project title

month year

Review of Environmental Factors

**ET0137 – Review of Environmental Factors (Developer Works Template) – Version 1**

**Instructions for use (delete this box from document prior to submitting)**

The purpose of this template is to provide a structure for the environmental assessment of developer works for which Hunter Water is the determining authority. The information provided in the document must be of a quality that meets Hunter Water’s duty to assess potential environmental impacts under Section 5.5 of the *Environmental Planning and Assessment Act 1979*. If the information is not deemed adequate, Hunter Water reserves the right to refuse to approve a REF.

Hunter Water will not commence review of a REF until the following is confirmed:

* All instruction/guidance text is deleted and required information prompts are filled in
* A figure showing the location of the works is included
* A design showing the proposed works is included
* Copies of any consultation are attached
* All supporting information must apply to the proposal area

The template includes a number of text guides for completing:

* Red text is provided as content guidance and is to be deleted from the draft.
* Grey shaded text provides prompts for required information and must be filled in.
* Text that is not shaded is to remain unedited unless agreed to by a Hunter Water environmental planner.

It is the responsibility of the consultant preparing the report to provide the necessary level of information for Hunter Water to determine if the assessment adequately considers all environmental factors of the proposal. It is also the responsibility of the consultant to ensure legislative requirements are updated as necessary in the document.

**Document control**

REF prepared by: [insert REF consultant, contact name and email address].

Accredited design consultant: [insert design consultant, contact name and email address].

Developer: [insert developer name, contact name and email address].

The below document status table must be completed for tracking purposes. The table may be modified according to the consultant’s document control processes.

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**Disclaimers**

Include disclaimers here if required.

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# Introduction

The potential environmental impacts of the proposal to [insert name of proposal] have been assessed in accordance with the environmental impact assessment requirements of the *Environmental Planning and Assessment Act 1979* (EP&A Act). Hunter Water Corporation (Hunter Water) is the determining authority for the proposal in accordance with Division 5.1 of the (EP&A Act). The proponent, on behalf of Hunter Water, for the proposal is [insert proponent’s name].

The purpose of this developer works REF is to describe the proposed works and assess the potential construction and operation environmental impacts with consideration of the factors listed in clause 228 of the *Environmental Planning and Assessment Regulation 2000*. The REF identifies safeguards to mitigate identified impacts.

# Proposal details

## Proposal identification

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Proposal name |  |
| Reference number | Developer works deed number |
| Proposal location | Include lot and DP if relevant and a figure showing the location |
| Related development |  |
| Local Government Area |  |
| Land zoning |  |

## Existing environment

Detail the characteristics of the existing environment, adjacent areas and any notable or sensitive areas in the vicinity of the proposal. Examples include vegetation, waterways, National Parks, mine subsidence areas, acid sulphate soils, contamination, heritage items, topography, landuse (including distance to any schools, childcare centres or other sensitive businesses or residents) and existing infrastructure. This section should provide information of adequate detail so the reviewer is not required to do extensive desktop review of the site and surrounds.

*Figure 2-1 to 2-X: Provide a figure (or multiple if required) showing the location and key features of the proposal as well as the construction footprint (disturbance area) access and any ancillary facilities. Relevant features or constraints should be indicated. The figure should be overlaid on an aerial image.*

## Proposal description

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Description of works | Detail the proposal in plain English. Include type and approximate dimensions of infrastructure being installed, details of relevant existing infrastructure and details of any infrastructure that is to be replaced or made redundant by the proposal. Note: reference to design drawings only, without a summary of the proposal, will not be considered adequate.This description will define the activity when approved. Any activities not included will require additional assessment. |
| Construction methodology | Describe how the construction would be undertaken including but not limited to site establishment activities, the construction footprint required, access arrangements, vegetation clearing/trimming and extent if required, excavation techniques (trenching, underboring etc.), demolition. The description should provide the appropriate level of detail for the reviewer to determine if the level of assessment is adequate. |
| Ancillary facilities | Detail all ancillary facilities required including:* Compound locations and facilities required
* Stockpile locations
* Plant and material laydown areas.
 |
| Operational requirements | Include details of the operation of the proposal if relevant, e.g. ongoing maintenance, chemical dosing, odour management, connection to existing system etc. |
| Equipment and plant | Include a list of plant and equipment required for construction and operation. |
| Land tenure | Would acquisition or establishment of an easement or approval of a landholder be required? |
| Commencement and expected duration of construction work |  |
| Hours of construction work  | Include any possible out of hours work. |
| Proposal objectives | List the objectives and describe the overall strategic need for the proposal. For example describe the development for which the proposal is required and the applicable servicing strategy.  |
| Options considered and justification | Include what options were considered with a brief discussion on benefits and disadvantages. At a minimum describe the ‘do nothing’ option versus the ‘proposal’. Describe the preferred option and include a statement justifying the selection of this option considering how it would meet the stated need and objectives. |

# Statutory context

## Environmental planning instruments

### [Insert name of relevant local environmental plan]

Include information regarding relevant local environmental plan and zoning for proposal site.

### State Environmental Planning Policy (Infrastructure) 2007

The State Environmental Planning Policy (Infrastructure) 2007 (ISEPP) describes certain developments that may be carried out without consent in order to facilitate the delivery of infrastructure in NSW.

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&A Act. Development consent from council is not required.

### Other EPIs

Consideration of State environmental policies such as (but not limited to) State Environmental Planning Policy (Coastal Management) 2018, State Environmental Planning Policy (State Significant Precincts) 2005 and a brief description of requirements and applicability to the proposal. Note, if the proposal is subject to one or more of these SEPPs development consent or approval may be required and advice from the Hunter Water Environmental Planner should be sought prior to finalisation of the REF.

## Relevant legislation

Discuss any **relevant** state or commonwealth legislation which could include:

* *Environmental Planning & Assessment Act 1979* (NSW)
* *Protection of the Environment Operations Act 1997* (NSW)
* *Contaminated Lands Management Act 1997* (NSW)
* *Biodiversity Conservation Act 2016* (NSW)
* *Biosecurity Act 2015* (NSW)
* *National Parks & Wildlife Act 1974* (NSW)
* *Fisheries Management Act 1994* (NSW)
* *Heritage Act 1977* (NSW)
* *Environment Protection & Biodiversity Conservation Act* 1999 (Cth)

# Consultation

## ISEPP consultation

Part 2 General, 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 Table 4-1.

Where it is identified that consultation is required a written notice to the relevant authority is to be sent including reference to 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 must be included. If a response has been received details of comments and how they have been considered must be included.

Table 4-1 Infrastructure SEPP consultation requirements

|  |  |
| --- | --- |
| Is consultation with Council required under clauses 13-15 of ISEPP? | Yes/No |
| Is the proposal likely to have a substantial impact on stormwater management services which are provided by council?  |  |
| Is the proposal likely to generate traffic to an extent that will strain the capacity of the existing road system in a local government area? |  |
| Will the proposal 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 proposal involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water? |  |
| Will the proposal 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 proposal involve more than minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance? |  |
| Is the proposal 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?(Note: *local heritage item means —**(a)  a place, building, work, relic, tree, archaeological site or Aboriginal object that is identified as a heritage item (or by a similar description) in a local or regional environmental plan, or**(b) an item of local heritage significance, as defined by the* [*Heritage Act 1977*](https://www.legislation.nsw.gov.au/#/view/act/1977/136)*, that is the subject of an interim heritage order in force under that Act or is listed as an item of local heritage significance on the State Heritage Inventory under* that Act.) |  |
| Is the proposal 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: https://www.planning.nsw.gov.au/policy-and-legislation/coastal-management. Note the coastal vulnerability area has not yet been mapped. 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** |
| Is the proposal characterised as stormwater management systems under Division 20 and located on flood liable land? If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance?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. | If yes consultation with NSW SES required |
| Is the proposal adjacent to a national park or nature reserve, or other area reserved under the *National Parks and Wildlife Act 1974*, or on land acquired under that Act? | If yes consultation with DPIE required |
| Is the proposal on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone? | If yes consultation with DPIE required |
| Is the proposal adjacent to an aquatic reserve or a marine park declared under the *Marine Estate Management Act 2014*?  | If yes consultation with Department of Primary Industries required |
| Does the proposal consist of a fixed or floating structure in or over navigable waters? | If yes consultation with Roads and Maritime Services required |
| Is the proposal on land in a mine subsidence district within the meaning of the *Coal* *Mine Subsidence Compensation Act 2017*? | If yes consultation with the Subsidence Advisory NSW required |

## Community consultation

Include details of any other consultation undertaken or planned. This may include consultation with other agencies, interested stakeholders, Council or community members. Append records of correspondence and include a summary of any responses and how these have been addressed by the proposal.

If no other consultation is deemed necessary include a brief statement and justification for why this was appropriate.

## Department of Primary Industries

|  |  |
| --- | --- |
| Will the proposal involve dredging or reclamation works in a waterway?  | **Yes/No** |
| This includes any excavation within, or filling or draining of, water land or the removal of woody debris, snags, rocks or freshwater native aquatic vegetation or the removal of any other material from water land. | If yes, written notification with Department of Primary Industries is required **under Section 199 of the *Fisheries Management Act* 1994** |

# Environmental issues identification

This section provides a description of potential impacts associated with the proposal and specifies measures to mitigate identified impacts. All aspects of the environment potentially impacted by the proposal are considered. A summary of the consideration of factors specified in clause 228(2) of the *Environmental Planning and Assessment Regulation 2000* is provided in Appendix B. A summary of the matters of national environmental significance under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* is provided in Appendix B.

The following sections should provide enough information to allow adequate consideration of the assessment of impacts. Where relevant, database searches or data sources should be referenced and dated. The information provided should be comprehensive enough to avoid the need for the reviewer to verify or source information from other sources.

Note: supporting documentation must relate directly to the study area for the proposal. Assessments of adjoining land will not be accepted as adequate unless the study area includes the entire proposal and this is clearly shown.

## Topography, soils and geology

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Would the work require excavations or other ground disturbing activities? |  | Include description of excavation work including extent of disturbance corridor/area. If more than 250m2 will be disturbed at any one time an Erosion and Sediment Control Plan will be required. |  |
| Would the work require plant/vehicular movements on unsealed areas? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the work occur in an area of high erosion risk (eg, due to nature of soils, topography)? |  | Describe and provide details of potential impacts including activities with potential to cause erosion and description of earthworks and justification for why it is acceptable. | Sources include eSPADE |
| Could the work impact on or have the potential to impact on Acid Sulphate Soils (ASS)? |  | If yes provide details of the class of ASS impact and justification for why it is acceptable. If no provide reasoning. | Sources includes LEP mapping and NSW ASS risk mapping |
| Could the work impact on areas of known salinity risk? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. | Sources include eSPADE |
| Could the work result in disturbance of contaminated land? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. | Search NSW EPA contaminated land record of notices and list of notified NSW contaminated sites at a minimum |

## Hydrology and water quality

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Could the work impact a water catchment area? Do any of the work areas drain directly to Hunter Water special areas? |  | If yes describe the activities that may have an impact and include the distance to the special areas and justification for why it is acceptable. | Sources include [Hunter Water Protecting our Drinking Water Guideline](https://www.hunterwater.com.au/Resources/Documents/Guidelines--Manuals/Guideline---Guideline-For-Development-In-Drinking-Water-Catchments_Mar2017.PDF) and the [*Hunter Water Regulation 2015*](https://www.legislation.nsw.gov.au/#/view/regulation/2015/499/maps) |
| Could the work impact directly or indirectly on a waterway? (including creek crossings and underboring a waterway) |  | If yes describe and provide details of the activities that would have a potential impact and justification for why it is acceptable. If waterways are nearby but the response is no, include reasons why no impact would occur.Is a controlled activity approval required?  |  |
| Is the work located on flood prone land? Could the work result in impacts to flooding regimes and flows? Could the work be impacted by flooding? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. | Sources include the [ePlanning spatial viewer](https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address) and local Council mapping programs |
| Would the work be likely to encounter groundwater or require discharge of accumulated water? |  | If yes describe and provide details of impact including dewatering requirements. Include assessment of whether a dewatering licence is required. Include in the project proposal description in Section 2.2 how groundwater would be managed during construction. |  |
| Would the works result in permanent changes to existing surface drainage patterns?  |  |  |  |

## Biodiversity

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Would the work require vegetation removal?  |  | If yes describe and quantify the area of native vegetation removal and identify species to be removed. Provide justification for why removal cannot be avoided. |  |
| Would the work occur within the Tree Protection Zone of any trees? (Defined as: 12 x diameter of the trunk at 1.4m high) |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the work impact directly or indirectly on *Biodiversity Conservation Act 2016 or Fisheries Management Act 1994* listed species or threatened ecological community or areas of outstanding biodiversity value under the BC Act or critical habitat under the FM Act? |  | Based on the outcomes of the Bionet database search and any additional biodiversity assessments (if relevant) provide details of any potential impacts on listed species or TECs. Consider potential impacts to bush rock, tree hollows, and nests, indirect impacts to wetlands or aquatic environments. If required a test of significance is to be undertaken and included as an appendix. A conclusion as to significance of impact is to be included here. | NSW Bionet |
| Could the work impact directly or indirectly on an *Environment Protection and Biodiversity Conservation Act 1999* listed species, ecological community or migratory species? |  | Based on the outcomes of the Protected matters search and any additional biodiversity assessments (if relevant) provide details of any potential impacts on listed species or communities. If required a test of significance should be undertaken and included as an appendix. A conclusion as to significance of impact should be included here. | Protected Matters database |
| Could the work impact (directly or indirectly) on areas mapped in the Coastal Management SEPP, littoral rainforests, marine parks, national parks estate, biodiversity stewardship sites or wilderness areas? |  | If yes describe and provide details of potential impact and approval requirements. | Sources include SEPP Coastal Management 2018[ePlanning spatial viewer](https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address) |
| Could the work impact (directly or indirectly) on aquatic or riparian vegetation including seagrasses, mangroves or saltmarshes? |  | If yes describe and provide details of potential impact and justification for why it is acceptable as well as permit requirements. |  |
| Would the work require the disturbance or removal of any priority or environmental weeds listed in the *Hunter Regional Strategic Weed Management Plan 2017-2022*? |  | If yes describe and provide details and control requirements. |  |
| Would the work impact on fish passage? |  | If yes describe and provide justification for why alternative routes were not chosen and details of permit requirements. |  |
| Would the work have potential to displace fauna or create a barrier to fauna movements? |  | If yes describe and provide details of potential impact (examples include fencing restricting fauna movement) |  |

## Noise and vibration

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Are there any sensitive receivers in the vicinity of the proposal? (e.g. residential, schools, church, important native fauna populations) |  | Include description of receivers and distances to the proposal. |  |
| Could the proposal result in construction noise impacts for longer than three weeks, or outside of standard working hours? Was a quantitative noise assessment undertaken? |  | If the proposal duration would be longer than three weeks a quantitative noise assessment is required to predict noise levels of the work and identify mitigation. |  |
| Could the proposal result in noise impacts on receivers during construction? |  | Include detail in this section of any relevant findings of a quantitative noise assessment or a qualitative review of potential noise impacts. Could the works include saw cutting, vibratory rolling, grinding, rock breaking, jack hammers, bitumen milling or profiling, underboring/ directional drilling, impact piling or other high impact activities? |  |
| Could the proposal result in noise impacts on receivers during operation? |  | Include description of any noise generating aspects of operation of proposal. Was an operational noise assessment carried out to quantify impacts?If uncertain if an assessment is required consult with Hunter Water environmental planner. |  |
| Could the proposal result in vibration impacts on nearby properties or infrastructure? |  | Include description of any vibration generating activities and a review of potential damage to structures of relevant. |  |

## Non-Aboriginal heritage

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Were all relevant heritage database searches carried out? |  | Provide details of findings of database searches. | NSW Heritage database (inventory)Commonwealth EPBC heritage listHunter Water’s s.170 registerRelevant LEP |
| Could the works impact on an item of heritage significance or a heritage conservation area? |  | If yes describe and provide details of potential impact and approval requirements. |  |
| Could the works impact on areas of archaeological potential? |  | If yes describe and provide details of potential impact and approval requirements. |  |

## Aboriginal heritage

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Would the work require ground disturbance? |  | If yes describe and provide details. |  |
| Has an Aboriginal Heritage Information Management System (AHIMS) search been completed and were any known Aboriginal items or places identified within or in the vicinity of the proposal site? |  | Provide details of findings of database searches. | AHIMS (note a 12 month currency on search required) |
| Would the work occur in or near sensitive landscape features as defined in the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (2010)? |  | If yes describe and provide details. |  |
| Could harm to AHIMS listed sites or places or landscape features be avoided?  |  | If no include details of potential impacts and permit requirements and append relevant assessment report.If yes include reasons for how this conclusion was made including reference to any specialist reports if relevant. This reasoning should be made with consideration to requirements of the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (2010). |  |

## Traffic and access

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Would the works occur on a public road and could the proposal disrupt traffic flow or access during construction? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the proposal disrupt pedestrian or cycle access during construction? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the proposal result in permanent changes to traffic flow or access during operation? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the proposal result in impacts on available parking during construction or operation? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |

## Visual environment

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Could the proposal be visible by residential or other sensitive receivers? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the proposal result in permanent changes to the visual environment through installation of any above ground infrastructure or removal of vegetation? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the work be located in an area of high scenic value? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the work require additional lighting during construction or operation? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |

## Socioeconomic, landuse and services

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Could the work impact private property including access? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the work impact busy commercial areas or local businesses? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Could the work result in a loss of an existing landuse either during construction or operation? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the proposal result in the installation of a structure or facility that could be considered objectionable or a nuisance? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the work require disruption to water or sewerage services? |  | If yes describe and provide details of who would be impacted and bypass or consultation requirements. |  |

## Energy and air quality

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Could the work result in air quality impacts on sensitive receivers during construction or operation? (e.g. dust, odours) |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the work involve the use of fuel-driven machinery or equipment (other than from vehicles transporting personnel to site)? |  | If yes describe and provide details of potential impact and justification for why it is acceptable. |  |
| Would the operation of the proposal result in high energy use and was energy use considered in the design development? |  | If yes provide details. |  |

## Waste and resource use

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Would the work result in generation of ‘non-hazardous’ waste? If so, how would this be managed? |  | If yes provide details of types and quantities. |  |
| Would the work result in the generation of ‘wastewater’ (e.g. process wastewater, chlorinated water, sediment-laden water, drilling fluid, groundwater generated by drilling)?  |  | If yes describe and provide details of potential impact and how this would be managed. |  |
| Would the work result in asbestos, contaminated soils or other hazardous waste?  |  | If yes describe and provide details of potential impact and how this would be managed. |  |
| Have opportunities for waste reduction and/or reuse been considered? |  | If yes provide details. |  |

## Hazards and risks

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification  | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Would the proposal be located in a bushfire risk area or have potential to result in a bushfire risk? |  | If yes describe and provide details and how this risk would be managed (such as material selection, asset protection, timing of works etc). | Sources include the [ePlanning spatial viewer](https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address) and local Council mapping programs |
| Would the work include handling hazardous chemicals or dangerous goods?  |  | If yes describe and provide details and how this risk would be managed and how would it comply with relevant Australian Standards for work health and safety? |  |
| Would the proposal be located in a coastal area that could be subject to coastal hazards? |  | If yes describe and provide details and how this risk would be managed (such as material selection, asset protection etc). |  |
| Would the work result in any other hazards or risks to the environment? |  | If yes describe and provide details and how this risk would be managed. |  |

## Cumulative impacts

|  |  |  |  |
| --- | --- | --- | --- |
| Risk identification  | Yes/No | Description of potential impact | Source and date (if relevant)Reference source of data if applicable and include the date it was checked |
| Could impacts from other projects interact with the proposal?  |  | If yes describe and provide details and how this risk would be managed. | Sources include local Council DA trackers |

# Environmental safeguards and other requirements

## Mitigation measures

This section provides a list of environmental mitigation measures to be implemented to reduce the potential for environmental impacts during the construction and operation of the proposal. The measures must be incorporated as conditions of contract in any contract or work specification for the proposal and a Construction Environmental Management Plan (CEMP) for the works.

In table below list all mitigation measures identified for the proposal. The mitigation measures should be targeted to mitigate impacts identified in this assessment and provide an adequate level of detail to allow implementation.

|  |  |  |
| --- | --- | --- |
| Aspect | Ref no. | Mitigation measure |
| General | G1 | A construction environmental management plan will be prepared prior to commencement of work. |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

## Licensing and other requirements

Provide a list of all relevant licences, notifications and approvals required for the proposal and include the required timing (eg prior to site establishment, prior to commencement of the proposal). Refer to Section 3.0 for relevant legislation. Examples include (note this is not an exhaustive list and is for guidance only):

* Approval for disturbing, removing vegetation and placing infrastructure in a road/footpath or a Road Opening Licence to impact traffic under the *Roads Act 1993* (s138)
* Environment protection licence (EPL) for scheduled activities, compliance with existing conditions of an EPL or variation of an EPL under the *Protection of the Environment Operations Act 1997* (s43)
* Notification to the Minister for Primary Industries prior to any dredging or reclamation works in water land under the *Fisheries Management Act 1994* (s199)
* Permit to harm mangroves, seagrasses and other marine vegetation from the Minister for Primary Industries under the *Fisheries Management Act 1994* (s205).
* Permit to obstruct the free passage of fish (temporary or permanent) from the Minister for Primary Industries under the *Fisheries Management Act 1994* (s219).
* Excavation permit from the Heritage Council of NSW / the Minister under the *Heritage Act 1977* (s139)
* Aboriginal heritage impact permit from the Chief Executive of DPIE under the *National Parks and Wildlife Act 1974* (s90)
* Approval for construction of infrastructure in a mine subsidence area under the *Coal Mine Subsidence Compensation Act 2017*
* Groundwater extraction under the *Water Management Act 2000* (s61) or *Water Act 1912* (Part 5)
* Controlled activity approval for proposed developer activities on waterfront land under the *Water Management Act 2000*

|  |  |  |  |
| --- | --- | --- | --- |
| Approval Requirement | Timing | Attached | Responsible for obtaining |
|  |  | Y/N | Hunter Water/Contractor |
|  |  |  |  |

# Certification

This REF provides a true and fair review of the proposal and its potential impacts on the environment in accordance with the environmental impact assessment requirements of the
EP&A Act.

This page must be signed and dated by the primary author of the REF. It must also be reviewed prior to submission to Hunter Water and signed by the reviewer of the document.

|  |  |
| --- | --- |
| Prepared by: | Reviewed by: |
| [insert signature] | [insert signature] |
| [Insert name] | [Insert name] |
| [Insert role] | [Insert role] |
| Date: | Date: |

Appendix A

### Design drawings (delete if not relevant)

Appendix B

### Clause 228(2) factors and matters of national environmental significance

**Clause 228(2) checklist**

The following factors listed in clause 228(2) of the *Environmental Planning and Assessment Regulation 2000* have been considered to assess the likely impacts of the proposal on the environment.

|  |  |
| --- | --- |
| FactorInclude brief reasoning for conclusion to each factor | Impact State whether impact negative or positive, minor, short-term or long-term |
| (a) Any environmental impact on a community? |  |
| (b) Any transformation of a locality? |  |
| (c) Any environmental impact on the ecosystems of a locality? |  |
| (d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality? |  |
| (e) 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? |  |
| (f) Any impact on habitat of any protected animals (within the meaning of the *Biodiversity Conservation Act 2016*)? |  |
| (g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air? |  |
| (h) Any long-term effects on the environment? |  |
| (i) Any degradation of the quality of the environment? |  |
| (j) Any risk to the safety of the environment? |  |
| (k) Any reduction in the range of beneficial uses of the environment? |  |
| (l) Any pollution of the environment? |  |
| (m) Any environmental problems associated with the disposal of waste? |  |
| (n) Any increased demands on resources, natural or otherwise which are, or are likely to become, in short supply? |  |
| (o) Any cumulative environmental effect with other existing or likely future activities? |  |
| (p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions? |  |

**Matters of National Environmental Significance**

The following matters of national environmental significance have been considered as required by the environmental assessment provisions of the EPBC Act. This review assists in determining whether the proposal should be referred to the Australian Government Department of the Environment and Energy.

|  |  |
| --- | --- |
| Environmental factorInclude brief reasoning for conclusion to each factor | ImpactState whether impact negative or positive, minor, short-term or long-term |
| Any impact on a World Heritage property? |  |
| Any impact on a National Heritage place? |  |
| Any impact on a wetland of international importance (often called ‘Ramsar’ wetlands)? |  |
| Any impact on nationally threatened species, ecological communities or migratory species? |  |
| Any impact on a Commonwealth marine area? |  |
| Does the proposal involve a nuclear action (including uranium mining)? |  |
| Any impact on a water resource, in relation to coal seam gas development and large coal mining development? |  |
| Additionally, any impact (direct or indirect) on the environment of Commonwealth land? |  |

Appendix C

### Database search results