Review of Environmental Factors Addendum

SP0564 Pumping Station Renewal, Riverstone

Determination

This Review of Environmental Factors Addendum (REFA) assesses potential environmental impacts of SP0564 Pumping Station Renewal, Riverstone. 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 REFA and the 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.

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 Regulation 2021 (EP&A Regulation). The proposal has been considered against matters listed in section 171 (Appendix A) and 171A 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:
[redacted]	[redacted]	[redacted]
Brendon Phan Environmental Representative Sydney Water Date: 9/09/2026	Prinya Khamphounvong Senior Environmental Scientist Sydney Water Date: 9/09/2026	Gary Syed Project Manager Sydney Water Date: 15/09/2026

Decision Statement

The main potential additional environmental impacts arising from the proposal change during construction include impacts associated with the remediation of contaminated materials, contaminated groundwater, and the management of hazardous materials. During operation, there are no expected impacts. 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 REFA and the approved 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: [redacted]

Elissa Howie
A/Senior Manager, Environment and Heritage Services
Sydney Water

Date: 21 September 2026

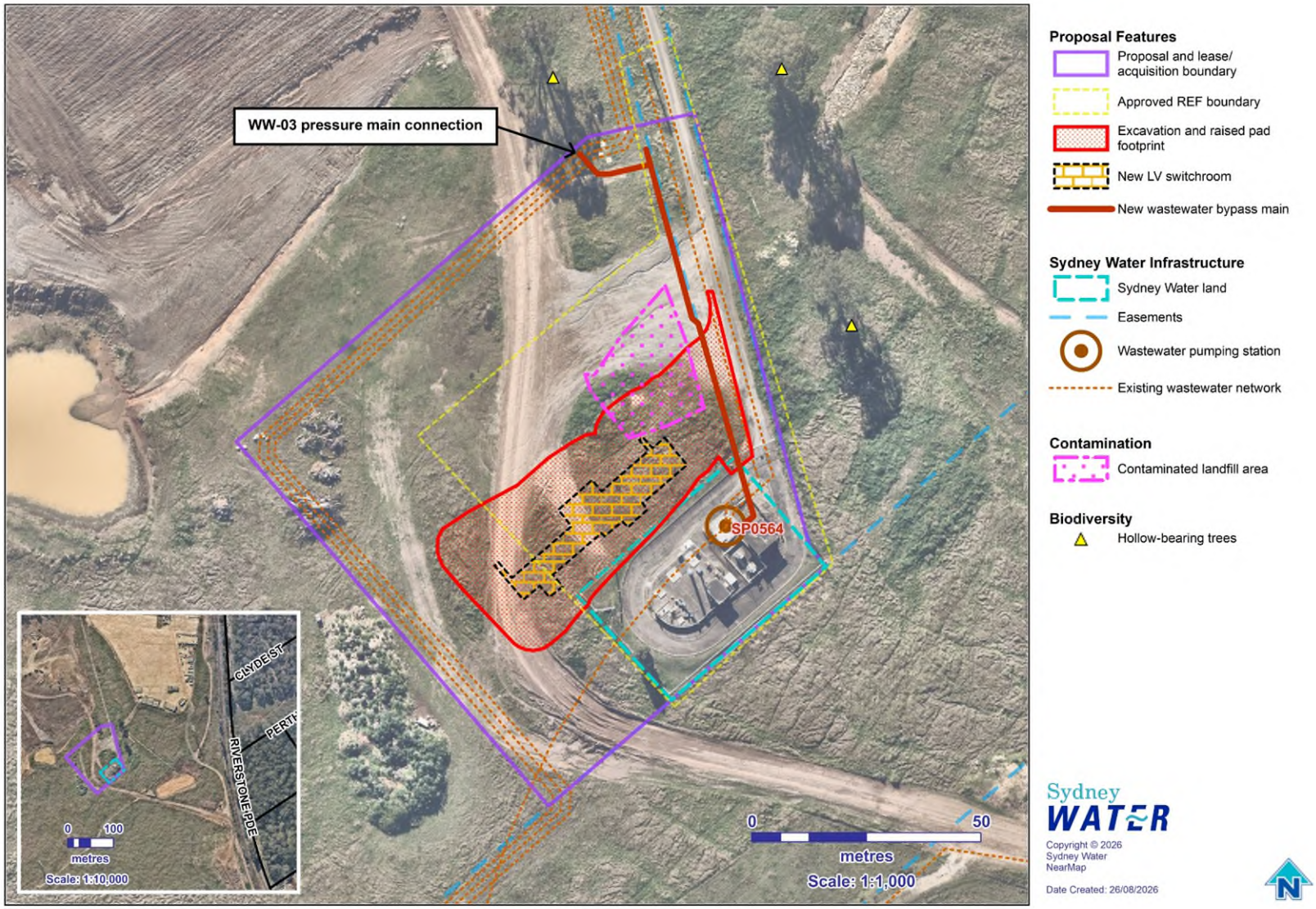
1 Proposal description

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

Aspect	Relevance to proposal
Approved REF	*Review of Environmental Factors - SP0564 Pumping Station Renewal* (January 2025)
Proposal need and objectives	The proposal change is consistent with the need and objectives of the approved REF.
Proposal changes description and methodology	**Changes to the approved REF include:** • proposal boundary changed to align with property acquisition • earthworks, including construction of an embankment and raised pad above the 1% AEP flood level • construction of new LV switchroom building on the raised pad • installation of a new permanent security fence around the LV switchroom • installation of a new wastewater bypass pressure main • removal of flowmeter chamber from previous scope of work. Figure 1 shows the updated proposal boundary and footprint of additional works. **The earthworks scope will involve:** • excavation of fill and contaminated material in the raised pad footprint to depths ranging between 0.3-1.6 m • remediation of contaminated landfill material under a Remediation Action Plan (RAP) - the remediation methodology and final excavation depths will be determined before works start • backfill of excavation and raised pad construction using imported engineered fill. **The new bypass pipeline installation will involve:** • excavation of trenches, installation of pipe and backfill using imported engineered fill • connection of the new bypass pipeline from the SP0564 valve chamber to the WW-03 cross connection (shown in Figure 1). **The LV/HV upgrade will involve:** • installation of LV switchboard and associated equipment in new LV switchroom • installation of HV kiosk and permanent generator next to new LV switchroom.
Justification for proposal change	The changes to electrical design are needed to comply with electrical safety requirements and relevant standards. The new wastewater bypass pipeline is required: • because the existing rising mains are in poor condition and the new bypass connection will provide contingency in the event of a failure

Aspect	Relevance to proposal
	• to avoid operational disruption by allowing one pump to remain online while installation work is carried out on the other pump • to improve system reliability and enable the deferral of a high-value growth project.
Location and land ownership	The proposal is in the following land: • Lot 1/DP598194 (pumping station on Sydney Water-owned land) • Lot 211/DP830505 (privately-owned land around the pumping station). Sydney Water is currently negotiating the acquisition of the privately-owned land. Sydney Water will lease the land from the owner until the land is acquired. Figure 1 shows the project site and proposed lease/acquisition boundary.
Proposal timing	Construction is expected to start in October/November 2026 and estimated to be completed in June 2028.

Figure 1 - Location of proposal change and key environmental constraints



2 Consultation

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

2.1 Notification required under State Environmental Planning Policies and other legislation

Notice to Blacktown City Council is required under the sections 4.13 and 4.14(2) of the State Environmental Planning Policy (Resilience and Hazards) 2021 (RHSEPP) before carrying out and after completion of category 2 remediation work.

Under section 4.13(2) of the RHSEPP, notice of the proposed category 2 remediation work must be given no later than the day before the commencement of the work. The prior notice of category 2 remediation work must meet the requirements listed in section 4.13(3)(a)-(g) of the RHSEPP.

Notice of completion of remediation work must be given the Council within 30 days after the completion of the work. The notice of completion must meet the requirements listed in section 4.15(a)-(m) of the RHSEPP.

3 Legislative requirements

Additional legislative requirements above those already assessed in the approved REF are detailed in Table 3-1 and Table 3-2.

Table 3-1 Environmental planning instruments relevant to the proposal change

Environmental Planning Instrument	Relevance to proposal
State Environmental Planning Policy (Transport and Infrastructure) 2021 (TISEPP)	Section 2.126(6) of the TISEPP permits development by or on behalf of a public authority for the purpose of sewage reticulation systems without consent on any land. This includes development for the purpose of: • pumping stations and pipelines - section 2.126(10)(a) • power supply - section 2.126(10)(e) • environmental management works (for the remediation) – section 2.126(10)(i).
State Environmental Planning Policy (Resilience and Hazards) 2021	**Remediation of land (Chapter 4)** The remediation of land triggers Chapter 4 of this SEPP. Under section 4.11 of the SEPP, the works are classed as Category 2 (work not needing consent). Under section 4.11(b)(ii), remediation work that "may be carried out without consent under another State Environmental Planning Policy or a Regional Environmental Plan" is Category 2 remediation work. As outlined above, under TISEPP this work is permissible without consent.
State Environmental Planning Policy (Biodiversity and Conservation) 2021 (BCSEPP)	**Water catchments (Chapter 6)** Chapter 6 of this SEPP applies because the proposal is within the Hawkesbury-Nepean catchment, a regulated catchment area. Section 171A of the EP&A Regulation requires a determining authority to take into account the matters under Part 6.2, Division 2 of the BCSEPP for proposals within a regulated catchment. Section 4 of this REFA assesses the additional potential impacts from the proposal change to water quality, aquatic ecology and flooding. The proposal change will not affect recreational land uses or public access.

Table 3-2 Consideration of key environmental legislation

Legislation	Relevant to proposal	Permit or approval	Timing and responsibility
Water Act 1912/ Water Management Act 2000 (WM Act)	Dewatering of about 0.045 ML of contaminated groundwater is expected during excavations. Under Section 90 of the WM Act, a Water Supply Works Approval (WSWA) is required.	WSWA	During or post REF (Sydney Water to initiate).

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 construction environmental management plan (CEMP).

Table 4-1 Review of environmental aspects

Aspect	Potential additional impacts
Topography, geology and soils	Additional potential impacts from the proposal change include: **Modified topography** The proposal change will permanently alter the local topography of the site. An embankment will be constructed on the western elevation to level the LV switchroom building pad and raise the equipment above the 1% AEP flood level. The change in topography is considered minor and will not have any significant impact on the regional landscape. **Remediation of contaminated soil and groundwater** A Detailed Site Investigation (DSI) was conducted by Confluence Water in April 2023. The investigations found: • landfilling of uncontrolled waste materials at depths ranging between 0.9 to 1.9 m depth (Figure 1 shows the extent of landfill) • asbestos in the landfill • organic odours in landfill waste and in groundwater downgradient of the landfill • contaminants in groundwater exceeding the ecological investigation criteria. The DSI recommends remediation to support the proposed development under industrial land use. A remediation strategy will need to be developed and documented in a RAP before remediation starts. The excavation for the new LV switchroom will interface with the landfill. Potential impacts include: • cross-contamination of uncontaminated land if materials are improperly managed • health and safety impacts on construction workers from exposure to asbestos and other contaminants • operational impacts on future site users and the environment if the contamination is not remediated properly. The mitigation measures described in the approved REF and in Table 4-2 will manage potential impacts from contaminated materials. There are no impacts from contamination expected during operation.
Water and drainage	Additional potential impacts from the proposal change include: **Drainage and erosion** The proposal change has increased risk of erosion impacts due to bigger excavations and larger volumes of material needing to be managed. During construction, there is potential for sediment-laden runoff to enter waterways. The mitigation measures

Aspect	Potential additional impacts
	described in the approved REF and in Table 4-2 will manage potential impacts from erosion. The 1% AEP flood level of 17.3 m AHD was based on the Hawkesbury-Nepean River Flood Study (NSW Reconstruction Authority, 2024). The raised pad will raise electrical assets above the 1% AEP flood level, and this will result in minor localised changes to drainage patterns. Engineered drainage features (headwalls and swales) will be constructed along the raised pad to control surface water flows and erosion during operation. The embankment will be landscaped to stabilise the soil and minimise erosion. During operation, the proposal change is not expected to have adverse impacts on natural drainage, water quality or the movement of floodwaters. **Groundwater** The nearest groundwater dependent ecosystem (GDE) is 500 m away in Eastern Creek. About 0.045 ML of groundwater will need to be dewatered from excavations. This volume is not anticipated to result in significant groundwater drawdown and given the distance to GDE, impacts are not expected because of dewatering. The results from the DSI (Confluence Water, 2023) indicate that groundwater downgradient of the landfill is contaminated from leaching of waste materials. Potential impacts from dewatering include: • uncontrolled discharge and pollution of waterways • cross-contamination of uncontaminated land • health and safety risks to construction workers from exposure to contaminated groundwater. Groundwater must not be used for dust suppression. Groundwater will be dewatered using a vacuum truck and disposed of offsite at a licensed facility. Mitigation measures described in the approved REF and in Table 4-2 will manage the additional impacts from groundwater contamination. The DSI (Confluence Water, 2023) suggests that remediation of landfill waste is likely to improve groundwater quality downgradient of the landfill. The proposal is expected to have either no impact or a positive effect on groundwater quality following remediation. There are no impacts on groundwater expected during operation.
Flora and Fauna	Additional potential impacts from the proposal change include: **Aquatic ecology** During construction, there are potential impacts on aquatic ecology from sediment-laden runoff and contaminated groundwater entering nearby tributaries and Eastern Creek. These impacts will be managed using the mitigation measures described in the approved REF and in Table 4-2. There are no additional impacts on aquatic ecology expected during operation. The renewal works will improve the environmental performance of the pumping station and will reduce the risk of uncontrolled wastewater overflows. There are no additional impacts on terrestrial flora and fauna expected during construction or operation.

Aspect	Potential additional impacts
Waste and hazardous materials	Potential additional impacts from the proposal change include the disturbance of asbestos and contaminated waste materials in the landfill (see Figure 1). Improper handling and management of contaminated materials can result in: • cross-contamination of clean soils and uncontaminated areas • exposure of contamination and asbestos to workers and future site users. As described in the approved REF, an Asbestos Management Plan (AMP) is to be prepared as part of the CEMP before construction works start. Implementation of mitigation measures from the approved REF and Table 4-2 will manage potential contaminated waste impacts. There are no operational impacts expected from the remediation. The remediation is expected to improve the condition of the site by removing or encapsulating contaminated material.

Table 4-2: Mitigation measures

Mitigation measures
General
Before works start, a RAP must be developed for the proposal. The RAP will outline remediation strategy, controls and validation requirements. The RAP will need to be prepared by an external, independent consultant. Following remediation, a validation assessment must be undertaken to verify that the remediation has been done in accordance with the RAP. After validation, a Contaminated Land Management Plan (CLMP), commonly referred to as a Long-term Environmental Management Plan (LTEMP) must be prepared to describe ongoing management measures for any unacceptable contamination remaining within the site. The RAP, validation assessment and CLMP must be prepared by a suitably qualified Environmental Consultant (CEnVP SC certified) in accordance with relevant sections of: • National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended in 2013 • NSW EPA (2020), Consultants Reporting on Contaminated Land Guidelines. The above reports should be provided to the Contamination and Hazardous Materials team (propertyenvironmental@sydneywater.com.au) for comment prior to finalisation.
Prepare a new CEMP (or update existing) to incorporate project changes, requirements of the RAP and additional mitigation measures. The CEMP should include the following management plans: • Soil and Water Management Plan • Contamination Management Plan and Asbestos Management Plan • Dewatering Management Plan.
Safe Work Method Statements (SWMS) and Environmental Work Method Statements (EWMS) will be reviewed by the Project Manager and Contamination and Hazardous Materials team prior to works starting.

Mitigation measures

The Project Manager (or delivery team on behalf of Project Manager) must notify Blacktown City Council of the proposed category 2 remediation work at least 1 day before works start in line with section 4.13(2) of the RHSEPP. The prior notice of category 2 remediation work must meet the requirements listed in section 4.13(3)(a)-(g) of the RHSEPP.

The notice should be reviewed by the Sydney Water environmental representative before issuing.

The Project Manager (or delivery team on behalf of Project Manager) must notify Blacktown City Council that remediation has been completed within 30 days of the work being completed. The notice of completion must meet the requirements listed in section 4.15(a)-(m) of the RHSEPP.

The notice should be reviewed by the Sydney Water environmental representative before issuing.

Topography, geology and soils

Contaminated soil is present at the site in the landfill as shown in Figure 1 and described in the DSI (Confluence Water, 2023). If indicators of other contamination are observed beyond what is known, notify the Sydney Water Project Manager who will contact the Contamination and Hazardous Materials team (propertyenvironmental@sydneywater.com.au) to determine if any additional management measures are required.

Water and drainage

Sydney Water will obtain a groundwater Water Supply Works Approval. The Delivery Contractor is responsible for:

- preparing a Dewatering Management Plan prior to construction
- complying with the conditions of the approvals (such as protecting water quality; minimising aquifer extraction volumes, monitoring extraction with flow meters and recording volumes).

Groundwater must not be used for dust suppression. Groundwater will be dewatered from excavations using a vacuum truck and disposed of offsite at a licensed facility.

Flora and Fauna

There are no additional mitigation measures beyond those in the approved REF.

Waste and hazardous materials

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 the Contamination and Hazardous Materials team.

The WRRP should include:

- expected waste types and their location
- delineation of waste /resource types including identification of likely vertical and lateral extents (where warranted)

Mitigation measures

- 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.

5 Conclusion

Sydney Water has prepared this REFA to assess the potential environmental impacts of SP0564 Pumping Station Renewal, Riverstone. The proposal change is required to renew ageing assets, comply with current specifications and improve safety and resilience.

The main potential additional construction environmental impacts of the proposal change include impacts associated with the remediation of contaminated materials, contaminated groundwater and the management of hazardous materials. During operation, there are no expected impacts. Given the nature, scale and extent of impacts and implementation of the mitigation measures outlined in this REFA and the approved 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

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

Appendix B – Consideration of Ecologically Sustainable Development

There are no ESD considerations in addition to those covered in the approved REF.

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?		☑
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 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 *National Parks and Wildlife Act 1974* or land acquired under Part 11 of that Act? *If so, consult with DPE (NPWS).*		☑
Will the proposal be on land in Zone C1 National Parks and Nature Reserves or on a land use zone that is equivalent to that zone? *If so, consult with DPE (NPWS).*		☑
Will the proposal include a fixed or floating structure in or over navigable waters? *If so, consult TfNSW.*		☑
Will the proposal be on land in a mine subsidence district within the meaning of the *Coal Mine Subsidence Compensation Act 2017*? *If so, consult with Subsidence Advisory NSW.*		☑
Will the proposal be on land in a Western City operational area specified in *the Western Parkland City Authority Act 2018,* Schedule 2 and have a capital investment value of $30 million or more? *If so, consult the Western Parkland City Authority.*		☑

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