

Minor Works Environmental Impact Assessment (EIA) /Minor Works Review of Environmental Factors(REF) Form

This EIA form is used by WaterNSW to assess and approve minor works that are either *Development Without Consent* or *Exempt Development*. It records & assesses activities or project works where environmental impacts are minimal or not likely to significantly affect the environment.

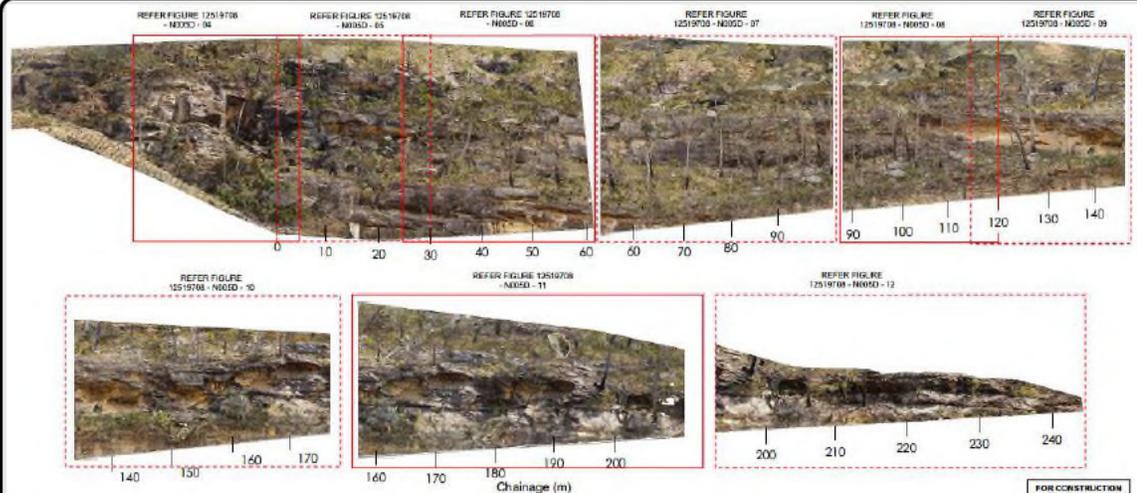
If you are unsure how to answer anything in this Form, please contact the Environmental Services Team for assistance and advice.

SECTION 1 PROJECT SCOPE

	QUESTIONS	ANSWERS	GUIDANCE
1.1	Organisation/Business Unit/Team	Asset Delivery	
1.2	WaterNSW representative and contact details	[REDACTED]	
1.3	Has a site inspection been undertaken? If so by whom and when?	The identified sites were inspected by representatives from GHD and WaterNSW during the Detailed Design in December 2019. Inspections were also carried out with representatives from Aberfeldie and WaterNSW in July 2022.	<i>It is recommended the person undertaking site inspection should also complete this Form.</i>
1.4	ARK Reference – Project Folder/Work Folder	D2022/161335 and F2022/2645	<i>Save your work to ARK and include the ARK numbers here. Provide project/works folder for background information</i>
1.5	Project Number/Budget Code	[REDACTED]	<i>Environmental Services time taken to process this request will be assigned to the project. ①</i>
1.6	Project or Works Value	\$480,000	
1.7	Project or Works Title	Greater Sydney Rockfall Stabilisation Project	<i>Include the full name for the project or work you propose undertaking.</i>
1.8	Scope of Works: What is to be undertaken and how?	The rockfall stabilisation works for Site 005D includes: <ul style="list-style-type: none"> - Devegetation – predominantly comprising the removal of trees, stags, stumps and shrubs that are contributing to the risk of rockfall/inhibiting remediation due to their location - Targeted removal and scaling (removal of loose rock) of 150 m2 of rock - The installation of ~70 rock bolts - The installation of 40 m2 of reinforced shotcrete; and - The installation of 25 m2 of pinned rockfall mesh 	<i>Clearly outline the full scope of work and activities, including equipment type, size, quantity; sequence and tasks involved including site establishment, stockpiles; temporary structures such as site sheds; any block banks and de-watering.</i>
1.9	Proposed Start Date and Expected Duration of works	Start April 2023 for a duration of 5 weeks	
1.10	Planned Site Work Hours	Mon-Fri - 7:00am to 6:00pm Sat - 8:00am to 1:00pm Sun & Public Holidays - No work	<i>Identify the planned site work hours. Standard Hours are : Mon-Fri 7am-6pm, Sat 8am-1pm, No work Sunday or Public Holidays. Non-standard hours may require additional noise assessments to be prepared</i>
1.11	One-off Project or Routine work	<input checked="" type="radio"/> One Off <input type="radio"/> Routine	
1.11.2	Options considered & justification for selecting the preferred option.	Maintenance of the existing access road is the preferred option as other options include moving the access road or the asset, which would result in a greater impact. The purpose of the remediation work is to: <ul style="list-style-type: none"> - Reduce the risk of injury to the Public, WaterNSW personnel and its Contractors. - Reduce risk of damage to WaterNSW assets. - Provide safe access to WaterNSW assets and to the Public. 	<i>Describe all options that were considered and why the preferred option was selected.</i>
1.12	Location	Nepean Dam - near Sydney Water off-take	<i>Identify the location of the project or work (e.g. which asset). Be sure to include the access roads / route</i>
1.13	Site Plan / Photos / Aerial Photo: Add Figures or ARK reference to figures	Refer Figure below	
		<div style="display: inline-block; border: 1px solid black; background-color: #90EE90; padding: 5px; margin-right: 10px;">Add Figure or Photo</div> <div style="display: inline-block; border: 1px solid black; background-color: #DDA0DD; padding: 5px;">Remove Figure or Photo</div>	



LOCALITY PLAN
SCALE N.T.S.



TARGETED SCALING, TREE-LOPPING, SHORTCUTS & MESH CONSTRUCTION	ROCK BOLTS	GENERAL NOTES
<p>NBI Rockfall Hazard Feature ID Refer hazard feature ID description sheets for details</p> <p>Scalping and Grooming Areas requiring selective scalping and grooming as directed to remove loose or destabilised rock masses or soil accumulations.</p> <p>Shotcrete (Structure) Locations requiring application of mesh reinforced shotcrete</p> <p>Pinned Mesh Selected boulder and block wall hazards requiring in situ support via drilled mesh</p>	<p>ROCK BOLTS (eggs, knofshi shown)</p> <ul style="list-style-type: none"> 2m long rock bolt 3m long rock bolt 4m long rock bolt 6m long rock bolt 	<p>GENERAL NOTES</p> <ol style="list-style-type: none"> Ortho-photomosaic subject to parallax distortion effects. Do not scale. Slight of hazard features and work boundaries are approximate. Refer to sheets 2 to 10 for close-up views of slope and proposed stabilisation details. Refer to cutting reference chainages marked along toe of rock face. Alpha numeric labels (eg. NBI) denote individual slope hazard features - refer to description sheets for more details. All tree/scrub/growing on rock face are to be removed and stumps pulped out (Refer Project Specification). Systematic grading of all loose rock material to be completed across entire rock face and upper slope using hand tools (Refer Project Specification). Locations of special treatment (rock bolts/shotcrete/mesh) to be confirmed by CAD representative, installation as per Project Specification.

1.14 Is the land and/or asset owned by WaterNSW?

Yes No

Site ownership details can be found at;
Vested orders (DOC11/8076)
Land Titles Office
NULA ⓘ

1.14.1	Provide evidence of ownership and detail what the land is used for	The Nepean Dam Reservoir is classified as 'Special Areas' and WaterNSW is the legal owner (as identified in NULA).	Provide details of landuse e.g operational area, Special Area, Controlled Area, recreational area, agricultural area etc  http://www.watnsw.com.au/supply/Greater-Sydney/system NULA
1.15	Lot and DP	Lot 12 – DP1092321	Find a property using NULA, or the NSW Planning Portal
1.16	What is the Local Government Area (LGA)?	Wingecarribee Shire	Use: 1. LPI SIX Maps or 2. NSW Planning Portal or 3. NULA
1.17	What is the zoning of the site?	SP2 – Infrastructure : Water Supply System	Provide details of the zoning from the relevant Local Environmental Plan(s) 
1.18	Will the project or work be within the Sydney Drinking Water Catchment and/or a Special Area / Controlled Area?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Check NULA to identify if the project or work is within the Sydney Drinking Water Catchment. For more information on undertaking a Neutral or Beneficial Effect Assessment refer to CD2016/89*
1.18.1	Are there any identifiable potential impacts on water quality?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Potential pollutants are sediments (fine & coarse), nitrogen, phosphorus, pathogens and hazardous chemicals and contaminants such as oil/fuel.
1.18.5	Is it likely that a neutral or beneficial effect on water quality will occur? Why?	The works would require a compound, laydown areas and concrete wash bay. The exact location would be selected by the construction contractor and would be in accordance with this EIA. Existing disturbed and hardstand areas would be selected where possible. Where possible this would occur within existing storage areas within the dam operations area. Where positioning of these compounds or stockpiles are unable to meet the criteria, consideration for further assessment would be required. In addition, the works are considered likely to have a neutral effect as the works are located downstream of the stored water.	

SPECIAL AND CONTROLLED AREAS

Select the appropriate safeguards to manage the impacts

SP1	Special & Controlled Areas	All activities or work undertaken in Water NSW Special / Controlled Areas shall be carried out in a manner that will prevent or minimise impacts on water quality, environmental damage and fire.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP2	Special & Controlled Areas	Standard access requirements of Water NSW catchment lands shall be observed. This includes restricted access to the catchment after periods of significant rainfall (typically 10mm in a 24 hour period).	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP3	Special & Controlled Areas	All gates and barriers shall be closed and locked at all times to prevent unauthorised access to the Special/Controlled Area	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP4	Special & Controlled Areas	Any suspected unauthorised access to the area shall be reported to the WaterNSW Incident Number 1800 061 069 (24/7 Service)	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP5	Special & Controlled Areas	All incidents, spills or fire sightings that occur in the WaterNSW Special / Controlled Area shall be immediately reported to the WaterNSW Incident Number 1800 061 069 (24/7 Service)	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP6	Special & Controlled Areas	Works shall not be undertaken and vehicles shall not travel on unsealed roads in the Water NSW Special / Controlled Areas when road surfaces are saturated, water is flowing down table drains or the catchment has been closed by Water NSW.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP7	Special & Controlled Areas	Portable fuel trailers shall be taken off catchment at the end of each working week.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SP8	Special & Controlled Areas	Any imported fill material shall be restricted to 'Virgin excavated natural material' (eg clay, gravel, sand soil and rock) that is not mixed with any other waste. Coal waste materials shall not be used in the construction or maintenance of trails.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
SP9	Special & Controlled Areas	New gravel or borrow pits shall not be established within the Special Areas.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
SP10	Special & Controlled Areas	In the event Water NSW fire roads are damaged as a result of the works, they shall be repaired as soon as practicable.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
SP11	Special & Controlled Areas	All equipment transported to the site shall be thoroughly washed down, including underneath tractors and slashers, to remove mud, dirt and vegetative materials, prior to entering the Water NSW Special / Controlled Areas.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A

1.19	Does the project or work require any vegetation to be cleared?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Clearing means any one or more of the following: (a) cutting down, felling, thinning, logging or removing vegetation, (b) killing, destroying, poisoning, ringbarking, uprooting or burning native vegetation.
1.19.1	Describe the nature, extent and location of the clearing.	Removal of trees growing from the rock cutting and vegetation removal from the rock cutting (approximately 250 metres in length) prior to shotcreting (refer photos above). The removal of vegetation shall require follow-up poisoning of any cut stumps, either immediately after lopping or as a separate campaign via cuts or drilled holes into the stump.	Details to be included; the area of vegetation to be impacted, the type of vegetation to be cleared and how the vegetation will be impacted. http://www.environment.nsw.gov.au/vegetation/noapproval.htm ⓘ Refer Tree Clearing Permit CD2021/110* before commencing.

FLORA AND FAUNA

Select the appropriate safeguards to manage the impacts

FF1	Flora and Fauna	Vegetation disturbance or clearing shall be minimised to the greatest degree practical and only in accordance with EIA approval.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
FF2	Flora and Fauna	Slashing groundcover shall be limited to a height of 150 to 200mm.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
FF3	Flora and Fauna	Any vegetative material that has been cleared, lopped or otherwise removed shall be retained and used as surface mulching to assist site revegetation on completion of the works.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
FF4	Flora and Fauna	Fallen logs shall be pushed out of the work areas and into adjoining areas wherever possible. Cutting up of logs over 40cm diameter with hollows shall be minimised.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
FF5	Flora and Fauna	Disturbance of rock ledges, caves, overhangs and surface bush rock shall be avoided wherever possible.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
FF6	Flora and Fauna	Retained vegetation and trees shall be protected from accidental damage, encroachment or smothering by temporary fencing, flagging or similar. Drip lines of trees are to be avoided.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
FF7	Flora and Fauna	All equipment transported to the site shall be free of contaminants such as weeds.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
FF8	Flora and Fauna	Undertake pre-clearance check including demarcation of trees and inspection for habitat features (e.g. tree hollows, nests etc) / fauna (engagement of ecologist required). Where possible clearing of vegetation with habitat features should be undertaken during summer to minimise potential impacts to nesting fauna.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A

PEST AND WEED CONTROL

Select the appropriate safeguards to manage the impacts

P1	Pest and Weed Control	Control of weeds shall be undertaken by using appropriate government and industry accepted control methods. Removal of weeds from the site shall be properly disposed of at an appropriately licensed waste facility.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
P2	Pest and Weed Control	Notification of neighbours and other stakeholders shall be undertaken as required by the current relevant Pesticide Control Order issued under the Pesticides Act 1999 and in accordance with the Water NSW Pesticide Use Notification Plan.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
P3	Pest and Weed Control	Herbicides and pesticides shall be stored and used in accordance with the relevant label directions, registration or permit conditions issued under the Agricultural & Veterinary Chemical Code (NSW) Act 1994 and Pesticides Act 1999 and Code of Practice issued by WorkCover NSW.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
P4	Pest and Weed Control	Mixing or decanting of herbicides shall not be undertaken within 20m of any natural or built drainage line or wetland.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
P5	Pest and Weed Control	All vehicles, vessels and equipment transported to the site shall be free of contaminants such as weeds. Care shall also be taken to ensure all vehicles, vessels and equipment are free of aquatic weeds and their seeds before leaving the site.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
P6	Pest and Weed Control	All debris from control works shall be removed from flood-prone areas and only left onsite with approval of WaterNSW	<input checked="" type="radio"/> Yes <input type="radio"/> N/A

P7	Pest and Weed Control	Ensure record keeping of pesticide application compliant with the NSW Pesticides Regulation (2017).	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
1.20	Is the project or work located on, in or adjacent to (within 40m) of a "water land" or waterway?	<input checked="" type="radio"/> Yes <input type="radio"/> No	'water land' means land submerged by water: (a) whether permanently or intermittently, or (b) whether forming an artificial or natural body of water, and includes wetlands and any other land prescribed by the regulations as water land to which this Division applies ⓘ
1.20.1	Provide details	Rock Stabilisation work is in the vicinity of Nepean Dam and the Nepean River, downstream of the dam. The work will be carried out within 40 metres of the release from the dam to the Nepean River.	Details to be included; name of waterway / waterbody, the proximity of works to the waterway / waterbody
1.21	Is the project or work likely to result in any soil disturbance?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
1.21.1	Describe details including the extent of soil disturbance, types of machinery to be used and the location of disturbance and any stockpiles.	The works require the targeted removal and scaling (removal of loose rock) of 150 m3 of rock. The work includes the cutting back of loose, detached or protruding material as appropriate, the cleaning down of the face area to be treated, installation of dowels and reinforcing mesh, provision of weep holes and strip drains and the application of the sprayed concrete to the surface of excavations, to provide protection and structural support.	
1.22	Will the project or work require the stockpiling of any materials?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
1.22.1	Provide details of the nature and extent of the stockpiling	Any general rock scaling and vegetation removal would be stockpiled on-site with adequate erosion and sedimentation controls put into place. The 150m3 of rock to be removed would be stockpiled on site to be used for future catchment projects. Where positioning of these compounds or stockpiles are unable to meet the criteria, consideration for further assessment would be required.	Details to be included; materials to be stockpiled, length of stockpiling and the proposed location of the stock pile

SOIL AND WATER

Select the appropriate safeguards to manage the impacts

SW1	Soil and Water	All works shall be undertaken in a manner that will minimise site disturbance and avoids or minimises erosion and sedimentation.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW2	Soil and Water	All areas disturbed during the works shall be protected by installing appropriate erosion and sedimentation control measures so that sediment-laden runoff does not enter any drainage line or wetland. Measures may include: o diverting any potential upslope runoff and stormwater away from the site; o installing temporary erosion control devices (eg sediment fencing, sand bags, sediment basins); o temporary surface protection (eg surface mulching, geotextile/erosion control matting).	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW3	Soil and Water	All erosion and sediment control measures shall be checked and maintained on a regular basis so that they work effectively at all times, including removing trapped sediment before or when 30% capacity is reached. Control measures shall not be removed before the ground surface is stabilised.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW4	Soil and Water	A maintenance checklist shall be prepared for sites. Records shall be kept of all checks and maintenance and shall be provided to Water NSW on request. As a minimum this shall include a regular check of: o sediment fencing/bunding o any sign of erosion of the site or material o any impact on adjacent vegetation (material shall be kept outside the dripline of any tree) o the safe storage of any chemicals, fuels or lubricants o the height, gradient and stability of any stockpile (<2m high and 2:1 slope)	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW5	Soil and Water	Chemicals, fuels and lubricants shall be securely stored in approved containers and spill containment material shall be kept on site ready for immediate use. Bund capacity is to be at	<input checked="" type="radio"/> Yes <input type="radio"/> N/A

		least 110 % of the largest container & 25% of the total stored volume	
SW6	Soil and Water	No chemicals, fuels and lubricants shall be stored overnight on site unless specifically approved by Water NSW. If approved, these materials shall be stored with bunding within an established site compound, on a level area clear of native vegetation and at least 40m from any natural or built drainage line or wetland.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW7	Soil and Water	Plant and equipment shall not be refuelled within 20m of any natural or built drainage line or wetland. During any refuelling, spill containment material shall be on hand ready for immediate use.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW8	Soil and Water	Weather forecasts shall be regularly checked so that expected storm events can be taken into account in project planning and erosion and sediment management.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW9	Soil and Water	Temporary compounds and stockpiles shall be located: <ul style="list-style-type: none"> o at least 40m from natural or built drainage lines or wetland; o on areas previously disturbed and that do not require the clearing of native vegetation; o on level, hard ground wherever possible, and shall not be located on slopes steeper than 1(V):10(H); o beyond tree drip lines; o where there is no risk of impact on any indigenous or non-indigenous heritage site. 	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW10	Soil and Water	Topsoil shall be stockpiled separately from general spoil and reused wherever possible.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW11	Soil and Water	Concrete shall not be mixed within 20m of any natural or built drainage line or wetland. All concrete waste and any concrete washout shall be contained and removed for disposal off site at a lawful facility. Washout of trucks on site shall be minimised wherever possible.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW12	Soil and Water	Waste water generated during works shall be captured and: <ul style="list-style-type: none"> - tested and treated before release back into the environment ensuring all water quality criteria are met; - disposed offsite at a lawful receiving facility; - sediment laden waters can be discharged in a manner that prevents sediments entering natural or built drainage lines or wetlands. 	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
SW13	Soil and Water	Silt booms shall be installed in the stream or water body around the work site, or immediately downstream. The silt booms shall be appropriately anchored to maximise the capture of any sediment laden water.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
SW14	Soil and Water	Any mixing of paints is to be carried out over a waterproof membrane of at least 4 square metres in area. The contractor is to take all reasonable steps to prevent spillage of paint.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
1.23	Will the project or work result in the generation of any waste materials?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>This may include spoil, concrete, building materials, vegetation, wastewater, oil and grease.</i> <i>Will portable toilets be needed at the site?</i>
1.23.1	Provide details of the nature, amount of waste likely to be generated and proposed disposal	Excess concrete would be removed off-site. All waste material would be disposed of off-site in accordance with relevant Australian Standards, WorkCover and regulatory Agency (EPA) guidelines as appropriate. Waste dockets would be provided to WaterNSW at the end of the Project. Any material that can be reused would be stockpiled separately and transported to a location nominated by WaterNSW for future reuse.	Refer to Waste Classification Guidelines for classifying waste If the project or work involves the use and disposal of, or exposure to, contaminated/hazardous materials, dangerous goods or controlled chemicals, approval may be required from SafeWork NSW or EPA
WASTE			
Select the appropriate safeguards to manage the impacts			
W1	Waste	All working areas shall be maintained, kept free of rubbish and cleaned up at the end of each working day. Equipment and materials shall be securely stored.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
W2	Waste	If the contractor is working at the same location for more than one day, self-contained portable ablution and toilet facilities shall be provided, unless otherwise specifically negotiated with	<input checked="" type="radio"/> Yes <input type="radio"/> N/A

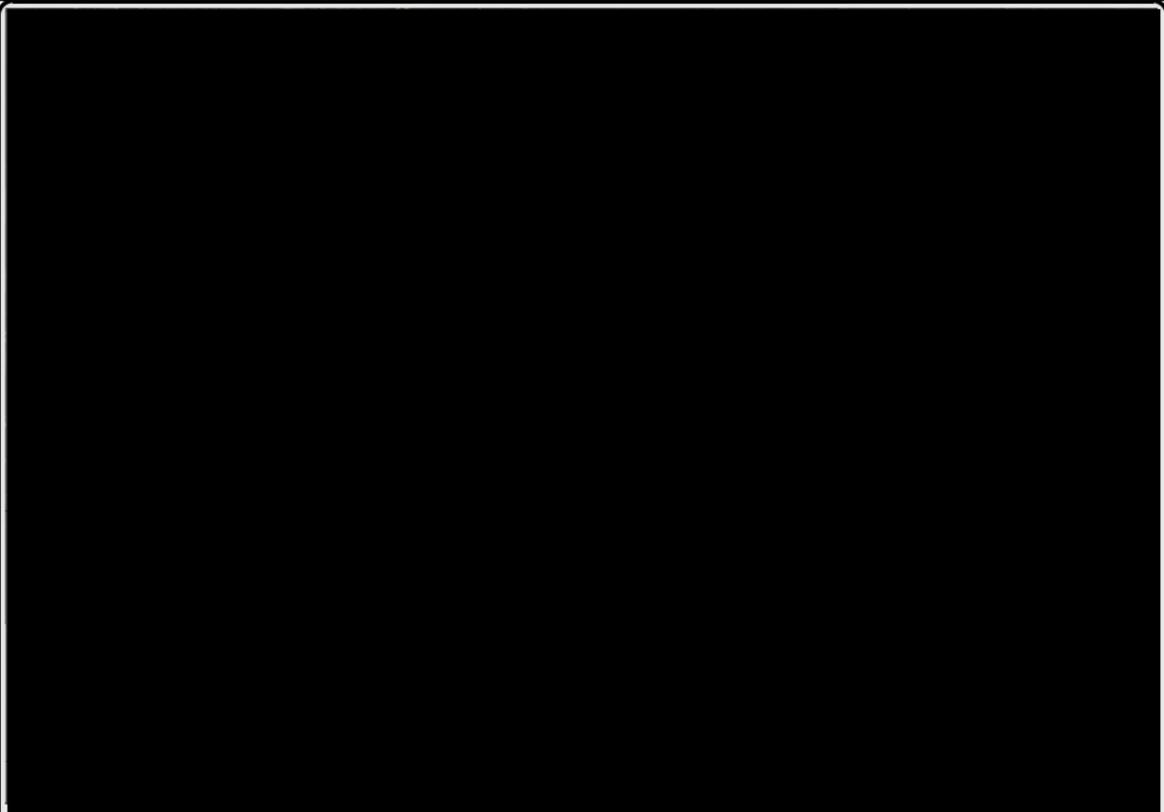
		Water NSW. These facilities shall be located at least 20m from any natural or built drainage line or wetland.	
W3	Waste	The contractor shall be appropriately licensed to remove and dispose of all hazardous materials. Hazardous materials shall be handled and disposed in accordance with relevant Australian Standards, SafeWork NS and regulatory agency (EPA) guidelines.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
W4	Waste	All waste fluids generated during the works, including concrete wash, the washing of painting equipment and human effluent, shall be contained for proper disposal offsite in accordance with SafeWork NSW and NSW government guidelines.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
W5	Waste	All waste removal, transport and disposal, including excess spoil, shall be in accordance with the EPA current guidelines for waste. Materials shall be recycled wherever possible. Dockets or equivalent evidence shall be obtained for all recycling and waste disposal, detailing the weights, materials, time and date and waste facility used. These dockets shall be available onsite and submitted with monthly reports and placed in ARK folder F2018/3432.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
1.24	Will the project or work have an impact on members of the public or surrounding areas?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Types of impact may include noise, dust, access, visual amenity. Surrounding land uses may be agricultural/other rural land uses, residential, recreational etc.
1.24.1	Provide details of the impact e.g. access, noise disturbance, dust.	The work will be carried out along the access road to the lower valve house. The Contractor is to ensure that 24 hr access is provided for WaterNSW Operational staff and during the rock stabilisation work. This area would be closed to the Public for the duration of the works.	
COMMUNITY			
Select the appropriate safeguards to manage the impacts			
C1	Community	A Community Engagement Plan, or equivalent, shall be prepared to the satisfaction of the Water NSW Communications Team before work commences.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
C2	Community	All contractors' (and any sub-contractors') personnel employed for the works shall maintain a tidy appearance and exercise courtesy in all dealings with the public.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
C3	Community	All access through, or work within any private property shall be undertaken with a minimum of inconvenience to the owner/ occupier	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
NOISE AND VIBRATION			
Select the appropriate safeguards to manage the impacts			
N1	Noise and Vibration	All practicable and feasible measures shall be taken to minimise noise. All vehicles, plant and equipment shall comply with relevant EPA and Workcover requirements.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
N2	Noise and Vibration	For any work approved to be undertaken outside standard hours, the emitted noise should not exceed the background noise level + 5dB(A)	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
AIR QUALITY			
Select the appropriate safeguards to manage the impacts			
AQ1	Air Quality	All practicable and feasible measures shall be taken to avoid raising excessive levels of dust.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
AQ2	Air Quality	All vehicles, plant and equipment shall be properly maintained to reduce vehicle and plant emissions. If visible smoke is seen for longer than 10 seconds duration from any engine while working on the site, the machine shall be taken out of service and adequately tuned or repaired so that such extended smoke emission no longer occurs.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
AQ3	Air Quality	Wherever possible, vehicles, plant and equipment shall be switched off when not in use.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
AQ4	Air Quality	Hazardous material shall be handled as per relevant guidelines to avoid potential air pollution.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
1.25	Will the project require new access tracks to be developed or fences to be installed?	<input type="radio"/> Yes <input checked="" type="radio"/> No	
1.26	Are there any impacts on any utilities and/or roads?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Carry out a dial-before-you-dig if necessary or conduct a survey to indicate if any underground infrastructure is present, eg, water, sewer, power, telecommunications, council roads, otherwise contact the supply authority or local Council (cl.13 ISEPP) ⓘ

1.26.1	Provide details of the impact and consultation outcomes.	The work would be carried out along the access road to the lower valve house. 24 hr access would be made available for WaterNSW operational staff, Sydney Water and emergency services. The contractor is to ensure that access is available at all times.	Details to be included are; the infrastructure that will be impacted, owner of the infrastructure and outcomes of any consultation ⓘ
TRAFFIC			
Select the appropriate safeguards to manage the impacts			
T1	Traffic and Utilities	A Traffic Management Plan shall be prepared as part of the CEMP, addressing the traffic and site access issues identified in the EIA.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
T2	Traffic and Utilities	Care shall be taken to ensure other infrastructure including underground electrical, fibre optic, gas and water pipes as well as road surfaces and overhead assets is not damaged as result of the works. The appropriate utility owner shall be notified in the event of any damage to their utility/assets Undertake a Dial Before You Dig search before works commence.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
T3	Traffic and Utilities	Where works are conducted on or adjacent to public roads or need to be closed temporarily for safety reasons, appropriate traffic control procedures shall be implemented.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
T4	Traffic and Utilities	Vehicles and machinery shall use existing tracks wherever possible, avoid making new tracks and be kept out of swamps, wetlands and drainage lines.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
T5	Traffic and Utilities	All practical measures shall be taken to prevent tracking of soil or materials from the worksite onto public roadways. If tracking occurs, affected roadways shall be swept at least daily.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
1.27	Add specific stakeholder requirements or other measures that need to be included in the Environmental Approval.	Access is to be made available to WaterNSW operational, Sydney Water and emergency services at all times.	<i>Note: State Environmental Planning Policy (Infrastructure) 2007, Part 2 Division 1 and Division 4 outlines specific conditions where affected stakeholders need to be consulted and the timeframes for consultation.</i>
1.28	Are there any post-construction rehabilitation or future maintenance requirements?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>Post rehabilitation may include replanting, rip rap and making good of a disturbed area.</i>
1.28.1	Provide details of impact	Ongoing inspections (either once or twice a year) will be required post stabilisation work.	
SITE DECOMMISSIONING			
Select the appropriate safeguards to manage the impacts			
D1	Site Decommissioning and Restoration	On completion of the works and prior to leaving the site: - all vehicles, construction equipment, materials, waste and excess spoil relating to the works shall be removed from the work site and any adjacent affected areas - all disturbed areas shall be restored with a minimum of 80% cover before removal of temporary control measures - any property or infrastructure that has been damaged as a result of the works shall be repaired, replaced or restored in consultation with Water NSW	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
D2	Site Decommissioning and Restoration	Disturbed areas shall be reseeded wherever there is no local seed source for natural reseeded.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
D3	Site Decommissioning and Restoration	Any vegetative material retained from any clearing or lopping shall be spread over disturbed areas as surface mulching to assist site revegetation.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
1.29	Is a Construction Environmental Management Plan (CEMP) required?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>A CEMP demonstrates how & where site specific environmental controls or safeguards will be implemented at the project site. Not all projects or works need to have a CEMP prepared, for example small scale works with few potential impacts. The CEMP must address the safeguards identified in the EIA for the project. (refer to CD2015/188* - CEMP Condensed Template)</i>
1.30	Are there any special environmental safeguards, controls or mitigation measures that need to be implemented during this project or works?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>Minor and routine works not requiring a CEMP can still require specific mitigation measures.</i>
1.30.1	Provide details. Include a list of any project specific controls or mitigation measures that need to be implemented during this project or works.	All controls and mitigation measures will be detailed in a CEMP, SWMS, Project Management Plan, Project Quality Plan, etc. Measures to include those as detailed in the Heritage NSW Approval dated 17 November 2022, Table 5 of the Targeted	

		<p>Ecological Impact Assessment (GHD, February 2023) (refer attached) and the Aboriginal Due Diligence Assessment (Navin Officer, 21 July 2022).</p> <p>Excess concrete would be removed off-site. All waste material would be disposed of off-site in accordance with relevant Australian Standards, WorkCover and regulatory Agency (EPA) guidelines as appropriate. Waste dockets would be provided to WaterNSW at the end of the Project. Any material that can be reused would be stockpiled separately and transported to a location nominated by WaterNSW for future reuse.</p>	
	<p>Thank you for completing Section 1 of this Minor Works Environmental Impact Assessment . Ensure you have saved this form to ARK and included the ARK reference number above. Go to myWaterNSW, click 'Request Something' & create a service request for Environmental Services.</p>	<p>Save to ARK and go to myWaterNSW to create a service request</p>	
<p>✓</p>	<p><u>Environmental Services Team</u> - Once Section 1 has been submitted, check that all questions are completed. If Section 1 is incomplete refer back to the Project Manager with comments. Environmental Services will complete section 2 & 3 of the assessment.</p>		

SECTION 2 ENVIRONMENTAL CONSIDERATIONS			
	QUESTIONS	ANSWERS	HERITAGE TO BE CHECKED
2.1	Will the project / work occur on a heritage item? Is the work site or asset identified on the WaterNSW s170 heritage register or the State heritage register or identified as a local heritage item on the LEP?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>Heritage to be checked:</i> 1. WaterNSW S170 Register (D2016/73126) 2. NSW Planning Portal ⓘ 3. <i>Relevant Council LEP</i>
2.1.1	Identify and describe the works with regard to the heritage significance.	The proposed works are located within the curtilages of the following listed heritage items: • Nepean Dam, State Heritage Register (SHR 01368) • Nepean Dam, WaterNSW s170 Heritage and Conservation Register (SHI 4580032) • Nepean Dam Wall and Valve House, Wingecarribee LEP 2010 (I1823) The works will impact on the appearance of the rockface in vicinity of the Dam Wall and Valve House. As such, a Section 60 application was made to Heritage NSW to undertake the works. Pursuant to section 63 of the Heritage Act 1977, approval was granted subject to conditions as provided below.	
2.1.2	Is the item identified on the LEP as locally significant?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>If yes notification to Council with provision of a heritage impact assessment for the works is required, and any comments received within 21 days must be considered.</i> <i>Consult the Heritage Specialist for advice</i> ⓘ
2.1.3	Will the impacts be more than minor or inconsequential?	<input type="radio"/> Yes <input checked="" type="radio"/> No	If there is more than minor or inconsequential impact to a local heritage item, Council notification with provision of a heritage impact assessment for the works is required, and any comments received within 21 days should be considered.
To be Exempt Development - must involve no more than minimal impact on the heritage significance of the item or area [Refer SEPP Infrastructure cl20 (e) (e1) (e2)]			
2.1.5	Include details that support the above conclusions and outcomes of consultation with the heritage specialist.	Pursuant to section 63 of the Heritage Act 1977, approval granted by Heritage NSW on 17 November 2022 (D2022/160549). Works to be undertaken in accordance with Section 60 Approval (17 November 2022) – D2022/160549 including: 1. All work shall comply with the information contained within: a) Engineering drawings, prepared by GHD as listed in the approval b) HIS, prepared by Artefact, dated 15 May 2020 (D2020/20515). 2. Significant built and landscape elements are to be protected during site preparation and the works from potential damage. Protection systems must ensure significant fabric, including landscape elements, is not damaged or removed. 3. The Applicant must ensure that if substantial intact archaeological deposits and/or State significant relics or any other buried fabric are discovered, work must cease in the affected area(s) and the Heritage Council of NSW must be notified. Additional assessment and approval may be required prior to works continuing in the affected area(s) based on the nature of the discovery. 4. If requested, the applicant and any nominated heritage consultant may be required to participate in audits of Heritage Council of NSW approvals to confirm compliance with conditions of consent. 5. The proposed works involve vegetation and soil removal, as well as direct impacts to sandstone outcropping. If Aboriginal objects are present, or likely to be present, and the proposed activity will harm those objects, an Aboriginal Cultural Heritage Assessment Report must be prepared. This assessment should inform appropriate management and mitigation measures, which may include the requirement for an Aboriginal Heritage Impact Permit.	
2.2	Are there any: • relevant confirmed site records or other associated landscape feature information on AHIMS? and/or • other sources of information of which a person is already aware? and/or • landscape features that are likely to indicate the presence of Aboriginal objects?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Landscape features that indicate the likely existence of Aboriginal objects. <i>Is the proposed activity</i> • within 200 metres of waters • within sand dunes on a ridge top/ridge line/headland • within 200 metres of the top or bottom of a cliff face • within 20m of or within a cave, rock shelter or a cave mouth

	<ul style="list-style-type: none"> • ILUA in place? 		<p>AND the land is NOT previously disturbed ⓘ</p> <p>An Aboriginal Heritage Information Management System (AHIMS) Web Services search must be undertaken using 200m buffer of the project or work and if positive undertake within 50m.</p> <p>ILUA - Indigenous Land Use Agreement search tool</p>



2.2.1	Can harm to Aboriginal objects listed on AHIMS or identified by other sources of information and/or can the carrying out of the activity at the relevant landscape features be avoided?	<input checked="" type="radio"/> Yes <input type="radio"/> No	Possible solutions may include reducing the footprint area, re-positioning elements, re-routing infrastructure trenching or incorporating a no-development area into the site design.
HERITAGE			
Select the appropriate safeguards to manage the impacts			
H1	Heritage	Site induction shall include awareness of the heritage significance of the site. This shall include the importance of preventing accidental damage to any structure or historical remnants such as roads, steps & stairs, curbing, footings & foundations and picnic area facilities or interfering with any material associated with the heritage item.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
H2	Heritage	All activities or work undertaken within the heritage precinct shall be carried out in a manner that will protect the fabric of the heritage item from damage or interference during the work.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
H3	Heritage	If problems are encountered that necessitate a major change in the work method, works shall cease until the significance of the change can be assessed. The Water NSW Environmental Services Team shall be contacted for advice. Note: the works may require re-approval prior to recommencing, depending on the changes.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
H4	Heritage	Replacement of missing, damaged or deteriorated fabric shall match existing fabric in appearance, material and method of fixing. If this is not possible, specific advice shall be obtained from the Water NSW Environmental Services Team before undertaking the replacement.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
H5	Heritage	Painting shall be done using the Water NSW approved colour scheme available from the Heritage Adviser. If any specified colour is not available, Water NSW Heritage Adviser approval shall be obtained before an alternative colour is used.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
H6	Heritage	If any items which have the potential to be of heritage significance are encountered, works shall cease until the significance of the item can be established. The Water NSW Environmental Services Team should be contacted for advice on the appropriate course of action to take.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
H7	Heritage	The Upper Canal is potentially fragile due to its age and is heritage listed. The works shall be designed and undertaken in such a way that the Upper Canal is adequately protected from ground vibration and structural damage.	<input type="radio"/> Yes <input checked="" type="radio"/> N/A
H8	Heritage	If any Aboriginal cultural material (e.g. relics such as stone tools, worked bone or fire hearths) is encountered within or immediately adjacent to the work area, work shall stop immediately until the significance of the item can be established. Water NSW Procedure CD2012/184* - Unexpected Aboriginal Objects Procedure should be followed.	<input checked="" type="radio"/> Yes <input type="radio"/> N/A
2.3	Is the project or work within or likely to affect any of the following? - Declared Wilderness Area - Declared Area of Outstanding Biodiversity Value - Critical habitat of an endangered species, population or ecological community	<input type="radio"/> Yes <input checked="" type="radio"/> No	There are 49 areas of Wilderness across NSW, 4 affecting the Sydney Drinking Water Catchments: Look up details using NULA. For land declared critical habitat, check: 1. OEH Critical Habitat Register 2. DPI Fisheries Register of Critical Habitat Exempt development cannot be carried out in critical habitat of an endangered species, population or ecological community (identified under the Biodiversity Conservation Act or the Fisheries Management Act) An Area of Outstanding Biodiversity Value is declared under the Biodiversity Conservation Act 2016 and includes critical habitat.

2.3.1	Add any information relevant to the searches undertaken.	Key biodiversity values recorded at the site by GHD (2022) included a population of threatened flora, potential roosting habitat for microbats, and native vegetation that may provide habitat for a range of threatened species. Field surveys completed as part of the constraints assessment identified a population of the threatened plant <i>Leucopogon exolasius</i> (listed as Vulnerable under the NSW Biodiversity Conservation Act 2016 (BC Act) and Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)) on the rock wall during the surveys. Four individuals were recorded between CH-215 and CH-225 along the rock wall, with approximately another 15 individuals to the north, outside of the boundary of Site 005D. The constraints assessment also identified the presence of suitable habitat for the Large-eared Pied Bat (<i>Chalinolobus dwyeri</i>), which is listed as Vulnerable under the BC Act and EPBC Act, and the Large Bent-winged Bat (<i>Miniopterus orianae oceanensis</i>), which is listed as Vulnerable under the BC Act. These species were considered to have the potential to roost in 'honeycomb' crevices in the sandstone outcrops on the rock wall (occurring at approximately CH110 m to CH135 m along the rock wall and near rockfall hazard N31 – as shown on the design plans).	
2.4	Is the project or works within or likely to affect any of the following areas: <ul style="list-style-type: none"> • World Heritage Land or land to which SEPP (Coastal Management) 2018 applies • Wetlands and/or migratory birds • National Parks or Land covered by a Conservation Agreement 	<input type="radio"/> Yes <input checked="" type="radio"/> No	<p>The Warragamba Special Area is within the Greater Blue Mountains World Heritage Area.</p> <p>See SEPP (Exempt & Complying Development) 2008 Clause 1.5 for inclusions of environmentally sensitive areas , use hyperlink to check:</p> <ul style="list-style-type: none"> - an aquatic reserve under the Fisheries Management Act 1994 or a marine park under the Marine Parks Act 1997 - A RAMSAR wetland or a World Heritage area declared under the World Heritage Convention ⓘ <p>If works will impact on National Park or area with a conservation agreement consultation is required.</p>
2.5	Are there any known contamination/ hazardous materials issues?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<p>Examples may include asbestos, contaminated soil. NULA Contaminated Land Risk Register (D2016/135491) and Hazardous Materials Register (D2015/74763). Register - Gauging Stations, 26 November 2014 - Asbestos NSW Office of Water D2015/74762</p>
2.6	Does the project or works require consent under State Environmental Planning Policy (Vegetation Non-Rural Areas) or the Local Land Services Act 2013? Note: Vegetation removal that is part of an activity that is assessed as development without consent is approved under Part 5 of the EP&A Act, removing the need for Council consent or LLS Act approval.	<input type="radio"/> Yes <input checked="" type="radio"/> No	<p>Vegetation clearing works are likely to be permissible as part of an activity that is being assessed under Part 5 of the EP&A Act or; as works under a WM Act approval or; as bush fire management activities and authorised by other legislation. Additional permissibilities under the LLS Act and State Environmental Planning Policy (Vegetation- Non-Rural Areas) 2017. Refer to the Local Land Services Act 2013 Section 60 O for a list of authorisations and permissibilities.</p> <p>Use the OEH Native Vegetation Regulatory Maps to determine vegetation category.</p>
2.6.1	Provide details	No permit required under Section 60 O as the asset has a water supply works approval and is part of ongoing maintenance.	<p>Ensure no ancillary activities require clearing.</p> <p>Record justification if clearing can be undertaken without approval.</p> <p>Attach evidence of consultation where required.</p>
2.7	Is the project or work likely to have only a minimal impact on the environment?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>A project is likely to have more than a minimal impact if for example:</p> <ul style="list-style-type: none"> • a license or permit is required • it is carried out in a waterway where flow interruptions are required • there is likely to be a community impact • it will result in the clearing of mature trees or a large area of understorey or native grasses • it will impact on an aboriginal heritage item • it will result in largescale soil disturbance • it will result in an increase in hard surfaces • it will result in the creation of new tracks, roads • it will result in more than minimal modifications / alterations to items of State or local significance ⓘ

2.7.1	Provide any additional information relevant to and that supports the above assessment.	The stabilisation works have been designed to reduce the amount of disturbance required to stabilise the escarpment at Site 005D. There are a number of mitigation measures required in the CEMP for the works. The PM has undertaken consultation with stakeholders including WaterNSW operations, maintenance, catchment management and community and Sydney Water.	<i>Details here will not appear elsewhere on the approval</i>
2.7.2	Does the project or work fall within one of the development categories & associated exempt development types listed under SEPP (Infrastructure) 2007 Clause or Schedule 1 or alternative Environmental Planning Instrument?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>If SEPP clauses don't adequately describe the project or works including Schedule 1, consider State Environmental Planning Policy (Exempt and Complying Development Codes) 2008</i> ⓘ
2.7.4	Does the project or work fall within one of the development categories permitted without consent listed under SEPP Infrastructure 2007 and does the project or work comply with any criteria specified in the relevant clause?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>If there is no applicable development category, consider what approval mechanism is most likely to apply for the project.</i> ⓘ
2.7.5	Detail the planning instrument, development category and development without consent type that best describes the project or works?	SEPP (Transport and Infrastructure) 2021 Division 24 Water Supply Systems 2) Development for the purpose of water storage facilities may be carried out without consent if it is carried out by or on behalf of (b) Water NSW on land within the Sydney catchment area within the meaning of the Water NSW Act 2014.	
Complete Section 3 Minor Works Review of Environmental Factors			
2.8	Are there any special environmental safeguards, controls or mitigation measures that need to be implemented during this project or works?	<input checked="" type="radio"/> Yes <input type="radio"/> No	
2.8.1	Provide details. Add specific stakeholder requirements or safeguards that need to be included in the Environmental Approval	As detailed in the Heritage NSW Approval dated 17 November 2022 (D2022/160549), Table 5 of the Targeted Ecological Impact Assessment (GHD, February 2023) (D2022/173769) (refer attached) and Section 5 of the Aboriginal Due Diligence Assessment (Navin Officer, 21 July 2022) (D2022/56897).	
2.9	Does the project or works require notification under the Fisheries Management Act ?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>Activities that could trigger requirement include:</i> <ul style="list-style-type: none"> - Dredging or reclamation on water land (S198A and C263) - Construction, alteration or modifications to a dam, weir or reservoir (S218) - Interruptions to water flows or does the project or work obstruct the passage of fish (S219) ⓘ
SECTION 3 MINOR WORKS REVIEW OF ENVIRONMENTAL FACTORS			
	QUESTIONS	ANSWERS	GUIDANCE
3.1	Are the project or works outside of standard construction hours (refer 1.10)?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>The planned site work hours were identified at 1.10. Standard Hours are : Mon-Fri 7am-6pm, Sat 8am-1pm, No work Sunday or Public Holidays. Non-standard hours may require additional noise assessments to be prepared. Refer - NSW EPA Interim Construction Noise Guidelines for assessment guidance</i>
3.2	Does the project or work require a permit/ approval under the Water Act and/or Water Management Act?	<input type="radio"/> Yes <input checked="" type="radio"/> No	<i>Activities that could trigger requirement include:</i> <ul style="list-style-type: none"> - Water supply, drainage or flood works - Affect flow of water to or from river or lake (e.g. a levee on a floodplain) - Water use (e.g. water extraction from a river) ⓘ
3.3	Does the project or work require a permit/ approval/consultation from any other relevant authorities/agencies?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<i>Note: Relevant authorities/ agencies may include, but are not limited to:</i> <ul style="list-style-type: none"> - LLS (natural resource management) - OEH (works adjacent to land reserved under National Parks & Wildlife Act) - DPI – NSW Crown Lands Division - DPI – State Forests - Local Council (flood liable land) - Roads and Maritime Services (works affecting RMS roads or in navigable waters)

			<ul style="list-style-type: none"> • MDBA (River Murray works) • ISEPP consultation
3.3.1	Provide details of impact and outcomes of any consultation	Pursuant to section 63 of the Heritage Act 1977, approval granted by Heritage NSW on 17 November 2022 (D2022/160549).	
3.3.2	Detail stakeholder specific requirements that need to be included in the Environmental Approvals.	<p>Section 5 of the Aboriginal Due Diligence Assessment (Navin Officer, 21 July 2022) (D2022/56897) which states:</p> <ol style="list-style-type: none"> 1. No further investigations or Aboriginal heritage permits are required and the proposed remediation design can proceed with caution 2. All Aboriginal objects are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the Heritage for NSW. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying Heritage NSW and Aboriginal stakeholders 3. If human remains are found during works, all activity in the vicinity of the find should cease. Ensure that the area of the find is adequately marked as a no-go area for further disturbance and immediately notify the NSW Police and the NSW Coroner's Office. If the finds are Aboriginal or probably Aboriginal in origin, Heritage NSW should also be notified. In such circumstances the advice of a specialist physical anthropologist is highly recommended. 	
3.4	Will the project or work involve working in the riverine land of the Murray River, the waters and the bed and banks of its tributaries and associated water bodies OR along the NSW Border?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Check map indexes to see affected areas STW130254 e.g. Conargo, Corowa, Deniliquin, Hume, Murray, Wakool, Wentworth and Windouran ⓘ
3.5	Will the project or work (including any access tracks or ancillary works) affect, or likely to affect, any threatened species, population, ecological community or their habitat? (this includes State or Commonwealth listings)	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Check:</p> <ol style="list-style-type: none"> 1. OFH Critical Habitat Register 2. OFH BioNet - NSW Wildlife Atlas Search 3. Threatened fish species ⓘ <p>https://www.environment.gov.au/epbc/what-is-protected</p>
3.5.1	Provide details of the likely impact including any Assessment of Significant Effect.	<p>Targeted Ecological Impact Assessment (GHD, February 2023) (D2022/173769) determined the proposal would result in impacts to threatened species habitat and removal of vegetation commensurate with threatened ecological communities listed under the BC Act and/or EPBC Act. Assessments of significance pursuant to Section 7.3 of the BC Act (5 part tests) indicate that the proposal is unlikely to result in a significant impact on any entities listed under the BC Act. The findings of the 5 part tests have been considered with reference to the EPBC Act MNES Significant Impact Guidelines 1.1 (DEWHA 2013), and the proposal is unlikely to result in a significant impact on any MNES listed under the EPBC Act. There were no threatened species identified within the impact area, however there are a number of mitigation measures required including pre-clearance procedure.</p>	<p>Eg, Is the impact likely to be minimal, moderate or significant? If the impact is likely to be significant a Species Impact Statement (SIS) is required. Has an Assessment of Significant Affect been undertaken Is a SIS required?</p>
3.6	Will the project or work have an affect on a Matter of National Environmental Significance?	<input type="radio"/> Yes <input checked="" type="radio"/> No	The EPBC Search Tool can be used to find out if an area is likely to contain MNES. For guidance on undertaking an Assessment of Significant Effect refer to DOC15/7577 ⓘ
3.7	Are there any special environmental safeguards, controls or mitigation measures that need to be implemented during this project or works?	<input checked="" type="radio"/> Yes <input type="radio"/> No	<p>Is there anything special about the site that needs to be protected? Are there any site specific controls or measures that you think the contractor needs to understand and follow?</p>
3.7.1	Provide details	There are a number of mitigation measures required as detailed in Table 5 of the Targeted Ecological Impact Assessment (GHD, February 2023) (D2022/173769) and as attached.	
3.8	Is the activity likely to significantly affect the environment including, critical habitat, threatened species, populations or ecological communities or their habitats?	<input type="radio"/> Yes <input checked="" type="radio"/> No	Part 5 of EP&A Act, states if the activity is "likely to significantly affect the environment (including critical habitat) or threatened species, populations or ecological communities, or their habitats", then there is likely to be a significant impact and an EIS/SIS must be prepared, see Sections 5.1 & 5.5.
Section 4 - Environmental Approval needs to be completed, finalised and sent to the Project Manager			

SECTION 4 ENVIRONMENTAL APPROVAL			
Project Details			
myWaterNSW Request #: RITM	RITM0433792	ARK Minor Works EIA Form #	D2022/161335[v1]
WaterNSW Contact	[REDACTED]	Project Location	Nepean Dam - near Sydney Water off-take
Project Title	Greater Sydney Rockfall Stabilisation Project		
Approved Activity	<p>The rockfall stabilisation works for Site 005D includes:</p> <ul style="list-style-type: none"> - Devegetation – predominantly comprising the removal of trees, stags, stumps and shrubs that are contributing to the risk of rockfall/inhibiting remediation due to their location - Targeted removal and scaling (removal of loose rock) of 150 m2 of rock - The installation of ~70 rock bolts - The installation of 40 m2 of reinforced shotcrete; and - The installation of 25 m2 of pinned rockfall mesh 		
Project Manager Responsibilities			
<p>In carrying out the project or works, it is the Project Manager's responsibility to ensure that the works are carried out as described within this assessment and that all safeguards listed within this approval are complied with. The Project Manager must also ensure that all licences, permits and approvals are obtained and maintained as required and that all statutory and regulatory requirements are complied with throughout the project or works. The Project Manager is also to ensure compliance with the Building Code of Australia and other relevant technical, manufacturer or industry standards.</p>			
CEMP Requirement			
<p>A Construction Environmental Management Plan (CEMP), or equivalent, shall be prepared addressing the environmental safeguards identified in the EIA approval and any appropriate industry standards. The CEMP shall be submitted to the Environmental Services team for review and approval prior to on-ground works commencing.</p>			
Environmental Safeguards			
General			
G1	All WaterNSW Work Health and Safety requirements must be adhered to.		
G2	All complaints and compliments shall be directed to - feedback@waternsw.com.au or 1300 662 077.		
G3	All environment incidents shall be addressed in accordance with WaterNSW's Environmental Incident Management Procedure CD2016/6*.		
G4	If works have not commenced within 2 years of this approval, the EIA form must be re-submitted prior to the commencement of works, to ensure the controls remain in line with current legislation and internal procedures including re-approval by the Environmental Services team.		
G5	Site inductions shall include all aspects, impacts and controls identified in the EIA/REF and Environmental Approval.		
G6	For any shutdown, completion of Site Shutdown (RACS requirement) shall be completed at least 24 hours prior to shutdown commencing.		
G7	Approved Standard Hours are : Mon-Fri 7am-6pm, Sat 8am-1pm, No work Sunday or Public Holidays. For any proposed works outside approved standard construction hours, an Out of Hours Application CD2015/210* shall be submitted to the Environmental Services team, allowing 10 working days for approval.		
G8	If any items which have the potential to be of heritage significance are encountered, works shall cease until the significance of the item can be established. The Water NSW Environmental Services Team should be contacted for advice on the appropriate course of action to take.		
G9	If any Aboriginal cultural material (e.g. relics such as stone tools, worked bone or fire hearths) is encountered within or immediately adjacent to the work area, work shall stop immediately until the significance of the item can be established. Water NSW Procedure CD2012/184* - Unexpected Aboriginal Objects Procedure should be followed.		
G10	All sediment and erosion controls shall be installed according to the requirements of <i>Managing Urban Stormwater: Soils and Construction - Volume 1, 4th Edition 'Blue Book'</i> .		
G11	WaterNSW Tree Clearing Permit CD2021/110* must be completed and authorised by the works supervisor before vegetation removal activities commence.		
Community			
C2	All contractors' (and any sub-contractors') personnel employed for the works shall maintain a tidy appearance and exercise courtesy in all dealings with the public.		
Traffic and Utilities			
T1	A Traffic Management Plan shall be prepared as part of the CEMP, addressing the traffic and site access issues identified in the EIA.		
T2	Care shall be taken to ensure no disturbance of underground infrastructure (optic fibre cables, gaslines, water lines etc), or infrastructure (powerlines, sealed road pavement etc).		

T3	Where works are conducted on or adjacent to public roads or need to be closed temporarily for safety reasons appropriate traffic control procedures shall be implemented.
T4	Vehicles and machinery shall use existing tracks wherever possible, avoid making new tracks and be kept out of swamps, wetlands and drainage lines.
T5	All practical measures shall be taken to prevent tracking of soil or materials from the worksite onto public roadways. If track occurs, affected roadways shall be swept or washed at least daily.
Special and Contolled Areas	
SP1	All activities or work undertaken in Water NSW Special / Controlled Areas shall be carried out in a manner that will prevent or minimise impacts on water quality, environmental damage and fire.
SP2	Standard access requirements of Water NSW catchment lands shall be observed. This includes restricted access to the catchment after periods of significant rainfall (typically 10mm in a 24 hour period).
SP3	All gates and barriers shall be closed and locked at all times to prevent unauthorised access to the Special/Controlled Area
SP4	Any suspected unauthorised access to the area shall be reported to the Water NSW supervisor and report in RACS system.
SP5	All incidents, spills or fire sightings that occur in the WaterNSW Special / Controlled Area shall be immediately reported to the Water supervisor/Project Manager and reported in RACS system.
SP6	Works shall not be undertaken and vehicles shall not travel on unsealed roads in the Water NSW Special / Controlled Areas when road surfaces are saturated, water is flowing down table drains or the catchment has been closed by Water NSW.
SP7	Portable fuel trailers shall be taken off catchment at the end of each working week.
SP11	All equipment transported to the site shall be thoroughly washed down, including underneath tractors and slashers, to remove mud, dirt and vegetative materials, prior to entering the Water NSW Special / Controlled Areas.
Soil and Water	
SW1	All works shall be undertaken in a manner that will minimise site disturbance and avoids or minimise erosion and sedimentation.
SW2	All areas disturbed during the works shall be protected by installing appropriate erosion and sedimentation control measures so that sediment-laden runoff does not enter any drainage line or wetland. Measures may include: <ul style="list-style-type: none"> o diverting any potential upslope runoff and stormwater away from the site; o installing temporary erosion control devices (eg sediment fencing, sand bags, sediment basins); o temporary surface protection (eg surface mulching, geotextile/erosion control matting).
SW3	All erosion and sediment control measures shall be checked and maintained on a regular basis so that they work effectively at all times, including removing trapped sediment before or when 30% capacity is reached. Control measures shall not be removed before the ground surface is stabilised.
SW4	A maintenance checklist shall be prepared for sites. Records shall be kept of all checks and maintenance and shall be provide to Water NSW on request. As a minimum this shall include a regular check of: <ul style="list-style-type: none"> o sediment fencing/bunding o any sign of erosion of the site or material o any impact on adjacent vegetation (material shall be kept outside the dripline of any tree) o the safe storage of any chemicals, fuels or lubricants o the height, gradient and stability of any stockpile (<2m high and 2:1 slope)
SW5	Chemicals, fuels and lubricants shall be securely stored in approved containers and spill containment material shall be kept on site ready for immediate use. Bund capacity is to be at least 110 % of the largest container & 25% of the total stored volume
SW6	No chemicals, fuels and lubricants shall be shall be stored overnight on site unless specifically approved by Water NSW. If approved, these materials shall be stored with bunding within an established site compound, on a level area clear of native vegetation and at least 40m from any natural or built drainage line or wetland.
SW7	Plant and equipment shall not be refuelled within 20m of any natural or built drainage line or wetland. During any refuelling, spill containment material shall be on hand ready for immediate use.
SW8	Weather forecasts shall be regularly checked so that expected storm events can be taken into account in project planning and erosion and sediment management.
SW9	Temporary compounds and stockpiles shall be located: <ul style="list-style-type: none"> o at least 40m from natural or built drainage lines or wetland; o on areas previously disturbed and that do not require the clearing of native vegetation; o on level, hard ground wherever possible, and shall not be located on slopes steeper than 1(V):10(H); o beyond tree drip lines; o where there is no risk of impact on any indigenous or non-indigenous heritage site.
SW10	Topsoil shall be stockpiled separately from general spoil and reused wherever possible.
SW11	Concrete shall not be mixed within 20m of any natural or built drainage line or wetland. All concrete waste and any concrete washout shall be contained and

	removed for disposal off site at a lawful facility. Washout of trucks on site shall be minimised wherever possible.
SW12	Any wastewater generated during the works shall be contained for disposal offsite at a lawful facility. Water contaminated with sediment can only be discharged in a manner that prevents the sediment entering natural or built drainage lines or wetland.
Flora and Fauna	
FF1	Vegetation disturbance or clearing shall be minimised to the greatest degree practical and only in accordance with EIA approval.
FF3	Any vegetative material that has been cleared, lopped or otherwise removed shall be retained and used as surface mulching to assist site revegetation on completion of the works.
FF4	Fallen logs shall be pushed out of the work areas and into adjoining areas wherever possible. Cutting up of logs over 40cm dbh with hollows shall be minimised.
FF5	Disturbance of rock ledges, caves, overhangs and surface bush rock shall be avoided wherever possible.
FF6	Retained vegetation and trees shall be protected from accidental damage, encroachment or smothering by temporary fencing, flagging or similar. Drip lines of trees are to be avoided.
FF7	All equipment transported to the site shall be free of contaminants such as weeds.
FF8	Undertake Preclearance check including demarkation of trees and Inspection for habitat features (e.g. tree hollows, nests etc) /fauna (if present felling and engagement of ecologist). Where possible clearing of vegetation with habitat features should be undertaken during summer to minimise potential impacts to nesting fauna.
Pest and Weed Control	
P2	Notification of neighbours and other stakeholders shall be undertaken as required by the current relevant Pesticide Control Order issued under the Pesticides Act 1999 and in accordance with the Water NSW Pesticide Use Notification Plan.
P3	Herbicides and pesticides shall be stored and used in accordance with the relevant label directions, registration or permit conditions issued under the Agricultural & Veterinary Chemicals Code (NSW) Act 1994 and Pesticides Act 1999 and Code of Practice issued by WorkCover NSW.
P4	Mixing or decanting of herbicides shall not be undertaken within 20m of any natural or built drainage line or wetland.
P5	All vehicles, vessels and equipment transported to the site shall be free of contaminants such as weeds. Care shall also be taken to ensure all vehicles, vessels and equipment are free of aquatic weeds and their seeds before leaving the site.
P6	All debris from control works shall be removed from flood-prone areas and only left onsite with approval of WaterNSW
P7	Ensure record keeping of pesticide application compliant with the NSW Pesticides Regulation (1995) and Pesticides Amendment (Records) Regulation
Air Quality	
AQ1	All practicable and feasible measures shall be taken to avoid raising excessive levels of dust.
AQ2	All vehicles, plant and equipment shall be properly maintained to reduce vehicle and plant emissions. If visible smoke is seen for longer than 10 seconds duration from any engine while working on the site, the machine shall be taken out of service and adequately tuned or repaired so that such extended smoke emission on longer occurs.
AQ3	Wherever possible, vehicles, plant and equipment shall be switched off when not in use.
AQ4	Hazardous material shall be handled as per relevant guidelines to avoid potential air pollution.
Noise and Vibration	
N1	All practicable and feasible measures shall be taken to minimise noise. All vehicles, plant and equipment shall comply with relevant EPA and Workcover requirements.
N2	For any work approved to be undertaken outside standard hours, the emitted noise should not exceed the background noise level + 5dB(A)
Heritage	
H1	Site induction shall include awareness of the heritage significance of the site. This shall include the importance of preventing accidental damage to any structure or historical remnants such as roads, steps & stairs, curbing, footings & foundations and picnic area facilities or interfering with any material associated with the heritage item.
H2	All activities or work undertaken within the heritage precinct shall be carried out in a manner that will protect the fabric of the heritage item from damage or interference during the work.
H3	If problems are encountered that necessitate a major change in the work method, works shall cease until the significance of the change can be assessed. The Water NSW Environmental Services Team shall be contacted for advice. Note: the works may require re-approval prior to recommencing, depending on the changes.
Waste	
W1	All working areas shall be maintained, kept free of rubbish and cleaned up at the end of each working day. Equipment and materials shall be securely stored.

W2	If the contractor is working at the same location for more than one day, self-contained portable ablution and toilet facilities shall be provided, unless otherwise specifically negotiated with Water NSW. These facilities shall be located at least 20m from any natural or built drainage line or wetland.
W3	The contractor shall be appropriately licensed to remove and dispose of all hazardous materials. Hazardous materials shall be handled and disposed in accordance with relevant Australian Standards, WorkCover and regulatory agency (EPA) guidelines.
W4	All waste fluids generated during the works, including from the washing of painting equipment and human effluent, shall be contained for proper disposal offsite in accordance with Workcover and NSW government guidelines.
W5	All waste removal, transport and disposal, including excess spoil, shall be in accordance with the regulatory agency's (EPA) current guidelines for waste. Materials shall be recycled wherever possible. Dockets or equivalent evidence shall be obtained for all recycling and waste disposal, detailing the weights, materials, time and date and waste facility used. These dockets shall be available onsite and submitted with monthly reports.
Site Decommissioning and Restoration	
D1	On completion of the works and prior to leaving the site: <ul style="list-style-type: none"> - all vehicles, construction equipment, materials, waste and excess spoil relating to the works shall be removed from the work site and any adjacent affected areas - all disturbed areas shall be restored with a minimum of 80% cover before removal of temporary control measures - any property or infrastructure that has been damaged as a result of the works shall be repaired, replaced or restored in consultation with Water NSW
D3	Any vegetative material retained from any clearing or lopping shall be spread over disturbed areas as surface mulching to assist site revegetation.
Fencing	
PROJECT SPECIFIC SAFEGUARDS	
PS1	All controls and mitigation measures will be detailed in a CEMP, SWMS, Project Management Plan, Project Quality Plan, etc. Measures to include those as detailed in the Heritage NSW Approval dated 17 November 2022, Table 5 of the Targeted Ecological Impact Assessment (GHD, February 2023) (refer attached) and the Aboriginal Due Diligence Assessment (Navin Officer, 21 July 2022). Excess concrete would be removed off-site. All waste material would be disposed of off-site in accordance with relevant Australian Standards, WorkCover and regulatory Agency (EPA) guidelines as appropriate. Waste dockets would be provided to WaterNSW at the end of the Project. Any material that can be reused would be stockpiled separately and transported to a location nominated by WaterNSW for future reuse.
PS2	There are a number of mitigation measures required as detailed in Table 5 of the Targeted Ecological Impact Assessment (GHD, February 2023) (D2022/173769) and as attached.
STAKEHOLDER REQUIREMENTS	
SR1	Access is to be made available to WaterNSW operational, Sydney Water and emergency services at all times.
SR2	
SR5	Section 5 of the Aboriginal Due Diligence Assessment (Navin Officer, 21 July 2022) (D2022/56897) which states: 1. No further investigations or Aboriginal heritage permits are required and the proposed remediation design can proceed with caution 2. All Aboriginal objects are protected under the NPW Act. It is an offence to knowingly disturb an Aboriginal site without a consent permit issued by the Heritage for NSW. Should any Aboriginal objects be encountered during works associated with this proposal, works must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the archaeologist will provide further recommendations. These may include notifying Heritage NSW and Aboriginal stakeholders 3. If human remains are found during works, all activity in the vicinity of the find should cease. Ensure that the area of the find is adequately marked as a no-go area for further disturbance and immediately notify the NSW Police and the NSW Coroner's Office. If the finds are Aboriginal or probably Aboriginal in origin, Heritage NSW should also be notified. In such circumstances the advice of a specialist physical anthropologist is highly recommended.
SR9	As detailed in the Heritage NSW Approval dated 17 November 2022 (D2022/160549), Table 5 of the Targeted Ecological Impact Assessment (GHD, February 2023) (D2022/173769) (refer attached) and Section 5 of the Aboriginal Due Diligence Assessment (Navin Officer, 21 July 2022) (D2022/56897).
DECLARATION AND SIGN-OFF	
<p>The REF has been prepared in accordance with Section 5.5 of the <i>Environmental Planning and Assessment Act 1979</i> (EP&A Act). Under Part 5 of the EP&A Act, WaterNSW is both the proponent and determining authority for the proposed activity. The State Environmental Planning Policy (Infrastructure) 2007 allows the proposal to be carried out without development consent. WaterNSW has prepared this REF in accordance with Clause 228 of the Environmental Planning and Assessment Regulation 2000.</p> <p>On the basis of the assessment and having taken into account to the fullest extent possible all matters likely to affect the environment as a result of the proposed activity, it is concluded that, by adopting the measures identified in the REF, there is unlikely to be a significant environmental impact as a result of undertaking the proposed activity. Accordingly, an Environmental Impact Statement (EIS) is not required.</p> <p>If the scope of work or work methods described in this report change either prior to or during works, additional Environmental Impact Assessment must be undertaken.</p>	
Approval ARK # ⓘ	D2022/161335[v2]
Environmental Adviser Approval Environmental Impact Assessment for Minor Works was approved/endorsed by	