Review of Environmental Factors

SP0895 and SP0896 OCU

1 Determination

This Review of Environmental Factors (REF) assesses potential environmental impacts of the installation of an Odour Control Unit (OCU) for pumping stations SP0895 and SP0896 in Penrith. 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 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 impacts to flora, noise, traffic, access, and visual amenity. During operation, the main potential impacts include change to visual amenity and a reduction in odour issues. 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] Andrea Glass Environmental Scientist Sydney Water Date: 20/08/2024	[redacted] John Eames Environment Representative Sydney Water Date: 03/09/2024	[redacted] Kristian Plowman Project Manager Sydney Water Date: 10/09/2024	[redacted] Murray Johnson Environment and Heritage Manager Sydney Water Date: 27/09/2024

2 Proposal description

Table 1 Description of proposal

Aspect	Detailed description
Proposal need and objectives	SP0895 and SP0896 are sewage pumping stations located on the same site in Penrith. The site has been the subject of numerous community complaints including a ministerial complaint, which has highlighted the need for odour control. The main objective of this project is to provide a reliable and maintainable OCU to treat foul air from both pumping stations.
Consideration of alternatives/options	A Do-Nothing option risks customer dissatisfaction with odour issues and non-compliance with the environmental protection licence (ELP). The installation of the OCU needed is to treat odour issues.
Proposal description and methodology	The proposal includes installing an OCU and associated infrastructure for SP0895 and SP0986 and establishment of a temporary construction compound. The proposal scope includes the following: • installation of a steel platform above the 1% AEP flood level • installation of a new OCU including vent stack and associated infrastructure • removal of the existing and installation of a new fence around the OCU and existing switchroom • provision of drainage from the vent stack, duct and OCU to the pumping stations wet well • installation of lighting on the OCU platform • installation of cable supports and management (including conduit, cable ladders and trays) between electrical equipment and components. The proposal area includes Sydney Water land, new land to be acquired and the construction compound, as shown in Figure 1.
Location and land ownership	The proposal is located on the corner of Mulgoa Road and Ransley Street, in the Penrith City Council Local Government Area. SP0895 and SP0896 are owned and operated by Sydney Water on Lot 1 DP 773983. Land will be acquired for the OCU. The construction compound would occupy Lot 2 DP 1147219, which is Crown Land and managed by Penrith City Council.
Site establishment and access tracks	The proposal area would be accessed from Ransley Street through an existing car park, refer to Figure 1.
Ancillary facilities (compounds)	A construction compound would be required for site sheds, construction amenities and materials laydown. An indicative location for the compound is shown on Figure 1.
Work hours	Work and deliveries will be scheduled during standard daytime hours: • 7 am to 6 pm, Monday to Friday

Aspect	Detailed description
	• 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 early 2025 and take about 16 months.

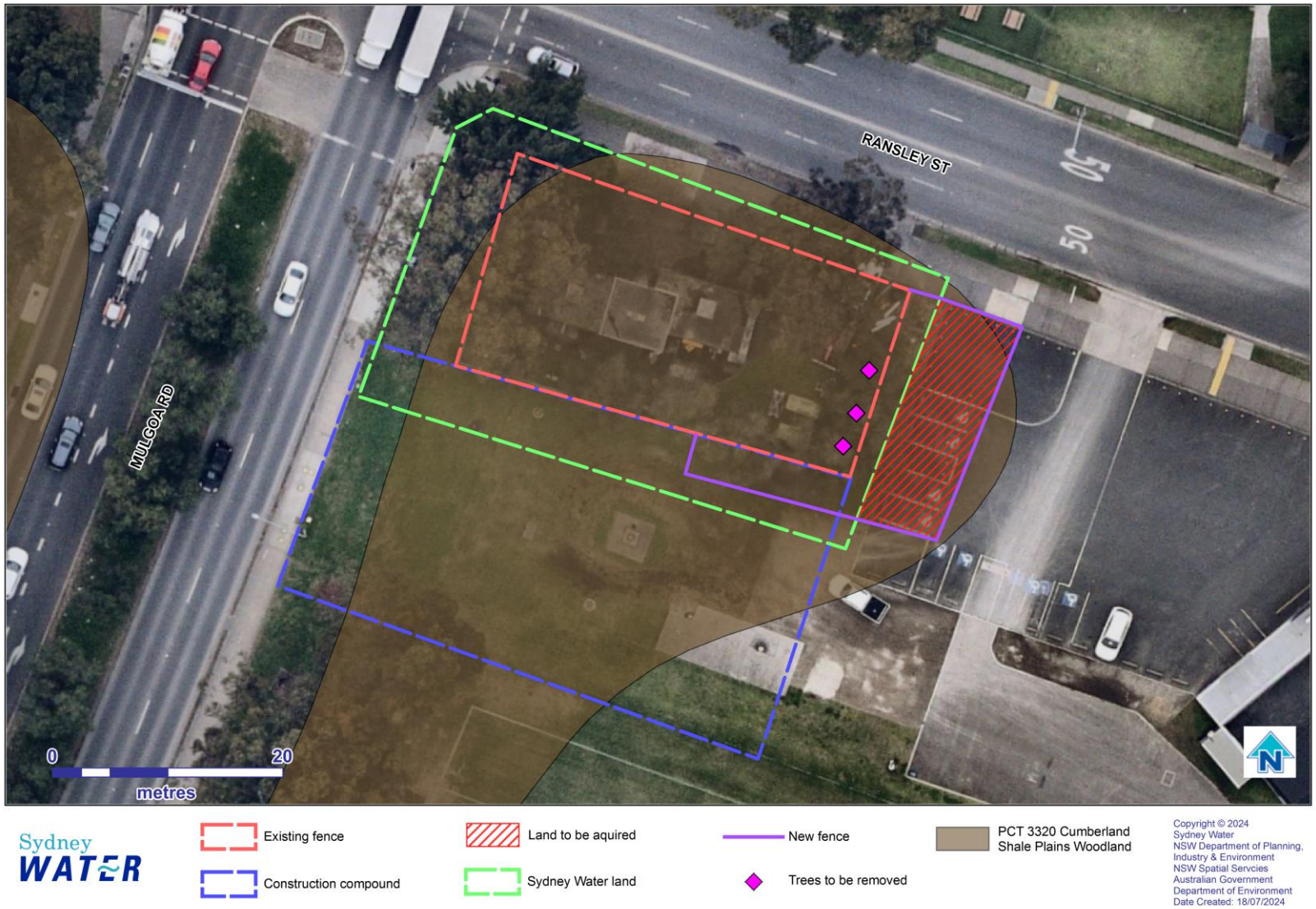

Figure 1 Location of proposal and environmental constraints

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 council with reasonable notice when we would like to commence works. Penrith City Council will be consulted about matters identified in environmental planning instruments (refer below). This includes public safety issues, temporary works on council land, and full or partial road closures of council managed roads.

Consultation with Infrastructure NSW has been undertaken. Infrastructure NSW has proposed to realign a rising main near to the proposal and undertake the redevelopment of BlueBet Stadium. Both works from Infrastructure NSW are likely to overlap with the proposal. Consultation will continue to occur to ensure minimal cumulative impacts, refer to Section 5 for further details.

Consultation with Crown Lands is being undertaken to purchase the land required for the OCU.

Penrith Panthers have been consulted with to discuss access to land, plans for stadium and sharing timeline details .

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).

No formal consultation was required under the TISEPP. Further detail is provided in Appendix C.

4 Legislative requirements

Table 2 Environmental planning instruments relevant to the proposal

Environmental Planning Instrument	Relevance to proposal
Penrith Local Environmental Plan 2010 (Penrith LEP)	The proposal is located on land zoned as Public Recreation (RE1).

Environmental Planning Instrument	Relevance to proposal
State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP)	Section 2.126(6) of the TISEPP permits development for sewerage reticulation systems without consent on any land in the prescribed circumstance. Development carried out by or on behalf of a public authority is a prescribed circumstance (2.126(1)). As Sydney Water is a public authority and the proposal involves the upgrade of a wastewater pumping station (part of a sewerage reticulation system), 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). Although the proposal involves some vegetation removal, 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 Hawkesbury-Nepean 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 (social and visual). The assessment confirmed that potential impacts are negligible and meet the requirements of part 6.2 of the SEPP.

Table 3 Consideration of key environmental legislation

Legislation	Relevance to proposal	Permit or approval	Timing and responsibility
Protection of the Environment Operations Act 1997 (POEO Act)	SP0895 and SP0896 operate under EPL 1409 for the Penrith sewage treatment system. No changes are needed to the EPL as part of the proposal. Chapter 5 of the POEO Act defines different types of pollution incidents. Part 5.7 of the POEO Act specifies the duty to notify harm to the environment where there is actual or potential environmental harm. Should one of these incidents occur during construction, the response and investigation to the incident would follow	N/A	N/A

Legislation	Relevance to proposal	Permit or approval	Timing and responsibility
	SWEMS0009 - Responding to incidents with an environmental impact.		
Roads Act 1993	Temporary traffic control may be required during construction to allow for crane access. Ransley Street is a local road (managed by Penrith City Council), Mulgoa Road is a State road (managed by Transport for NSW). Should lane closures be required, consultation will be undertaken with Transport for NSW and/or Penrith City Council before construction starts to obtain a Road Occupancy Licence in accordance with section 138 of the Act.	Road Occupancy Licence	Pre-construction, contractor
Crown Land Management Regulation 2018	The proposed construction compound is located on Crown Land managed by Penrith City Council. Consultation with Penrith City Council is occurring for Sydney Water to temporarily use the land for the proposal. Council may issue a licence for the construction compound as the works will be short-term under clause 70(2)(a) and clause 31(1) of the Crown Land Management Regulation 2018.	Licence	Pre-construction, Sydney Water

5 Environmental assessment

The environmental impacts checklist (SWEMS0019.01) was completed for the works which considers all environmental aspects. Table 4 includes only the potentially impacted aspects.

Table 4 Key environmental aspects and potential impacts of construction and operation

Aspect	Potential impacts
Topography, geology and soils	The proposal area is mapped as being within an area of localised salinity hazard. No areas of significant erosion, or acid sulfate soils (ASS) were identified within the proposal area. Groundcover within the proposal area includes grass, hardstand, and mature vegetation. Excavations would be up to 6.2 meters deep for foundation columns. A temporary hardstand may also be installed within the construction compound along existing grassed areas for access tracks, storage areas and laydown areas. The areas within the construction compound will be restored to pre-existing condition once construction is complete. Soil disturbance will be minimised through implementation of appropriate mitigation measures. No operational topography, geology or soil impacts are anticipated.
Water and drainage	The closest watercourse to the proposal is Peach Tree Creek, located about 660 meters to the west. The proposal area is mapped to be within the probable maximum flood extent (Penrith CBD Detailed Overland Flow Flood Study-Final Report, Cardno 2015). The proposed construction activities involve excavation of soils, temporary soil stockpiles, storage of fuels, chemicals, plant and materials. These proposed works have the potential to impact on water quality due to increased erosion and sedimentation from exposed soil and stockpiles. Poor site management has the potential to increase sediment runoff to stormwater and surface waters, causing turbidity and enhanced sedimentation. Additionally, fuels, chemicals or wastewater spills during construction could potentially enter waterways, particularly during high rain events. The proposal is not anticipated to change flood patterns or significantly impact surface quality or water flow during construction or operation. The proposal would not require groundwater dewatering. Potential impacts will be managed by implementing the mitigation measures listed in Section 6.
Flora and fauna	Vegetation within the proposal area consists of planted native vegetation and exotic species. One plant community type (PCT) was identified within the proposal area, PCT 3320 – Cumberland Shale Plains Woodland, this PCT is consistent with the threatened ecological community (TEC) Cumberland Plain Woodland in the Sydney Basin Bioregion (Critically Endangered, *Biodiversity Conservation Act 2016*). No threatened fauna were identified in the proposal area. The proposal would remove three planted Weeping Bottlebrush (*Callistemon viminalis*). While native, this species is not diagnostic of any TECs previously mapped within the proposal area and is a commonly planted landscaping species. No statutory offsetting applies to the proposal however, Sydney Water provides non-statutory offsets for impacts to biodiversity in accordance with the Biodiversity Offset Guide (Sydney Water, 2024). Removal of native trees would be offset using

Aspect	Potential impacts
	a multiplier of 3:1. Given that 3 locally native trees would be removed for the proposal, this will require an offset of 9 locally native trees. With implementation of the environmental mitigation measures in Section 6 and the minor nature of the proposed work in a previously disturbed area, it is unlikely that the proposal would result in a significant impact to flora and fauna.
Heritage	There are no known Aboriginal or non-Aboriginal heritage sites within 200 metres of the proposal area. The likelihood of encountering previously unknown archaeological items is low due to historic ground disturbance for installation of underground Sydney Water infrastructure and other assets. Therefore, the proposal is not anticipated to impact any heritage items.
Noise and vibration	*Noise* The proposal is located within a recreational and tourist setting. The existing noise environment around the proposed works is influenced by road traffic and the BlueBet Stadium located 60 metres south-west. The nearest sensitive receiver is a restaurant located 35 metres north of the proposal area and the closest residential receiver is about 60 metres north-west. The works would generate noise and vibration during construction from the ground-breaking activities and the operation of machinery and equipment. Works are proposed to be carried out over 5 shifts per week (i.e. Monday through Friday 7am to 6pm). Construction would occur during standard daytime hours and is expected to take about 11 months to complete. Based on the risk profile of the works from Table 2 of the Draft Construction Noise Guideline (EPA, 2020), a quantitative noise assessment was undertaken for the proposal. The purpose of the noise assessment was to assess the predicted worst-case noise impacts. This identified recommended additional mitigation measures for impacted receivers at different distances from the works, which guided community engagement for the proposal. The noise assessment used the Transport for NSW Construction and Maintenance Noise Estimator. The modelled scenario comprised of the following inputs: • representative noise environment – R2 • distance based noisiest plant – concrete saw • line of sight to the receiver – yes. The worst-case noise impact of the proposal would be up to 105 metres, as shown on Figure 2. The nearby residential receivers, restaurant and sport facilities would be impacted by construction noise during the day. The figures display recommended mitigation measures at different distances. These are to be considered by the community team and offered where appropriate and include: • N: Notification (e.g. letterbox drop) • RO: Respite Offer (e.g. work blocks of 2 hours with one hour breaks in between)

Aspect	Potential impacts
	• PC: Phone calls. No operational noise impacts are expected. *Vibration* Jackhammers and compactors would be used during construction. The minimum working distance to avoid vibration impacts to structures is one meter. There are no sensitive receivers within one metre of the works, therefore no construction or operational vibration impacts are expected.
Air and energy	Minor and temporary air quality impacts may result from construction and compound activities due to dust generated during excavation works, and emissions from machinery, equipment and vehicles. Due to the distance of sensitive receivers, negligible dust and emission impacts are anticipated. Potential odour issues may occur during construction, and if the setup and operation of the temporary bypass is not appropriately managed. Due to the small number of emission sources during construction, the proposal is unlikely to have a significant impact on air quality with implementation of the safeguards in Section 6. Air quality is anticipated to increase during operation due to the treatment to foul odours.
Waste and hazardous materials	HazCentral has identified hazardous building materials (HBM) within SP0895 and SP0896. Lead paint has been found within the pumping stations, and there is potential for asbestos to be present, these areas are not likely to be impacted by the works. Waste would be generated during construction, including: • excavation and disturbance of soil • green waste from vegetation removal • general construction waste • contaminated material, if encountered. Where possible, it is preferred to reuse excavated materials from site as backfill instead of importing fill material. Where excavated materials cannot be reused as backfill, they would be classified and taken off-site for disposal at a licenced facility. Waste will be stored in separate skip bins or delineated areas within the compound or taken directly off-site to a facility licenced to accept the waste. Recycling or re-use of waste streams such as green waste and concrete is encouraged where possible. Minor impacts from waste and hazardous materials are expected, and the safeguards in Section 6 would be implemented to further minimise these impacts.
Traffic and access	Road closures of Ransley Street, a local road managed by council, may be required for the proposal. The road closure would occur within 100 metres of

Aspect	Potential impacts
	Mulgoa Road, a State Road managed by Transport for NSW, therefore a Road Occupancy Licence (ROL) may be required. Some after hours deliveries may occur to limit disruption to traffic and access. This disruption to traffic on Ransley Street is considered to be a minor or inconsequential impact, therefore, no consultation with council is required with the TISEPP. Access to the stadium may be impacted during construction. The construction contractor will consult with Infrastructure NSW and BlueBet Stadium to minimise impacts. The land acquired for the new OCU will result in the loss of four disabled parking spaces. During consultation, Infrastructure NSW noted that the parking spaces would be reinstated as part of the planned redevelopment of the stadium. Minor impacts to traffic and access are expected, and the safeguards in Section 6 would be implemented to further minimise these impacts.
Social and visual	Nearby sensitive receivers to the proposal area includes residential receivers (about 60 metres to the north-west), a restaurant (about 35 metres north), sport facilities (60 metres south-west and 130 metres north), the Penrith Museum of Printing (about 100 metres west) and Panthers Penrith Rugby League Club (about 150 metres west). The proposal has the potential to cause social impacts associated with air quality and noise, which have been assessed above. The proposal is within land zoned as public recreation. The construction compound would limit the area available for passive recreation during construction. This would have a low impact as there are other areas for passive and active recreation in the vicinity of the proposal. The removal of three trees would reduce the natural screening of SP0895 and SP0896. The pumping stations would be more visible to those passing by the site. The construction and operation of the new OCU, platform and associated infrastructure would be visible to nearby sensitive receivers. The OCU vent stack would be up to 25 metres tall. This height has been determined through odour dispersion modelling based on the proposed new stadium and other developments in the area. Vent stack is near trees with a canopy height up to 25m and will be a green colour to help reduce visual impacts. The OCU platform would have lighting installed which would only be operated as required. Minor social and visual impacts are expected, and the safeguards in Section 6 would be implemented to further minimise these impacts.
Cumulative and future trends	Sydney Water will complete mechanical and electrical upgrades to SP0895 for about three months in 2024. The construction of the upgrades and this proposal are likely to overlap. The upgrades would utilise the construction compound proposed to be used for this proposal. Infrastructure NSW is proposing to relocate an existing rising main in proximity to the proposal area and undertake the redevelopment of the BlueBet Stadium. The rising main works are not anticipated to overlap with the proposal area, but have the potential to occur at the same time as the proposal. In addition, construction

Aspect	Potential impacts
	for the redevelopment of the stadium will overlap with the proposal. Any cumulative amenity impacts (e.g. noise, dust, traffic) are likely to be minimal. Future trends such as climate change were considered. Factors such as bushfires and flooding that could impact the proposal were considered. The proposal is unlikely to further exacerbate future trends, such as those associated with bushfires and flooding.

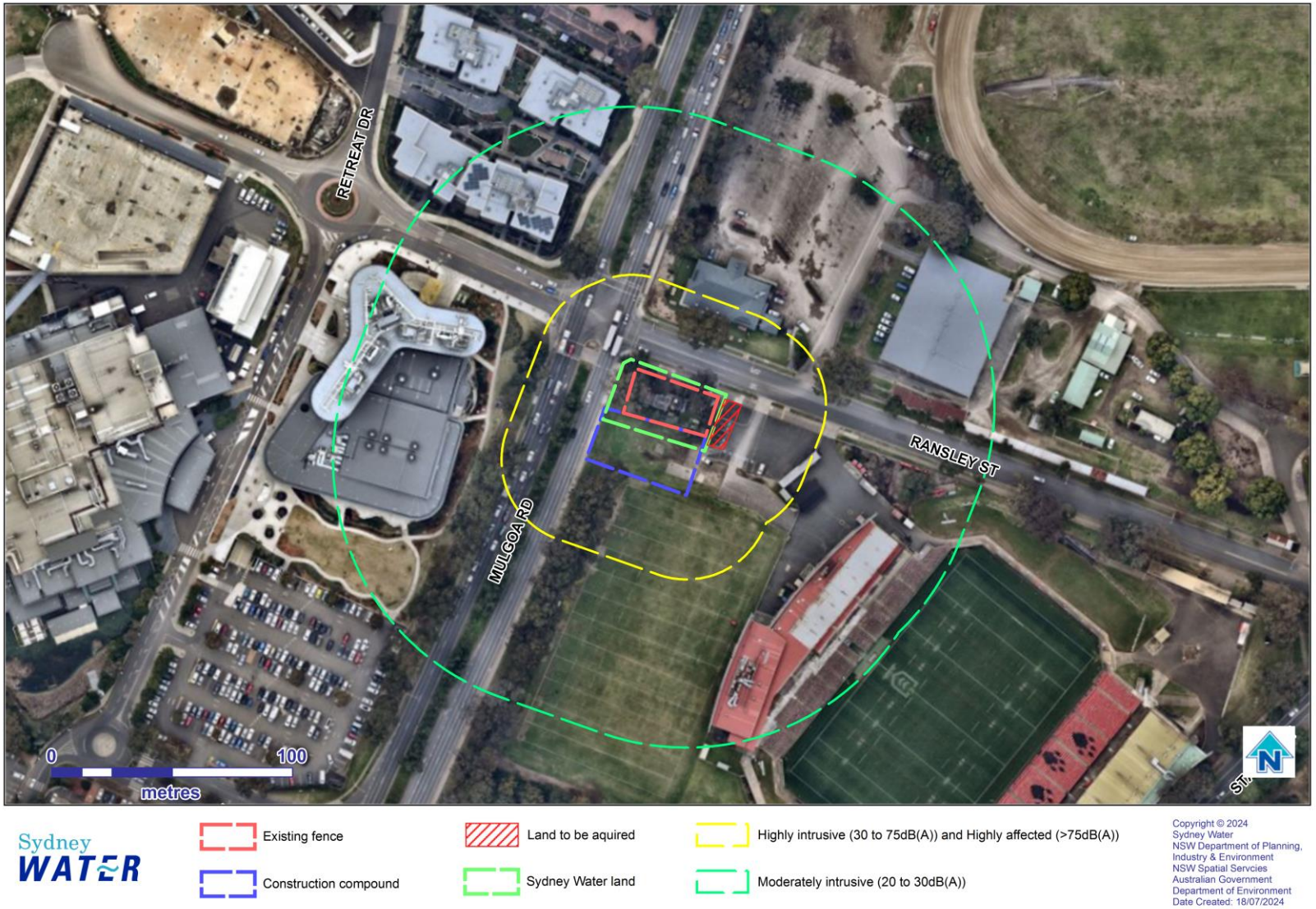

Figure 2 Noise impacts

6 Environmental mitigation measures

Table 5 Mitigation measures

Mitigation measures
Sydney Water's Project Manager (after consultation with the environmental and community representatives and affected landowners) can approve temporary ancillary construction facilities (such as compounds and access tracks), without additional environmental assessment or approval if the facilities: • limit proximity to sensitive receivers • do not disrupt property access • have no impact to known items of non-Aboriginal and Aboriginal heritage • are outside high risk areas for Aboriginal heritage • use existing cleared areas and existing access tracks • have no impacts to remnant native vegetation or key habitat features • have no disturbance to waterways • do not require additional safeguards beyond those included in the EIA • do not disturb contaminated land or acid sulfate soils • will be rehabilitated at the end of construction. The Delivery Contractor must demonstrate in writing how the proposed ancillary facilities meet these principles. Any facilities that do not meet these principles will require additional environmental impact assessment. The agreed location of these facilities must be shown on the CEMP site plan and appropriate environmental controls installed.
The Delivery Contractor should consider pre-mobilisation and post-demobilisation soil sampling on compound sites to confirm no residual impacts.

Should the proposal change from the EIA, no further environmental assessment is required provided the change:
• remains within the assessment area and has no net additional environmental impact or
• is outside the assessment area but:
  ○ reduces impacts to biodiversity, heritage or human amenity or
  ○ avoids engineering (for example, geological, topographical) constraints and
  ○ after consultation with any potentially affected landowners and relevant agencies.
The Delivery Contractor must demonstrate in writing how the changes meet these requirements, for approval by Sydney Water's Project Manager in consultation with the environmental and community representatives.

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: • boundaries of the work area 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.
Prepare an Incident Management Plan (IMP) outlining actions and responsibilities for: • predicted/onset of heavy rain during works

Mitigation measures
• spills • unexpected finds (eg heritage and contamination) • other potential incidents relevant to the scope of works. All site personnel must be inducted into the IMP.
To ensure compliance with legislative requirements for incident management (eg *Protection of the Environment Operations Act 1997)*, Follow SWEMS0009 and attach SWEMS0009 to the CEMP.
Complaints to be managed in accordance with Sydney Water's Complaints Procedure and relevant Community Engagement Plan.
Assign single person with accountability for coordinating communication and information flow across contractors and consultants and provide the contact details of this person in the CEMP.
Topography, geology and soils
Prevent sediment moving offsite in accordance with Managing Urban Stormwater, Soils and Construction, Volume 1 and 2A (Landcom 2004 and DECC 2008), including, but not limited to: • divert surface runoff away from disturbed soil and stockpiles • install sediment and erosion controls before construction starts • reuse topsoil where possible and stockpile separately • inspect controls at least weekly and immediately after rainfall • rectify damaged controls immediately • remove controls once surfaces have been stabilised, including removing trapped sediment in drainage lines.
Minimise ground disturbance and stabilise disturbed areas progressively.
Delivery Contractor to ensure imported material is Virgin Excavated Natural Materials (VENM) or meets a relevant NSW EPA Resource Recovery Order and Resource Recovery Exemption, or is a commercially supplied material that is not waste. If using materials that are subject to a NSW EPA Resource Recovery Order/Exemption the Delivery Contractor must ensure the conditions in that Order/Exemption are strictly adhered to.
Stop work during heavy rainfall or in waterlogged conditions when there is a risk of sediment loss off site.
Sweep up any sediment/soil transferred off site at least daily, or before rainfall.
Eliminate ponding and erosion by restoring natural landforms to the pre-works condition.
Adopt appropriate soil salinity mitigation measures in accordance with Western Sydney Salinity Code of Practice (Western Sydney Regional Organisation of Councils, 2003). This may include: • stabilising existing areas of erosion • minimising water use on site • avoiding rotation and vertical displacement of the original soil profile • backfilling excavations deeper than one metre in the same order, or treating or using this material as fill at depths more than one metre from the finished level.

Mitigation measures

Water and drainage

Use appropriate controls to avoid potential sedimentation to waterbodies.

Bund open maintenance holes if there is a risk of wastewater spills.

Keep functioning spill kit on site for clean-up of accidental chemical/fuel spills. Keep the spill kits stocked and located for easy access.

Discharge all water in accordance with Sydney Water's Water Quality Management During Operational Activities Policy (D0001667) including erosion controls, discharge rate, dechlorination, monitoring. Re-use potable / groundwater water where possible.

If wastewater bypass is required:

- pressure test hoses before, and monitor during bypass
- monitor wastewater flows to ensure critical flows are not reached
- stop bypass if leaks occur
- bund access chambers
- contain wastewater spills and pump back to wastewater system or disposal tanker.

Store all chemicals and fuels in accordance with relevant Australian Standards and Safety Data Sheets. Record stored chemicals on site register. Ensure bunded areas have 110% capacity of the largest chemical container, or an additional 25% capacity of the total volume stored within (whichever is greater). Tightly secure chemicals and fuels in vehicles. Clearly label all chemicals.

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

Flora and fauna

Provided it is essential for delivering the project, Sydney Water's Project Manager can approve the following vegetation removal and tree trimming, without additional environmental assessment (but only after consultation with the Environmental and Community Representatives and affected landowners). Sydney Water considers vegetation removal in these circumstances has minimal environmental impact.

- Any minor:
  - vegetation trimming or
  - removal of exotic vegetation or
  - removal of planted native vegetation
  - where the vegetation is not a threatened species (including a characteristic species of a threatened community or population), heritage listed, in declared critical habitat or in a declared area of outstanding biodiversity value.
- Any removal of remnant vegetation where there is no net change to environmental impact (eg a different area of vegetation is removed but the total area is the same or less than assessed in the EIA).

Written explanation of the application of this clause (including justification of the need for trimming or removal and any proposed revegetation) should be provided when seeking Project Manager approval. Any impacts to native vegetation and trees must be offset in accordance with the Biodiversity Offset Guideline (SWEMS0019.13).

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

Mitigation measures

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.

Heritage

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 Sydney Water Project Manager in accordance with SWEMS0009.

Noise and vibration

Works must comply with the EPA 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 justified.

The Proposal will also be carried out in accordance with:

- Sydney Water's Noise Management Procedure SWEMS0056
- Noise Policy for Industry (EPA, 2017).

All reasonable and feasible noise mitigation measures should be 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 commencement of works. This should:
  - 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 noise complaints handling procedure.
- Do not warm-up plant or machinery near residential dwellings before the nominated working hours.
- Select appropriate plant for each task, to minimise the noise impact (eg all stationary and mobile plant will be fitted with residential type silencers).
- Do not use engine brakes 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 (beyond those identified in this REF), the Delivery 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

Mitigation measures
• consider potential noise impacts and implement the relevant standard daytime hours safeguards, follow 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.
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.
Implement measures to prevent offsite dust impacts, for example: • Water exposed areas (using non-potable water source where possible such as water from excavation pits). • Cover exposed areas with tarpaulins or geotextile fabric. • Modify or cease work in windy conditions. • Modify site layout (place stockpiles away from sensitive receivers). • Vegetate exposed areas using appropriate seeding.
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 and sort waste streams to maximise reuse/recycling in accordance with the legislative requirements.
Manage waste and excess spoil in accordance with the NSW EPA Resource Recovery Orders and Exemptions (if applicable) and / or Waste Classification Guidelines. Where materials are not suitable or cannot be reused onsite or offsite, recycle where appropriate. Recycle soils at a licensed soil recycling facility or dispose at an appropriately licenced landfill facility.
Prevent pollutants from escaping including by covering skip bins.

Mitigation measures
If fibro or other asbestos containing material is identified, restrict access and follow Sydney Water's Asbestos Management – Minor Works procedure, Document Number 746607 and SafeWork NSW requirements. Contact Sydney Water Project Manager (who will consult with Property Portfolio Environmental team propertyenvironmental@sydneywater.com.au).
Manage lead paint in accordance with the WHS Regulation (2017) Part 7.2 and the Australian Standard Lead Paint Management Guidelines. Consult with Property Portfolio Environmental team where works involve removal of lead-based paint. Develop a Lead Management Plan if required.
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. The Delivery Contractor will obtain a Road Occupancy Licence (ROL) from TfNSW, including if works are within 100m of traffic signals when construction commences.
Develop management measure to 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).
Manage sites to allow people to move safely past the works, including alternative pedestrian, bicycle, pram and wheelchair access.
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. • Treat community enquiries appropriately.
Restore work sites to pre-existing condition or better.
Direct artificial light away from sensitive receivers where possible (ie residents, fauna or roadways).
Maintain work areas in a clean and tidy condition.

Appendix A – Section 171 checklist

Section 171 checklist	REF finding
Any environmental impact on a community	There may be short-term impacts on the community from loss of flora, noise amenity, traffic, access and visual amenity. However, there will be environmental improvements by reducing the existing odour issues and providing a reliable wastewater service to the local community.
Any transformation of a locality	The proposal would introduce new infrastructure adjacent to SP0895 and SP0896. The proposal may have minor visual impacts although it is not anticipated to have a significant impact on the locality and would provide a reliable wastewater system.
Any environmental impact on the ecosystems of the locality	The proposal will not result in any significant environmental impacts to ecosystems of the locality. The proposal will lead to environmental improvements by reducing the existing odour issues and ensuring a reliable wastewater service to collect and treat wastewater, minimising any impacts on the ecosystem.
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality	The proposal will not significantly reduce the aesthetic, recreational, scientific or other environmental quality or value of the locality. The proposal would introduce new infrastructure in the locality, this would however reduce the existing odour issues and provide a reliable wastewater service to the local community.
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 significant 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 would introduce new infrastructure at the site, however this would reduce the existing odour issues and provide a reliable wastewater service to the local community.
Any impact on the habitat of any protected animals (within the meaning of the *Biodiversity Conservation Act 2016*)	The proposal will remove three trees, this however will not have any impact on the habitat of protected animals.
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 long-term impacts on the environment but will have a long-term benefit by providing a reliable and modern wastewater service for the area.
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.

Section 171 checklist	REF finding
Any reduction in the range of beneficial uses of the environment	The proposal remove four disabled parking spaces, they are however planned to be reinstated part of the planned redevelopment of the stadium. 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.
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.
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, as the proposal forms part of a maintenance program.
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.
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 and reducing odour issues.
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 proposal would remove three trees, this would have a minor impact and be offset with the planting of three trees.
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