Review of Environmental Factors

NSOOS Interim Desilting Section 1 Assessment

1 Determination

This Review of Environmental Factors (REF) assesses potential environmental impacts of NSOOS Interim Desilting Section 1 and was prepared under Division 5.1 of the ***Environmental Planning and Assessment Act 1979*** (EP&A Act), with Sydney Water both the proponent and determining authority. A part of this proposal includes maintenance and repairs of an existing asset located on National Parks and Wildlife Service (NPWS) land. The works have been assessed as a 'Type B proposal' and can be undertaken in accordance with the requirements outlined in the 'Access for maintenance, repair and Operation of Sydney Water Infrastructure in Parks and Reserves Consent and Protocol' (June 2020).

The Sydney Water Project Manager is accountable for ensuring the proposal is carried out as described in this REF. Additional environmental impact assessment may be required if the scope of work or work methods described in this REF change significantly following determination.

Decision Statement

The main potential construction environmental impacts of the proposal include biodiversity, noise, vibration, traffic, access and heritage. During operation, no additional impacts are expected as these works are designed to maintain the existing infrastructure. The proposal will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats. Therefore, a Species Impact Statement (SIS) and/or Biodiversity Development Assessment Report (BDAR) is not required.

Given the nature, scale and extent of impacts and implementation of the mitigation measures outlined in this REF, the proposal is unlikely to have a significant impact on the environment. Therefore, we do not require an Environmental Impact Statement (EIS) and the proposal may proceed.

Certification

I certify that I have reviewed and endorsed this REF and, to the best of my knowledge, it is in accordance with the EP&A Act and the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation). The proposal has been considered against matters listed in section 171 (Appendix A) and the guidelines approved under section 170 of the EP&A Regulation. The REF considers how the proposal aligns with the principles of ecologically sustainable development (Appendix B). The information it contains is neither false nor misleading.

Prepared by:	Reviewed by:	Endorsed by:	Approved by:
[redacted]	[redacted]	[redacted]	[redacted]
Aaron Panozzo Environmental Representative Sydney Water Date: 03/03/2025	John Eames Environment Representative Sydney Water Date: 04/03/2025	Jordan Mulhearn Senior Project Manager Sydney Water Date: 04/03/2025	Murray Johnson Senior Manager, Environment & Heritage Sydney Water Date: 6/03/2025

2 Proposal description

Table 1 Description of proposal

Aspect	Detailed description
Proposal need and justification	The Northern Suburbs Ocean Outfall Sewer (NSOOS) is a major trunk sewer that services a catchment of 1.7 million people in Northern Sydney. It is a critical 'Avoid Fail' asset as it is a single point of failure for all wastewater transported to the North Head Water Resource Recovery Facility. The proposal is part of the NSOOS Section 1 rehabilitation works. This interim desilting work is critical maintenance necessary to alleviate strain on the outfall system and reduce overflows occurring in the NSOOS. Approximately 750 cubic metres of silt and debris have accumulated within the asset between maintenance holes (MH) MH1-14 and MH1-15. As a result, flow levels in the upstream section of NSOOS are elevated, preventing maintenance works along the system. These interim works are required to remove accumulated silt and debris in section 1 of NSOOS to reduce the flow depths as much as possible. This would enable safe personnel and equipment entry into the system and prevent overflows of the system that are impacting the environment and the public.
Consideration of alternatives/options	Options considered were: • **Do nothing**: This option would not satisfy the desired outcomes of the project and would result in ongoing overflows at Clontarf and other sites on the NSOOS, which has resulted in escalated community concern and ministerial interest. • **Option 1** – Bucket and winch: After the flow path is opened, use bucket to move debris to manhole and lift out using winch. • **Option 2** – Opening the flow path: Use a cable mounted plough to scrap a channel through the centre of the debris banks. It was decided that **option 1** would be the preferred option as it would have the higher chance of resolving the problem long term by removing the silt and debris rather than simply creating a channel through the silt. Other locations along the system were surveyed for the desilting works. However, the section between MH1-14 and MH1-15 is the only straight portion of the NSOOS in section 1 and the only viable location to undertake the works.
Proposal description and methodology	The scope of works would be undertaken as follows: • Site Assessment: o Thorough assessment of manholes and immediate surrounds o Ensure stability of the sites for setup of the winch and bucket system • Site establishment: o Surveying for utility assets at MH1-14 (Ausgrid transmission lines, 200 DICL Water main) o Traffic management and partial road closure at MH1-14 site. o Bushland clearing at MH1-15 under supervision of ecology specialists

- Temporary facilities set-up, site establishment at maintenance holes

- Manhole preparation works:
  - Traffic management and partial road closure at MH1-14 site for MH1-14 lid cover replacement (enabling works)
  - Removal and replacement of the existing MH1-14 cover and frame, with a new concrete lid and cover replacement which can accommodate the cable with the main personnel access cover being closed
  - Liaising with impacted utilities/service providers and engaging spotters where required for any destructive digging
  - Removal and disposal of existing ladders and platform infrastructure inside MH1-14
  - Removal of existing ladders and platforms infrastructure inside MH1-15 to facilitate space for the bucket and access requirements for desilting operations. To be stored and potentially later re-used/re-instated.
- Desilting operations
  - Occasional traffic management and partial road closure at MH1-14 site due to re-adjustment & re-positioning of site components/facilities
  - Set up flow monitoring system – monitor flows and restrictions
  - Set up of winch and bucket system including comms system setup (Wi-Fi cable and Wi-Fi receiver to monitor movement of bucket and cable), actuated doors at both manholes (two lid system for odour and ventilation management) and noise control wall at MH1-14
  - Opening a flow path through material via a spearing/piercing beam to break through debris (engaging silt from MH1-15 and piercing progressively 20m)
  - Once flow path has been opened, use bucket to move debris to manhole
  - Once moved to manhole, lift out debris via winching (1 x 600m long winch at each site) and silt temporarily stored in bins
  - Bins get transported into stockpiling area in North Head Recovery Plant (within approved area for current projects, i.e., NSOOS Access Cavern & NST Wet Well & Decline Tunnel Projects)
  - Bins will be transported and disposed offsite to approved waste treatment facility.
- Site restoration
  - Clean up of sites
  - Re-installation of ladder and platforms at MH1-14, and potentially MH1-15
  - Removal of equipment and compounds
  - Vegetation planting at MH1-15.

Site layouts at MH1-14 and MH1-15 are shown below:

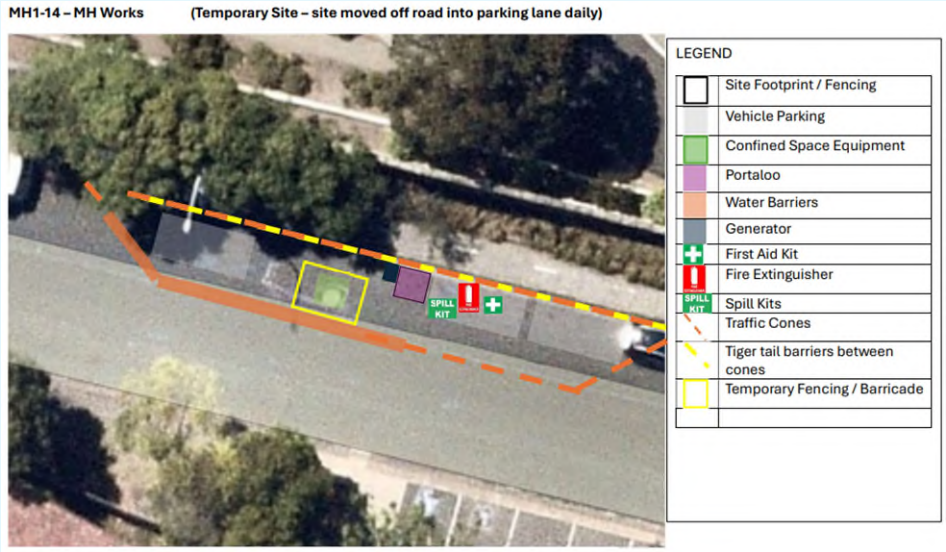


Figure 1 MH1-14 site layout and key features

Figure 2 MH1-15 site layout and key features

It should be noted that only the required facilities have been included at the MH1-15 site layout. Other facilities such as offices and additional amenities would be located at the North Head WTP (250 metres east).

The extent of the site layout has been reduced to the smallest possible area to reduce the impact to the surrounding environment without sacrificing on necessary equipment or space.

The plant and equipment required for the proposed works are as follows:

- spearing /piercing beam
- dredging bucket (with nylon slippers)
- winch (Bagela RW10)
- excavator
- forklift
- noise control walls
- barges
- hand tools

	• light vehicles • skip bins • tipper trucks • street sweepers • site facilities and amenities • FIFM/confined space safety equipment (gantry/davit/gas monitors).
Location and land ownership	The proposed works have two locations: • Location 1: MH1-14 is located on Darley Road, Manly 20 m east of Manly Hospital's emergency vehicle entrance. • Location 2: MH1-15 located adjacent to Bluefish Road, Manly NSW approx. 200 metres west of the North Head Wastewater Treatment Plant. MH1-14 is within the road corridor of Darley Road on land zoned as C4 (Environmental Living) and MH1-15 is within DP752038 Lot 2763 and zoned C1 (National Parks and Nature Reserves) under the Manly Local Environmental Plan (LEP) 2013. Location 1 is surrounded by land zoned C4 with land zoned SP2 (infrastructure) across the road to the south and SP1 (Special activities) to the north. Location 2 is surrounded by land zoned as C1 with land zoned C2 (Environmental Conservation) located across the road to the southwest
Site establishment and access tracks	MH1-14 is located within the road corridor so access will be via Darley Road. Site establishment and activities at Location 1 would require partial road closures. MH1-15 is located within bushland adjacent to Bluefish Road. An access path connects the site to the road. Surrounding vegetation would require trimming or removal along the access path and around the concrete pad for site establishment, equipment access and desilting activities to take place. Partial road closure would be required for the proposed works at location 1 (MH1-14) with traffic management for the initial excavation and removal of internal manhole structures. Road closures and traffic management may be required during desilting phase for equipment of facility repositioning.
Ancillary facilities (compounds)	Site compounds would be located within the project footprint outlined in **Figures 3, 4, and 5**.
Work hours	Work and deliveries will be scheduled during standard daytime hours: • 7 am to 6 pm, Monday to Friday • 8 am to 1 pm, Saturdays. The proposal is not expected to require work outside these hours. However, Sydney Water's Project Manager can approve work outside of standard daytime hours. The approval process is described in the mitigation measures in Section 6.
Proposal timing	Construction is expected to start March 2025 and take about 10 months (approx. 270 days).

- MH1-14 adjustment – approximately 31 days
- MH1-15 adjustment – approximately 22 days
- Interim desilting –145 to 218 days (best case to worst case)

Figure 3 Location of proposal and environmental constraints

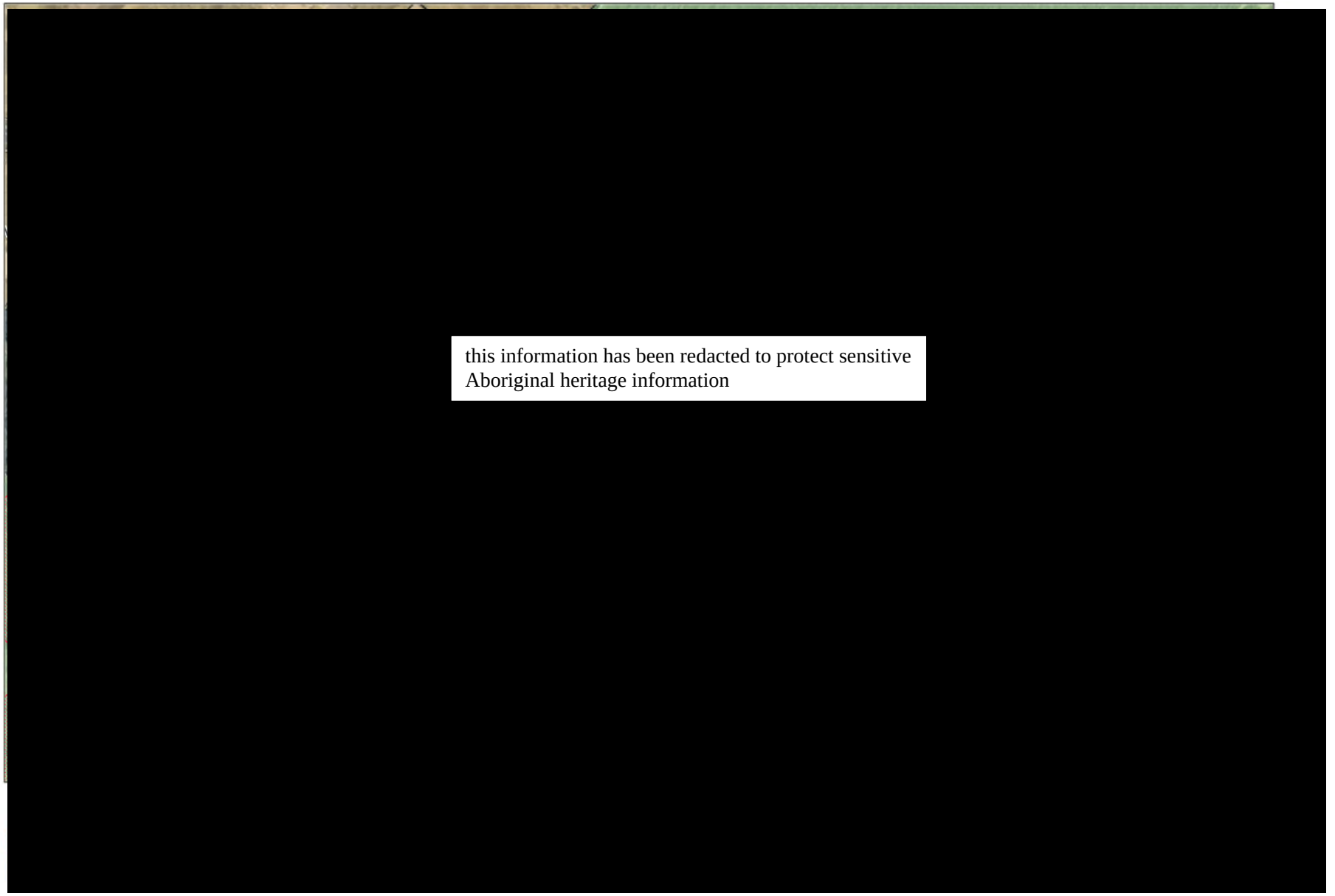
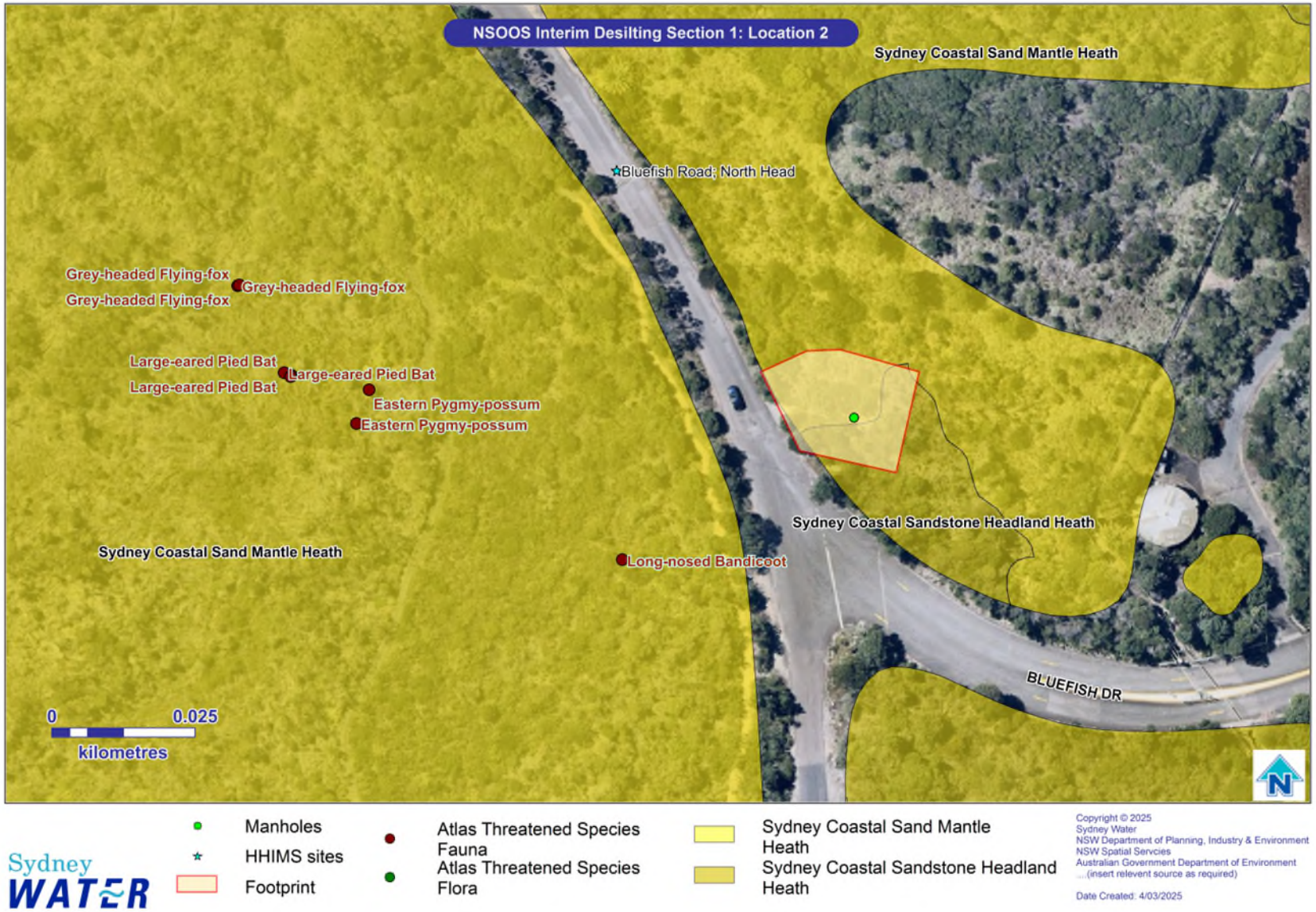


Figure 4 Close up of MH1-14 site (location 1)

Figure 5 Close up of MH1-15 site (location 2)



3 Consultation

Community and stakeholder consultation

Our approach to community and stakeholder consultation is guided by Sydney Water's community and stakeholder engagement guidelines.

Stakeholder and community engagement is a planned process of initiating and maintaining relationships with external parties who have an interest in our activities. Community and stakeholder engagement:

- enables us to explain strategy, policy, proposals, proposal or programs
- gives the community and stakeholders the opportunity to share their knowledge, issues and concerns
- enables us to understand community and stakeholder views in our decision-making processes alongside safety, environment, economic, technical and operational factors.

The nature, scale and extent of the proposal's potential impact has been evaluated in this REF. If our work impacts the community in some way, we will consult with affected groups throughout the proposal. This includes engaging the broader community and stakeholders during plan or strategy development or before making key decisions.

We will also provide local councils with reasonable notice when we would like to commence works. Local council(s) will be consulted about matters identified in environmental planning instruments (refer Section 4.2 below). This includes public safety issues, temporary works on council land, and full or partial road closures of council managed roads.

Sydney Water has undertaken Community Reference Group (CRG) consultation for the North Head associated works. This included a presentation on the Interim Desilting operations at Section 1 as part of the NSOOS Project Update with a high-level description of the proposed scope of works. Further CRG consultation is set to continue going forward and a community newsletter is planned to inform neighbouring residents of the scope and impacts of the proposed works.

Consultation required under State Environmental Planning Policies and other legislation

Sydney Water must consult with councils and other authorities for work in sensitive locations or where the work may impact other agencies' infrastructure or land. This is specified in the State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP).

Formal consultation with Northern Beaches Council in the form of a letter was sent on 21 November 2024 under the TISEPP requirements for Section 2.10(1)(e) and 2.10(1)(f) for development within a council owned road. Further detail is provided in Appendix C.

NPWS was consulted about the proposal in accordance with the TISEPP consultation requirements Section 2.15(1)(a) and (b) as well as the NPWS - Access Consent and Protocol as the proposed works at Location 2 (MH1-15) are located on land zoned as C1 (National Parks and Nature Reserves). Notification under Type B proposal was undertaken on 29 November 2024 in accordance with the Protocol.

Sydney Water met with NPWS on 19 February 2025 and on 4 March 2025 to discuss queries and provide further context.

4 Legislative requirements

Table 2 Environmental planning instruments relevant to the proposal

Environmental Planning Instrument	Relevance to proposal
Manly Local Environmental Plan 2013 (Manly LEP)	The proposal is located on land zoned C1 (National Parks and Nature Reserves) and C4 (Environmental Living)
State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP)	Section 2.126 (6 & 10) of the TISEPP permits development by or on behalf of a public authority for sewerage reticulation systems without consent on any land. The proposal involves maintenance of a sewerage reticulation system and is in land zoned C1 (National Parks and Nature Reserves) and C4 (Environmental Living). As Sydney Water is a public authority, the proposal is permissible without consent.
State Environmental Planning Policy (Biodiversity and Conservation) 2021 (BCSEPP)	**Vegetation in non-rural areas (Chapter 2)** The proposal is in an area or zone listed in subsection 2.3(1). However, subsection 2.4(1) states: '***This Policy does not affect the provisions of any other SEPP….***', and as the works are permissible under the TISEPP, a council permit to clear vegetation under this SEPP is not required. **Water catchments (Chapter 6)** Chapter 6 of this SEPP applies as the proposal is within the Sydney Harbour Catchment, a regulated catchment area. Section 5 of this REF assessed potential environmental impacts on water quality and quantity, aquatic ecology, flooding, access, cultural heritage, flora and fauna, and scenic quality. The assessment confirmed that potential impacts are minimal and meet the requirements of part 6.2 of the SEPP.
National Parks and Wildlife Act 1974 (NPW Act)	There are no Aboriginal sites or Aboriginal Heritage Impact Permits (AHIPs) located within 100 metres of the proposed works. An Aboriginal Heritage Due Diligence has been completed for the nearest AHIMS site (120 metres away). This concludes that impact to Aboriginal heritage sites is unlikely and the works can proceed with caution. The proposed works are located on land zoned C1 (National Parks and Nature reserves). Sydney Water and NPWS have a Consent and Access Protocol for Maintenance, Repair and Operation of Sydney Water Infrastructure in Parks and Reserves (the Protocol). This Protocol streamlines the approval process for essential maintenance, repair and operational activities for Sydney Water on NPWS land. The Protocol has two main procedures based on two different types of proposals.

Environmental Planning Instrument	Relevance to proposal
	Type B proposals are those activities that may have some potential impact on the natural and cultural values of the park or may cause potential annoyance or nuisance to staff or park visitors. Type B proposals comprise maintenance and operational activities which potentially cause a change to the formation of the access route or which involve clearing of previously uncleared vegetation. This proposal involves: • essential maintenance of the NSOOS via an existing MH15 on NPWS land • a temporary change to the access around MH15 • clearing of previously cleared vegetation. This proposal falls within the Type B proposal according to the Protocol. Consultation with National Parks and Wildlife has been undertaken under the Protocol. This involved a site visit on 22 August 2024, the Type B notification being sent on 29 November 2024 and meeting on 19 February 2025 and 4 March 2025.
Roads Act 1993	Works on location 1 (MH1-14) are being undertaken within the road corridor of Darley Road and would require partial road closures for the period of the development. Consultation with Northern Beaches council has been undertaken as per the TISEPP requirements.
Biodiversity Conservation Act 2016 (BC Act)	Vegetation removal is included as part of the proposed works for MH1-15. This would potentially impact three threatened species (Eastern Pygmy-possum, Long-nosed Bandicoot, North Head, Red-crowned Toadlet) and one TEC (Eastern Banksia Scrub of the Sydney Region) under the BC Act. An ecological assessment was undertaken to determine the level of impact. Sydney Water's vegetation offset requirements would be undertaken to offset any impacts to biodiversity.
Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)	Vegetation removal is included as part of the proposed works for MH1-15. This would potentially impact an EPBC listed CEEC (Eastern Banksia Scrub of the Sydney Region). An ecological assessment was undertaken to determine the level of impact. Sydney Water's vegetation offset requirements would be undertaken to offset any impacts to biodiversity.

5 Environmental assessment

Table 3 Key environmental aspects and potential impacts of construction and operation

Aspect	Potential impacts
Topography, geology and soils	The proposal would be undertaken at two locations MH1-14 (location 1) and MH1-15 (location 2). Location 1 would require minor excavation, removing the concrete around the existing manhole. Location 1 is situated within the road corridor of Darley Road and as such is in a pre-disturbed area. Location 2 would require no excavation, however remnant stockpiles (fill material) would be trimmed and used to flatten area for construction. According to the Manly Local Environmental Plan 2013 (Manly LEP) both locations are not mapped as acid sulphate soil (ASS) areas. However, location 2 (MH1-15) is located within a landslide risk area. Excavations at location 1 are considered minor and are required to replace the manhole cover for easier access. This work would be contained to the existing infrastructure of the access point. The clearing around location 2 would expose soils and potentially increase the likelihood of erosion, as such an erosion control plan is recommended to ameliorate any potential impacts. An Unexpected Finds Protocol shall be prepared to detail the approach and methodology for the management of any unexpected asbestos and contaminated soils encountered during construction works. Any excavated soils should be classified for re-use onsite or off-site disposal in accordance with the NSW EPA Waste Classification Guidelines (2014). After the completion of the works both locations would be restored to their previous condition.
Water and drainage	There are no waterways within 200 metres of both locations. The nearest body of water is Sydney Harbour which is about 290 metres away at its closest point. The proposed works are located within the Sydney Harbour Catchment area. Any impacts to drainage or waterways are unlikely due to the nature of the proposed activities. However, any mishandling of the material removed from the site could impact nearby waterways and waterbodies if not disposed of correctly. Additionally, excavations and clearing would expose soils potential leading to the mobilisation of soils to nearby waterways during high rainfall events. As such an erosion control plan is recommended to ameliorate any potential impacts.
Flora and fauna	An ecology assessment was undertaken by Aurecon for the proposed works. The methodology for this assessment included a desktop review of relevant literature and databases, a field investigation and an impact assessment. A summary of this assessment is included below, for the full assessment refer to Appendix D. The study area for the proposed disturbance footprint is shown in **Figure 6** and the expected footprint is shown in **Figure 7**.

Figure 6 Study area

Figure 7 Proposed footprint

The Study Area is located on previously heavily disturbed land comprised of native and exotic vegetation on North Head headland, fragmented by existing infrastructure (MH1-15), and bordered by Blue Fish Drive. There is moderate weed incursion, mainly by African Olive (Olea europaea subsp. cuspidata).

Vegetation within the Study Area conforms to BC Act and EPBC Act critically endangered TEC Eastern Suburbs Banksia Scrub of the Sydney Region. However, vegetation within the Study Area is degraded, long unburnt, and previously cleared.

Field assessment

During the field assessment, 15 flora species were recorded. The majority of flora species were native species (86%). The rest of the flora species were weeds (14%). No threatened flora species were recorded within the Study Area. Vegetation within the Study Area was determined to be degraded, long unburnt, and previously and repeatedly heavily disturbed.

Summary of potential impacts

The area required for the proposed activities is approximately 399 m^2 around MH1-15. The proposed activities would require the clearing of 331 m^2 of native vegetation in this area that conforms to PCT3806 which is considered Critically Endangered Eastern Suburbs Banksia Scrub of the Sydney Region under the EPBC Act and BC Act. This PCT is considered potential habitat for three threatened species, i.e. Eastern Pygmy-possum (***Cercartetus nanus***), Long-nosed Bandicoot, North Head (***Perameles nasuta***), and Red-crowned Toadlet (***Pseudophryne australis***). Removal of this amount of vegetation may impact potential dispersal, sheltering and foraging habitat for these species. Additionally, the proposed works may require the removal of one tree with a significant fauna habitat feature (Hollow) within the study area.

An MNES Significance Impact Assessment was undertaken for the EPBC listed Eastern Banksia Scrub of the Sydney Region. The criteria of this assessment determined that the proposed works are not considered to have a substantial impact.

Four BC Act tests of significance (ToS) were undertaken for the following species and vegetation zone listed under the BC Act:

- Eastern Banksia Scrub of the Sydney Region
- Eastern Pygmy-possum - ***Cercartetus nanus***
- Long-nosed Bandicoot, North Head - ***Perameles nasuta***
- Red-crowned Toadlet - ***Pseudophryne australis***

All ToS assessments determined that the impacts to these species are unlikely to be considered significant.

The ecological assessment determined that these works will not have a significantly adverse impact on the following: Threatened ecological communities or species such that local occurrence is likely to be placed at risk of extinction, on any habitat of a threatened species or ecological community, or on any Areas of Outstanding Biodiversity Values (AOBV).

The removal of threatened native vegetation with a moderate impact requires offsetting at a 3:1 ratio under Sydney Water's biodiversity offset strategy. The rehabilitation of the site post construction would be considered as 1:1 in the offsetting strategy and Sydney Water is liaising with NPWS for the additional 2:1 in order to fulfill commitments.

Safeguards and mitigation measures recommended in the ecological assessment have been included in Section 6 of this REF.

Heritage

The proposed work would be confined to the footprint outlined in **Figures 1, 2, and 3**. The locations for the proposed works and surrounding areas are on pre-disturbed land.

Aboriginal Heritage

this information has been redacted to protect sensitive Aboriginal heritage information

An Aboriginal Heritage Due Diligence (AHDD) assessment was completed for the study area. This included a review of AHIMS data, relevant heritage databases and historical aerial imagery of the area.

The AHDD determined that the AHIMS site was within 200-metre according to the site card and basic search. However, the likelihood of impacting any aboriginal objects/places or this known AHIMS site was considered low as the site is on previously disturbed land with no features that indicate high risk of encountering aboriginal objects within 200m the proposed works.

Any potential impacts to Aboriginal heritage would be minimised under the safeguards outlined in Section 6 including heritage inductions, stop work procedures and an unexpected finds protocol.

Non-Aboriginal heritage

A review of the Manly LEP 2013, State and National Heritage Registers was conducted to identify heritage items in proximity to the proposed works. The following are listed in Manly LEP 2013:

- Stone walls (I182) – 5 metres from location 1
- St Patricks Estate (I132) – 5 metres from location 1
- The School of Artillery, group of institutional buildings (I184) – 30 metres from location 2
- Quarantine Station & Reserve (I175) – within location 1

North Head Artillery Barracks is listed under the Commonwealth Heritage List Australia.

St Patricks Estate is also listed under the State Heritage Register (SHR) (01724). Impacts are unlikely due as works will be contained to the footprint and the nature of the works. The likelihood for vibration intensive equipment impacting these heritage items is included in the Noise and Vibration section.

The School of Artillery, group of institutional buildings are located approximately 30 metres away from Location 2 (MH1-15). Impacts to this item are unlikely to due to the works being contained to the footprint and the nature of the works.

A review of the Historic Heritage Information Management System (HHIMS) identified five items under the National Parks and Wildlife Services Estate. These include the following:

- Bluefish Road, North Head (Potential site, ID5193) – 50 metres from Location 2
- Bluefish Command Post, North Head (Potential site, ID8659) – 80 metres from Location 2
- Bluefish Anti-aircraft Battery (Potential site, ID4004) – 117 metres from Location 2

- Bluefish Gun Pit 4, North Head (Potential site, ID8660) – 126 metres from Location 2
- Anti Aircraft Gun Emplacement Gun Pit 3 – Bluefish, North Head (Section 170, ID5191) – 152 metres from Location 2

These heritage items (with the exception of Bluefish Road) are located out of the road reserve and within the parkland of Quarantine Station & Reserve. As impacts to the bushland outside of the worksite will not occur potential impacts to these heritage items are considered negligible.

The proposed works are located within Quarantine Station & Reserve which is listed on Manly LEP 2013 as part of the Sydney Harbour National Park. However, the proposed works are located at an existing Sydney Water Asset and the surrounding location has been previously disturbed by the creation of the asset. In addition, the works do not involve excavation or provision of any permanent structures and only require vegetation clearing. After completion of the proposed works the area would be restored to its previous condition with additional offsetting undertaken offsite (additional information in the Flora and Fauna section). Therefore, the impacts to this heritage item are considered minor and inconsequential.

Noise and vibration

There is potential for some temporary impacts to nearby sensitive receivers during the proposed activities due to noise and vibration. Nearby sensitive receivers include residential properties along Darley Road and Manly Hospital (Darley Road).

Construction

A quantitative noise and vibration impact assessment was completed using the Transport for NSW Construction and Maintenance Noise Estimator for the proposed works for both locations 1 and 2 according to guidelines in the Interim Construction Noise Guideline (DECC 2009).

The noise assessment was conducted as a worst-case distance-based assessment using the noisiest plant. The Noisiest plant/equipment was decided as an excavator (5T). The representative noise environment was decided as R2 with corresponding Rating Background Levels (RBLs) as follows:

- Day: 45 dB(A)
- Evening: 40 dB(A)
- Night: 35 dB(A)

The corresponding Noise Management Levels (NMLs) (RBLs + 10) for the surrounding environment is as follows:

- Day: 55 dB(A)
- Evening: 50 dB(A)
- Night: 45 dB(A)

The assessment was undertaken under the assumptions that all works are to be carried out during standard day hours, that all sensitive receivers have line of sight, and with the location being classified as developed settlements.

The results of the construction noise assessment have been included in **Figures 8 and 9** for locations 1 and 2 respectively.

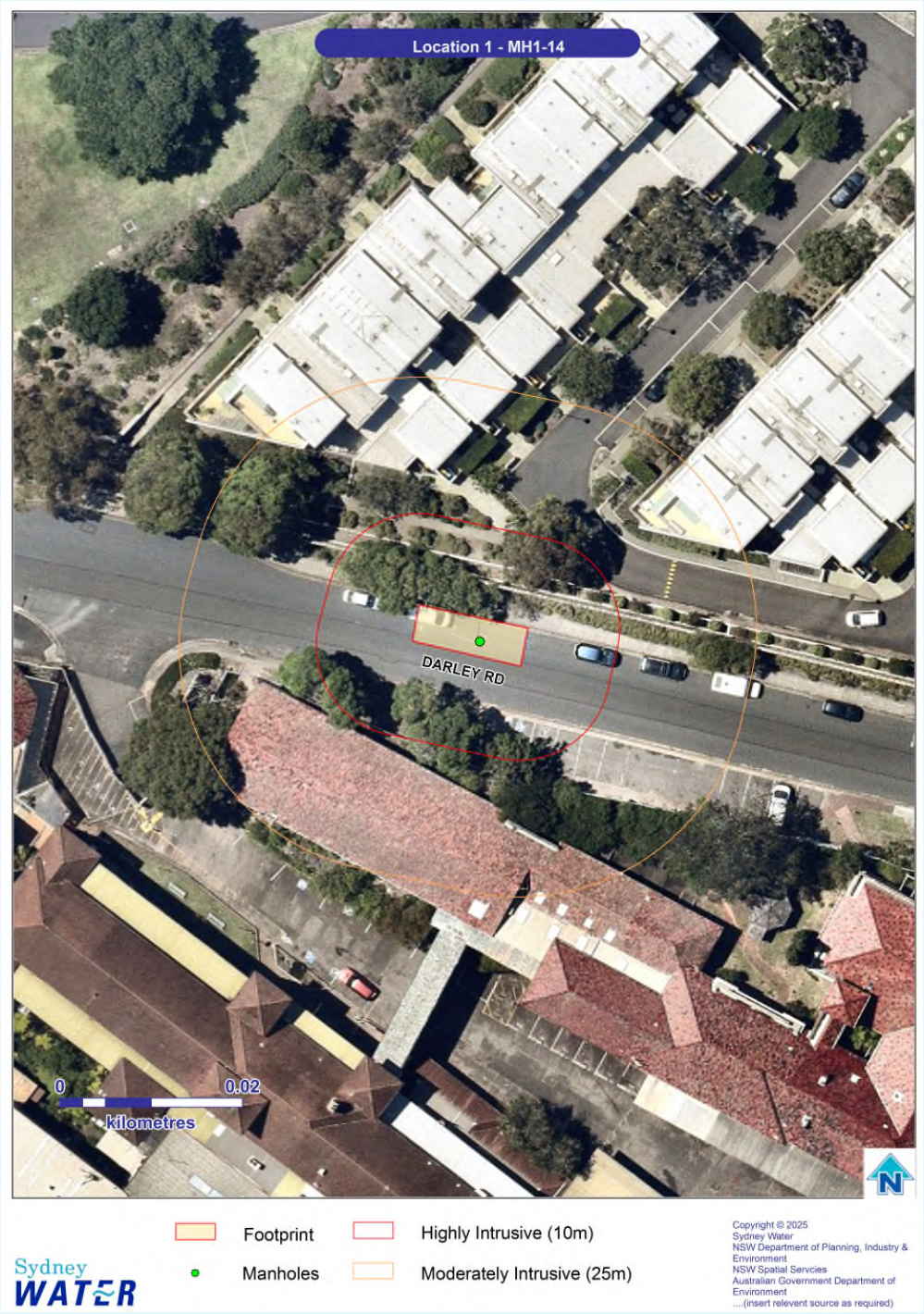


Figure 8 Noise impact areas – Location 1

Figure 9 Noise impact areas – Location 2

The results of the construction noise assessment have also been outlined in Table 3.1 and Table 3.2 for locations 1 and 2 respectively including recommendations for additional mitigations measures from the noise calculator.

Table 3.1 Noise impacts – Location 1

Impact level	Measures	Within distance (m)	Mitigation level (dB(A))
Moderately intrusive 20 to 30 dB(A) above RBL	Notification	25	65
Highly Intrusive >30 dB(A) above RBL	Notification, Phone calls, Respite offer	10	75

Table 3.2 Noise impacts – Location 2

Impact level	Measures	Within distance (m)	Mitigation level (dB(A))
Moderately intrusive 20 to 30 dB(A) above RBL	Notification	25	65
Highly Intrusive >30 dB(A) above RBL	Notification, Phone calls, Respite offer	10	75

As shown in **Figure 8**, the sensitive receivers along either side of Darley Road are located within the moderately intrusive area around location1 (MH1-14). The Transport noise estimator has recommended Notification to these residences and receivers as per Table 3.1. No sensitive receivers are located within the Highly Intrusive area for these proposed works. Road users and pedestrians may experience potential impacts as a result of these works.

As shown in **Figure 9**, there are no sensitive receivers within 200 metres of the proposed works at location 2 (MH1-15). The only possible receivers that may be impacted from the proposed works at this location would be road users on Blue Fish Drive.

Operation

No additional operational noise and vibration impacts are expected due to the nature of the proposed works.

Vibration impacts

No equipment required for the proposed works are listed on the Construction and Maintenance Noise Estimator (Transport for NSW), recommended minimum working distances for vibration intensive plants. As such vibration related impacts are not anticipated to heritage fabric or humans in the vicinity of the works.

Air and energy

A search of the National Pollutant Inventory identified one source of potential pollutants nearby to the proposed works:

- North Head Sewage Treatment Plant (250 metres east)

Sensitive receivers in the vicinity of the proposed works include neighbouring residential properties along Darley Road and Manly Hospital (Darley Road) for Location 1 and NPWS staff and visitors for Location 2.

During the works, there is potential to impact air quality by generating:

- Dust during excavation and movement of disturbed ground

	- Emissions from machinery, equipment and vehicles used during construction. - Odour from the disturbance of existing sewerage and exposure of sewage The potential air quality impacts during construction will be localised and temporary and unlikely to have a significant impact with the application of environmental safeguards (refer Section 6). Operational impacts are not considered due to the nature of the proposed work.
Waste and hazardous materials	The proposed activities would produce various waste streams from general activities, and the desilting operations including the following: - concrete waste from MH1-14 manhole excavation, stripping, and reconstruction - general waste from construction activities - green waste from vegetation clearing and removal - waste from desilting operations to be disposed of offsite. The proposal includes the removal of material from within the NSOOS (desilting). This material would be disposed of correctly offsite at an appropriately licenced facility according to the Waste Classification Guidelines (NSW EPA, 2014).
Traffic and access	The proposed works would be contained to the project footprint outlined in **Figure 3, 4 and 5.** Location 1 (MH1-14) would require a partial road closure for the initial portion of the project during the refurbishment of the Manhole cover and removal of internal structures within the Manhole. Partial road closure would include the parking and northbound lanes as shown in **Figure 4** for approximately 30 days for refurbishment. Traffic management/controls would be in place during this time to reduce potential impacts to traffic and access. Following the initial refurbishment the footprint would be reduced to the parking lane and the need for lane closure and traffic control would no longer be necessary unless temporarily required for equipment or facility repositioning. Works at Location 2 (MH1-15) would only result in minor impacts to traffic and access as equipment and works are off the road with a maximum of two trucks per day driving to site to remove silt bins. Signage would be used for access/egress of incoming site vehicle movements. Minor impacts to traffic may occur due to increased traffic movement from trucks transporting material and worker vehicle movements/parking.
Social and visual	Impacts to social and visual factors during the construction phase of the proposed works would include amenity impacts due to the presence of construction equipment personnel and activities occurring within line of sight of people passing through / using the area. These impacts would be temporary in nature and the locations would be returned to their pre-work condition. Following construction, no changes to operation of the asset are anticipated. Short term social and visual impacts at location 2 (MH1-15) would include a reduction in amenity as a result of vegetation clearance however, long term impacts would be negligible as vegetation planting would offset this.
Cumulative and future trends	There are no concurrent major projects listed in Northern Beaches Council LGA that could result in a cumulative impact.

6 Environmental mitigation measures

Table 4 Mitigation measures

Mitigation measures
General
Prepare a Construction Environmental Management Plan (CEMP) addressing the requirements of this environmental assessment. The CEMP should specify licence, approval and notification requirements. Prior to the start of work, all project staff and contractors will be inducted in the CEMP. The CEMP must be readily available on site and include a site plan which shows: • Go/no go areas (egMark the boundary with highly visible non-ground-disturbing and 'environmental protection zone' signs.) and boundaries of the work area/disturbance corridor including locations of lay-down and storage areas for materials and equipment • location of environmental controls (such as erosion and sediment controls, fences or other measures to protect vegetation or fauna, spill kits) • location and full extent of any vegetation disturbance.
Comply with the Access for Maintenance, Repair an Operation of Sydney Water Infrastructure in Parks and Reserves consent and protocol (NPWS Access Protocol), as well as any endorsement conditions provided by NPWS for Location 2.
Include incident management plan in the CEMP outlining actions and responsibilities during: • predicted/onset of heavy rain during works • spills • unexpected finds (eg heritage and contamination) • other potential incidents relevant to the scope of works. All site personnel must be inducted into the CEMP incident management plan.
Topography, Geology and Soils
Minimise ground disturbance and stabilise disturbed areas progressively.
Stop work in the immediate vicinity of suspected contamination. Indicators of contamination include discoloured soil, anthropogenic material within fill, asbestos, chemical or petrol odours and leachate. Contain disturbed material on an impermeable surface and cordon areas off. Notify the Sydney Water Project Manager and the Environmental Representative (who will contact Property Environmental Services) to agree on proposed management approach.
A sedimentation and controls plan is to be prepared by the contractor and approved by SWC prior to works starting to avoid indirect impacts due to runoff of building materials and/or water into adjacent vegetation and waterways.
Water and Drainage
Keep functioning spill kit on site for clean-up of accidental chemical/fuel spills. Keep the spill kits stocked and located for easy access.
Store all chemicals and fuels in accordance with relevant Australian Standards and Safety Data Sheets. Record stored chemicals on site register. Bunded areas to have 110% capacity of stored liquid volume. Chemicals and fuels in vehicles must be tightly secured. All chemicals to be clearly labelled.

Conduct refuelling, fuel decanting and vehicle maintenance in compounds where possible. If field refuelling is necessary, designate an area away from waterways and drainage lines with functioning spill kits close by.

No wash down of equipment permitted onsite apart from equipment used within the sewer. This may be washed down provided it is in a contained area and any wastewater is returned to the sewer.

Ensure equipment is leak free. Repair oil/fuel leaks immediately or remove from site and replace with a leak-free item.

Flora and fauna

All site personnel must be inducted in the ecological sensitivities of the Location 2 site before starting work. The induction should include clear explanation of NPWS land, worksite boundaries, go and no-go areas, measures to avoid impacts, stop work procedures for any unexpected threatened species found, and contact details to obtain further ecological guidance if needed.

The native vegetation to be cleared within the Impact Area will be clearly identified and marked. Native vegetation to remain will be clearly delineated as No-Go-Zones to avoid risk of clearing. Clearing and No-Go-Zone maps to be prepared and approved by Sydney Water prior to works commencing. Signing stating No-Go-Zone to be placed in fences. All staff will be made aware of No-Go-Zones during induction and be provided with a map of No-Go-Zones.

Inspect vegetation for potential fauna prior to clearing or trimming. If fauna is present, or ecological assessment has determined high likelihood of native fauna presence (including hollow bearing trees), engage WIRES or a licenced ecologist to inspect and relocate fauna before works.

Offset residual impacts to native vegetation and trees in accordance with the Biodiversity Offset Guideline (SWEMS0019.13).

The Biodiversity Offset Guideline requires vegetation to be offset at a multiplier of 3:1 for Threatened Ecological Communities (TECs). The rehabilitation of the site would be classed as 1:1 offsetting. Sydney Water is liaising with NPWS for the additional 2:1 in order to fulfill offset commitments.

Revegetated areas and trees planted should be maintained for a period of 2 years so that their survival until establishment is achieved.

Liaison with NPWS will be required to plan rehabilitation works at MH1-15.

Tree removal is to be confirmed by an arborist due to potential to retain these trees if impact to the Tree Root Zone is minimal.

Weed management plan is to be developed as part of the CEMP and implemented by the contractor and approved by Sydney Water prior to works commencing. The plan will be established and implemented to avoid spread and establishment of weeds during construction. Measures will include:

- All equipment and plant machinery to be appropriately cleaned before the start of works.
- All priority weeds within the Impact Area are to be cleared and disposed of at a registered waste management facility.
- If herbicide is to be used, this must be applied by a person trained to do so and that has a certificate of competency, or a statement of attainment issued by a registered training organisation. Herbicide will only be used in accordance with the label/permit.
- Conduct toolbox talks to identify high risk priority weeds and weeds of national significance to on-site staff.

- Weed vegetation requiring clearing and removal should be disposed of at a registered waste management facility.

A hygiene protocol must be included within the CEMP prior to works starting and implemented by the contractor during works to avoid introduction of pathogens in machinery, tools, PPE or imported soils.

Map and report native vegetation clearing greater than 0.01 ha in extent (and any associated rehabilitation) to the Sydney Water Environmental Representative. Track vegetation clearing as per SWEMS0015.26 Contractor Native Vegetation Clearing and Rehabilitation template.

Refer to Native Vegetation Clearing and Rehabilitation Report template (SWEMS0015.26). Supporting documentation/evidence must be provided in the report including photos, marked up maps and GIS layers.

Minimise vegetation clearance and disturbance. Where possible, limit clearing to trimming rather than the removal of whole plants e.g., tie-back and trim rather than removal where possible.

Protect trees in accordance with the requirements of Australian Standard 4970-2009 for the Protection of Trees on Development Sites. Do not damage tree roots unless absolutely necessary and engage a qualified arborist where roots >50mm are impacted within the Tree Protection Zone.

Retain dead tree trunks, bush rock or logs in-situ unless they are in the disturbance corridor and moving is unavoidable. Reposition material elsewhere on the site or approved adjacent sites. If native fauna is likely to be present, a licenced ecologist should conduct a pre-clearance inspection and undertake fauna relocation.

If native fauna is encountered on site, stop work and allow the fauna to move away unharassed. Engage WIRES or a licenced ecologist if assistance is required to move fauna.

If any threatened species (flora or fauna) is discovered during the works, stop work immediately and notify the Sydney Water Project Manager. Work will only recommence once the impact on the species has been assessed and appropriate control measures implemented.

If any damage occurs to vegetation outside of the disturbance corridor (as shown in the CEMP), notify the Sydney Water Project Manager and Environmental Representative so that appropriate remediation strategies can be developed.

Manage biosecurity in accordance with:

- Biosecurity Act 2015 (see NSW WeedWise), including reporting new weed infestations or invasive pests
- contemporary bush regeneration practices, including disposal of sealed bagged weeds to a licenced waste disposal facility.

Record Pesticides and Herbicides use in accordance with SWEMS0017.

If green waste is likely to contain herbicides or other chemical or physical contaminants (including man-made and other foreign materials), do not send for offsite recycling.

Bag all plant parts and excavated topsoil that may be infested with weed propagules and dispose at a licensed waste disposal facility.

Weed species that need to be bagged should be identified specifically. This would be through ecologist specialist study, or consultation with Council/ NPWS.

In TOBAN period:

For maintenance and construction activities that are not essential/emergency works, the use of fire in the open, including for general purpose hot works must not proceed without an exemption being approved.

Staff and contractors must contact the Project Manager, not contact local RFS directly to seek their own exemption.

Heritage

Do not make publicly available or publish, in any form, Aboriginal heritage information on sites / potential archaeological deposits, particularly regarding location.

Repeat the basic AHIMS search if it is older than 12 months. Conduct additional assessment if new sites are registered and could be impacted by the works.

If any Aboriginal object or non-Aboriginal relic is found, cease all excavation or disturbance in the area and notify SW Project Manager in accordance with SWEMS0009.

All site personnel must be inducted in the site heritage constraints before starting work on site. The induction should include clear explanation of heritage constraints, go and no-go areas, measures to avoid impacts, stop work procedures, and contact details to obtain further heritage guidance if needed.

Noise and vibration

Works must comply with the Construction Noise Guideline (Draft, 2021), including scheduling work and deliveries during standard daytime working hours of 7am to 6pm Monday to Friday and 8am to 1pm Saturday. No work to be scheduled on Sunday nights or public holidays. Any proposed work outside of these hours must be fully justified.

The proposal will also be carried out in accordance with Sydney Water's Noise Management Procedure SWEMS0056.

All reasonable and feasible noise mitigation measures should be clearly justified, documented and implemented on-site to mitigate noise impacts.

Incorporate standard daytime hours noise management safeguards into the CEMP, including but not limited to:

- identify and consult with the potentially affected residents prior to the commencement:
    - describe the nature of works; the expected noise impacts; approved hours of work; duration, complaints handling and contact details.
    - determine need for, and appropriate timing of respite periods (eg times identified by the community that are less sensitive to noise such as mid-morning or mid-afternoon for works near residences)
- implement a complaints handling procedure for managing noise complaints
- plant or machinery will not be permitted to warm-up near residential dwellings before the nominated working hours.
- appropriate plant will be selected for each task, to minimise the noise impact (eg all stationary and mobile plant will be fitted with residential type silencers)
- engine brakes will not be used when entering or leaving the work site(s) or within work areas.
- regularly inspect and maintain equipment in good working order
- arrange work sites where possible to minimise noise (eg generators away from sensitive receivers, site set up to minimise use of vehicle reversing alarms, site amenities and/ or entrances away from noise sensitive receivers).
- use natural landforms/ mounds or site sheds as noise barriers

- schedule noisy activities around times of surrounding high background noise (local road traffic or when other noise sources are active).

If works beyond standard daytime hours are needed, the Contractor would:

- justify the need for out of hours work (OOHW) and why it is not possible to carry out the works during standard daytime hours
- consider potential noise impacts and: implement the relevant standard daytime hours safeguards; Sydney Water's Noise Management Code of Behaviour (SWEMS0056.01) and document all reasonable and feasible management measures to be implemented
- identify additional community notification requirements and outcomes of targeted community consultation
- seek approval from the Sydney Water Project Manager in consultation with the environment and communications representatives.

Consider less vibration intensive methodologies where practicable and use only the necessary sized and powered equipment.

Air and energy

Use alternatives to fossil fuels where practical and cost-effective.

Track energy use as per SWEMS0015.28 Contractor NGER template.

Minimise the potential for odours (eg minimise the number of open access chambers, close maintenance holes overnight.)

Ensure odour control measures are available and ready to use during the works.

Maintain equipment in good working order, comply with the clean air regulations of the Protection of the Environment Operations Act 1997, have appropriate exhaust pollution controls, and meet Australian Standards for exhaust emissions.

Switch off vehicles/machinery when not in use.

Cover all transported waste

Waste and hazardous materials

Manage waste in accordance with relevant legislation and maintain records to show compliance eg waste register, transport and disposal records. Record and submit SWEMS0015.27 Contractor Waste Report.

Provide adequate bins for general waste, hazardous waste and recyclable materials.

Minimise the generation of waste, sort waste streams to maximise reuse/recycling in accordance with the Waste Avoidance and Resource Recovery Act 2001

Prevent pollutants from escaping including covering skip bins.

Dispose excess vegetation (non-weed) that cannot be used for site stabilisation at an appropriate green waste disposal facility.

Traffic and access

Prepare a Traffic Management Plan (TMP) in consultation with the relevant traffic authority.

Meet NSW Roads and Maritime Service's Traffic Control at Worksites Manual v5 requirements for TfNSW roads. Program Delivery/The Contractor will obtain a Road Occupancy Licence (ROL) from TfNSW, including if works are within 100m of traffic signals when construction commences.

Minimise traffic impacts near residential properties, schools and businesses by consulting with them (eg no major materials deliveries at school drop off or pick up times etc.).

Consult with the relevant traffic authority about managing impacts to pedestrian traffic, signposting, meters, parking, line-marking or if traffic control or pavement restoration is required.

Erect signs to inform road users of the proposed works and any temporary road closures.

Ensure work vehicles do not obstruct vehicular or pedestrian traffic, or private driveway, public facility or business access unless necessary and only if appropriate notification has been provided.

Social and visual

Undertake works in accordance with Sydney Water Communications policies and requirements including:

- notify impacted residents and businesses
- erect signs to inform the public on nature of work
- personnel treat community enquiries appropriately.

Work sites will be restored to pre-existing condition or better.

Minimise visual impacts (eg retain existing vegetation where possible).

Maintain work areas in a clean and tidy condition.

No smoking within National Parks.

Appendix A – Section 171 checklist

Section 171 checklist	REF finding
Any environmental impact on a community	There may be temporary impacts on the community from noise and traffic impacts. There will be environmental improvements by providing a reliable wastewater service to the local community and reducing the occurrence of wet weather overflows which are currently occurring on the NSOOS.
Any transformation of a locality	The proposal will not result in the transformation of a locality. There will be a temporary impacts at both locations while construction is taking place, however, following construction the worksites will be returned to their pre-construction condition and there will be no long term transformation of a location.
Any environmental impact on the ecosystems of the locality	The ecological assessment determined that the proposed works would not have a significant impact on the ecosystem. The proposal will lead to environmental improvements by ensuring a reliable wastewater service to collect and treat wastewater, minimising any impacts on the ecosystem from wet weather overflows occurring on the NSOOS.
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality	The proposal will not reduce the aesthetic, recreational, scientific or other environmental quality or value of the locality. Cleared vegetation at location 2 would be replanted and the Sydney Water offsetting requirements would offset any loss of biodiversity value.
Any effect upon a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or any other special value for present or future generations	The proposal will not have any effect upon a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or any other special value for present or future generations.
Any impact on the habitat of any protected animals (within the meaning of the ***Biodiversity Conservation Act 2016***)	The proposal will have minor impacts on the habitat of protected animals. Vegetation removal around location 2 (MH1-15) would result a loss of potential shelter/habitat for three protected species (the Eastern Pygmy Possum, Long-nose Bandicoot, and Red crowned Toadlet). The ecological assessment has determined that removal of this vegetation would not significantly impact these species.
Any endangering of any species of animal or plant or other form of life, whether living on land, in water or in the air	The proposal will not be endangering any species of animal, plant or other form of life, whether living on land, in water or in the air.
Any long-term effects on the environment	The proposal will not have any adverse long-term impacts on the environment but will have a long-term benefit by providing a

Section 171 checklist	REF finding
	reliable and modern wastewater service for the area, reducing the occurrence of wet weather overflows currently occurring on the NSOOS.
Any degradation of the quality of the environment	The proposal will not cause the degradation of the quality of the environment.
Any risk to the safety of the environment	The proposal will not increase risk to the safety of the environment.
Any reduction in the range of beneficial uses of the environment	The proposal will not reduce the range of beneficial uses of the environment.
Any pollution of the environment	Environmental mitigation measures will mitigate the potential for the proposal to pollute the environment. No pollution of the environment is expected. Once works are complete Sydney Water will operate the NSOOS in accordance with the EPL378.
Any environmental problems associated with the disposal of waste	Waste disposal will be in accordance with the environmental mitigation measures, and no environmental problems associated with the disposal of waste are expected. Waste extracted from the NSOOS would be transported and disposed of correctly offsite at a licenced facility.
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply	The proposal will not increase demand on resources, that are, or are likely to become, in short supply.
Any cumulative environmental effect with other existing or likely future activities	The proposal will not have any cumulative environmental effect with other existing or likely future activities.
Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	The proposal will not have any impact on coastal processes or hazards, and coastal processes and coastal hazards will not have any impact on the proposal.
Any applicable local strategic planning statements, regional strategic plans or district strategic plans made under the EP&A Act, Division 3.1	There are no applicable strategic planning statements or plans relating to the proposal.
Any other relevant environmental factors.	The proposal has been assessed against the factors listed above, and there are no other relevant environmental factors to consider.

Appendix B – Consideration of principles of ecologically sustainable development (ESD)

Principle	Proposal alignment
Precautionary principle - ***if there are threats of serious or irreversible environmental damage, lack of scientific uncertainty should not be a reason for postponing measures to prevent environmental degradation. Public and private decisions should be guided by careful evaluation to avoid serious or irreversible damage to the environment where practicable, and an assessment of the risk-weighted consequences of various options.***	The proposal will not result in serious or irreversible environmental damage and mitigation measures have been designed to reduce scientific uncertainty relating to the proposal. All cleared vegetation would be offset in line with Sydney Waters requirements. The proposal would have negligible long-term impacts as the proposed works are temporary and the site would be restored to its former condition at the end of the works.
Inter-generational equity - ***the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.***	The proposal will help to meet the needs of future generations by providing a reliable wastewater service, reducing the occurrence of wet weather overflows currently occurring on the NSOOS.
Conservation of biological diversity and ecological integrity - ***conservation of the biological diversity and ecological integrity should be a fundamental consideration in environmental planning and decision-making processes.***	The proposal will not significantly impact on biological diversity or impact ecological integrity. The ecological assessment has concluded that vegetation removal would have no significant impact on local ecological health and the removal of potential habitat for threatened species would not impact likelihood of occurrence or materially change habitat conditions.
Improved valuation, pricing and incentive mechanisms - ***environmental factors should be included in the valuation of assets and services, such as 'polluter pays', the users of goods and services should pay prices based on the full life cycle costs (including use of natural resources and ultimate disposal of waste) and environmental goals***	The proposal will provide cost efficient use of resources and provide optimum outcomes for the community and environment.

Appendix C – Consideration of TISEPP consultation

TISEPP section	Yes	No
Section 2.10, council related infrastructure or services – consultation with council		
Will the work:		
Potentially have a substantial impact on stormwater management services provided by council?		X
Be likely to generate traffic that will strain the capacity of the road system in the LGA?		X
Connect to, and have a substantial impact on, the capacity of a council owned sewerage system?		X
Connect to, and use a substantial volume of water from a council owned water supply system?		X
Require temporary structures on, or enclose, a public space under council's control that will disrupt pedestrian or vehicular traffic that is not minor or inconsequential?	X	
Excavate a road, or a footpath adjacent to a road, for which the council is the roads authority, that is not minor or inconsequential?	X	
Section 2.11, local heritage – consultation with council		
Is the work likely to affect the heritage significance of a local heritage item, or of a heritage conservation area (not also a State heritage item) more than a minor or inconsequential amount?		X
Section 2.12, flood liable land – consultation with council		
Will the work be on flood liable land (land that is susceptible to flooding by the probable maximum flood event) and will works alter flood patterns other than to a minor extent?		X
Section 2.13, flood liable land – consultation with State Emergency Services		
Will the work be on flood liable land (land that is susceptible to flooding by the probable maximum flood event) and undertaken under a relevant provision*, but not the carrying out of minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance? * (e) Div.14 (Public admin buildings), (g) Div.16 (Research/ monitoring stations), (i) Div.20 (Stormwater systems)?		X
Section 2.14, development with impacts on certain land within the coastal zone– council consultation		
Is the work on land mapped as coastal vulnerability area and inconsistent with a certified coastal management program?		X
Section 2.15, consultation with public authorities other than councils		
Will the proposal be on land adjacent to land reserved under the ***National Parks and Wildlife Act 1974*** or land acquired under Part 11 of that Act***? If so, consult with DPE (NPWS).***	X	
Will the proposal be on land in Zone C1 National Parks and Nature Reserves or on a land use zone that is equivalent to that zone? ***If so, consult with DPE (NPWS).***	X	
Will the proposal include a fixed or floating structure in or over navigable waters? ***If so, consult TfNSW.***		X
Will the proposal be on land in a mine subsidence district within the meaning of the ***Coal Mine Subsidence Compensation Act 2017***? ***If so, consult with Subsidence Advisory NSW.***		X
Will the proposal be on land in a Western City operational area specified in ***the Western Parkland City Authority Act 2018,*** Schedule 2 and have a capital investment value of $30 million or more? ***If so, consult the Western Parkland City Authority***.		X

Will the proposal clear native vegetation on land that is not subject land (ie non-certified land)? ***If so, notify DPE at least 21 days prior to work commencing. (Requirement under s3.24 Chapter 3 Sydney Region Growth Centres - of the SEPP (Precincts – Central River City) 2021).***		X

Appendix D – Specialist studies

Ecological Assessment