

# Review of Environmental Factors Addendum

## Wastewater Servicing Growth at Dunmore (Shell Heights) – pumping station electrical supply redesign (April 2026)

### Determination

This Review of Environmental Factors Addendum 3 (REFA3) assesses potential environmental impacts of Dunmore pumping station electrical supply redesign. The REFA3 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 REFA3
- Review of Environmental Factors Wastewater Servicing for Growth Dunmore (Shell Heights) (January 2019) (approved REF)
- REFA Wastewater Servicing Growth at Dunmore (Shell Heights) – Interim Operating Plan alignment (February 2024) (REFA)
- REFA Wastewater Servicing Growth at Dunmore (Shell Heights) – Dunmore pumping station redesign (August 2024) (REFA2).

Additional environmental impact assessment may be required if the scope of work or work methods described in this REFA3 change significantly following determination.

### Certification

I certify that I have reviewed and endorsed this REFA3 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:
 Sarah Watson Sydney Water Date: 20/03/2026	 Sarah Mitchell Environment Representative Sydney Water Date: 25/03/2026	 Dianne Clemens Senior Project Manager Sydney Water Date: 27/03/2026



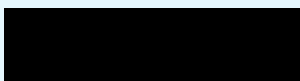
## Decision Statement

The main potential additional construction environmental impacts of the proposal change include impacts to biodiversity. There are no additional potential impacts during operation. 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:

Elissa Howie



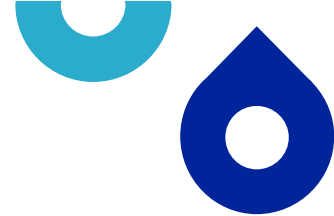
Date: 2 April 2026

A/Senior Manager Environment and Heritage Services  
Sydney Water

# 1. Proposal description

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

Aspect	Relevance to proposal
Approved REF	<ul style="list-style-type: none"> <li>Review of Environmental Factors Wastewater Servicing for Growth Dunmore (Shell Heights) (January 2019) (approved REF)</li> <li>REFA Wastewater Servicing Growth at Dunmore (Shell Heights) – Interim Operating Plan alignment (February 2024) (REFA)</li> <li>REFA Wastewater Servicing Growth at Dunmore (Shell Heights) – Dunmore pumping station redesign (August 2024) (REFA2).</li> </ul>
Proposal need and objectives	<p>The proposal is required to meet Sydney Water’s commitment to provide wastewater infrastructure to service development within the Dunmore urban release area.</p> <p>The proposal will service new development within the Dunmore urban release area to the west of Dunmore Road, and will also provide wastewater connections to the existing residents on Dunmore Road, within Dunmore Village.</p>
Proposal change description and methodology	<p>The proposal change is to relocate the approved High Voltage (HV) line from under Dunmore Road to an existing overhead HV line within the council managed Dunmore Recycling and Waste Disposal Depot. The proposal change will also include the extension of the approved access track from the pumping station to the existing overhead HV line to enable maintenance activities during operation. The permanent access track and power poles will be on an Endeavour Energy easement in council land and will be managed by Endeavour Energy once constructed. Construction methodology will include:</p> <ul style="list-style-type: none"> <li>clearing of existing trees and vegetation within the proposal change footprint</li> <li>constructing a permanent access track which includes removal of topsoil and placement of road base material using excavators, trucks and rollers</li> <li>installing new HV poles using excavator, crane and concrete trucks</li> <li>installing new overhead wiring using crane trucks, winch trucks, and EWPs</li> <li>connecting new wiring to existing wiring using crane trucks, winch trucks, and EWPs.</li> </ul> <p>The proposal change is also to extend required work hours for the project to include out of hours work on Saturday.</p>
Justification for proposal change	<p>The power supply assessed in the REF was along the footpath and roadway of Dunmore Road. Endeavour Energy would not endorse the construction of the power supply in this location due to access and maintenance issues. The design change will allow suitable access for Endeavour Energy to the power supply for maintenance activities.</p>



Aspect	Relevance to proposal
	Extended hours on Saturday are required to meet delivery timeframes. The completion of the proposal is required to service a new hospital being constructed 500 m north, on Dunmore Road.
Location and land ownership	The proposal change will be located on land owned by Shellharbour City Council to the south of 1 Dunmore Road (part of 21/-/DP653009).
Site establishment and access tracks	The proposal will be accessed from Dunmore Road and an internal road within the Dunmore Recycling and Waste Disposal Depot (21/-/DP653009). A new permanent access track will be constructed to provide access for construction and maintenance.
Work hours	Work and deliveries will be scheduled during standard daytime hours: <ul style="list-style-type: none"><li>• 7 am to 6 pm, Monday to Friday</li><li>• 8 am to 1 pm, Saturdays.</li></ul> The proposal change requires work outside of standard daytime hours: <ul style="list-style-type: none"><li>• 7 – 8 am and 1 pm - 6 pm, Saturdays.</li></ul>



**Figure 1-1 Proposal change**



Figure 1-2 Flora and fauna addendum biodiversity values

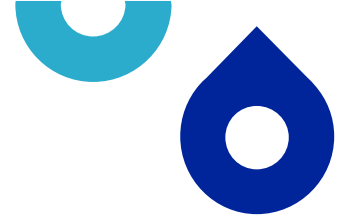


## 2. Consultation

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

### 2.1 Community and stakeholder consultation – proposal

Sydney Water has completed consultation with both Endeavour Energy and Shellharbour City Council regarding the proposed electrical relocation works. Endeavour Energy reviewed multiple design options and identified a preferred option based on network requirements. Shellharbour City Council have also been consulted on the electrical redesign process. The preferred option will suit the future augmentation required by the council for the Sand Mine Development on the adjacent lot.



### 3. Legislative requirements

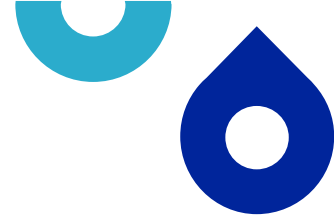
There are no additional legislative requirements above those already assessed in the approved REF. Section 2.126 of the *State Environmental Planning Policy (Transport and Infrastructure) 2021* permits development for the purpose of sewage reticulation systems may be carried out on land in the prescribed circumstances. Development is carried out in the prescribed circumstances if the development is carried out by or on behalf of a public authority.

## 4. Environmental assessment

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

**Table 4-1 review of environmental aspects**

Aspect	Potential additional impacts										
<b>Flora and fauna</b>	<p>An addendum flora and fauna assessment was undertaken by Arcadis to assess the impact of the proposal change on flora and fauna. A field survey was conducted by Arcadis as part of the Flora and Fauna Assessment 2024 prepared for the REFA2. This proposal change is within Flora and Fauna Assessment 2024 surveyed area so no additional field survey was required. The findings of this addendum flora and fauna assessment are summarised below, the full assessment can be seen in Appendix D. The proposal requires vegetation removal for an access track and installation of power poles. For the assessment it assumed removal of all vegetation within the project change footprint, shown in Figure 1-1.</p> <p><b>Threatened species</b></p> <p>Desktop searches identified 3 new threatened flora species, the likelihood of these species was assessed and concluded that no further assessment was required. An additional 19 threatened fauna species were identified, mostly migratory and marine species. An assessment of likelihood concluded that only one species, Black Bittern (<i>Ixobrychus flavicollis</i>) required further assessment. A test of significance (ToS) under the BC Act was completed for the Black Bittern. The ToS found that the vegetation removal required for the proposal would not significantly impact this species as it would not fragment the local population, affect critical habitat or interfere with the recovery of the species.</p> <p><b>Threatened Ecological Communities (TECs)</b></p> <p>As shown in Figure 1-2, the proposal change will impact planted native/exotic and one Endangered Ecological Community (EEC) Swamp Oak Floodplain Forest of the New South Wales North Coast, Sydney Basin and South East Corner Bioregion listed under the BC Act. The quality and condition of PCT 4028 within the study area did not meet the criteria for the federally listed (EPBC Act) community.</p> <table border="1"> <thead> <tr> <th>PCT</th> <th>EEC (BC Act)</th> <th>REFA3</th> <th>Approved impact</th> <th>Total area (ha)</th> </tr> </thead> <tbody> <tr> <td>PCT 4028 – Estuarine Swamp Oak</td> <td>Swamp Oak Floodplain of the NSW North</td> <td>0.14</td> <td>0.06</td> <td>0.20</td> </tr> </tbody> </table>	PCT	EEC (BC Act)	REFA3	Approved impact	Total area (ha)	PCT 4028 – Estuarine Swamp Oak	Swamp Oak Floodplain of the NSW North	0.14	0.06	0.20
PCT	EEC (BC Act)	REFA3	Approved impact	Total area (ha)							
PCT 4028 – Estuarine Swamp Oak	Swamp Oak Floodplain of the NSW North	0.14	0.06	0.20							



Aspect	Potential additional impacts			
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		Coast, Sydney Basin and South East Bioregion		
Planted exotic/native	-	0.02	1.05	1.07
<b>Total</b>		0.16	1.11	1.27

Considering the small increase in total impacts of 0.16 ha, the impacts are consistent with the ToS completed as part of REFA2.

**Aquatic Habitats**

There will be no impact to the unnamed tributary of Rocklow Creek as the access track will not cross the creek. The proposal change increases area of the proposal within a Proximity Area for Coastal Wetland. The proposal change is consistent with the impacts assessed in the approved REF. It is unlikely to significantly impact the biophysical, hydrological, or ecological integrity of adjacent coastal wetland or the quality of surface and groundwater flows to and from the adjacent coastal wetlands.

**Potential Impacts**

The proposal change is unlikely to have a significant impact on any threatened flora, threatened fauna species or TECs. Vegetation removal will be offset as per Sydney Waters Biodiversity Offset Guide (SWEMS 19.13). As a worst case scenario the proposal will require removal and restoration of the following vegetation. Offsets for planted native/exotic vegetation would be confirmed based on the amount of native vegetation removed.

Biodiversity PCT value		REFA3	Approved impact	Total revised impact (ha)	Offset area (ha)
TECs	4028	0.14	0.06	<b>0.20</b>	<b>0.60</b>
Non-threatened native vegetation	Planted native/exotic	0.02	1.05	<b>1.07</b>	<b>2.14</b>

**Heritage**

**Aboriginal heritage**

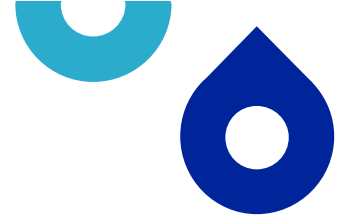
An Aboriginal Heritage Due Dilligence (AHDD) was conducted by Kelleher Nightingale Consulting (KNC) for the proposed additional impact area. The full report can be seen in Appendix E. The AHDD includes a review of desktop information as well as visual inspection. A search of Heritage NSW Aboriginal Heritage Information Management System (AHIMS) was conducted on 25



Aspect	Potential additional impacts
	<p>February 2026. The closest AHIMS site was located [REDACTED] of the proposal change area and would not be impacted by the proposal.</p> <p>The proposal area is close to a waterway and has suitable geology for Aboriginal objects to be present at the site. Due to the site suitability for encountering Aboriginal objects a site inspection was carried out on 20 February 2026. The visual inspection confirmed that the proposal area has been disturbed by existing land use. No Aboriginal objects, archaeological sites or areas of archaeological potential were identified. Based on the findings of the AHDD no Aboriginal objects or sites would be affected by the proposal change.</p> <p><b>Non-Aboriginal heritage</b></p> <p>There are no additional non-Aboriginal heritage listings that will be impacted by the proposal change.</p>
<b>Noise and vibration</b>	<p>The proposal will require extended work hours on Saturday from 7 am – 6 pm.</p> <p>There are no additional receivers to those assessed in the approved REF. Out of hours work has been fully assessed in section 5.2.8 of the approved REF and noise contours can be seen in Appendix D of the approved REF. No additional assessment is required. Apply relevant safeguards from the approved REF.</p>

Table 4-2 Mitigation measures

Mitigation measures
Apply appropriate mitigation measures from REF, REFA and REFA2

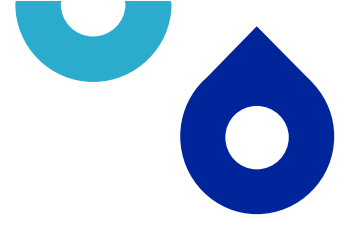


## 5. Conclusion

Sydney Water has prepared this REFA3 to assess the potential environmental impacts of Dunmore pumping station energy supply redesign. The proposal is required to service growth in the Dunmore area. This proposal change was required due to a change in location of the electrical supply for the pumping station.

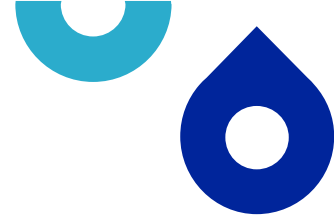
The main potential additional construction environmental impacts of the proposal change include impacts to flora and fauna. There are no additional operational impacts from the proposal change. Given the nature, scale and extent of impacts and implementation of the mitigation measures outlined in this REFA3 and the approved REF, REFA and REFA2 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 not result in the degradation of the quality of the environment and will not pose a risk to the safety of the environment.



# Appendix A – Section 171 checklist

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

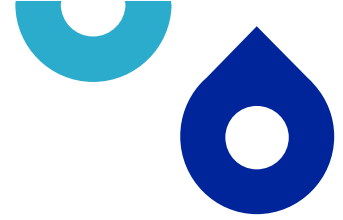


## **Appendix B – Consideration of Ecologically Sustainable Development**

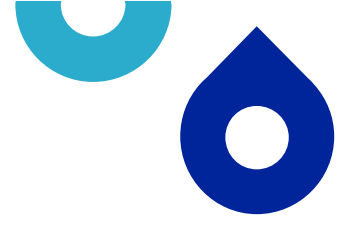
There are no ESD consideration in addition to those covered in the approved REF, REFA and REFA2.

# Appendix C – Consideration of TISEPP consultation

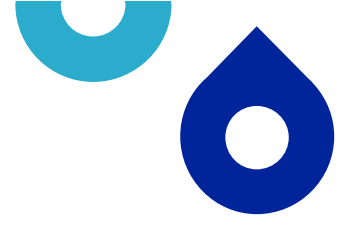
TISEPP section	Yes	No
<b>Section 2.10, council related infrastructure or services – consultation with council</b>		
Will the work:		
Potentially have a substantial impact on stormwater management services provided by council?		x
Be likely to generate traffic that will strain the capacity of the road 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>		



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



# Appendix E – Aboriginal Heritage Due Diligence