

Review of Environmental Factors Addendum

Richmond System Wastewater Upgrade – additional construction footprint

1 Determination

This Review of Environmental Factors Addendum (REFA) assesses potential environmental impacts of the additional construction footprint of Richmond System Wastewater Upgrade and was prepared under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), with Sydney Water both the proponent and determining authority.

The Sydney Water Project Manager is accountable for ensuring the proposal is carried out as described in this REFA and the Richmond System Wastewater Upgrades (December, 2021) (Approved REF). Additional environmental impact assessment may be required if the scope of work or work methods described in this REFA change significantly following determination.

Decision Statement

The main potential construction environmental impacts of the proposal are impacts to vegetation and spoil management. During operation, no impacts are expected. 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 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 REFA and the Approved REF, the proposed work 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 REFA and, to the best of my knowledge, it is in accordance with the EP&A Act and the Environmental Planning and Assessment Regulations (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 and the information it contains is neither false nor misleading.

Prepared by:	Reviewed by:	Endorsed by:	Approved by:
 Jason Chan REFA author Sydney Water Date: 20/12/23	 Jill Berwick Lead Environmental Scientist Sydney Water Date: 21/12/23	 Greg Cable Project Manager Sydney Water Date: 21/12/23	 Murray Johnson Manager, Environment and Heritage Sydney Water Date 22/12/23

2 Proposal Summary

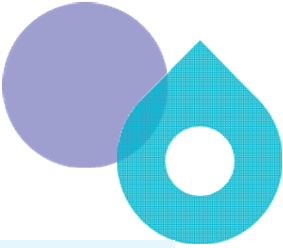
Table 2-1 provides a proposal summary. Table 2-2 provides a summary on the proposal scope, change and justification.

Table 2-1 Proposal summary

Aspect	Detailed description
Proposal location	The Richmond System Wastewater Upgrade Project involves the transfer of wastewater flows from the North Richmond Wastewater Treatment Plant to the Richmond Water Recycling Plant. Since the Approved REF both facilities have been renamed to Water Resource Recovery Facilities (WRRF) and this term will be used in this Addendum REF. Richmond WRRF will be upgraded to accept the North Richmond wastewater and to allow for growth in the area, and North Richmond WRRF will eventually be decommissioned. The project involves construction of a new pumping station at North Richmond WRRF and a transfer pipeline (about 7 km) between the two WRRFs, as well as some minor works to existing wastewater infrastructure within the area. The proposal subject to this addendum is located at: - Proposal site 1 is located at the Richmond WRRF (Richmond Water Recycling Plant in the Approved REF) on Sydney Water owned land. The Lot/DP are Lot 1 DP1105163, Lot 2 DP217647, Lot 1 DP234175 and Lot 2 DP234175. - Proposal site 2 is located at the North Richmond WRRF (North Richmond Wastewater Treatment Plant in the Approved REF) on Sydney Water owned land. The Lot/DP is Lot 10 DP833598. - Proposal site 3 is located partly within the North Richmond WRRF on Sydney Water owned land and on the surrounding land (road reserve).
Approved REF	The proposal assessed in this addendum relates to the work being performed under Richmond System Wastewater Upgrades (December, 2021).

Table 2-2 Proposal scope, change and justification

Sites	Proposal scope and change	Justification
Change 1 - Richmond WRRF, use of decommissioned oxidation pond for spoil management	The Approved REF identified that the project would generate a large amount of spoil, which would need to be managed, preferably on site. Limited testing was undertaken during the preparation of the Approved REF and further site investigations were recommended. Additional investigations have been undertaken and the contractor has commenced preparation of the Stockpile Management, Waste and Resource Recovery Plan (SMWRP) and Contaminated Land Management Sub Plan in accordance with the Approved REF. The preferred option is to use the decommissioned oxidation pond at	The proposed change aims to minimise offsite disposal of spoil and maximise opportunities to reuse suitable material onsite. The decommissioned oxidation pond will be backfilled to ground level with site won material, which is consistent with our asset management plans for the site. The proposed change aligns with the waste minimisation



Richmond WRRF for long term management of some of the excess spoil. The change involves:

- Spoil generated from earthworks within the Richmond and North Richmond WRRFs will be reused to fill the former oxidation pond at the Richmond WRRF.
- Vegetation surrounding the oxidation pond will be removed.

objectives outlined in the Approved REF. The vegetation clearing is minor and comprises urban natives/exotics.

Change 2 – North Richmond WRRF, construction compound

The Approved REF allowed for compounds in previously cleared and disturbed areas only. There are only small areas within North Richmond WRRF which meet this requirement and a construction compound is needed which will require vegetation removal. The change involves:

- Installation of a construction compound at North Richmond WRRF for the duration of the construction works.
- Additional vegetation clearing will be required to facilitate installation of the construction compound.

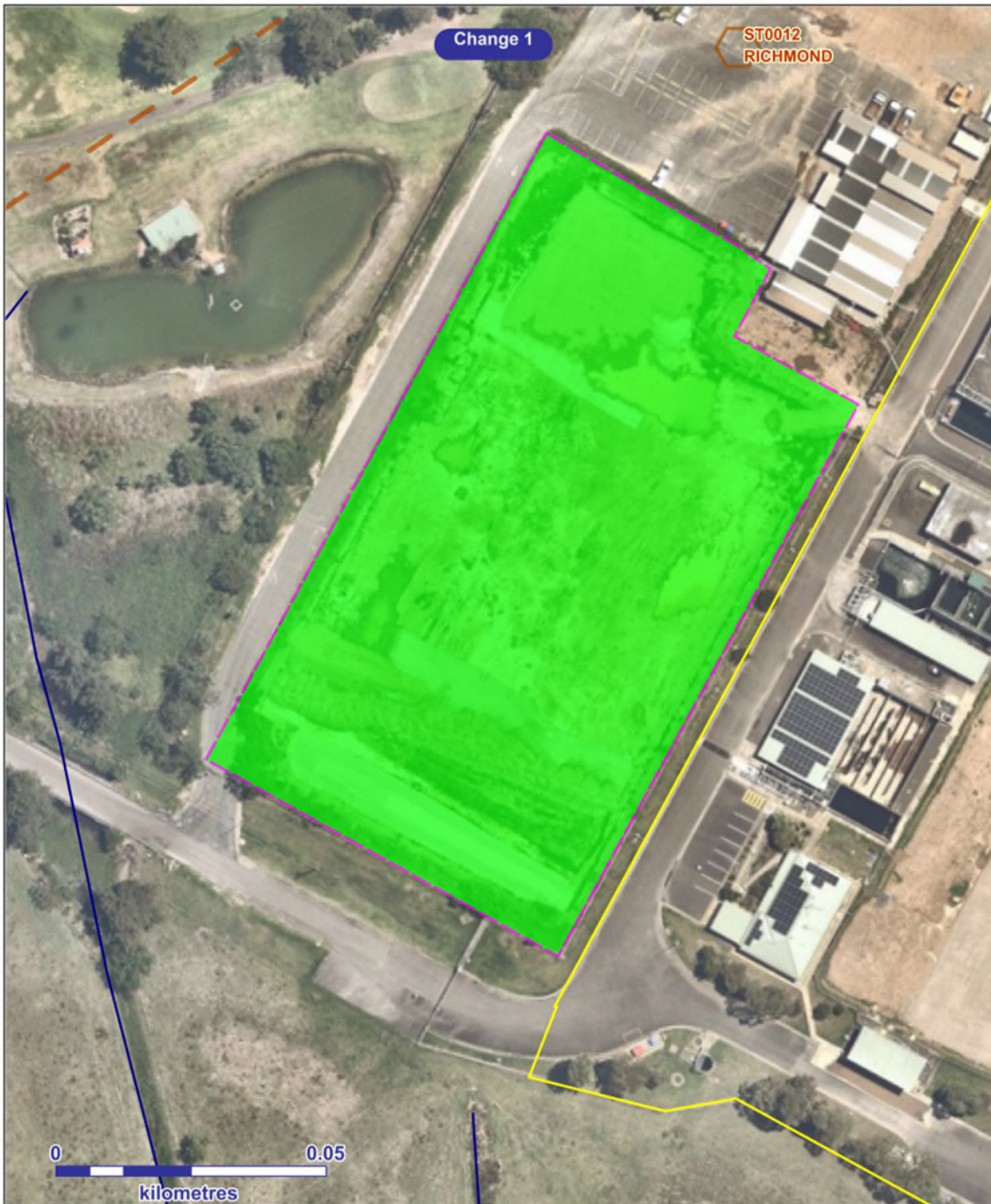
The Approved REF did not assess an additional area for a site office and amenities. The proposed change is required to provide construction worker amenities and site office to support the works. The proposed area has been sited to minimise vegetation impacts.

Change 3 – North Richmond WRRF, emergency relief structure (ERS)

The Approved REF included works to the ERS at North Richmond WRRF (located adjacent to Redbank Creek), however additional area is required to access and undertake the works. The change includes:

- Additional construction footprint is required to facilitate access and to undertake the works around the ERS (1072994).
- Additional vegetation removal will be required.

The proposed change is required to facilitate access to the ERS.



- Change 1 - additional footprint
- Approved REF - Biosis impact area
- Waterway
- Richmond WRRF

Sydney
WATER

Note:
The proposal is located on area mapped as Areas of Localised Salinity Hazard

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Sydney Water
NSW Department of Planning, Industry & Environment
NSW Spatial Services
Australian Government Department of Environment
....(insert relevant source as required)
Date Created: 19/12/2023



Figure 2-1 Change 1 – Richmond WRRF, use of the oxidation pond for spoil management

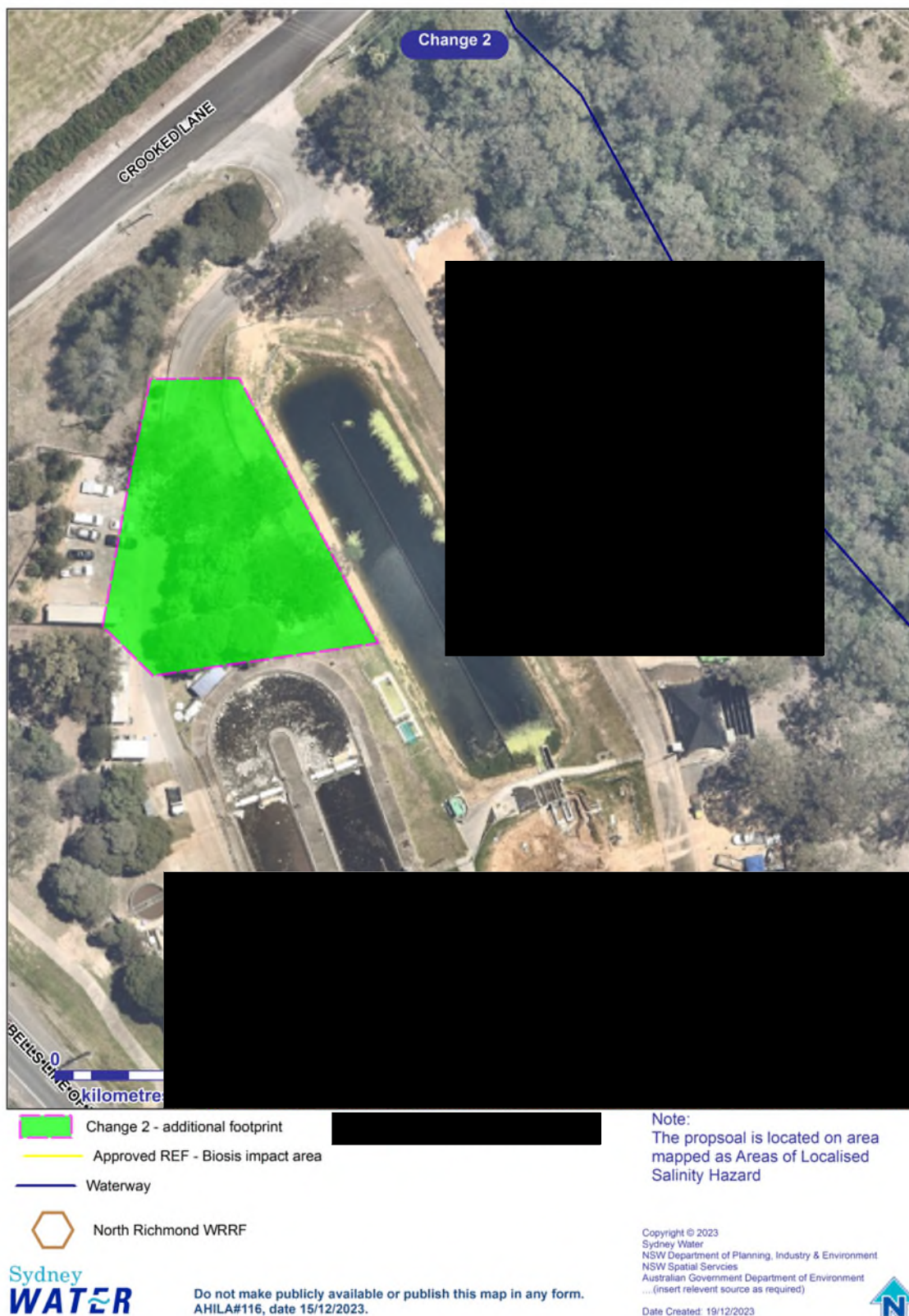
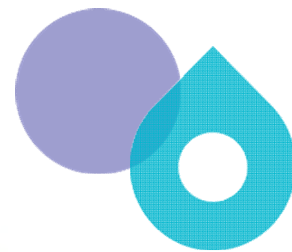


Figure 2-2 Change 2 – North Richmond WRRF, indicative area for construction compound



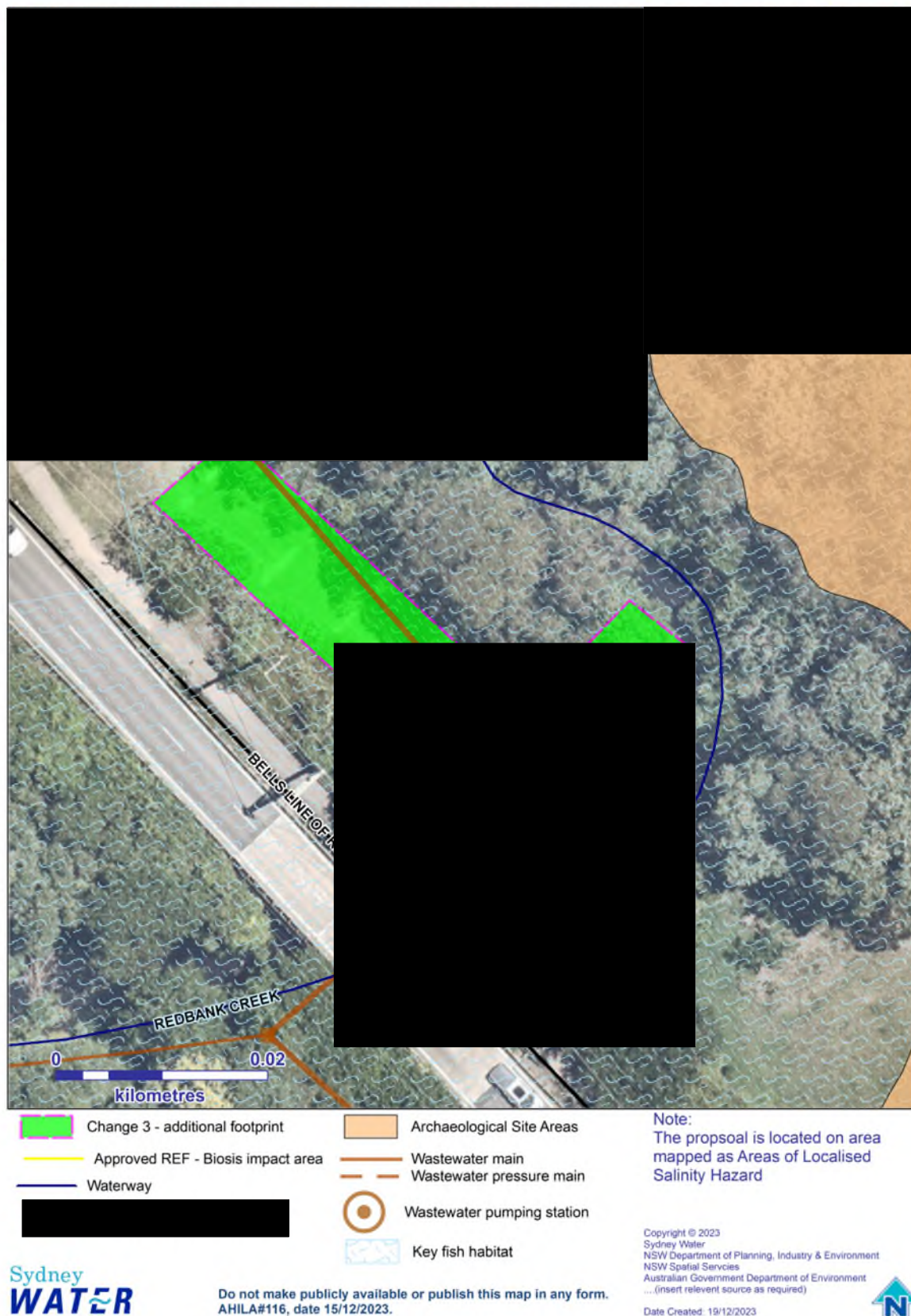
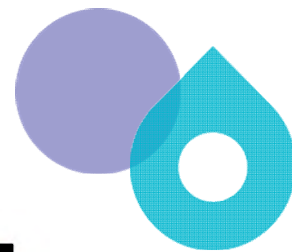


Figure 2-3 Change 3 – North Richmond WRRF, indicative access area for works to ERS



3 Consultation

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

No formal consultation was required under the TISEPP for the Approved REF or for the proposed changes subject of this Addendum REF. Further detail is provided in Appendix B. The project team are undertaking regular consultation with Council about the project and access arrangements.

Access and works to the ERS for change 3 are adjacent to key fish habitat. Notification to the Department of Primary Industry (DPI Fisheries) under section 199 of the *Fisheries Management Act 1994* is not required as the works are located above the top of the bank of the mapped key fish habitat.

4 Legislative consideration

Section 2.126 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TISEPP) permits development by or on behalf of a public authority for sewerage treatment plants without consent on land in a prescribed zone (2.126(2)) or for sewage reticulation systems on any land (2.126(6)).

The proposed changes involve work for the purpose of sewerage treatment plants in land zoned as SP2 Infrastructure, which is considered a 'prescribed zone' and to a sewage reticulation system. The changes are permissible without consent.

As there are additional ecology impacts from the proposal, relevant legislative requirements assessed in the Approved REF have been updated in Table 4-1.

Table 4-1 Additional considerations on legislative requirement

Legislation	Additional considerations
<i>Biodiversity Conservation Act 2016</i> (BC Act)	The proposal requires the removal of additional native vegetation compared to the Approved REF. An assessment of this impact has been undertaken in accordance with the BC Act. The implementation of the mitigation measures in the Approved REF and the additional mitigation measures specified in Section 5 below would minimise the potential for impacts on threatened species, populations or ecological communities listed under the BC Act. The assessment concluded the additional impact from the proposed changes is not likely to result in a significant impact upon any threatened species or populations and their habitats listed under the BC Act.
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)	The EPBC Act provides the framework for Commonwealth environmental approvals. A Significant Impact Criteria (SIC) assessment undertaken for the proposed changes concluded that the proposal is unlikely to have significant impacts to a matter of National Environmental Significance listed under the EPBC Act.
<i>Fisheries Management Act 1994</i> (FM Act)	Change 3 is within an area mapped as key fish habitat. The works can be undertaken to avoid impacts to the key fish habitat. As change 3 is located above the top of the bank, no notification to DPI – Fisheries is required.

5 Additional environmental impacts and mitigation measures

Section 5.1 lists the additional flora and fauna (ecological) impacts that could result from the proposed changes compared to the Approved REF and identifies additional mitigation measures to be implemented. Section 5.2 addresses the other additional environmental impacts that could result from the proposed changes compared to the Approved REF. All mitigation measures identified in the Approved REF remain the same and will be incorporated into the contractor's CEMP.

5.1 Flora and fauna

An ecological assessment was undertaken for the proposed changes. A summary is provided below and the assessment is included as Appendix C.

Vegetation communities

Table 5-1 Vegetation communities within the additional footprint Table 5-1 provides a summary of the vegetation communities within the additional footprint. Table 5-2 shows the additional impact on vegetation communities. Figure 5-1 and Figure 5-2 show the vegetation communities and indicative areas to be impacted.

Table 5-1 Vegetation communities within the additional footprint

Vegetation communities	BC Act	EPBC Act	Details	Change
PCT 4024 - Cumberland Red Gum Riverflat Forest (previously PCT 835 Forest Red Gum - Rough-barked Apple grassy woodland on alluvial flats of the Cumberland Plain, Sydney Basin Bioregion in the Approved REF)	Yes Endangered Ecological Community (ECC) River-Flat Eucalypt Forest on Coastal Floodplains of the New South Wales North Coast, Sydney Basin and South East Corner Bioregions	No The native vegetation within this community does not conform to the EPBC Act listed River-flat Eucalypt Forest on Coastal Floodplains of Southern NSW and Eastern Victoria as it does not meet the key diagnostic characteristics of the CEEC (canopy cover of <20% and it does not meet the minimum condition thresholds).	About 0.07 ha additional vegetation to be cleared. This vegetation community was of poor condition, containing some native tree and shrub species amongst a mostly disturbed exotic mid-storey and groundlayer.	Change 3
PCT 3321 – Cumberland Shale-Sandstone Ironbark Forest (previously PCT 1395 Narrow-leaved Ironbark – Broad-leaved Ironbark – Grey Gum open forest of the edges of the	Yes Critically Endangered Ecological Community (CECC) Shale Sandstone Transition Forest in the Sydney Basin Bioregion	No The native vegetation within this community does not conform to the EPBC Act listed Cumberland Plain Shale Woodlands and Shale-Gravel Transition Forest as it does not meet the key diagnostic characteristics outlined in the approved conservation advice or either of the minimum condition thresholds of moderate quality.	About 0.1 ha of additional vegetation to be cleared. This vegetation community was in moderate condition containing small numbers of native tree species that appear planted amongst a mostly	Change 2

Vegetation communities	BC Act	EPBC Act	Details	Change
Cumberland Plain, Sydney Basin Bioregion in the Approved REF)			cleared exotic grass groundlayer	
Urban Native/Exotic	-	-	About 0.25 ha additional vegetation to be cleared. This includes areas of exotic dominated shrub and groundcover vegetation which did not conform to a native vegetation community. These areas consist of a large number of exotic species.	Change 1, 2 and 3

Table 5-2 Additional impact on vegetation communities

Vegetation communities	Impact assessed in Approved REF (Biosis Impact Area) (ha)	Extent to be cleared in additional footprint (ha)	Total impact (ha)	Details
Cumberland Red Gum Riverflat Forest	0.27	0.07	0.34	The test of significance (ToS) was updated to capture the additional 0.07 ha increase of clearing on this community. The updated ToS concludes that the additional footprint is still unlikely to have a significant impact on the community.
Cumberland Shale-Sandstone Ironbark Forest	0.11	0.1	0.21	The ToS was updated to capture the additional 0.1 ha increase of clearing on the community. The updated ToS concludes that the additional footprint is still unlikely to have a significant impact on the community.
Urban Native/Exotic	6.27	0.25	6.52	The additional footprint is expected to clear an additional 0.25 ha of urban native/exotic.



Figure 5-1 Change 1 – urban native/exotic vegetation to be cleared (Appendix C Ecological Assessment)



Figure 5-2 Change 2 and 3 – indicative additional impact areas and vegetation communities to be cleared (Appendix C Ecological Assessment)

Threatened flora

No threatened flora were identified within the additional footprint during the site assessment.

Overall, the additional footprint was moderately disturbed and the presence of threatened flora was unlikely. Further detail is included in Appendix C.

Threatened fauna and habitat features

No threatened fauna was identified within the additional footprint during the site assessment.

Desktop analysis and the likelihood of occurrence assessment identified that the additional footprint forms the potential habitat for a number of threatened fauna species as part of their lifecycle. The habitat features include *Eucalyptus* trees present in the additional footprint for changes 2 and 3 and nectar-bearing shrubs (such as *Callistemon* species and *Banksia* species) within the ecology assessment study area (not the additional footprint area). This vegetation may provide foraging habitat for various arboreal mammals and avian species and intermittent nectar and/or lerp sources for nectivores. One small tree hollow is also present in the additional footprint for change 2.

The assessment found that there was a potential for *Lathamus discolor* (Swift Parrot), and hollow using Microchiropteran Bat Species to use the potential habitat. A test of significance (ToS) was undertaken for both species and a Significant Impact Criteria (SIC) assessment was conducted for the Swift Parrot. The summary of the ToS and SIC assessments are provided in Table 5-3.

Table 5-3 Additional impact on threatened species

	Impact assessed in Approved REF (Biosis Impact Area)	Extent to be cleared in additional footprint (ha)	Total impact	Details
Hollow-dependent Microchiropteran Bat Species	4 hollows and 0.71 ha of foraging habitat	0.17 ha of additional foraging habitat No additional hollow bearing trees were identified.	0.88 ha of foraging habitat and 4 hollows	The ToS is updated to capture the additional 0.17 ha increase in impact on foraging habitat. The updated ToS concludes that the additional footprint is still unlikely to have a significant impact on the species.
Swift parrots	0.71 ha of foraging habitat	0.17 ha	0.88 ha of foraging habitat	The ToS was updated to capture the additional 0.17 ha increase in impact on foraging habitat. The updated ToS concludes that the additional footprint is still unlikely to have a significant impact on the species. The SIC undertaken concluded the proposal is unlikely to have a significant impact on the species.

Weeds

Four priority weeds were identified within the ecology assessment study area:

- *Asparagus asparagoides* (Bridal Creeper)
- *Cestrum parqui* (Green Cestrum)
- *Lantana camara* (Lantana)
- *Senecio madagascariensis* (Fireweed).

Risks associated with weeds can be managed through the implementation of mitigation measures in the Approved REF.

Key fish habitat

Change 3 is located above the top of the bank of an area mapped as key fish habitat. Any indirect impact resulting from runoff or erosion will be managed with the mitigation measures identified in the Approved REF.

Mitigation measures

In addition to the mitigation measures in the Approved REF, the additional impacts would be mitigated through the implementation of mitigation measures in Table 5-4. The additional vegetation clearing (0.17 ha EEC and 0.25 ha urban native/exotic vegetation) will be offset in accordance with Sydney Water's Biodiversity Offset Guide, and the safeguards in the Approved REF.

Table 5-4 Additional mitigation measures – flora and fauna

Additional mitigation measures

Prior to commencement of work, the services of a qualified and experienced Ecologist Consultant (minimum 3 years' experience) with a minimum tertiary degree in Science, Conservation, Biology, Ecology, Natural Resource Management, Environmental Science or Environmental Management should be commissioned. The Ecologist must be licensed with a current Department of Primary Industries Animal Research Authority permit and New South Wales Scientific License issued under the BC Act. The Ecologist will be commissioned to:

- Undertake an extensive pre-clearing survey; delineating habitat-bearing trees and shrubs to be retained/removed and confirm the area to be cleared; and
- Supervise the clearance of trees and shrubs (native and exotic) in order to capture, treat and/or relocate any displaced fauna.

Where possible, landscaping efforts within the Study Area should incorporate locally indigenous species representative of Cumberland Red Gum Riverflat Forest and Cumberland Shale-Sandstone Ironbark Forest.

Where vegetation is restricting work, apply the following hierarchy for tree/vegetation impacts:

- tying back of branches
- trimming
- removing trees and vegetation only where the above two options are not practical.

5.2 Other environmental impacts

Table 5-5 lists the additional environmental impacts that could result from the proposed changes compared to the Approved REF and the additional mitigation measures identified to manage the changes.

Table 5-5 Environmental impacts table

Environmental impacts table		
Aspect	Additional impacts	Additional mitigation measures
Topography, geology and soils	The proposal is located in an area mapped as an Area of Localised Salinity Hazard. No excavation is required for the proposed changes. Any additional salinity risk can be managed through the mitigation measures in the approved REF. Change 1 The existing sediment in the decommissioned oxidation pond has the potential to be contaminated. The proposal therefore has the potential to disturb existing sediments in the oxidation pond as part of the backfilling process of the spoil. This additional contamination risk will be managed in consultation with the Property Environment Services (PES) Team and the additional mitigation measures identified. Change 2 There is the potential for additional ground disturbance work from compound installation and vegetation clearing. However, this additional impact is expected to be minimal and can be managed through the mitigation measures in the Approved REF. Change 3 The area of ground disturbance will increase from that assessed in the Approved REF to facilitate access and undertake the ERS works adjacent to Redbank Creek. The additional ground disturbance activities such as vegetation removal could result in additional loss of soil from erosion of exposed soil and increase in sediment loads entering Redbank Creek and downstream waterways. This additional increase in impact is minor and can be managed with the mitigation measures in the Approved REF.	Change 1 - Prior to reuse, existing material from the dewatered decommissioned oxidation pond will be tested for contamination and managed in accordance with the Contaminated Land Management Sub Plan and in consultation with the Property Environment Service (PES) Team. - Sediment and spoil will be tested for contamination. Following contamination testing, suitable material including site won material and spoil will be reused along with imported clean material to fill up the dewatered oxidation pond. - If material is deemed contaminated, the contractor should supply data to PES to develop a Contaminated Land Management Plan for the ongoing use of the site. Change 2 No additional mitigation measures are required. Change 3 No additional mitigation measures are required.
	Waste and hazardous materials Change 1 The reuse of spoil from earthworks is consistent with the intention of the Approved REF, however the	Change 1 Prior to reuse, spoil will be classified and tested and

Environmental impacts table

Aspect	Additional impacts	Additional mitigation measures
	oxidation pond has now been identified as the suitable site. The spoil will be managed in consultation with the PES Team and in accordance with the SMWRP. Any additional waste impact can be managed with the mitigation measures in the Approved REF. Change 2 and 3 Additional waste would be generated from: - green waste from vegetation trimming and removal - general construction waste such as excess metal and plastic. These waste streams can be managed using the mitigation measures in the Approved REF.	managed in accordance with the SMWRP and in consultation with the PES Team. Change 2 No additional mitigation measures are required. Change 3 No additional mitigation measures are required.

Water and drainage

Change 1

A tributary of Rickbays Creek is located about 25 m from the proposal. Poor site management during vegetation removal and spoil management activities may lead to increased sedimentation in run off draining into the above waterway after heavy rainfall events. This additional impact is likely to be minor due to the minor scale of removal, process of spoil disposal and the distance of the waterway. Implementation of mitigation measures in the Approved REF would mitigate this additional impact.

Change 2

Redbank Creek is located about 70 m to east of the proposal.

The presence of an additional site compound may alter surface flow patterns to a minor extent. This additional impact is expected to be temporary, and areas will be restored upon construction completion. Poor site management may lead to increased sedimentation in runoff draining into the oxidation pond after heavy rainfall events. The proposal is expected to have minimal risk to stormwater runoff. Any potential impact will be managed through the mitigation measures in the Approved REF.

Change 1

No additional mitigation measures are required.

Change 2

No additional mitigation measures are required.

Change 3

- Remove existing debris around headwall
- Install sandbag wall to prevent mixing of ground disturbance water with creek flow
- Install geofabric on exposed soil prior to heavy rainfall
- Monitor signs of pollution (e.g. fish kill)
- Notify DPI Fisheries (1800 043 536) and the Environment Protection Authority (131 555) immediately if any fish kills occur in the vicinity of the works. In such cases, all works other than emergency response procedures

Environmental impacts table

Aspect	Additional impacts	Additional mitigation measures
	Change 3 Part of the additional vegetation removal is on the bank of Redbank Creek. The additional footprint for access is located adjacent to Redbank Creek. The proposal has the potential to generate runoff particularly with vegetation removal on the creek bank. The runoff could increase turbidity and reduce water quality. Fuels or wastewater from accidental spills could enter the creek. The implementation of the mitigation measures in the Approved REF and the additional mitigation measures would minimise the additional risk and impacts on to the waterways.	are to cease until the issue is rectified and approval is given by DPI Fisheries and/or the Environment Protection authority for the works to proceed
Aboriginal heritage	Change 1 and Change 2 The proposal is in a high risk landscape for Aboriginal Heritage (<200m from a waterway). However, the proposal area has been highly disturbed during the construction of the existing oxidation pond and North Richmond WRRF. The proposal is therefore unlikely to have any impacts to Aboriginal heritage. Any potential impact will be managed through the mitigation measures in the Approved REF. Change 3 The proposal extends beyond the Aboriginal Heritage Impact Permit (AHIP 4940) application area of the Approved REF. The proposal is located about 10 m to the south of [REDACTED] The site was located on a ridge crest landform between Redbank Creek and an unnamed tributary. The archaeological investigations in the Approved REF at the site included an archaeological test excavation program that identified a subsurface archaeological deposit with medium to high artefact density. The full details of this site can be found in the Approved REF. An Aboriginal Heritage Due Diligence Assessment for the Bell Lines of Road Wastewater Augmentation project (KNC, 2023) provides further details on the additional area at proposal change 3 outside the	Change 1 No additional mitigation measures are required. Change 2 No additional mitigation measures are required. Change 3 No additional mitigation measures are required.

Environmental impacts table

Aspect	Additional impacts	Additional mitigation measures
	AHIP boundary. The assessment found that the additional areas have been significantly disturbed by previous construction, landscaping and natural processes or are unfavourable for the preservation of Aboriginal objects or subsurface Aboriginal objects. The slopes adjacent to Redbank Creek exhibited high levels of disturbance due to natural processes and past land use activities. No modification to the existing AHIP application in the Approved REF is required. Provided the mitigation measures in the Approved REF are implemented, and works are consistent with the AHIP, the proposed change can proceed.	
Noise and vibration	Change 1, 2 and 3 The proposal may generate additional noise from the use of heavy machinery (e.g. excavator) to facilitate the additional work. However, as no ground breaking activity is required, only minimal increase in noise and vibration impact is expected. Any additional noise and vibration impact can be managed through the mitigation measures in the approved REF. No work outside standard hours is required.	Change 1, 2 and 3 No additional mitigation measures are required.
Cumulative and future trends	Change 1, 2 and 3 There is no specific cumulative impact. However, the proposal is expected to remove an additional 0.17 ha of native vegetation and 0.25 ha of urban native/exotic vegetation. This additional impact is addressed in Section 5.1.	Change 1, 2 and 3 No additional mitigation measures are required.

6 Conclusion

This REFA outlines potential environmental impacts associated with the additional construction footprint of Richmond System Wastewater Upgrade. Any additional environmental impacts are considered minor and potential impacts can be mitigated through implementation of the measures outlined in this REFA and the Approved REF. The proposal is not likely to significantly impact the environment.

Appendix A – Section 171 checklist

The EP&A Regulation has been updated since the Approved REF. The changes below reflect the updates.

Section 171 checklist	REF finding
Any environmental impact on a community	There are unlikely to be any environmental impacts on a community beyond those assessed in the Approved REF. 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 has been designed to minimise biodiversity impact as much as possible, however, some additional clearing of native vegetation is required. Appropriate vegetation offsets will mitigate this impact.
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of the locality	The proposal will not reduce the aesthetic, recreational, scientific or other environmental quality or value of the locality.
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 additional impact to Aboriginal heritage. The proposal will not have any other 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 result in the removal of some additional habitat of protected animals, however it will not result in a significant impact to any of the species within the study area. Mitigation measures, including biodiversity offsets have been identified to avoid or minimise impacts on habitat areas.
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 wastewater service for the area.
Any degradation of the quality of the environment	The proposal will not cause the degradation of the quality of the environment.
Any risk to the safety of the environment	The proposal will not increase additional 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. The proposed change will minimise offsite disposal of

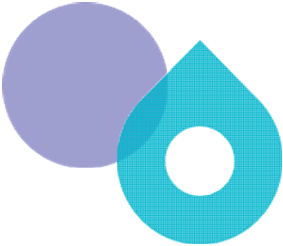
Section 171 checklist

REF finding

	spoil and maximise opportunities to reuse suitable material onsite, which will have a positive outcome.
Any pollution of the environment	Environmental mitigation measures will mitigate the potential for the proposal to pollute the environment. No pollution of the environment is expected.
Any environmental problems associated with the disposal of waste	The proposal provides a suitable onsite location for excess spoil, which will reduce offsite spoil disposal. Mitigation measures have been included to manage potential contamination and prevent environmental problems associated with the disposal of waste.
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 proposed activity.
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 the Richmond System Wastewater Upgrades.
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
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?		✓
Be likely to generate traffic that will strain the capacity of the road system in the LGA?		✓
Connect to, and have a substantial impact on, the capacity of a council owned sewerage system?		✓
Connect to, and use of a substantial volume of water from a council owned water supply system?		✓
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?		✓
Excavate a road or a footpath adjacent to, a road for which the council is the roads authority that is not minor or inconsequential?		✓
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?		✓
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?		✓
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)?		✓
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?		✓
Section 2.15, consultation with public authorities other than councils		
Will the proposal be on land adjacent to land reserved under the <i>National Parks and Wildlife Act 1974</i> or to land acquired under Part 11 of that Act? <i>If so, consult with DPIE (NPWS).</i>		✓
Will the proposal be on land in Zone E1 National Parks and Nature Reserves or on a land use zone that is equivalent to that zone? <i>If so, consult with DPIE (NPWS)</i>		✓
Will the proposal include a fixed or floating structure in or over navigable waters? <i>If so, consult TfNSW</i>		✓
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>		✓
Will the proposal be on land in a Western City operational area specified in <i>the 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>		✓
Will the proposal clear native vegetation on land that is not subject land (ie non-certified land)? <i>If so, notify DPIE 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>		✓



Appendix C – Specialist studies (ecology)