

Transport
for NSW

Western Distributor Smart Motorways

Addendum review of environmental
factors No.4

June 2023



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Acknowledgement of Country

Transport for NSW acknowledges the Gadigal, Wangal and Cammeraygal peoples of the Eora nation, the traditional custodians of the land on which the Western Distributor Smart Motorway is proposed.

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.



Executive summary

The proposed modification

Transport for NSW proposes to modify the M1 Western Distributor Smart Motorway to include the use of a compound site for parking located at the Glebe Island Bridge eastern approach (proposed modification) close to the project office. A review of environmental factors (REF) was prepared for the M1 Western Distributor Smart Motorway and determined in May 2021 (project REF). This report forms an addendum to the original project REF to assess the proposed modification to the original scope.

Background

In 2021, Transport for NSW proposed to introduce intelligent technology, known as a smart motorway system, to the M1 corridor between Milsons Point and Allen Street in Pyrmont. An REF was prepared for the Western Distributor Smart Motorway proposal (the project REF) which was determined in May 2021.

Since the project REF was determined, three addendum REFs have been determined in December 2022, February 2023 and May 2023. These addendum REFs added three compound sites (two at White Bay, and one in Colebee) for various construction purposes, and modified the extent and scope of the project, extending the project boundary across Anzac Bridge to Rozelle.

The proposed modification is for an additional compound site for parking light vehicles at the Glebe Island Bridge eastern approach, Pyrmont. The modified proposal still meets project objectives, and potential impacts of these changes have been assessed in this addendum REF.

Need for the proposed modification

The proposed modification is needed to secure a compound site for parking light vehicles by staff using a nearby leased office space. The modification would facilitate works and avoid potential delays to the delivery of the project, as well as reduce parking impacts if staff vehicles were instead parked on surrounding roads.

Proposal objectives

The proposed modification remains consistent with the objectives outlined in the project REF because it supports the delivery of the overarching Smart Motorway project to:

- Increase network resilience
- Improve travel time and reliability
- Improve traffic safety
- Enhance the road user experience
- Optimise transport asset utilisation and investment

The modification satisfies the project REF objective of 'minimising impacts on the community' and the addendum objectives of 'support construction of the approved project'.

Options considered

The proposed modification as 'Option 1' was assessed against a 'do nothing' option to compare the ability of these options to meet the objectives. Option 1 was selected as the preferred option as it best met the proposal objectives by being better able to support construction of the approved project, and having reduced impacts on the community.

Statutory and planning framework

The proposed modification can be assessed under Division 5.1 of the EP&A Act.

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 the Transport and Infrastructure SEPP 2021 the proposed modification is permissible without consent. The proposed modification is not State significant infrastructure or State significant development.

State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 applies to the proposal area, though the proposed activity is consistent with the temporary land use provisions of section 4.25.

Consent from Council is not required.

External heritage approvals under the *Heritage Act* are not required.

Transport is the determining authority for the proposed modification. 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.

Community and stakeholder consultation

The consultation strategy relevant to the proposed modification remains consistent with Section 5.1 of the project REF and Appendix I of Addendum REF No.2 (May 2023). Public display of this addendum REF for comment was not proposed as the activity is not permanent and is consistent with existing use of the site. Information on the proposed compound location and use would instead be provided as part of the overarching communications strategy for the smart motorways project. Project information, project updates, and media releases are to be provided on a project website.

No additional consultation requirements were identified for the proposed modification.

Transport would continue to consult with the community and key stakeholders about the overarching project in line with the Community and Stakeholder Engagement Plan (refer to Section 5.1 of the project REF) and Community Engagement Strategy (refer to Appendix I of Addendum REF No.2).

The community and stakeholder engagement carried out during construction would include community updates on the project design, planned construction activities and program. Project representatives would respond to enquiries and concerns in a timely manner, while seeking to minimise potential impacts, where possible.

Environmental impacts

The main environmental impacts for the proposed modification are:

Noise and Vibration

The proposed modification is located in a highly urban environment adjacent to existing industrial land uses, and existing background noise levels are dominated by road traffic noise from the adjacent M1 Motorway and shipping noise. The nearest residential receivers are residential apartments located on Bowman Street about 20 metres to the north of the site. The site would only be used for parking light vehicles during standard hours. No additional mitigation measures were recommended, based on the construction noise assessment.

Non-Aboriginal Heritage

The compound site is located on a state heritage item, Glebe Island Bridge. No excavations or impact to the heritage item would be required. Proposed use at this location would be limited to parking, using existing line-marking. Based on advice from TfNSW Heritage, car parking would not constitute a change in use and no approvals would be required under the *Heritage Act*.

Justification and conclusion

The proposed modification supports the delivery of the approved project which is required to improve traffic and hazard management, and to enhance corridor messaging and wayfinding on the M1 road corridor between Milsons Point and Rozelle. The modified proposal is subject to assessment under Division 5.1 of the EP&A Act. This 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 modification.

Potential environmental impacts of the proposed modification have been assessed. This addendum REF is to be read in conjunction with the original project REF and the previously determined addendum REFs. The

proposed modification is consistent with the original objectives and remains the preferred option for optimal delivery of a smart motorway on the Western Distributor corridor. Additional safeguards have been proposed to reduce potential impacts of the proposed modification. The proposed modification would contribute to the long-term traffic and safety benefits of the overarching Smart Motorways project. On balance the proposal as modified is considered justified.

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- D Construction noise assessment results

1. Introduction

1.1 Proposed modification overview

Transport for NSW proposes to modify the M1 Western Distributor Smart Motorway project to include the use of a compound site for parking located at the Glebe Island Bridge eastern approach (proposed modification). The key feature of the modification would be the use of the existing carpark for parking of light vehicles during standard business hours. No heavy vehicles or other plant would be permitted to access the site. No laydown or stockpiling would occur.

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

A review of environmental factors (REF) was prepared for the M1 Western Distributor Smart Motorway and determined in May 2021 (referred to in this addendum REF as the project REF). The project REF was not put on public display.

In addition, the following addendum REFs for the M1 Western Distributor Smart Motorway have been prepared:

- Addendum Review of Environmental Factors No. 1, December 2022 for two compounds in White Bay
- Addendum Review of Environmental Factors (REF) No. 2, April 2023 for changes to the project scope and extent
- Addendum Review of Environmental Factors No. 3, February 2023 for a compound in Colebee

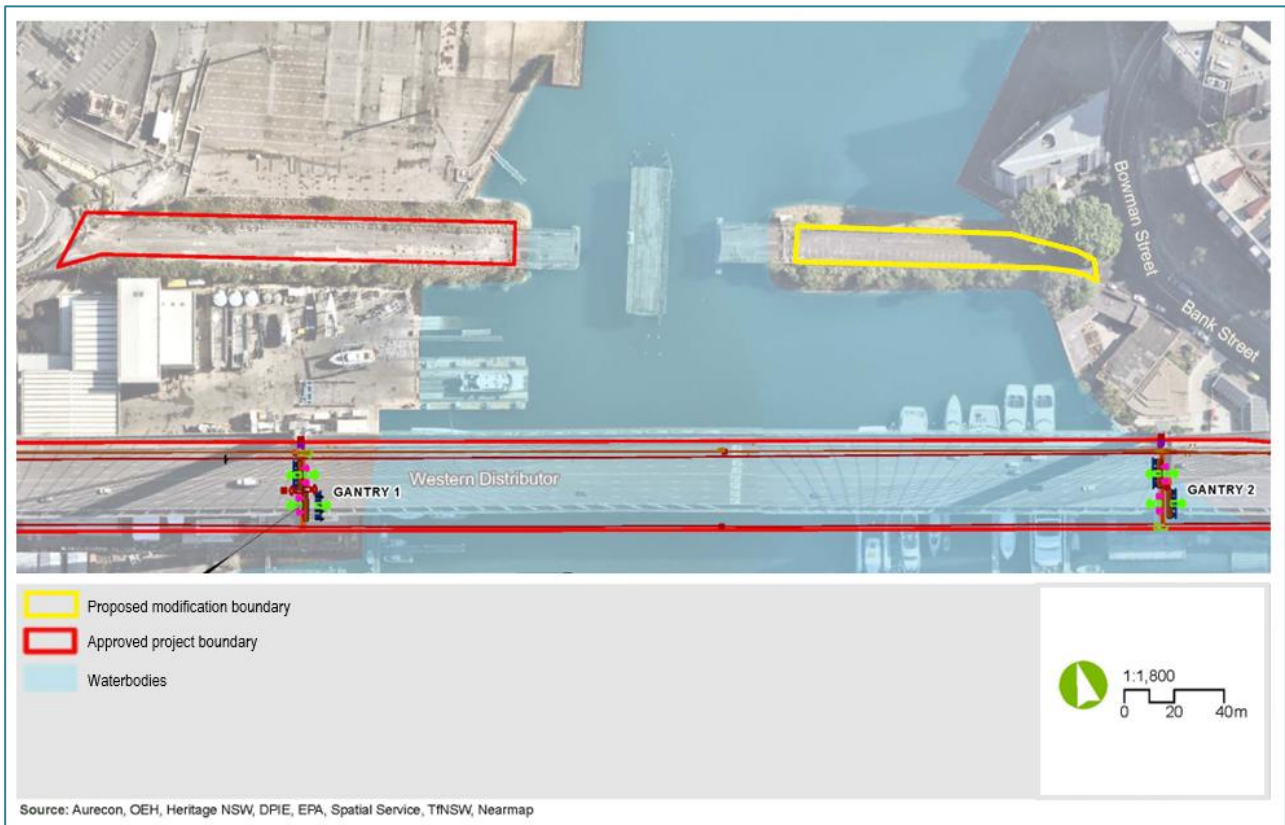


Figure 1-1 Location of the proposed modification

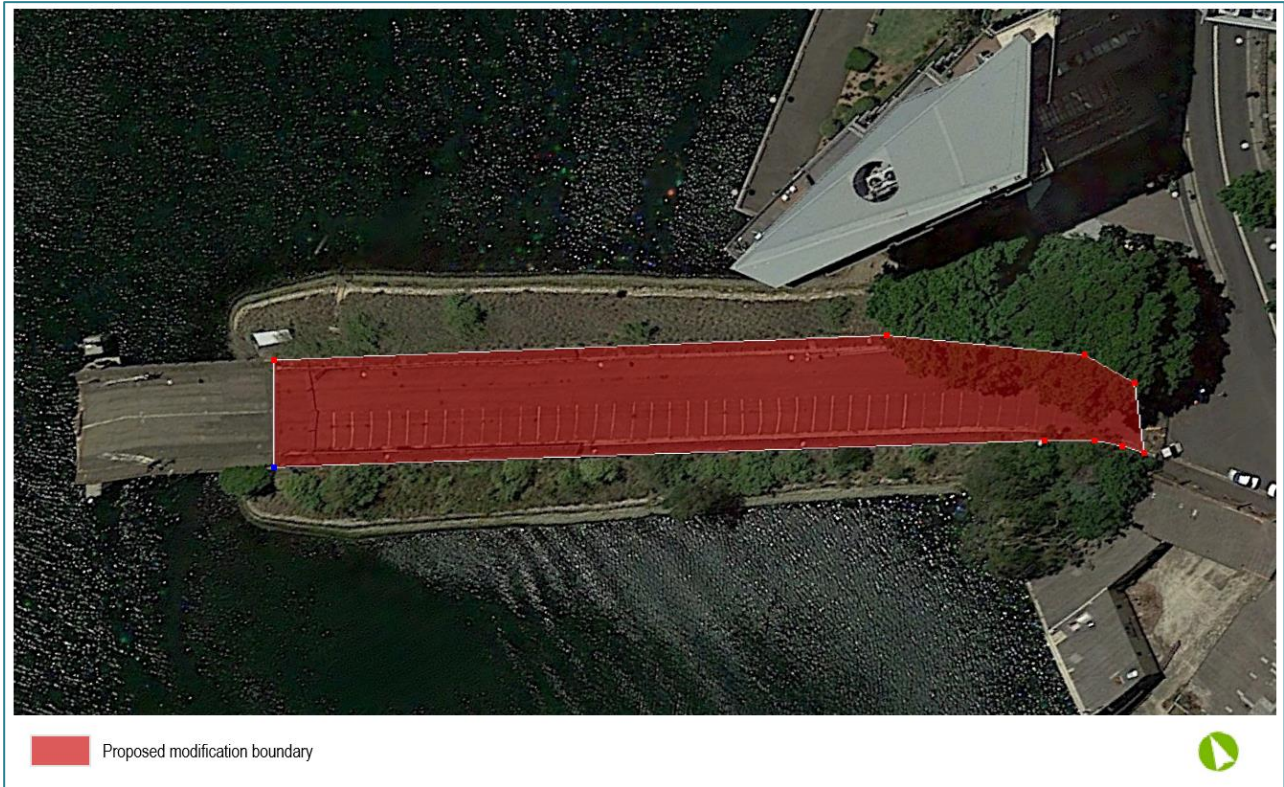


Figure 1-2 The proposed modification - proposed compound site

1.2 Purpose of the report

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

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

The description of the proposed work and assessment of associated environmental impacts has been undertaken in context of section 171 of the Environmental Planning and Assessment Regulation 2021, *Roads and Road Related Facilities EIS Guideline* (DUAP, 1996), the *Biodiversity Conservation Act 2016* (BC Act), the *Fisheries Management Act 1994* (FM Act), and the Australian Government's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

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

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

The findings of the addendum REF would be considered when assessing:

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

Climate Change, Energy, the Environment and Water for a decision by the Australian Government Minister for the Environment on whether assessment and approval is required under the EPBC Act.

1.3 Terms used in this report

The following terms have been used in this report:

- The 'project REF' is the REF prepared for the Western Distributor Smart Motorways in May 2021
- The 'approved project' is the current approved WDSM project as described in the determined project REF and previously approved addendum REFs (1-3)
- The 'proposed modification' is the proposal to use a new compound site on the eastern approach of the Glebe Island Bridge during construction of the approved project.
- This 'addendum REF' is this assessment and approval document for the proposed modification.
- The 'approved project boundary' refers to the area identified in the project REF and previously approved addendum REFs that may be directly impacted by construction and operation of the approved project. The approved project boundary includes both the:
 - construction footprint, which is the area where construction activities would occur for the approved project, and,
 - operational footprint, which includes the areas that would be permanently impacted by the approved project
- The 'study area' consists of land in the vicinity of, and including, the modified project boundary. The study area is the wider area surrounding the modified project boundary, including land that has the potential to be indirectly impacted by the proposed modification beyond the immediate works area (for example, as a result of any noise or traffic diversions). The scope of the study area varies depending on the environmental factor being assessed.

2. Need and options considered

2.1 Strategic need for the proposed modification

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

The proposed modification is needed to secure a compound site for parking light vehicles by staff using a nearby leased office space. The modification would facilitate works and avoid potential delays to the delivery of the project, as well as reduce the parking impacts if staff vehicles were instead parked on surrounding roads.

2.1.1 Strategic plans and policy

The proposal, including the proposed modification, remains consistent with the policies and planning documents outlined in Chapter 2 of the project REF and listed below:

- Future Transport 2056
- Movement and Place Framework
- Future Transport Technology Roadmap
- Greater Sydney Regional Plan
- Eastern City District Plan
- Road Safety Plan 2021
- Connected and Automated Vehicles Plan
- State Infrastructure Strategy 2018-2038
- Sydney City Centre Access Strategy
- Sydney's Bus Future
- NSW Freight and Ports Strategy
- NSW Freight and Ports Plan.

The proposed modification would also align with the following planning and policy updates:

- NSW 2021: A plan to make NSW number one
- Future Transport Strategy 2056
- State Infrastructure Strategy 2018-2038
- Greater Sydney Region Plan: A Metropolis of Three Cities
- Greater Sydney Services and Infrastructure Plan - Eastern Harbour City district plan
- Road Safety Plan 2021 – Towards Zero.

2.2 Proposal objectives and development criteria

The project objective that applies to the proposed modification, which is also outlined in Section 2.3 of the project REF, is to:

- minimise potential impacts to the community.

Additionally, for the proposal modification, an additional objective is to:

- support construction of the approved project.

2.3 Alternatives and options considered

2.3.1 Methodology for selection of preferred option

The project is located in a highly urban built environment, and together with competing demand from multiple major transport and development projects in the area, compound options are limited. Two compound sites were secured nearby (Addendum REF 1, December 2022) in White Bay for use as construction compounds, but they are not located within walking distance of the office space and their use for construction means they would not have capacity for staff parking. Transport for NSW investigated additional off-site locations which could be used, and identified the Glebe Island Bridge eastern approach site owned by Transport.

Identified options have been assessed against the project objectives to identify the preferred option.

2.3.2 Identified options

Do nothing - This option would proceed with the approved project as described in the project REF and addendum REFs, without any additional parking facilities for office-based construction personnel.

Option 1 - Pursue Glebe Island Bridge eastern approach compound site – this option would provide parking facilities for office-based construction personnel.

2.3.3 Analysis of options

Do Nothing - This option would not support construction of the approved project due to increased difficulty of access to the leased office space in Pyrmont. Additionally, without the provision of parking spaces within the compound site, up to 40 additional staff vehicles would need to park on local streets throughout construction with associated impacts on the community.

Option 1 - This option would support construction of the approved project due to the proximity of this option to the leased office space and the ease of access to the compound. The location would provide for office staff parking, removing parking impacts that would otherwise occur on local streets and would therefore minimise potential impacts on the community.

2.4 Preferred option

'Option 1 – Pursue Glebe Island Bridge eastern approach compound site' was selected as the preferred option as it would best address the compound site selection criteria compared to the Do Nothing option. 'Option 1' would:

- support construction of the approved project by providing an efficient location for staff parking in proximity to the leased office space
- minimise impacts on the community by reducing parking impacts through the provision of off-street parking for office staff on a site owned by Transport for NSW.

3. Description of the proposed modification

3.1 The proposed modification

Transport for NSW proposes to modify the M1 Western Distributor Smart Motorway to include the use of a compound site located at the Glebe Island Bridge eastern approach, Pyrmont. The proposed modification is shown in



Figure 1-2 The proposed modification -proposed compound site

The compound site would be required for the entire duration of the project (about 18 months) and would be used for parking light vehicles.

No heavy vehicles or other plant would be permitted to access the site.

No laydown or stockpiling would occur.

3.2 Construction activities

3.2.1 Work methodology

Some trimming of the large fig trees near the site entrance may be required to prevent damage from passing vehicles as the trees currently have large overhanging branches.

No other physical works would be required to establish the compound site for parking as the site is currently being used for this purpose, with line marking to accommodate up to 40 parked vehicles.

3.2.2 Site hours and duration

The compound site would only be in use during standard hours. Standard working hours are as follows:

- Monday to Friday: 7:00am to 6:00pm
- Saturday: 8:00am to 1:00pm
- Sunday and public holidays: No work

The compound site would be in use for about 18 months for the duration of the project.

3.2.3 Plant and equipment

The only expected plant or equipment used on site would be light vehicles used by staff accessing the nearby leased office space.

3.2.4 Traffic management and access

The compound site would be accessed from an existing driveway on Bowman Street at its intersection with Bank Street. It is expected that there would be about 40 light vehicle movements per working day to and from the site with up to eight vehicles with their engines on at any one time.

3.3 Ancillary facilities

No further ancillary facilities are required to establish and operate this site for staff parking.

3.4 Public utility adjustment

No public utility adjustments would be required for the proposed compound site as it would only be used for parking light vehicles.

3.5 Property acquisition

No property acquisition is required as the proposed compound site is located on Transport for NSW-owned land.

4. Statutory and planning framework

4.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) provides a statutory basis for planning and environmental assessment in NSW. The EP&A Act provides a framework for environmental planning and development approvals and includes provisions to ensure that the potential environmental impacts of a development are assessed and considered in the proposal approval process. The proposal is subject to assessment under Division 5.1 of the EP&A Act.

The Environment Planning and Assessment Regulation 2021 (EP&A Regulation) is the subordinate and supplementary legislation to the EP&A Act. The EP&A Regulation provides details of how to implement the EP&A Act. The proposal is subject under Division 1, Part 8 of the EP&A Regulation.

Under the EP&A Regulation and as per the Guidelines for Division 5.1 Assessments (Department of Planning and Environment 2022), this REF considers environmental factors as detailed in Section 6.

4.1.1 State Environmental Planning Policies

State Environmental Planning Policy (Transport and Infrastructure) 2021

Chapter 2 Infrastructure of SEPP (Transport and Infrastructure) aims to facilitate the effective delivery of infrastructure across the State.

Section 2.109 of SEPP (Transport and Infrastructure) 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 to support development of a road and is to be carried out by Transport for NSW, 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 (Planning Systems) 2021
- State Environmental Planning Policy (Precincts – Central River City)
- State Environmental Planning Policy (Precincts – Eastern Harbour City)
- State Environmental Planning Policy (Precincts – Regional) 2021
- State Environmental Planning Policy (Precincts – Western Parkland City) 2021

Section 2.10 to 2.15 of SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation, including consultation as required by ISEPP (where applicable), is discussed in section 5 of this addendum REF.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 10 of the State Environmental Planning Policy (Biodiversity and Conservation) 2021 applies to land within Sydney Harbour Catchment and provides a series of general and specific planning principles and requirements to establish a consistent and coordinated approach to environmental planning and assessment and protect the environmental quality within the catchment.

In accordance with Part 10.2 of the SEPP, Transport is required to take the planning principles specified in Section 10.3 Division 2 (10.18(b)) into account as the proposed modification is located within the Sydney Harbour catchment, and the Foreshores and Waterways area, and is development without consent that may have the potential to adversely affect the water quality, river flows, floor regime or ecosystems within the Catchment.

The table within Appendix D outlines how the general and specific planning principles from the SEPP have been considered and addressed and remain relevant to this addendum REF.

State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021

Chapter 4 of this SEPP applies to area of Sydney Ports and Transport for NSW lands in the vicinity of White Bay, Glebe Island, Rozelle Bay and the Railway Marshalling Yards.

The SEPP aims to facilitate the development, redevelopment or protection of important urban, coastal and regional sites of economic, environmental or social significance to the State so as to facilitate the orderly use, development or conservation of those State significant precincts for the benefit of the State.

The proposed modification could operate under Part 4.2 City West, Clause 4.25, Temporary and interim uses. This allows for temporary uses provided the use does not prejudice the eventual development of the land for which it is zoned and appropriate arrangements have made for its reinstatement.

4.1.2 Local Environmental Plans

The proposed modification is located within the City of Sydney Local Government Area (LGA). Local development control and land use zoning for the proposed site is managed under the Sydney Local Environmental Plan 2012. Under the Sydney LEP the proposed modification is located within land zoned as 'RE1 – Public Recreation'. Development for the purposes of roads is permitted without consent in the RE1 zone, and the proposed modification represents a temporary use of the compound site which would be consistent with the RE1 zone objectives.

4.2 Other relevant NSW legislation

4.2.1 Heritage Act 1977

The *Heritage Act 1977* (Heritage Act) is designed to protect both known heritage items (such as standing structures) and items that may not be immediately obvious (such as potential archaeological remains or 'relics'). Different parts of the Heritage Act deal with different situations and types of heritage and the Act provides a number of mechanisms by which items and places of heritage significance may be protected.

Section 57(1) of the Heritage Act lists the types of activities/works that require approval from Heritage NSW (a branch of the NSW Department of Premier and Cabinet) under Section 60 of the Heritage Act, when working on/in an item/place listed on the State Heritage Register (SHR). An application for an exemption can also be made under some circumstances. Glebe Island Bridge is listed on the SHR. The compound use for parking would not require excavation and would utilise the site for car parking in its existing condition. The compound use is therefore considered exempt and does not trigger approvals.

Excavation permits are not triggered as there would be no excavation to establish or operate the compound. The compound would occupy the existing hardstand areas. No ground disturbance would be required.

Section 170 of the Heritage Act requires that culturally significant items or places managed or owned by Government agencies are listed on a departmental Heritage and Conservation Register.

Section 170A(1) requires that, if a government instrumentality intends to undertake any of the following actions regarding items listed on their s170 Heritage and Conservation Register, it must give the Heritage Council a minimum of 14 days' notice:

- remove an item from the s170 register
- transfer ownership
- cease to occupy an item currently on the s170 register
- demolish an item.

These actions are not proposed therefore this notification is not triggered.

The proposed modification's potential non-Aboriginal impacts are detailed further in Section 6.2.

4.2.2 Protection of the Environment Operations Act 1997

The NSW *Protection of the Environment Operations Act 1997* (POEO Act) aims to reduce pollution and manage the storage, treatment and disposal of waste within NSW. The POEO Act also introduces the requirement for environmental protection licences (EPLs) to be obtained for scheduled activities that are of a nature and scale that have a potential to cause environmental pollution.

The proposed modification (both on its own or when considered together with the approved project) would not exceed the trigger for extraction or processing of material during construction and would not result in the existence of four or more traffic lanes for a continuous length of three kilometres. As a result, an EPL is not required for the proposed modification.

4.2.3 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) is directed at conserving threatened species, populations and ecological communities of animals and plants. The BC Act outlines the framework for addressing impacts on biodiversity from development and clearing. It establishes a framework to avoid, minimise and offset impacts on biodiversity from development through the Biodiversity Offsets Scheme.

The modification is not likely to significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act or FM Act and therefore a Species Impact Statement is not required.

The modification is not likely to significantly impact threatened species, populations, ecological communities or migratory species, within the meaning of the EPBC Act.

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 section 6 of the addendum REF.

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

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

Findings – matters of national environmental significance (other than biodiversity matters)

The assessment of the proposed modification's impact on matters of national environmental significance and the environment of Commonwealth land found that there would be no change to the findings of the determined activity and would be unlikely to cause a significant impact on matters of national environmental significance or the environment of Commonwealth land. A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

4.4 Confirmation of statutory position

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 EP&A Act. Consent from Council is not required.

State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 applies to the proposal area, though the proposed activity is consistent with the temporary land use provisions of clause 4.25.

External heritage approvals under the *Heritage Act* are not required.

Transport is the determining authority for the proposed modification.

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.

Transport has also taken into account the planning principles outlined in the *State Environment Planning Policy (Biodiversity and Conservation) 2021*, as required by Part 10 of the SEPP, to minimise any potential impacts of the proposed modification.

5. Consultation

5.1 Consultation strategy

The consultation strategy relevant to the proposed modification remains consistent with Section 5.1 of the project REF and Appendix I of Addendum REF No.2 (May 2023). Public display of this addendum REF for comment was not proposed as the activity is not permanent and is consistent with existing use of the site. Information on the proposed compound location and use would instead be provided as part of the overarching communications strategy for the smart motorways project. Project information, project updates, and media releases are to be provided on a project website.

5.2 Consultation outcomes

Section 2.109 of the Transport and Infrastructure SEPP provides that “development on behalf of a public authority for the purpose of a road or road infrastructure facilities may be carried out without consent” providing that certain key parties are consulted and/or notified about the work. Consultation requirements identified in the Transport and Infrastructure SEPP were met in the project REF.

5.3 Ongoing or future consultation

Transport would continue to consult with the community and key stakeholders about the overarching project in line with the Community and Stakeholder Engagement Plan (refer to Section 5.1 of the project REF) and Community Engagement Strategy (refer to Appendix I of Addendum REF No.2).

The community and stakeholder engagement carried out during construction would include community updates on the project design, planned construction activities and program. Project representatives would respond to enquiries and concerns in a timely manner, while seeking to minimise potential impacts, where possible.

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 of the Western Distributor Smart Motorway project. All aspects of the environment potentially impacted upon by the proposed modification are considered. This includes consideration of the guidelines *Roads and Related Facilities EIS Guideline* (DUAP, 1996), *Is an EIS required?* (DUAP, 1999) 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 also considered in Appendix A.

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

6.1 Noise and Vibration

This section describes the noise and vibration impacts that may occur due to the proposed modification during the construction and operation of the proposed modification.

6.1.1 Methodology

The methodology for this noise and vibration assessment is as follows:

- reviewing the noise and vibration impact assessment for the project REF
- identifying sensitive receivers near the proposed modification
- identifying background noise levels based on the representative noise environments defined in Transport's Construction and Maintenance Noise Estimator Tool (NET)
- carrying out a construction noise and vibration assessment using the Estimator (Individual Plant) sheet of the NET (refer Appendix D)
- identifying relevant safeguards and mitigation measures.

Potential vibration impacts of the proposal are assessed in accordance with the Roads and Maritime Services (now Transport for NSW) Construction Noise and Vibration Guideline (2016) which estimates the minimum safe working distances for common construction plant. These estimates are based on:

- BS 7385-2: British Standard – Evaluation and measurement for vibration in buildings – Part 2 Guide to Damage Levels from Ground-borne Vibration (addresses potential structural damage to buildings, in general, from ground-borne vibration)
- DIN 4150-3: *German Standard – Vibrations in building – Effects on structures* (addresses potential structural damage to heritage buildings from ground-borne vibration).

6.1.2 Existing environment

The existing noise and vibration environment relevant to the proposed modification is generally consistent with that described in Section 6.2.2 of the project REF.

The proposed compound is adjacent to existing residential apartment buildings, and industrial land uses (as additional permitted use in areas recently rezoned RE1) and the M1 Western Distributor, which had over 80,000 AADT in 2023.

The nearest receivers to the compound are shown in Figure 6-1. The nearest residential receivers are within the 2 Bowman Street, Pyrmont apartment block about 14 metres to the north of the compound site at its nearest point.

The project REF indicates that the existing background noise levels near the proposed modification are dominated by road traffic noise from the adjacent M1 Motorway. In addition, the background noise is also expected to be influenced by:

- cumulative construction noise from other major projects including WestConnex and White Bay redevelopment
- noise generated from activities at the Port Facility such as shipping vehicle noise
- commercial and industrial activities
- other intermittent noise sources including aviation traffic noise.

The proposal is located in a highly urban environment on the edge of Sydney CBD therefore the NET assessment applied noise environment 'R4' to represent background noise levels in the receiving noise environment. This produced the following background noise levels (also referred to as Rating Background Level or RBL) for the assessment.

Table 6-1 Background noise levels applied for the construction noise assessment

Noise Area Category		R4
RBL or LA90* Background level (dB(A))	Day	55
	Evening	50
	Night	45



Figure 6-1 Land zoning surround proposed modification (Purple areas are residential while green areas comprise industrial and recreational receivers)

6.1.3 Criteria

Construction Noise

During construction the noise management levels (NML) are set as per the 'Construction Noise and Vibration Guideline' (RMS CNVG) to be 10dB(A) above the background levels during standard hours. As such based on the existing background noise levels provided in section 6.1.2 the following NMLs would apply to the proposed modification:

- Day (standard hours): $60 + 10 = 65\text{dB(A)}$

Only standard hours were assessed as the compound site would not be used as parking for office staff out of standard hours.

Construction Vibration

No vibration-producing plant would be used at the site.

Operation

Operational noise criteria are not relevant for this assessment as the use of the compound site would be limited to the construction phase and would not change the operational road traffic noise.

An assessment of operational noise for the overarching proposal is assessed within Section 6.4 of the original REF.

6.1.4 Potential impacts

Construction

The engines and movements of light vehicles using the carpark would be the primary source of noise during operation of the proposed compound site. Vehicles accessing the carpark would be staggered throughout the peak periods in the morning and afternoon. As such, it is expected that about eight vehicles may have their engines on at any one time. Vehicles would be instructed not to idle if not in use.

The construction noise assessment using the Transport for NSW NET (refer Appendix D) assessed the predicted noise levels based on the sound power level of one scissor lift which is shown in the 'Source list' of the NET to be equivalent to the operation of eight light vehicles.

The construction noise assessment concluded the predicted noise levels at the worst-affected sensitive receiver (the ground level residents of 2 Bowman Street with line of sight) would be 67 dB(A) or 2 dB(A) over the noise management level. As such, the NET did not recommend any additional mitigation measures.

Operation

No operational impacts are expected. Use of the site for parking by construction personnel would cease once construction is complete.

6.1.5 Safeguards and management measures

No additional safeguards are proposed.

6.2 Non-Aboriginal heritage

This section describes the non-Aboriginal cultural heritage impacts that may occur when constructing and operating the proposed modification.

6.2.1 Methodology

The methodology for the non-Aboriginal heritage assessment included:

- a desktop review on 21 June 2023 of relevant heritage databases, including:
 - State Heritage Inventory
 - NSW heritage database
 - Local Environmental Plan(s) heritage list
 - listed Interim Heritage Orders
 - Australian Heritage Database (EPBC & Commonwealth heritage list)
 - Australian Heritage Places Inventory (includes Register of the National Estate and State, Territory and Commonwealth heritage registers)
 - Port Authority of NSW s170 register
 - State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 heritage maps
- identifying and assessing additional or modified potential impacts to heritage items due to the proposed modification
- reviewing and confirming the relevance of the safeguards and mitigation measures identified in the project REF and approved addendum REFs.

6.2.2 Existing environment

The Bays precinct has undergone a significant amount of development and served a range of different industrial activities since the European colonisation of Sydney. Since the nineteenth century the region has had many phases of demolition, construction, land clearance and modifications.

Sydney was declared a city in 1842 and was concentrated in the area currently occupied by the modern CBD. Roads to the west were restricted to its southern border leading to the inner western suburbs via the Parramatta Road, which was also the beginning of the Great Western Highway. By mid-century, it had become clear that a shorter route out of the city was available, across Johnstons Bay to the Glebe Island and on to Annandale.

The first Glebe Island Bridge was a private toll-bridge completed in 1862 and was a timber beam viaduct with a small, one arm, hand-cranked swing-span tucked into the Pyrmont shore. After 30 years, this bridge was in need of extensive repairs and the Colonial Government purchased the structure and the Public Works Department (PWD) began planning a replacement bridge.

The construction of the second bridge related also to a project commenced in the 1880s for the Five Bridges Route, to facilitate traffic flow from the city to the northern and western suburbs of the expanding city. Bridges were to be built or replaced at Pyrmont Bay, Glebe Island, Iron Cove, Gladesville and Fig Tree (until these bridges were built, the only access to the northern shore of the Harbour was by boat, punt or by road via Parramatta). For this project, the (old) Pyrmont Bridge and the (old) Glebe Island Bridge were purchased from their private owners and new bridges were built at Gladesville (1881), Iron Cove (1882) and Fig Tree (1885).

Construction commenced on the new Glebe Island Bridge and Pyrmont Bridge as timber bridges with steel swing-spans at the same time in 1899 but Glebe Island involved more extensive works and opened in 1903. It operated until 1995 when the replacement Anzac Bridge was opened. The swing-span of the bridge is now left open to facility the movement of maritime traffic within the Bays precinct, with both approaches fenced off without public access.

6.2.3 Potential impacts

Construction

Heritage features identified in the study area are listed in Table 6-7 with an assessment of potential heritage impact. Locations of the heritage features are shown on Figure 6-2. No Heritage Act permit approvals were identified by the assessment.

Table 6-7: Identification and assessment of Non-Aboriginal heritage features within the study area

Fig. no.	Item name	Listing	Vicinity to the modified proposal area	Potential direct and indirect impacts	Significance of impact
1	Glebe Island Bridge	<ul style="list-style-type: none"> • NSW State Heritage Register • Roads and Maritime (TfNSW s170 register – state significance) • Port Authority of NSW s170 (Glebe Island Bridge Approach – 4560015 – local significance) 	Compound is on the eastern embankment of this structure.	<p>State heritage item. The compound is located within the heritage curtilage though the use of the site as a compound facility does not require any alterations or excavation and has no direct physical impacts to the fabric of the heritage item.</p> <p>Potential amenity impacts would be short term and low to negligible as the site is not currently accessible to the public, and would be consistent with its existing use as a transport asset and the existing line marking will not need to be altered.</p> <p>In accordance with TfNSW Heritage advice, the proposal is not a change of use, an exemption is not required and Heritage Act permit is not triggered.</p>	Temporary minor adverse
2	Escarpment Face from former “Saunders’ Quarry”	Sydney LEP 2012 Heritage register (I1199)	About 50 metres to the west.	Recognised to have local significance. No direct impact.	Neutral
3	Anzac Bridge (including memorial tribute statues)	Roads and Maritime (TfNSW) s170 register – state significance	The bridge footprint is located about 70 metres south.	Recognised to have State significance. No direct impact.	Neutral
4	Three items combined in one feature: <ul style="list-style-type: none"> • Glebe Island Sandstone Quarry Sample (4560014) • Glebe Island World War II Monument (4560012) • Glebe Island Plaque - Opening of container terminals (4560013) 	<ul style="list-style-type: none"> • Port Authority of NSW s170 	About 250 metres to the west.	Recognised to have local significance. No direct impact.	Neutral



Figure 6-2 Non-Aboriginal Heritage features identified in the study

Operation

No operational impacts are expected.

6.2.4 Safeguards and management measures

No additional safeguards are proposed.

6.3 Biodiversity

6.3.1 Existing environment

Two mature fig trees are located near the entrance to the proposed site compound (refer Figure 6-3). Though their trunks are located outside of the compound, both trees have low overhanging branches which extend well into the site. The trees

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do not comprise part of a heritage item but given their mature size, offer visual amenity and green shading to the surrounding hardstand.

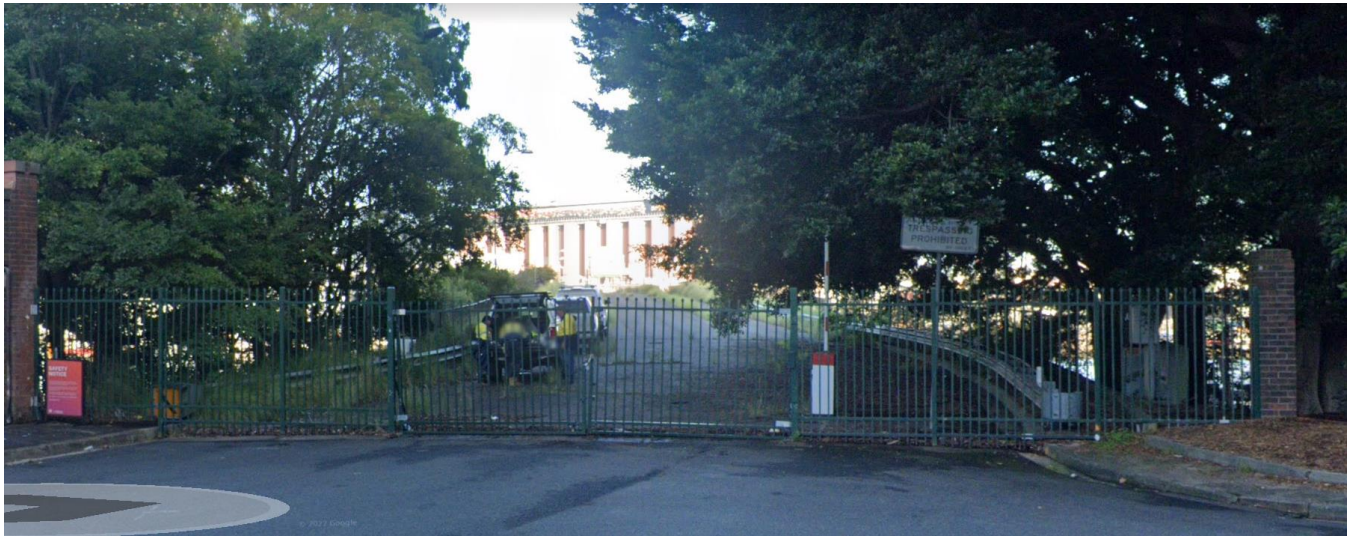


Figure 6-3 Existing fig trees (right) overhanging the proposed compound entrance

6.3.2 Potential impacts

Construction

Some of the two fig trees' low overhanging branches may be impacted by light vehicles passing underneath the canopy as they access the compound. If any branches are at risk of impact, measures such as branch tie-back or tree trimming would be considered to maintain an adequate height clearance for light vehicles.

The trees would not be removed. Additional safeguards would be implemented to ensure the trees are retained and protected throughout use of the compound.

Operation

No operational impacts are expected. Use of the site for parking by construction personnel would cease once construction is complete.

Conclusion on significance of impacts

The modification is not likely to significantly impact threatened species, populations or ecological communities or their habitats, within the meaning of the BC Act or FM Act and therefore a Species Impact Statement is not required.

The modification is not likely to significantly impact threatened species, populations, ecological communities or migratory species, within the meaning of the EPBC Act.

6.3.3 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Trees	Alternatives to tree trimming should be considered prior to trimming including branch tie back in consultation with a Level 8 AQF arborist	Contractor	Construction
Trees	Trimming is not to exceed 20 per cent of the tree foliage.	Contractor	Construction
Trees	Trimming of trees will be limited to branches of less than or equal to 200mm circumference.	Contractor	Construction

6.3.4 Biodiversity offsets

The proposed modification does not require tree or hollow removal and therefore does not trigger any offset requirements in accordance with Transport Biodiversity Policy (2022).

6.4 Other impacts

6.4.1 Existing environment and potential impacts

Environmental factor	Existing environment	Potential impacts
Traffic and transport	<p>The site compound would be accessed from Bowman Street which is a local road providing an east-west connection through Pyrmont. It is one lane in each direction and has a signposted speed limit of 40 km/h for local traffic.</p> <p>Bank Street continues the 40 km/h local traffic zone a further 80 metres south until the Fish Market precinct. This portion of Bank Street is not a primary route for access to the Fish Market precinct as the arterial connections into the Sydney CBD and Western Distributor are located further south on Bank Street.</p> <p>The limited on-street parking available near the compound site is a mix of restricted 2P and 6P parking.</p>	<p>Use of the proposed compound for parking would produce about 40 additional vehicles travelling on Bowman Street and Bank Street in the morning and afternoon respectively.</p> <p>These vehicles would be staggered throughout the morning and afternoon periods which would minimise impact on local traffic. Local congestion may occur as vehicles wait to turn right into the compound driveway, however, most vehicles would access the compound by travelling northbound on Bank Street and turning left into the compound. In addition, right-turning impacts would be temporary and consistent with the existing use. Overall, the construction traffic produced by operation of the compound is expected to have a minor impact on local traffic.</p> <p>Use of the compound site is expected to minimise the parking of staff vehicles on the local roads in Pyrmont, mitigating the potential impacts to local parking availability.</p>
Visual impact	<p>Two mature fig trees are located near the entrance to the proposed site compound (refer Figure 6-3). Though their trunks are located outside of the compound, both trees have low overhanging branches which extend well into the site. The trees do not comprise part of a heritage item but given their mature size, offer visual amenity and green shading to the surrounding hardstand.</p>	<p>No tree removal would be undertaken. Tree trimming may be required to provide sufficient height clearance for light vehicles. Tree trimming would be undertaken once other alternatives have been exhausted. Tree trimming would have a negligible visual impact as the affected receivers would be pedestrians on foot looking into the compound and the small trimming scope would have a low visual magnitude.</p>

6.4.2 Safeguards and management measures

No additional safeguards proposed.

6.5 Cumulative impacts

6.5.1 Potential impacts

Other Transport for NSW projects may require access to or use of the compound during the project's construction duration. Potential cumulative impacts would be mitigated by the 40 parking spots available. Other projects may seek to utilise this site for purposes other than parking. These projects would be subject to separate planning approvals.

6.5.2 Safeguards and management measures

No additional safeguards are proposed.

7. Environmental management

7.1 Environmental management plans

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

7.2 Summary of environmental safeguards and management measures

Environmental safeguards and management measures for the M1 Western Distributor Smart Motorway are summarised in Table 7-1. Additional safeguards and management measures identified in this addendum REF are included in bold and italicised font. The safeguards and management measures will be incorporated into the CEMP and implemented during construction and operation of the proposed modification, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment.

Table 7-1: Summary of safeguards and management measures

No.	Impact	Environmental safeguards and management measures	Responsibility	Timing
GEN1	General - minimise environmental impacts during construction	<p>A CEMP will be prepared and submitted for review and endorsement of the Transport for NSW Environment Manager prior to commencement of the activity.</p> <ul style="list-style-type: none"> As a minimum, the CEMP will address the following: <ul style="list-style-type: none"> any requirements associated with statutory approvals details of how the project will implement the identified safeguards outlined in the REF issue-specific environmental management plans roles and responsibilities communication requirements induction and training requirements procedures for monitoring and evaluating environmental performance, and for corrective action reporting requirements and record-keeping procedures for emergency and incident management procedures for audit and review. <p>The endorsed CEMP will be implemented during the undertaking of the activity.</p>	Contractor Transport for NSW project manager	Pre-construction Detailed design
GEN2	General - notification	All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor Transport for NSW project manager	Pre-construction
GEN3	General – environmental awareness	<p>All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular ‘toolbox’ style briefings.</p> <p>Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include the proximity of works the State and National listed heritage items.</p>	Contractor Transport for NSW project manager	Pre-construction
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 Traffic Control at Work	Contractor	Pre-construction

		<p>Sites Manual (Roads and Maritime, 2018) and QA Specification G10 Control of Traffic (Roads and Maritime, 2008). The TMP will include:</p> <ul style="list-style-type: none"> • confirmation of construction traffic routes • 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 <p>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</p>		
TT2	Emergency services vehicles and buses	Traffic management measures will be implemented to ensure emergency services vehicles and buses can negotiate work areas during construction. Where access is not possible, emergency services would be notified at least five business days prior to closures.	Contractor	Construction
TT3	Property and parking access	Footpath and or cycleway impacts would be communicated to the public, City of Sydney Council and North Sydney Council at least five business days in advance and suitable alternative routes would be clearly signposted.	Contractor	Construction
TT4	Pedestrian and cyclist access	Advance notice of footpath and or cycleway impacts will be communicated to the public and the City of Sydney and suitable alternative routes will be clearly signposted.	Contractor	Construction
TT5	Traffic and transport	Stakeholder Engagement Strategy to include collaboration with Sydney Metro manage potential cumulative traffic impacts.	Contractor	Pre-construction / construction
TT6	Traffic Management Plan	The TMP would be developed in conjunction with key stakeholders where property and/or user access is impacted.	TfNSW Contractor	Detailed design Pre-construction Construction
TT7	Bus routes	Ongoing consultation with bus route operators in advance about potential detour arrangements that may affect services.	TfNSW	Pre-construction Construction
TT8	Detour routes	Road detours would be coordinated with surrounding interfacing major projects and major stakeholders.	TfNSW Contractor	Construction
TT9	Sydney Fish Market consultation	Ongoing consultation with Sydney Fish Market to minimise construction impacts to property access and car parking.	TfNSW	Pre-construction Construction
TT10	Consultation with Hymix	Ongoing consultation with Hymix regarding potential construction access impacts.	TfNSW	Pre-construction Construction

TT11	Consultation with Darling Harbour stakeholders	Ongoing consultation with key stakeholders in the Darling Harbour precinct including the International Convention Centre and the new W Hotel to manage potential construction impacts including accessibility.	TfNSW	Pre-construction Construction
TT12	Consultation with Sydney Light Rail	Strategic coordination with Sydney Light Rail to coordinate closures and minimise impacts to public transport journeys.	TfNSW	Pre-construction Construction
TT13	Property and access	Advance notice of property and access impacts will be communicated to relevant stakeholders.	TfNSW Contractor	Pre-construction Construction
TT14	Parking	The TMP is to include measures to manage and minimise impacts to parking and property access.	TfNSW Contractor	Pre-construction Construction
LCV1	Visual impacts during construction	Suitable barriers will be provided to screen the visibility of construction activities from adjacent areas where appropriate.	Contractor	Construction
LCV2	Visual impacts during construction	Construction site compound areas will be returned to at least their preconstruction state following completion of the project.	Contractor	Construction
LCV3	Visual impacts during construction	Following the completion of construction works, plant/equipment will be removed, and disturbed areas will be revegetated, turfed or otherwise restored as appropriate.	Contractor	Construction
LCV4	Impact from lighting	Temporary site lighting will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting, and an approved Traffic Management Plan.	Contractor	Construction
LCV5	Impacts on street trees	Establishment of Tree Protection Zones and tree protection measures consistent with AS4970-2009 Protection of Trees on Development Sites will be implemented for all trees within or immediately adjacent to the construction footprint.	Contractor	Construction
LCV6	Visual impacts	Where illuminated signage is located adjacent to more sensitive residential uses at Bulwara Road, investigate screening to minimise potential light spill.	Transport for NSW	Detailed design
LCV7	Visual impacts	The following will occur during the detailed design of proposed new gantries: <ul style="list-style-type: none"> • Minimise the number signs required in order to minimise visual clutter and the overall bulk and massing of the gantries • Provide minimal depth and width for structural post and beams for the gantry structure • Conceal fixings to streamline appearance Utilise a visually recessive colour on posts and fixings so that the visual impact on the skyline is minimised, such as Sydney Harbour Bridge Grey.	Transport for NSW	Detailed design
LCV8	Visual impacts	Offset any street trees removed for the proposal in consultation with local Council.	Transport for NSW	Detailed design
NAH1	Non-Aboriginal heritage	A Non-Aboriginal Heritage Management Plan (NAHMP) will be prepared and implemented as part of the CEMP. It will provide specific guidance on measures and controls to be implemented to avoid and mitigate impacts to Non-Aboriginal heritage.	Contactora	Detailed design Pre-construction
NAH2	Non-Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items Invalid source specified. will be followed in the event any unexpected heritage items, archaeological remains or potential relics of non-Aboriginal origin are encountered.	Contactora	Construction

		Work will only re-commence once the requirements of that Procedure have been satisfied.		
NAH3	Non-Aboriginal heritage	Further assessment of potential archaeological impacts will be carried out following refinement of proposed ground disturbance areas. This will include identification of any permit requirements under the <i>Heritage Act 1977</i> .	Transport for NSW	Detailed design
NAH4	Non-Aboriginal Heritage	Compound sites are to be included in the vibration risk assessment and noise and vibration management plan.	Contractor	Pre-construction / construction
NAH5	Non-Aboriginal Heritage	Environmental awareness training to include a Heritage component and requirements of the CEMP Heritage management plan and vibration risk management measures.	Contractor	Pre-construction / construction
NAH6	Non-Aboriginal Heritage	Ground disturbance at the Sommerville Road compound site must be minimal, maintain a buffer distance to the dyke exposure feature, and must not exceed one metre depth. No ground disturbance is permitted at Glebe Island Bridge abutment.	Contractor	Construction
NV1	Construction noise and vibration	A Noise and Vibration Management Plan (NVMP) will be prepared and implemented as part of the CEMP. The NVMP will generally follow the approach in the Interim Construction Noise Guideline (ICNG) (DECC, 2009) and identify: <ul style="list-style-type: none"> • all potential 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, 2014) • 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	Pre-construction
NV2	Construction noise	All sensitive receivers likely to be affected will be notified at least five working days prior to commencement of any works associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of: <ul style="list-style-type: none"> • the project • the construction period and construction hours • contact information for project management staff • complaint and incident reporting how to obtain further information.	Contractor	Pre-construction
NV3	Construction noise	Noisy works such as sawcutting and jackhammering to be completed by midnight	Contractor	Construction
NV4	Construction noise	Noise curtains are to be placed between sources of construction noise and sensitive receivers during night works where noise sources are stationary and near to the ground.	Contractor	Construction
NV5	Construction vibration	Prior to the start of construction, a Ground Vibration Risk Assessment shall be carried out by a suitably qualified person to identify all vibration generating tasks, duration and predicted vibration levels and to determine reasonable and feasible vibration mitigation and management measures to address the potential impacts of ground vibration on	Contractor	Construction

		<p>adjacent buildings during construction. The assessment shall also identify which properties contain buildings which would require building condition surveys.</p> <p>The Vibration Risk Assessment must include (as a minimum):</p> <ul style="list-style-type: none"> i. Identification of construction ground vibration criteria under BS7385 and DN4150 as described in this REF. ii. Identification of the ground type and topography in the vicinity of the works location (in terms of its susceptibility to ground vibration); iii. Identification and description of potentially affected buildings on adjacent properties which may be impacted by ground vibration during construction; iv. Identification of the types of activities to be carried out (including compound sites and active work sites), machinery and equipment to be used, including the predicted vibration emission levels from each plant and the required buffer distances needed between the machinery/equipment and potentially affected buildings; v. A risk assessment to determine the potential for discrete work activities to affect buildings on adjacent properties; vi. An assessment of the potential vibration impacts on the potentially affected buildings on adjacent properties due to vibration; vii. A map indicating the buildings on adjacent properties considered likely to be impacted by ground vibration and those requiring building condition inspections; viii. Details on which buildings on adjacent properties will require building condition surveys; <p>Identification of potential mitigation measures to be incorporated during construction to address round vibration impacts on buildings.</p>		
NV6	Construction vibration	<p>Based on the results of the Ground Vibration Risk Assessment, a Ground Vibration Management Plan must be prepared prior to construction as part of the CEMP to address how construction will be carried out to minimise the impact of ground vibration on affected buildings within adjacent properties. The Vibration Management Plan must detail how construction vibration will be managed for various plant items working adjacent to the potentially affected buildings (as identified in the Vibration Risk Assessment). The Plan must show the locations of all occupied and unoccupied buildings which are potentially impacted on surrounding properties (including relevant heritage items) on a map, and provide details of control measures to be undertaken during construction, including:</p> <ul style="list-style-type: none"> a) Identification of all vibration generating tasks, duration and predicted vibration levels (based on the Vibration Risk Assessment); b) A schedule of properties where building condition inspections are required to be undertaken (based on the Vibration Risk Assessment); c) Location and type of mitigation measures to reduce excessive ground vibration such as: 	Contractor	Construction

		<ul style="list-style-type: none"> • Maximising the offset distance between high vibration plant items and nearby buildings; • Substitution by alternative equipment, plant and processes; • Screening or enclosures; • Restricted times when work is being carried out; • Work setback distances, for example different vibration levels and machinery; • Consultation with affected residences and business owners; • Orienting equipment away from vibration-sensitive areas; and • Selecting site access points and roads as far as possible from sensitive receptors. <p>d) Specific physical and managerial measures for controlling ground vibration to comply with the relevant OEH guidelines and best practice;</p> <p>e) Vibration monitoring, reporting and response procedures;</p> <p>f) Procedures for notifying residents and business premises about vibration-generating activities likely to affect buildings on their property;</p> <p>g) Contingency plans to be implemented in the event of non-compliances and/or vibration complaints;</p> <p>Procedures for regularly reviewing the effectiveness of the Vibration Management Plan;</p>		
NV7	Construction vibration	Where construction activity occurs in close proximity to sensitive receivers, vibration testing of actual equipment on site shall be undertaken in relation those properties identified as being particularly sensitive to ground vibration (as identified in the Vibration Risk Assessment) prior to their commencement of construction to validate the acceptable buffer distances to the nearest affected receiver locations.	Contractor	Construction
NV8	Construction vibration	Building conditions surveys shall be conducted at receivers determined, by the Contractor, to be sensitive to ground vibration impacts. The determination should be based on the results of a Vibration Risk Assessment plan for the project prior to construction, where the results of this will also feed into the Vibration Management Plan. These measures are to address potential community concerns that perceive vibration may cause damage to building.	Contractor	Construction
NV9	Construction noise and vibration -cumulative impacts	The noise and vibration management plan (NVMP) is to include a process for Verification monitoring to confirm noise management levels and adjust management measures as appropriate.	Transport/ Contractor	Pre-construction / construction
NV9	Site planning and layout	Locate noise-generating activities away from sensitive receivers. Plan traffic flow, parking, loading/unloading, and other vehicle movements to keep vehicles away from sensitive receivers where possible and to minimise reversing movements.	Contractor	Construction

NV10	Plant and equipment	<p>The contract requires the procurement of the quietest vehicle or machinery available for the works. Prepare an inventory report for all vehicles and machinery that will be used during the contract. The inventory report is to include:</p> <ul style="list-style-type: none"> • An outline of the different options of vehicles and machinery available and their sound power levels • List of vehicles and machinery to be used during the contract and their sound power levels <p>Evidence indicating that the vehicles and machinery proposed for the works are the quietest available.</p>	Contractor	Pre-construction Construction
NV11	Limit equipment in use	Only the equipment necessary during each stage of the works will be used.	Contractor	Construction
NV12	Timing of equipment in use	Where practicable, activities and plant will be scheduled/limited. At night, high noise impact sources will be scheduled prior to midnight and use will be avoided after midnight.	Contractor	Construction
NV13	Limit activity duration	Any equipment not in use for extended periods shall be switched off. For example, heavy vehicles should switch engines off when not in use.	Contractor	Construction
NV14	Non-tonal reversing alarms	Alternative reverse alarms, such as 'quackers' will be installed on all vehicles & mobile plant regularly used on site and on all vehicles & mobile plant required for OOHV.	Contractor	Pre-construction Construction
NV15	Behavioural practices	No swearing or unnecessary shouting or loud stereos/radios on site. No dropping of materials from height, throwing of metal items and slamming of doors.	Contractor	Construction
NV16	Noise monitoring	Noise monitoring to be conducted at key locations to quantify noise impacts at sensitive receivers. The above guidelines, including NMLs, would be used to determine any necessary mitigation responses for noise in excess of guideline values.	Contractor	Construction
NV17	Respite coordination	Consult with proponents of other construction works in the vicinity of the worksite and take reasonable steps to coordinate works to minimise cumulative impacts of noise and vibration and maximise respite for affected sensitive receivers (e.g. aligning respite evenings).	TfNSW Contractor	Pre-construction Construction
SWQ2	Soils and water	A site-specific Erosion and Sediment Control Plan/s will be prepared and implemented as part of the CEMP. The ESCP(s) will address the requirements of Transport for NSW specification G38.	Contractor	Pre-construction
SWQ3	Soils and water	<p>The Erosion and Sediment Control Plan/s will 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.</p> <p>The Plan/s will also include measures to minimise the impact of discharging site water to the adjacent watercourses.</p>	Contractor	Pre-construction
SWQ4	Soils and water	A site-specific emergency spill plan will be developed and include spill management measures in accordance with the Code of Practice for Water Management (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport for NSW and EPA officers).	Contractor	Detailed design / pre-construction / construction
SWQ5	Soils and water	Where required, designated, fully contained concrete washout areas would be established away from drainage lines and waterways.	Contractor	Construction

SWQ6	Surface Water quality	Glebe Island Bridge facility to include spill response provisions including marine kit.	Contractor	Construction
SWQ7	Surface Water quality	Glebe Island Bridge facility to be used as a secondary option only for excess spoil storage. All stockpiles must be fully contained, and removed as soon as practical.	Contractor	Construction
CL1	Contamination	<p>An unexpected finds procedure will be developed in the proposal CEMP for contamination.</p> <p>The procedure will ensure that if contaminated areas are encountered during construction, appropriate control measures will be implemented to manage the immediate risks of contamination.</p> <p>All other works that may impact on the contaminated area will cease until the nature and extent of the contamination has been confirmed and any necessary site-specific controls or further actions identified in consultation with the Transport for NSW Environment Manager and/or EPA.</p>	Contractor	Detailed design / Pre-construction
AQ1	Air quality	<p>Air quality management measures will be identified and implemented as part of the CEMP. These measures must include, but may not be limited to:</p> <ul style="list-style-type: none"> • Potential sources of air pollution (including compound operation) • Air quality management objectives consistent with any relevant published EPA and/or OEH guidelines • Mitigation and suppression measures to be implemented <p>Methods to manage work during strong winds or other adverse weather conditions.</p>	Contractor	Pre-construction
AH1	Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items (Roads and Maritime, 2015) 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	Pre-construction
AH2	Aboriginal heritage	A 50 metre exclusion zone will apply to all registered AHIMS sites within and adjacent to the proposal corridor.	Contractor	Pre-construction
SEO1	Socio-economic	<p>A Communication Plan will be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The Communication Plan will include (as a minimum):</p> <ul style="list-style-type: none"> • Mechanisms to provide details and timing of proposed activities to affected residents, including changed traffic and access conditions • Contact name and number for complaints • Notification requirements for noise generating activities <p>Procedures for communicating with other projects to determine the potential for concurrent activities and associated cumulative impacts.</p>	Transport for NSW	Pre-construction
BIO1	Biodiversity	If unexpected flora or fauna are discovered on site stop work immediately and implement the Transport for NSW Unexpected Threatened Species Find Procedure in the Biodiversity Guidelines, Guide 1.	Contractor	Construction
BIO2	Biodiversity	Offset of removed street vegetation at Gantry 13 will be designed in consultation with City of Sydney Council.	Transport for NSW	Detailed design

BIO3	Biodiversity	Chemical storage is not permitted on the Glebe Island Bridge compound facility.	Contractor	Construction
BIO4	Offset policy	Trees removed for the proposal would be offset in line with the TfNSW Biodiversity Offset Policy (2022).	TfNSW	Pre-construction Construction
BIO5	Tree Protection Plan	A Tree Protection Plan (TPP) would be developed as part of the CEMP.	Contractor	Detailed design Pre-construction
BIO6	Pre-clearance survey	A pre-clearance survey by suitably qualified ecologist would be conducted to confirm the presence of HBTs and other relevant habitat features prior to commencement of works to minimise impacts to resident fauna.	Contractor Ecologist	Detailed design Pre-construction
BIO7	Biodiversity	Suitably qualified ecologist to complete pre-clearing inspection of the Colebee main construction area. Pre-clearing check to include inspection for <ul style="list-style-type: none"> - Boundary of Cumberland Plain Woodland (CEEC) - <i>Grevillea juniperina</i> (BC Act, Vulnerable) - <i>Dillwynia tenuifolia</i> (BC Act, Vulnerable) - <i>Pultenaea parviflora</i> (BC Act, Endangered) - <i>Meridolum corneovirens</i> (BC Endangered) Ecologist advice to be incorporated into the preparation of sensitive area mapping and physical protection measures.	Contractor	Construction
BIO8	Biodiversity	Physical exclusion area is to be established and maintained around the mapped sensitive area (biodiversity) for the duration of construction.	Contractor	Construction
BIO9	Biodiversity	Tree Protection measures are to be implemented in accordance with Australian Standard AS4970 for protection of trees on development sites.	Contractor	Construction
BIO10	Biodiversity	All works, including removal of the dead tree, are to comply with Transport Biodiversity Guideline - Protecting and Managing Biodiversity on Transport projects.	Contractor	Construction
BIO11	Biodiversity	Appropriate fire prevention and response measures are to be included in the CEMP to protect the adjoining bushland area from ignition risks (such as sparks from welding and fabrication works and vehicle exhausts).	Contractor	Construction
BIO12	Trees	<i>Alternatives to tree trimming should be considered prior to trimming including branch tie back in consultation with a Level 8 AQF arborist</i>	Contractor	Construction
BIO13	Trees	<i>Trimming is not to exceed 20 per cent of the tree foliage.</i>	Contractor	Construction
BIO14	Trees	<i>Trimming of trees will be limited to branches of less than or equal to 200mm circumference.</i>	Contractor	Construction
WM1	Waste	A Waste Management and Resource Recovery Management Plan (WMRRP) will be prepared and implemented as part of the CEMP. The WMRRP will include but not be limited to: <ul style="list-style-type: none"> • Measures to avoid and minimise waste associated with the project • Classification of wastes and management options (re-use, recycle, stockpile, disposal) 	Contactore	Detailed design / pre-construction

		<ul style="list-style-type: none"> • 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 <p>Monitoring, record keeping and reporting.</p>		
CU1	Cumulative impacts	<p>Current and upcoming projects with the potential to interact with the proposal will be monitored. Where potential cumulative impacts are identified, the scheduling of works will be coordinated with interacting projects to minimise potential impacts. This will include</p> <ul style="list-style-type: none"> • Scheduling works to allow suitable respite periods for construction noise • Scheduling of works to minimise consecutive construction noise impacts, where feasible <p>Coordinating lane closures and pedestrian/cyclist diversions to minimise the overall number of occasions where disruption occurs.</p>	Transport for NSW Project Manager	Construction

7.3 Licensing and approvals

No further licenses, permits, notifications or approvals are needed for the proposed modification to the M1 Western Distributor Smart Motorway project.

8. Conclusion

This chapter provides the justification for the proposed modification taking into account its biophysical, social and economic impacts, the suitability of the site and whether or not the proposed modification is in the public interest. The proposed modification 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

8.1.1 Social factors

The proposed modification would facilitate construction of the approved Smart Motorways project, which would result in positive long-term social impacts during operation through providing improved traffic and hazard management and enhance corridor messaging and wayfinding on the M1 road corridor between Milsons Point and Allen Street in Pyrmont.

- The proposed modification is not expected to cause discernible noise, heritage or visual impacts.
- No impact to heritage features are anticipated.
- The proposed modification would not directly affect access to or use of any key social infrastructure (such as schools, places of worship, medical centres, community centres etc). The proposed modification is not anticipated to impact passing trade, access to business. Potential impact to traffic or active transport facilities is minor and temporary and able to be adequately managed with safeguards outlined in the project REF and section 7.2.
- Cumulative construction impacts due to other construction works in the area be adequately managed with safeguards outlined in the project REF and section 7.2

Overall, the social benefits of the proposed modification outweigh the potential adverse social impacts identified and therefore it is considered to be justified.

8.1.2 Biophysical factors

Potential biophysical impacts of the proposed modification would be limited to construction phase impacts only. The proposed modification has assessed the potential need for minor tree trimming of existing overhanging fig trees. The trees would be retained and protected. The proposed modification would not have a significant impact on the biophysical environment.

8.1.3 Economic factors

The proposed modification provides value for money in utilising Transport land/assets, and enabling greater productivity and program. This contributes to the overarching proposal benefit of improvements to road safety and journey time and flow on regional economic benefits from improved travel times.

8.1.4 Public interest

The proposed modification is required to facilitate construction of the approved Smart Motorways project, which would result in positive long-term social impacts during operation through providing improved traffic and hazard management and enhance corridor messaging and wayfinding on the M1 road corridor between Milsons Point and Allen Street in Pyrmont.

Overall, the proposal is believed to be justified in meeting its objectives with few residual long-term impacts and is therefore in the public interest.

8.2 Objects of the EP&A Act

Object	Comment
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.	The proposal modification assists the delivery of the proposal to achieve the project safety benefits. Social and economic impacts are consistent with the project REF. Management measures are adequate to avoid and/or minimise impacts.
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.	The proposed modification contributes to the overarching proposal benefit of improvements to road safety and journey time and flow on regional economic benefits from improved travel times.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not relevant to the project.
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 proposed modification has negligible risk to the biophysical environment. The proposal has minimal vegetation impacts (potential minor tree trimming) Management measures are outlined in the project REF and Section 7.2 to adequately avoid and/or minimise impacts.
1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	The proposed modification is not expected to have any impacts on Aboriginal heritage. Refer to Section 6.2. Mitigation measures proposed in the project REF and Section 7.2 adequately avoid and/or minimise impacts.
1.3(g) To promote good design and amenity of the built environment.	Potential visual amenity impacts of the modification have been considered in Section 6.4.1. Potential visual impacts are negligible.
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 project.
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 project.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	The communications strategy includes routine project updates.

8.3 Ecologically sustainable development

8.3.1 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.

The use of the proposed compound site does not pose a threat of serious or irreversible damage to the environment. Regardless, the proposed modification has sought to take a precautionary approach to minimise environmental impacts, including through assessing impacts based on the 'worst-case' or conservative scenarios. This principle has also been applied in the development of safeguards and management measures using best available technical information, environmental standards and guidelines.

8.3.2 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 proposed modification has integrated both short and long-term economic, social and environmental considerations so that any likely impacts are not left to be addressed by future generations.

8.3.3 Conservation of biological diversity and ecological integrity

Preserving biological diversity and ecological integrity requires that ecosystems, species, and biological diversity are maintained to ensure their survival.

The proposed modification seeks to conserve ecological integrity by selecting a compound with existing hardstand and minimising vegetation impacts. Management measures outlined in the project REF and Section 7.2 would adequately avoid and/or minimise potential indirect impacts (such as spills) on the biophysical environment.

8.3.4 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 modification contributes to the value to the community associated with safety improvements of the overarching Smart Motorway project.

Environmental issues were considered as key matters in the selection of a compound site including selection of existing cleared hardstand areas. The proposed modification provides value for money in utilising Transport land/assets. This contributes to the overarching proposal benefit of improvements to road safety and journey time and flow on regional economic benefits from improved travel times.

Environmental safeguards and management measures for the avoidance, reuse, recycling and management of waste during construction and operation are to be implemented.

8.4 Conclusion

This 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, populations and ecological communities and their habitats and other protected fauna and

native plants. It has also considered potential impacts to matters of national environmental significance listed under the Federal EPBC Act.

A number of potential environmental impacts from the proposed modification have been avoided or reduced during the design development and options assessment. The proposed modification as described in the addendum REF best meets the project objectives but would still result in some impacts on [insert relevant environmental issues where more than minor impacts have been identified, list where necessary]. Safeguards and management measures as detailed in this addendum REF would ameliorate or minimise these expected impacts. The proposed modification would also minimise the parking of staff vehicles on the local roads in Pymont, mitigating the potential impacts to local parking availability. On balance the proposed modification is considered justified, and the following conclusions are made.

8.4.1 Significance of impact under NSW legislation


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

8.4.2 Significance of impact under Australian legislation

The proposed modification would not likely cause a significant impact on matters of national environmental significance or the environment of Commonwealth land within the meaning of the EPBC Act. A referral to the Australian Government Department of Climate Change, Energy, the Environment and Water is not required.

9. Certification

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



Tavis Cunningham
Environment Cadet (Assets and Operations)
Transport for NSW

Date: **23 June 2023**

Reviewed by:



Jarita Zeng
Senior Environment and Sustainability Officer (Assets and Operations)
Transport for NSW

Date: **23 June 2023**

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



Adrian Pearse
Senior Program Manager – Smart Motorways
Transport for NSW

Date: **23 June 2023**

10. EP&A Regulation publication requirement

Respondent	Yes/No
Does this REF need to be published under section 171(4) of the EP&A Regulation?	No

11. Terms and acronyms used in this addendum REF

Term /acronym	Description
AusLink	Mechanism to facilitate cooperative transport planning and funding by Commonwealth and state and territory jurisdictions
BC Act	<i>Biodiversity Conservation Act 2016 (NSW).</i>
CEMP	Construction / Contractor’s environmental management plan
EIA	Environmental impact assessment
EP&A Act	<i>Environmental Planning and Assessment Act 1979 (NSW).</i> Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth).</i> Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
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	<i>Fisheries Management Act 1994 (NSW)</i>
Heritage Act	<i>Heritage Act 1977 (NSW)</i>
LALC	Local Aboriginal Land Council
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
LoS	Level of Service. A qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers.
NES	Matters of national environmental significance under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999.</i>
NPW Act	National Parks and Wildlife Act 1974 (NSW)
Roads and Maritime	NSW Roads and Maritime was dissolved by the Transport Administration Amendment Bill in August 2019, all function are now managed by Transport for NSW
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021
SEPP (Planning Systems)	State Environmental Planning Policy (Planning Systems) 2021
SEPP (Precincts – Central River City)	State Environmental Planning Policy (Precincts – Central River City) 2021
SEPP (Precincts – Eastern Harbour City)	State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021
SEPP (Precincts – Regional)	State Environmental Planning Policy (Precincts – Regional) 2021

SEPP (Precincts – Western Parkland City)	State Environmental Planning Policy (Precincts – Western Parkland City) 2021
SEPP (Resilience and Hazards)	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP (Transport and Infrastructure)	State Environmental Planning Policy (Transport and Infrastructure) 2021
TSC Act	<i>Threatened Species Conservation Act 1995 (NSW)</i>
QA Specifications	Specifications developed by Roads and Maritime Services for use with road work and bridge work contracts let by Transport for NSW.

Appendix A

Consideration of section 171(2) factors and matters of National Environmental Significance and Commonwealth land

Section 171(2) checklist

In addition to the requirements of the Is an EIS required? (1995/1996) guideline and the *Roads and Related Facilities EIS Guideline* (DUAP, 1996) as detailed in the addendum REF, the following factors, listed in section 171(2) of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposed modification on the natural and built environment.

Factor	Impact
<p>Any environmental impact on a community?</p> <p>The proposed modification would result in the following environmental impacts on the community:</p> <ul style="list-style-type: none"> • Minor temporary traffic, vibration, waste and visual impacts. • No long-term negative impacts. 	Short-term minor negative
<p>Any transformation of a locality?</p> <p>The proposed modification is unlikely to result in any transformation of a locality as it is a temporary (18 months) activity and is consistent with existing land use of the area.</p>	Nil
<p>Any environmental impact on the ecosystems of the locality?</p> <p>Potential impacts of the proposed modification would be limited. The modification requires minimal vegetation impacts and are able to be adequately managed with safeguards outlined in the project REF and section 7.2. The proposal does not have a significant impact on the ecosystems of the locality.</p> <p>No direct impact to NSW or Commonwealth threatened species, populations or ecological communities was identified by the assessment. Vegetation impacts have been minimised through selection of existing cleared sites. The proposed compound activity is temporary.</p>	Short-term minor negative
<p>Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?</p> <p>The proposed modification would not reduce the aesthetic, recreational, scientific or other environmental quality or value of the locality.</p>	Nil.
<p>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?</p> <p>The proposed modification would not have any such effects.</p>	Nil.
<p>Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?</p> <p>Potential impacts of the proposed modification would be limited. The modification requires minimal vegetation impacts and are able to be adequately managed with safeguards outlined in the project REF and section 7.2. The proposal does not have a significant impact on the ecosystems.</p>	Short-term minor negative
<p>Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?</p> <p>The proposed modification would not endanger animals, plants or other forms of life. No plants or animals of national or state conservation were identified within the proposal area.</p> <p>Possible indirect impacts on the biophysical environment are able to be adequately managed with safeguards outlined in the project REF and section 7.2.</p>	Nil

Factor	Impact
<p>Any long-term effects on the environment?</p> <p>The proposed modification would contribute to the positive safety outcomes of the overarching Smart Motorways project.</p>	Long term positive
<p>Any degradation of the quality of the environment?</p> <p>The proposed modification would not degrade the quality of the environment.</p>	Nil
<p>Any risk to the safety of the environment?</p> <p>The proposed modification would not create risks to the safety of the environment.</p>	Nil
<p>Any reduction in the range of beneficial uses of the environment?</p> <p>The proposal would not reduce the range of beneficial uses of the environment.</p>	Nil
<p>Any pollution of the environment?</p> <p>The proposed modification would not result in pollution of the environment.</p>	Short-term minor negative
<p>Any environmental problems associated with the disposal of waste?</p> <p>No waste would be produced by the proposed modification.</p>	Nil
<p>Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?</p> <p>The proposal would not increase demand for resources, which are, or are likely to become, in short supply.</p>	Nil
<p>Any cumulative environmental effect with other existing or likely future activities?</p> <p>Other Transport for NSW projects may require access to or use of the compound during the project's construction duration. Potential cumulative impacts would be mitigated by the 40 parking spots available. Other projects may seek to utilise this site for purposes other than parking. These projects would be subject to separate planning approvals.</p>	Short-term minor negative
<p>Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?</p> <p>The proposed modification is not in a coastal area and would not influence coastal processes and/or coastal hazards. The proposed modification would not have any long term operational impacts.</p>	Nil
<p>Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1.</p> <p>Strategic plans relevant to the proposal which have been considered in the project and Addendum REFs include:</p> <ul style="list-style-type: none"> • A Metropolis of Three Cities – The Greater Sydney Region Plan 2018 • Eastern City District Plan – connecting communities 2018 • Our Inner West 2036: Local strategic planning statement 2020 <p>See Section 4 of this REF for further information on statutory and planning framework.</p> <p>The proposed modification falls within Blacktown Local Government Area.</p>	<p>The proposed modification is a temporary (18 month) land use and would not impact the long term land use plans</p> <p>The proposal is consistent with the Blacktown LEP and aligns with the plan as the temporary works have negligible impacts and is not inconsistent with the land use objectives.</p>

Factor	Impact
Other relevant environmental factors	In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to the project REF and Chapter 6 of this Addendum REF 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 proposed modification should be referred to the Australian Government Department of Climate Change, Energy, the Environment and Water.

Under the EPBC Act strategic assessment approval a referral is not required for proposed road actions that may affect nationally listed threatened species, populations, endangered ecological communities and migratory species. Impacts on these matters are assessed in detail as part of this addendum REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Factor	Impact
Any impact on a World Heritage property?	Nil
Any impact on a National Heritage place?	Nil
Any impact on a wetland of international importance?	Nil
Any impact on a listed threatened species or communities?	Nil
Any impacts on listed migratory species?	Nil
Any impact on a Commonwealth marine area?	Nil
Does the proposed modification involve a nuclear action (including uranium mining)?	Nil
Additionally, any impact (direct or indirect) on Commonwealth land?	Nil

Appendix B

Statutory consultation checklists

Matters of National Environmental Significance and Commonwealth land

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
Car park	Does the project include a car park intended for the use by commuters using regular bus services?	No	Local council and the occupiers of adjoining land	Section 2.110
Bus depots	Does the project propose a bus depot?	No	Local council and the occupiers of adjoining land	Section 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	Local council and the occupiers of adjoining land	Section 2.110

Development within the Coastal Zone

Issue	Description	Yes / No / N/A	If 'yes' consult with	SEPP (Transport and Infrastructure) section
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	Local council	Section 2.14

Note: See interactive map [Coastal management - \(nsw.gov.au\)](http://Coastal%20management-(nsw.gov.au)). Note the coastal vulnerability area has not yet been mapped.

Note: a certified coastal zone management plan is taken to be a certified coastal management program.

Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Stormwater	Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	No	Local council	Section 2.10
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	Local council	Section 2.10
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	Local council	Section 2.10
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	Local council	Section 2.10
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	Local council	Section 2.10
Road and footpath excavation	Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	No	Local council	Section 2.10

Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Local heritage	<p>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?</p> <p>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?</p>	No	Local council	Section 2.11

Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) section
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	Local council	Section 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	No	State Emergency Services Email: erm@ses.nsw.gov.au	Section 2.13

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled Floodplain Development Manual: the management of flood liable land published by the New South Wales Government.

Public authorities other than councils

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	No	DPE	Section 2.15
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	DPE	Section 2.15
Aquatic reserves and marine parks	Are the works adjacent to an aquatic reserve or a marine park declared under the <i>Marine Estate Management Act 2014</i> ?	No	Department of Industry	Section 2.15
Sydney Harbour foreshore	Are the works in the Sydney Harbour Foreshore Area as defined by the <i>Sydney Harbour Foreshore Authority Act 1998</i> ?	No	Sydney Harbour Foreshore Authority	Section 2.15
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	Section 2.15
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	Section 2.15
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 section 5.15 of Lockhart LEP	No	Secretary of the Commonwealth Department of Defence	Section 2.15

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
	2012, Narrandera LEP 2013 and Urana LEP 2011).			
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i> ?	No	Mine Subsidence Board	Section 2.15

SEPP (Precincts – Central River City) 2021 and SEPP (Precincts – Western Parkland City) 2021

Development type	Potential impact	Yes / No	If 'yes' consult with the relevant local council(s).	SEPP (Transport and Infrastructure) section
Clearing native vegetation	Do the works involve clearing native vegetation (as defined in the Local Land Services Act 2013) on land that is not subject land (as defined in cl 17 of schedule 7 of the <i>Threatened Species Conservation Act 1995</i>)?	No	Department of Planning and Environment	Section 3.24

Appendix C

Neutral or beneficial effect on water quality assessment

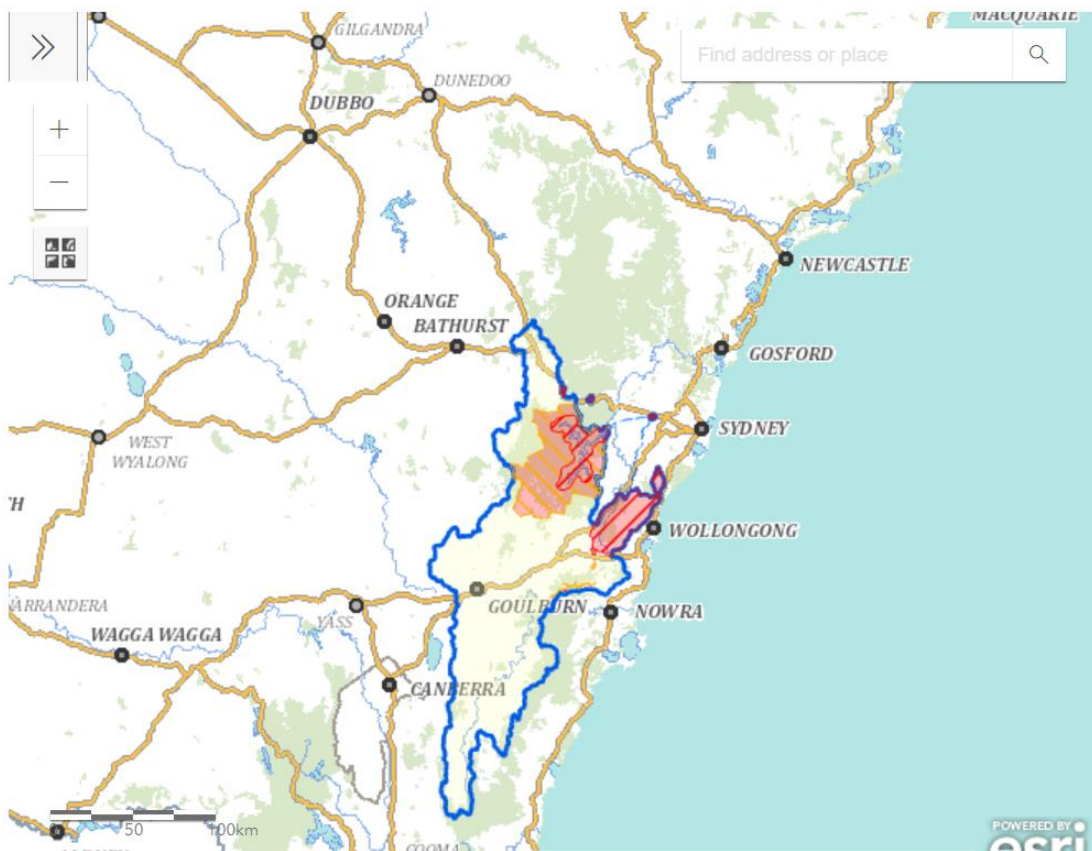
Neutral or beneficial effect assessment

Chapter 8 (Sydney Water Drinking Catchment) of SEPP (Biodiversity and Conservation) relates to the use of land within the Sydney drinking water catchment. In accordance with Section 8.11 of the SEPP, Transport for NSW is required to consider whether or not an activity to which Division 5.1 of the EP&A Act applies will have a neutral or beneficial effect on water quality before carrying out the activity.

The proposal is not within the Sydney Drinking Water Catchment map therefore the assessment of neutral or beneficial effect on water quality assessment is not required.

SYDNEY DRINKING WATER CATCHMENT MAP

The Sydney Drinking Water Catchment map highlighting the special and controlled areas.



Appendix D

Construction noise assessment results

Noise Estimator (Individual Plant)

Please input information into yellow cells
Please pick from drop-down list in orange cells

Project name	WDSM GIB (east) compound
Scenario name	Carparking (8 light vehicles on at once)
Receiver address	Glebe Island Bridge eastern approach, Pymont
Select area ground type	Developed settlements (urban and suburban areas)
Select type of background noise level input	Representative Noise Environment

Noise area category	Representative Noise Environment		User Input
	R4		
RBL or LAeq Background level (dB(A))	Day	55	
	Evening	50	
	Night	45	
LAeq(15minute) Noise management level (dB(A))	Day	65	
	Day (OOHW)	60	
	Evening	55	
Night	50		

Is all plant at the same representative distance to the receiver? Y/N	Y	All at Representative Distance
Representative distance (m)	14	All at Representative Distance

Steps:

- Enter project name (cell C9).
- Enter scenario name (cell C10).
- Enter receiver address (cell C11).
- Select area ground type (cell C12) - water, undeveloped green fields (e.g. rural areas with isolated dwellings) or developed settlements (e.g. urban and suburban areas)
- Select the type of background noise level input - Representative noise environment (to make assumptions) or user input (where noise monitoring data is available):
 - where representative noise environment is selected - select the appropriate noise area category (cell C16). The worksheet titled 'Representative Noise Environ.' provides a number of examples to help select the noise area category.
 - where user input is selected - enter the measured background noise level for each time period (cells D17 to D19).
- Is all plant at the same representative distance to the receiver? Select Y or N (cell C24):
 - where Y is selected - enter the representative distance in cell C25.
 - where N is selected - go to step #7
- For the scenario (e.g. shallow excavation), select plant from the drop-down list in cells A28 to A47 (e.g. dump trucks + excavator).
 - enter quantity for each selected plant in cells D28 to D47.
 - where N is selected from step #6 - enter the distance to receiver for each individual plant in cells E28 to E47.
 - is there line of sight to receiver? select from drop down list in cells F28 to F47. Solid barrier can be in the form of road cutting, solid construction hoarding, acoustic curtain, timber lapped and capped fence, shipping container, site office, etc. Please note that vegetation and trees are not considered to be a form of solid barrier.
- Identify the level above background and/or noise management level (see rows 57 to 62).
- Identify and implement standard mitigation measures where feasible and reasonable. Include any shielding implemented as part of the standard mitigation measures by changing the selection in the 'Is there line of sight to receiver' drop-down list.
- Identify and implement feasible and reasonable additional mitigation measures (see rows 63 to 65).
- Document a summary report detailing:
 - project description (including location, duration, hours of work, construction methodology, plant, potentially impacted receivers, etc.).
 - background noise levels.
 - noise management levels.
 - predicted noise levels for each time period.
 - sleep disturbance affected distance for night works.
 - mitigation measures.
 - team member responsible for implementing mitigation measures and managing noise and vibration.

Type/ model plant (See Sources Sheet)	SWL LAeq (dB(A))	SPL @7m (dB(A))	Quantity	Individual distance to receiver (m)	Is there line of sight to receiver? Y/N	Quantity correction (dBA)	Shielding correction (dBA)	Distance used in calculation (m)	Contribution SPL (dB(A))
Scissor Lift	98	73	1	14	Yes	0	0	14	67
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888
					Yes	0	0		-888

Total SPL LAeq(15minute) (dB(A)) 67

	Residential receiver	Classroom at schools and other educational institutions	Hospital wards and operating theatres	Non-residential receivers				
				Place of worship	Active recreation	Passive recreation	Industrial premise	Offices, retail outlets
	Standard hours	55	65	55	65	60	75	70
	Day (OOHW)	55	65	55	65	60	75	70
	OOHW Period 1	55	65	55	65	60	75	70
	OOHW Period 2	50	65	55	65	60	75	70
	Standard hours	12	12	12	12	7		
	Day (OOHW)	12	12	12	12	7		
	OOHW Period 1	17	12	12	12	7		
	OOHW Period 2	22	12	12	12	7		
	Standard hours	2	2	2	2	7		
	Day (OOHW)	2	2	2	2	7		
	OOHW Period 1	2	2	2	2	7		
	OOHW Period 2	2	2	2	2	7		
	Standard Hours	-	N, V	-	-	-	-	-
	Day (OOHW)	N, R1, DR	N, R1, DR	-	N, R1, DR	N, R1, DR	-	-
	OOHW Period 1	N, R1, DR	-	-	N, R1, DR	N, R1, DR	-	-
	OOHW Period 2	V, IB, N, PC, SN, R2, DR	N	N	V, N, R2, DR	-	-	-

Abbreviation	Measure
N	Notification
SN	Specific notifications
PC	Phone calls
IB	Individual briefings
RO	Respite offer
R1	Respite period 1
R2	Respite period 2
DR	Duration respite
AA	Alternative accommodation
V	Verification



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