Transport for NSW

Western Distributor Smart Motorways

Addendum Review of Environmental Factors No.1

December 2022



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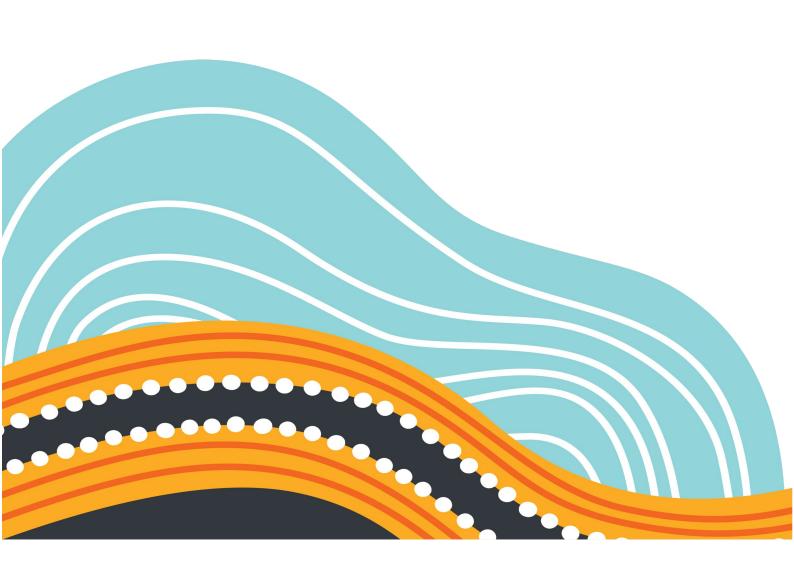
Acknowledgement of Country

Transport for NSW acknowledges 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.



Document control

Approval and authorisation

Title	M1 Western Distributor Smart Motorway, Addendum review of environmental factors (#1)
Accepted on behalf of Transport for NSW by:	
Signed	
Date:	

Executive summary

The proposed modification

Transport for NSW proposes to modify the M1 Western Distributor Smart Motorway to include the use of two construction compound sites located at Sommerville Road, Rozelle, and Old Glebe Island Bridge western abutment (proposed modification) close to the main construction area. 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.

Need for the proposed modification

The proposed modification is needed to secure a compound site to facilitate construction works and avoid potential delays to the delivery of the construction project.

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 satisfied the addendum objective of 'ability to support the construction of the approved project'. No other compound location options were identified therefore no other alternate options were investigated.

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 clause 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.

Port Authority of NSW may also act as joint determining authority and prepare a decision statement on the proposal.

Community and stakeholder consultation

Transport would continue to consult with the community and key stakeholders throughout the project in line with the overarching Community and Stakeholder Engagement Plan (refer to Section 5.1 of the project REF) and Communication Plan (refer to safeguard SE1 in Section 5.2 of the project submissions report).

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.

This addendum REF will be made available on the Transport website, so that the community and stakeholders are informed about what is being proposed.

Environmental impacts

The main environmental impacts for the proposed modification are:

Construction Noise and Vibration

The proposed modification is located in an industrial area within White Bay on the edge of Sydney CBD. The existing environment is dominated by road traffic noise from the Western Distributor as well as influences from port activity, aircraft noise and other major construction projects in the area. The nearest residential receivers are residential apartments located on the opposite side of Blackwattle Bay, on Bowman Street about 195 metres to the east of the Glebe Island Site and about 390m east of the Sommerville Road site.

Operations carried out at the proposed compound sites would include pre-fabrication of materials, loading/unloading of equipment and materials, transport of materials and plant to/from the construction site, vehicle movements etc. Construction would require works both during and outside of standard working hours. A construction noise impact assessment identified one apartment building on Bowman Street to exceed the night time noise management levels and has been recommended for letterbox drop notification.

Additionally, due to the potential for cumulative noise impacts from other construction activities also in the locality, a safeguard for verification monitoring has also been included to review actual measured noise impacts against noise predictions, and update noise management levels and management measures in response to monitoring results.

Aboriginal cultural heritage

A search of the Aboriginal Heritage Information Management System (AHIMS) and Native Title Register conducted by Transport for NSW returned no Aboriginal sites within the proposed area. The closest registered Aboriginal site is located over 200 metres to the east of the proposal site. Furthermore, a Stage 1 assessment checklist was completed for an Aboriginal Cultural Heritage Officer's assessment and the findings concluded that the proposal is unlikely to have an impact on Aboriginal cultural heritage.

Non Aboriginal heritage

A number of heritage constraints were identified in the study area of local and state level significance. The proposed modification does not directly impact heritage fabric. However, three features were identified as having potential for minor indirect impact as a result of construction vibration generated from compound setup and operation. These included Glebe Island Bridge (SHR), Glebe Island Dyke exposures (s170), and Glebe Island Wheat Silos (s170). Safeguards outlined in the project REF are adequate to avoid and manage construction vibration risks.

One of the compound sites is located on a state heritage item, Glebe Island Bridge. There is no excavations or modifications required and no direct impact to the heritage fabric to the heritage feature. Proposed use at this location would be limited to parking and laydown use. Based on advice from consultation with Heritage specialist, this can operate as exempt works and no approvals would be required under the *Heritage Act*.

Biodiversity

No tree removal or trimming is proposed for the compound establishment or operation. There would be no direct impact to vegetation, the marine environment or aquatic vegetation. Potential indirect impact such as spills would be satisfactorily managed by the existing project REF safeguards and this Addendum REF.

Soils and Water

Potential impacts on surface water and hydrology during construction of the proposal could include pollution as a result of fuel or oil spills. This can be adequately avoided or managed with the safeguards in the original REF and safeguard BIO3 which prohibits stockpiling and chemical storage at the Glebe Island Bridge compound. Due to minimal ground disturbance proposed for compound operations, there is a low to negligible chance of encountering unexpected contamination from compound establishment or operations. Any impacts of the modification would be minor and temporary. The location would be reinstated to existing condition on completion of construction with no permanent impacts.

Traffic and Transport

During construction, the proposed modification would add to construction traffic movements on the existing road network, though these are not anticipated to impact road network efficiency or intersection performance because the numbers are low relative to the high existing road traffic volumes on the surrounding road network. No impact to port facility operations, bus services, or active transport facilities is identified. There would be no permanent impacts from the proposed modification.

Visual impact

A visual impact assessment for the proposed modification assessed Sommerville Road site to be low impact because of its location within in industrial/port area, shielding by the White Bay silo structures and raised embankment of Anzac Bridge western approach, temporary duration (18 months) and consistency with existing surrounding land uses of the area. Glebe Island Bridge compound location ranked only slightly higher with a low-moderate impact rating reflective of a higher sensitivity due to its heritage significance. At the end of works, the compounds would be decommissioned and returned to their existing condition. There would be no long-term visual impacts of the proposed modification.

Justification and conclusion

The proposal supports the delivery of the overarching Smart Motorways project which is required to improve traffic and hazard management and enhance corridor messaging and wayfinding on the M1 road corridor between Milsons Point and Allen Street in Pyrmont. The 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.

A number of the potential environmental impacts have been avoided or reduced during the concept design development and options assessment. The proposal, as described in the REF and Addendum REF, best meets the project objectives but would still result in some impacts on non-Aboriginal heritage, noise and vibration and cumulative construction impacts. Safeguards and management measures as detailed in the project REF and Addendum REF would avoid, ameliorate or minimise these expected impacts. The proposed modification would contribute toward realization of the long-term traffic and safety benefits of the overarching Smart Motorways project. On balance the proposal is considered justified.

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1. Introduction

1.1 Proposed modification overview

Transport for NSW proposes to modify the M1 Western Distributor Smart Motorway to include the use of compound sites located at Sommerville Road, Rozelle, and Old Glebe Island Bridge western abutment (proposed modification). The location of the proposed modifications is shown in Figure 1-1 and the proposed modification is shown in Figure 1-2, and Figure 1-3. Chapter 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.

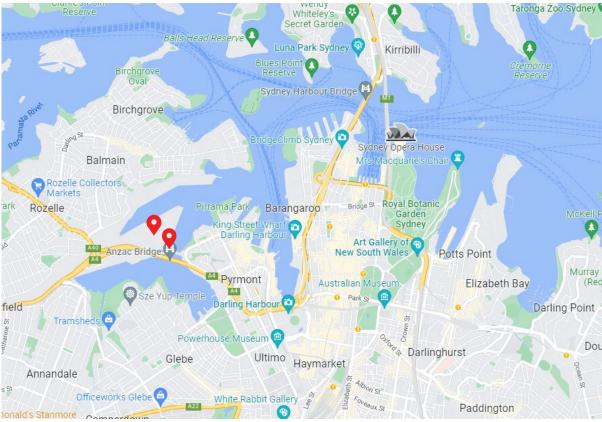


Figure 1-1: Locality map of the proposed modifications



Figure 1-2: The proposed modification at Sommerville Road and Old Glebe Island Bridge

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). Port Authority of NSW may also act as joint determining authority as landowner and prepare a decision statement on the proposal.

This addendum REF is to be read in conjunction with the project REF (May 2021). 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*, Is an EIS Required? Best Practice Guidelines for Part 5 of the Environmental Planning and Assessment Act 1979 (Is an EIS Required? guidelines) (DUAP, 1995/1996), Roads and 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 Government Department of Agriculture, Water and the Environment 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 (May 2021)
- The 'proposed modification' is the proposal to use two new compound sites at White Bay during construction of the approved project.
- This 'addendum REF' is the assessment and approval document for the proposed modification.
- The 'approved project boundary' refers to the area identified in the WDSM project REF (May 2021) that may be directly impacted by construction and operation of the approved project (shown in Figure 1-1 and Figure 1-2). 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 'modified project boundary' refers to the additional area that may be directly impacted by construction and operation of the proposed modification, being the additional compound sites (shown in Figure 11 and Figure 12).
- 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 to facilitate construction works and avoid potential delays to the delivery of the construction project.

2.1.1 Strategic plans and policy

The proposal, including the proposed modification, remains consistent with the policies and planning documents outlined in Section 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.

Since determination of the project REF, a number of planning and policy updates have been release, Table 2-1 below provides a summary of consistency with updated planning and policy documents.

Table 2-1 Summary review of the proposal (modification included) with strategic plans and policy

Name of planning or policy document	Comment
NSW 2021: A plan to make NSW number one	The plan aims to deliver strategic infrastructure projects and better coordinate different transport modes to provide clean, reliable, safe, efficient and integrated transport services. The modification and proposal would align with this the plan as the proposal aims to implement Smart Motorway technology to better manage traffic flow on the M1 road corridor between Milsons Point and Allen Street in Pyrmont. This would contribute to Goal 7 through improved network efficiencies. The proposal would meet the key action of 'Renovate Infrastructure' by maximising the use of the existing Western Distributor corridor.
Future Transport Strategy 2056	This strategy promotes the need to optimise and grow networks as well as increase the use of existing infrastructure and transport services. The strategy also discusses delivering benefits for transport customers and the community. The modification and proposal would improve access to and from the Western Distributor road corridor through upgraded transport infrastructure with Smart Motorway technology.
State Infrastructure Strategy 2018-2038	This plan includes objectives for careful management of State owned existing assets and ensuring appropriate maintenance, repurposing and upgrading. The modification and proposal aims to make technological improvements on an already established and pre-existing road to improve access to the road

	corridor. In addition, it would improve connections with the surrounding road network consistent with the objectives of this plan.
Greater Sydney Region Plan: A Metropolis of Three Cities	This plan aims to align land use, transport and infrastructure outcomes for Greater Sydney region. The modification and overarching proposal aim to meet the needs of the current and future population, land use changes and traffic increases in the precinct by making 'Smart Motorway' improvements on the Western Distributor network. The Eastern Harbour City district plan
Greater Sydney Services and Infrastructure Plan- Eastern Harbour City district plan	As part of the Greater Sydney Services and Infrastructure Plan for NSW, population and economic growth is projected to occur within three cities: Eastern Harbour City; the Central River City and the Western Parkland City. The modification and overarching proposal support this outcome as it would support the projected growth of one of these three cities, the Eastern Harbour city. Improvements to the Western Distributor corridor and local roads would support anticipated growth in the Pyrmont area.
Road Safety Plan 2021 – Towards Zero	The modification supports delivery of the proposal The proposal would positively impact the core road safety objective of this plan with increased measures to manage incidents on the Western Distributor, including improved traffic and hazard management and ability for incident detection and response.
Local planning context	
Our Inner West 2036 Plan	The Plan recognises that large scale projects, such as Rozelle interchange, are already changing the landscape and have raised the need for sustainable, planned developments and urban renewal.
	The modification supports delivery of the proposal. The proposal would contribute to improved traffic and hazard management and enhance corridor messaging and wayfinding on the M1 road corridor between Milsons Point and Allen Street in Pyrmont.
Sustainable Sydney 2030 Plan	The modification supports delivery of the proposal. The proposal contributes towards the strategic direction for 'integrated transport for a connected city'.
Our Place Inner West Local Strategic Planning Statement	The modification supports delivery of the proposal. The proposal would contribute to infrastructure improvements on the road network which would benefit connectivity and predicted increases in demand within and surrounding the proposal area.
The Bays Precinct Transformation Plan	The Bays Precinct Transformation Plan was developed in 2015 by UrbanGrowth. It is made up of the waterways and foreshores of Johnstons Bay, White Bay, Rozelle Bay and Blackwattle Bay. One of the primary outcomes of the transformation is to provide a transport and mobility network that connects each destination.
	The modification supports delivery of the proposal. The proposal would align with the Bays Precinct Transformation Plan as it would contribute to providing a connection between priority destinations and improve access and connectivity from Balmain/Rozelle and Pyrmont/the CBD
	NSW Department of Planning and Environment (DPE) exhibited The Bays West Place Strategy in 2021 and released a Stage 1 draft Master Plan in 2022. The proposed modification is a temporary (18 month) land use and would not impact the long term land use plans for The Bays area.

2.2 Proposal objectives and development criteria

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

For the purpose of this assessment, the objective is to secure a compound site to facilitate the construction works.

2.3 Alternatives and options considered

2.3.1 Methodology for selection of preferred option

Transport for NSW property team completed a search of potential compound sites in vicinity of the project. Very few potential locations were identified. This was mainly attributed to the highly urban built environment as well as competing demand from multiple major transport and development projects in the area. The site and connecting road network also needed to be accessible to over-size delivery vehicles which limited viable options.

From this search, two locations in White Bay were nominated for use as construction compounds. These were assessed against a do nothing option using the following criteria:

ability to support the construction of the approved project.

2.3.2 Identified options

Do nothing - This option would proceed with the approved project as described in the project REF, without any additional compound sites.

Option 1- Pursue White Bay compound sites - This option would involve the establishment, operation and decommissioning of new construction compounds at the two nominated locations in White Bay area.

2.3.3 Analysis of options

Do Nothing - This option would be unable to support construction of the approved project due. Utilisation of construction road space in the main works area would not be sufficient to support the size and scale of construction activity required, and would not be permissible on a motorway due to safety and traffic hazards.

Option 1- This option would be able to support construction of the approved project and improve the overall project delivery timeframe compared to Option 1, due to the proximity of this option to the construction works and the easy access to the compound. The locations would provide for vehicle access needs, and construction needs including room for laydown, office sheds, storage, fabrication, testing, and parking.

2.4 Preferred option

'Option 1 – Pursue White Bay compound sites' 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:

- be able to be secured via a licence arrangement with the site owner
- optimise construction efficiency by having sufficient area to allow for construction needs including room for laydown, office sheds, storage, fabrication, testing, and parking,
- be accessible to over-size delivery vehicles.

3. Description of the proposed modification

3.1 The proposed modification

Transport for NSW proposes to modify the M1 Western Distributor Smart Motorway Review of Environmental Factors to include the use of two compound sites at the following locations:

- Sommerville Road, Rozelle
- Western Approach to Old Glebe Island Bridge, Rozelle

The proposed modification is shown in Figure 1-2, Figure 1-3 and Figure 3-1. The compounds would be required for the entire duration of the project works (approximately 18 months) and would be used for the following:

- Storage of construction plant and vehicles
- Site office and amenities
- Storage of materials including traffic signals equipment, gantries, drainage pipes and pits
- Storage of containers for tools, signs, materials, etc.
- Temporary stockpiling of material
- Parking.



Figure 3-1: Nominated construction compound locations. Proposed modification boundary shown in red.

3.2 Design

3.2.1 Design criteria

As there is no operational component of the proposed modification, the design criteria are unchanged compared to the criteria outlined in Section 3.2 of the project REF.

3.2.2 Engineering constraints

As there is no operational component of the proposed modification, the engineering constraints are generally consistent with those outlined in Section 3.2.2 of the project REF.

3.2.3 Main features of the modification

There would be no operational features of the proposed modification. The features of the Little Forest Road compound are outlined in Section 3.4.

3.3 Construction activities

3.3.1 Work methodology

3.3.2 Construction hours and duration

Construction would require works both during standard hours and outside of standard hours.

The 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

To minimise disruption to daily traffic, businesses, and to ensure the safety of workers, it would be necessary to carry out work outside of standard working hours. These hours would be in accordance with the Road Occupancy Licence (ROL) issued by the Customer Journey Planning and are proposed to occur up to five consecutive nights a week as follows:

- Evening / night work Generally Sunday to Thursday: 6pm to 7:00am
- No work on public holidays.

The proposed duration of construction is 18 months.

A quantitative noise and vibration assessment has been carried out for the proposal. Refer to Section 6.1 and Appendix E for details.

Port Authority is to be notified of any noise producing works to be undertaken at the Licensed Area outside of the standard working hours.

3.3.3 Plant and equipment

Heavy vehicles fitted with a crane (Hiab) would be used to deliver the site offices and amenities, construction plant where required and materials necessary for the work.

The proposed compound operation is expected to require the use of a generator, light vehicles, heavy vehicles, mobile lights, an excavator and storage of construction plant.

Sommerville Road, Rozelle:

- Site office and amenities
- Storage of materials
- Storage of construction plant and vehicles
- Plant and equipment storage

• Temporary stockpile of excess material removed from site (primary option)

Old Glebe Island Bridge western abutment:

- Minor ancillary construction compound site
- Construction car park
- Material storage
- Temporary stockpile of excess material removed from site (secondary option)
- Laydown area

3.3.4 Earthworks

Source and quantity of materials

The Sommerville Road site requires minimal earthworks limited to shallow excavation for potential utility connections (less than one metre depth) and shed placement. Glebe Island Bridge abutment has no earthworks or excavation.

Traffic management and access

The compounds are accessible via the existing road network of Rozelle and White Bay. It is expected that there would be up to 100 light vehicle movements and up to 20 heavy vehicle movements per shift to and from the site, during peak construction. Traffic control would be implemented as required as per an approved Vehicle Management Plan.

3.4 Ancillary facilities

The proposed modification is for additional ancillary facilities during construction for various activities including:

- · site offices and staff amenities
 - ablutions
 - o first aid
 - o outdoor eating areas
 - o smoking areas
 - o rubbish areas
 - staff parking
 - o pick up/drop off point
 - delivery bay
- material and equipment storage and laydown yard, including:
 - o formwork
 - o conduits
 - o temporary traffic barriers
 - o erosion and sediment control provisions
 - plant and equipment
 - o construction waste
 - o gantries and associated equipment such as electronic signs
- ancillary construction activities
 - o plant/vehicle washdown
 - plant/vehicle refuelling
 - o plant/equipment servicing
 - truck movements

- chemical storage
- o concrete washout
- o stockpile management

As noted in Section 3.3, no chemical storage is proposed on the Glebe Island Bridge site. This is intended to provide for plant and vehicle parking and laydown.

The potential impacts associated with the use of these compound sites is assessed in Chapter 6 (Environmental assessment) of the project REF and this addendum REF.

As there are no existing facilities or services at the site, the proposed modification would include provision of a diesel generator and solar power, outdoor lighting, water tanks and a pumped septic tank.

3.5 Public utility adjustment

Subject to investigation of utility provisions at the Sommerville Road site, local temporary connections to utilities may be required to supply the compound. If required, this would remain away from the heritage feature 'dyke exposure' that occurs along the boundary (see Section 6.3 for further detail) and would be shallow (restricted to less than one metre depth). The Sommerville Road compound may also require a diesel generator and solar power, water tanks and a pumped septic tank during operation of the compound site. No excavation or ground disturbance is required at the Glebe Island Bridge abutment.

3.6 Property acquisition

No property acquisition is required as the proposed compound sites are located on Transport for NSW and Port Authority of NSW owned land. Use of the Sommerville Road site would be subject to a property licence deed arrangement with Port Authority of NSW.

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

In March 2022, the State Environmental Planning Policies (SEPPs) were updated. The former State Environmental Planning Policy (Infrastructure) was incorporated into the State Environmental Planning Policy (Transport and Infrastructure) 2021. Chapter two of the SEPP (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across the State.

Section 2.109 of the Transport and Infrastructure SEPP permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposed modification is to support development of a road and is to be carried out by Transport, it can be assessed under Division 5.1 of the EP&A Act. Development consent from council is not required.

The proposed modification is not located on land reserved under the *National Parks and Wildlife Act* 1974 and does not require development consent or approval under State Environmental Planning Policy (Resilience and Hazards) 2021, State Environmental Planning Policy (Planning Systems) 2021, or State Environmental Planning Policy (Central River City) 2021.

Part 2.2 of the Transport and Infrastructure SEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development.

Consultation, including consultation as required by the Transport and Infrastructure SEPP (where applicable), is discussed in chapter 5 of this addendum REF.

State Environmental Planning Policy (Resilience and Hazards) 2021

The State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 2 aims to promote an integrated and coordinated approach to land use planning in the coastal zone that is consistent with the *Coastal Management Act 2016*. It aims to achieve this by managing development in the coastal zone and protecting the environmental assets of the coast.

There are no areas identified by Part 2.2 as a coastal wetland or littoral rainforest occurring within the proposal area. The modification is within land mapped as a Coastal Environment Area and Coastal Use Area. As the proposal area is within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005, the development considerations relating to Coastal Environment Areas and Coastal Use Areas do not apply to this development (Clause 2.10 and Clause 2.11).

The State Environmental Planning Policy (Resilience and Hazards) 2021, Chapter 4 Remediation of land aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment. Appropriate measures would be put in place during construction should contamination be identified and all spoil would be waste classified prior to disposal.

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

This SEPP applies to area of Sydney Ports and Roads and Maritime Services 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 Inner West Local Government Area (LGA). Local development control and land use zoning within the Inner West LGA is managed under the Leichhardt Local Environmental Plan 2013. The LEP is relevant in identifying land use objectives, potential land use impacts and planning policy conflicts and as such, has still been considered.

The proposed modification is located within land which is subject to the State Environmental Planning Policy (Precincts — Eastern Harbour City) 2021 (refer to Section 4.1.1 for detail).

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 though the compound use does not require any excavation / subsurface work and would utilise existing hardstand area. The compound use is therefore considered exempt and does not trigger approvals. Potential indirect impacts such as through vibration would be managed within a Vibration Management Plan (see section 6.1 for more detail).

Section 139 of the Heritage Act protects archaeological 'relics' from being 'exposed, moved, damaged or destroyed' by the disturbance or excavation of land. This protection extends to the situation where a person has 'reasonable cause to suspect' that archaeological remains may be affected by the disturbance or excavation of the land. This section applies to all land in NSW that is not included on the SHR. Mitigation measures would be implemented to prevent harm to archaeological relics including implementation of the Standard Management Procedure-Unexpected Heritage Items (Roads and Maritime, 2015), which would be followed in the event that any potential relics are encountered during construction of the proposed compound.

Excavation permits are not triggered as there are no bulk earthworks. Minor shallow earthworks may be required at the Sommerville Road site though they would be limited to less than one metre depth which is within the disturbed zone and less than 2.8 metres depth at which archaeological material has low potential to occur (see Section 6.3). Compounds would occupy the existing hardstand areas, and restore them to existing condition on completion of works. No ground disturbance is required at the Glebe Island Bridge abutment.

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 Sommerville compound site is adjacent to a number of s170 items within the Port Authority of NSW s170 register, as described in section 6.3. Though there are no direct impacts on these features, vibration management measures will be required to safeguard against any potential indirect impact (see Section 6.3). Consultation with Port Authority of NSW is outlined in chapter 5.

Additionally Anzac Bridge including the memorial tribute statues are recognised on Roads and Maritime (now Transport for NSW) s170 register. The proposal would not have any direct impacts on this feature.

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.

Port Authority of NSW holds an EPL for Port Activities on adjacent land (Licence No. 13008). Correspondence with Port Authority confirmed the EPL premises does not overlap with the project area.

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.

4.2.4 Waste Avoidance and Resource Recovery Act 2001

The NSW Waste Avoidance and Resource Recovery Act 2001 (WARR Act) promotes the waste hierarchy to avoid resource consumption and implement resource recovery in the form of material reuse and recycling in preference to waste disposal. The Act acknowledges that certain materials present either human or environmental risk, requiring classification, treatment and disposal of in accordance with specific waste management provisions. Waste generated during construction and operation of the proposed modification and compound would be managed in accordance with the waste hierarchy and where required, disposed of in accordance its waste classification and relevant legislation and guidelines.

4.3 Commonwealth legislation

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

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

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

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

Findings - matters of national environmental significance (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 Government Department of Agriculture, Water and the Environment is not required.

4.3.2 Other relevant Commonwealth legislation

Native Title Act 1993

The Native Title Act 1993 recognises and protects native title. The Act covers actions affecting native title and the processes for determining whether native title exists and compensation for actions affective native title. It establishes the Native Title Registrar, the National Native Title Tribunal, the Register of Native Title Claims and the Register of Indigenous Land Use Agreements, and the National Native Title Register. Under the Act a future act includes proposed public infrastructure on land or waters that affects native title rights or interest.

A search of the Native Title Tribunal Native Title Vision website was carried out in 14 July 2022 (Appendix F) resulted in nil search results for native title claims in the Inner West Council area.

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 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 clause 4.25.

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

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. Port Authority of NSW may also act as joint determining authority and prepare a decision statement on the proposal.

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

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 on the water quality, river flows, floor regime or ecosystems within the Sydney Harbour Catchment.

5. Consultation

5.1 Consultation strategy

The consultation strategy relevant to the proposed modification remains consistent with Section 5.1 of the project REF. Public display of this addendum REF for comment was not proposed as the activity is not permanent and is within an industrial area. 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.

Ongoing and regular consultation has been undertaken with Port Authority of NSW regarding the proposed occupation of the site.

5.3 Ongoing or future consultation

Transport would continue to consult with the community and key stakeholders throughout the project in line with the overarching Community and Stakeholder Engagement Plan (refer to Section 5.1 of the project REF) and Communication Plan (refer to safeguard SE1 in Section 5.2 of the project submissions report).

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.

This addendum REF will be made available on the Transport website, so that the community and stakeholders are informed about what is being proposed.

6. Environmental assessment

This section of the REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environment, potentially impacted upon by the proposal, are considered. This includes consideration of:

- Potential impacts on matters of national environmental significance under the EPBC Act.
- The factors specified in the Is an EIS required? (DUAP 1995/1996) and as required under section 171 of the Environmental Planning and Assessment Regulation 2021 and the Roads and Related Facilities EIS Guideline (DUAP 1996). The factors specified in section 171 of the Environmental Planning and Assessment Regulation 2021 are also considered in Appendix A.
- Site-specific safeguards and management measures are provided to mitigate the identified potential impacts.

6.1 Noise and Vibration

This section describes the noise and vibration impacts that may occur when constructing and operating 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 appropriate background noise levels
- carrying out a construction noise and vibration assessment using Transport's Construction Noise Estimator Tool (NET)
- reviewing and confirming the relevance of the safeguards and mitigation measures identified in the bridge duplication addendum REF.

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 within White Bay redevelopment area which includes Port Authority of NSW and industrial land uses. The area is undergoing transformation as part of the Bays Precinct redevelopment.

The nearest receivers to the compound are shown in Figure 6-1. The main receivers in the immediate area are industrial receivers. The nearest residential receivers are:

- Residential apartments in Noise Catchment Area #4 (NCAO4) on the opposite side of Blackwattle Bay, Bowman Street about 195 metres to the east of the Glebe Island Site and about 390m east of the Sommerville Road site
- Residential areas in Noise Catchment Area #2 (NCA02) about 430m to the west in Balmain (Mansfield Street and Batty Street) though the existing White Bay silos provide a physical barrier.

Operations carried out at the proposed compound (pre-fabrication of materials, loading/unloading of equipment and materials at the laydown, transport of materials and plant to/from the construction site, etc.) would be the primary source of noise and vibration emissions during construction.

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 construction noise estimator tool (CNET) assessment applied noise environment 'R5' 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		
RBL or LA90*	Day	60
Background	Evening	55
level (dB(A))	Night	50

Notes: $*L_{A90} = \overline{Background noise level}$

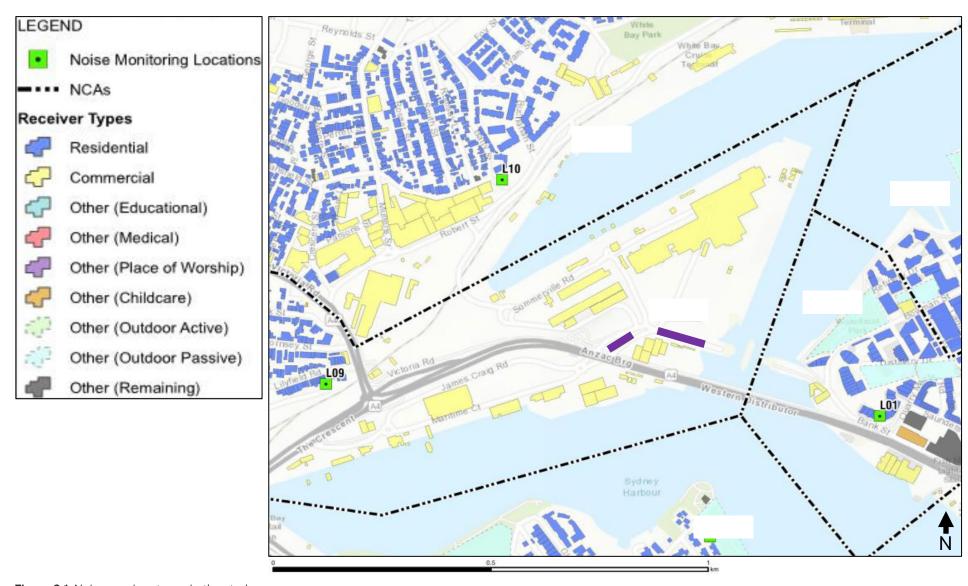


Figure 6-1: Noise receiver types in the study area

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 and 5dB(A) above the background level outside of standard working hours. As such based on the existing background noise levels provided in section 6.1.2 the following NMLs would apply to the proposal:

- Day (standard hours): 60 + 10 = 70dB(A)
- Day (outside standard hours): 60 + 5 = 65dB(A)
- Evening (outside standard hours): 55 + 5 = 60dB(A)
- Night (outside standard hours): 50 + 5 = 55dB(A)

Sleep disturbance of sensitive receivers was also considered for the compound operation scenario as it is expected to occur at night time. Sleep disturbance levels were estimated to be 55dB(A) and awakening reaction level (also called L_{AMAX}) is to be 65dB(A).

Construction Vibration

Assessment of potential disturbance from vibration on human occupants of buildings is made in accordance with the DECC 'Assessing Vibration; a technical guideline' (DECC, 2006). The guideline provides criteria which are based on the British Standard BS 6472-1992 'Evaluation of human exposure to vibration in buildings (1-80Hz) which is recognised by the guideline as the preferred standard for assessing the 'human comfort criteria'. Table 6-2 summarises the accepted and maximum value for human comfort impacts by intermittent vibration assessed using the vibration dose value. Sources of vibration are defined as either 'Continuous', 'Impulsive' or 'Intermittent'.

Table 6.2 Vibration criteria for human comfort

Receiver type	Period	Intermittent vibration dose value (m/s1.75)		
		Preferred value	Maximum value	
Residential	Day (7 am and 10 pm)	0.2	0.4	
	Night (10 pm and 7 am)	0.13	0.26	
Offices, schools, educational institutions and places of worship	When in use	0.4	0.8	

British standard

British Standard BS 7385 recommends vibration limits for transient vibration judged to give a minimal risk of vibration induced damage to affected buildings. The limits for residential and industrial buildings are shown in Table 6-3

Table 6.3 Vibration criteria for structural damage under the British Standard (BS 7385)

Group	Type of building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse		
		4 Hz to 15 Hz	15 Hz and Above	
1	Reinforced or framed structures. Industrial and heavy commercial buildings	l 50 mm/s at 4 Hz and above		
2	Unreinforced or light framed structures. Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above	

Note 1: Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values may need to be reduced by up to 50%.

German Standard

Table 6-4 presents guideline values from *German Standard DIN 4150-3: 1999 Structural Vibration – Part 3: Effects of vibration on structures* for the maximum absolute value of the velocity at the foundation of various types of building. Damage is not expected to occur where the values are complied with and the values are generally recognised to be conservative.

Heritage buildings and structures should be considered on a case-by-case basis but as noted in BS 7385 should not be assumed to be more sensitive to vibration, unless structurally unsound. Where a heritage building is deemed to be sensitive, the more stringent DIN 4150 Group 3 guideline values may be appropriate.

Table 6.4 Vibration criteria for structural damage under the German Standard (DIN 4150-3)

Line	Type of structure	Guideline values for velocity (mm/s)				
		1 Hz to 10 Hz	10 Hz to 50 Hz	50 Hz to 100 Hz ¹		
1	Buildings used for commercial purposes, industrial buildings, and buildings of similar design	20	20 to 40	40 to 50		
2	Dwellings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20		
3	Structures that, because of their particular sensitivity to vibration, cannot be classified under lines 1 and 2 and are of great intrinsic value (e.g. listed buildings under preservation order)	3	3 to 8	8 to 10		
Note: 1	Note: 1) At frequencies above 100 Hz the values given in this column may be used as minimum values					

Operation

Operational noise criteria are not relevant for this assessment as the construction compounds are limited to construction phase and would not change the 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 Noise

Compound operation

The Transport for NSW Construction Noise Estimator tool was used to assess the noise impacts during construction from use of the proposed compound sites. See Appendix E for detail.

Based on the selected noise area category, construction noise estimator tool produced representative background noise levels (L90) together with the noise management levels (NML). These values are recorded above in section 6.1.3.

The distance-based assessment (scenario) was selected for assessment as it considers a number of plant items operating together during a certain construction activity. The noise estimator tool produced predicted noise levels for surrounding noise catchments and included noise propagation over hardstand urban environments and over waterways to consider Blackwattle Bay. The results of the construction noise assessment are summarised in Table 6-5 below and are shown in Figure 6-2.

To assist with the assessment common residential receivers were grouped into noise catchment areas (NCA) for construction noise assessment. NCAs are the areas that are affected by the same works and located at similar distances from the noise generating activity. For each of the NCA affected distances (or the distances up to which noise levels are expected to exceed the Noise Management Level) are recorded in the tables below together with the predicted noise levels.

The closest residential receiver is an apartment tower about 195m east of the proposal on the opposite side of Blackwattle Bay which has direct line of sight across the Bay. Receivers to the west are shielded by White Bay silos and industrial area. Receivers to the south are largely shielded by Anzac Bridge western approach embankment.

Table 6-5 Predicted construction noise levels for residential receiver types during compound operation during standard hours (DAY)

Catchment distances	NML dB(A)	Predicted noise levels dB(A)	Recommended mitigation measures	Comment
NCA1 (urban environment) No line of sight = 15m Line of sight = 40m	70	75	N, PC, RO	No residential receivers within this distance.
NCA1 (over water) No line of sight = 25m Line of sight = 50m	70	75	N, PC, RO	No residential receivers within this distance.

NCA2, NCA3 and NCA4 are not captured in Table 6-5 as they are >50m from the proposal area and located outside the noise affected area (at or below 'noticeable' levels) during standard hours.

Table 6-6 Predicted construction noise levels for residential receiver types during compound operation outside of standard hours (NIGHT)

	Catchment distances	NML dB(A)	Predicted noise levels	Recommended mitigation measures ¹	Comment
			dB(A)		
NCA1	Urban environment: No line of sight = 5m Line of sight = 15m	55	70	AA, N, SN, PC, R2, DR, V	No residential receivers within this distance.
	Over water: No line of sight = 5m Line of sight = 15m	55	80		
NCA2	Urban environment: No line of sight = 15m Line of sight = 40m	55	60	N, SN, PC, R2, DR, V	No residential receivers within this distance.
	Over water: No line of sight = 15m Line of sight = 50m	55	70		
NCA3	Urban environment: No line of sight = 40m Line of sight = 130m	55	50	N, R2, DR, V	No residential receivers within this distance.
	Over water: No line of sight = 50m. Line of sight = 155m	55	60		
NCA4	Urban environment: No line of sight = 75m. Line of sight = 200m	55	45	N, R2, DR, V	There is one apartment tower located about 195m
	Over water: No line of sight = 90m. Line of sight = 250m	55	55		to the east of the closest boundary which falls within this catchment distance (see Figure 6-2).

AA= Alternate accommodation, N = Notification, SN = Specific notification, PC = Phone call, R2 = Respite period 2, DR = Duration Respite, V = Verification.



Figure 6-2: Construction noise impact map for compound operation at night (NCA4)

It can be seen from the Table 6-6 that NCA4 would have noise levels exceeding the NML at night with notification recommended. Table 6-5 demonstrates a dramatic reduction in the noise impact for works during standard hours with no residential receivers identified in the catchment distances. Additionally, the sleep disturbance assessment did not have any residential receivers identified in the catchment distances (110m).

The noise assessment notes that the compound use would operate under Duration Respite (DR) consistent with the overarching project. This allows for the schedule to condense the night work into five night blocks to reduce the overall works duration. Targeted notification (N) is also recommended to the identified residential receivers in NCA4 to inform them of the proposed compound operations. This is consistent with safeguard NV2 from the original REF. Additionally, due to the potential for cumulative noise impacts from other construction activities also in the locality, a program of verification (V) monitoring is also recommended to review actual measured noise impacts against noise predictions, and update noise management levels and management measures in response to monitoring results. This is captured below as safeguard NV9.

Port Authority is to be notified of any noise producing works to be undertaken at the Licensed Area outside of the standard working hours.

Construction traffic noise

The peak expected construction traffic associated with the proposal is anticipated to be less than 100 light vehicle and 20 heavy vehicle movements at night. The night time period has been identified as the critical period of this assessment due to the increased sensitivity, as well as need for substantial works to take place at night to minimise traffic disruption. The project REF indicates that existing traffic flows along the Western Distributor dominate the

existing noise environment and therefore the addition of the construction traffic noise generated to access the compound is expected to contribute low to negligible change in the noise environment.

Construction Vibration

Human comfort vibration impacts are not anticipated due to the distance to the closes residential receivers. However, the heritage items including a sandstone dyke feature, White Bay silos, and Glebe Island Bridge would be sensitive to vibration impacts. See section 6.3 for more detail on non-Aboriginal heritage.

Though no vibration intensive activities are proposed at the compound sites, general site activities from establishment and operation (i.e. setup of site sheds, delivery and unloading of materials, vehicle movements) have the potential to generate vibration.

Generally, a cosmetic damage screening criteria of 7.5 millimetres per second is applied also to heritage features which should not be assumed to be more sensitive to vibration unless found to be structurally unsound. Though, it is noted that a recent noise and vibration assessment completed for nearby construction of Sydney Metro project recommended that the more conservative cosmetic damage screening criteria of 2.5 millimetres per second Peak Particle Velocity (from DIN 4150) be applied locally during intensive demolition works based on their assessment of some local features of White Bay Power Station being structurally unsound (though this is about 400m to the west).

A pre-construction vibration risk assessment is recommended to determine potentially affected buildings and structures surrounding the compound locations and appropriate vibration criteria and management measures. This is already proposed for the overarching proposal though would be expanded to include the compound sites and presence of heritage features.

This is consistent with safeguards NV5 and NV6 from the original REF.

Operation

No operational impacts are expected as there is no operational component to the proposed modification. The proposed compound and activities associated would not result in permanent changes to background noise, as use of the location is temporary, with complete refurbishment of the site upon completion of activities.

6.1.5 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Construction noise and vibration - cumulative impacts (NV9)	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

6.2 Aboriginal cultural heritage

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

6.2.1 Methodology

The assessment of potential Aboriginal cultural heritage impacts has involved a review of:

- online heritage databases on the 3rd May 2022 including the listed Interim Heritage Order, Australia's Commonwealth Heritage List (Australian Heritage Database), NSW Heritage Register, and the Sutherland Shire Council LEP 2015.
- an updated Aboriginal Heritage Information Management System (AHIMS) search conducted on the 3rd
 May 2022 to identify registered (or known) Aboriginal sites or declared Aboriginal places within or near to
 the modified project boundary.

Search results are provided in Attachment F.

6.2.2 Existing environment

The White Bay region would have been a suitable location for Aboriginal occupation, surrounded by valuable marine and plant resources, close to reliable water sources, near ridges and cliffs, and close to raw materials suitable for the construction of stone tools.

Extensive historical occupation after European colonisation of Sydney has resulted in phases of demolition, construction, land clearance and modification which has had a significant impact on Aboriginal cultural heritage. The White Bay area has been subject to significant landform modification, including the almost complete reduction of Glebe Island and a large program of reclamation to modify the shoreline and create new level ground for the Glebe Island Container Terminal and the former White Bay Power Station. Within areas of reclaimed land, the natural soil has typically been removed, buried, or greatly disturbed.

The proposal site is largely located within a modified flat landform adjacent to the White Bay foreshore. The majority of the proposal site is currently comprised of hardstand.

No registered Aboriginal sites are located within the proposal site. The closest registered Aboriginal site is located over 200 metres to the east of the proposal site.

Based on the existing AHIMS data and previous studies, it is predicted that the most likely site feature associated with potential Aboriginal heritage to be present within the proposal site is artefact deposits or sites utilising formerly exposed sandstone outcrops such as grinding grooves. However, historic reclamation and landform modification is considered to have reduced the potential for these features to occur in the proposal site.

6.2.3 Potential impacts

Construction

The proposed modification is not expected to impact any known Aboriginal heritage items or areas where potential items may be present.

While both the Old Glebe Island Bridge and Sommerville Road compound sites occur on previously disturbed land, the proposed modification would require minimal ground disturbance (limited to Sommerville Road site only). As such, it is not anticipated that there would be impacts to Aboriginal heritage items.

A search of the Aboriginal Heritage Information Management System (AHIMS) and Native Title Register conducted by Transport for NSW returned no Aboriginal sites within the proposed area. Furthermore, a Stage 1 assessment checklist was completed for an Aboriginal Cultural Heritage Officer's assessment and the findings concluded that the proposal is unlikely to have an impact on Aboriginal cultural heritage.

Operation

No operational impacts are expected as there is no operational component to the proposed modification. The proposed compound and activities associated would not result in permanent changes to the area, as use of the location is temporary, with complete refurbishment of the site upon completion of activities.

6.2.4 Safeguards and management measures

Safeguards AH1 and AH2 within the project REF remain appropriate to address the Aboriginal cultural heritage impacts of the proposed modification

6.3 Non-Aboriginal heritage

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

6.3.1 Methodology

The methodology for the non-Aboriginal heritage assessment included:

- a desktop review on 3rd May 2022 of relevant heritage databases, including:
 - State Heritage Inventory
 - NSW heritage database
 - o Local Environmental Plan(s) heritage list
 - o listed Interim Heritage Orders
 - o Australian Heritage Database (EPBC & Commonwealth heritage list)
 - Australian Heritage Places Inventory (includes Register of the National Estate and State, Territory and Commonwealth heritage registers)
 - o 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
- desktop review including review of heritage assessments by others in the study area including Sydney Metro, The Bays Road relocation works REF (2020) and heritage assessment, and White Bay Silo Strengthening heritage impact statement (2019)
- reviewing and confirming the relevance of the safeguards and mitigation measures identified in the bridge duplication addendum REF.

6.3.2 Existing environment

The White Bay region has undergone a significant amount of development and served a range of different industrial activities since the European colonization of Sydney. Since the nineteenth century the region has had many phases of demolition, construction, land clearance and modifications. Due to its significant water frontage and proximity to the Sydney CBD, its has enabled reliable water-based transportation for the people and products.

Originally the White Bay region served as a prominent timber and joinery works site for boat and ship building industries up until 1923. Since then, the area has served abattoirs and seen the introduction of the White Bay Power Station and Glebe Island Silos. As a result of the significant landform modifications in the area, many of the former sites have been demolished or greatly disturbed.

Extensive historical occupation after European colonisation of Sydney has resulted in phases of demolition, construction, land clearance and modification which has had a significant impact on Aboriginal cultural heritage. The White Bay area has been subject to significant landform modification, including the almost complete reduction of Glebe Island and a large program of reclamation to modify the shoreline and create new level ground for the Glebe Island Container Terminal and the former White Bay Power Station. Within areas of reclaimed land, the natural soil has typically been removed, buried, or greatly disturbed.

6.3.3 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 6-3. 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

Figure 6 3 reference	Item name	Listing	Vicinity to the modified proposal area	Potential direct and indirect impacts	Significance of impact
1	Glebe Island Bridge	 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 western embankment of this structure.	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. 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. Potential indirect vibration impacts to be managed as per safeguards in the original REF. Have received advice that works can be done under exemption and Heritage Act permit is not triggered.	Temporary minor adverse
2	Anzac Bridge (including memorial tribute statues)	Not formally listed though recognised to have state significance on Transport s170 register.	The bridge footprint and closest tribute statue is located about 40 metres south-west of the Sommerville Road compound.	Recognised to have state significance. No direct impact.	Neutral
3	Glebe Island Dyke exposures	Port Authority of NSW s170 (4560056)	Located on the boundary of the Sommerville Road compound.	Recognised to have Local significance. Assessed on s170 register as locally significant. Though the work is in directly adjacent to this feature, there are no direct physical impacts. No major vibration generating tasks such as bulk earthworks or demolition are required for the compound use. Earthworks would be very minimal and limited to shallow excavation for potential utility connections (less than one metre depth), and shed placement. Potential indirect minor vibration impacts may occur as a result of general activities associated with compound establishment and operations and	Temporary minor adverse

				are to be managed as per safeguards in the original REF. Port Authority of NSW are also to be consulted prior to determination to consider the proposal.	
4	Glebe Island Wheat Silos	 State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021 Port Authority of NSW s170 (#4560016) 	About 20 metres to the west of the Sommerville Road compound.	Recognised to have State significance. No direct impact though potential indirect vibration impacts would be consistent with item 3. Potential amenity impacts would be short term and low to negligible as the site is not currently accessible to the public. Due to the height of the silos feature, compound use is not anticipated to impact the key viewpoint from Western Distributor to the silos.	Temporary minor adverse
5	Three items combined in one feature: Glebe Island Sandstone Quarry Sample (4560014) Glebe Island World War II Monument (4560012) Glebe Island Plaque - Opening of container terminals (4560013)	Port Authority of NSW s170	Adjacent to the Glebe Island Compound and about 40 metres north-west of the Sommerville Road compound	Recognised to have Local significance. No direct impact. 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. Potential indirect vibration impacts would be considered negligible given the site is adjacent to an existing road and would experience similar vibration impacts during construction. Any risk could be satisfactorily managed with the safeguards in the original REF.	Neutral
6	White Bay Power Station	State Environmental Planning Policy (Precincts — Eastern Harbour City) 2021	About 400 metres to the west	Recognised to have State significance. No direct impact. Outside of vibration buffer distances. Amenity impacts are unlikely due to the distance from the compound sites and also shielding by the White Bay silos.	Neutral

7	Glebe Island Monument	State Environmental Planning Policy (Precincts — Eastern Harbour City) 2021	About 450 metres to the north-east	No direct impact. Outside of vibration buffer distances. Amenity impacts are unlikely due to the distance from the compound sites.	Neutral
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Figure 6-3: Non-Aboriginal Heritage features identified in the study area. (State heritage register items are shown in blue, and s170 items in yellow).

Archaeological potential

Archaeological assessment completed as part of recent Sydney Metro works in the study area identified that the surface has been highly disturbed by historic land use activities, however there is low potential for intact foreshore deposits to exist below 2.8 metres depth. The Sommerville Road site requires minimal earthworks limited to shallow excavation for potential utility connections (less than one metre depth), and shed placement. Glebe Island Bridge abutment has no earthworks or excavation. As this proposal for construction compound use is limited to minimal earthworks and less than one metre depth, it is considered to have negligible risk to encounter archaeological potential in this area.

Operation

No operational impacts are expected as there is no operational component to the proposed modification.

6.3.4 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Non- Aboriginal Heritage (NAH4)	Compound sites are to be included in the vibration risk assessment and noise and vibration management plan.	Contractor	Pre-construction / construction
Non- Aboriginal Heritage (NAH5)	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
Non- Aboriginal Heritage (NAH6)	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

Other safeguards and management measures to address Construction Vibration risks are captured in the original REF.

6.4Biodiversity

This section describes the biodiversity impacts that may occur when constructing and operating the proposed modification.

6.4.1 Methodology

A review of databases was completed, including consideration of any threatened species occurrences within five kilometres of the proposed compound. Database searches in July 2022 included:

- Protected Matters Search Tool (Department of Agriculture, Water and the Environment
- Desktop review of Sydney Metro, The Bays Road relocation works REF (2020)

6.4.2 Existing environment

The proposal site is in a highly disturbed landscape that is largely cleared and hardstand with little fringing vegetation which includes a mix of planted vegetation and weeds including *Lantana camara*, *Olea europaea*, *Cortaderia selloana*, and *Cinnamomum camphora*. (Sydney Metro REF, 2020). Metro REF indicates that no previous threatened species have been recorded in the proposal site. A Grey-headed Flying-fox record from 2016 is located about 400 metres west of the proposal site. The closest mapped Coastal Management SEPP area is about 950 metres to the south.

6.4.3 Potential impacts

Construction

No tree removal or trimming is proposed for the compound establishment or operation. There would be no direct impact to vegetation, the marine environment or aquatic vegetation. Potential indirect impact such as spills would be satisfactorily managed by the existing project REF safeguards and those in Section 6.4.4 below.

The proposal is unlikely to significantly affect threatened species or ecological communities, or their habitats given the marginal value of the vegetation that would be removed as a result of the proposal. Further, no endangered ecological communities or declared areas of outstanding biodiversity value would be impacted. The proposal is not a key threatening process, and would not exacerbate key threatening processes as defined under Schedule 4 of the Biodiversity Conservation Act 2016, noting controls would be implemented to manage noxious weeds, such as Lantana. As such, a Species Impact Statement is not required.

Operation

No operational impacts are expected as there is no operational component to the proposed modification. The proposed compound use of the location is temporary, with complete refurbishment of the site upon completion of activities.

Conclusion on significance of impacts

The proposal is not likely to significantly impact threatened species or ecological communities or their habitats, within the meaning of the *Biodiversity Conservation Act, 2016* or *Fisheries Management Act 1994* and therefore a *Species Impact Statement* or Biodiversity Development Assessment Report is not required.

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

6.4.4 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Biodiversity (BIO3)	Chemical storage is not permitted on the Glebe Island Bridge compound facility.	Contractor	Construction

Other safeguards and management measures to address biodiversity impacts are identified in Soil and Water section/s of the original REF and below section 6.5.

6.4.5 Biodiversity offsets

The proposal does not require tree removals and therefore does not trigger any offset requirements in accordance with Transport Biodiversity Policy (2022).

6.5 Surface water

This section describes the surface water impacts that may occur when constructing and operating the proposed modification.

6.5.1 Existing environment

Proposal is adjacent to Blackwattle Bay which forms part of Sydney Harbour Catchment, and Glebe Island Bridge extends out over the waterway. White Bay also falls in the Foreshores and Waterway area of the Catchment. Consideration to the Planning Principles for this Catchment area are captured in Appendix D.

6.5.2 Potential impacts

Construction

Potential impacts on surface water and hydrology during construction of the proposal would include pollution as a result of fuel or oil spills. This can be adequately managed with the safeguards in the original REF and safeguard BIO3 which prohibits chemical storage at the Glebe Island Bridge compound. Risk to the waterway from the release of sediment to waterways and drainage lines during earthworks is considered low to negligible as there is no bulk earthworks required at the compound sites, only minimal disturbance at the Sommerville Road site. No risk of impact to groundwater, or flooding risk. The potential for the release of sediments off site is considered minimal provided the implementation of appropriate controls.

Operation

No operational impacts are expected as there is no operational component to the proposed modification. The proposed compound use of the location is temporary, with complete refurbishment of the site upon completion of activities.

6.5.3 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Surface Water quality (SWQ6)	Glebe Island Bridge facility to include spill response provisions including marine kit.	Contractor	Construction
Surface Water quality (SWQ7)	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

Other safeguards and management measures to address surface water impacts are identified in the original REF and section 6.6 Soils and Contamination.

6.6 Soils and Contamination

This section describes the soils and contamination impacts that may occur when constructing and operating the proposed modification.

6.6.1 Existing environment

Based on the Sydney 1:100,000 Geological Series Sheet, the two proposed site compounds are situation on different geological makeup. The proposed Sommerville Road compound is located on Hawkesbury Sandstone, which is described as medium to coarse grained quartz sandstone, very minor shale and laminate lenses. The Old Glebe Island Bridge is predominantly located on man-made fill, which is describe as dredged estuarine sand and mud, demolition rubble, industrial and household waste.

Acid sulfate soils are not identified within the modified project boundary. No natural cliff features, rock outcrops or rock shelves were identified.

A desktop contamination search was carried out on Environment Protection Authority's (EPA) Contaminated Land Records and found 18 sites within the Inner West Council, 5 of which were within Rozelle. As the works will be contained within the project boundary, the contaminated sites would not be disturbed.

6.6.2 Potential impacts

Construction

The potential soils and contamination land impact with the proposed modification would generally be consistent with those outlined in Section 7.4.3 of the project REF. Due to minimal ground disturbance proposed for compound operations, there is a low to negligible chance of encountering unexpected contamination from compound establishment or operations.

In order to prevent other contamination risks such as illegal dumping, the site compounds including Glebe Island Bridge will be secured and fenced off.

Operation

No operational impacts are expected as there is no operational component to the proposed modification. The proposed compound use of the location is temporary, with complete refurbishment of the site upon completion of activities.

6.6.3 Safeguards and management measures

Safeguards within the project REF remain appropriate to address Soils and Contamination risks of the proposed modification.

6.7 Traffic and transport

6.7.1 Methodology

The methodology for this traffic and transport assessment is as follows:

 reviewing the key features of the design and the indicative construction methodology, including whether road closures are proposed

- reviewing the existing traffic conditions and transport infrastructure surrounding the proposed modification
- carrying out a qualitative assessment of the potential traffic and transport impacts during construction of the proposed modification
- reviewing and confirming relevance of mitigation measures identified in the project REF to manage the potential impacts on traffic and transport
- . Desktop review of Sydney Metro, The Bays Road relocation works REF (2020)

6.7.2 Existing environment

Road network and traffic volumes

James Craig Road, Sommerville Road and Robert Street provide access to existing maritime-related land uses in Rozelle Bay, Glebe Island and White Bay including the White Bay Cruise Terminal. These land uses are connected by a series of internal roads including Solomons Way and Port Access Road. Solomons Way currently operates as a one-way road between Sommerville Road and Port Access Road.

Traffic volumes are high on City West Link Road, The Crescent and Victoria Road in both directions. These roads carry volumes between 1,500 and 3,940 vehicles per hour in each direction. Eastbound volumes on City West Link Road and The Crescent are generally higher than the traffic volumes in the opposite direction during the morning peak hour. Traffic volumes are about the same in both directions on these roads during the evening peak hour. On Victoria Road, a distinct southbound peak direction is evident during the morning peak hour while a northbound peak direction is evident during the evening peak hour. Substantially lower volumes of up to 330 vehicles per hour are experienced on James Craig Road.

On-street parking is not permitted on James Craig Road and The Crescent (between City West Link Road and Victoria Road). Tenant only parking is permitted on some sections of Sommerville Road.

The future arterial road network within the vicinity of the proposal will be modified to accommodate the WestConnex M4-M5 Link. These changes are anticipated to be complete by 2023. Additional road network changes are also proposed as part of the Western Harbour Tunnel within the vicinity of the portal on City West Link Road. This project is currently in its planning stages and, if approved, would connect to WestConnex M4-M5 Link and the surface road network in Rozelle. Sydney Metro REF (2020) also in the planning phase is looking to introduce a new metro station and supporting infrastructure in White Bay adjacent to the Sommerville compound site and is also looking to change the internal road network layout in the immediate both with short term and permanent road network changes proposed.

Public transport

There are no train stations located in close proximity to the proposal site. The L1 Dulwich Hill light rail line is accessible at the Rozelle Bay stop, located about 500 metres south of the proposal site.

Victoria Road is a major bus corridor adjacent to the proposal site. Two bus operators, Transit Systems and Sydney Buses, provide services via 23 bus routes that travel on Victoria Road and provide connections between the Sydney CBD, the Inner West, northern suburbs and western suburbs. Two additional bus routes from Darling Street and Glebe Point Road are also available in the surrounding area.

School buses also service the surrounding area, with 20 school bus routes.

Other transport facilities

The White Bay Cruise Terminal and White Bay berth 4 is located about one kilometre from the proposal site and serve cruise ships when the Overseas Passenger Terminal at Circular Quay is occupied. The White Bay Cruise Terminal and White Bay berth 4 also serve smaller cruise ships and cruise ships that use Australian ports only. When the White Bay Cruise Terminal and/or White Bay berth 4 are in operation, access to the terminal is provided via Port Access Road. Captain Cook Cruises operates a ferry service between the White Bay Cruise Terminal and Barangaroo on days when cruise ships are berthed at the White Bay Cruise Terminal.

Active transport

Footpaths are provided on both sides of Victoria Road, James Craig Road and Robert Street. Solomons Way and sections of Sommerville Road are not open to the general public, however there are some formal footpaths on sections of one side of both roads.

Pedestrian activity within the immediate vicinity of the proposal site is low to non-existent given the marine and industrial land uses present. However, the predominantly residential areas in surrounding suburbs such as Rozelle, Balmain, Glebe and Annandale have a well-developed pedestrian network.

The cycle network surrounding the proposal site is well established with provision of a number of off-road shared paths and on-road cycle routes. There are no formalised provisions for cyclists or pedestrians along Port Access Road.

6.7.3 Potential impacts

Construction

- Proposed additional construction traffic movements on the existing road network are not anticipated to impact road network efficiency or intersection performance because the numbers are low relative to the high existing road traffic volumes
- No impact to Port Facility operations.
- Potential cumulative impacts with Sydney Metro construction works will require strategic coordination to minimise impacts from changing local access road network and proactively update our TMP as required (see safeguard.
- Not anticipated to impact public transport routes or bus stops
- Not anticipated to impact active transport facilities. Existing pedestrian access is also limited.

Existing TMP requirements and safeguards from the project REF would be adequate to address potential Traffic and Transport impacts.

Operation

No operational impacts are expected as there is no permanent change or operational component to the proposed modification.

6.7.4 Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Traffic and transport (TT5)	Stakeholder Engagement Strategy to include collaborationwith Sydney Metro manage potential cumulative traffic impacts.	Contractor	Pre- construction

6.8 Visual impact

This section describes the visual and amenity impacts that may occur when constructing and operating the proposed modification.

6.8.1 Methodology

Landscape refers to the overall character and function of a place, particularly in terms of their visual appeal. It includes all elements within the public realm and the interrelationship between these elements and the people who use them. A visual impact assessment was completed using Transport's guidelines (Landscape Character and Visual Impact Assessment Guidance Note). This assesses both sensitivity and magnitude to assign an impact rating.

A Landscape Character assessment is not required for the proposed modification due to the scale of the works.

6.8.2 Existing environment

The existing environment is an industrial area and ports facility which is undergoing major transformation with adjacent major transport and precinct redevelopment works.

The compound locations have views to Blackwattle Bay and Anzac Bridge. Views to and from the compounds are partially shielded because of their lower elevation to the adjacent motorway, and because of the White Bay silos.

6.8.3 Potential impacts

Construction

The proposed Sommerville Road compound is located in an area with low sensitivity due to its location within in industrial/port area and shielding from the White Bay silo structures and raised embankment of Anzac Bridge western approach. Glebe Island Bridge compound location was assigned a slightly higher moderate sensitivity due to its heritage significance.

The magnitude of the change due to the modification (two construction compound sites) was assessed as low because of the temporary nature of the works, limited activities including very minor earthworks and no permanent changes, no vegetation loss, limited existing public access, and consistency with previous use of the locations as compound facilities. Additionally, the consideration was given to the works being located within an industrial area, and presence of other construction works also occurring in White Bay.

There may be minor visual impact for users of the nearby road corridor, who may catch glimpses of the compound when travelling along the road or from more distant viewpoints. These impacts would be minor and temporary as they would only be when passing by the compound. At the end of works, the compounds would be decommissioned and returned to their existing condition. There would be no long term visual impacts of the proposed modification.

Table 6-7: Summary of the Visual impact assessment

Impact	Sensitivity	Magnitude	Risk Rating
Sommerville Site	Low	Low	Low
Glebe Island Bridge western approach	Moderate	Low	Low-Moderate

Operation

No operational impacts are expected as there is no operational component to the proposed modification. The proposed compound and activities associated would not result in permanent changes to the area, as use of the location is temporary, with complete refurbishment of the site upon completion of activities.

6.8.4 Safeguards and management measures

Safeguards within the project REF remain appropriate to address Visual Impact risks of the proposed modification.

6.9 Other impacts

6.9.1 Existing environment and potential impacts

Environmental factor	Existing environment	Potential impacts
Air Quality	The Air Quality environment relevant to the proposed modification is consistent with that described in Section 6.5 of the project REF. The closes residential receivers are about 195 metres to the east in Pyrmont, and over 400 metres to the north-west in Balmain.	Vehicle movements, plant and generator use, and stockpiling of materials have the potential to produce airborne emissions and dust. Air quality management measures as outlined in section 6.5.2 of the original REF remain appropriate to address Waste and Resource use risks of the proposed modification.
Property and Land use	The proposed compound sites are within a large industrial area. No property acquisition is required as the proposed compound sites are located on Transport for NSW and Port Authority of NSW owned land.	Use of the Sommerville Road site would be subject to a property licence deed arrangement with Port Authority of NSW. At the end of works, the compounds would be decommissioned and returned to their existing condition therefore there would be no permanent impacts.
Socio Economic	The Socio-Economic environment relevant to the proposed modification is consistent with that described in Section 6.5 of the project REF.	The proposal 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 proposal would maintain access to nearby Memorial facilities on Sommerville Road. The proposal is not anticipated to impact passing trade, access to business, or active transport facilities. Potential construction phase amenity impacts have been considered as follows: Noise and vibration (refer REF section 6.4, and Addendum Section 6.1) Air quality (refer REF section 6.5) Visual impacts (refer REF section 6.2, Addendum Section 6.8). At the end of works, the compounds would be decommissioned and returned to their existing condition therefore there would be no permanent impacts.
Waste and Resource Use, and Sustainability	Waste and resources relevant to the proposed modification is consistent with that described in Section 6.5 of the project REF.	A potential additional waste stream to the REF is Waste produced from office use. An additional energy demand is also energy required in construction to operate the compound facility. Safeguards within the project REF remain appropriate to address Waste and Resource use risks of the proposed modification.

Cumulative impacts	Cumulative construction noise and traffic impacts with other major construction projects are considered in section 6.6 of the project REF.	Safeguards within the project REF (CU1) remain appropriate to address Cumulative risks of the proposed modification.
		The compound use would not have any permanent impacts.

6.9.2 Safeguards and management measures

Safeguards within the project REF remain appropriate to address the environmental factors outlined in 6.9.1 of the proposed modification.

7. Environmental management

7.1Environmental management plans (or system)

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

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

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

7.2 Summary of additional safeguards and management measures

Environmental safeguards and management measures outlined in this REF will be incorporated into the detailed design phase of the proposal and during construction and operation of the proposal, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment. The safeguards and management measures are summarised in Table 7-1.

Table 7-1: Summary of additional safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing
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
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
BIO3	Biodiversity	Chemical storage is not permitted on the Glebe Island Bridge compound facility.	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
TT5	Traffic and transport	Stakeholder Engagement Strategy to include collaboration with Sydney Metro manage potential cumulative traffic impacts.	Contractor	Pre-construction / construction

7.3 Licensing and approvals

Licensing and approval requirements would be consistent with the project REF.

8. Conclusion

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

8.1 Justification

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 traffic or transport, air quality, or visual impacts.
- The proposal may have construction phase noise and vibration impacts though minor and able to be adequately managed with safeguards outlined in the project REF and section 7.2.
- No direct impact to heritage features are anticipated and possible indirect vibration impact can be adequately managed with safeguards outlined in the project REF and section 7.2.
- The proposal 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 proposal would maintain access to nearby Memorial facilities on Sommerville Road. The proposal is not anticipated to impact passing trade, access to business, or active transport facilities.
- 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 modification does not require any tree removal and no features of habitat value were identified. Potential indirect impacts such as risk of spills or erosion into the Blackwattle Bay harbour area aquatic environment 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 biophysical environment.

8.1.3 Economic factors

The proposed modification provides value for money in utilising Transport land/assets, and minimising the need for haulage distance travelled by locating the compound close to the main construction work area in Sydney CBD. 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 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. Selection of the compound sites withiin an an industrial area at least 195 metres from the closest residential receivers assists in managing construction noise impacts of the proposal.

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.

8.20bjects of the EP&A Act

Instrument	Requirement
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	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 and as outlined in 6.9. 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 low to negligible risk on the biophysical environment. There are no habitat features identified and no tree removals required though there is potential indirect impacts to the Blackwattle Bay aquatic environment such as from erosion or spills. 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 modification has potential for temporary minor adverse impacts on nearby heritage such as through indirect vibration impacts. The modification would not have direct impacts to heritage fabric. Mitigation measures proposed in the project REF and Section 7.2 adequately avoid and/or minimise impacts. The modification is not expected to have any impacts on Aboriginal heritage. Refer to Section 6.2.
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 6.8. Potential visual impacts are low-moderate and limited to construction phase. The compound is a temporary land use and would be fully decommissioned following the construction phase with no permanent visual impact.
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	The site office/s would likely be demountable buildings which would meet construction industry standards. The building/s would be operated in accordance with the NSW Code of Practice Construction Work (August 2019).
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 for the project would be expanded to include the proposed modification. This includes measures for ongoing stakeholder consultation into construction phase.

Instrument	Requirement
	This addendum REF will be made available on the Transport website, so that the community and stakeholders are informed about what is being proposed.

8.2.1 Ecologically sustainable development

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

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

The precautionary principle

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

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, and by designing the compound to be located within existing hardstand cleared area in an industrial area. This principle has also been applied in the development of safeguards and management measures using best available technical information, environmental standards and guidelines.

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.

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 locating the compound within an existing hardstand cleared area with no tree removals required. 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.

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 proposal.

Environmental issues were considered as key matters in the selection of compound sites including selection of already cleared hardstand areas. The proposed modification provides value for money in utilising Transport land/assets, and minimising the need for haulage distance travelled by locating the compound close to the main construction work area in Sydney CBD. 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.

8.2.2 Conclusion

The proposed Western Distributor Smart Motorway modification (Addendum REF #1) within Eastern Harbour City is subject to assessment under Division 5.1 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

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

A number of potential environmental impacts from the proposal have been avoided or reduced during the concept design development and options assessment. The proposal, as described in the REF, best meets the project objectives but would still result in some impacts on non-Aboriginal heritage, construction noise at residential receivers, and cumulative construction impacts. Safeguards and management measures as detailed in the project REF and Section 7.2 of this Addendum would avoid, ameliorate or minimise these expected impacts. The proposed modification would also facilitate construction of the Smart Motorways project and contribute to the overarching project objective for improved traffic and hazard management and enhanced corridor messaging and wayfinding on the M1 road corridor between Milsons Point and Allen Street in Pyrmont. On balance, the proposal is considered justified and the following conclusions are made.

Significance of impact under NSW legislation

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

Significance of impact under Australian legislation

The proposal is not likely to have a significant impact on matters of national environmental significance nor the environment of Commonwealth land within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)*. A referral to the Australian Department of Agriculture, Water and the Environment is not required.

9. Certification

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

Name: Hannah D'eau

Position: Environment and Sustainability Officer

ID Doau

Company name: Transport for NSW

Date: 19 Dec 2022

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

Name: George Elhage
Position: Project Manager

Transport region/program:

Development Manager - Smart Motorways

Date:

10. References

- Sydney Metro REF, The Bays road relocation works REF and heritage assessment (2020)
- White Bay Silo Strengthening Heritage Impact Statement (2019)

Terms and acronyms used in this REF

Term / Acronym	Description
AusLink	Mechanism to facilitate cooperative transport planning and funding by Commonwealth and state and territory jurisdictions
BC Act	Biodiversity Conservation Act 2016 (NSW)
CEMP	Construction environmental management plan
CM SEPP	State Environmental Planning Policy (Coastal Management) 2018
EIA	Environmental impact assessment
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
FM Act	Fisheries Management Act 1994 (NSW)
Heritage Act	Heritage Act 1977 (NSW)
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
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
MNES	Matters of national environmental significance under the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)
NPW Act	National Parks and Wildlife Act 1974 (NSW)
OEH	Office of Environment and Heritage within the Department of Planning and Environment.
PEA Act	Protection of the Environment Administration Act 1991.
QA Specifications	Specifications developed by Transport for use with road work and bridge work contracts let by Transport.
RMS	NSW Roads and Maritime Services, now Transport for NSW
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
Transport	Transport for NSW

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

Section 171 Checklist

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

Fac	Factor	Impact
Ф	Any environmental impact on a community? The proposed modification would result in the following environmental impacts on the community: • Minor temporary traffic, vibration, biodiversity, waste and visual impacts. • The proposed modification would also remove dumped wastes and weeds from the site.	Short-term minor negative
Q	Any transformation of a locality? 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 within an existing hardstand industrial area.	Nil
O	Any environmental impact on the ecosystems of the locality? Potential impacts of the proposed modification would be limited to construction phase only. The modification does not require any tree removal and no features of habitat value were identified. Potential indirect impacts such as risk of spills or erosion into the Blackwattle Bay harbour area aquatic environment 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. 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 and the site would be returned to existing condition on completion of construction.	Short-term minor negative
σ	Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality? The proposed modification may result in a temporary reduction in the aesthetic and recreational quality of the area during the construction phase in the form of noise and visual impacts. The proposal may also result in temporary reduction of environmental quality due to possible indirect impacts on water quality (such as erosion or spills) during construction. Safeguards and mitigation measures have been proposed to avoid, manage and minimise these impacts.	Short-term minor negative
Φ	Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations? The proposed modification would not have any such effects.	Nil.
4-	Any impact on the habitat of protected fauna (within the meaning of the Biodiversity Conservation Act 2016)? The proposed modification does not require vegetation removal and no features of habitat value were identified by the assessment. Possible indirect impacts on aquatic habitat water quality (such as erosion or spills) during construction are able to	Short-term minor negative

Fac	otor	Impact
	be adequately managed with safeguards outlined in the project REF and section 7.2.	
g	Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	Nil
	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.	
	Possible indirect impacts on the biophysical environment are able to be adequately managed with safeguards outlined in the project REF and section 7.2.	
h	Any long-term effects on the environment?	Long term positive
	The proposed modification would contribute to the positive safety outcomes of the overarching Smart Motorways project.	
i	Any degradation of the quality of the environment?	Short-term minor negative
	The proposal would have some potential for temporary degradation of the quality of the environment through the generation of noise, dust and amenity impacts. These impacts are able to be adequately managed with safeguards outlined in the project REF and section 7.2.	
j	Any risk to the safety of the environment?	Nil
	The proposed modification would not create risks to the safety of the environment.	
k	Any reduction in the range of beneficial uses of the environment?	Nil
	The proposal would not reduce the range of beneficial uses of the environment.	
l	Any pollution of the environment?	Short-term minor negative
	The proposed modification would not result in pollution of the environment. There would be short-term minor risks to local water quality in the event of a spill of release of sediment off site. Noise would be generated during construction and there would be potential for dust generation from stockpiles at Sommerville Road. These impacts are able to be adequately managed with safeguards outlined in the project REF and section 7.2.	
m	Any environmental problems associated with the disposal of waste?	Nil
	Waste generated during construction would be removed from site and disposed of legally. No environmental problems are anticipated for the disposal of waste.	
n	Any increased demands on resources (natural or otherwise) that	Nil
	are, or are likely to become, in short supply? The proposal would not increase demand for resources, which are, or are likely to become, in short supply.	
0	Any cumulative environmental effect with other existing or likely future activities?	Short-term minor negative
	During construction, the proposed modification may contribute to cumulative noise and traffic impacts in the local area and local road network due to the number of other concurrent construction projects also operating in the area. These impacts are able to be adequately managed with safeguards outlined in the project REF and section 7.2.	

Fac	Factor	Impact
	The proposed modification has only construction phase impacts therefore potential long term cumulative operational impacts are consistent with the project REF (Section 6.6).	
	al is not expected to result in substantial cumulative impacts given its relatively small scale at each works location. Interaction with other major transport infrastructure projects was considered as part of the traffic and transport assessment	
σ	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? The proposed modification is located in Sydney Harbour foreshore zone though it is low risk and temporary works and would not influence coastal processes and/or coastal hazards. The proposed modification would not have any long term operational impacts.	N _i :
Q	Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1 Strategic plans relevant to the proposal which have been considered in this REF include:	The proposal is consistent with strategic and local planning frameworks.
	 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 	
	See Section 4 of this REF for further information on statutory and planning framework. Additionally The Bays Precinct Transformation Plan (2015) and	
	The Bays West Place Strategy in (2021) were also considered within section 2.	
7	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 proposal should be referred to the Australian Government Department of Agriculture, Water and the Environment.

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

Fa	ctor	Impact
а	Any impact on a World Heritage property? There are no World Heritage Properties within or near the proposal area.	Nil
b	Any impact on a National Heritage place? There are no National Heritage places within or near the proposal area.	Nil
С	Any impact on a wetland of international importance? There are no wetlands of international importance within or near the proposal area.	Nil
d	Any impact on a listed threatened species or communities? No listed threatened species or communities were identified within the proposal area. One record of a Grey-headed Flying-fox was recorded about 400m west of the proposal. No vegetation removal is required for the modification. Potential for indirect impacts such as spills, erosion, and runoff can be adequately avoided or mitigated through Safeguards and management measures as outlined in the project REF and section 7.2.	Minor, temporary indirect impact
е	Any impacts on listed migratory species? No migratory species are known to utilise the site.	Nil
f	Any impact on a Commonwealth marine area? There are no Commonwealth marine areas within or near the modified proposed modification.	Nil
g	Does the proposal involve a nuclear action (including uranium mining)? The proposed modification does not involve a nuclear action.	Nil
h	Additionally, any impact (direct or indirect) on the environment of Commonwealth land? The proposed modification does not have direct or indirect impact on Commonwealth land.	Nil

Appendix B - Statutory consultation checklists

Transport and Infrastructure SEPP (2021)

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP clause
Car Park	Does the project include a car park intended for the use by commuters using regular bus services?	No	Local council and the occupiers of adjoining land	Clause 2.111
Bus Depots	Does the project propose a bus depot?	No	Local council and the occupiers of adjoining land	Clause 2.111
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	Clause 2.111

Development within the Coastal Zone

Development type	Description	Yes / No	If 'yes' consult with	SEPP clause
Development with impacts on certain land within the coastal zone	Is the proposal within a coastal vulnerability area [Note: mapping of this feature has not yet been released] and is inconsistent with a certified coastal management program applying to that land? (Note: a certified coastal zone management plan is taken to be a certified coastal management program) Resilience and Hazards SEPP (Chapter 2 – Coastal Management) mapping shows the proposed modification is located in area mapped as coastal use area, and coastal environment area. The proposed land use for a temporary construction compound facilities is consistent with Part 4.2 City West, Clause 4.25 – Temporary and interim uses. There are no areas identified by Part 2.2 as a coastal wetland or littoral rainforest occurring within the proposal area. The modification is within land mapped as a Coastal Environment Area and Coastal Use Area. As the proposal area is within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005, the development considerations relating to Coastal Environment Areas and Coastal Use Areas do not apply to this development (Clause 2.10 and Clause 2.11).	No	Local council	Clause 2.14

Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP clause
Stormwater	Are the works likely to have a <i>substantial</i> impact on the stormwater management services which are provided by council?	No	Local council	Clause 2.10 (1)(a)
Traffic	Are the works likely to generate traffic to an extent that will <i>strain</i> the capacity of the existing road system in a local government area?	No	Local council	Clause 2.10 (1)(b)
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?	No	Local council	Clause 2.10 (1)(c)
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	No	Local council	Clause 2.10 (1)(d)
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	No	Local council	Clause 2.10 (1)(e)
Road & footpath excavation	Will the works involve more than <i>minor</i> or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	No	Local council	Clause 2.10 (1)(f)

Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP clause
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential? Local heritage features are identified in the surrounding area. The proposal has no direct impacts to heritage fabric. Potential minor indirect impacts from construction vibration can be adequately managed with safeguards as outlined in		Local council	Clause 2.11

the project REF and Addendum REF section 7.2.	
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Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP clause
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a <i>minor</i> extent?	No	Local council	Clause 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	Clause 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	SEPP clause
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act 1974</i> , or on land acquired under that Act?	No	Environment, Energy and Science, DPE	Clause 2.15(2)(a)
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	Environment, Energy and Science, DPE	Clause 2.15 (2)(b)
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	Clause 2.15 (2)(d)
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in clause 5.15 of Lockhardt LEP 2012, Narrandera LEP 2013 and Urana LEP 2011.	No	Secretary of the Commonwealth Department of Defence	Clause 2.15 (2)(e)
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the Mine Subsidence Compensation Act 1961?	No	Mine Subsidence Board	Clause 2.15 (2)(f)

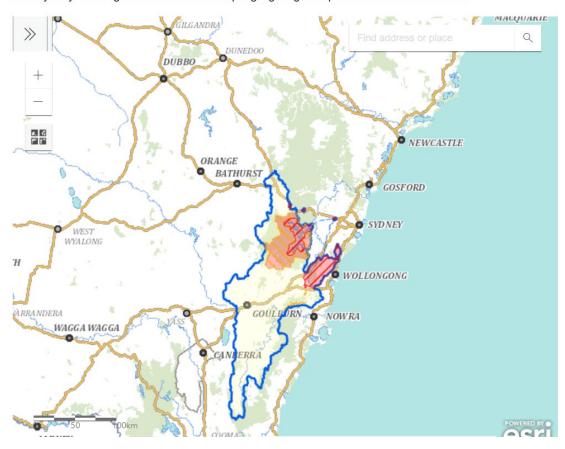
Appendix C - Neutral or beneficial effect on water quality assessment

Neutral or beneficial effect assessment

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 – Consideration of SEPP Planning Principles

State Environmental Planning Policy (Biodiversity and Conservation) 2021

GENERAL Planning principles Where considered or addressed 10.10 Sydney Harbour Catchment The planning principles for land within the Sydney Harbour Potential impacts on the social Catchment are as follows and biophysical environment from the proposal are (a) development is to protect and, where practicable, addressed within the project improve the hydrological, ecological and geomorphological REF and this Addendum REF. processes on which the health of the catchment depends, Consideration for amenity (b) the natural assets of the catchment are to be maintained impacts is considered in socioand, where feasible, restored for their scenic and cultural economic, noise and visual values and their biodiversity and geodiversity. impact sections. (c) decisions with respect to the development of land are to The proposed modification is take account of the cumulative environmental impact of for two construction development within the catchment, compounds which would be a (d) action is to be taken to achieve the targets set out in temporary (18 month) feature Water Quality and River Flow Interim Environmental and would not inhibit the Objectives: Guidelines for Water Management: Sydney ultimate land use zoning for Harbour and Parramatta River Catchment (published in the area under State October 1999 by the Environment Protection Authority), such **Environmental Planning Policy** action to be consistent with the guidelines set out in (Precincts – Eastern Harbour Australian Water Quality Guidelines for Fresh and Marine City) 2021 plans. The Waters (published in November 2000 by the Australian and compound sites would not New Zealand Environment and Conservation Council). prejudice the eventual (e) development in the Sydney Harbour Catchment is to development of the land for protect the functioning of natural drainage systems on which it is zoned and it would floodplains and comply with the guidelines set out in the be reinstated to existing document titled Floodplain Development Manual 2005 condition on completion of use. (published in April 2005 by the Department), development that is visible from the waterways or foreshores is to maintain, protect and enhance the unique visual qualities of Sydney Harbour, (g) the number of publicly accessible vantage points for viewing Sydney Harbour should be increased. (h) development is to improve the water quality of urban runoff, reduce the quantity and frequency of urban run-off, prevent the risk of increased flooding and conserve water, (i) action is to be taken to achieve the objectives and targets set out in the Sydney Harbour Catchment Blueprint, as published in February 2003 by the then Department of Land and Water Conservation. (j) development is to protect and, if practicable, rehabilitate watercourses, wetlands, riparian corridors, remnant native vegetation and ecological connectivity within the catchment, development is to protect and, if practicable, rehabilitate land from current and future urban salinity processes, and prevent or restore land degradation and reduced water quality resulting from urban salinity,

GENERAL Planning principles (I) development is to avoid or minimise disturbance of acid sulfate soils in accordance with the Acid Sulfate Soil Manual, as published in 1988 by the Acid Sulfate Soils Management Advisory Committee. Where considered or addressed

10.11 Foreshores and Waterway Area

The planning principles for land within the Foreshores and Waterways Area are as follows —

- (a) development should protect, maintain and enhance the natural assets and unique environmental qualities of Sydney Harbour and its islands and foreshores,
- (b) public access to and along the foreshore should be increased, maintained and improved, while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation,
- (c) access to and from the waterways should be increased, maintained and improved for public recreational purposes (such as swimming, fishing and boating), while minimising its impact on watercourses, wetlands, riparian lands and remnant vegetation,
- (d) development along the foreshore and waterways should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands and foreshores,
- (e) adequate provision should be made for the retention of foreshore land to meet existing and future demand for working harbour uses,
- (f) public access along foreshore land should be provided on land used for industrial or commercial maritime purposes where such access does not interfere with the use of the land for those purposes.
- (g) the use of foreshore land adjacent to land used for industrial or commercial maritime purposes should be compatible with those purposes,
- (h) water-based public transport (such as ferries) should be encouraged to link with land-based public transport (such as buses and trains) at appropriate public spaces along the waterfront,
- (i) the provision and use of public boating facilities along the waterfront should be encouraged.

Existing active transport facilities and foreshore areas are limited as the sites are largely not accessible to the public. Any impact to active transport facilities would be limited to during construction and would be subject to an approved pedestrian and cyclist management plan.

The proposed modification is for two construction compounds which would be a temporary (18 month) feature and would not inhibit the ultimate land use zoning for the area under State **Environmental Planning Policy** (Precincts - Eastern Harbour City) 2021 plans. The compound sites would not prejudice the eventual development of the land for which it is zoned and it would be reinstated to existing condition on completion of use. Potential impacts on the social

and biophysical environment from the proposal are addressed within the project REF and this Addendum REF.

10.12 Heritage conservation

The planning principles for heritage conservation are as follows —

- (a) Sydney Harbour and its islands and foreshores should be recognised and protected as places of exceptional heritage significance,
- (b) the heritage significance of particular heritage items in and around Sydney Harbour should be recognised and conserved.
- (c) an appreciation of the role of Sydney Harbour in the history of Aboriginal and European settlement should be encouraged,
- (d) the natural, scenic, environmental and cultural qualities of the Foreshores and Waterways Area should be protected,

Section 6.3 of the project REF and Section 6.3 of this Addendum REF provides an assessment of Non-Aboriginal heritage features in the study area

Section 6.5 of the project REF and 6.2 of this Addendum REF provides an assessment of Non-Aboriginal heritage features in the study area.

Heritage impacts are not significant and can be adequately avoided, managed, and mitigated with the

GENERAL Planning principles	Where considered or addressed
(e) significant fabric, settings, relics and views associated with the heritage significance of heritage items should be conserved,	safeguards as outlined in the project REF and this Addendum.
(f) archaeological sites and places of Aboriginal heritage significance should be conserved.	

Clause 10.3 Division 2

SPECIFIC Planning principles	Where considered or addressed			
10.18 General				
The matters referred to in this Division (together with any other relevant matters) —	As detailed in the following sections of this table, the aims, objectives and planning principles of the SEPP are considered throughout the addendum REF			
(a) are to be taken into consideration by consent authorities before granting consent to development under Part 4 of the Act, and				
(b) are to be taken into consideration by public authorities and others before they carry out activities to which Part 5 of the Act applies.				
10.19 Biodiversity, ecology and environment protection	on			
The matters to be taken into consideration in relation to biodiversity, ecology and environment protection are as follows— (a) development should have a neutral or beneficial effect on the quality of water entering the waterways,	Application of safeguards as outlined in Section 7 can satisfactorily manage risks to water quality and the surrounding waterways/ harbour.			
(b) development should protect and enhance terrestrial and aquatic species, populations and ecological communities and, in particular, should avoid physical damage and shading of aquatic vegetation (such as seagrass, saltmarsh and algal and mangrove communities),	The proposed modification does not have any direct impact to areas of aquatic vegetation. Potential indirect impacts on the surrounding waterway/ harbour environment can be satisfactorily managed with the safeguards outlined in chapter 7.			
(c) development should promote ecological connectivity between neighbouring areas of aquatic vegetation (such as seagrass, saltmarsh and algal and mangrove communities),	The proposed modification does not impact areas of aquatic vegetation.			
(d) development should avoid indirect impacts on aquatic vegetation (such as changes to flow, current and wave action and changes to water quality) as a result of increased access,	Potential indirect impacts on the surrounding waterway/ harbour environment such as through spills or sediment loss can be satisfactorily managed with the safeguards outlined in chapter 7.			
(e) development should protect and reinstate natural intertidal foreshore areas, natural landforms and native vegetation,	The proposed modification does not impact intertidal areas.			
(f) development should retain, rehabilitate and restore riparian land,	The proposed compounds are on existing hardstand areas within industrial land use area of White Bay. No riparian restoration is impacted and any change to land use for restoration is outside of the project scope.			
(g) development on land adjoining wetlands should maintain and enhance the ecological integrity of the wetlands and, where possible,				

SPECIFIC Planning principles	Where considered or addressed
should provide a vegetative buffer to protect the wetlands,	
(h) the cumulative environmental impact of development,	Cumulative impacts may include construction noise and amenity change due to the presence of construction activities, though these are considered small scale and temporary due to the short term (estimated 18 month) duration. Cumulative impacts on the environment can be satisfactorily managed with the safeguards outlined in chapter 7.
(i) whether sediments in the waterway adjacent to the development are contaminated, and what means will minimise their disturbance.	The proposed modification does not require works in the waterway, and therefore should not encounter contaminated sediments.

10.20 Public access to, and use of, foreshores and waterways

The matters to be taken into consideration in relation to public access to, and use of, the foreshores and waterways are as follows —

- (a) development should maintain and improve public access to and along the foreshore, without adversely impacting on watercourses, wetlands, riparian lands or remnant vegetation,
- (b) development should maintain and improve public access to and from the waterways for recreational purposes (such as swimming, fishing and boating), without adversely impacting on watercourses, wetlands, riparian lands or remnant vegetation,
- (c) if foreshore land made available for public access is not in public ownership, development should provide appropriate tenure and management mechanisms to safeguard public access to, and public use of, that land,
- (d) the undesirability of boardwalks as a means of access across or along land below the mean high water mark if adequate alternative public access can otherwise be provided,
- (e) the need to minimise disturbance of contaminated sediments.

The proposed compound operation is a temporary activity (estimated 18 months) to support construction of the WDSM project. No impact on the described matters of public access to foreshore and waterways are expected.

10.21 Maintenance of a working harbour

The matters to be taken into consideration in relation to the maintenance of a working harbour are as follows —

- (a) foreshore sites should be retained so as to preserve the character and functions of a working harbour, in relation to both current and future demand.
- (b) consideration should be given to integrating facilities for maritime activities in any development,
- (c) in the case of development on land that adjoins land used for industrial and commercial maritime purposes, development should be

The proposed compound operation is a temporary activity (estimated 18 months) to support construction of the WDSM project. It would have minimal, localised, and temporary impact on the local environment through the presence of a construction compound facility. The operation of the compound would not interfere with access needs to the area and would be subject to licence deed arrangement with Port Authority of NSW and ROL approvals. Access needs can be satisfactorily

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compatible with the use of the adjoining land for those purposes,

(d) in the case of development for industrial and commercial maritime purposes, development should provide and maintain public access to and along the foreshore where such access does not interfere with the use of the land for those purposes.

managed with the safeguards outlined in chapter 7.

10.22 Interrelationship of waterway and foreshore uses

The matters to be taken into consideration in relation to the interrelationship of waterway and foreshore uses are as follows —

- (a) development should promote equitable use of the waterway, including use by passive recreation craft,
- (b) development on foreshore land should minimise any adverse impact on the use of the waterway, including the use of the waterway for commercial and recreational uses,
- (c) development on foreshore land should minimise excessive congestion of traffic in the waterways or along the foreshore,
- (d) water-dependent land uses should have priority over other uses.
- (e) development should avoid conflict between the various uses in the waterways and along the foreshores.
- (f) development on foreshore land should minimise any risk to the development from rising sea levels or changing flood patterns as a result of climate change.

The proposed compound operation is a temporary activity (estimated 18 months) to support construction of the WDSM project. No impact on the described matters of interrelationship of waterway and foreshore uses are expected.

10.23 Foreshore and waterways scenic quality

The matters to be taken into consideration in relation to the maintenance, protection and enhancement of the scenic quality of foreshores and waterways are as follows —

- (a) the scale, form, design and siting of any building should be based on an analysis of —
- (i) the land on which it is to be erected, and
- (ii) the adjoining land, and
- (iii) the likely future character of the locality,
- (b) development should maintain, protect and enhance the unique visual qualities of Sydney Harbour and its islands, foreshores and tributaries,
- (c) the cumulative impact of water-based development should not detract from the character of the waterways and adjoining foreshores.

The proposed compound operation is a temporary activity (estimated 18 months) to support construction of the WDSM project. It would have minimal and temporary impact on the scenic quality of the foreshore and waterways and foreshore uses which can be satisfactorily managed with the safeguards outlined in chapter 7.

10.24 Maintenance, protection and enhancement of views

The matters to be taken into consideration in relation to the maintenance, protection and enhancement of views are as follows —

The proposed compound operation is a temporary activity (estimated 18 months) to support construction of the WDSM project. It would have minimal, localised, and temporary impact on the views to the

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- (a) development should maintain, protect and enhance views (including night views) to and from Sydney Harbour,
- (b) development should minimise any adverse impacts on views and vistas to and from public places, landmarks and heritage items,
- (c) the cumulative impact of development on views should be minimised.

Where considered or addressed

foreshore and Harbour through the presence of a construction compound facility. Amenity impacts can be satisfactorily managed with the safeguards outlined in chapter 7.

10.25 Boat storage facilities

The matters to be taken into consideration in relation to boating facilities are as follows—

- (a) development should increase the number of public boat storage facilities and encourage the use of such facilities.
- (b) development should avoid the proliferation of boat sheds and other related buildings and structures below the mean high water mark,
- (c) development should provide for the shared use of private boat storage facilities,
- (d) development should avoid the proliferation of private boat storage facilities in and over the waterways by ensuring that all such facilities satisfy a demonstrated demand,
- (e) boat storage facilities should be as visually unobtrusive as possible,
- (f) in the case of permanent boat storage, the safety and utility of the development should not be adversely affected by the wave environment, and the development should avoid adverse impacts on safe navigation and single moorings.

The proposed modification does not involve or impact any boat storage facilities.

10.26 Floating boat platforms

- (1) In addition to the matters to be taken into consideration under section 10.25, the matters to be taken into consideration in relation to floating boat platforms are as follows—
- (a) floating boat platforms should not reduce or adversely affect public access to and along the foreshore in the vicinity of the development,
- (b) floating boat platforms should be compatible with the character of the locality,
- (c) floating boat platforms should be in a location that is suitable for that purpose, having regard to water depth (without the need for dredging),
- (d) construction, installation and use of floating boat platforms must not impact adversely on seagrass.
- (2) Without limiting subsection (1)(c), the consent authority must not grant development consent to development for the purposes of a floating boat platform unless it is satisfied that the floating boat platform will, at all times, have a minimum seabed clearance of 600mm (without the need for dredging).

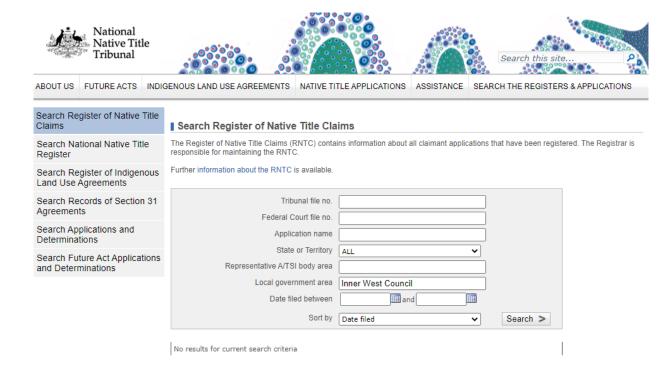
The proposed modification does not involve or impact any floating boat platforms.

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(3) In this section, seabed clearance means the distance to the seabed from the underside of the floating boat platform.				
10.27 Mooring pens				
The matters to be taken into consideration in relation to mooring pens are as follows—	The proposed modification does not involve or impact any mooring pens.			
(a) mooring pens should not impact adversely on safe navigation,				
(b) mooring pens should not reduce or adversely affect public access to and along the foreshore in the vicinity of the development,				
(c) mooring pens should be compatible with the character of the locality,				
(d) mooring pens should be as visually unobtrusive as possible,				
(e) mooring pens for the permanent berthing of a vessel should be in a location that is suitable for that purpose, having regard to water depth (without the need for dredging) and wave action,				
(f) construction, installation and use of mooring pens must not impact adversely on seagrass.				

Appendix E – Construction Noise Estimator Tool results

Appendix F – PACHCI checklist and clearance letter

National Native Title Tribunal (NNTT) search tool results, search date 14/07/2022



Appendix G – Non-Aboriginal Heritage search results

Appendix H – Contaminated lands register search results

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