

**ET0022**  
**REVIEW OF ENVIRONMENTAL FACTORS**

**[INSERT PROJECT NAME]**

**[INSERT MONTH & YEAR]**



REF prepared by (Author and Company)	
Proponent	

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**APPENDICES** [add or subtract appendices as required to address relevant project details]

**APPENDIX A - Project location maps, site plans and photos**

**APPENDIX B - Clause 228 Factors**

**APPENDIX C - Supporting documentation – stakeholder and community consultation**

**APPENDIX D – Additional details on the scope of works**

**APPENDIX E - Supporting documentation – Ecology, including Seven Part Tests**

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## 1 Introduction

The potential environmental impacts of the proposal to [insert name of project] have been assessed in accordance with Hunter Water’s policies and the Environmental Impact Assessment (EIA) requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The impacts have been assessed under Division 5.1 of the EP&A Act, in accordance with Hunter Water’s responsibilities as both a public authority and determining authority under the Act. In keeping with the requirements of Division 5.1 of the EP&A Act, the factors listed under Clause 228 of the *Environmental Planning and Assessment Regulation 2000* have been taken into consideration in determining the likely impacts of the proposal.

This report documents the outcomes of the EIA and identifies the environmental safeguards that must be implemented in conjunction with the proposal.

## 2 Project details

<b>Project name</b>		<b>Project Number</b>	[Where applicable]
<b>Project Manager</b>		<b>Project Controller</b>	
<b>Project location</b>	[Insert brief details of project location, including street address(es) of work site(s). Refer to figures/maps included in Appendix A.]	<b>LGA(s)</b>	[Identify the LGA(s) in which the work area(s) is/are located].
<b>Project description</b>	[Insert a brief general description of the project]	<b>Reason/justification for project and project objectives</b>	[State briefly why the project needs to be undertaken. Also briefly describe or list the project objectives or desired outcomes, with particular reference to any expected environmental or customer service benefits.]
<b>Scope of work activities</b>	[List activities in dot point form, from site establishment through to site restoration. The information listed should be brief. Where considered necessary, provide additional details in Appendix B (and make reference to Appendix B within this table cell). ]	<b>Work equipment and machinery</b>	[List details of the work vehicles, machinery and other equipment required for the undertaking of the works]
<b>Proposed start date and work duration</b>		<b>Proposed work days and hours</b>	[Include proposed working hours. If works outside the standard working hours is proposed a clear justification must be made as to why this is needed. This justification cannot be based purely on time and cost and must take into account impacts such as noise]

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### 3 Existing environment

<b>Nature of existing environment within work area</b>	[Briefly describe the existing land uses and other important environmental features (such as bushland, waterways, heritage items etc). Where applicable, give some indication of the environmental status of any important ecological features (e.g. describe the general health of any waterways or bushland present).]
<b>Nature of existing environment adjacent to the work area</b>	[Briefly describe the existing land uses and other important environmental features (such as bushland, waterways, heritage items etc). Include details, as appropriate, of the proximity of important environmental features to the work areas (e.g. proximity of waterways, residential properties, heritage items, threatened species, important habitat etc).

### 4 EIA pathway analysis and legislative requirements

<b>Land tenure</b>	[Include the land tenure details of all affected property]
<b>Applicable Environmental Planning Instruments (EPis)</b>	<p>[Identify all EPis that apply to the land on which the work areas are located, including Local Environmental Plans, Regional Environmental Plans, and State Environmental Planning Policies]</p> <p>[complete the following paragraph with relevant information]</p> <p>Clause [insert clause and subclause number] of ISEPP enables development for the purpose of [insert development type] to be carried out without consent on [insert land parameters (eg any land in the prescribed circumstances)]. [Insert prescribed zoning and/or prescribed circumstances if relevant]. As the proposal would form part of a [insert development type] and Hunter Water is a public authority, it is considered permissible without consent pursuant to the provisions of ISEPP and can be assessed under Division 5.1 of the EP&amp;A Act. Development consent from council is not required.</p>
<b>Land zoning</b>	[Identify zoning of work site(s) and immediately adjacent areas. Identify the relevant EPI in relation to the zoning information (e.g. the work site is zoned 5(a) General Special Uses Zone under the Newcastle Local Environmental Plan 1994).]
<b>Are the works likely to have a significant impact on the environment?</b>	[State "Yes" or "No". If yes, provide details and seek guidance from an Environmental Planner as to further assessment and approval requirements.]
<b>Are the works likely to have a significant impact on a Matter of National Environmental Significance<sup>1</sup></b>	[State "Yes" or "No". If yes, provide details and seek guidance from an Environmental Planner as to further assessment and approval requirements.]
<b>Do the works involve an action on Commonwealth land that is likely to have a significant impact on the environment</b>	[State "Yes" or "No". If yes, provide details and seek guidance from an Environmental Planner as to further assessment and approval requirements.]

<sup>1</sup> As defined under the Environment Protection and Biodiversity Conservation Act 1999.

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<b>Do the works involve an action outside Commonwealth land that is likely to have a significant impact on the environment on Commonwealth land?</b>	[State "Yes" or "No". If yes, provide details and seek guidance from an Environmental Planner as to further assessment and approval requirements.]
<b>Does any other aspect of the proposal require Development Consent under Part 4 of the EPAA?</b>	[Identify the statutory provisions that preclude the need for development consent.]
<b>Is the project a Scheduled Activity under the Protection of the Environment Operations Act 1997 (PEOA)?</b>	[State "Yes" or "No". If yes, provide details. Note that all sewer construction work is captured under the relevant wastewater treatment EPL and is considered by the EPA as part of the scheduled activity.]
<b>Does the proposal require an approval, permit or licence under any environmental legislation (including EP&amp;A Act)?</b>	[State "Yes" or "No". If yes, provide reasons and details.]
<b>Are there any other requirements for the proposal under environmental legislation</b>	[Insert details of any relevant statutory notification or reporting requirements and/or details of activities that are prohibited by legislation but could potentially occur if the works are not managed properly. Where applicable, identify both the name of the relevant statutes and the relevant statutory provisions. State "Nil" if not applicable.]

## 5 Environmental issues identification checklist

Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
Topography, geology & soils	Are the works within a landslip area?		[If Yes or Uncertain, give details. If No, provide justification as appropriate or state "N/A" if the information provided in the next column provides sufficient justification). Attach any supporting documentation in Appendices D-F as appropriate (e.g. results of tests of significance) and make reference to the relevant Appendix within the appropriate cell of this table.]		
	Are the works located in an area of high erosion risk?				
	Could the works disturb any natural cliffs/ rock shelves/ rock outcrops?				

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
	Do the works require excavation?		[Give details of location and depth of any excavation]		
	Will the works result in permanent changes in surface slope or topography?				
	Are there acid sulfate soils within or immediately adjacent to the boundaries of the work areas <sup>2</sup> ?				
	Could the works result in the disturbance of acid sulfate soils?				
	Are the works within an area affected by salinity <sup>3</sup> ?				
Hydrology & drainage	Are the works located on the bank or bed of a natural water course?				
	Do the works involve a creek crossing?				
	Are the works located within a floodplain?				
	Are the works likely to result in the generation of groundwater discharges (e.g. as a result of boring, drilling or deep excavation)?				
	Does the proposal involve temporary diversion of a creek or watercourse during the construction phase?				
	Will the works result in permanent changes to existing surface drainage patterns?				
Water quality	Could the works impact upon a water catchment area? Do any of the work areas drain directly to areas within the Hunter Water special areas?				
	Are there any natural waterways immediately downslope, or in close proximity downslope, of any of the work areas?				
	Could the works result in a discharge/overflow of sewage?				

<sup>2</sup> As identified on DLWC (now part of the Office of Environment & Heritage (OEH)) Acid Sulfate Soil Risk Maps.

<sup>3</sup> Note that issues associated with saline soils include corrosion of underground structures and saline ground water.

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
	Will pipe flushing activities result in potable water being discharged to a waterway?				
	Will a sewage diversion/bypass be required as part of the work?				
	Could discharges from the work areas impact an oyster lease?				
	Do the works involve the use or storage within the work areas of fuels or other chemicals (other than fuels contained within work vehicles)?				
Flora, fauna & ecosystems	Could the works affect a declared World Heritage property <sup>4</sup> works or impact on a declared Ramsar wetland <sup>5</sup> ?				
	Could the works affect any EPBC Act listed threatened species, ecological communities or migratory species?		[Recommend use of the protected matters search tool on DEH website <a href="http://www.deh.gov.au/erin/ert/epbc/index.html">http://www.deh.gov.au/erin/ert/epbc/index.html</a> ]		
	Could the works affect a National Park or reserve administered by the Office of Environment & Heritage (OEH)?				
	Could the works affect any TSCA listed threatened species, populations, or ecological communities (or critical habitat thereof)?		[Consider if there is a need to carry out tests of significance under section 1.7 EP&A Act.  Consider review of the Comprehensive Koala Plan of Management (CKPoM) if in Port Stephens LGA or SEPP-44 (Koala Habitat Protection) if elsewhere.]		

<sup>4</sup> As defined under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). There is currently one World Heritage property within Hunter Water's area of operation, namely the Barrington Tops National Park.

<sup>5</sup> As defined under the EPBC Act. There is currently one Ramsar Wetland within Hunter Water's area of operation, namely Hunter Estuary Wetlands.

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
	Is there any important vegetation or habitat (e.g. SEPP (Coastal Management) 2018, urban bushland or riparian vegetation) within or immediately adjacent to the work areas?				
	Could the works affect any important vegetation or habitat?				
	Is there any important aquatic flora or habitat (e.g. seagrasses, mangroves, saltmarshes, or wetlands of regional significance) within or immediately adjacent to the work areas?				
	Could the works affect any important aquatic flora or habitat?				
	Will clearing of native vegetation be required?		[If yes, give estimate of area to be cleared]		
	Will the works result in removal of standing dead trees or woody debris from the ground?				
	Will the works require removal of bush rock?				
	Do any noxious or environmental weeds infest the work areas?		[If yes, give details of the main weed types]		
	Will clearing of weeds or other exotic vegetation be required?		[If yes, give details including land area to be cleared and vegetation types]		
Air quality & energy	Are the works located within an area or adjacent to land uses that may be highly sensitive to dust, odours or work machinery emissions?				
	Could the works result in the generation of dust?				
	Could the works result in the generation of odours?				
	Do the works involve the use of fuel-driven machinery or equipment (other than vehicles used to transport work staff to the work site)?				
	Have energy use considerations been included in the project design?				

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
Heritage	Will the activity require ground disturbance?				
	Are there any registered or known Aboriginal heritage items or places within, or in the immediate vicinity of, the work areas?		[Unless a specialist heritage study is included as part of the REF at least checks made against the OEH AHIMS database & answers to questions on p10 of the Due Diligence Code of Practice are required for all proposals. <a href="http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf">http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf</a> Please also check the HWC Aboriginal Heritage Layer on DECKHO		
	Will the works be undertaken in or near sensitive landscape features?				
	Could the works affect any Aboriginal heritage items or places?				
	Are there any items listed on the State Heritage Register within or immediately adjacent to the work areas?		[Checks should be made from the State Heritage Inventory <a href="http://www.heritage.nsw.gov.au/07_subnav_04.cfm">http://www.heritage.nsw.gov.au/07_subnav_04.cfm</a>		
	Could the works affect an item listed on the State Heritage Register?				
	Are there any other heritage items or areas (e.g. listed under a Local or State Environmental Planning Instrument) within or immediately adjacent to the work areas?				
	Could the works affect any of these other heritage items?				
	Visual environment	Are the work areas visible from residential properties or other land uses that may be sensitive to visual impacts?			
	Are the works located within an area of high scenic value?				

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
	Will the works involve night work requiring use of lights?				
	Will the works result in permanent changes to the visual character of the environment (e.g. through installation of above-ground structures or construction of new access roads)?				
Noise & vibration <sup>6</sup>	Are the work areas in close proximity to land uses or areas that are sensitive to noise (such as schools, nursing homes, residential properties or important native fauna populations)?				
	Will the works result in permanent changes to background noise?				
	Will the works generate noise during the work period?				
	Will noise generated by the construction of the proposal affect sensitive receivers for more than a three week period?		[Describe anticipated duration and nature of works. If works to result in noise impacts for longer than three weeks a quantitative noise assessment may be required. Seek advice from a HWC Environmental Planner if required.]		
	Will the works generate noise at night during the work period?				
Traffic & access	Is the work site accessible by vehicles?				
	Are there likely to be any difficulties associated with site access?				
	Are the works located in an area that may be highly sensitive to movement of work vehicles to and from the work sites (e.g. close to a school or within a quiet residential street)?				
	Will the works involve partial or complete road closures?				

<sup>6</sup> The assessment of construction noise impacts must be carried out in accordance with the Interim Construction Noise Guidelines (DECCW, 2009).

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
	Will the works result in a significant increase in the volume of traffic on local roadways during the work period?				
	Will the works require construction of a new permanent vehicle access road that will be used periodically for asset or building maintenance?				
	Are the works located in an area where street parking space is scarce?				
	Will the availability of street parking spaces for residents, businesses, or popular recreation areas be reduced during the work period?				
Land use & services	Will the works require access to or disturbance of private property?				
	Are the works located within an area of high recreational value?				
	Are the works located within a busy commercial area?				
	Will the works result in permanent loss or permanent disruption of an existing land use?				
	Will the works result in temporary loss or temporary disturbance of an existing land use during the work period?				
	Do the works involve the installation of structures or facilities that may be perceived as objectionable or nuisance (e.g. sewer vent shafts)?				
	Will the works require temporary disruption to water or sewerage services?				
	Will the works involve disturbance or removal of asbestos or lead paint?				
	Are any of the work sites located on land that is known to be contaminated or is potentially contaminated?				
	Could the works result in disturbance of contaminated land or contaminated material?				

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Environmental factors	Risk checks	Yes/No/ Uncertain ?	Details	Data sources checked (if applicable)	Date checks completed
Waste generation	Will the waste generated by the works include hazardous substances (such as lead, asbestos or other substance designated as hazardous by the National Occupational Health and Safety Commission) <sup>7</sup> ?				
	Will the works result in the generation of non-hazardous waste requiring disposal at a landfill or waste disposal facility?		[Include estimate of excess spoil to be generated from excavations.]		
	Will the works result in the generation of 'wastewater' that will require removal from site (e.g. process wastewater, hyperchlorinated water, sediment-laden water, drilling fluid, groundwater generated by drilling)?				
	Where substantial quantities of waste or wastewater will be generated, have opportunities for waste reduction or re-use been considered?				
Other	Are there bushfire risks that need to be considered for the activity?		[If yes, include an estimate of the sites bushfire attack level (BAL) and any relevant information relevant to construction material and asset protection.]		
	Will the activity include the handling of hazardous chemicals or dangerous goods? How will it comply with relevant Australian Standards for work health safety and environment protection.		[Include details of any risk assessments undertaken, or any relevant details concerning best practice or standards such as detailed in AS3780-2008, AS4326-2008 etc or any expert advice received on planning and construction of the asset or undertaking the activity]		

<sup>7</sup> See NOHSC Designated Hazardous Substances List (<http://www.nohsc.gov.au/OHSInformation/Databases/HazardousSubstances/>).

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## 6 Stakeholder and community consultation

### 6.1 ISEPP consultation

[Some projects require mandatory consultation with relevant govt agencies or local councils. Refer to Division 1 of the State Environmental Planning Policy (Infrastructure) 2007 for requirements for consultation with councils and other public authorities. Complete the following section and consult a HWC Environmental Planner if assistance is required.

Where is identified that consultation is required a written notice to the relevant authority is to be sent including the relevant ISEPP clause and a description of the proposal. Copies of correspondence are to be appended to the REF. A brief description of required consultation and the dates of the correspondence should be included below. If a response has been received details of comments and how they have been considered should be included.]

Division 1 of the ISEPP prescribes consultation to be undertaken by a public authority prior to the commencement of certain activities. A review of the ISEPP consultation requirements for the proposal is provided in the table below.

Is consultation with Council required under clauses 13-15 of ISEPP?	Yes	No
Are the works likely to have a substantial impact on the stormwater management services which are provided by council?		
Are the works likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area?		
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of any part of the system?		
Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?		
Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?		
Will the works involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?		
Are the works likely to have a more than minor or inconsequential impact on a local heritage item (that is not also a State heritage item) or a heritage conservation area?		
Are the works located on flood liable land? If so, will the works change flood patterns to more than a minor extent?		
Is the proposal within the coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?		
Note: See interactive map here: <a href="https://www.planning.nsw.gov.au/policy-and-legislation/coastal-management">https://www.planning.nsw.gov.au/policy-and-legislation/coastal-management</a> . Note the coastal vulnerability area has not yet been mapped.		

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Note: a certified coastal zone management plan is taken to be a certified coastal management program

Is consultation with a public authority other than Council required under clauses 15 and 16 of ISEPP?	Yes	No
<p>Are the works characterised as stormwater management systems under Division 20 and located on flood liable land? (to any extent)? If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance?</p> <p>Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled Floodplain Development Manual: the management of flood liable land published by the New South Wales Government.</p>	If yes consultation with NSW SES required	
<p>Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act 1974</i>, or on land acquired under that Act?</p>	If yes consultation with Office of Environment and Heritage required	
<p>Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?</p>	If yes consultation with Office of Environment and Heritage required	
<p>Are the works adjacent to an aquatic reserve or a marine park declared under the <i>Marine Estate Management Act 2014</i>?</p>	If yes consultation with Department of Industry required	
<p>Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961</i>?</p>	If yes consultation with the Mine Subsidence Board required	

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## 6.2 Community and stakeholder consultation

Summarise the outcomes of consultation with relevant agencies & other stakeholders as required to fulfil legal or policy obligations. Include reference to any external approvals required. Identify possible cumulative impacts with other activities. Attach copies of correspondence or provide hyperlink to relevant documents in Trim for significant issues.]

<b>Stakeholders/ residents</b>	<b>Requirements</b>	<b>Responsibility</b>
[Identify the relevant local councils that need to be notified of the works]	[Identify the corresponding requirements for notification and method of notification]	[Identify the corresponding person responsible for notification]
[Identify the relevant govt agencies/authorities that need to be notified of the works]	[Identify the corresponding requirements for notification and method of notification]	[Identify the corresponding person responsible for notification]
[Identify any potentially affected residents and/or other stakeholders (such as land owners or users) that need to be given notification of the works.]	[Identify the corresponding requirements for notification or state "N/A" if not applicable. If applicable, attach supporting documentation in Appendix C and make reference to Appendix C within this table.]	[Identify the corresponding person responsible for notification or state "N/A" if not applicable.]

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## 7 Environmental safeguards

The following safeguards must be incorporated as conditions of contract in any contract or work specification for the project. They must also be incorporated into a project-specific Construction Environmental Management Plan (CEMP) which includes a map (sensitive area plan) of the project site showing key environmental features identified in this REF.

[A summary of standard environmental safeguards has been included. Please **remove safeguards not relevant to your project and add additional safeguards as applicable** to the specifics of your project. Please consult the Environmental Planners if assistance is required.]

Safeguards	
	<b>General</b>
	'All contractors and machine operators will be inducted on the environmental sensitivities of the work site(s) and relevant safeguards.
	<b>Topography, geology &amp; soils</b>
	'The Environmental Management Plan (EMP) prepared for the works will include an erosion and sediment control plan.
	'Erosion and sediment control measures will be consistent with those specified in the Blue Book - Managing Urban Stormwater: Soils and Construction (4 <sup>th</sup> ed, Landcom, March 2004).
	'All erosion and sediment control measures will be established before excavation, demolition or vegetation clearance begins and are to remain in place until all surfaces have been fully restored and stabilised.
	'Sediment control devices (eg silt fences, straw bales wrapped in geotextile etc) will be installed parallel with the contours of the site and immediately downslope of any areas where the natural ground surface has been disturbed.
	'Any spoil storage areas or stockpiles will have appropriate erosion control devices installed to control runoff and prevent sedimentation.
	'Sediment and erosion control devices will be inspected regularly, maintained to ensure effectiveness over the entire duration of the project, and cleaned out before 30% capacity is reached.
	'Upslope surface runoff will be redirected around work areas by using diversion drains or other methods.
	'Branches, limbs and trunks of cleared vegetation will be reused wherever possible as sediment and erosion control devices during the works – ie. laid parallel to contours or at right angles to drainage lines.
	[Insert other safeguards as applicable.]
	<b>Water quality / Hydrology - Drainage</b>
	'The storage and handling of fuels and chemicals shall comply with Australian Standard AS1940.
	No chemicals, fuels, and/or waste will be stored or collected for disposal within or adjacent to drainage lines or unsealed surfaces.

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	<b>Safeguards</b>
	A 'spill kit' will be kept on site at all times for potential chemical or fuel spills.
	'Refuelling, fuel decanting and vehicle maintenance work will take place in a designated sealed and bunded area.
	'An Incident Management Plan (IMP) will be prepared as part of the Contractors EMP and will include a contingency plan and emergency procedures for dealing with the potential spillage of fuel or other environmental incidents that may occur on the work site. The IMP should also contain procedures dealing with the unexpected onset of rainfall during the work period.
	Sewage diversion/bypass provisions will only take place if there are guarantees of adequate capacity in the receiving sewer for the flows and sewage surcharges or overflows will not occur.
	'Water from trench de-watering will be pumped and either collected in tanks for appropriate disposal or filtered through geotextile fabric onto grass filter areas.
	'Drilling water and lubricating fluids will be reused wherever possible prior to disposal at a licenced waste management facility.
	Appropriate containment measures will be used to ensure that all drilling fluids from directional drilling or boring activities are captured and contained.
	[Insert other safeguards as applicable.]
	<b>Flora, fauna &amp; ecosystems</b>
	'The full extent of any vegetation clearance will be clearly documented and mapped in site EMP(s).
	'Materials/equipment lay-down areas will be shown in the EMP(s) and located in cleared or degraded areas to prevent any damage to the surrounding plants or habitat.
	'Materials, plant and equipment will not be stored within the drip-lines of any trees at the site(s) or near the site(s).
	'To prevent damage to vegetation outside the boundaries of access tracks/roads, vehicles and machinery will be restricted to designated access roads and tracks.
	'Where access tracks/roads run alongside areas of natural bushland, protective fencing or paraweb fencing is to be installed along the boundaries of the track/road to prevent vehicles from inadvertently entering/damaging bushland.
	'Degradation or disturbance to areas of water-side (riparian) vegetation or banks of watercourses will be avoided to the greatest possible extent. Any such areas will be clearly identified in the Environmental Management Plan.
	'The removal of large isolated canopy trees will be avoided - particularly those with tree-hollows.
	'Weed removal will be undertaken in accordance with contemporary bush regeneration principles and practices.
	'All weeds removed from a site(s) will be transported in a sealed container or bag and disposed at a licenced waste disposal facility.
	'Where works are being undertaken in a weed-infested area(s), all construction vehicles will be cleaned before they leave the site to prevent the spread of weed species.
	[Insert other safeguards as applicable.]
	<b>Restoration Activities</b>
	'Disturbed areas will be stabilised as soon as possible and in a progressive manner as works are completed.

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<b>Safeguards</b>	
	'Mulched/shredded vegetation removed from the site may be used to assist in stabilisation of batters or disturbed surfaces (provided it does not contain weeds).
	'Where excavated soil is to be used in site restoration, it will be excavated and stockpiled in sequential layers corresponding to the existing soil profile. Topsoil and leaf litter is to be removed first and windrowed in separate stockpiles of less than 1m in height on the upslope side of excavations. Soil layers will be replaced sequentially so that the soil profile is restored as closely as possible to its pre-work status.
	'The natural landform of the site(s) will be restored as closely as possible to the pre-works condition.
	'All temporary erosion and sediment control devices such as silt-stop fencing will be removed from the site at the completion of the works or when the site(s) are fully revegetated/stabilised.
	'Rehabilitation of native vegetation areas will use brush matting or mulching or planting of appropriate local native tubestock.
	[Insert other safeguards as applicable.]
<b>Air quality &amp; energy</b>	
	'Machinery and vehicles will not be left running or idling when not in use.
	'Odour or air pollutant emission complaints will be dealt with promptly and the source will be eliminated wherever practicable.
	'All loads of excavated material, soil, fill and other erodible matter that are transported to or from the work site will be kept covered at all times during transportation and will remain covered until they are unloaded either for use at the work site, reuse or disposal at a licensed waste disposal facility
	'All work sites, general work areas and stockpiles will be closely monitored for dust generation and watered down (with clean water) or covered (via seeding or tarpaulins) in the event of dry and/or windy conditions.
	[Insert other safeguards as applicable.]
<b>Heritage</b>	
	'If Aboriginal objects are discovered during operations, all work will cease in the area and the Contractor will inform the Hunter Water Contracts Manager as soon as possible. HWC will determine the preferred management approach and contact OEH and relevant local Aboriginal stakeholders if required.
	'If Non-Aboriginal heritage items are discovered during the course of the project, all work will cease in the area and the Contractor will inform the Hunter Water Contracts Manager as soon as possible. HWC will determine the preferred management approach and the local council and/or NSW Heritage Office will be notified via the HWC Contracts Manager if required.
	'All due care will be taken to ensure that heritage items listed in this report are not adversely affected by any works.
	'Hand digging or small machinery will be used in the close proximity of any heritage items to minimise impacts and preserve heritage values.
	'Protective barriers will be installed to prevent damage to heritage items either located within the site or adjacent to it.
	[Insert other safeguards as applicable.]

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	<b>Safeguards</b>
	<b>Visual environment</b>
	'The site(s) will be maintained in an orderly manner.
	'On completion of the works, all vehicles, construction equipment, materials, and refuse relating to the works will be removed from the work site(s) and any adjacent affected areas
	'Work sites will be restored as close to their original condition as possible following the completion of the proposed works.
	[Insert other safeguards as applicable.]
	<b>Noise &amp; vibration</b>
	Work and deliveries will only occur during the following times: Monday to Friday 7am to 6pm, Saturday 7am to 1pm (if inaudible at residential premises) or 8am to 1pm (if audible at residential premises). No construction work or deliveries will occur on Sundays or public holidays
	Approval from the HWC Contracts Manager and HWC Environmental Planner will be sought for any changes to the approved works hours.
	All sensitive receivers will be notified of the works prior to commencement including anticipated duration and nature of works.
	All vehicles and plant will be turned off when not in use.
	'The operation of noisy plant/equipment will be avoided during early morning and preferably only occur between 9.00 am and 4.00 pm.
	'All stationary and mobile equipment will be fitted mufflers and in serviceable condition. Evidence of log book services are to be provided. Generators, if used are to have sound proof enclosures.
	[Insert other safeguards as applicable.]
	<b>Traffic &amp; access</b>
	The Contractor will prepare a Traffic Management Plan in consultation with the relevant traffic authority(s).
	'Appropriate exclusion barriers, signage and site supervision will be employed at all times to ensure that the work site is controlled and that unauthorised vehicles and pedestrians are excluded from the works area.
	'All traffic control devices will be in accordance with AS 1742.3-1996 "Traffic control devices for works on roads".
	'Pedestrian and vehicle access will be maintained to buildings by alternate means, such as ramps, if the proposed works obstruct access to the buildings for an extended period of time. Residents/ occupiers to be notified in advance if obstruction to access is likely to occur.
	'Vehicle access routes to and within the site(s) are to be defined via 'paraweb' or other clearly visible and robust fencing.
	[Insert other safeguards as applicable.]
	<b>Land use, services &amp; public amenity</b>

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<b>Safeguards</b>	
	'Surrounding residences directly affected by the works will be notified at least 14 days in advance of the proposed commencement of works, work methods and the duration of the construction period.
	Where entry to private properties is required, a notice of entry letter will be provided at least 24 hours in advance.
	The contractor will personally contact the occupant when they enter a private property to notify of their presence and what works are intended.
	'Any accidental damage to property occurred by the works must be repaired in consultation with the owner.
	'The Contractor will maintain a complaints register. Any complaints received will be responded to as soon as possible.
	'All services in the vicinity of the works will be located in the field and 'pegged-out' and noted in the Environmental Management Plan and/or work plans prior to excavation works - "dial 1100 before you dig".
	'Work sites will be restored as close to their original condition as possible following the completion of the proposed works.
	'Accurate public information signs will be displayed while work is in progress and maintained in presentable manner.
	'If tree removal has been approved in a residential area, all local residents in the immediate vicinity of the tree(s) will be notified via letter/notice
	[Insert other safeguards as applicable.]
<b>Waste generation</b>	
	'All waste generated during the course of the works will be reused or removed from the work areas as soon as practicable and disposed of in accordance with wasteregulations.
	Evidence of the lawful disposal or reuse of waste will be retained and provided to the HWC Contracts Manager on request.
	'All vessels used for contaminated or hazardous waste should be sealed, labelled according to their contents, and stored within bunded areas until their removal from the work site.
	'Any fuel, lubricant or hydraulic fluid spillages will be collected using absorbent material and the contaminated material disposed of at a licensed waste facility.
	'The work site(s) will be left clean and free of weeds, debris and other rubbish at the end of works.
	'All hazardous wastes on site will be removed and disposed in accordance with the state and national regulations and guidelines and best practice for the removal of these materials.
	'The Contractor's recycling and reuse proposal will be detailed in the EMP.
	Excess spoil material that cannot be reused or recycled will be removed from the site and disposed of at a licensed facility.
	[Insert other safeguards as applicable.]

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## **Appendix A: Project location maps, site plans and photos**

[Insert map(s) or figures(s) of work site location(s) after this page. A map of the proposed works should be included in the REF – preferably an air photo of the project area with the proposed works clearly identified.]

## Appendix B: Clause 228 Factors

[Clause 228 of the EP&A Regulation specifies the factors to be taken into account when environmental assessment is required under Part 5 of the EP&A Act. The factors are itemised in the table below. Briefly address each factor in the table to demonstrate compliance with the regulation.]

How has the REF considered the following factors?	+ve / -ve	Section
Any environmental impact on a community.		
Any transformation of a locality.		
Any environmental impact on the ecosystems of the locality.		
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.		
Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations.		
Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act. 1974</i> )		
Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air.		
Any long-term effects on the environment.		
Any degradation of the quality of the environment.		
Any risk to the safety of the environment.		
Any reduction in the range of beneficial uses of the environment.		
Any pollution of the environment.		
Any environmental problems associated with the disposal of waste.		
Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.		
Any cumulative environmental effect with other existing or likely future activities.		

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## **Appendix C: Supporting documentation – stakeholder and community consultation**

[Where applicable, insert any supporting documentation relating to stakeholder and community consultation, including copies of any relevant correspondence. (Note obligations for mandatory consultation with relevant authorities in ISEPP).]

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## Appendix D: Additional details on the scope of works

[If considered necessary, insert additional details on the scope of works after this page.]

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# Appendix E

## Supporting documentation – Ecology, including Seven Part Tests

[Where required insert documentation relating to ecological assessment after this page (e.g. flora and fauna assessment and any assessment of provisions under s5A of the EPA Act).]

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## Appendix F: Supporting documentation - Heritage

[Where required insert the results of any archaeological studies, surveys or other heritage-related assessment or correspondence after this page. Note obligations under the NP&W Act in Oct 2010 to address the Due Diligence Code of Practice For Protection of Aboriginal Objects – see key questions in flowchart on p10 at <http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf>.]

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## **Appendix G: Additional supporting documentation**

[Where required insert any additional relevant documentation after this page (e.g. results of specialist studies or detailed descriptions of aspects of the work or potentially impacted environments, such as assessments related to acid sulphate soils, noise or visual amenity).]

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