

# Review of Environmental Factors

## Multi-program - Category B

SP0089 Rising Main Renewal, Chapel Street, Rockdale.

### 1 Determination

This Review of Environmental Factors Multiprogram - Category B (Category B REF) is to be read in conjunction with the Review of Environmental Factors Multi-program pipeline and related infrastructure replacement, repair and upgrades (Multi-program REF) (May 2023). Together both documents assess the potential environmental impacts of SP0089 Rising Main Renewal, Rockdale. These documents were 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 Category B REF and Multi-program REF. Additional environmental impact assessment may be required if the scope of work or work methods described in either the Multi-program REF or this Category B REF change significantly following determination.

#### Decision Statement

The main potential construction environmental impacts of the proposal include impacts to groundwater, vegetation and from noise. 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 Category B REF and the Multi-program 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 information it contains is neither false nor misleading.

Prepared by:	Reviewed by:	Endorsed by:	Approved by:
Sarah Watson Environmental Scientist Sydney Water Date: 18/11/2024	Cathy O'Rourke Senior Environmental Scientist Sydney Water Date: 20/11/2024	Gaurav Vaid Project Manager Sydney Water Date: 21/11/2024	Sally Spedding A/Senior Manager Environment and Heritage Services Sydney Water Date: 22/11/24

## 2 Proposal Summary

**Table 1** Description of proposal

Aspect	Detailed description
<b>Location</b>	<p>The proposal will duplicate and renew a 230 m length of wastewater rising main along Chapel Street and connect to a manhole on Cairo Street, Rockdale. The pipeline works are on land managed by Bayside Council zoned R4: high density residential and SP2: infrastructure (drainage).</p> <p>The proposal location and environmental constraints are shown in Figure 1.</p>
<b>Approved REF</b>	<p>Review of Environmental Factors Multi-program pipeline and related infrastructure replacement, repair and upgrades (Multi-program REF) (May 2023).</p>
<b>Proposal description</b>	<p>The proposal is covered under the programs of work with equivalent scope as detailed in the Multi-program REF. The SP0089 rising main has exceeded its expected life of 85 years and is at an increased risk of failure. Failure of the main would result in an environmental incident that could affect adjacent waterways. The rising main has been recommended for immediate renewal.</p> <p>The proposal would involve the relining of a 230 m long DN450 wastewater rising main that runs from SP0089 to Cairo Street and laying of new main and manhole. A compound will be set up within the SP0089 pumping station area. A detailed description of the methodology is outlined in the Multi-program REF (May 2023).</p> <p>The proposal will involve:</p> <ul style="list-style-type: none"><li>• establishing site and compound areas</li><li>• open cut trenching and laying of a new wastewater main from SP0089 to manhole</li><li>• installation of the new wastewater line and maintenance hole</li><li>• CCTV inspection of the existing rising main</li><li>• relining the existing rising main</li><li>• vegetation removal</li><li>• backfill and restoration of construction areas.</li></ul> <p>The proposal is shown on Figure 1.</p>
<b>Proposal timing</b>	<p>The proposal is expected to occur during standard daytime construction hours and take approximately 6 months from September 2025.</p>





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.

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.

#### 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 requirement is specified in the State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP).

Consultation was required under section 2.10, as the proposal involves excavation of a council owned road. Bayside Council have been notified of the proposal and will be consulted before works commence, any feedback will be considered. Further detailed provided in Appendix B.

### 4 Legislative requirements

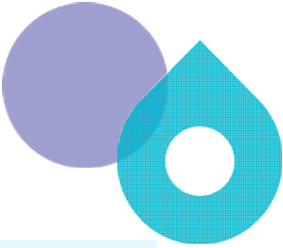

There are no additional legislative requirements beyond those already assessed in the Multi-program REF.

### 5 Additional environmental impacts and mitigation measures

The tables below list the additional environmental impacts that could result from the proposal and the additional mitigation measures. All other environmental impacts and mitigation measures identified in the Multi-program REF remain the same and will be incorporated into the Contractor's Construction Environmental Management Plan (CEMP).

**Table 3** Environmental impacts table

Aspect	Additional impacts	Additional mitigation measures
<b>Topography, geology and soils</b>	<p>The proposal is mapped as occurring in high probability Acid Sulfate Soils (ASS). A contamination investigation report for the proposal area found that ASS are likely to be encountered 1-2 m below ground level (bgl). Any ASS removed will be treated and taken to a licenced waste facility. ASS will be managed through the implementation of mitigation measures in this REF.</p> <p>There will be minor impacts to the soils and topography from excavation. The area of excavation will occur mostly in the road. Areas of excavation will be restored to existing levels once excavation works are complete.</p>	<p>Prepare an ASS management plan.</p>



Impacts will be managed by implementing relevant mitigation measures outlined in the Multi-program REF (2023).

#### **Water and drainage**

The proposal is located 30 m north of Muddy Creek. Muddy Creek is an open concrete canal. Ground disturbing works have the potential to produce sediment that could impact the water quality of Muddy Creek. Water quality impacts will be managed by implementing mitigation measures from the Multi-program REF (2023).

Groundwater was encountered during hydrogeological investigations conducted in September 2023. Due to an excavation depth of about 2.5-3 m, up to 12 ML of groundwater will require removal. There are no groundwater dependant ecosystems recorded within 200 m of the proposal that would be impacted by the removal of groundwater. Groundwater impacts will be managed through the implementation of mitigation measures outlined in this REF and the Multi-program REF (2023).

Sydney Water will obtain a groundwater Water Supply Works Approval. Where dewatering is >3ML per water year (from 1 July), Sydney Water will also obtain a Water Access Licence. The contractor is responsible for:

- providing expert hydrogeological technical information to obtain the approvals
- preparing a Dewatering Management Plan
- complying with the conditions of the above approvals (such as protecting water quality, minimising aquifer extraction volumes, monitoring extraction with flow meters and recording volumes).

#### **Flora and fauna**

There were no native vegetation communities mapped within or adjacent to the proposal. No threatened flora species were recorded within 200 m of the proposal. The road verges along Chapel Street and Cairo Street contain mature street trees. Vegetation trimming will be required along Chapel Street to allow access for machinery. An Arboricultural Impact Assessment and Tree Protection Plan (2024) was prepared to assess the impact of the excavation on the trees. Excavation for the proposal will have minor Tree Protection Zone (TPZ) encroachment of 13 trees and major TPZ encroachment of 5 planted street trees. Excavation with major encroachment in the TPZ will be done using non-destructive techniques and overseen by a project arborist. If trees cannot be retained, they will require removal. The impacts to vegetation will be managed through the implementation of mitigation measures outlined in the Multiprogram REF (2023).

Follow arborists recommendations for excavation within the TPZ and tree trimming.

Consult Bayside Council regarding tree removal and species to replace cleared trees.

Notify potentially affected residents of any tree removal.

There is one threatened fauna species (Grey-headed Flying-fox) recorded within 200 m of the proposal. The sighting was recorded 160 m southwest of the proposal in 2017. The proposal has the potential to impact the species through vegetation trimming and potential tree removal. The Grey-headed Flying-fox is known to occur in the Sydney region and is highly mobile. Potential impacts to the species are minimal and will be managed by implementing mitigation measures in the Multi-program REF (2023).

## Heritage

### Aboriginal heritage

The proposal is within 200 m of a waterway, a high-risk area for encountering Aboriginal heritage. An Aboriginal Heritage Due Diligence was prepared to assess the proposal. The proposal area has been highly disturbed for underground and above ground infrastructure. An AHIMS check conducted on 17 October 2024 did not identify any AHIMS sites within 200 m of the proposal. No AHIMS sites are expected to be impacted by the proposal as outlined in the Aboriginal Heritage Due Diligence assessment.

### Non aboriginal heritage

No heritage items within 200 m of the proposal.

No additional mitigation measures.

## Noise and vibration

### Noise

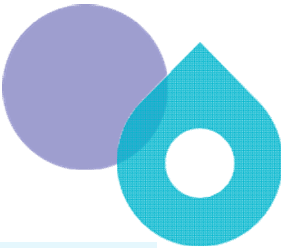

The proposal is along a council managed road and is surrounded by residential homes and units, and a tennis club adjacent to SP0089. The closest noise sensitive receivers are residents along Chapel Street and Cairo Street within 20 m of the works, and the recreational tennis club. Background noise is largely influenced by the road traffic from Bay Street and the Princes Highway. Excavation works will take place during standard daytime construction hours and are expected to take up to 6 months.

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 noise assessment identified the predicted worst-case noise impacts and appropriate mitigation measures for impacted receivers and inform community engagement.

During standard day works, the noisiest equipment will be the use of the 13.5T excavator and with hammer for rock

Community engagement will commence before work starts, with notification to impacted residents and the tennis club within the noise impacted areas (Figures 2 and 3). Consultation will include:

- N – notification: letter box drops at least one week from starting works
- PC – Phone call: phone calls will be performed with highly impacted receivers where appropriate.
- RO – respite offer: can be considered by the communication team (for receivers mapped within the distance identified as being eligible for this mitigation measure).



breaking to facilitate excavation of the road. Figures 2 and 3 assessed the worst-case noise impacts and proposed community consultation to mitigate potential impacts.

### **Vibration**

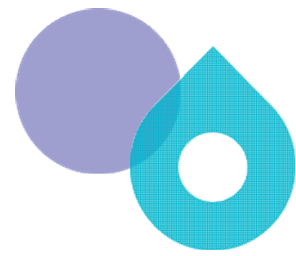
Vibration may be experienced during use of a vibratory or steel drum roller to compact the road surface after resurfacing. There are no structures within the minimum working distances of 12 m for use of a vibratory roller or 2 m for a steel drum roller. No structural impacts are expected. Human receivers within 20 m of these works will be passing by the works or within structures. The works requiring use of vibratory rollers and steel drum rollers will move along the alignment, and vibration impacts will be minor.

<b>Air and energy</b>	Local residents may be temporarily impacted by odour from open maintenance holes and dust generated during excavation. This impact would be temporary and minor.	No additional mitigation measures.
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<b>Waste and hazardous materials</b>	The main waste streams generated by the proposal include road base, fill material, soil and green waste from tree trimming. Soil is not suitable for resource recovery. Waste will be transport to a waste facility licenced to receive the waste.	No additional mitigation measures.
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<b>Traffic and access</b>	<p>Chapel Street and Cairo Road are council managed roads. Excavation and relining works will be done during standard daytime work hours. The proposal excavation will temporarily impact access to private residential properties and street parking. The excavation will be moving along the alignment so no one resident will be impacted for the duration of the proposal. Private residents and stakeholders will be consulted prior to commencement of works regarding impacts to property access.</p> <p>Sections of one lane of traffic will be blocked while excavation works move along the alignment. Traffic impacts will be managed by a traffic management plan.</p>	No additional mitigation measures.
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<b>Social and visual</b>	<p>Temporary social impacts related to amenity issues such as noise, vibration, and traffic are assessed above.</p> <p>Temporary visual impacts would be experienced during construction due to the presence of construction equipment and road excavation. The visual impacts are considered minor due to impacts being restricted to the proposal footprint and effect adjacent receivers.</p>	No additional mitigation measures.
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**Cumulative  
and future  
trends**

The Major Projects Planning Portal and Bayside Council development tracker websites were searched in November 2024. No Major Projects were located in the Bayside Council area. Two applications for development are located within 1 km of the proposal. The development applications and the proposal are at least 400 m from the proposal and are not expected to have cumulative impacts on residents.

No additional mitigation measures.





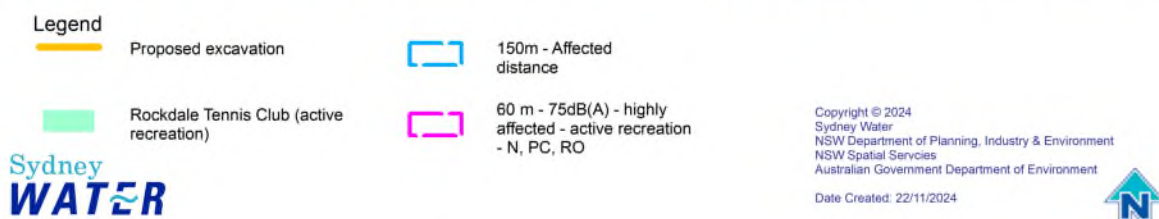


Figure 2. Active recreation receivers impacted by noise during standard construction hours





Figure 3. Residential receivers impact by noise during standard daytime construction hours

**Table 4 Environmental mitigation measures**

General
<p>Should the proposal change from the EIA, no further environmental assessment is required provided the change:</p> <ul style="list-style-type: none"><li>• remains within the study area for the EIA and has no net additional environmental impact or</li><li>• is outside the study area for the EIA:<ul style="list-style-type: none"><li>- reduces impacts to biodiversity, heritage or human amenity or</li><li>- avoids engineering (for example, geological, topographical) constraints and</li><li>- after consultation with any potentially affected landowners and relevant agencies.</li></ul></li></ul> <p>The 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>

## 6 Conclusion

This Category B REF outlines potential environmental impacts associated with groundwater removal, vegetation trimming and noise as part of the SP0089 Rising Main Renewal, Chapel Street, Rockdale. Any additional environmental impacts are considered minor and potential impacts can be mitigated through implementation of the measures outlined in this Category B REF and the Multi-program REF. The proposal is not likely to significantly impact the environment.



## Appendix A – Section 171 checklist

Requirements in addition to the Multi-program REF are considered in the table below.

Section 171 checklist	REF finding
Any environmental impact on a community	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 not result in environmental impacts to ecosystems of the locality. 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 have short term impacts on the locality from vegetation trimming, possible vegetation removal and visual impacts during construction. Impacts will be short term and move along the alignment.
Any effect upon a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or any other special value for present or future generations	The proposal will not have any effect upon a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or any other special value for present or future generations.
Any impact on the habitat of any protected animals (within the meaning of the <i>Biodiversity Conservation Act 2016</i> )	The proposal 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 and reduce the likelihood of wastewater impacting the environment.
Any degradation of the quality of the environment	The proposal will not cause the degradation of the quality of the environment.
Any risk to the safety of the environment	The proposal will not increase risk to the safety of the environment.
Any reduction in the range of beneficial uses of the environment	The proposal will not reduce the range of beneficial uses of the environment.





## Section 171 checklist

## REF finding

Any pollution of 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

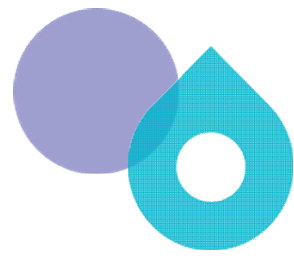
There are no applicable strategic planning statements or plans, as the proposal forms part of a renewals program.

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 TISEPP consultation

TISEPP section	Yes	No
<b>Section 2.10, council related infrastructure or services – consultation with council</b>		
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	
<b>Section 2.11, local heritage – consultation with council</b>		
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
<b>Section 2.12, flood liable land – consultation with council</b>		
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
<b>Section 2.13, flood liable land – consultation with State Emergency Services</b>		
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
<b>Section 2.14, development with impacts on certain land within the coastal zone– council consultation</b>		
Is the work on land mapped as coastal vulnerability area and inconsistent with a certified coastal management program?		X
<b>Section 2.15, consultation with public authorities other than councils</b>		
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



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