



Review of Environmental Factors

SP0331 Hobartville Mechanical and Electrical Upgrade

Determination

This Review of Environmental Factors (REF) assesses the potential environmental impacts of mechanical and electrical upgrades at wastewater pumping station, SP0331. 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.

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 information it contains is neither false nor misleading.

Prepared by:	Reviewed and endorsed by:	Endorsed by:
		
Sam Hudson Environmental Representative Sydney Water Date: 14/07/2025	Samantha Prior A/Environmental Assessment Team Manager Sydney Water Date: 15/07/2025	Preetham Gopalakrishna Project Manager Sydney Water Date: 01/08/2025



Decision Statement

The main potential construction environmental impacts of the proposal include impacts to flora and fauna, noise and traffic. During operation, the main potential impacts are associated with visual amenity. 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:

Murray Johnson

Senior Manager, Environment and Heritage Services

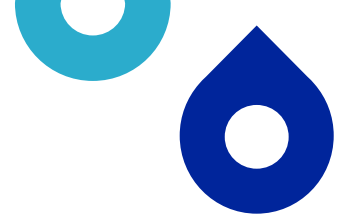
Sydney Water

Date: 4/08/2025

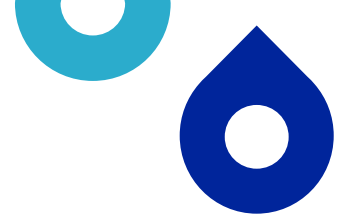
1. Proposal description

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

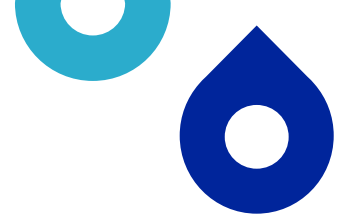
Aspect	Relevance to proposal
Proposal need and objectives	<p>Wastewater pumping station SP0331, constructed in 1967, requires mechanical and electrical upgrades (the proposal). Some of the mechanical and electrical assets at SP0331 have exceeded their design life. Many of the components are obsolete or no longer meet industry standards and are at high risk of failure.</p> <p>The primary objective of the proposal is to improve the reliability of SP0331 and mitigate the high risk of failure. Asset failure could have severe consequences, including safety hazards, reputational damage, operational disruptions, and compliance issues. The proposal aims to replace the existing infrastructure with like-for-like assets and would boost pump capacity to 70 L/s under normal operations and 80 L/s under flood head conditions.</p>
Proposal description and methodology	<p>The proposal scope generally includes:</p> <ul style="list-style-type: none"> • Site establishment: <ul style="list-style-type: none"> - vegetation removal - compound set up - service locating - temporary bypass (as required). • Earthworks: <ul style="list-style-type: none"> - trenching and excavations up to 4 m below ground level (bgl) for concrete pipework penetration - trenching and excavations on footpath to install new stormwater line (~45 m), three stormwater pits and electrical infrastructure - traffic management, including partial road closure on Laurence Street during construction of stormwater line. • Dry and wet well works: <ul style="list-style-type: none"> - install scaffolding for access and to replace pumps, valves and modify pipework to suit new dry well submersible pumps - repair any water ingress points into the dry well and make waterproof - replace dry well ventilation system to meet current Sydney Water standards - replace site amenities (as required) - repair dry well ladders and platforms to meet current AS1657 standard - remove ladders, platforms and any redundant ducts located within wet well and inlet maintenance hole (IMH) and replace as required - replace sump pump (with standard submersible type), sump cover and induct vents



Aspect	Relevance to proposal
	<ul style="list-style-type: none"> - install new induct and educt vents, gate valve, level float switch, wet well level transmitter and steel and concrete supports.
	<ul style="list-style-type: none"> • Valve chamber works: <ul style="list-style-type: none"> - install standard bypass connection and second isolation valve to the scour line - provide standard covers to the valve chamber.
	<ul style="list-style-type: none"> • Electrical works: <ul style="list-style-type: none"> - construct a switch room to house the electrical switchgear, IICATS panel, variable speed drives, lighting and power distribution board above the 1 in 100-year flood level - remove all redundant electrical material - replace wet well, dry well and IMH instrumentation - replace electrical and power infrastructure including switchboards, starters, cabling, conduit system, dry well ventilation fan panel and cable trays - relocate junction boxes, instrument turrets and temporary generator connection boxes above the 1 in 100-year flood level - perform associated electrical, instrumentation and control works for the pump and electrical equipment renewals - relocation and installation of Telstra pit in the new switch room for telemetry works - underbore from the southern footpath of Laurence Street to existing substation 5397 at 35 Cox Crescent, Hobartville - uprate existing substation at 35 Cox Crescent, Hobartville to 400KVA.
	<ul style="list-style-type: none"> • Odour Control Unit (OCU) works: <ul style="list-style-type: none"> - decommission and remove old non-operational OCU - install new OCU (Bioaction) - construct concrete access to OCU and SP0331 including permanent hardstand area for emergency generator and OCU - construct underground ductwork from wet well to OCU.
	<ul style="list-style-type: none"> • Site restoration and demobilisation.
	<p>Plant and equipment required for the proposal include:</p> <ul style="list-style-type: none"> • air compressors • bypass pump / system • compactor • concrete agitator trucks • concrete pumps • concrete saws



Aspect	Relevance to proposal
	<ul style="list-style-type: none">• confined spaces safety equipment (e.g. gantry/davit)• cranes• elevated work platform• excavators• generators• hand tools• jackhammers• light vehicles• mobile / franna crane• non-destructive digging trucks• sediment tank• site facilities and amenities• skid steer• skip bins• storage containers• street sweepers• tip trucks. <p>The proposal area includes the SP0331 site and the adjacent construction compound, substation and roads (Laurence Street and Coxs Crescent), as shown in Figure 1-1.</p>
Consideration of alternatives/options	<p>A do-nothing option risks further asset deterioration and potential asset failures. This would disrupt wastewater services to customers, potentially cause damage to the surrounding environment and have safety implications.</p> <p>No options assessment was performed for the proposal.</p> <p>Locations of new equipment were identified based on proximity to existing assets and plans for future work at the site.</p>
Location and land ownership	<p>The proposal is located in the suburb of Hobartville, in the Hawkesbury City Council Local Government Area.</p> <p>SP0331 is owned and operated by Sydney Water at 14 Laurence Street, Hobartville (Lot 129 DP 231320). The construction compound would occupy part of Lot 3 DP 556640, a public reserve owned and managed by Hawkesbury City Council.</p>
Site establishment and access tracks	<p>The proposal would require the use of both existing and constructed access tracks.</p> <p>The existing SP0331 driveway at 14 Laurence Street would be used for site access. An additional temporary access track will be established immediately to the west of SP0331. This would require the removal of one amenity tree and use of grassed areas.</p>



Aspect	Relevance to proposal
	<p>A construction compound will be established to the west of the SP0331 site and would require the removal of two planted amenity trees and use of grassed areas.</p> <p>Figure 4-1 shows the vegetation removal required for site establishment and access tracks.</p>
Ancillary facilities (compounds)	<p>A construction compound would be required for site sheds, construction amenities and materials laydown. An indicative location for the compound is shown in Figure 1-1.</p>
Work hours	<p>Work and deliveries will be scheduled during standard daytime hours:</p> <ul style="list-style-type: none">• 7 am to 6 pm, Monday to Friday• 8 am to 1 pm, Saturdays. <p>It is likely bypass pumping would occur outside of standard daytime hours to avoid tankering and the risk of overflow. This would potentially require the operation of a generator in the unlikely event the electrical pump fails. This has been assessed in the noise and vibration section of Table 4-1 and mitigation measures are provided in Table 4-2.</p> <p>Sometimes work is required at different times (e.g. for work in roads or delivery of oversize equipment). Sydney Water's Project Manager can approve work outside of standard daytime hours, following the approval process described in the safeguards in Table 4-2.</p>
Proposal timing	<p>Construction is expected to start early 2026 and take about 24 months.</p>



Figure 1-1 Location of proposal and key environmental constraints



2. Consultation

2.1 Community and stakeholder consultation – general

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 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 such as public safety issues, temporary works on council land, and full or partial road closures of council managed roads (refer below).

2.2 Community and stakeholder consultation – proposal

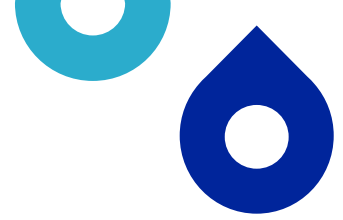
The proposal would require use of land managed by Hawkesbury City Council, including a public reserve and the adjacent local road corridors. Consultation with Hawkesbury City Council has been ongoing from May 2025 regarding the use of public land for the construction compound and to discuss vegetation removal and traffic and access arrangements. The project team met with Hawkesbury City Council on 3 July 2025 to discuss the proposal and a site walkover assisted in refining compound locations, the stormwater scope and vegetation clearing requirements. Hawkesbury City Council would be provided with reasonable notice prior to the commencement of works.

2.3 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).

Consultation was required under section 2.10 of the TISEPP, as the proposal involves:

- temporary structures on a public space (i.e. footpath and public reserve) under council's control that will disrupt pedestrian or vehicular traffic that is not minor or inconsequential



- excavation of a footpath adjacent to a local road (Laurence Street).

Written notice of the intention to carry out the proposal, together with a scope of works, was provided to Hawkesbury City Council on 11 June 2025. Council's response to this notice has been considered and integrated into the scope, where relevant. Further detail is provided in Appendix C.

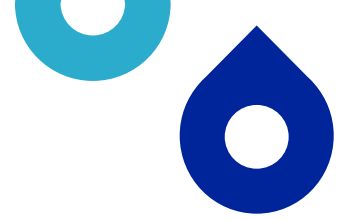
3. Legislative requirements

Table 3-1 Environmental planning instruments relevant to the proposal

Environmental Planning Instrument	Relevance to proposal
Hawkesbury Local Environmental Plan 2012 (Hawkesbury LEP)	The proposal is located on land zoned R3 (Medium density residential) and RE1 (Public recreation).
State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP)	<p>Section 2.126(6) of the TISEPP permits development for sewerage reticulation systems without consent on any land in the prescribed circumstance.</p> <p>Development carried out by or on behalf of a public authority is a prescribed circumstance (section 2.126(1)).</p> <p>As Sydney Water is a public authority and the proposal involves the upgrade and maintenance of a wastewater pumping station (part of a sewerage reticulation system), the proposal is permissible without consent.</p>
State Environmental Planning Policy (Biodiversity and Conservation) 2021 (BCSEPP)	<p>Vegetation in non-rural areas (Chapter 2)</p> <p>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. Despite this, council have been consulted in regards to the vegetation removal required for the proposal.</p> <p>Water catchments (Chapter 6)</p> <p>Chapter 6 of this SEPP applies as the proposal is within the Hawkesbury-Nepean Catchment, a regulated catchment. Section 4 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.</p>

Table 3-2 Consideration of key environmental legislation

Legislation	Relevance to proposal	Permit or approval	Timing and responsibility
<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>	<p>SP0331 operates under EPL 1726 for the Richmond wastewater treatment system. No changes are needed to the EPL as part of the proposal.</p> <p>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</p>	N/A	N/A



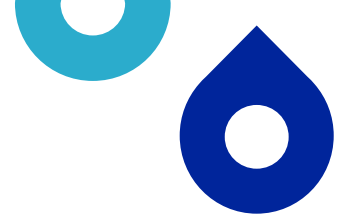
Legislation	Relevance to proposal	Permit or approval	Timing and responsibility
	is actual or potential environmental harm. Should one of these incidents occur during construction, the response and investigation to the incident would follow <i>SWEMS0009 - Responding to incidents with an environmental impact</i> .		
<i>Biodiversity Conservation Act 2016 (BC Act)</i>	A Biodiversity Assessment (Appendix D) was undertaken for the proposal, and included Assessments of Significance as per section 7.3 of the BC Act. The assessment concluded that no significant impacts to threatened fauna, flora or ecological communities are anticipated. No additional approvals are required.	N/A	N/A
<i>Roads Act 1993</i>	Temporary traffic control would be required during construction on Laurence Street and Cox Crescent to allow for access and accommodate works within the road corridor. Laurence Street and Cox Crescent are local roads managed by Hawkesbury City Council. As partial lane closures would be required, consultation has been undertaken and would continue with Hawkesbury City Council. A Road Occupancy Licence in accordance with s.138 of the Act would be obtained prior to the commencement of construction within the road corridor.	Road Occupancy Licence	Pre-construction, contractor

4. Environmental assessment

The environmental impacts checklist (SWEMS0019.01) was considered for the proposal. Table 4-1 includes only the potentially impacted aspects and Table 4-2 lists relevant mitigation measures.

Table 4-1 review of environmental aspects

Aspect	Potential impacts
Topography, geology and soils	<p>The topography of the proposal area is relatively flat, between about 18 to 20 m AHD. No areas of significant erosion, salinity, or acid sulfate soils (ASS) were identified within the proposal area. The proposal area has been previously disturbed during construction of SP0133 and surrounding local roads. Historical aerial imagery depicts the proposal area as cleared farmland as recent as the 1960s.</p> <p>Excavation will be required for the installation of pipework, conduits for electrical cables, instrumentation, pump turrets and shallow footings. The maximum depth of excavation is anticipated to be up to 4 m. Temporary hardstand areas will also be established for access tracks, storage and laydown areas.</p> <p>Potential impacts from excavation or ground disturbance associated with this proposal include:</p> <ul style="list-style-type: none">• soil erosion and generation of sediment laden run-off from excavation and stockpiles into drainage lines• inadvertent transfer of soil off-site by work vehicles• mismanagement of unexpected, contaminated soil during excavation which could impact surrounding sensitive receivers. <p>An Unexpected Finds Protocol would be prepared to detail the approach and methodology for the management of any unexpected contaminated soils or other materials encountered during construction works. Any excavated soils should be classified for re-use onsite or for off-site disposal in accordance with the NSW EPA Waste Classification Guidelines (2014).</p> <p>The areas within the construction compound would be restored to pre-existing condition, unless otherwise agreed with landowners, once construction is complete. Soil disturbance would be minimised through implementation of appropriate mitigation measures. No operational topography, geology or soil impacts are anticipated.</p>
Water and drainage	<p>The closest waterway to the proposal is an unnamed watercourse located around 10 m to the south east. This unnamed waterway is not considered Key Fish Habitat (KFH).</p> <p>According to the Hawkesbury-Nepean Valley flood map, the site is mapped to be within the flood extents of a 1 in 500 chance per year flood (SES, 2024).</p> <p>Geotechnical investigations undertaken for the proposal found ground water to be at 8.6 m bgl within the proposal area (Douglas Partners, 2024). Excavation proposed for the works is anticipated to reach a maximum depth of 4 m. Therefore, the interception of groundwater is considered unlikely, and a Water Supply Work Approval (WSWA) would not be required.</p>



The proposed construction activities involve excavation of soils, temporary soil stockpiles, storage of fuels, chemicals, plant and materials. Ground disturbing works have the potential to impact on water quality due to increased erosion and sedimentation from exposed soil and stockpiles. 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.

Potential impacts would be managed by implementing the mitigation measures listed in Table 4-2.

Flora and fauna

A specialist flora and fauna assessment was undertaken by Biosis Pty Ltd. The assessment included a survey of the proposal area and surrounding areas in May 2025. The flora and fauna assessment is attached as Appendix D and the findings are summarised below.

Vegetation within the proposal area consists of remnant native vegetation, planted native vegetation and exotic landscaped areas. The vegetation throughout the majority of the surrounding area has been substantially modified by historical clearing and weed ingress, including horticultural plantings. One plant community type (PCT) was identified adjacent to the proposal area in low condition, PCT 4023 (Coastal Valleys Riparian Forest). PCT 4023 is associated with the threatened ecological community (TEC) 'Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions' (Endangered Ecological Community (EEC), BC Act).

No threatened flora or fauna species were recorded on site during surveys, however the Grey-headed Flying Fox was considered to have a moderate likelihood of occurring within the study area due to the presence of feed trees.

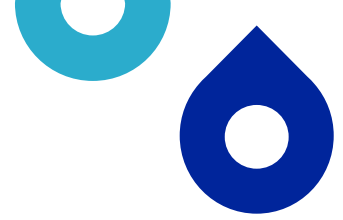
Aquatic habitat within the study area is limited to a single unnamed strahler order 2 stream, south of SP0331. Due to its highly artificial structure, limited hydrological function, and shallow water depth, the watercourse is unlikely to support aquatic-dependent fauna, including native fish species. It is not mapped as Key Fish Habitat under the *Fisheries Management Act 1994* and does not provide the physical or ecological conditions necessary to support viable aquatic habitat.

One 'priority weed' under the *Biosecurity Act 2015*, Green Cestrum (*Cestrum parqui*), was recorded in the study area. Green Cestrum is a noxious weed and landholders have a General Biosecurity Duty to manage its spread.

The proposal would result in the following impacts to ecological values (see Figure 4-1):

- Removal of approximately 0.03 ha (23 trees) of planted native vegetation. This planted native vegetation also provides potential foraging habitat for Grey-headed Flying Fox.
- Minor trimming of branches associated with the Swamp-oak Floodplain Forest EEC (BC Act).
- Removal of 0.02 ha (five trees) of exotic vegetation.

To ensure impacts to trees are avoided or minimised, a qualified arborist was engaged to undertake an Arboricultural Impact Assessment (AIA) (Arbor Express, 2025). The arborist assessed tree condition, recommended appropriate tree protection measures and prepared a tree protection plan.



Overall, 37 individual trees are proposed for retention within the proposal area. In order to protect these trees, the recommendations in Section 8 and Section 9 of the AIA are required to be implemented. With the implementation of these measures, which have been summarised in Table 4-2, impacts to retained trees can be avoided or minimised.

A Test of Significance (ToS) was undertaken to assess impacts of tree trimming and other indirect impacts to the Swamp-oak Floodplain Forest EEC. The ToS concluded that tree trimming and indirect impacts are unlikely to result in a significant impact to the EEC.

Additionally, a ToS for the Grey-Headed Flying Fox was conducted for the removal of potential foraging habitat. The ToS concluded that the clearance was unlikely to result in a significant impact to the species. As such, this project will not result in a significant impact on threatened species, populations or communities.

The proposal is not expected to have an impact on aquatic ecology.

With the implementation of the mitigation measures in Table 4-2, only minor biodiversity impacts are anticipated.

Heritage

The proposal is located in a high risk landscape for Aboriginal Heritage (<200 m from a waterway). A search of the AHIMS database was completed on 2 July 2025. There are no known Aboriginal or non-Aboriginal heritage sites within 200 m of the proposal area.

The likelihood of encountering unknown Aboriginal Heritage items in the proposal area is low due to historic ground disturbance from installation of underground Sydney Water infrastructure and extensive land clearing in Hobartville. Works can proceed with caution.

Noise and vibration

The likelihood of noise impact from the proposal was reviewed against risk factors (based on Table 2 of the EPA's 2020 Draft Construction Noise Guideline). The review indicated that the construction noise impact would be medium-low risk and therefore a quantitative noise impact assessment was undertaken.

The purpose of the noise assessment is to assess the predicted worst-case noise impacts. This will identify recommended additional mitigation measures for impacted receivers at different distances from the works, which will guide the community engagement for the sites. The Transport for NSW (TfNSW) Construction and Maintenance Noise Estimator Tool (the tool) (TfNSW, 2022) was used for the assessment.

Existing environment

The proposal is located within a residential and recreational land use area. The closest residential receiver is 20 m from the proposal. Other nearby sensitive receivers include users of the public reserve and playground (adjacent, to the west), Hobartville Long Day Preschool (160 m south west) and commercial receivers including restaurants (200 m south west) (see Figure 1-1).

Construction noise impacts

Construction of the proposal was considered to pose moderate risk to nearby sensitive receivers for the following reasons:

- The construction program would take 24 months.

- Noisy works would be required intermittently throughout the construction program including the use of concrete saws, excavators and other noisy plant.
- Nighttime flow isolation and flow management (FIFM) works would be required on occasion (around two nights in total), requiring the use of noisy plant such as generators and vacuum trucks at night.

The worst-case noise impact from the proposal would be up to 105 m during day works and up to 200 m during night works, as shown in Figure 4-2 and Figure 4-3 respectively. Residents, the preschool and users of the public reserve would be impacted by noise when noisy works are occurring during the day. Residents, the preschool, users of the public reserve and commercial receivers would be impacted by noise when FIFM works are occurring during the night.

Figure 4-2 and Figure 4-3 depict recommended mitigation measures at different distances from sensitive receivers, as identified by the noise estimator tool. 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 three hours with one hour breaks in between)
- PC: Phone calls.

Considering the implementation of mitigation measures outlined in Table 4-2, significant construction noise and vibration impacts are not anticipated.

Operational impacts

The proposal would replace older obsolete or non-compliant equipment with modern equipment that meets the EPA Noise Policy for Industry and therefore noise is likely to be the same or reduced. As such, no operational noise impacts are expected.

Vibration impacts

Jackhammers and compactors would be used during construction. The minimum working distance for this equipment is one metre. There are no sensitive receivers within one metre of the works, therefore no construction or operational vibration impacts are expected.

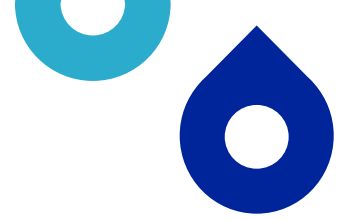
Air and energy

A search on the National Pollutant Inventory identified no sources of pollutant within 1 km of SP0331. The nearest source is Richmond Water Resource Recovery Facility around 1.8 km east.

Sensitive receivers in the vicinity of the proposed works include neighbouring residential properties on Laurence Street, Cox Crescent, Reynolds Avenue, Sloper Avenue and Onus Avenue. The nearest sensitive receiver (residential) is located around 20 m north from SP0331. Other nearby sensitive receivers include:

- Hobartville Playground
- Hobartville Long Day Preschool
- Commercial receivers including restaurants.

These are located between 130 m to 300 m south west from SP0331.



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

- dust during excavation and movement over disturbed ground
- emissions from machinery, equipment and vehicles used during construction
- odour from the disturbance of existing wastewater and exposure of waste.

The potential air quality impacts would be localised and temporary and unlikely to have a significant impact with the application of the mitigation measures outlined in Table 4-2.

During operation, the new OCU and appropriately sized ventilation stacks would improve odour.

Waste and hazardous materials

The Hazardous Building Materials report for SP0331 (HazCentral, 2018) identifies lead paint, Polychlorinated Biphenyls and potential for asbestos within the proposal area.

Waste would be generated during construction, including:

- removal of redundant assets
- excavation and disturbance of soil
- green waste from vegetation removal/trimming
- 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 would 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.

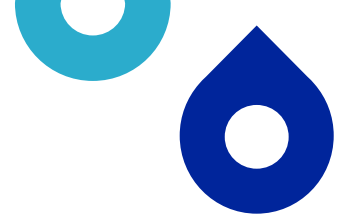
Overall, minor impacts from waste and hazardous materials are expected, and the mitigation measures in Table 4-2 would be implemented to further minimise these impacts.

Traffic and access

The proposal area would be accessed via Laurence Street, a local road managed by Hawkesbury City Council. Laurence Street is serviced by two public bus routes (677 and 678), with bus stops located around 100 m from the proposal area.

Grassed areas adjacent to the site have been nominated for parking, compound and site amenities in consultation with Hawkesbury City Council. The proposal has the potential to impact pedestrian traffic as a pedestrian path runs through the proposal area and recreational users of the park would have restricted access. Pedestrian traffic management would be established by the contractor to redirect members of the public and keep them a safe distance from the works.

The proposal has the potential to affect vehicular traffic and access due to construction traffic on local roads, construction parking and works adjacent to driveways. The anticipated construction traffic load would include cranes and



excavators arriving at site, workers travelling to site daily (up to 20 at peak) and material deliveries. The traffic generated for the proposal is expected to be minor and temporary.

As space in the proposal area is limited, work vehicles and possibly some plant would need to park on Laurence Street. As such, there would be a reduction in the availability of street parking spaces for residents of Laurence Street and visitors to the nearby public reserves. The uprating of the existing substation adjacent to 35 Cox Crescent may temporarily disrupt vehicular access to the adjacent residential driveway for a number of days. Residents would be notified of the works and any potential disruption with reasonable notice. Impacts would be short term and temporary and therefore are not considered significant.

No full road closures are anticipated. Traffic control would be used for material deliveries and for plant accessing the proposal area. Partial road closures would be required for construction of the new stormwater line. Temporary traffic control would create minor delays and diversions for vehicular traffic, active transport and public transport services. Traffic management measures are to be confirmed by the contractor, with any provisions and management/control plans to be prepared in consultation with council and other relevant authorities.

With the implementation of the mitigation measures in Table 4-2, minor construction traffic impacts are anticipated. No operational traffic and access impacts are expected.

Social and visual

Nearby sensitive receivers to the proposal include residents (within 20 m north), public reserve and playground (adjacent, to the west), Hobartville Long Day Preschool (160 m south west) and commercial receivers (200 m south west).

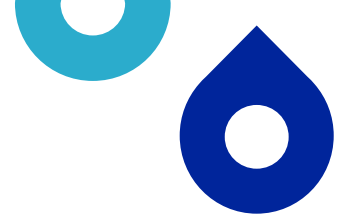
The proposal has the potential to cause social impacts associated with air quality, traffic, access and noise, which have been assessed above. The proposal is within land zoned as public recreation and medium density residential. The construction compound would limit the area available for recreation during construction. This would have a low impact as there are other areas for passive and active recreation in the vicinity of the proposal.

Visual impacts associated with construction include:

- vehicles on site
- large equipment and materials
- construction compound
- the presence of up to 20 construction staff on site per day
- excavations and disturbed ground
- vegetation removal.

Overall, these impacts would be temporary in nature and impacted areas would be returned to pre-existing condition, where possible.

During operation, there will be visual impacts from the presence of new above ground infrastructure including a switch room and OCU. These changes, whilst altering the aesthetics of the site, are in keeping with the sites primary function and would enable the pump station to provide a modern, reliable and maintainable sewer service to the community. In doing so, the works would improve environmental and community outcomes. The design of the proposal



is consistent with the existing pump station and the removal of the amenity trees would be offset with replacement plantings nearby. The removal of amenity trees would have a minor to moderate mid-term impact whilst replacement plantings mature. The location of offset plantings would occur in consultation with council.

Considering the above, and the implementation of the mitigation measures in Table 4-2, only minor social and visual impacts are anticipated during construction and operation of the proposal.

Cumulative and future trends

Sydney Water is not aware of any planned or future work that will occur in the vicinity of the proposal while these works are being undertaken. Development applications currently (July 2025) active or determined in the last 6 months for the suburb of Hobartville relate to localised residential developments and changes to existing buildings. Any cumulative amenity impacts (e.g. noise, dust, traffic) would 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 4-1 Ecology features and impacts



Noise impact assessment - Day time



Proposal area



35m LOS - highly affected - 75dB or greater - N, PC, RO



60m NLOS - moderately intrusive - 20-30dB above background - N



105m LOS - moderately intrusive - 20-30dB above background - N

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NSW Department of Planning, Industry & Environment
NSW Spatial Services
Australian Government Department of Environment

Date Created: 23/06/2025

Sydney
WATER



Figure 4-2 Noise impacts during day time works

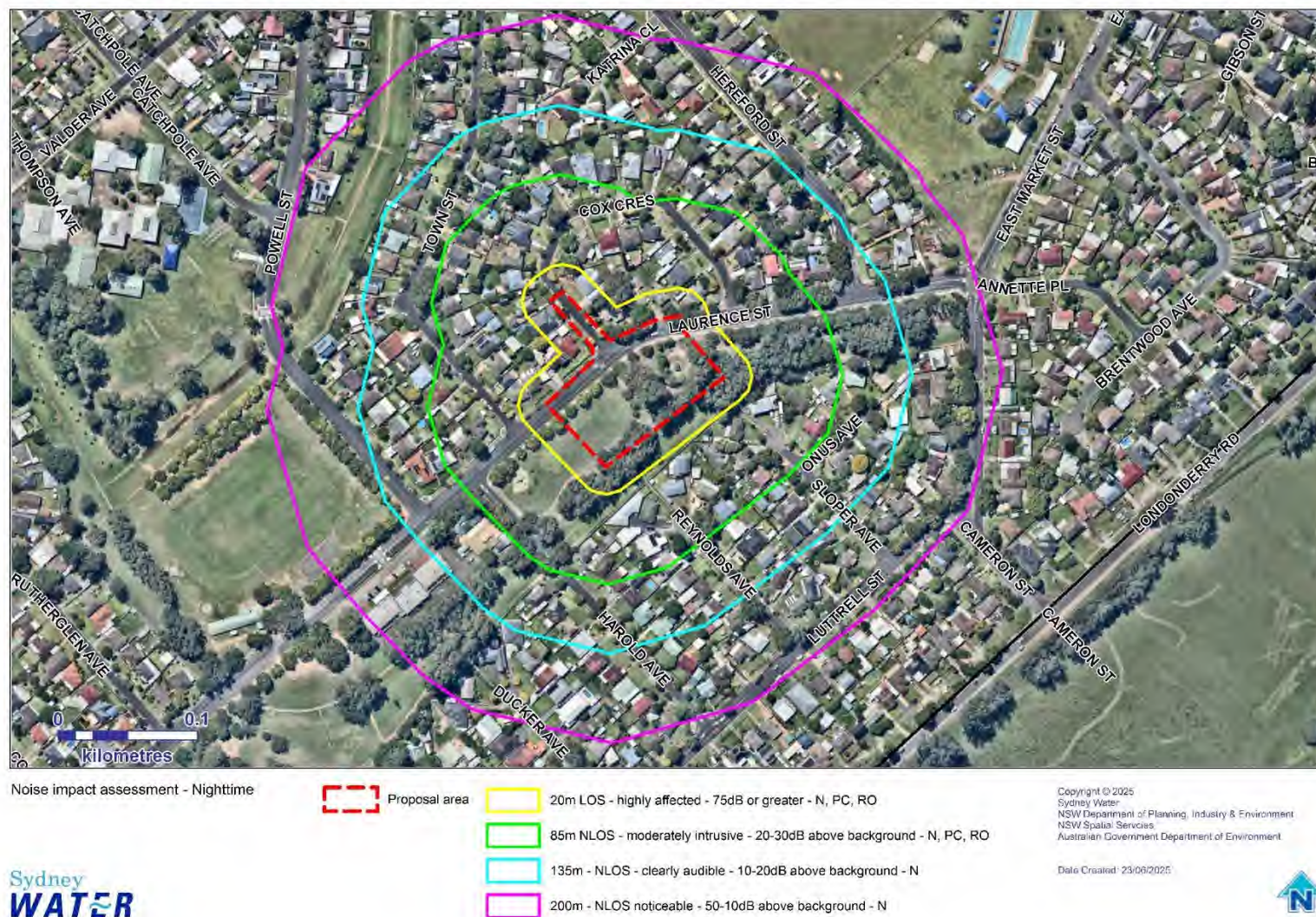



Figure 4-3 Noise impacts during night time works

Table 4-2 Mitigation measures

Mitigation measures
General
<p>Should the methodology change from the REF, no further environmental assessment is required provided the change:</p> <ul style="list-style-type: none">• remains within the proposal area for the REF and has no net additional environmental impact or• is outside the proposal area for the REF but:<ul style="list-style-type: none">– 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. <p>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</p>
<p>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:</p> <ul style="list-style-type: none">• go/no go areas and boundaries of the proposal 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.
<p>The Delivery Contractor should consider pre-mobilisation and post-demobilisation soil sampling on compound sites to confirm no residual impacts.</p>
<p>Prepare an Incident Management Plan (IMP) outlining actions and responsibilities for:</p> <ul style="list-style-type: none">• predicted/onset of heavy rain during works• spills• unexpected finds (e.g. heritage and contamination)• other potential incidents relevant to the scope of works. <p>All site personnel must be inducted into the IMP.</p>
<p>To ensure compliance with legislative requirements for incident management (e.g. <i>Protection of the Environment Operations Act 1997</i>), Follow SWEMS0009 and attach SWEMS0009 to the CEMP.</p>
<p>Complaints to be managed in accordance with Sydney Water's Complaints Procedure and relevant Community Engagement Plan.</p>



Mitigation measures

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:

- develop a Soil and Water Management Plan (SWMP) as part of the CEMP
- 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.

Include a Stockpile Management Plan (SMP) as part of the SWMP if any stockpiles remain on site for longer than a month, to adequately manage any proposed temporary and permanent stockpiles. This will include detail on:

- exact location of stockpiles
- minimising stockpile size
- height, slopes and batters
- preventing mixing and cross contamination
- consideration of future maintenance
- capping
- erosion and sediment control
- restoration.


The Stockpile Management Plan will be approved by the Sydney Water Project Manager in consultation with the Environmental Representative and Contamination and Hazardous Materials team.

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 Contamination and Hazardous Materials team) to agree on proposed management approach.

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.



Mitigation measures

Eliminate ponding and erosion by restoring natural landforms to the pre-works condition

Water and drainage

Bund potential contaminants and store on robust waterproof membrane, away from drainage lines.

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

If required, 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.

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.

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.

Conduct any equipment wash down within a designated washout area.

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

Locate portable site amenities, chemical storage and stockpiles of erodible materials away from watercourses, drainage lines and flood prone areas.


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.

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



Mitigation measures

- removal of exotic vegetation or o 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 REF).

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](#)).

Minimise vegetation clearance and disturbance, including impacts to standing dead trees and riparian zones. Where possible, limit clearing to trimming rather than the removal of whole plants

Vegetation removal must not occur until the following are complete:

- the area to be removed has been physically delineated
- the Contractor's Environmental Representative has confirmed consistency with approval documentation
- pre-clearing surveys, if relevant
- written authorisation to commence clearing from Sydney Water Project Manager.

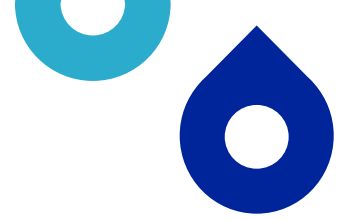
All site personnel will be briefed during toolbox talks on ID characteristics of Grey-headed Flying Fox. They will also be instructed to immediately cease works if any individuals are observed roosting in vegetation scheduled for removal, and to notify the site supervisor or Environmental Representative.

Map and report native vegetation clearing greater than 0.01 hectares 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.

In accordance with the Arboricultural Impact Assessment (Arbor Express, 2025), the following tree protection measures would be implemented:

- creation and enforcement of a tree protection plan
- tree protection fencing around identified Tree Protection Zones (where viable)
- retained trees to be protected in accordance with *AS 4970-2009*
- no over-excavation undertaken beyond the footprint of any structure unless approved by the Project Arborist
- site facilities and amenities within a Tree Protection Zone must be constructed using an above-ground pier design
- construction hold points for tree protection checked and certified by the Project Arborist.

Approved clearing area to be delineated using fluorescent flagging tape/bunting or similar.



Mitigation measures

If clearing of native vegetation is required outside the proposal area, these areas will require additional assessment by an ecologist for potential impacts to TECs, threatened species and their habitats.

Vegetation to be offset/rehabilitated in accordance with Section 5.1.1 (Sydney Water Biodiversity Offset Guide – [SWEMS0019.13](#)).

Stop work immediately and notify the Sydney Water Project Manager if any threatened species (flora or fauna) is discovered during the works. Work will only recommence once the impact on the species has been assessed and appropriate control measures provided. Inspect vegetation for potential fauna prior to clearing or trimming.

All equipment and plant machinery to be appropriately cleaned before the start of works. Approved management plan/protocols will be established and implemented to avoid spread and establishment of weeds. To prevent spread of weeds:

- clean all equipment including PPE prior to entering or leaving the work sites
- wrap straw bales in geo-fabric to prevent seed spread.

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

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

Consult Taronga Zoo's Ben Zerbis (Mobile: 0417 201 180, Email: bzerbis@zoo.nsw.gov.au) prior to the removal of vegetation to determine the usefulness of vegetation waste as koala feed.

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, with the exception of FIFM work required outside of standard working hours. 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.



Mitigation measures

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 (e.g. 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 (e.g. 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 (e.g. 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).

As night works are needed, the Delivery Contractor would:

- justify the need for night works beyond those identified in this REF
- consider potential noise impacts and implement the relevant standard daytime and out of hours safeguards and document consideration of all reasonable and feasible management measures
- identify community notification requirements (i.e. for scheduled night work (not emergency works))
- notify all potentially impacted residents and sensitive noise receivers not less than one week prior to commencing night work
- seek approval from the Sydney Water Project Manager in consultation with the environment and communications representatives.

The following mitigation measures are to be considered by the community team and offered where appropriate:

- Notification (letterbox drop or equivalent) - Advance warning of works and potential disruptions can assist in reducing the impact on the community. The notification may consist of using variable message signs, letterbox drop (or equivalent), web site / social media or a combination to distribute information detailing work activities, time periods over which these will occur, impacts and mitigation measures. Notification should be a minimum of five working days prior to the start of works. The approval conditions for projects may also specify requirements for notification to the community about works that may impact on them.
- Phone calls - Phone calls detailing relevant information made to identified/affected stakeholders, who have provided their contact details, within seven calendar days of construction start. Phone calls provide affected stakeholders with personalised contact and tailored advice, with the



Mitigation measures

opportunity to provide comments on the proposal and specific needs. Where the resident cannot be telephoned then an alternative form of engagement should be used.

- Respite offer - Respite Offers should be considered where there are high noise and vibration generating activities near receivers. As a guide work should be carried out in continuous blocks that do not exceed 3 hours each, with a minimum respite period of one hour between each block. The actual duration of each block of work and respite should be flexible to accommodate the usage of and amenity at nearby receivers. The purpose of such an offer is to provide residents with respite from an ongoing impact. This measure is evaluated on a project-by-project basis, and may not be applicable to all projects.

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 (e.g. 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 material

Prepare a Waste and Resource Recovery Plan (WRRP) to appropriately manage and classify any materials including soils, construction/demolition wastes and associated stockpiles.

The plan will be prepared by the Delivery Contractor (or nominated environmental consultant) and approved by the Sydney Water Project Manager in consultation with the Environmental Representative and Contamination and Hazardous Materials team. The WRRP should include:

- expected waste types and their location



Mitigation measures

- unexpected waste or hazardous materials finds procedure
- delineation of waste /resource types including identification of likely vertical and lateral extents (where warranted)
- visual monitoring of materials during excavation and measures to be undertaken to prevent co-mingling / cross-contamination of waste / resource types
- ex-situ waste and resource recovery classification program, including timing relative to project / excavation phases as well as proposed hold points
- waste minimisation and resource recovery methodologies (including consideration of onsite reuse or management if contaminated)
- roles and responsibilities in relation to stockpile and material management and monitoring program
- proposed onsite reuse locations and reuse methodology (if applicable)
- proposed offsite reuse, offsite recycling and / or offsite disposal locations / facilities
- legislative compliance requirements
- consideration of future maintenance
- restoration.

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 stockpile size and ensure delineation between different stockpiled materials.

Minimise the generation of waste and sort waste streams to maximise reuse/recycling in accordance with the legislative requirements.

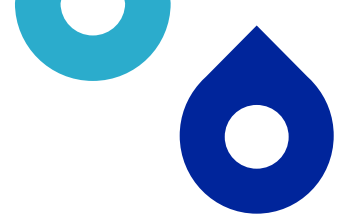
Manage waste and excess spoil in accordance with the NSW EPA Resource Recovery Orders and Exemptions (if applicable) and / or Waste Classification Guidelines. Where materials are not suitable or cannot be reused onsite or offsite, recycle where appropriate. Recycle soils at a licensed soil recycling facility or dispose at an appropriately licenced landfill facility.

Prevent pollutants from escaping including by covering skip bins.

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

Review existing hazardous building materials (HBM) report and implement relevant mitigation measures. Conduct hazardous materials survey prior to commencement where works could impact hazardous materials not surveyed in previous HBM assessments.

Traffic and access



Mitigation measures

Prepare a Traffic Management Plan (TMP) in consultation with the relevant traffic authority. The Delivery Contractor will obtain a Road Occupancy Licence (ROL) from council.

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).

Manage sites to allow people to move safely past the works, including alternative pedestrian, bicycle, pram and wheelchair access.

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.

Consult with bus operator to confirm potential impacts to bus service due to traffic controls for the proposal and measures to avoid impacts if relevant.

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.

Maintain work areas in a clean and tidy condition.

Cumulative and future trends

Perform ongoing consultation with developers and council on any potential cumulative impact from nearby residential development.



5. Conclusion

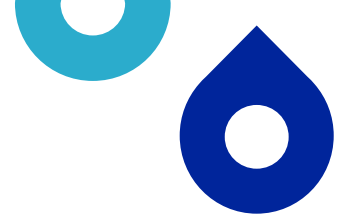
Sydney Water has prepared this REF to assess the potential environmental impacts of SP0331 Hobartville mechanical and electrical upgrades. The proposal is required to enhance the reliability of SP0331 and mitigate the high risk of plant failure, which could have severe consequences.

The main potential construction environmental impacts of the proposal include impacts to flora and fauna, noise and traffic. During operation, the main potential impacts are associated with visual amenity. 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, 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 (ESD) (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

Section 171 checklist	REF finding
Any environmental impact on a community	There may be short-term impacts on the community from vegetation removal, construction noise, construction traffic and use of public space. There will be environmental improvements by providing a reliable wastewater service to the local community.
Any transformation of a locality	The proposal will not result in the transformation of a locality.
Any environmental impact on the ecosystems of the locality	The proposal will result in minor environmental impacts to ecosystems of the locality, from activities such as vegetation removal and noisy works. The proposal will lead to environmental improvements by 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 result in a short to mid-term minor reduction in the aesthetic and environmental quality of the locality through the removal of vegetation. However, long term benefits to the environmental quality of the locality would result through the provision of a reliable wastewater service to the local community and possibly through replacement tree plantings.
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 these factors.
Any impact on the habitat of any protected animals (within the meaning of the <i>Biodiversity Conservation Act 2016</i>)	The proposal will not have any significant impact on the habitat of protected animals. No threatened species or critical habitat have been recorded within the proposal area. However, up to 0.03 ha of planted native species that provide potential foraging habitat for Grey-headed Flying Fox will be removed.
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 endanger any species.
Any long-term effects on the environment	The proposal will not have any long-term adverse 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 maintain the quality of the environment.



Section 171 checklist	REF finding
Any risk to the safety of the environment	The proposal will ensure the safety of the environment by providing a reliable and modern wastewater service for the area.
Any reduction in the range of beneficial uses of the environment	The proposal will maintain 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. Construction noise pollution is anticipated, however with the implementation of mitigation measures, impacts from this pollution is not anticipated to be significant. No operational pollution of the environment above current levels 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 affect demand on resources.
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 these factors.
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 renewals 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.

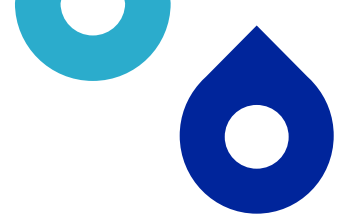


Appendix B – Consideration of Ecologically Sustainable Development

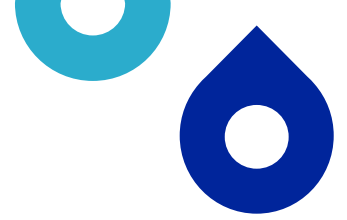
Principle	Proposal alignment
Precautionary principle – <i>if there are threats of serious or irreversible environmental damage, lack of scientific uncertainty should not be a reason for postponing measures to prevent environmental degradation. Public and private decisions should be guided by careful evaluation to avoid serious or irreversible damage to the environment where practicable, and an assessment of the risk-weighted consequences of various options.</i>	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 – <i>the present generation should ensure that the health, diversity and productivity of the environment are maintained or enhanced for the benefit of future generations.</i>	The proposal will help to meet the needs of future generations by providing a reliable wastewater service.
Conservation of biological diversity and ecological integrity – <i>conservation of the biological diversity and ecological integrity should be a fundamental consideration in environmental planning and decision-making processes.</i>	The proposal will not significantly impact on biological diversity or impact ecological integrity. No threatened species or critical habitat have been recorded within the proposal area. However, up to 0.03 ha of planted native species that provide potential foraging habitat for Grey-headed Flying Fox will be removed.
Improved valuation, pricing and incentive mechanisms — <i>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</i>	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		



TISEPP section	Yes	No
Will the proposal be on land adjacent to land reserved under the <i>National Parks and Wildlife Act 1974</i> or land acquired under Part 11 of that Act? <i>If so, consult with DPE (NPWS).</i>		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? <i>If so, consult with DPE (NPWS).</i>		X
Will the proposal include a fixed or floating structure in or over navigable waters? <i>If so, consult TfNSW.</i>		X
Will the proposal be on land in a mine subsidence district within the meaning of the <i>Coal Mine Subsidence Compensation Act 2017</i> ? <i>If so, consult with Subsidence Advisory NSW.</i>		X
Will the proposal be on land in a Western City operational area specified in the <i>Western Parkland City Authority Act 2018</i> , Schedule 2 and have a capital investment value of \$30 million or more? <i>If so, consult the Western Parkland City Authority.</i>		X
Will the proposal clear native vegetation on land that is not subject land (ie non-certified land)? <i>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).</i>		X



Appendix D – Flora and Fauna Assessment Report