cumulative adverse impact on terrestrial, aquatic or migratory animals or vegetation will be kept to the minimum necessary for the carrying out of the development,	Negligible impact. Refer to Section 6.3 of this Addendum REF.
6.7(2)(b)	the development will not have a direct, indirect or cumulative adverse impact on aquatic reserves,	The proposal would not affect an aquatic reserve.
6.7(2)(c)	if a controlled activity approval under the *Water Management Act 2000* or a permit under the *Fisheries Management Act 1994* is required in relation to the clearing of riparian vegetation—the approval or permit has been obtained,	*Water Management Act 2000* and/or *Fisheries Management Act 1994* approvals are not required for the proposed modification.
6.7(2)(d)	the erosion of land abutting a natural waterbody or the sedimentation of a natural waterbody will be minimised,	The proposed modification would not affect a natural waterbody. Erosion and sedimentation control measures are included in Section 7.2 of the project REF.
6.7(2)(e)	the adverse impact on wetlands that are not in the coastal wetlands and littoral rainforests area will be minimised.	There are no wetlands near the proposal.
6.8(1)	the likely impact of the development on periodic flooding that benefits wetlands and other riverine ecosystems.	There are no wetlands near the proposal. The proposal would not affect other riverine systems.
6.8(2)(a)	if there is a flood, result in a release of pollutants that may have an adverse impact on the water quality of a natural waterbody, or	The project will have a flooding contingency and evacuation plan (measure H2) that will address impacts of a flood event during construction.
6.8(2)(b)	have an adverse impact on the natural recession of floodwaters into wetlands and other riverine ecosystems.	There are no wetlands near the proposal. The proposal would not affect other riverine systems.
6.9(1)(a)	the likely impact of the development on recreational land uses in the regulated catchment,	The proposal would have no adverse impact on recreational land uses.
6.9(1)(b)	whether the development will maintain or improve public access to and around foreshores without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation.	Not relevant to the proposal.
6.9(2)(a)	the development will maintain or improve public access to and from natural waterbodies for recreational purposes, including fishing, swimming and boating, without adverse impact on natural waterbodies, watercourses, wetlands or riparian vegetation,	Not relevant to the proposal.
6.9(2)(b)	New or existing points of public access between natural waterbodies and the site of the development will be stable and safe,	Not relevant to the proposal.
6.9(2)(c)	if land forming part of the foreshore of a natural waterbody will be made available for public access as a result of the development but is not in public ownership—public access to and use of the land will be safeguarded.	Not relevant to the proposal.

Appendix D – Community notifications

Transport for NSW

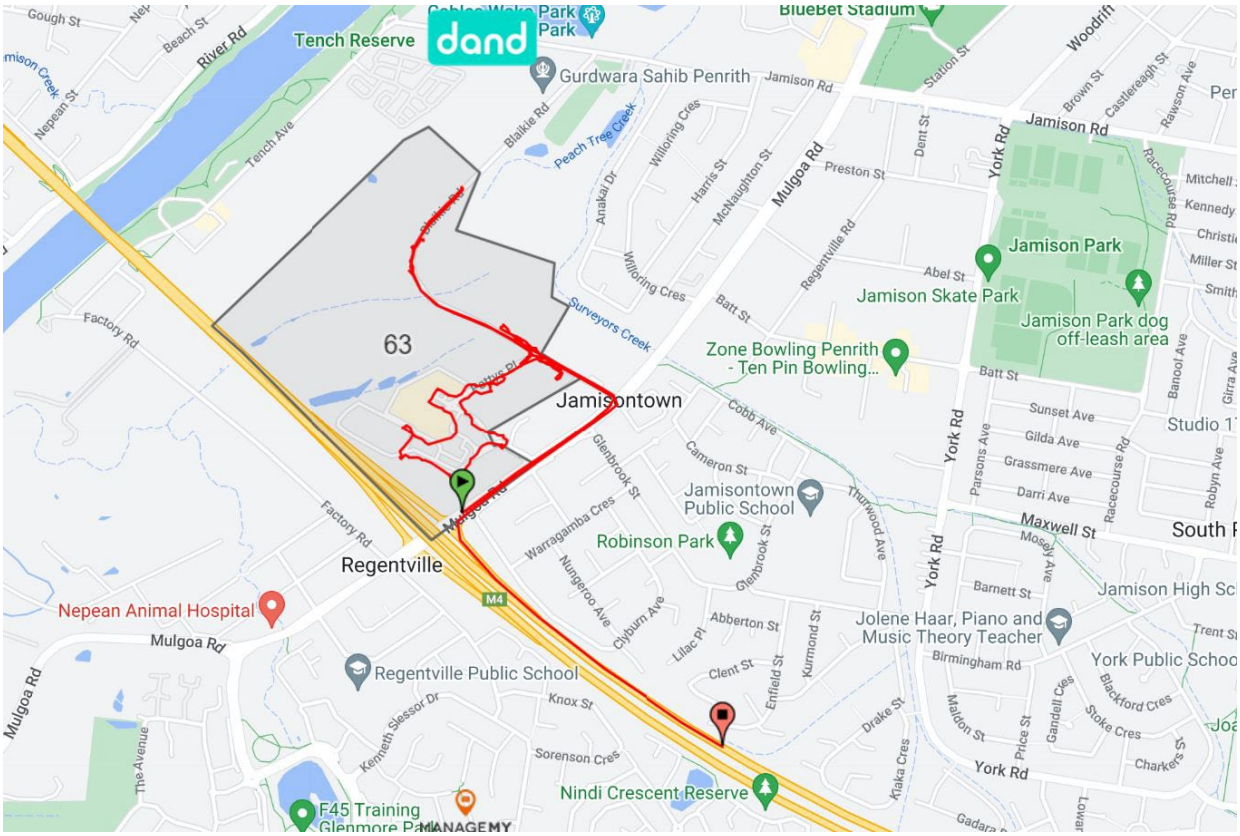
95 Blaikie Road Site Compound – Mulgoa Road upgrade, Jeanette Street to Blaikie Road

Fact Sheet | February 2022

95 Blaikie Road site compound

The Australian and NSW Governments are planning the upgrade of Mulgoa Road, Jamisontown between Jeanette Street and Blaikie Road including upgrading the M4 Motorway off ramps.

Transport for NSW will widen Mulgoa Road between Jeanette Street and Blaikie Road from two lanes to three lanes in each direction. So this can be done, we have identified the land reserve 95 Blaikie Road, Jamisontown as an additional site compound.



Distribution area for February 2022 community notification

Figure – 95 Blaikie Road, Jamisontown site layout (indicative only subject to change)

What we are doing to reduce any impacts on you

- Our Community Relations Team will meet you and identify any specific requirements you may have such as deliveries, business opening hours and special access needs etc for your property.
- Dust management and management of run off will be in place to reduce impacts during extreme weather events. Any lighting on site will be directed away from nearby residents.
- Traffic control will help manage the movement of heavy vehicles into and out of the site.

How can I find out more?

Please speak to our team who are here to see you today, or if you missed them contact them as per the details below so they can come back again or answer your queries.

P: 1800 733 084/Press 1 **E**: construction.mulgoaroadupgrade@transport.nsw.gov.au

W: https://nswroads.work/jeanettestblaikierd

Translating and interpreting service If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 733 084**

NSW GOVERNMENT