Review of Environmental Factors Addendum

Wastewater Main Renewal - Slade Park, Austinmer

Determination

This Review of Environmental Factors Addendum (REFA) assesses potential additional environmental impacts due to the change in design for the renewal of a wastewater main in Austinmer. The REF 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.

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

Certification

I certify that I have reviewed and endorsed this REFA 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 information it contains is neither false nor misleading.

Prepared by:	Reviewed and endorsed by:	Endorsed by:
[redacted]	[redacted]	[redacted]
Andrea Glass Sydney Water Date: 19/05/2025	Jennifer Shaw Environment Representative Sydney Water Date: 20/05/2025	Ananta Mukherjee Senior Project Manager Sydney Water Date: 12/06/2025

Decision Statement

The main potential additional construction environmental impacts of the proposal change include impacts to soils, noise amenity and access. During operation, minimal visual impacts are anticipated. 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.

Determined by:	[redacted]	Murray Johnson Environment and Heritage Services Senior Manager Sydney Water Date: 20/06/2025

1. Proposal description

Table 1-1 Proposal need, objectives and consideration of alternatives

Aspect	Relevance to proposal
Approved REF	Wastewater Main Renewal - Slade Park, Austinmer (September, 2024)
Proposal change description and methodology	Due to geotechnical difficulties, as detailed below, the approved project design has changed. It is now proposed that individual pump units are installed at the residences affected by the Slade Park landslip in 2021. Each pump unit would be connected underground to the proposed wastewater main, which would connect to the wastewater system. The proposal would now have the following methodology: • Site establishment including compound setup • Excavate pits and install 6 new pump units • Open trenching to connect the new pump units and wastewater main on Lawrence Hargrave Drive • Open trenching for a wastewater main on Lawrence Hargrave Drive • Horizontal directional drilling (HDD) underneath Lawrence Hargrave Drive to install a new section of wastewater main • Site demobilisation including restoring the proposal area to the pre-existing condition. The proposal area includes the new proposal site and approved construction compound, as shown in Figure 1. The new proposal site includes the installation of the pump units, wastewater mains and establishment of the launch pit for the HDD.
Justification for proposal change	Since the determination of the approved project, further analysis of slope stability has been undertaken. The review highlighted the lack of lateral continuity of the geological profile of the approved alignment. The approved project would significantly destabilise the land where the pipeline would be installed. Therefore, the approved project would rely on frequent inspection, maintenance and reconstruction as the slope regresses. This would be an ongoing financial cost and drain on resources and time. Hence alternative options away from the landslip prone park were reviewed.
Location and land ownership	The proposal would occur within a mix of private and public land of the following lots and DPs: • Lot 1 DP 340844 • Lot 114 DP 4928 • Lot 311 DP 731341 • Lot 312 DP 731341 • Lot 32 DP 1177650 • Lot 502 DP 848943 • Lot 503 DP 848943 • Lot A DP 347377 • Lot B DP 347377.

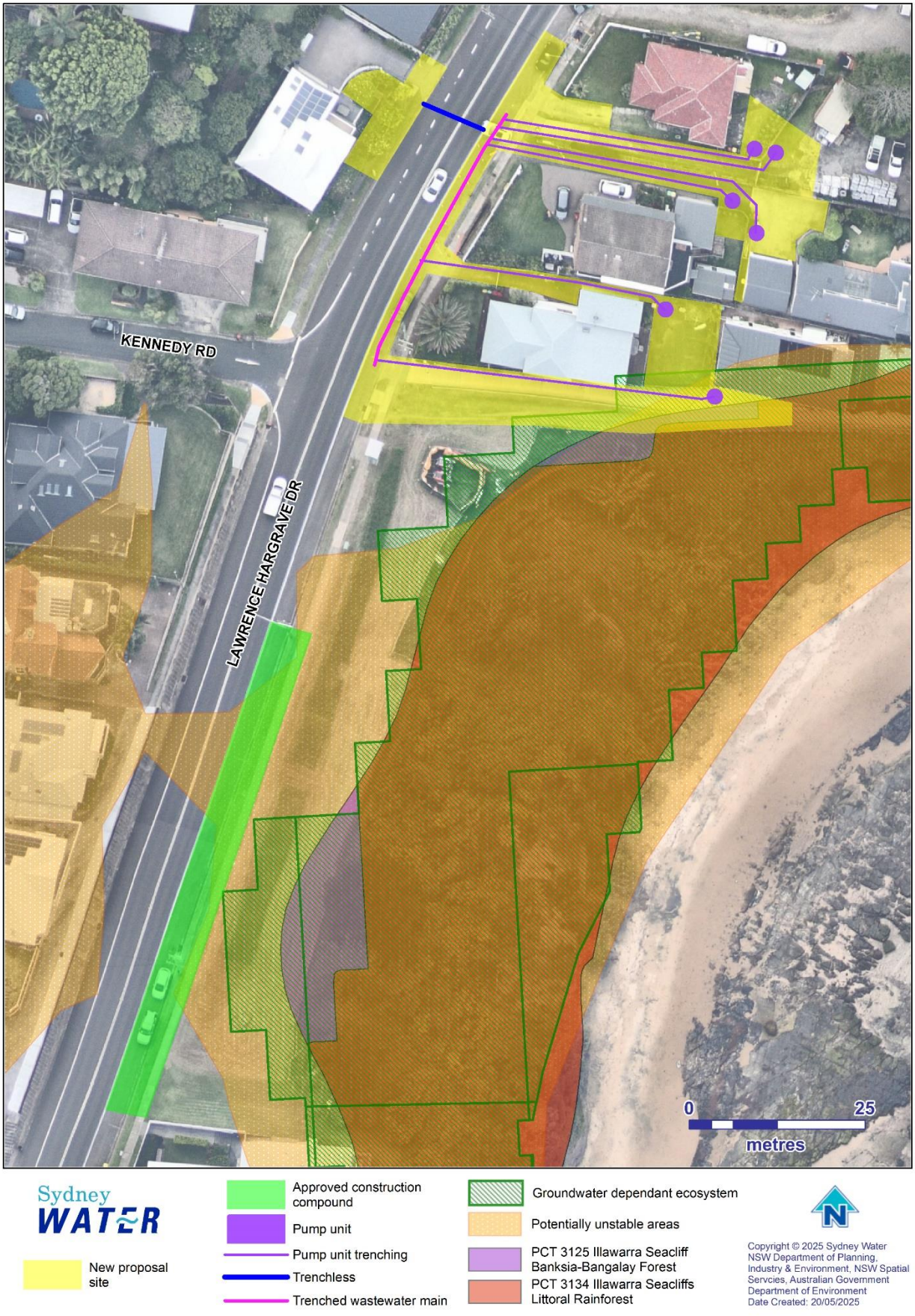

Figure 1 Location of proposal change and key environmental constraints

2. Consultation

Additional consultation matters above those already assessed in the approved REF are detailed below.

Since the determination of the REF and change in design, consultation with the affected landowners has commenced, including discussions about the pump unit locations and support for the proposal.

Consultation will continue throughout further design development and during construction when accessing properties.

3. Legislative requirements

Additional legislative requirements above those already assessed in the approved REF are detailed in Table 3-1.

Table 3-1 Environmental planning instruments relevant to the proposal change

Environmental Planning Instrument	Relevance to proposal
Wollongong Local Environmental Plan 2009	The proposal area is located on land zoned R2 Low Density, SP2 Infrastructure, C4 Environmental Living and RE1 Public Recreation.
State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP)	Section 2.126 of the TISEPP permits development by or on behalf of a public authority for sewerage systems without consent on any land in a prescribed circumstance. Development carried out by or on behalf of a public authority is a prescribed circumstance. As Sydney Water is a public authority, the proposal is permissible without consent.
Roads Act 1993	Partial lane closures would be required along Lawrence Hargrave Drive for the proposal change. Consultation with Transport for NSW to obtain a Road Occupancy Licence would include this additional impact.

4. Environmental assessment

The environmental impacts checklist (SWEMS0019.01) was considered for the proposal change. Table 4-1 includes only the potentially changed aspects and Table 4-2 lists additional mitigation measures. All other environmental impacts in the approved REF remain the same and will be incorporated into the contractor's CEMP.

Table 4-1 Review of environmental aspects

Aspect	Potential additional impacts
Topography, geology and soils	Excavations are required for the pump units, trenching for pipe installation and HDD launch pit. The excavations would be limited to the new proposal site shown in Figure 1. The pump unit excavations would be about 1.6 metres long, 1.6 metres wide and up to 3.5 metres deep. To connect the pump units and new wastewater main, trenching up to 0.5 metres wide and 1.5 metres deep would occur. For the new wastewater main along Lawrence Hargrave Drive, trenching would be about 38 metres long, 1 metre wide and 1.5 metres deep. For crossing Lawrence Hargrave Drive, the HDD method will be used. Excavation for the HDD launch pit would be within the new proposal site and about 2.5 metres by 2.5 metres. The proposal area would be restored back to pre-existing conditions or as close to as possible at the conclusion of construction. The proposal is not anticipated to significantly change the surface topography and drainage patterns of the impact area. Maintenance holes would be installed on top of the pump units to allow access for maintenance activities if required. Potential impacts to topography, geology and soils would be managed by implementing the mitigation measures listed in the approved REF.
Aboriginal heritage	An Aboriginal Heritage Information Management System (AHIMS) search was completed on 2 May 2025. No AHIMS sites were identified within 100 metres of the proposal area. The proposal area is within 100 metres of a high-risk area for finding unexpected archaeological items (waterways), however the impact area has been highly disturbed by previous construction therefore, the potential to impact unidentified Aboriginal heritage items is very low. Works may proceed with caution and any potential impacts are to be managed in accordance with the mitigation measures in the approved REF.
Noise and vibration	The proposal area is within a residential setting. The existing noise environment is influenced by road traffic. Sensitive receivers who may be impacted by noise from the works includes residents immediately adjacent to and within the new proposal site. The noisiest works would include the use of a jackhammer to break concrete. Based on the risk profile of the works from Table 2 of the Draft Construction Noise Guideline (EPA, 2020), the proposal is a medium risk, therefore, a quantitative noise assessment was performed for the proposal. The purpose of the noise assessment was to assess the predicted worst-case noise impacts. The noise assessment was performed using the Transport for NSW

Aspect	Potential additional impacts
	Construction and Maintenance Noise Estimator tool. The modelled scenarios comprised of the following inputs: • Representative noise environment – R3 • Distance based noisiest plant – jackhammer • Line of sight to the receiver – yes. The predicted worst-case noise impacts would affect receivers within 50 meters of the works. Residential receivers likely to be impacted by noise during construction are shown on Figure 2. Mitigation measures from the Transport for NSW Construction and Maintenance Noise Estimator tool that should be considered by the community team and contractor for the proposal are consistent with the approved project. The new pump units would generate operational noise, however due to the location of the pumps underground, the noise is anticipated to be negligible. Noise impacts can be managed by implementing the mitigation measures listed in the approved REF.
Traffic and access	Access to residential properties would be impacted during construction. The works are expected to take about 6 months. However, construction of the pump units and underground connection is only expected to take about 4 weeks each. Trenching for the wastewater main along Lawrence Hargrave Drive would take about 3 weeks. The trench would be covered in road plates and fenced off between shifts. As such, access would be impacted for residents for an additional 3 weeks. As discussed in Section 2, consultation with the impacted residential receivers would be ongoing and would be undertaken to manage private property access throughout construction. Partial lane closures would be required during construction of the wastewater main on Lawrence Hargrave Drive. However, HDD methodology has been implemented to minimise traffic impacts along Lawrence Hargrave Drive. Impacts to traffic along Lawrence Hargrave Drive would be short-term and temporary. Traffic and access impacts would be managed by implementing the mitigation measures listed in the approved REF and Table 4-2.
Social and visual	During construction, work vehicles, equipment and material are a potential source of visual impacts for residents where works will be occurring within their private property, and motorists and pedestrians within proximity to the works. Social impacts related to noise, air quality and traffic have been addressed in the sections above and the approved REF. The proposal would have a positive operational social impact as the residents which were impacted by the landslide would have a new, modern and reliable wastewater system. Minimal visual impacts are anticipated during operation as the maintenance holes covering the pump units will be visible within the residential properties, but would be flush with the ground. Potential impacts would be managed by implementing the mitigation measures listed in the approved REF and Table 4-2.

Table 4-2 Mitigation measures

Mitigation measures
Develop management measure to minimise traffic impacts near residential properties, schools and businesses by consulting with them (e.g. no major materials deliveries at school drop off or pick up times etc.).
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.
Ongoing consultation with residents that will have access impacts is required. Minimise access impacts where possible.
Minimise visual impacts (e.g. screen views of construction works from receivers).

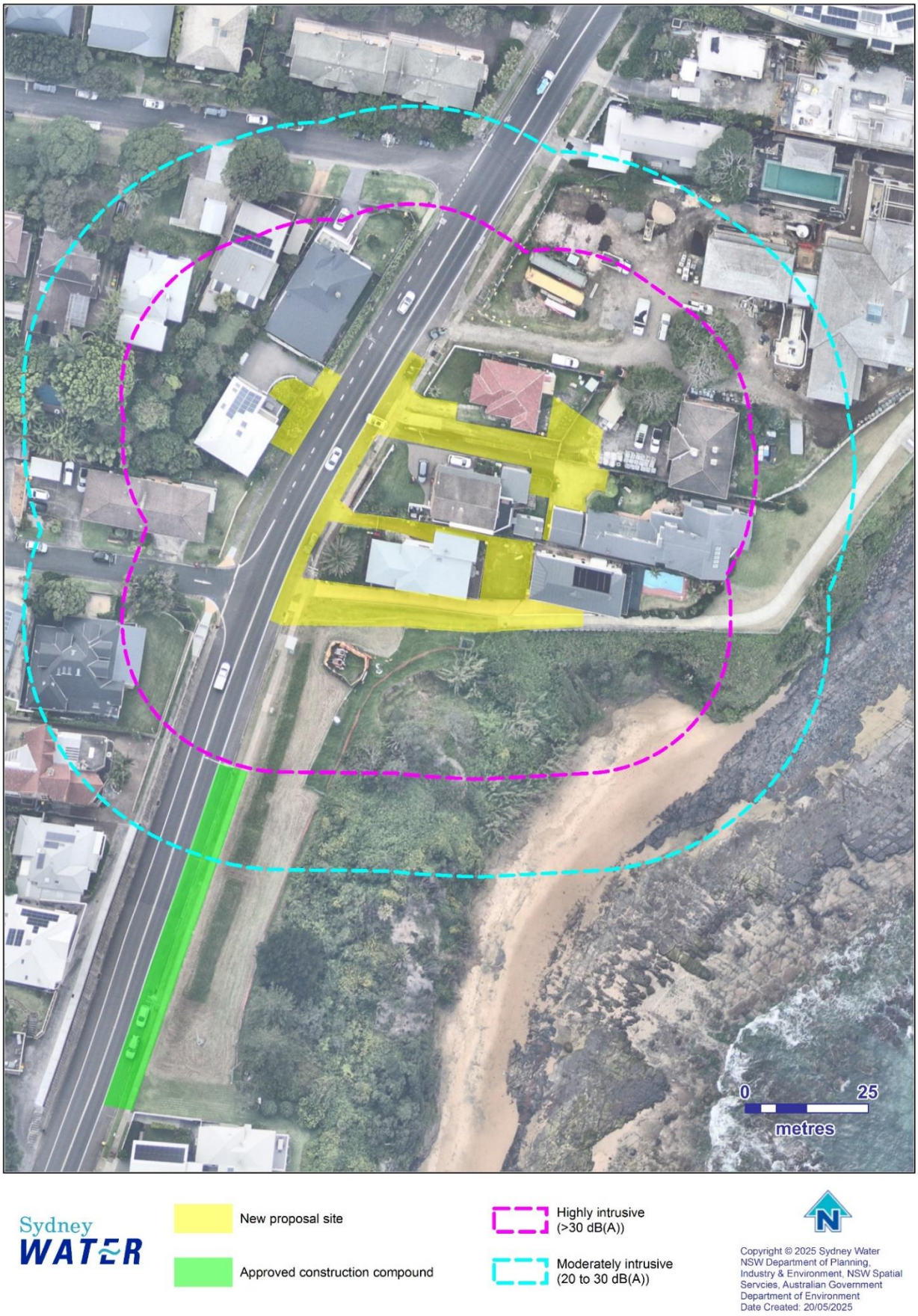

Figure 2 Noise impacts

5. Conclusion

Sydney Water has prepared this REFA to assess the potential environmental impacts of Wastewater Main Renewal - Slade Park, Austinmer. The proposal is required to provide wastewater services to residents affected by the Slade Park landslip in 2021. This proposal change was required due to geotechnical difficulties and high likelihood of the proposed infrastructure in the approved project design requiring reconstruction.

The main potential additional construction environmental impacts of the proposal change include impacts to soils, noise amenity and access. During operation, minimal visual impacts are anticipated. Given the nature, scale and extent of impacts and implementation of the mitigation measures outlined in this REFA and the approved REF, the proposal is unlikely to have a significant impact on the environment. Therefore, an environmental impact statement is not required under Division 5.1 of the EP&A Act.

The REF considers how the proposal aligns with the principles of Ecologically Sustainable Development (Appendix B). The proposal will result in positive long-term environmental improvements. The proposal will not result in the degradation of the quality of the environment and will not pose a risk to the safety of the environment.

Appendix A – Section 171 checklist

There are no requirements in addition to those considered in the approved REF.

Appendix B – Consideration of Ecologically Sustainable Development

There are no ESD consideration in addition to those covered in the approved REF.

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