STATE PLANNING COMMISSION

Agenda Report for Decision

Meeting Date: 5 September 2024

Item Name	Assessment Requirements – Environmental Impact Statement – Northern Water Project	
Presenters	Robert Kleeman, Simon Neldner and Laura Kerber	
Purpose of Report	Decision	
Item Number	5.4	
Strategic Plan Reference	N/A	
Work Plan Reference	N/A	
Confidentiality	Not Confidential (Release Delayed) – to be released together with the attachments, excluding the details of the development application (Appendix B), which are classified as Confidential (Draft Advice or Documents), following the release of the Assessment Requirements. Anticipated mid-September 2024.	
Related Decisions	N/A	
Conflicts Declared	Nil	
Is the report author aware of any potential undeclared conflict?		NO

Recommendation

It is recommended that the State Planning Commission (the Commission) resolves to:

1. Approve the designation of this item as Not Confidential (Release Delayed) – to be released together with the attachments, excluding the details of the development application (**Appendix B**), which are classified as Confidential (Draft Advice or Documents), following the release of the Assessment Requirements. Anticipated mid-September 2024.
2. Note the project accreditation process with the Commonwealth Department of Climate Change, Energy, the Environment and Water that has been adopted for the joint assessment of the Northern Water Project (**Appendix C**).
3. Confirm that no public exhibition of the Assessment Requirements is required.
4. Approve the Assessment Requirements for the Northern Water Project (**Attachment 1**).
5. Approve and authorise the Chair of the Commission to sign the letter of advice to the Minister (**Attachment 2**).
6. Authorise the Chair to make any minor amendments to the attachments as required.

Background

On 7 December 2023 Infrastructure SA, as an agency of the Crown, lodged a development application under Section 131 of the *Planning, Development and Infrastructure Act 2016* (the PDI Act) for the Northern Water Project (Crown DA 23034957).

The Northern Water Project is a water supply infrastructure project which seeks to provide a new, sustainable source of water to the eastern Eyre Peninsula, Upper Spencer Gulf and Far North of South Australia. The project will support current and future growth in the region, and may reduce reliance on the River Murray, Great Artesian Basin and local groundwater sources.

The proposed development comprises a 260 megalitres per day (ML/day) desalination plant on eastern Eyre Peninsula at Cape Hardy, and more than 600km of water delivery pipeline extending north from the desalination plant to Olympic Dam passing Whyalla, Port Augusta, Woomera and Roxby Downs. Potential consumers of the water supply include hydrogen and mining projects, SA Water, Department of Defence, the manufacturing sector and the pastoral, agricultural and horticulture sectors. The proposed plant is of near equivalent size to the Adelaide desalination plant at circa 95 gigalitres per annum.

On 17 January 2024, pursuant to Section 131(25) of the PDI Act, the Minister for Planning directed that the development becomes subject to the impact assessment procedures under the PDI Act with respect to the preparation and consideration of an Environmental Impact Statement (EIS). The direction notice appeared in the SA Government Gazette on 25 January 2024 (**Appendix A**). The scope of the development is as defined in Crown DA 23034957.

On 8 March 2024 Infrastructure SA officially lodged a scoping application under Section 111(2)(d) of the PDI Act in accordance with the requirements of Practice Direction 17 – Impact Assessment Development (State Planning Commission) (**Appendix B**).

On 1 July 2024 responsibility for the Northern Water Project was transferred from Infrastructure SA to the Office of Northern Water Delivery, attached to the Department for Infrastructure and Transport.

The Commission now has the responsibility to prepare Assessment Requirements (i.e. guidelines) for the preparation of an EIS by the Proponent.

The process for developing, consulting upon, and implementing project-specific Assessment Requirements in the preparation of an EIS document is outlined under sections 112 and 113 of the PDI Act and Practice Direction 17.

Preparation of Assessment Requirements has been based on the 'Assessment Requirements Library' (the Library).

The Library is a guidance document which is arranged into nine assessment themes or environmental attributes and contains a set of baseline criteria, for both the detailed and/or standard level assessment of typical issues (**Appendix D**).

Discussion

<u>EPBC Act - Accredited Assessment Process</u>

On 27 November 2023 the project was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

On 8 April 2024 the delegate of the Australian Government Minister for the Environment and Water decided under section 75 and Section 87 of the EPBC Act that the proposed action is a controlled action and, as such, requires assessment and an approval decision due to the potential for a significant impact on matters of national environmental significance (MNES) protected under Part 3 of the EPBC Act.

There is currently no formal bilateral between the Commonwealth of Australia and the Government of South Australia in respect to the assessment of MNES matters by the state. A draft bilateral agreement is currently on public consultation by the Department of Climate Change, Energy, the Environment and Water (DCCEEW) until 30 September 2024.

To ensure that the benefits of a streamlined assessment approach can be realised, both DCCEEW and DHUD-PLUS have agreed that the Northern Water project can be assessed under an accredited assessment process (in accordance with section 87(4) of the EPBC Act and section 131(25) of the PDI Act (**Appendix C**). The Assessment Requirements have been prepared to meet the requirements of both government jurisdictions.

An accredited project assessment will largely mirror the steps anticipated by previous and future bilateral agreements, in that there will be one set of application documentation. DCCEEW will then be given the opportunity to actively participate in the state-based assessment process, including a review the EIS and Response Documents, obtaining a copy of submissions received and then contribute to and review the draft Assessment Report (as it relates to MNES considerations).

Two decisions will still be required, being the state Minister for Planning and the Commonwealth Environment Minister. If approved, conditions would be reflective of jurisdictional requirements.

Scoping Application

The subject site for the desalination plant is located on the western shore of Spencer Gulf at Cape Hardy, approximately 30km north-east of Tumby Bay and 170km south-west of Whyalla.

The site is accessible via the local road network (Brayfield Road / North Coast Road), connecting to Lincoln Highway.

Located within the Rural Zone, Conservation Zone and Coastal Waters and Offshore Islands Zone, the approximately 90ha site is on land owned by IRD Port Assets and subject of an approved Major Development issued to Iron Road Ltd under the *Development Act 1993* (repealed) for a deep-sea port. The site is generally flat, low-lying, cleared of vegetation, and has been historically used for agricultural cropping activities. The desalination plant site is identified in **Appendix E**.

The desalination plant component of the development, as described in the Scoping Application, comprises:

- Water intake pipes extending into the Spencer Gulf and associated intake pumps
- Pre-treatment system
- Reverse osmosis plant
- Post-treatment, water storage tanks and pumping to distribution network
- Outfall pipes and concentrated seawater diffusers extending into the Spencer Gulf
- Administration buildings, workshops, parking, fencing, entry points, and security.

The water supply pipeline network for the Northern Water Project extends approximately 600km between the desalination plant Cape Hardy with the Olympic Dam mine site at Roxby Downs, with series of new pump stations and storage tanks are required along the pipeline alignment.

Key offtakes are proposed to the Carrapateena mine, SA Water storage sites at Whyalla North and Lincoln Gap, the Hydrogen Jobs Plan Project at Whyalla, and Woomera. The pipeline network is also identified in **Appendix E**.

The pipeline alignment has been selected to follow existing infrastructure corridors and previously disturbed areas where possible. The pipeline passes the towns of Port Neill, Arno Bay, Cowell, Whyalla, Port Augusta, Pimba, Woomera and Roxby Downs.

The pipeline alignment traverses several Planning and Design Code Zones ranging from Remote Areas, Rural, and Conservation to Commonwealth facilities, and Strategic Employment.

The project also requires new electricity transmission lines and network connection points, including new transformers and substations to provide power to the desalination plant and pump stations.

Additional ancillary works include telecommunications towers and associated equipment. Enabling works include the creation of vehicle access tracks, road infrastructure upgrades, services relocation, and alterations to existing landholder infrastructure.

The Scoping Application and referral under the EPBC Act has now informed the drafting of the Assessment Requirements.

Drafting of Assessment Requirements

A review of the proposal was undertaken and considered against relevant environmental attributes to inform the preparation of draft assessment requirements. The Assessment Requirements set out the matters relating to the environment that are to be addressed in the EIS for the Northern Water Project.

Each attribute has been classified as requiring either a standard or detailed level of assessment, depending upon:

- Scale of the impact considering intensity, geographical extent and duration.
- Nature of the impact, should consider direct, indirect, cumulative and perceived impacts.
- Sensitivity of the receiving environment.
- The ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the scoping application stage.
- The complexity of technical assessments and investigations required to identify and assess mitigation measures.

The EIS must also address all requirements set out in Section 113 of the PDI Act, Practice Direction 17, and Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations).

The detailed list of project specific Assessment Requirements is presented in sections 7 (Commonwealth MNES) and section 8 (State Matters) of **Attachment 1**. In preparing the Assessment Requirements the following key assessment matters were identified:

- Effects on marine flora and fauna, ecological processes, and marine based industry including recreational and commercial fisheries and aquaculture.
- Effects on terrestrial flora and fauna.
- Effects on MNES under the *EPBC Act 1999* including listed threatened species and communities, listed migratory species, and Commonwealth lands.
- Effects on Aboriginal cultural heritage.
- Economic and social effects for local and regional communities, and the State.
- Effects of providing an alternative, climate independent water resources for community, industry and mining use.

The Assessment Requirements also identify a requirement for the EIS to include an appropriate community engagement plan consistent with the Community Engagement Charter. This includes engagement in addition to the legislated notification requirements to be undertaken by the Minister, pursuant to the PDI Act and Practice Direction 17.

Engagement

Since the initial lodgement of the application, Planning and Land Use Services (PLUS) has been working collaboratively with DCCEEW, State agencies and Councils in preparing the Assessment Requirements. State agencies included:

- Environment Protection Authority (EPA)
- Department for Energy and Mining (DEM)
- Department for Environment and Water (DEW)
- Department for Infrastructure and Transport (DIT)
- Attorney-General's Department – Aboriginal Affairs and Reconciliation (ADG-AAR)
- Department of Primary Industries and Regions SA (PIRSA)
- Arid Lands Landscape Board
- Eyre Peninsula Landscape Board
- Country Fire Service SA (CFS)

A cross-agency briefing was held on 22 March 2024, and a Council briefing on 10 April 2024, in which the Proponent presented the project to agency representatives, and PLUS provided an overview of the Impact Assessment process and anticipated assessment time frames.

In accordance with section 112(b) of the PDI Act and Regulation 69 of the *Planning, Development and Infrastructure (General) Regulations 2017* (the PDI Regulations), the Councils and relevant State agencies were invited to review and provide feedback on the draft Assessment Requirements.

The Assessment Requirements at **Attachment 1** reflect and incorporate Council, DCCEEW and State agency feedback, with key advice summarised as follows:

- **Councils:**
    - The desalination plant site is located within the Tumby Bay council area. The water supply pipeline network and ancillary electricity infrastructure traverses six (6) local government jurisdictions. All relevant Councils were invited to comment on the draft Assessment Requirements (including the Outback Communities Authority).
    - Comment was received from City of Port Augusta and District Council of Tumby Bay, both of which support the Assessment Requirements without any suggested edits.
- **DCCEEW:**
    - DCCEEW has provided a detailed suite of specific assessment requirements for Commonwealth MNES.
    - A Significant Impact Assessment is required for all MNES known or likely to be present, as identified in the Protected Matters Search Tool (PMST) for the project (5km buffer). Where significant impacts (direct or indirect) are found to be unlikely, this conclusion must be adequately justified and supported with evidence.
    - The EIS must provide species-specific measures to avoid, mitigate and management potential impacts. Should there be any residual significant impacts, the EIS must provide details of an offset package including a preliminary strategy.
- **EPA:**
    - AEQ1 (Air Quality): clarification regarding method of investigation for air quality impacts.

- CCRE1 (Climate Change Adaptation): indicate how the site selection has incorporated climate change adaptation considers.
- CCRE2 (Greenhouse Gas Emission): preparation of a greenhouse gas emissions plan.
- HR2 (Flooding): amended to differentiate between requirements for the desalination plant (quantitative assessment) versus the substations / pump station / water storage sites (qualitative assessment). The flood modelling requirements for the desalination plant site have been clarified, with reference to MUSIC and DRAINS tools; on the basis that traditional 2D modelling approach is not appropriate / relevant for the desalination plant site.
- PE1 (Coastal & Marine): amended requirements for assessment of coastal and marine impacts associated with the operational marine discharge from the desalination plant.
- PE3 (Surface Water & Groundwater): amended requirements for surface water, groundwater, wastewater and stockpile management associated with both the desalination plant, pipeline and electricity transmission infrastructure.
- Various other minor edits were incorporated.

- **DEM:**
  - The Northern Water project aligns with the State Government's strategic directions for renewable energy and sustainable industry.
  - The delivery of a sustainable water source is vital to enable the establishment and growth of new industries in the Upper Spencer Gulf region through to Roxby Downs.
  - The EIS should consider relevant government strategy including the SA Economic Statement, State Prosperity Project, Critical and Strategic Minerals Strategy (not yet announced) and the Green Iron and Steel Strategy.
- **DEW:**
  - Include consideration of impacts on Public Access Routes (PARs).
  - Consideration of potential flow-on impacts of new offtake water points and their associated approval requirements. This is considered outside the scope of the EIS and governed by other legislative processes.
- **DIT:**
  - Minor edits and clarifications to the assessment requirements for Transport and Traffic, and inclusion of marine spill management under Hazards and Risks.
- **AGD-AAR:**
  - General recommendations regarding consistent language in reference to Aboriginal heritage, and consultation with interested Traditional Owner groups.
  - Minor edits and clarifications to the assessment requirements for Aboriginal Cultural Heritage.
  - Clarification regarding consideration for the cultural value of surface waters, sightlines, and flora and fauna species.
  - The EIS must include recommendations for the protection and management of Aboriginal heritage, however the preparation of a detailed Cultural Heritage Management Plan (CHMP) will be considered post-decision as a condition of approval. ADG-AAR will be involved in the review and endorsement of a post-approval CHMP.

- **PIRSA:**
    - Clarifications around potential impacts on commercial fisheries and aquaculture industry (including aquaculture tourism), both on existing and potential future activities (ie within designated within aquaculture zones).
- **CFS**
    - Include consideration for how a fire within the site will be managed to prevent spread of fire into the environment. Included as recommended.
- **EYRE PENINSULA LANDSCAPE BOARD**
    - Support the Assessment Requirements without any suggested edits.
- **ARID LANDS LANDSCAPE BOARD**
    - Support the Assessment Requirements without any suggested edits.

In accordance with section 112(c) of the PDI Act and Regulation 70 of the PDI Regulations, the Proponent was also invited to express views on the level of detail required in the EIS. The Assessment Requirements at **Attachment 1** reflect and incorporate Proponent feedback received to date, with key advice summarised as follows:

- DCCEEW Assessment Requirements (Section 6.8 and Section 9):
    - The Proponent sought clarification regarding the list of species in Section 6.8. This list included all species identified in Northern Water's PMST results, rather than the few species identified in Northern Water's EPBC referral with the potential to be significantly impacted by the project. Most of the species listed in Section 6.8 are unlikely to be impacted by the project. To meet DCCEEW requirements, the EIS shall include a Significant Impact Assessment, similar to that prepared by Northern Water for the EPBC referral. This assessment shall provide evidence and justification for those species with the potential to be significantly impacted by the project. Assessment efforts will then be focused on these species.
    - The Proponent queried the feasibility and necessity for the required 'desktop analysis' and 'survey efforts' for specific species. The Proponent has advised that if there are divergences from requirements, justification must be provided in the EIS.
    - The Proponent sought clarification regarding the requirement to provide a complete offset package within the EIS, noting that offsets will be based on what DCCEEW advise in their final approval. DCCEEW agrees that the EIS can include a draft / preliminary offset strategy, with a final offset strategy & management plan to be provided as a condition of approval. Section 8 of the Assessment Requirements lists the likely post-decision requirements for detailed design drawings and final management plans and strategies, to address both State and DCCEEW requirements.
- State Assessment Requirements (Section 10):
    - AA1 (Site Selection): a new Assessment Requirement was created, requiring a description of the site selection and design development processes and identifying how the proposed location and/or design avoids and/or mitigates environmental risks. This requirement was previously repeated throughout the document.
    - AEQ4 (Visual Impact): the Proponent queried the requirement for photomontages and/or a 3D model, and the need to demonstrate light spill during nighttime hours. The desalination plant is a large, 24/7 hour facility on a relatively undeveloped coastline. The provision of photomontages from key viewpoints (from the land and sea), and a 3D representation of the facility during daylight hours is considered essential for the visual assessment. With respect to visual impacts during the

nighttime, it is recognised that any nighttime illumination will be limited to lighting required to meet security, personnel and marine safety requirements. On that basis, detailed photomontages and a 3D representation are not considered necessary for nighttime conditions. The Assessment Requirement has been amended to require a description of visual amenity impacts from nighttime lighting, and identification of mitigation measures.

- BE3 (Terrestrial Flora and Fauna): the Proponent queried if a draft Native Vegetation Data Report (NVDR) can be provided in the EIS, with a final report (including offset strategies) to be provided as a condition of approval. The Native Vegetation Council (NVC) confirmed that this approach is acceptable.
- CCRE (Greenhouse Gas Emissions): the Proponent queried if a draft GHG Mitigation Plan can be provided in the EIS, with a final report (including offset strategies) to be provided as a condition of approval. The EPA confirmed that this approach is acceptable.
- HR2 (Flooding): the Proponent sought clarification regarding the scope of flood modelling. Advice was sought from EPA, and the Assessment Requirement was subsequently amended. It was determined that all preliminary assessment should be included in the EIS, with a summary of flood risk for all project elements. Quantitative flood assessment is only required for the desalination plant site, and qualitative flood assessment is sufficient for the ancillary infrastructure.

- The Proponent recommended various other minor clarifications to the Assessment Requirements, the majority of which were adopted.

Procedural matters

The Commission is required to determine the level of detail required in relation to an EIS, pursuant to section 112 of the PDI Act, considering Practice Direction 17, views expressed by a prescribed person or body, and views expressed by the Proponent after engagement, in accordance with the PDI Regulations. The Commission must then endorse final Assessment Requirements.

Whilst not required under the PDI Act or PDI Regulations, it is recommended that the Commission write to the Minister advising him that the Assessment Requirements have been settled and will be publicly released. The Assessment Requirements will then be made available on the PlanSA website and provided directly to the proponent and relevant Councils. A copy will also be provided to Agency Coordinators and DCCEEW.

Public Exhibition of Assessment Requirements

The draft bilateral agreement (currently on exhibition by the Commonwealth) includes a requirement that SPC must consider whether or not the draft Assessment Requirements should be publicly consulted upon (which carries over into the project accreditation process). There is no requirement to do so under the PDI Act.

Given the lengthy consultation process on the draft Assessment Requirements already undertaken (with state agency, council, proponent and DCCEEW input), there would appear to be no outstanding matters of substance that could reasonably be expected from a period of public consultation that has not otherwise been identified and considered. The public exhibition of the EIS will provide for a six-week period of consultation for public comments to be made, from which the proponent must then prepare a formal Response Document.

Appointment of Emeritus Professor Dr Nick Harvey

Section 19(1) of the PDI Act allows the Commission to appoint 1 or 2 persons to act as additional members of the Commission when required for their professional expertise or specialist knowledge in the consideration of matters arising under the Act, which in this case is an impact assessment development involving both marine and terrestrial environmental matters.

Emeritus Professor Nick Harvey (University of Adelaide) has been appointed to the Commission in the consideration of the Northern Water Project due to his extensive experience on coastal environments, with direct and extensive research experience on coastal systems, processes, landscapes and management, climate change, sustainability and human development.

Previous positions include the Professor and Head of Geography and Environmental Studies, The University of Adelaide from 2002-2004 and the Executive Dean, Faculty of Humanities and Social Sciences, The University of Adelaide from 2007-2013. Between 2004-2007, Emeritus Professor Nick Harvey was also the Lead Author on the Intergovernmental Panel on Climate Change (IPCC) Working Group II, for the Fourth Assessment Report of the IPCC.

Emeritus Professor Nick Harvey is also a life member of the Australian Coastal Society, whilst his research findings have been published in research papers, journal articles, books and conference proceedings in Australia and overseas over thirty years.

Conclusion

The draft Assessment Requirements are now presented for consideration and decision by the Commission (**Attachment 1**).

On endorsement of the Assessment Requirements, it is recommended that they be forwarded to the Minister for information purposes and advice that they are to be publicly released. A draft letter to this effect is at **Attachment 2**.

Attachments:

1. Assessment Requirements – Environment Impact Assessment: Northern Water Project (#21960997)
2. Draft letter from the State Planning Commission to the delegate for the Minister for Planning (#21961072)

Appendices:

A. *Government Gazette* – Direction notice – 25 January 2024 (#21960969)
B. Impact Assessed Development Application – Northern Water Project – 22 February 2024 (#21960987)
C. Project Accreditation under EPBC Act – Required Steps and Actions for joined up assessment (#22076951)
D. Assessment Requirements Library (version 1.0) (#21961008)
E. Site plans (#21961493)

Prepared by:	Laura Kerber and Simon Neldner
Endorsed by:	Robert Kleeman and Marc Voortman
Date:	26 August 2024

STATE PLANNING COMMISSION

Assessment Requirements

ENVIRONMENTAL IMPACT STATEMENT

Northern Water Project
Cape Hardy, Eastern Eyre Peninsula, Upper Spencer Gulf and Far North of South Australia

Office of Northern Water Delivery

2024

NORTHERN WATER

Government of South Australia
Department for Housing and Urban Development

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1 Objective of the EIS

To assess the social, economic and environmental impacts for projects declared as impact assessed development (not being restricted development) requires the preparation of an Environmental Impact Statement (EIS).

The EIS process is the highest level of assessment under the *Planning, Development and Infrastructure Act 2016* (PDI Act) and enables the holistic consideration of projects that are considered to be of economic, social or environmental importance to South Australia.

The EIS process provides a comprehensive assessment of a development or project proposal and the expected effects on the receiving environment and within the broader context of its setting, which could relate to a local area, region, state or nation.

2 Description of Development

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On 17 January 2024, pursuant to Section 131(25) of the PDI Act the Minister directed that the development becomes subject to the procedures under the PDI Act with respect to the preparation and consideration of an EIS. The direction notice appeared in the SA Government Gazette on 25 January 2024. The scope of the development is as defined in Crown DA 23034957.

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The Northern Water Project is a water supply infrastructure project which seeks to provide a new, sustainable source of water to the eastern Eyre Peninsula, Upper Spencer Gulf and Far North of South Australia. The project will support current and future growth in the region, and may reduce reliance on the River Murray, Great Artesian Basin and local groundwater sources.

The proposed development comprises a 260 megalitres per day (ML/day) desalination plant on eastern Eyre Peninsula at Cape Hardy, and more than 600km of water delivery pipeline extending north from the desalination plant to Olympic Dam passing Whyalla, Port Augusta, Woomera and Roxby Downs. Potential consumers of the water supply include hydrogen and mining projects, SA Water, Department of Defence, the manufacturing sector and the pastoral, agricultural and horticulture sectors.

A detailed description of the project, based on the engineering reference design, is provided below including construction and operational methodologies and estimated native vegetation clearance.

It is noted that adjustments to the project design are expected, subject to the outcomes of ongoing design and engineering, stakeholder engagement, technical studies and further assessment.

2.1 Engineering Reference Design

Desalination Plant Facility

- A seawater reverse osmosis desalination plant on the western shore of Spencer Gulf at Cape Hardy, approximately 30km north-east of Tumby Bay and 170km south-west of Whyalla.
- The desalination plant is a scalable facility with ultimate capacity of 260 ML/day comprising:
  - Water intake pipeline extending approx. 17m depth into the Spencer Gulf with associated intake pumps and screened intake heads (length of 1.1km; 650m of which is offshore).
  - Pre-treatment system, reverse osmosis plant, post-treatment system, water storage tanks and pumping to distribution network.
  - An outfall pipeline leading to three concentrated seawater diffusers at approximately 18m depth into the Spencer Gulf (length 1.4km; 930m of which is offshore).
- High voltage switchyard.
- Stormwater detention and bio retention basins.
- Administration buildings, workshops, parking, fencing, entry points, access roads, and security.

Water Pipelines

- A water supply pipeline network, with a main trunk of approximately 540km long connecting the desalination plant at Cape Hardy with the Olympic Dam mine site at Roxby Downs.
- Proposed offtake connections:
  - Approx. 58km lateral offtake to the Carrapateena mine (north of Port Augusta).
  - Approx. 13.1km lateral offtake to SA Water's Whyalla (north) water storage site.
  - SA Water storage at Lincoln Gap.
  - Hydrogen Jobs Plan Project at Whyalla.
  - Woomera.
  - Other pastoralists, renewable energy projects, mining and industrial users along the route.
- The majority of the main trunk pipeline would be trenched (underground) except where geotechnical conditions or other sensitivities require an alternative design response.

Pump Stations and Storage Tanks

- A series of six (6) new pump stations and associated water storage facilities are proposed along the pipeline alignment. Pump stations will comprise a pump room, electrical equipment, control room, storeroom, crib room and amenities.

- Water storage tanks will be located at the desalination plant site and at key points along the main trunk pipeline, which are a combination of new and existing facilities. New storage tanks are proposed to be concrete construction, ranging in size from 2ML to 8ML capacity.

Proposed Pump Stations and Water Storage Tanks	New or Existing
Cape Hardy pump station and storage	New
Cowell pump station and storage	New
Midgee storage tank	New
Nonowie pump station and storage	New
Whyalla North offtake storage tank	New
Whyalla North SA Water tank	Existing
Lincoln Gap pump station and storage	New
Lincoln Gap SA Water earthern storage tanks	Existing
Lincoln Gap storage tank	New
Kootaberra pump station and storage	New
Oakden Hills pump station and storage	New
Pimba storage tank	New
Carrapateena high point storage tank	New
Woomera Department of Defence water storage tanks	Existing
Olympic Dam BHP existing storage	Existing
Olympic Dam interface tank	New

Electricity Transmission Infrastructure

- The project requires new electricity transmission lines and network connection points, including new transformers and substations to provide power to the desalination plant and pump stations.
- A new 132kV transmission line will be constructed by ElectraNet through a 132kV feeder terminating at a new ElectraNet substation located adjacent the plant (Port Neill Substation).
- New transmission lines will provide power to the new pump stations from either ElectraNet transmission system, or from the SA Power Networks (SAPN) distribution system depending on the location and capacity of the network.
- A number of new substations will be required comprising:
    - Three (3) new substations and three (3) upgraded substations will be network substations that are designed, build, owned and maintained by an energy network provider (SA Power Networks or ElectraNet). These substations are located external to the Northern Water infrastructure, with capacity for future expansion.
    - A series of small substations will be constructed by Northern Water which are dedicated to the new pump stations and located within the pump station sites.
- Small solar farms (5MW) may be constructed at selected pump stations to provide supplementary power and/or where no low voltage power distribution is available.
- Contracts will be established with ElectraNet (for 275kV and 132kV infrastructure) and with SA Power Networks (for 33kV and 66kV infrastructure) to build, own and maintain

the 3 new and 3 existing (upgraded) network substations and new transmission lines associated with the project. All contracted parties will be required to comply with Northern Water management systems, contract conditions, conditions of approval, government legislation, policies and guidelines, as well as their own management systems and project plans.

Proposed Electricity Transmission Infrastructure	Voltage
New transmission lines	
Cape Hardy (23km)	132kV
Franklin Harbour (36km)	66kV
Mount Young (6.7km)	132kV
Pandurra (1.1km)	275kV
Bookaloo (3.6km)	275kV
Oakden Hills (15.5km)	33kV
New network substations	
Port Neill substation (serves 132kV line and desalination plant and pumping station)	132kV
Nonowie substation	132kV
Kootaberra substation	275kV
Upgraded existing network substation	
Cleve substation (SAPN)	66kV
Coraberra Hill substation (ElectraNet)	275kV
Mount Gunson substation (SAPN)	275kV
New pumping infrastructure substation	
Cape Hardy facility substation	33kV
Franklin Harbour facility substation (within Cowell pumping station footprint)	33kV
Mount Young facility substation (within Nonowie pumping footprint)	33kV
Pandurra facility substation (within Lincoln Gap pumping footprint)	33kV
Bookaloo facility substation (within Kootaberra pumping footprint)	33kV
Oakden Hills facility substation (within Oakden Hills pumping footprint)	33kV

Ancillary and Enabling Works

- Communication towers of approximately 30-40m in height, and associated equipment, are proposed for the desalination plant site, pump stations, and storage tank sites. The towers will provide point-to-point radio link connectivity and data communication between sites.
- Enabling infrastructure works include the creation of vehicle access tracks, road infrastructure upgrades, services relocation, and alterations to existing landholder infrastructure.

2.2 Construction Methodologies

Construction of the desalination plant is expected to be staged. The first stage will deliver 130ML/day, with most infrastructure (notably the marine works and distribution pipeline) built to accommodate the ultimate 260m ML/day capacity.

Construction is expected to commence in 2026, with first water to key off-takers in 2028. The timing for subsequent stages of capacity (up to maximum 260ML/day) will be demand driven.

Desalination Plant

- The desalination plant will require bulk earthworks using a cut and fill method. The reference design has considered the topography of the site and set the desalination plant over three levels (with 10m vertical separation between each level).
- A high-level overview of the construction process for the desalination plant:
    - Survey
    - Mobilisation and site establishment
    - Vegetation clearance and grading
    - Construction water supply
    - Earthworks
    - Excavation and Foundation installation
    - Building Construction
    - Mechanical / Electrical Fit Out
    - Rehabilitation
- The preferred method of construction for the intake and outfall tunnels is via tunnel boring machine which would be launched from the desalination plant site. The launch shafts would be approximately 30m deep and will likely require rock blasting to reach sufficient depth.
- It is anticipated that the offshore intake and diffuser structures will be constructed from a jack up barge (JUB). A pile top drill rig would be utilised to excavate the intake and diffuser shafts into the seabed. After the drilling is complete, the riser would be lowered from the JUB. The connection between the tunnel and the intake and diffuser risers are individual horizontal adits and will be excavated from the intake/outfall tunnel towards each riser.

Water Delivery Pipeline

- The construction corridor width will vary along the alignment based on local conditions. A nominal corridor width of up to 50m in previously disturbed areas has been allowed for trenching, pipeline installation, stockpiling, vehicle access and pipe laydown. In areas of ecological sensitivity (or in response to other local conditions), disturbance corridors will be constrained.
- Below ground installation, via trench and cover fill, is the preferred construction method for most of the alignment. Trenchless installation may be used for rail line crossings, major road crossings and some waterway / waterbody crossings. Some sections of the pipeline may require above ground installation, for example steep terrain, creek crossings, and environments / soils that are sensitive to excavation (eg ephemeral lakes, highly aggressive soils).

- A high-level overview of the construction process for the pipeline is provided below:
  - Survey
  - Construction mobilisation
  - Vegetation clearance and grading
  - Pipe deliveries and pipe stringing
  - Trenching
  - Pipe Installation
  - Backfill
  - Rehabilitation
- Following construction, the permanent disturbance width for the pipeline corridor is nominal 7m, comprising 5m width access road and an allowance of 2m for pipeline fixtures including air valves, scour values and isolator valves.
- Rehabilitation directly above the pipeline (15m width) will be restricted to shallow rooted species to avoid future impacts to the pipeline and engineered fill.

Electricity Transmission Infrastructure

- Disturbance footprints are determined by the type of infrastructure and may include:
  - 275kV: 50m x 50m structure pads (15m x 15m permanent disturbance)
  - 132kV: 40m x 40m structure pads (15m x 15m permanent disturbance)
  - 66kV and 33kV: 10m x 10m permanent structure pads (no rehabilitation)
  - Stringing tracks and pads: 50 m x 50 m (temporary, to be rehabilitated)
  - Access tracks and passing lanes (permanent)
  - New substations, noting that facility substations are included within the pump station disturbance footprint.
- Construction is likely to proceed on several concurrent work fronts. A high-level overview of the construction process for the transmission lines is provided below:
  - Access preparation
  - Vegetation clearance and grading including temporary stockpiling
  - Foundations
  - Tower assembly and installation
  - Stringing

Temporary Development & Other Construction Requirements

- Temporary development for the construction phase including laydowns, yards, site offices, and amenities. Estimated footprint 100m x 100mm per area, with several required along the project route.

- A combination of existing commercial premises and transportable construction camps may be used for workforce accommodation.
- Construction camps would include temporary accommodation and office buildings, sewage treatment systems and possibly a mobile reverse osmosis plant for water treatment. Estimated footprint of 10ha per camp, located every 100km along the project route.
- Concrete batching plants will be required for foundations, footings and tanks. Mobile batching trucks may be utilised.
- Potable and non-potable water will be required for various activities including the construction workforce, concrete batching, hydrotesting, dust suppression and backfill conditions. Potential sources include trucking of potable water from SA Water standpipes, the existing Dept of Defence pipeline to Woomera, the BHP network at Roxby Downs, and/or containerised temporary reverse osmosis units for more remote locations.
- Electricity supply from mobile (diesel powered) generators or temporary connections into the existing network, until such time as the new and/or upgraded electricity transmission infrastructure is constructed.

2.3 Operational Requirements

Desalination Plant

- The desalination plant will operate and be staffed on a 24/7 basis with most maintenance activities undertaken during daylight hours.

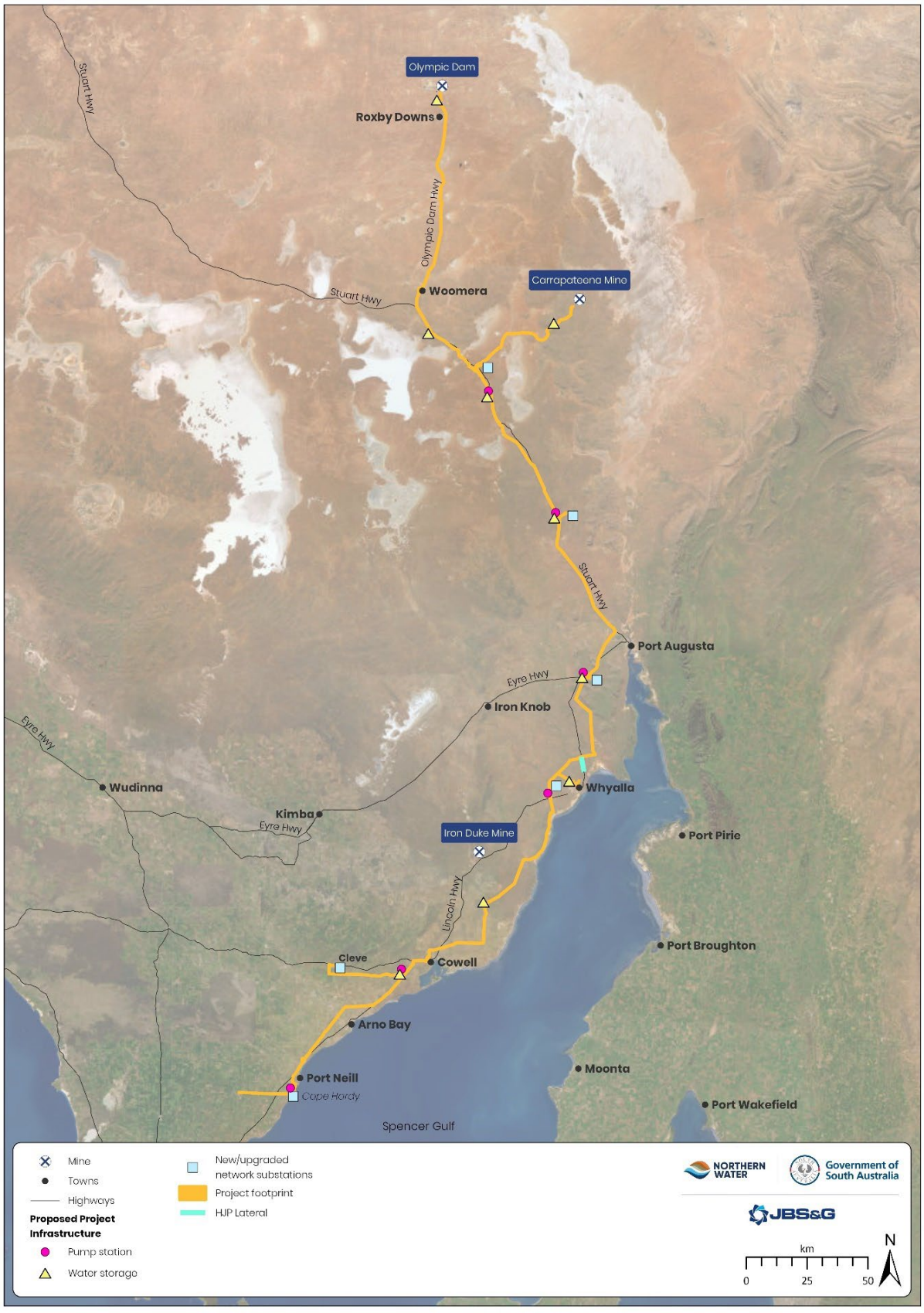
Water Delivery Pipeline

- Ongoing maintenance requirements are expected to be minimal. Regular inspections will be undertaken by either light vehicle or helicopter. Vegetation trimming may be required periodically.

2.4 Project Disturbance Footprints

An estimated summary of project disturbance footprints for the various project elements and associated native vegetation impacts (temporary and permanent) are summarised below.

Project Element	Initial disturbance footprint (ha)	Native vegetation disturbance (ha)		
		Temporary	Permanent	% Rehabilitated
Desalination plant (including offshore components)	118.2	0	0	NA
Water transfer infrastructure	2489.9	1532.9	358.2	81.1%
Power infrastructure	97.8	30.7	20.5	60%
Ancillary infrastructure including accommodation camps	60	30	0	100%
TOTAL	**2765.9**	**1593.6**	**378.7**	**80.8**



Spatial Reference: GDA2020 MGA Zone 53; **Author:** rtandon; **Date:** 26/07/2024

Figure 1: Subject Site / Site Plan

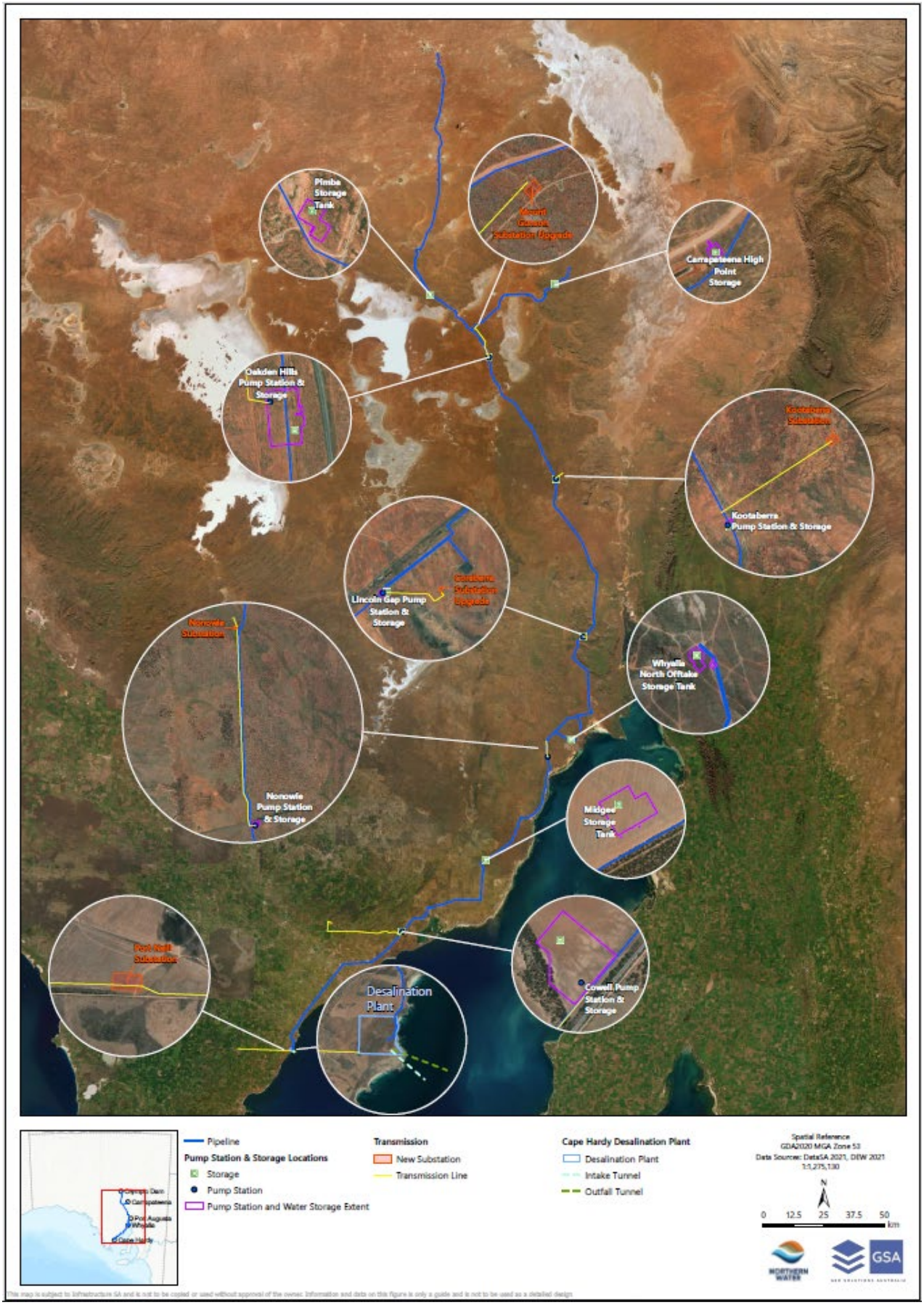


Figure 2: Project Layout

3 Related Development Authorisations

The proposed site for Northern Water Project desalination plant at Cape Hardy is on land owned by IRD Port Assets Pty Ltd and subject of an approved Major Development initially issued to Iron Road Ltd under the *Development Act 1993* (repealed).

Iron Road's current approval is for a deep-sea port associated with the Iron Road Central Eyre Iron Project and would be capable of loading various bulk sized carriers. Supporting infrastructure includes a 150km infrastructure corridor (transmission line, sea water supply pipeline and rail line), and an accommodation village at the township of Wudinna.

This development was approved on 3 May 2017 by the Governor of South Australia. Iron Road Ltd has until 3 May 2027 to commence construction. Further information on the project is available on the PlanSA website (Cape Hardy - Deep-Sea Port | PlanSA).

Developer Amp Energy aspires to develop a 5GW green hydrogen production facility at the Cape Hardy site; however this is not part of the existing Iron Road Development approval and is not considered a related development authorisation.

The Office of Northern Water Delivery is in discussions with Iron Road Ltd to master plan the Cape Hardy site to enable co-location of the approved deep-sea port, the proposed green hydrogen plant, and the Northern Water project. Iron Road is aware that amendments may be required to its existing development approval to enable the complementary project footprints at the Cape Hardy site.

4 Background to these Assessment Requirements

This document contains the Assessment Requirements to guide the preparation of an EIS by the project proponent.

The Assessment Requirements set out the matters relating to the environment that are to be addressed in an EIS for this project. The EIS must also address all requirements set out in Section 113 of the PDI Act, Practice Direction 17 and Schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* (EPBC Regulations) (Appendix A).

Every attempt has been made to ensure these Assessment Requirements address all the major issues associated with the proposed development, however they are not necessarily exhaustive. The Assessment Requirements should not be interpreted as excluding from consideration matters deemed to be significant but not incorporated in them or matters that emerge as important or significant from environmental studies or otherwise during the course of the preparation of the EIS.

The EIS must therefore address other matters not covered in these Assessment Requirements in the following circumstances:

- Studies reveal a matter that had not been foreseen when the Assessment Requirements were finalised.
- Stakeholder engagement and consultation with the community identifies an issue of widespread concern to the public, which had not previously been considered contentious. This may include a public perception of significant environmental harm that may not be borne out by technical studies, which may also be attracting extensive media coverage.
- New or amended legislation or policies come into effect after the Assessment Requirements have been finalised, which may or may not have been referred to in the Assessment Requirements. Transitional arrangements or exemptions may apply, but it is considered best practice and of net benefit to a project to consider emergent

legislation or policies even if not specifically required. This serves to 'future-proof' the EIS.

- The proponent makes amendments to the proposed project that would result in a change in the nature, scale, timing or location of any impacts.

5 The Impact Assessment Process

5.1 EIS process

Section 131 of the PDI Act provides if a State Agency proposes to undertake development or supports development for the purposes of "Essential Infrastructure", then the State Agency must lodge a Crown Development Application.

There is, however, specific provision available via Section 131(25) of the PDI Act which enables the Minister for Planning to formally direct that an EIS be prepared by the applicant, at which time the Impact Assessed pathway would apply. This direction was made by the Minister on 17 January 2024.

The scoping application lodged by Infrastructure SA on 8 March 2024 includes a preliminary assessment of the key social, environmental and economic issues and impacts associated with the development. The Commission has used the information provided in this application to develop Assessment Requirements to inform preparation of the EIS.

The EIS must be prepared by the proponent in accordance with the Assessment Requirements for each environmental attribute in line with the level of detail specified. The level of detail is determined by the Commission based on the Practice Direction, the views of the relevant government agencies and the local council(s). The proponent is also given an opportunity to provide feedback on the level of detail required.

Assessment Requirements are intended to be outcome-focused and, supported by relevant guidance documents and legislation, are generally accompanied by a method of investigating the highlighted impacts and measures to assess these impacts. The methods provided are not necessarily exhaustive and a wide range of methods may be available to consider and respond to a particular issue.

If additional matters requiring detailed assessment become apparent after the final Assessment Requirements are issued, the EIS must also address these new matters in a comprehensive manner and identify means by which the effects can be managed.

The matters that must be included in an EIS are set out in Section 113 of the PDI Act and in the sections below. These requirements include detail of expected environmental, social, economic and climate effects of the development, consistency with state and regional planning documents, consideration of the provisions of the *Environment Protection Act 1993* and commitments by the proponent to avoid, mitigate or satisfactorily manage and control any potentially adverse effects of the development on the environment.

The EIS process is illustrated in Figure 3.

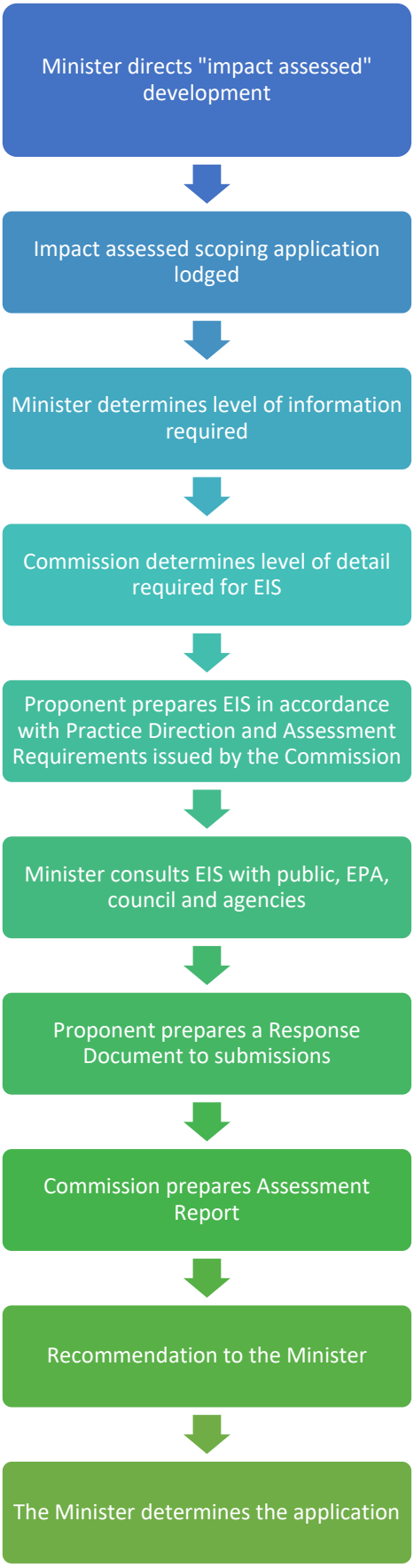


Figure 3: Steps in impact assessed development process

5.2 Assessment under accredited assessment process

The proposal was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). The delegate of the Australian Government Minister for the Environment and Water decided under section 75 of the EPBC Act that the proposed action is a controlled action and, as such, requires assessment and an approval decision due to the potential for a significant impact on matters of national environmental significance (MNES) protected under Part 3 of the EPBC Act.

The proposal is being assessed under an accredited assessment process in accordance with section 87(4) of the EPBC Act and section 131(25) of the PDI Act. These Assessment Requirements have been prepared to meet the requirements of both government jurisdictions.

The proponent EIS must address matters outlined in Schedule 4 of the EPBC Regulations.

5.3 Consultation Process

After the completed EIS is submitted to the Minister for public release, it is referred to council(s) and relevant government agencies for comment. The public is also provided with an opportunity to comment when released for public exhibition.

Public consultation is a valuable resource to the EIS preparation process and a well-considered engagement strategy can play a pivotal role in the assessment of a project. The PDI Act sets out the principles of the Community Engagement Charter which guide public participation in the planning process and ensure that people and communities have a greater opportunity to engage in the planning process. The Minister will consider the Charter in determining the consultation program for an impact assessed development.

The process for consultation with First Nations people must be undertaken consistent with the requirements of the *Interim Engaging with First Nations People and Communities on Assessments and Approvals under the Environment Protection and Biodiversity Conservation Act 1999* and or any First Nations engagement standard (if one is in force).

Public exhibition is undertaken for a minimum of 30 business days.

An advertisement will be placed in The Advertiser and local newspapers inviting submissions. The public consultation process will cater for those with special needs or those not able to access documentation electronically.

[Before releasing the EIS, the Minister must also consider the Community Engagement Charter and the consultation program. The PDI Act does not set any requirements for public notification except to say that the EIS must be placed on public notification however PD 17 details a minimum of 30 business days. PD 17 should outline details (aligning with the reading of the Community Engagement Charter) where additional or tailored consultation should be undertaken by the Minister and the proponent.

The Charter should be considered the minimum requirements for public consultation and emphasise the importance of early and open engagement as soon as practicable to avoid or minimise situations as early as possible where Stakeholder engagement and consultation with the community identifies an issue of widespread concern to the public, which had not previously been considered contentious.]

5.4 Responding to submissions

Copies of submissions from the public, council(s) and other relevant agencies are then provided to the proponent who then prepares a Response Document to address matters raised during the public exhibition period.

Following the receipt of the Response Document, the Commission will prepare an Assessment Report. The Assessment Report must set out:

- The Minister's assessment of the development
- Any comments by the Minister relating to:
  - the EIS
  - submissions received through the public consultation process
  - the proponent's responses to submissions received and matters raised by the Minister
- Comments provided by the Environment Protection Authority, another Minister, a council or other authority or body
- Any other comments or matters as the Minister or the Commission thinks fit.

The Assessment Report and the Response Document will be available for inspection and purchase by members of the public at a place and for a period of time determined by the Commission.

Availability of each of these documents (primarily on the PlanSA Portal website) will be notified by advertisements in The Advertiser and local newspapers and in writing to persons who made a written submission. A copy of the EIS, Response Document and the Assessment Report will be provided to the relevant council(s). Requirements for public availability and notification of an EIS, Response Document and Assessment Report are laid out in Section 113 (10) - (12) of the PDI Act.

The Minister will make a final decision subject to Section 115 of the PDI Act.

In deciding whether the proposal will be approved and any conditions that will apply, the Minister must have regard to:

- The State Planning Policies
- Regional Plans, including the 30-Year Plan for Greater Adelaide (where relevant)
- Provisions of the Planning Rules and the regulations
- If relevant, the Building Code of Australia
- Where development involves or is for the purposes of a prescribed activity of environmental significance, the *Environment Protection Act 1993* including the objects, General Environmental Duty and relevant environment protection policies
- Where relevant, the view of the Minister who is responsible for the administration of an area of the State subject to a special legislative scheme
- The EIS, Response Document and the Commission's Assessment Report
- Where relevant, any other government policy and/or legislation.

Pursuant to Section 115(2)(a) of the PDI Act the Minister can at any time indicate that the development will not be granted a development authorisation. This may occur if the

development is inappropriate or cannot be demonstrated to be properly managed. This is commonly referred to as an “early no.”

5.5 Development of the Assessment Requirements

Assessment Requirements set out the environmental attributes relevant to the development which are to be assessed (e.g. soil, water, heritage, threatened species, etc). The key environmental, social and economic impacts to these environmental attributes are to be addressed in the EIS. The level of assessment required is determined by the Commission based on consideration of key factors to determine whether a standard level of assessment will be sufficient or whether more detailed assessment is required.

5.5.1 Key factors to consider in determining level of assessment detail

The PDI Act defines an EIS as “a document that includes a detailed description and analysis of a wide range of issues relevant to the proposed development or project, incorporating significant information to assist in an assessment of environmental, social or economic effects associated with the development or project and the means by which those effects can be managed”.

In setting the Assessment Requirements, the Commission considers the scale, nature and sensitivity of the receiving environment associated with the proposal and refers to relevant legislation, policy, guidance documents, government agencies and subject matter experts to determine whether a standard or a detailed level of assessment is appropriate.

The Commission is required to classify the issues relevant to the proper assessment of the development or project according to categories of importance so as to indicate the levels of attention that should be given to those issues in the preparation of an EIS.

The following key factors have been considered in identifying the issues requiring assessment in the EIS and whether the Assessment Requirements are ‘detailed’ or ‘standard’:

- Scale of the impact taking into account intensity, geographical extent and duration
- Nature of the impact which should consider direct, indirect, cumulative and perceived impacts
- Sensitivity of the receiving environment
- Ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the application stage
- Complexity of technical assessments and investigations required to identify and assess mitigation measures.

Description and examples of the key factors is provided in Table 1.

Table 1: Description and examples of key factors to consider during scoping

Key factor	Components of factor	Description of example
Scale of the Impact	Severity	The scale or degree of the impact relative to the current situation or adopted standards or performance measures. The intensity may be measured quantitatively and compared to reference values (e.g. area of vegetation cleared, air and water quality, noise levels, change or disruption to ecological community function) or qualitatively.
	Geographical extent	The geographical reach of the impacts of the development or the range within which the impacts are observable

	Duration	The timeframe over which the impact occurs (e.g. for a short period, during construction only; during operations permanently). It may also refer to the period/s in which the impacts are observable and the regularity of the impacts (e.g. irregular, intermittent, regularly during operations.)
Nature of the Impact	Direct impacts	Impacts caused directly by the development. They usually occur at the same time as the development and within the vicinity of the site (e.g. vegetation clearing, air emissions).
	Indirect impacts	Impacts that occur as a consequence of the development or its direct impacts. Impacts may be delayed and happen further away from the site (e.g. project changes water table, changes affect wetland and causes an impact on groundwater dependent ecosystems). Impacts may also occur due to growth or land use changes facilitated by the project (e.g. a new transmission line may open up new areas for renewable energy generation).
	Cumulative impacts	The combined impacts of the project on a matter combined with other relevant existing and future projects (e.g. marine impacts from multiple port developments).
	Perceived impacts	There are a range of perceptions of the same impacts by people or groups
Sensitivity of the Receiving Environment	Existing regulations and guidance	The degree of sensitivity expressed in legislation or relative to adopted standards and performance measures (e.g. *Environment Protection (Commercial and Industrial Noise) Policy 2023*)
	Value to society	Environmental value: e.g. water quality, natural habitat). Social value: e.g. community value, landscape, recreation, lifestyle disturbance, water quality, cultural heritage, amenity. Economic value: e.g. water supply, critical transport routes
	Vulnerability / resilience to change	The degree of vulnerability of the environment to the impacts of the project or resilience to cope with change. Regard should be had to the likely scale and nature of the impacts of the development and the sensitivity and adaptive capacity of the environment.

5.5.2 Assessment Level Characteristics

The characteristics of 'detailed' and 'standard' levels of assessment are provided in Table 2. A detailed level of assessment is required if the impact of the development has one or more the characteristics set out in Table 2.

Table 2: Characteristics of detailed and standard assessment

Level of Assessment	Characteristic of the impact of the development
Standard	▪ The project is unlikely to result in significant impacts on the environmental attribute if managed through conventional management and mitigation measures, including cumulative impacts. ▪ While the assessment of the impacts of the development on the environmental attribute will involve technical specialists, these impacts are likely to be: o well understood by regulators and stakeholders

	○ relatively easy to predict using standard methods ○ capable of being mitigated to comply with relevant standards or performance measures. ▪ The assessments will be supported by quantitative assessment methods, although the focus and coverage may be on specific project components or project locations. ▪ The assessment is unlikely to involve any significant uncertainties or require any detailed cumulative impact assessment.
Detailed	▪ The development has a high / medium probability of causing significant environmental impact on the environmental attribute, including cumulative impacts. ▪ There is a high / medium probability of impacts on the development from external environmental factors such as those associated with climate change (sea-level rise, increased frequency of bushfire, floods etc) ▪ It is considered important by the Commission, and/or there is a public perception that an activity has the potential to cause significant impacts on the environmental attribute (even though this may be mistaken), or the activity has been the subject of extensive media coverage. ▪ Potential impacts to a Matter of National Environmental Significance (MNES) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*). ▪ The development raises requirements under other legislation applicable for the development (e.g. prescribed activities of environmental significance under the *Environment Protection Act 1993).* ▪ Assessment of the impacts of the development on the environmental attribute will require detailed studies and investigations to be carried out by technical specialists. During this assessment, these specialists may need to: ○ work closely with specialists assessing the impacts of the project on other environmental attributes to determine the likely indirect impacts of the project. ○ undertake a detailed cumulative impact assessment for the project. ▪ Assessment is likely to involve several uncertainties in relation to one or more of the following and specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management): ○ data collection (e.g. baseline information, availability of data for cumulative impacts assessment) ○ identifying the specific mitigation measures or suitable offsets for the project ○ the methods available for predicting the impacts of the project, including the indirect and cumulative impacts ○ criteria for evaluating the acceptability of the impacts of the project ○ specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management).

5.5.3 Environmental Attributes to be considered in the EIS

Issues relevant to the proposal are addressed by each Assessment category within which a range of environmental attributes are identified. Specific Assessment Requirements are then determined for each environmental attribute relevant to the proposal with the level of detail tailored for that element or issue.

Table 3: Assessment categories and environmental attributes

Assessment category	Environmental attribute and typical issues
Amenity and Environmental Quality	Air quality Ground level concentrations (include background levels, construction / traffic), dust, odour, stack emissions, receptors (location and sensitivity). Noise / Vibration

	Noise / vibration type (include traffic noise), underwater noise, noise level, sensitive receptors and location. Sensitive receptors may include terrestrial and marine fauna. Transport and Traffic Traffic disruptions- commuter and local, public transport, pedestrians / cyclists, changes to traffic flow and volumes - temporary / ongoing, road / maritime safety, car parking, presence of heavy vehicles, impacts to road pavement, marine traffic / shipping. Visual amenity Interface with adjoining land, landscape changes, built form, light spill.
Biological Environment	Biosecurity Weeds, pest species (including marine pests), diseases and pathogens. Matters of National Environmental Significance Nationally threatened species and communities, migratory species, wetlands of national importance (Ramsar), Commonwealth lands Marine Flora and Fauna Marine protected areas, threatened species, communities/ ecosystems, seagrass clearance, biodiversity loss Terrestrial and Aquatic Flora and Fauna Protected areas, threatened species and communities, native vegetation clearance, habitat loss through clearing fire or fragmentation, habitat degradation, biodiversity loss
Climate Change and Resource Use Efficiency	Climate change adaptation Climate change risk assessment Greenhouse gas emissions Greenhouse gas emissions including emissions reduction targets, NGER reporting, cumulative impacts on state and national GHG inventories and targets. Sustainable use of resources Sustainable procurement, products / materials, energy efficiency Waste Management Waste hierarchy; waste recycling / disposal
Economic Environment	Local, regional and state economies Economic impact assessment which addresses workforce / employment, existing economic land and marine uses (primary production, tourism, ports, fisheries), infrastructure - utilities (energy, water), telecommunications, ports, rail), displacement, competition, opportunities, temporary and ongoing for existing businesses / industries, property and land values
Hazards and Risks	Bushfire, Floods, Site Contamination Hazard risk management, bushfire, flooding, contamination and dangerous goods
Land Tenure, Protected Areas and Land Use	Land Tenure, Protected Areas and Land Use Land tenure (freehold, pastoral lease, mining, oil and gas, native title, crown land), generalised land use, population centres, major infrastructure and utilities (including marine infrastructure), P&D Overlays and Zones, reserved areas (including marine parks), changes / displacement of land uses.
Physical Environment	Coastal and Marine Coastal land systems (dunes, estuaries, beaches, island), and marine water quality. Soils, Landform and Geology Erosion and sedimentation, soil compaction and inversion, contamination (spills), land subsidence and acid sulfate soils. Surface Water and Groundwater Surface water quality (sedimentation, wastewater, spills, use of surface water) and groundwater use and quality.
Design	Urban Quality

	Supporting design excellence to create desirable and socially inclusive places.
Social and Community	Aboriginal cultural heritage Known and unknown Aboriginal sites, objects and remains. Community wellbeing Social impact assessment which addresses impacts to specific groups, impacts to services, impacts / displacement of residential areas, public safety (including perceptions), recreation and public space amenity. Heritage Places and Areas Listed national, state and local heritage sites.

6 Content Requirements for the EIS

Section 113 of the PDI Act and Schedule 4 of the EPBC Regulations (Appendix A) set out the legislative requirements for the content of an EIS.

6.1 Statutory Requirements

The EIS must Include the following (subject to any Practice Direction):

1. A statement of the expected, predicted or potential environmental, social and economic effects of the development, whether positive, neutral or negative. The assessment of effects should include all issues identified in the Assessment Requirements and be cross referenced to supporting technical studies.
2. A statement of the expected impact of the development on the climate and any proposed measures designed to mitigate or address those effects.
3. A statement of the extent to which the expected, predicted or potential effects of the development are consistent or at variance with the provisions of—
   a. Any relevant State Planning Policy
   b. Any relevant Regional Plan(s), including the 30-Year Plan for Greater Adelaide (if applicable)
   c. The Planning and Design Code
   d. Any matters prescribed by the Regulations.
4. If the development involves, or is for the purposes of, a prescribed activity of environmental significance as defined by the *Environment Protection Act 1993*, a statement of the extent to which the expected, predicted or potential effects of the development are consistent or at variance with—
   a. The objects of the *Environment Protection Act 1993*
   b. The general environmental duty under that Act
   c. Relevant environment protection policies under that Act.
5. If the development will, or is likely to, significantly impact one or more Matters of National Environmental Significant (MNES) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), a statement of:
   a. The expected, predicted or potential effects of the development on each identified MNES

b. The extent to which the expected, predicted or potential effects of the development are consistent or at variance with the provisions of any relevant Commonwealth of Australia conventions, agreements or obligations under international agreements or treaties as they relate to MNES aspects

c. The extent to which the expected, predicted or potential effects of the development are consistent or at variance with any relevant Commonwealth plans (such as threat abatement plant and recovery plans), conservation or management principles.

6. If the development is to be undertaken within an area of the State that is specifically subject to a special legislative scheme—a statement of the extent to which the expected, predicted or potential effects of the development are consistent or at variance with the State Planning Policy that specifically relates to that special legislative scheme.

7. A statement of the proponent's commitments to avoid, mitigate and satisfactorily manage and/or control any potential or likely adverse impacts of the development on the environment (including any proposed offsets to reduce residual significant impacts) or any matter that may be directly relevant to a special legislative scheme.

8. Any other particulars in relation to the development required by the Regulations, relevant Practice Direction or by the Minister.

The proponent's commitment to meet conditions proposed to avoid, mitigate and satisfactorily manage and/or control any potential or likely adverse impacts of the development on the physical, social or economic environment, must be clearly articulated in the EIS.

The design and construction of the proposed development should be flexible enough to incorporate changes to minimise any impacts highlighted by this evaluation.

6.2 Summary of the EIS

The EIS should include a summary of the matters set out in the Practice Direction prepared pursuant to Section 109 of the PDI Act and include mention of all environmental attributes set out in the Assessment Requirements. The reader should be able to obtain a quick but thorough understanding of the proposal and associated environmental impacts. The summary should convey the most important aspects and environmental management commitments relating to the proposed project in accessible, easily understood language.

The summary should aim to construct a narrative around what is being proposed in the EIS, alternatives that were considered, what the broad environmental implications are of the proposal and how they will be managed to provide a net benefit. The summary should be logical and easy to read and need not reflect the precise order of chapters within the EIS itself. Images and graphics are suggested as a means of assisting to succinctly communicate the contents of the summary.

Content should be summarised accurately and objectively. It should report all the EIS's key conclusions and be consistent with the rest of the EIS. Specific issues and impacts should be addressed at an appropriate level of detail proportionate to their potential for significant impact and depth of study undertaken.

6.3 Introduction to the EIS

The introduction to the EIS should set the context for detailed assessment of the project in subsequent sections of the EIS, and include:

- Title, background to, and clear objectives of, the proposed project
- Proponent details, including;
    - Contact information for the proponent or representatives of a proponent organisation for the project, including full name, street and postal address, Australian Business Number, telephone, fax, email and other details as appropriate
    - Identify the legal entities that would develop, manage and operate the project
    - Provide a description of corporate structure including joint ventures, corporate policies and objectives relating to the project, in particular environmental policies
    - Specify mechanisms used to ensure that corporate policies will be implemented and adhered to for the project in addition to requirements for Environmental Management Plans
    - Identify key personnel, contractors, and/or subcontractors responsible for preparing the EIS
- Staging and timing of the proposal, including expected dates for construction and operation
- Relevant legislative requirements and approval processes
- Purpose and description of the EIS process

6.4 Need for the Proposal

The EIS should provide a statement of the objectives and justification for the proposal including:

- the specific objectives that the proposal is intended to meet, including market requirements
- expected local, regional and State benefits and costs, including those that cannot be adequately described in monetary or physical terms (e.g. effects on aesthetic amenity)
- a summary of environmental economic and social arguments to support the proposal including the consequences of not proceeding with the proposal.

6.5 Description of the Proposal

The EIS should provide a comprehensive and consolidated description of the proposal for which the proponent is seeking approval, using suitable maps, plans, figures and tables.

The proposal description sets out what the proponent is presenting for assessment and provides the basis for the Commission's evaluation against the Assessment Requirements. As the proposal may have undergone changes since the initial scoping stage (e.g. in response to stakeholder engagement, risk analysis or planning, technical or compliance grounds), it is important that the EIS provides an up to date and comprehensive description of the proposal.

The description of the proposal should address all aspects of the proposed project that are assessed by the EIS, and address the following information:

- Nature of the proposal and location
- Scale and intensity of the project
- Key elements of the receiving environment

- A project plan to outline objectives, constraints, key activity schedule and quality assurance
- Site layout plans (including indicative land division plan if relevant)
- Construction and commissioning timeframes (including staging)
- Description of working hours
- Description of the existing environment (including the immediate and broader location, identifying sensitive receptors and adjacent land uses which may lead to cumulative impacts)
- Description of the current commercial activities occurring in the area
- Details of all buildings and structures associated with the proposal
- Details of any other infrastructure requirements and availability
- Details on the operation of the proposal, including operating hours
- Relevant Zones and Overlays defined by the Planning and Design Code
- Management arrangements for the construction and operational phases (including Environmental Management and Monitoring Plans)
- A contingency plan for delays in construction
- All requirements detailed in Schedule 4 of the EPBC Regulations (Appendix A)

6.6 Project Alternatives

Feasible alternatives considered for the proposed project should be presented in the EIS described and evaluated the comparative environmental, social, and economic impacts (including the option of not proceeding).

Each alternative and its potential impacts should be discussed in sufficient detail to enable an understanding of the reasons for preferring certain options and courses of action while rejecting others. This may be used to inform a justification of why the proposed project and preferred options should proceed.

6.7 Summary of Preceding Actions

The EIS should provide a summary of actions and activities that have been undertaken prior to or as part of the preparation of the EIS. These could include prior engagement with the Commission, government agencies, local councils and other stakeholders, engagement with the local community, the process of project development, pre-feasibility studies and any technical reports which may have bearing on the level of detail required by a relevant Assessment Requirement.

6.8 Matters of National Environmental Significance

The EPBC Act ensures that ‘nationally significant’ animals, plants, habitats and places are identified and any potential significant impacts on them are carefully considered before changes in land use or new developments are approved.

There are nine MNES under the EPBC Act:

- Listed threatened species and communities
- Listed migratory species

- Ramsar wetlands of international importance
- Commonwealth marine environment
- World heritage properties
- National heritage places
- The Great Barrier Marine Park
- Nuclear actions
- A water resource, in relation to unconventional gas development and large coal mining development.

On 27 November 2023 a referral under the EPBC Act to the Australian Government Minister for the Environment and Water was received from Infrastructure SA.

On 8 April 2024 the Delegate of the Minister determined that the Northern Water Project has the potential to have a significant impact on the environment and requires assessment and approval under the EPBC Act before it can proceed.

The action has the potential to have a significant impact on the following MNES that are protected under Part 3 of the EPBC Act:

- Listed threatened species and communities (sections 18 & 18A):
    - *Leipoa ocellata* (Malleefowl) – Vulnerable
    - *Swainsona pyrophila* (Yellow Swainson-pea) – Vulnerable
    - *Eucalyptus petiolaris* (Eyre Peninsula Blue Gum) – Endangered
    - *Pseudomys australis* (Plains Mouse) – Vulnerable
    - *Amytornis textilils myall* (Western Grasswren) – Vulnerable
    - *Amytornis modestus* (Thick-billed Grasswren) – Vulnerable
    - *Falco hypoleucos* (Grey Falcon) – Vulnerable
    - *Neophema chrysostoma* (Blue-winged Parrot) – Vulnerable
    - *Sternula nereis nereis* (Australian Fairy Tern) – Vulnerable
    - *Aphelocephala leucopsis* (Southern Whiteface) – Vulnerable
    - *Stagonopleura guttata* (Diamond Firetail) – Vulnerable
    - *Notomys fuscus* (Dusky Hopping-mouse) – Vulnerable
    - *Neophoca cinerea* (Australian Sea-lion) – Endangered
    - *Eubalaena australis* (Southern Right Whale) – Endangered and Migratory
    - *Acacia enterocarpa* (Jumping Jack Wattle) - Endangered
    - *Pterostylis xerophila* (Desert Greenhood) – Vulnerable
    - *Acacia rhetinocarpa* (Neat wattle) – Vulnerable
    - *Frankenia Plicata* – Endangered
    - *Dasyurus geoffroii* (Western Quoll) – Vulnerable
    - *Smithopsis psammophila* (Sandhill Dunnart) - Endangered

- Listed migratory species (sections 20 and 20A):
    - *Limosa lapponica* (Bar-tailed Godwit) – Migratory
    - *Tringa nebularia* (Common Greenshank) – Endangered and Migratory
    - *Actitis hypoleucos* (Common Sandpiper) – Migratory
    - *Calidris ferruginea* (Curlew Sandpiper) – Critically Endangered and Migratory
    - *Numenius madagascariensis* (Eastern Curlew) – Critically Endangered and Migratory
    - *Calidris tenuirostris* (Great Knot) – Vulnerable and Migratory
    - *Charadrius leschenaultia* (Greater Sand Plover) – Vulnerable and Migratory
    - *Tringa stagnatilis* (Marsh Sandpiper) – Migratory
    - *Pandion haliaetus* (Osprey) – Migratory
    - *Calidris melanotos* (Pectoral Sandpiper) – Migratory
    - *Gallinago stenura* (Pin-tailed Snipe) – Migratory
    - *Calidris canutus* (Red Knot) – Vulnerable and Migratory
    - *Calidris ruficollis* (Red-necked Stint) – Migratory
    - *Arenaria interpres* (Ruddy turnstone) – Vulnerable and Migratory
    - *Philomachus pugnax* (Ruff, Reeve) – Migratory
    - *Calidris alba* (Sanderling) – Migratory
    - *Calidris acuminata* (Sharp-tailed sandpiper) – Vulnerable and Migratory
    - *Eubalaena australis* (Southern Right Whale) – Endangered and Migratory
- Commonwealth land (sections 26 and 27A):
    - Cultana Training Area
    - Australian National Railway Commission (ANRC) lands
    - Woomera Defence Centre and Woomera Air Weapons Range

Listed controlling provisions relevant to the assessment are those that were listed at the time that the controlled action decision was made, on 8 April 2024. The EIS must address all relevant MNES (refer to MNES1, 2 and 3 in Table 7 below), and explain how they have adequately regarded the Conservation Advices (and Recovery Plans where applicable) of each EPBC Act listed species that are known or likely to be impacted, and Australia's obligations under international conventions and agreements. Moreover, the EIS must explain how the proposal is not inconsistent with any Threat Abatement Plans, Bioregional Plans or Recovery Plans.

Various policy statements and other publications that may be relevant to the assessment can be found at Appendix B.

6.8.1 Other considerations under the EPBC Act

a) Ecologically sustainable development

The EIS must include a discussion of how the proposal meets the principles of ecologically sustainable development, as defined under section 3A of the EPBC Act.

b) Environmental record of person(s) proposing to take the action

The EIS must include details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

i. The person proposing to take the action.

ii. For an action for which a person has applied for a permit, the person making the application.

iii. If the person proposing to take the action is a corporation, details of the corporation's environmental policy and planning framework must also be included.

c) Environmental outcomes

In the event that the Commonwealth Minister decides to approve the action and attach conditions, should you wish to implement or pursue an outcomes-based approach to mitigating and/or offsetting impacts on protected matters, the EIS must provide information on the outcomes that will be achieved for the relevant protected matters.

Outcomes need to be specific, measurable and achievable, and should be based on robust baseline data and new and relevant scientific data. Outcomes must be developed in consideration of the *Outcomes-based Conditions Policy 2016* and *Outcomes-based Conditions guidance 2016*, with suitable justification for considerations identified in the policy and guidance.

To allow application of outcomes-based conditions, the EIS should include the specific environmental outcomes to be achieved. It should also include the reasoning for these, including reference to any recovery plan, conservation advice or threat abatement plan that may be relevant to the protected matters.

For each proposed outcome, the information must include:

i. The risks associated with achieving the outcome.

ii. The measurability of the outcome, including all suitable performance measures.

iii. Appropriate baseline data upon which the outcome has been defined and justified.

iv. The likely impacts that the proposed outcome will address.

v. Demonstrated willingness and capacity of achieving the outcome.

vi. The level of knowledge about the protected matter or its surrogate, upon which outcomes were based.

vii. Discussion of the appropriateness of any surrogates for protected matter outcomes.

viii. Commitments to independent and periodic audits of performance towards achieving outcomes.

ix. Assessment of the likely level of control that the proponent will have in achieving the outcome.

x. Details of proposed management to achieve the outcome, including, but not limited to performance indicators, periodic milestones, proposed monitoring and adaptive management, and record keeping, publication and reporting processes.

The proposed action will be assessed by a single EIS, to be prepared under a project specific administrative arrangement between the Commonwealth and Government of South Australia and meeting the requirements of both the EPBC Act (Commonwealth) and the PDI Act (State).

6.9 Sources of Information

All sources of information (e.g. reference documents, literature services, research projects, authorities consulted) should be fully referenced, and reference should be made to any uncertainties in knowledge, how recent the information is and how the reliability of the information was tested. Where judgements are made, or opinions given, these need to be clearly identified as such, and the basis on which these judgements or opinions are made need to be justified. The expertise of those making the judgements including the qualifications of consultants and authorities should also be provided.

Any technical and additional information relevant to the EIS that is not included in the text should be included in appendices.

6.10 Consultation process

The EIS must include an appropriate public consultation program, outlined within a Community Engagement Plan, and must be undertaken consistent with the requirements of the Interim Engaging with First Nations People and Communities on Assessments and Approvals under the EPBC Act 1999 (Interim Engaging with First Nations People EPBC Guidelines) and or any First Nations engagement standard (if one is in force).

The Community Engagement Plan must detail:

- All legislated notification requirements to be undertaken by the Minister pursuant to the PDI Act and Practice Direction.
- The Proponent's overall engagement and collaboration strategy including scope and guiding principles.
- Engagement undertaken to date on the proposed project.
- Engagement activities proposed throughout the EIS process including performance outcomes, level of public participation, techniques, indicative timeframes, responsibilities and measures for measuring performance.
- A list of affected stakeholders, interest groups and other relevant parties.

The extent to which a proponent consults with relevant persons and organisations is to be proportional to the public interest and significance of the proposed project's potential environmental, social and economic impacts. Early and sustained consultation with all relevant stakeholders is recommended.

Prior to the public release of the EIS, the Community Engagement Plan will be reviewed by the Minister with regard to the principles of the State Planning Commission's Community Engagement Charter. The Minister may require alterations to the Community Engagement Plan to ensure consistency with the Charter and Interim Engaging with First Nations People EPBC Guidelines (Appendix B) and an appropriate level of public participation in the EIS process.

6.11 Required Plans and Forms

- Current Certificate(s) of Title
- Context and locality plans should illustrate and analyse the existing environment and site conditions and the relationship of the proposal to surrounding land and buildings. Plans should be drawn to a large scale and be readily legible, according to standard mapping conventions. Plans should include:
    - Any neighbouring buildings, infrastructure or facilities, including identification of all nearby sensitive receptors and the likely use of existing or proposed neighbouring buildings (e.g. dwelling, farm outbuildings, shop, office)
    - Locations of any watercourses, surface water bodies (including dams), underground water sources, and any other sensitive environmental receptors/areas in the locality
    - Locations of any State heritage places in relation to the site
    - Existing native vegetation, regulated or significant trees
    - Known sites for State or Nationally listed protected or threatened species (including migratory species) or ecological communities on the site, adjoining land and marine environments
    - Existing roads (public and private)
    - Potential areas of habitat for native fauna, including relevant vegetation communities
    - Any other information that would help to set the context for the locality
- Site plans clearly indicating all proposed buildings, structures and works, and demonstrating that key parts of the development will be contained within relevant allotment boundaries
- Elevations showing all sides of buildings, structures and works with levels and height dimensions relative to ground level.
- Bulk earthworks plan (or similar) for the desalination plant site detailing the extent of engineered cut and fill across the site.
- A description of construction materials, finishes and colours
- Location and dimensions of any external advertising displays, including information as to whether signs are to be illuminated or contain a moving display.

7 Key Issues and Project Specific Assessment Requirements

The Commission has undertaken a preliminary review of the proposed development, based on the proponent's development application, and identified the following as key issues associated with the development:

- Effects on marine flora and fauna, ecological processes, and marine based industry including recreational and commercial fisheries and aquaculture.
- Effects on terrestrial flora and fauna.
- Effects on Matters of National Environmental Significance under the EPBC Act including listed threatened species and communities, listed migratory species, and Commonwealth lands.

- Effects on Aboriginal cultural heritage.
- Economic and social effects for local and regional communities, and the State.
- Effects of providing an alternative, climate independent water resources for community, industry and mining use.

A scoping analysis of the environmental attributes associated with these key issues has been undertaken in accordance with the methodology detailed in Section 5.5.1. Refer Appendix C.

This scoping exercise has informed the level of assessment for each relevant environmental attribute (standard or detailed) and guided the preparation of the project specific Assessment Requirements presented in Sections 9 and 10.

The Project Specific Assessment Requirements are reflective of the Assessment Requirements Library available online at PlanSA. The Library is a planning practitioner's resource that provides draft standard and detailed Assessment Requirements, from which the initial project specific requirements are based. The Library also provides descriptions of each attribute and reference material to assist proponents in preparing an EIS.

The 'Detailed' Project Specific Assessment Requirements reflect the key issues identified above and should be given the greatest level of attention and detail in the EIS.

8 Post Decision Requirements

If the development is approved, final detailed design drawings / plans and project specific management plans will be required through reserved matters or conditions pursuant to section 115(6) and 115(7) of the PDI Act, to the satisfaction of the Minister for Planning.

Final detailed drawings / plans may include the following, drawn at an appropriate scale:

- Site plans clearly indicating all proposed buildings, structures and works, and demonstrating that key parts of the development will be contained within relevant allotment boundaries.
- Elevations showing all sides of buildings, structures and works with levels and height dimensions provided relative to ground level.
- Cross sections of the buildings, structures and works, including stockpile and storage facilities showing ground levels, floor levels, ceiling heights and maximum heights in Australian Height Datum
- Floor plans for each building or structure demonstrating what is proposed at each floor, with internal layouts.
- Final schedule of external materials, finishes and colours for the desalination plant.

A suite of management plans will capture all measures identified in the Applicant's EIS and Response Document, and the Commission's Assessment Report to avoid, mitigate, manage, offset and/or monitor environmental impacts during construction and operation of the development. Preparation of the plans will require consultation with DCCEEW, State Agencies, local Councils, Traditional Owners and others, as relevant. The suite of plans is expected to address both PDI Act and EPBC Act requirements and may include:

- Construction Environmental Management Plan (CEMP)
- Traffic Management Plan (TMP)

- Coastal and Marine Management Plan
- Hazard and Emergency Management Plan(s)
- Flora and Fauna Management Plan(s)
- Native Vegetation Clearance Data Report (final) including a Significant Environmental Benefit (SEB) Management Plan
- Threatened Species Management Plan
- Offset Strategy and Offset Management Plans for MNES
- Cultural Heritage Management Plan (CHMP)
- Greenhouse Gas Emissions Mitigation Plan
- Operational Environmental Management Plan (OEMP)
- Decommissioning and Rehabilitation Plan (DRP)

9 Summary of Project Specific Assessment Requirements – Commonwealth

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
Commonwealth Matters of National Environmental Significance (MNES)				
MNES1	Listed Threatened Species and Communities (Sections 18 and 18A – EPBC Act) controlling provision	To ensure the proposed action does not have unacceptable adverse impacts to the survival of the species.	An analysis is required for each listed threatened species and ecological communities that are known or likely to occur within the proposal site according to PMST (using a buffer of 5 km), which may include, but is not limited to, those identified in section 6.8 above, and is based on the likelihood of significant impacts and should follow the below structure. Description ▪ Describe each listed threatened species and ecological communities including EPBC Act listing status, abundance, distribution, ecology, and habitat preferences in both a regional and local context. These descriptions are to align with the information in the SPRAT database and relevant Commonwealth documents (Appendix B). Desktop analysis ▪ Describe the desktop assessment methodology used to inform the field surveys within and adjacent to, the site of the proposed action. ▪ Identify and describe historical records of listed threatened species and ecological communities in the broader region supported by an appropriate source (i.e. Commonwealth and State databases, published research, publicly available survey reports, etc.) (See Appendix B), including the year of the record and a brief habitat description. ▪ Where desktop analysis is the limit of the information being analysed justify this position. Survey efforts ▪ Detail methods, data and scientific literature used to assess the environmental values in the proposed action area and surroundings, including survey data and historical records for the relevant listed species with reference to DCCEEW documents (e.g. approved conservation advice, recovery plans, draft referral guidelines and listing advice, and the SPRAT Database), including published research and any other relevant sources. ▪ Justify any divergence from relevant Commonwealth and State guidelines or best practice survey guidelines at the time of the surveys with input from species experts and available scientific literature. ▪ Ensure surveys adhere to suitable standard for scope, timing and spatial and temporal replication, to maximise species detection. ▪ Include maps demonstrating survey effort and species distribution. ▪ Provide additional surveys to fill information gaps, from Cape Hardy to Mullaquana, SA. ▪ Provide lidar surveys of Malleefowl mounds in all potential and suitable habitats, and ground truth data identifying any nests within 500 m of the proposed action corridor. ▪ Consider camera trapping as suitable methodology for targeting Plains Mouse and other small mammal species, where required, in areas with potential suitable habitat. ▪ Consider Southern Whiteface population in a regional context, bringing it back to relevant IBRA region/s.	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
			Survey outcomes ▪ State the total number of records (individuals and evidence of presence) of listed threatened species and ecological communities within and adjacent to the proposed action. All records are to include the year of the record and a brief description of the habitat in which the record was identified. This data may be used by DCCEEW to update the relevant species distribution models that underpin the publicly available PMST. Habitat assessment ▪ Conduct a comprehensive habitat assessment focusing on quality, importance, and ecological function (e.g. for foraging, breeding, roosting or dispersal) for listed threatened species and communities within the proposed action area and surrounding areas. ▪ Base habitat assessments on field surveys and vegetation assessments, the SPRAT Database, relevant DCCEEW documents (e.g. approved conservation advice, recovery plans, listing advice, draft referral guidelines, etc.), published research and expert input, where necessary (See Appendix B). ▪ Map habitat type/s for relevant listed threatened species and ecological communities within and adjacent to the proposed action site, detailing the disturbance footprint (in ha) with an overlay of any EPBC habitats and known records of individuals from desktop analysis and/or field surveys. ▪ Note that the National Conservation Values Atlas Mapping System indicates important foraging habitat for the Australian Sea Lion and important migratory habitat for the Southern Right Whale, within the marine environment off Cape Hardy, SA. Impact assessment ▪ Describe and assess the likely short-term and long-term impacts (direct, indirect, facilitated, and cumulative) to listed threatened species and ecological communities within a 5 km buffer area of the proposed action according to PMST. ▪ Evaluate all relevant impacts with the latest relevant Commonwealth policies and guidelines, and information provided in the SPRAT database (Appendix B), including habitat clearance, fragmentation, degradation, injuries, disturbances (e.g., dust, light, vibration, noise), behavioural changes, pest/weed introduction, hydrological changes, water quality (including ecotoxicology assessment of concentrated seawater discharge), barriers to fauna movement. ▪ Identify action components and stages of the action and/or consequential actions that are of relevance to each listed threatened species and communities. ▪ Impacts discussion on these protected matters should address uncertainty (where applicable) and in the absence of information about impacts a precautionary approach or principle should be applied and the maximum potential impact assumed. ▪ The assessment of the impact to threatened ecological communities must include any relevant buffers that directly surround the patch. ▪ Provide maps which identifies the total amount of habitat (in ha) for each listed threatened species and communities in the disturbance footprint and the interaction or overlap between impacted habitat (where the	

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
			disturbance footprint occurs) and retained habitat (areas that are not directly impacted by the disturbance), with tables of coordinates appended. ▪ Provide a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible. ▪ Assess how the action impacts the outcomes, objectives and targets of relevant reports and documents. Significant impact assessment ▪ Analyse the significance of the relevant impacts considering the species ecology and environment, potential threats, and using the DCCEEW's Significant impact guidelines 1.1 (2013) outline which significant impact criteria applies. ▪ Provide an assessment of the likelihood of residual significant impacts occurring on MNES after avoidance, mitigation and management measures have been applied. If residual significant impacts to protected matters are likely, please provide proposed offsets (described below). Avoidance, mitigation and management ▪ Describe all relevant species-specific measures to avoid, mitigate and manage potential impacts on listed threatened species and communities, aligning with key life-cycle events (e.g. key breeding periods) and assess expected effectiveness. ▪ Detail sedimentation and erosion mitigation measures particularly in relation to important habitats that relate to shorebirds and marine species. ▪ Describe measures to prevent oxidation of acid sulphate soils, treat and neutralise acid if formed and manage excavated material, where identified, and if relevant to a potential impact to MNES. ▪ Detail measures that aim to protect the soil seedbank of Yellow Swainson-pea, where habitat is present. ▪ Describe application of the mitigation hierarchy (avoid, mitigate and offset) as it relates to key activities and impacts to MNES. ▪ Ensure that avoidance, mitigation and management measures are aligned with the requirements of all EPBC Act relevant policy and guidance (Appendix B). ▪ Use committed language ('will') rather than non-committal language (i.e. 'may', 'where possible', 'if required', etc.) for proposed measures, referencing relevant guidance or best practice. ▪ Present specific measures for impacted protected matters including the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility and timing for each environmental issue as stated in DCCEW's Environmental Management Plan Guidelines (Appendix B). Proposed offsets ▪ Should there be any residual significant impacts on MNES after the avoidance, mitigation and management measures have been applied then provide details of an offset package (this may be in the form of an offset strategy and offset management plan) proposed to be implemented to compensate for the residual impacts of the project. Provision of a complete offset strategy and its management plan can be considered as condition/s of approval. However, a preliminary strategy at a minimum, should be provided as part of the assessment to	

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
			demonstrate a reasonable level of feasibility under Part 7 of the EPBC Act Environmental Offsets Policy (Appendix B).	
MNES2	Listed Migratory Species (Sections 20 and 20A – EPBC Act) controlling provision	To ensure the proposed action does not have unacceptable adverse impacts to the survival of the species	An analysis is required for each listed migratory species that are known or likely to occur within the proposal site according to PMST (using a buffer of 5km), which may include, but is not limited to, those identified in section 6.8 above, and is based on the likelihood of significant impacts and should follow the below structure. Description ▪ Describe each listed migratory species including EPBC Act listing status (if applicable), abundance, distribution, ecology, and habitat preferences in both a regional and local context. These descriptions are to align with the information in the SPRAT database and relevant Commonwealth documents (Appendix B). Desktop analysis ▪ Describe the desktop assessment methodology used to inform the field surveys within and adjacent to, the site of the proposed action. ▪ Identify and describe historical records of listed migratory species in the broader region supported by an appropriate source (i.e. Commonwealth and State databases, published research, publicly available survey reports, etc.), including the year of the record and a brief habitat description. Survey efforts ▪ Detail methods, data and scientific literature used to assess the environmental values in the proposed action area and surroundings, including survey data and historical records for the relevant listed species with reference to DCCEEW documents (e.g. approved conservation advice, recovery plans, draft referral guidelines and listing advice, and the SPRAT Database), including published research and any other relevant sources. ▪ Justify any divergence from relevant Commonwealth and State guidelines or best practice survey guidelines at the time of the surveys with input from species experts and available scientific literature. ▪ Ensure surveys adhere to suitable standard for scope, timing and spatial and temporal replication, to maximise species detection. ▪ Include maps demonstrating survey effort and species distribution. ▪ Provide additional surveys to fill information gaps, from Cape Hardy to Mullaquana, SA. ▪ Conduct targeted fauna surveys of listed migratory species likely to be significantly impacted including migratory shorebird species and the southern right whale, where potential and important habitats are identified. Refer to DCCEEW's Significant impact guidelines 1.1 (2013), Industry guidelines for avoiding, assessing and mitigating impacts of EPBC Act listed migratory shorebird species, the online National Conservation Values Atlas Mapping System, other relevant DCCEEW documents, i.e. from the SPRAT Database), including published research and other relevant sources (Appendix B). Survey outcomes ▪ State the total number of records (individuals and evidence of presence) of listed migratory species within and adjacent to the proposed action. All records are to include the year of the record and a brief description of the	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
			ecological behaviour and habitat in which the record was identified. This data may be used by DCCEEW to update the relevant species distribution models that underpin the publicly available PMST. Habitat assessment ▪ Conduct a comprehensive habitat assessment focusing on quality, importance, and ecological function (e.g. for foraging, breeding, roosting or dispersal) for listed threatened species and communities within the proposed action area and surrounding areas. ▪ Base habitat assessments on field surveys and vegetation assessments, the SPRAT Database, relevant DCCEEW documents (e.g. approved conservation advice, recovery plans, listing advice, draft referral guidelines, etc.), published research and expert input, where necessary. (See Appendix B.) ▪ Map habitat type/s for relevant listed threatened species and ecological communities within and adjacent to the proposed action site, detailing the disturbance footprint (in ha) with an overlay of any EPBC habitats and known records of individuals from desktop analysis and/or field surveys. ▪ Map listed threatened ecological community, subtropical and temperate coastal saltmarsh (vulnerable) and any other beach habitats within or adjacent to the proposed action area that could be important habitat to any migratory shorebirds likely to be impacted. ▪ Note that the National Conservation Values Atlas Mapping System indicates important migratory habitat for the Southern Right Whale, within the marine environment off Cape Hardy, SA. Impact assessment ▪ Describe and assess the likely short-term and long-term impacts (direct, indirect, facilitated, and cumulative) to listed threatened species and ecological communities within a 5km buffer area of the proposed action according to PMST. ▪ Evaluate all relevant impacts with the latest relevant Commonwealth policies and guidelines, and information provided in the SPRAT database (Appendix B), including habitat clearance, fragmentation, degradation, injuries, disturbances (e.g., dust, light, vibration, noise), behavioural changes, pest/weed introduction, hydrological changes, water quality (including ecotoxicology assessment of concentrated seawater discharge), barriers to fauna movement. ▪ Identify action components and stages of the action and/or consequential actions that are of relevance to each listed migratory species. ▪ Impacts discussion on these protected matters should address uncertainty (where applicable) and in the absence of information about impacts a precautionary approach or principle should be applied and the maximum potential impact assumed. ▪ Provide maps which identifies the total amount of habitat (in ha) for each listed migratory species in the disturbance footprint and the interaction or overlap between impacted habitat (where the disturbance footprint occurs) and retained habitat (areas that are not directly impacted by the disturbance), with tables of coordinates appended. ▪ Provide a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible. ▪ Assess how the action impacts the outcomes, objectives and targets of relevant reports and documents.	

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
			Significant impact assessment ▪ Analyse the significance of the relevant impacts considering the species ecology and environment, potential threats, and using the DCCEEW's Industry guidelines for avoiding, assessing and mitigating impacts on EPBC Act listed migratory shorebird species and Significant impact guidelines 1.1 (2013) (see Appendix B), outline which significant impact criteria applies. ▪ Provide an assessment of the likelihood of residual significant impacts occurring on MNES after avoidance, mitigation and management measures have been applied. If residual significant impacts to protected matters are likely, please provide proposed offsets (described below). Avoidance, mitigation, and management ▪ Describe all relevant species-specific measures to avoid, mitigate and manage potential impacts on listed migratory species, aligning with key life-cycle events (e.g. key breeding periods) and assess expected effectiveness. ▪ Detail sedimentation and erosion mitigation measures particularly in relation to important habitats that relate to migratory shorebirds and marine species. ▪ Describe measures to prevent oxidation of acid sulphate soils, treat and neutralise acid if formed and manage excavated material, where identified, and if relevant to a potential impact to MNES. ▪ Describe application of the mitigation hierarchy (avoid, mitigate and offset) as it relates to key activities and impacts to MNES. ▪ Ensure that avoidance, mitigation and management measures are aligned with the requirements of all EPBC Act relevant policy and guidance (Appendix B). ▪ Use committed language ('will') rather than non-committal language (i.e. 'may', 'where possible', 'if required', etc.) for proposed measures, referencing relevant guidance or best practice. ▪ Present specific measures for impacted protected matters including the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility, and timing for each environmental issue as stated in DCCEW's Environmental Management Plan Guidelines (Appendix B). <u>Proposed offsets</u> ▪ Should there be any residual significant impacts on MNES after the avoidance, mitigation and management measures have been applied then provide details of an offset package (this may be in the form of an offset strategy and offset management plan) proposed to be implemented to compensate for the residual impacts of the project. Provision of a complete offset strategy and its management plan can be considered as condition/s of approval. However, a preliminary strategy at a minimum, should be provided as part of the assessment to demonstrate a reasonable level of feasibility under Part 7 of the EPBC Act Environmental Offsets Policy (Appendix B).	
MNES3	Commonwealth land (sections 26 and 27A)	To ensure the proposed action does not have	A Whole of Environment Assessment is required for Commonwealth Land, which may include, but is not limited to, those identified in section 6.8 above, and is based on the likelihood of significant impacts.	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
	controlling provision	unacceptable adverse impacts on the whole environment relating to Commonwealth Land.	Environmental context ▪ Identify the areas, components or features of the environment that may be vulnerable to all impacts or especially vulnerable to certain kinds of impacts. Examples of environmental components which are likely to be vulnerable to all impacts include environmental components which have very specific environmental requirements, for example, some animal species, such as the Malleefowl, which have unique nesting requirements or environmental components which are non-renewable like certain plant species which are slow growing or slow to regenerate. Potential impacts ▪ Identify potential adverse impacts including both onsite and offsite, direct and indirect, and assess severity based on scale, intensity, duration, and frequency of the action (i.e., severe, moderate, minor). Significant impact assessment ▪ Describe the overall adverse impact of the action to Commonwealth Land within the proposed action area and nominated 5 km buffer in the context of the whole environment, particularly those elements of the environment which are sensitive or valuable. ▪ Analyse the significance of the relevant impacts (including direct, indirect, facilitated and cumulative) considering the whole of the environment, potential threats, and using the DCCEEW's Significant impact guidelines 1.1 (2013) and DCCEEW's Significant impact guidelines on Commonwealth land 1.2 (Appendix B), and outline which significant impact criteria applies. ▪ Should there be found to be no significant impacts on any of the identified Commonwealth Land, address where impacts do not exist and provide suitable justification to support this conclusion. ▪ Aassess from a 'whole of environment' context on impacts on landscapes and soils, coastal landscapes and process, ocean forms and life, water resources, pollutants, plants and animals, people and communities and heritage. ▪ Provide information on surplus soil management post pipeline installation. ▪ Identify components of the environment with special value and address any potential impacts on those components. This may include state-listed flora and fauna species, state heritage places, important landforms or geological features, and water bodies. ▪ Recommend targeted surveys for Malleefowl, Western Grasswren and Plains Mouse. Consider a longer-duration surveys for Plains Mouse with 'An introduction to camera trapping for wildlife surveys in Australia' (2012) and Paull et al. (2011) suggesting 'that a minimum deployment time for camera trapping studies on Australian small- and medium-sized mammals is 14 nights.', lidar surveys for potential Malleefowl mound nest locations and to fill information gaps for the Western Grasswren, within Cultana Training Area, north/north-west of the Whyalla Conservation Park. ▪ Where required, include emergency management plans. ▪ Describe potential impacts from supporting a temporary workforce, construction activities and disruptions to community services.	

Library Ref	Environmental Attribute	Objective	Method of Investigation	**Level of Assessment**
			▪ Survey for cultural heritage sites, assess potential impacts, and outline avoidance measures, where significant impact is identified. Avoidance, mitigation and management ▪ Detail measures to avoid, mitigate and manage impacts on the whole environment of Commonwealth Land. These measures are to be based on best available practices, appropriate standards, and supported by scientific evidence (e.g. outcomes of successful field trials, research papers, etc). ▪ Include proposed measures to avoid and mitigate the relevant impacts of the action on listed threatened species with identified critical habitat and cultural heritage sites on Commonwealth Land. ▪ Assess the predicted effectiveness of the proposed measures. ▪ Develop an engagement plan with the Australian National Railway Commission outlining avoidance and mitigation measures for active train tracks interacting with the main trunk water pipeline construction, where they intersect. In the absence of an engagement plan with ANRC, it will need to be clearly demonstrated how the horizontal bore drilling along active tracks and related construction activities will not significantly impact ANRC operations. ▪ Describe application of the mitigation hierarchy (avoid, mitigate and offset) as it relates to key activities and impacts to MNES. ▪ Ensure that avoidance, mitigation and management measures are aligned with the requirements of all EPBC Act relevant policy and guidance (Appendix B). ▪ Use committed language (‘will’) rather than non-committal language (i.e. ‘may’, ‘where possible’, ‘if required’, etc.) for proposed measures, referencing relevant guidance or best practice. ▪ Present specific measures for impacted protected matters including the environmental objectives, performance criteria, monitoring, reporting, corrective action, responsibility and timing for each environmental issue as stated in DCCEW’s Environmental Management Plan Guidelines (Appendix B). Proposed offsets ▪ Should there be any residual significant impacts on MNES after the avoidance, mitigation and management measures have been applied then provide details of an offset package (this may be in the form of an offset strategy and offset management plan) proposed to be implemented to compensate for the residual impacts of the project. Provision of a complete offset strategy and its management plan can be considered as condition/s of approval. However, a preliminary strategy at a minimum, should be provided as part of the assessment to demonstrate a reasonable level of feasibility under Part 7 of the EPBC Act Environmental Offsets Policy (Appendix B).	

10 Summary of Project Specific Assessment Requirements – State

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
Amenity and Environmental Quality (AEQ)				
AA1	NA	To ensure the selection of the site and concept design considered mitigation of impacts and risks to the surrounding environment.	▪ Describe location and design options considered for all project elements (including the desalination plant facility, water delivery pipeline, pump stations and storage sites, and electricity transmission infrastructure), reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. ▪ Outline and justify any trade-offs in the design or operation of the development.	STANDARD
AEQ1	Air Quality	To ensure the development does not have unacceptable adverse air quality impacts on the surrounding receiving environment, in particular sensitive receivers in proximity to polluting development.	▪ Describe the existing air environment at the proposed development site and the surrounding area and airshed, including local and regional meteorology, existing sources of contaminants and background / ambient levels of air contaminants. ▪ Describe and illustrate the location of any sensitive receivers. All types of sensitive receivers should be identified, noting that some pollutants can affect health or amenity over shorter time periods than others, and for these pollutants a broader range of locations (e.g. commercial and industrial) should be considered as sensitive receivers. In addition, describe any other environmental values that could be impacted by emissions to air. ▪ Provide an emissions inventory and description of the characteristics of contaminants or materials that would be released from point and diffuse sources and fugitive emissions when carrying out the development activity. This should address construction, commissioning, operation, upset conditions, and closure of the proposed development. ▪ Provide an assessment of predicted impacts of emissions on sensitive receivers / environmental values of the receiving environment, that includes consideration of background levels of pollutants, in accordance with the Environment Protection (Air Quality) Policy 2016 (Air Quality EPP). Assessment should consider the sensitivity and assimilative capacity of the receiving environment and the practices and procedures that would be used to avoid or minimise impacts. ▪ Provide an assessment of the compatibility of the development's air emissions with existing or potential land uses in surrounding areas and the cumulative impact of emissions with other known releases of contaminants, materials or wastes associated with existing development and approved development (i.e. as described by approved plans and existing project approvals). ▪ Describe the proposed mitigation measures to protect the environmental values for air quality, how the relevant standards and indicators may be achieved. If required, revisit project design and construction methodologies to reduce air quality impacts to demonstrate that the Air Quality EPP and/or the general environmental duty under the *Environment Protection Act 1993* (EP Act) will be met.	STANDARD
AEQ2	Noise / Vibration	To ensure the development does not have unacceptable adverse noise or vibration impacts on the surrounding environment, in particular sensitive	<u>General</u> ▪ Describe and illustrate the locations of any noise and vibration sensitive receivers both proposed or existing (including marine and terrestrial fauna). Also describe any other environmental values that could be impacted by noise emitted from or to the development. ▪ Describe current background noise and vibration levels at sensitive receivers, including their location, who they are, and how have they been defined. Note – the analysis must clearly identify all types of sensitive receivers, noting that these could include commercial/industrial land uses, and for the protection of the workers at those sites.	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
		receivers in proximity to noise sources.	▪ Describe sources and characteristics of noise and vibration that would be emitted during the construction, commissioning, operation, upset conditions, and closure of the development. ▪ If MNES have been identified, undertake an assessment of potential noise impacts to MNES. ▪ Provide an assessment of the compatibility of the development's noise emissions with existing or potential land uses in surrounding areas and the cumulative impact of emissions with other known noise / vibration emissions associated with existing development and approved development (i.e. as described by approved plans and existing project approvals). ▪ Describe noise emission and vibration impacts on fauna, including nocturnal species, and how these impacts will be managed. ▪ Describe and design strategies to mitigate noise and vibration impacts during construction, commissioning, operation, upset conditions and closure of the development, to demonstrate compliance with relevant legislation, guidelines and standards including, but not limited to: – *Environment Protection (Commercial & Industrial Noise) Policy 2023*. – *Environmental Protection Act 1993* (environmental duty and relevant environmental authorisations). – *Local Nuisance and Litter Control Act 2016.* – Guideline for the Management of Noise and Vibration: Construction and Maintenance Activities, DIT, October 2021. – AS 2436 Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites. <u>Underwater noise</u> ▪ Undertake an underwater noise assessment covering both construction and operation of the desalination plant facility. The assessment should include / consider: – Noise from the development including piling, dredging, drilling, shipping movements, onshore blasting and operation of the desalination plant. – Impacts to marine flora and fauna including cetaceans. – Examine the base case and future case scenarios including the approved Iron Road port. – Consider the potential short-term and long-term impacts. ▪ Demonstrate how the development will meet the General Environmental Duty under the EP Act with respect to underwater noise. ▪ Describe and design environmental management strategies to mitigate noise and vibration impacts of underwater noise on marine flora and fauna.	
AEQ3	Transport and Traffic	To ensure impacts to the safety and efficiency of transport modes and the broader transport and traffic system and infrastructure are avoided or mitigated.	<u>Road operations</u> ▪ A Transport and Access Impact Assessment should be prepared by a suitably qualified traffic engineer, evaluating current and proposed access arrangements and development related transport impacts including the effect on the arterial road network, and vehicle interface with the local road network. Any assessment must address implications for the entire supply chain and the transport, traffic and access impact for the construction, operation, maintenance and decommissioning phases. ▪ The assessment should determine the transport system asset improvements, asset management / maintenance requirements, and operational management requirements to accommodate the increase in movements and/or vehicle sizes/mass for affected transport assets and services across all modes for the proposal's construction / implementation and operational phases. The assessment should provide where relevant:	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			– A summary of the transport task for the development (including workforce and end-to-end supply chain (input and output)) during construction, operations and decommissioning phases of the development. This should address predicted traffic volumes, proposed vehicle types, number/frequencies, hours of activity and traffic peaks, any requirements that are outside of the current gazetted heavy vehicle networks, and any measures required to ensure compliance with the 'Heavy Vehicle National Law'. – A description of the existing transport and traffic environment (using traffic data, accident statistics) and include (where relevant) public transport networks, car parking, school bus routes, and public pedestrian, cycle pathways or trails. – Any operational management measures to minimise delays and ensure safety and/or accommodate (where relevant) for other transport users (e.g. temporary road closures/detours, impact on school bus routes, alternative or new facilities), including transport of plant and equipment to/from the site. – Requirements for temporary or permanent upgrades and modifications to roads or rail infrastructure (including rail crossings and bridges), upgrades to road pavements and surfaces, access on arterial and / or local roads and car parking as a result of the development including any increase (temporary or ongoing) in maintenance requirements of transport assets. – Any management measures for transport of hazardous materials. – Identify any laydown areas or accommodation areas that will generate traffic movements and interfaces with public road and rail networks. – Describe potential impacts of the development on Public Access Routes (PARs) through pastoral leases. Consider access and/or closure requirements during construction and operation, and potential damage, maintenance and repair arrangements. – Describe how identified impacts to transport and access will be mitigated. Mitigation strategies may include upgrade or traffic management works, contributions or other strategies that can be documented in a traffic management plan. Strategies must be prepared in close consultation with relevant transport authorities, including local government. <u>Maritime operations</u> ▪ Identify any marine or port infrastructure (new or amendments) required to facilitate the development (eg module offloading facilities if required), and their interface with transport routes and networks. ▪ Describe expected marine traffic volumes to and from port / wharves and the desalination plant development site, including expected boat/ship movements, timing and patterns. ▪ Describe marine traffic impacts associated with these movements (e.g. interaction with other vessels, impacts to navigation aids) including to existing operators (e.g. commercial fisheries, tourist operators, recreational users). ▪ Describe the impacts of any marine structures on maritime operations and management of these impacts. ▪ Discuss the measures that will be undertaken to mitigate these impacts and any safety measures that will be implemented to ensure public safety and that enable compliance with relevant marine, navigation and ports legislation and operational arrangements. <u>Rail operations</u> ▪ Assess the potential impacts of any temporary or permanent disruption of existing freight and passenger rail services.	

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			▪ Discuss the measures that will be undertaken to mitigate these impacts and enable compliance with rail legislation and operational arrangements. <u>Air operations</u> ▪ Describe any features of the project that could impact on air transport, including registered aerodromes and private airfields. ▪ Discuss the measures that will be undertaken to mitigate these impacts.	
AEQ4	Visual Amenity	To ensure adverse effects on visual amenity, landscape and open space values, including Aboriginal cultural values, are avoided or minimised and opportunities to enhance these values are maximised.	<u>Desalination Plant</u> ▪ Provide a description of the landscape character, features and values of the development area and its environs, including Aboriginal cultural values. ▪ Describe the effects of the development on visual amenity and landscape quality for residents and visitors for both near and distant views, from important viewing points, including from the land and sea. Describe the effects of the development on culturally significant sightlines. This should include construction, operations and closure / rehabilitation aspects of the proposal. ▪ Provide a visual analysis of the constructed desalination plant facility using photomontages which includes: – A depiction of proposed built form / structures and site levels, set within the local topography. – The photomontages should depict the development from key viewpoints including public roads, sensitive receptors, and important viewing points (including from the land and sea). – The photomontages should depict the main elements of the approved Iron Road major development (as far as practically possible) to consider cumulative impact on visual amenity and landscape quality. – A 3D representation of the desalination plant facility either in model or video form. ▪ Describe the potential for visual amenity impacts from night lighting at the desalination plant site and measures to mitigate visual impact. ▪ Describe the rationale for the major design elements of the proposed development and measures to mitigate their visual impact. If required, revisit project design and siting and/or consider other mitigation strategies developed in consultation with Traditional Owners to maintain culturally significant sightlines to the extent possible. ▪ Describe how the design and construction of all buildings and structures will be controlled to ensure cohesive visual amenity, including details of construction materials, colours and landscaping for all buildings and structures. ▪ Describe the use of screening / amenity / landscape plantings, and any broad scale revegetation of the disturbance footprint, including opportunities for the use of locally endemic species. <u>Ancillary Water and Electricity Transmission Infrastructure</u> ▪ Provide a description of the landscape character, features and values of the development area and its environs, including Aboriginal cultural values. ▪ Where there is potential to impact on sensitive receptors, culturally significant sightlines, and/or major public roads, provide a visual analysis of the electricity transmission infrastructure. The analysis should include photomontages or perspectives (or similar) showing the proposed development from near and distant views (as relevant). ▪ If required, revisit project design and siting and/or consider other mitigation strategies developed in consultation with Traditional Owners to maintain culturally significant sightlines to the extent possible. ▪ Describe the proposed revegetation of disturbance footprints, including opportunities for the use of locally endemic species.	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
Biological Environment (BE)				
BE1	Biosecurity	To ensure that construction and operation of the development avoids the introduction or spread of biosecurity threats including pest or nuisance animal and plant species (including marine pests), diseases and pathogens.	<u>Terrestrial / Aquatic</u> ▪ Describe the extent and significance of existing exotic, pest or nuisance plant and animal species, diseases and pathogens in the development's terrestrial and aquatic environs. ▪ Describe the existing uses and environmental values of the development's terrestrial and aquatic environs and any sensitive places and receivers which may be impacted by introduced biosecurity threats. ▪ Identify the potential for the introduction or dispersal of new exotic, pest or nuisance plant and animal species, diseases and pathogens, and the associated implications for native species, habitat, agricultural land and other environmental values. ▪ Identify the potential for increased distribution and abundance of existing exotic, pest or nuisance plant and animal species, disease and pathogens, and the associated implications for native species, habitat, agricultural land and other environmental values. ▪ Propose measures to remove, control and limit the introduction or spread of exotic, pest or nuisance plants and animals, diseases and pathogens on the development site and any areas under the proponent's control (e.g. decontamination of vehicles, mobile plant, equipment and materials), having regard to the effectiveness of such mitigation measures in the past. This includes declared plants and animals under relevant State and Commonwealth legislation. <u>Marine</u> ▪ Describe the extent and significance of existing exotic, pest or nuisance plant and animal species, diseases and pathogens in the development's marine environs. ▪ Describe the existing uses and environmental values of the development's marine environs and any sensitive places and receivers which may be impacted by introduced biosecurity threats. ▪ For the construction phase, provide a biosecurity risk analysis that outlines the potential risk of introduction of exotic marine organisms and disease (e.g. operation of vessels or barges supporting construction activities) and measures proposed to eliminate this risk, including strategies to prevent their introduction to marine waters surrounding Cape Hardy. ▪ Detail the response procedure that will be followed in the event of a new exotic organism being detected and describe the system of surveillance monitoring.	STANDARD
BE2	Marine Flora and Fauna	To ensure that the nature and scale of the development avoids or minimises adverse effects on biodiversity, threatened and protected marine flora and fauna species, their ecological communities and habitat	▪ Provide an assessment undertaken by an appropriately qualified specialist of the direct, indirect and cumulative effects of the development on marine flora and fauna, ecological communities and populations, that may occur over the life of the development: – Describe the distribution, abundance, condition and significance of flora and fauna species, and populations, and marine habitats at Cape Hardy. The assessment should consider and/or include a) benthic habitat and plankton surveys; b) ecologically important species; c) economically important species, particularly for the commercial and recreational fisheries and aquaculture industries (both existing and potential future sites in the region) including spat survival / collection; and d) species that are totemic and/or of significance to the cultural traditions of Traditional Owners.	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			– Describe the ability of communities, populations or individual species to recover, regenerate or be rehabilitated during construction and operation including maintenance. – Describe the measures that will be taken to address displaced flora and fauna (if any). – Incorporate the outputs of the underwater noise (AEQ2), physical coastal and marine (PE1), and biosecurity (BE1) assessments, and incorporate suitable avoidance and mitigation measures in line with those and other relevant assessments. – Detail any residual impacts that cannot be avoided and propose measures to offset the residual loss. – Mitigation and offset strategies for totemic and/or culturally significant species should be developed in consultation with Traditional Owners.	
BE3	Terrestrial Flora and Fauna	To ensure that the nature and scale of the development avoids or minimises adverse effects on biodiversity, threatened and protected terrestrial and aquatic flora and fauna species, their ecological communities and habitat.	▪ Prepare a draft Native Vegetation Clearance Data Report prepared by an Accredited Consultant approved by the Native Vegetation Council. The assessment should undertake a survey of the vegetation (including EPBC Act Listed threatened species and communities), detail compliance with the impact mitigation hierarchy and describe how the significant environmental benefit would be achieved (and attaching a copy of a draft Significant Environmental Benefit Management Plan if developed). ▪ Provide an assessment undertaken by an appropriately qualified specialist of the direct, indirect and cumulative effects of the development on terrestrial flora and fauna, ecological communities and populations, that may occur over the life of the development: – Describe the location, extent, condition and significance of flora and fauna species and populations that may be affected during construction and operation. Consider ecologically important species, economically important species, and species that are totemic and/or of significance to the cultural traditions of Traditional Owners. – Identify significant wildlife habitat and characterise wildlife movement within the broader development area that could be directly or indirectly impacted by the development including alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages) that may occur over the life of the development. Assess the potential impacts on habitat connectivity of listed or other protected fauna species including but not limited to migratory species. – Include alteration of conditions that may directly or indirectly impact wetland, riparian and in-stream environments and undertake an assessment of the impacts of the development on aquatic ecology (where relevant). – Detail any changes in biological diversity that may result at the interface between the development and existing native vegetation (i.e. the ‘edge effect’) during construction and over the life of the development. – Describe the ability of communities, populations or individual species to recover, regenerate or be rehabilitated during construction and operation including maintenance. – Assess the ability of habitat to recover, especially for resident or migratory shore birds and listed threatened or significant species. – Assess the effects of artificial light from the desalination plant on fauna species for which artificial light has been demonstrated to affect behaviour, survivorship or reproduction (if any). Consider impact in accordance with the *National Light Pollution Guidelines for Wildlife*. – Describe the measures that will be taken to address displaced native fauna (if any). – Detail suitable avoidance and mitigation measures to minimise impact to flora and fauna.	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			– Detail any residual impacts that cannot be avoided and propose measures to offset the residual loss. – Mitigation and offset strategies for totemic and/or culturally significant species should be developed in consultation with Traditional Owners.	
Climate Change and Resource Efficiency (CCRE)				
CCRE1	Climate Change Adaptation	To ensure that development and design are climate resilient and risks from climate change are reduced.	▪ Undertake a climate risk assessment of the relevant potential impacts on the development of projected climate change over the lifetime of the development (e.g. increasing temperatures, extreme heat and heat waves, decline in rainfall, increased drought, extreme rainfall events, harsher fire weather, sea level rise, salinity of marine waters). Include proposed adaptive management strategies. Indicate how the site selection has incorporated climate change adaptation considerations. ▪ For developments with a lifetime to 2050 or before, the risk assessment should be based on climate projections from the RCP 8.5 scenario (high greenhouse gas emissions scenario). For developments with a lifetime beyond 2050, the risk assessment should be based on climate projections under both the RCP 8.5 and RCP 4.5 scenario (moderate greenhouse gas emissions scenario). ▪ Examine the potential cumulative effects of climate change from a risk management perspective (including adaptive management strategies). ▪ Outline the potential effects of, and identify strategies to protect against, extreme weather events, including a 1% AEP storm event and sea level rise as per Coast Protection Board policy and allowances from a risk management perspective, including adaptive management strategies. Include mitigation strategies should the structure not withstand such an event.	STANDARD
CCRE2	Greenhouse Gas Emissions	To ensure the development minimises greenhouse gas emissions through the design of the desalination plant and associated with its construction and operation so as to meet South Australia's goal to reduce greenhouse gas emissions by more than 50% below 2005 levels by 2030 and achieve net zero emissions by 2050.	▪ Describe the electricity consumption requirements for the development and identify the proposed energy sources. ▪ Undertake a greenhouse gas assessment that: – identifies all sources GHG emissions that would be generated – provides the estimated annual GHG emissions from each source – provides an estimate of yearly net GHG emissions and emissions intensity, including an uncertainty assessment – provide an inventory of projected annual Scope 1 and Scope 2 emissions for each GHG over the life of the development. Provide an estimate of annual Scope 3 GHG emissions for the life of the development. ▪ Describe GHG mitigations including: – A description of how the project will contribute to meeting South Australia's emissions targets i.e. 100% renewable energy target by 2030, 50% emissions reduction below 2005 level by 2030 and zero net emissions by 2050. – A description of measures that have been incorporated in the design to minimise, reduce and ameliorate greenhouse gas emissions, particularly the use of alternative or renewable energy sources and off-sets, energy efficiency and energy conservation measures, and if it incorporates integrated passive design principles and climate-responsive techniques and features and identify barriers to implementation.	STANDARD
CCRE3	Sustainable Use of Resources	To ensure opportunities to procure and use resources efficiently and sustainably are maximised, supporting	▪ Describe the sustainability objectives of the development and the approach and methodology used to achieve these objectives. ▪ Describe design guidelines for aspects of the development (including transport options) that would be adopted to ensure sustainability. ▪ Describe how sustainability of the development will be audited.	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
		South Australia's transition to the circular economy	▪ Identify ways in which power use can be minimised or supplemented, especially using alternative energy sources, energy efficient measures and energy conservation. ▪ Describe the proposed approach to matters such as design, construction methods, materials and equipment to reduce energy use (including vehicle emissions), disposal of waste, water use efficiency during construction and operation over the life of the project. ▪ Describe the capacity for ancillary infrastructure at the desalination plant site (including electricity transmission infrastructure, roads, stormwater management) to be augmented and/or upgraded to cater for future development in the precinct. ▪ Describe how the development may impact reliance on existing climate-dependent water resources in the region (River Murray, Great Artesian Basin and local groundwater sources).	
CCRE4	Waste Management	To ensure that waste generated, transported or received as part of the development is managed in accordance with the waste hierarchy and in a manner that protects all environmental values.	▪ Identify, quantify and classify all the expected waste streams to be generated from the proposed project activities during the construction, operation, rehabilitation and decommissioning phases of the development. ▪ Assess and describe the proposed management measures against the waste management hierarchy, namely: avoid and reduce waste generation, recycle, reuse, recover, treatment and disposal. This includes the generation, storage and transport of waste.	STANDARD
Land, Regional and State Economies (LRSE)				
LRSE1	Local, regional and state economies	To ensure adverse economic impacts arising from construction and operation of the development are avoided or mitigated, and net economic benefits to the region and state are created	▪ Provide a full economic analysis of the development including the long-term economic viability and efficiency of the operational aspects of the development, incorporating a regional impact analysis (RIA) and cost-benefit (risk return) analysis (CBA). ▪ The RIA should focus on the direct impact of the project on the local, regional and state economies. The identification of economic impacts should include the prediction of spending on goods, services, taxes etc. during construction and operation of the project and the distribution of income generated by the project. ▪ The CBA should assess the impact of the project on the economic welfare of the economies of interest by estimating a dollar value for as many economic, social and environmental benefits and costs as can reasonably be predicted. ▪ Consideration of regional economic impacts should include: – An outline of the skill level requirements of any new workforce, the component of the workforce that is expected to be hired locally, and the type of employment this would entail (e.g. full time, permanent, sub-contractors, casual, skilled labour, truck drivers etc) and identify if this employment would be continuous/year-round. – An assessment of potential impacts on existing, future (ie approved), and envisaged (ie zoned) significant economic activities and facilities in the region including industrial, commercial, tourism (including aquaculture tourism), and primary industries (mining, agriculture, horticulture, viticulture, aquaculture, fisheries). – Describe the full potential aquaculture activity within nearby designated aquaculture zones (ie based on the 'prescribed criteria' within the relevant aquaculture zone policy, pursuant to the *Aquaculture Act 2001*), including the Port Neill Aquaculture Zone, and assess potential impacts of the development on future aquaculture investment and activity (including investment attraction).	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			– Identification of the impacts of the development will have on existing users of distribution networks for gas, electricity, waste, potable water, sewerage, and communication systems. ▪ Describe any potential economic effects locally and regionally and the potential to attract value add development and commercial ventures including: – employment opportunities and the expected impacts on the local work force during construction and operational stages and flow-on impacts on local business. – information on local and indigenous employment and training opportunities associated with the proposal. – the economic effect of the construction and on-going workforce regionally. Include consideration of impact of development on existing industries and local businesses if workers change employment e.g. mining taking skilled workers from trades and primary industries due to higher wages. – effects on accommodation supply and demand. – an analysis of existing supply chain and prospective suppliers, as well as any gaps in the supply chain – secondary economic effects, including property and land values, potential to attract new industries and commercial ventures. Describe the positive and negative effects on existing businesses / industries (e.g. displacement, competition or opportunities). – the proposal's anticipated effect on State and local investment, research and development, educational effects, employment generation and flow-on impacts on business. – the proposal's anticipated effect on State and local investment and the region as a whole, identifying employment and investment opportunities, including the 'multiplier effect' for the local area, the broader regional economy and community and South Australia. – any economic implications for the State and the region if the development does not proceed, including reliance on existing climate-dependent water resources and resultant limits on growth.	
Hazards and Risks (HR)				
HR0	General	To ensure the risk of, and adverse impacts from natural and man-made hazards from the development are avoided, minimised or mitigated to protect people, property and the environment.	▪ Undertake a hazard and risk assessment in accordance with *AS/NZS ISO 31000:2018 Risk management guidelines* and with *HB203:2006 Environmental risk management principles and processes* which describes the potential risks to people, property and the environment during all stages of development. The assessment shall address the specific requirements listed in HR 2, 3, 4 below.	STANDARD
HR1	Bushfire / Fire	As above	▪ Evaluate and identify any bushfire risks, in particular how risks from bushfire will be minimised with regards to the potential for uncontrolled bushfire events, high levels and exposure to ember attack, impact from burning debris, radiant heat, likelihood and direct exposure to flames from a fire front. ▪ Explain how buildings and structures will be designed, configured, sited and the use of materials in order to reduce the impact of bushfire. ▪ Evaluate the risk of fire originating from the development and any potential impacts to people, property and the environment. ▪ Describe measures that would be taken to avoid and minimise the risks of these events during all stages of development.	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
HR2	Flooding	As above	▪ Undertake a quantitative flood assessment for the desalination plant site (Cape Hardy) including: – Describe the history of flooding onsite and in proximity to the development site. – Describe current flood risk for a range of annual exceedance probabilities up to the probable maximum flood for the development site. – Undertake flood modelling, using MUSIC and DRAINS tools, to assess how the desalination plant may potentially change flooding and run-off characteristics on-site and both upstream and downstream of the site. – Identify the potential impacts on people, property, infrastructure, and the environment from potential flood risk. – Describe measures that would be taken to avoid and minimise the risks of these events during all stages of development. ▪ Undertake a qualitative flood assessment for all substation, pump station, and water storage sites including: – Describe the history of flooding onsite and in proximity to the development site. – Describe current flood risk for the development site. – Where applicable, describe how the development may potentially change flooding and run-off characteristics on-site and both upstream and downstream of the site. – Where applicable, identify the potential impacts on people, property, infrastructure, and the environment from potential flood risk. – Where applicable, describe measures that would be taken to avoid and minimise the risks of these events during all stages of development.	STANDARD
HR3	Site and Groundwater Contamination	As above	▪ Describe the historical land use and potential for contamination of soils and sediments and describe any known or suspected soil contamination that could be re-suspended, released or otherwise disturbed as a result of the development. ▪ Detail any known or potential sources of contaminated of groundwater that could be impacted by the development. ▪ Detail procedures to be adopted to confirm whether site contamination exists (such as site history, site audit, and site contamination reporting) and any remedial measures proposed. ▪ Demonstrate compliance with the assessment methodology and site acceptability requirements for the intended use(s) of the development sought by Practice Direction 14 Site Contamination Assessment 2021. ▪ Site and groundwater contamination assessment undertaken in accordance with the National Environment Protection (Assessment of Site Contamination) Measure (ASC NEPM), the EPA Guidelines for the assessment and remediation of site contamination and any other relevant guidance issued by the EPA. ▪ Describe measures that would be taken to avoid and minimise the risks of these events during all stages of development.	STANDARD
HR4	Dangerous Substances including marine spill management	As above	▪ Identify all dangerous and hazardous substances and any explosives to be used, transported, stored, processed or produced and the rate of usage. ▪ Describe the use, handling and disposal of these materials during construction and operation, with reference to storage (including any associated fire protection facilities). ▪ Describe how hazardous contaminants and waste substances produced by the development will be treated or contained until their disposal at an approved facility. ▪ Evaluate the potential effects of any accidents involving dangerous substances on the environment and public health.	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			▪ Describe measures that would be taken to avoid and minimise the risks of these events during all stages of development.	
Land Use and Site Conditions (LUSC)				
LUSC1	Land tenure, protected areas and land use	To ensure that the impacts of development on environmental, social and economic values of adjoining land uses, land tenures and protected areas are avoided or minimised.	▪ Provide details of the existing land uses, land tenures and protected areas at, overlapping or adjoining the development site (including with the use of maps) which may be impacted by the development including: – relevant Planning Code Overlays and Zones. – existing or potential native title rights, claims and interests (including with the use of maps) including: a) land or waters where native title has been determined to exist by the Federal Court b) land or waters that are covered by a native title determination application c) land or waters that are covered by a registered Indigenous Land Use Agreement. – Crown land, pastoral leases, petroleum and mining tenements, Native Vegetation Heritage Agreements or any other relevant land tenures (including leases and licences). – areas protected under legislation or Special Legislative Schemes. – designated aquaculture zones in the Spencer Gulf, including the Port Neill Aquaculture Zone. – Iron Road's existing development approval under the *Development Act 1993* (repealed) for a deep-sea port and associated infrastructure at Cape Hardy. ▪ Provide details of the development (activities or structures) with the potential to impact on the existing land uses, approved developments, land tenures and protected areas listed above, during all stages of the development (construction, operation (including maintenance) and decommissioning). ▪ Describe any measures to mitigate these impacts.	STANDARD
Physical Environment (PE)				
PE1	Coastal and Marine	To ensure the natural features and processes of coastal systems are protected so that the environmental, economic and cultural values of the coast are maintained. To ensure the quality and productivity of marine waters, sediment and biota are protected so that environmental values are maintained and impacts to commercial industries (eg fisheries and aquaculture) which rely on them are minimised.	<u>Desalination Plant – General</u> ▪ Describe coastal engineering requirements for the location, orientation and type of infrastructure. ▪ Undertake a qualitative assessment of the potential impact of the proposed coastal works on the local sediment transport regime. ▪ Describe materials that will be used to construct the infrastructure, including any treatment that the materials may have been subject to, prior to immersion in water. ▪ Describe the impacts of infrastructure construction on foreshore, intertidal, seabed, benthic and pelagic environments (especially any nursery/spawning areas). Describe measures that will be undertaken to mitigate these impacts. ▪ Describe, and provide baseline information on, the existing seabed profile, bathymetry, sedimentary profiles (including particle sizes), sand movement, water flow and tidal movement patterns through and around the proposed infrastructure. ▪ Identify any possible changes to the seabed, bathymetry, sedimentary profiles (including particle sizes), and sand movement water flow and tidal movement patterns as a result of the development during both the construction and operational phases. Identify the impacts this may have on sensitive marine flora and fauna, aquaculture activities (existing and potential future), commercial and recreational fishing in the region, and outline mitigation strategies. ▪ Describe the contaminants and toxicants that may accumulate on the site and the risks during stormwater events (where not managed) to the adjacent aquatic environments and commercial industries (e.g. fisheries and aquaculture) that rely on those environments.	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			▪ Identify the risks from the exposure of fine sediments or clays that would impact adversely on water quality (turbidity and light penetration) and contribute to the production of sediment plumes in the region during both construction and operation phases. Outline the impacts this may have on commercial aquaculture activities in the region. Discuss the presence and risks of any chemicals in sediments potentially disturbed during construction or operation. ▪ Detail measures to protect foreshore areas during and after construction, including potential marine and terrestrial protection areas and associated buffers. <u>Desalination Plant – Operational Marine Discharge</u> ▪ Undertake detailed investigations relating to operational marine discharge of the desalination plant to provide adequate understanding of existing values, physical and ecological processes, sensitivities to predicted project effects and the potential impacts of such effects. Investigations should include: – Marine sediments and water quality: establish baseline water quality within the vicinity of the intake and outfall infrastructure. – Plume dispersion: use hydrodynamic modelling of multiple plant flow regimes and receiving environment conditions (eg capture low currents and quiescent weather conditions, as well as impacts of staged delivery of the desalination plant) to determine the dilution and dispersion of the concentrated seawater in the local environment and determine impacts of the desalination plant on the hydrodynamics of Spencer Gulf. Investigate the potential for long term effects of salinity in Spencer Gulf (in combination with climate change). – Use nearfield plume modelling to demonstrate the plume does not break the surface directly after discharge and the degree of dilution at impact with the seabed. – Use midfield modelling to outline benthic and pelagic flora and fauna communities potentially exposed to desalination plant discharge (including recreational and commercial fisheries and aquaculture species) and evaluate risk. – Describe the likely constituents and toxicity of any chemical treatments, additives, or any other chemicals (including brine) that may be discharged to the marine environment (single chemical toxicity). Outline the degree of dilution required to ensure that “95% protection level” of representative local species are protected from any chronic impacts from the discharge (whole effluent toxicity). – Modelling of seawater intake to consider larval entrainment, and assess the impacts on the marine environment, including recreational and commercial fisheries and aquaculture species. ▪ Describe management and mitigation measures that could be implemented to reduce environmental risk from operational marine discharge.	
PE2	Soils, Landform and Geology	To ensure development is undertaken in a manner that protects the productivity and quality land including, soil, subsoil and landform and avoids impact to other environmental values.	▪ Provide a detailed description of the soils, landform and geology in the area of the development including the potential for water and wind erosion, soil salinity, acid sulfate soils and soil contamination. The description should: – Characterise soil types and structures in the development area and identify the potential location and disturbance of dispersive, acid sulfate, saline or potentially contaminated soils, or soils of other special characteristics that could affect or be affected by the development. – Identify hydrological, geomorphic or meteorological conditions that may contribute to susceptibility to erosion (e.g., channels, steep slopes, wind).	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			– Identify any areas of ground instability and any ground conditions that may be susceptible to subsidence from development activities (e.g. tunnelling, deep excavation, dewatering) and direct and indirect changes to vegetative cover. Identify properties, structures and infrastructure that may be susceptible to subsidence. ▪ Describe the development activities with potential to impact on soils and ground stability. ▪ Address the implications of seismicity in the area in relation to both the construction and operation of the development. ▪ Identify the risks of contamination of land from spills of fuel (or other toxic substances). Describe measures for the prevention and containment of spills, describe the contingency plans to be implemented in the event of spills, and comment on their expected effectiveness. ▪ If acid sulfate soils would be disturbed or unexpectedly encountered during construction, describe measures to avoid oxidation of the sulfides, treat and neutralise the acid if it forms and manage any excavated material. ▪ Ensure that appropriate soil contamination investigations have been undertaken and that soil generated from earthworks is managed in accordance with EPA guidelines, including for re-use on site or removal of material off-site for re-use, treatment or disposal.	
PE3	Surface Water and Groundwater	To ensure the quality of groundwater and surface water is protected so that environmental values including ecological health, cultural heritage values, land uses and the welfare and amenity of people are maintained.	<u>Surface Water</u> ▪ Describe existing surface water environmental conditions upstream and downstream of the development area (including seasonal variations and variations with flow) of waterbodies, watercourses, drainage channels, wetlands and floodplains. Water quality, including any existing site contamination and potential sources of surface water pollution should be addressed. ▪ Describe present and potential users and uses of water in areas which may be affected by the development, including residential, municipal, agricultural, industrial, recreational and environmental uses of water. Describe surface water / groundwaters that are (or may be) of cultural significance to Traditional Owners. ▪ If MNES have been identified, undertake an assessment of potential impacts to surface and groundwater relevant to the MNES. ▪ Describe the legislative, regulatory and planning contexts for surface water that apply to the development. ▪ Describe the potential for pollution (e.g. sediment plumes, spills to land and water, discharge of stormwater and wastewater, dewatering) of water bodies, watercourses, drainage channels, wetlands and floodplains during construction and operation. Identify locations where discharge to surface waters or land may occur during construction, operation or decommissioning of the development. ▪ Describe how erosion and capture of sediment will be minimised and managed during construction of the pipeline network and the electricity transmission lines. ▪ Describe potential alteration to surface water flows as a result of the development (including to water bodies, watercourses, wetlands, floodplains, beds and banks) and include details of the nature of the works. Discuss the implications of these changes for downstream water uses, and impacts on environmental and cultural heritage values, and describe how these impacts will be minimised. ▪ Describe how drainage and flow of watercourses will be maintained in the operational phase of the proposed pipeline network. ▪ Describe the options for supplying water to the development including potable water (if relevant) and temporary demands during the construction period. Describe on-site storage and treatment requirements for wastewater from accommodation and/or offices and workshops.	STANDARD

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			▪ Identify the risks of contamination of land from spills of fuel (or other toxic substances). Describe measures for the prevention and containment of spills, describe the contingency plans to be implemented in the event of spills, and comment on their expected effectiveness. ▪ Describe the proposed mitigation measures to protect environmental and cultural heritage values for surface water quality during construction and operation. Provide details of proposed wastewater and stormwater management, as well as any water sensitive design features as part of the development. If required, revisit project design and construction methodologies to reduce impacts surface water quality to demonstrate that the Environmental Protection (Water Quality) Policy 2015 (Water Quality EPP) will be met. – Describe wastewater capture, management and treatment for: a) Any process wastewater if applicable (other than the marine discharge from the desalination plant). b) Staff facilities wastewater. – Stormwater management should clearly describe: c) All methods of proposed drainage on site, the sizing of all elements including the direction of any drainage leaving the site and how frequently runoff will leave the site. d) How clean runoff (e.g. from the roof) will be separated from contaminated runoff. e) How all contaminated runoff will be captured, retained and treated. f) All proposed stormwater treatment measures on site including the sizing of all elements. g) How any upstream stormwater is managed/ diverted around the site. h) All bunding details. ▪ Describe measures to manage construction impacts including stockpile management and storage to minimise potential adverse effects on local hydrology and water quality, restoring soil profiles, drainage and productivity, as well as landscape rehabilitation in the context of decommissioning of earth structures. Describe how erosion will be minimised and sediment capture controls where required (e.g. temporary berms, controlling water movement into and around the site, stockpile management and stabilisation of non-paved operational areas. ▪ Describe the indirect environmental benefits to existing surface water resources in the region (ie River Murray) of proceeding (or not proceeding) with the development. <u>Groundwater</u> ▪ Describe the known groundwater related environmental conditions including quality and significance of groundwater in the area of the development and any surrounding area potentially affected by the proposed development's activities. For the desalination plant include: – describe the nature, type, geology / stratigraphy and depth to and thickness of the aquifers, hydraulic properties and value as water supply sources – any existing site contamination, and any identified potential sources of groundwater pollution – characterise the quality and volume of the groundwater including seasonal variations of groundwater levels – describe existing groundwater supply infrastructure (e.g. bores, wells, or excavations). ▪ Describe the legislative, regulatory and planning contexts for groundwater that apply to the development. ▪ Describe present and potential users and uses of groundwater water in areas potentially affected by the development, including residential, municipal, agricultural, industrial, recreational and environmental uses of water including groundwater dependent ecosystems (GDE).	

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			▪ Describe the potential changes to hydrology (including water quality), as a result of the proposal, and the implications of these changes. Water quality impacts should consider any parameters (e.g. metals, non-metal inorganics) considered important for existing groundwater users / uses in the vicinity of the projected area of impact. ▪ Where groundwater would be taken by the development, quantify the volume of water that would be taken, the timeframe over which the take would occur and the potential impact on groundwater users. ▪ Describe stormwater and wastewater management and the potential impact on ground water resources in particular with regard to fuel and chemicals used in construction and / or operation of the development. Describe measures proposed for management of stormwater and wastewater during construction and operation to avoid impacts to groundwater. ▪ Describe the indirect environmental benefits to existing groundwater resources in the region (ie Great Artesian Basin and local groundwater sources) of proceeding (or not proceeding) with the development.	
Design (DQ)				
DQ1	Urban Design and Place-Making	To ensure development promotes the value and quality of good design across South Australia's built environments, and that contributes to healthy neighbourhoods, supports innovation and the integration of smart and sustainable technologies.	<u>Desalination Plant</u> ▪ Provide a contextual analysis and identify site-specific issues including: – existing site conditions – existing transportation networks and movement patterns, including public access to the coast and crown reserve and the facility. – local environmental conditions. ▪ Describe the design principles that have informed the position and layout of the plant, including the requirement for the provision of appropriate site levels (and associated excavation and filling of land). ▪ Provision of landscaping (for both screening and amenity purposes). ▪ Provide a description of external materials, finishes and colours (consistent with development in a coastal environment). ▪ Provide details of any proposed reception/visitor amenities facilities.	STANDARD
Social and Community (SC)				
SC1	Aboriginal Cultural Heritage	Avoid adverse effects on Aboriginal cultural heritage values and maximise opportunities to appropriately complement and preserve these values.	▪ Describe how the proposed location and / or design avoids and / or mitigates potential impacts and risks to known and unknown Aboriginal heritage. Where impacts to Aboriginal heritage cannot be avoided, provide detailed justification for this and acknowledgment that impacts must be authorised or otherwise approved by the Minister for Aboriginal Affairs under the *Aboriginal Heritage Act 1988* (SA). ▪ Undertake on-ground cultural heritage survey(s) by qualified heritage experts (ideally an anthropologist and an archaeologist) in consultation with the relevant Recognised Aboriginal Representative Bodies (RARB)/Traditional Owner representatives. Where practical, survey(s) should cover the entirety of the project area. ▪ The subsequent Aboriginal heritage report should: – be prepared by a suitably qualified heritage expert. – be agreed by the RARB/Traditional Owner representatives. – clearly outline the results of the heritage survey, including the location of Aboriginal heritage within the project area, as well as any areas where unrecorded sub-surface Aboriginal heritage is likely to occur. – consider the project's potential impacts to known and unknown Aboriginal heritage.	DETAILED

Library Ref	Environmental Attribute	Objective	Method of Investigation	Level of Assessment
			– consider the results of a central archives search, as well as any other searches of local archives, other relevant databases and review of any relevant historical survey reports. – incorporate the views of the RARB representing all Traditional Owners of the relevant Aboriginal heritage, or where no RARB is appointed, Traditional Owner representatives, including any recommendations to relocate project elements to avoid Aboriginal heritage. Note that any sensitive or restricted information relating to Aboriginal heritage must remain confidential, and should not be publicly disclosed. – consider both the archaeological and anthropological/ethnographic values of the area, based on relevant literature, previous heritage assessments and the views of the RARB or Traditional Owner representatives. – provide recommendations for the protection and management of Aboriginal heritage before construction, during project works, and post construction (ie operation and maintenance activities) in light of the above.	
SC2	Community Wellbeing / Social Impact Assessment	To ensure adverse effects on the community near the development are avoided or minimised including with regard to community cohesion, access to services and facilities and health impacts and capitalise on opportunities to enhance benefits for communities.	▪ Provide a social impact assessment (SIA) of the development which addresses: – the existing social environment of communities potentially impacted by the project. – the potential social impacts (both positive and negative) of the project, and how they will be managed and monitored. ▪ The SIA should include social baseline information which includes but is not limited to: – a demographic profile of potentially affected communities. – an analysis of community characteristics (e.g. community history and culture, land / property ownership). – an overview of land use, key industries in the region, and relevant local and state government plans. – an overview of the capacity and accessibility of infrastructure, facilities and services, including education, health and emergency services. – an analysis of the existing housing and accommodation market, including availability, capacity and affordability. – a profile of the local and regional labour market, including likely availability of personnel with skills relevant to the project. – details of other resource, infrastructure and major projects in the area (existing, approved and potential). ▪ Key matters to be addressed by the SIA (for both construction and operation) are: – Workforce management. – Housing and accommodation. – Local business and industry procurement. – Heath and community wellbeing.	DETAILED
SC3	Heritage Places and Areas	To ensure that the nature and scale of the development does not compromise the recognised heritage significance of a heritage place or heritage area.	▪ Provide details of the location, nature and known potential heritage values of all historic places and areas potentially affected by the development including State and Commonwealth-listed places and areas (including shipwrecks). ▪ Where relevant, provide an assessment of potential impacts from the development on historic heritage places and areas. If Commonwealth, National and World Heritage places have been identified, undertake an assessment of potential impacts to heritage values. ▪ Provide design, management and site protection strategies (prepared by an appropriately qualified heritage consultant in accordance with the PDI Code if relevant) to avoid, mitigate or manage negative impacts on heritage values and enhance any positive impacts.	STANDARD

Appendix A – Schedule 4 of the EPBC Regulations - Matters to be addressed by the environmental impact statement (EIS)

1 General information

1.01 The background of the action including:

(a) the title of the action;

(b) the full name and postal address of the designated proponent;

(c) a clear outline of the objective of the action;

(d) the location of the action;

(e) the background to the development of the action;

(f) how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;

(g) the current status of the action;

(h) the consequences of not proceeding with the action.

2 Description

2.01 A description of the action, including:

(a) all the components of the action;

(b) the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;

(c) how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;

(d) relevant impacts of the action;

(e) proposed safeguards and mitigation measures to deal with relevant impacts of the action;

(f) any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action;

(g) to the extent reasonably practicable, any feasible alternatives to the action, including:

(i) if relevant, the alternative of taking no action;

(ii) a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action;

(iii) sufficient detail to make clear why any alternative is preferred to another;

(h) any consultation about the action, including:

(i) any consultation that has already taken place;

(ii) proposed consultation about relevant impacts of the action;

(iii) if there has been consultation about the proposed action—any documented response to, or result of, the consultation;

(i) identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

3 Relevant impacts

3.01 Information given under paragraph 2.01(d) must include:

(a) a description of the relevant impacts of the action;

(b) a detailed assessment of the nature and extent of the likely short term and long term relevant impacts;

(c) a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;

(d) analysis of the significance of the relevant impacts;

(e) any technical data and other information used or needed to make a detailed assessment of the relevant impacts.

4 Proposed safeguards and mitigation measures

4.01 Information given under paragraph 2.01(e) must include:

(a) a description, and an assessment of the expected or predicted effectiveness of, the mitigation measures;

(b) any statutory or policy basis for the mitigation measures;

(c) the cost of the mitigation measures;

(d) an outline of an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs for the relevant impacts of the action, including any provisions for independent environmental auditing;

(e) the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;

(f) a consolidated list of mitigation measures proposed to be undertaken to prevent, minimise or compensate for the relevant impacts of the action, including mitigation measures proposed to be taken by State governments, local governments or the proponent.

5 Other approvals and conditions

5.01 Information given under paragraph 2.01(f) must include:

(a) details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:

(i) what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy;

(ii) how the scheme provides for the prevention, minimisation and management of any relevant impacts;

(b) a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;

(c) a statement identifying any additional approval that is required;

(d) a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

6 Environmental record of person proposing to take the action

6.01 Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

(a) the person proposing to take the action; and

(b) for an action for which a person has applied for a permit, the person making the application.

6.02 If the person proposing to take the action is a corporation—details of the corporation's environmental policy and planning framework.

7 Information sources

7.01 For information given in a draft public environment report or environmental impact statement, the draft must state:

(a) the source of the information; and

(b) how recent the information is; and

(c) how the reliability of the information was tested; and

(d) what uncertainties (if any) are in the information.

Appendix B – List of relevant guidance material

Guidance material that is considered relevant to the Assessment Requirements, includes but is not limited to, the documents listed below. This list is not exhaustive, but captures key guidance used in the preparation of these requirements and to inform the preparation of the EIS. The proponent must draw on further relevant industry and best practice guidance as part of developing the EIS.

- Commonwealth of Australia, 2013, Matters of National Environmental Significance - Significant impact guidelines 1.1, https://www.dcceew.gov.au/sites/default/files/documents/nes-guidelines_1.pdf
- Commonwealth of Australia, 2013, Matters of National Environmental Significance - Significant impact guidelines 1.2, https://www.dcceew.gov.au/sites/default/files/documents/commonwealth-guidelines_1.pdf
- Commonwealth of Australia, 2023, Species Profile and Threats Database (SPRAT), https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl
- Commonwealth of Australia, 2017, Survey guidelines for Australia's threatened birds, https://www.dcceew.gov.au/sites/default/files/documents/survey-guidelines-birds-april-2017.pdf
- Commonwealth of Australia, 2011, Survey guidelines for Australia's threatened mammals, https://www.dcceew.gov.au/sites/default/files/documents/survey-guidelines-mammals.pdf
- Commonwealth of Australia 2024, National Guidelines for the Survey of Cetaceans, Marine turtles and the Dugong, Department of Climate Change, Energy, the Environment and Water, Canberra, https://www.dcceew.gov.au/sites/default/files/documents/national-guidelines-survey-cetaceans-marine-turtles-dugong.pdf
- Meek PD, Ballard G and Fleming P, 2012, An introduction to camera trapping for wildlife surveys in Australia, PestSmart Toolkit publication, Invasive Animals Cooperative Research Centre, Canberra, Australia, https://pestsmart.org.au/wp-content/uploads/sites/3/2020/06/CameraTrapManual_2012.pdf
- Commonwealth of Australia, 2017, EPBC Act Policy Statement 3.21: Industry guidelines for avoiding, assessing and mitigating impacts of EPBC Act listed migratory shorebirds, https://www.dcceew.gov.au/sites/default/files/documents/bio4190517-shorebirds-guidelines.pdf
- Commonwealth of Australia, 2024, Environmental Management Plan Guidelines, Department of Climate Change, Energy, the Environment and Water, Canberra, https://www.dcceew.gov.au/sites/default/files/documents/environmental-management-plan-guidelines.pdf
- Commonwealth of Australia, 2012, EPBC Act Environmental Offsets Policy, Department of Sustainability, Environment, Water, Population and Communities, Public Affairs, Canberra, https://www.dcceew.gov.au/sites/default/files/documents/offsets-policy_2.pdf
- Commonwealth of Australia, 2021, Guide to providing maps and boundary data for EPBC Act projects, Department of Agriculture, Water and the Environment, Canberra, https://www.dcceew.gov.au/sites/default/files/documents/epbca-maps-data-guidelines.pdf
- Commonwealth of Australia, 2023, Interim Engaging with First Nations People and Communities on Assessments and Approvals Under the Environment Protection and Biodiversity Conservation Act 1999, Department of Climate Change, Energy, the Environment and Water, Canberra. https://www.dcceew.gov.au/environment/epbc/publications/engage-early.
- Commonwealth of Australia, 2024, National Conservation Values Atlas: Interactive Map (environment.gov.au), https://www.environment.gov.au/webgis-framework/apps/ncva/ncva.jsf

For other EPBC Act publications and resources, please refer to the DCCEEW website, here:

- Commonwealth of Australia, 2024, EPBC Act publications and resources - DCCEEW, Canberra, https://www.dcceew.gov.au/environment/epbc/publications

Appendix C – Scoping Analysis for Level of Assessment

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
Amenity and Environmental Quality (AEQ)						
AEQ1	Air Quality	▪ Construction: dust, vehicle emissions, dust deposition over vegetation. ▪ Operation: vehicle emissions, plant emissions.	▪ Localised and temporary impacts at desalination plant site during construction. ▪ Long overall construction period for pipeline with multiple work fronts and geographically large footprint. ▪ Fast construction of pipeline means that impacts to specific geographic locations are temporary and for short periods as work fronts move along the pipe route. ▪ Ongoing operational impacts minimal – dust and vehicle emissions during maintenance activities.	▪ Direct: transmission of dust and emissions from on-site activities to sensitive receivers. ▪ Cumulative: approved Iron Road deep sea port (particularly if construction periods overlap).	Desal Plant ▪ Rural location with low levels of road traffic and limited industrial activity. ▪ Existing emissions sources include windblown aerosols and dust, vehicle / machinery generated dust from unsealed roads and ground disturbance, agricultural activities, fires. ▪ Few sensitive receptors. Ancillary Water & Electricity Transmission Infrastructure ▪ Primarily rural and remote locations with few sensitive receptors. Sensitivity increases near townships. ▪ Key emission sources along the route include Whyalla (steelworks) and Olympic Dam.	STANDARD
AEQ2	Noise / Vibration	▪ Construction: noise emissions and vibration from heavy machinery, site works, vehicle movements. ▪ Operation: noise emissions from plant operation, vehicle movements, corona aeolian noise from transmission lines.	▪ Localised and temporary impacts at desalination plant site during construction. ▪ Long overall construction period for pipeline with multiple work fronts and geographically large footprint. Possible after hours works. ▪ Fast construction of pipeline means that impacts to specific geographic locations are temporary and for short periods as work fronts move along the pipe route. ▪ Proximity of construction activities to Whyalla, Pimba, Woomera and Roxby Downs. ▪ Underwater noise and vibration during construction – short term localised effects.	▪ Direct: disturbance to sensitive receptors, fauna foraging and breeding. ▪ Cumulative: approved Iron Road deep sea port (particularly if construction periods overlap).	Desal Plant ▪ Existing noise environment dominated by natural noise sources (insects, wind and wave action), local road traffic, Lincoln Highway, agricultural activity. ▪ Relatively flat terrain. ▪ Existing activities in the marine environment, including prawn trawling. ▪ Sensitivity of marine species to noise / vibration. Ancillary Water & Electricity Transmission Infrastructure ▪ Primarily rural and remote locations however existing noise environment expected to vary along corridor depending on adjacent land uses, proximity to roads and towns, and seasonal effects.	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
			▪ Operation (24/7 for plant) and sporadic maintenance activities for pipeline / transmission / ancillary infrastructure.			
AEQ3	Transport and Traffic	▪ Increase in traffic movements. ▪ Potential requirement for road and intersection upgrades. ▪ Creation of new access tracks. ▪ Temporary traffic management (delays and speed restrictions) during construction period. ▪ Interactions between light and heavy vehicles. ▪ Introduction of marine exclusion zones.	▪ Greatest road traffic impacts during construction period. ▪ Potential short term impacts to marine, rail and air operations during construction. ▪ Ongoing localised impacts from marine exclusion zone around the outfall and intake infrastructure.	▪ Direct: potential impacts may include disruption to current land uses, travel times and deterioration of road pavements from increased level of use by heavy vehicles. ▪ Cumulative: approved Iron Road deep sea port (particularly if construction periods overlap).	Desal Plant ▪ Access to site from Lincoln Highway via unsealed local roads. ▪ Lincoln Highway is a State maintained road and major highway on the Eyre Peninsula, serving as the primary route from Port Lincoln to Whyalla and connectivity to numerous towns. Sealed single carriageway with one lane in each direction. ▪ Marine shipping traffic associated with Port Pirie, Whyalla and Port Bonython, as well as commercial fishing boats, tourism operators and recreational vessels. Ancillary Water & Electricity Transmission Infrastructure ▪ Major highways in the region are the Stuart, Eyre, Lincoln and Olympic Dam highways. ▪ Local road network, sealed and unsealed. ▪ Unsealed roads and tracks on private land / pastoral stations. ▪ Sydney–Perth and Adelaide–Darwin transcontinental rail lines which provide regional and interstate passenger and freight services. ▪ Regional airports at Port Augusta, Port Lincoln, Whyalla and Olympic Dam. RAAF airfield at Woomera. Smaller airfields at Cleve and Cowell. Private (unregistered) landing strips expected.	STANDARD
AEQ4	Visual Amenity	Desal Plant ▪ Construction activities. ▪ Industrial type buildings with ancillary structures. ▪ Security fencing. Pipeline & Ancillary ▪ Construction activities. ▪ Pipeline predominantly underground with discreet sections of above ground pipeline. ▪ New high voltage transmission lines, substations, telecommunications towers and pump stations.	▪ Temporary and localised visual impacts during construction. ▪ Ongoing visual impact from new, permanent structures in the landscape. ▪ Increase in scale of development compared to existing at desal plant site. ▪ Day time vs night time impacts may be different (lighting associated with desal plant). ▪ Visual impact of the pipeline likely to be minimal (majority underground).	▪ Direct: new structures in landscape. ▪ Perceived: impact on amenity can be subjective. ▪ Cumulative: approved Iron Road deep sea port, proliferation of industrial, transmission and pipeline infrastructure.	Desal Plant ▪ Dune capped granite headland – shoreline includes two small pocket beaches (north and south) backed by sandy dunes and farmland. ▪ Agricultural landscape – majority of site cleared of vegetation and minimal built form. ▪ Undulating, visually 'open' landscape with views towards coast. ▪ Small pockets of remnant vegetation. ▪ Limited number of land based visual receptors (including users / visitors of coastal roads in the vicinity), ▪ Marine based visual receptors. ▪ Cultural value to traditional landowners. Ancillary Water & Electricity Transmission Infrastructure	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
			▪ Visual impact of transmission lines will vary along the alignment(s) with proximity to townships, roads etc.		▪ Primarily rural and remote landscapes with agricultural structures, electricity transmission infrastructure, scattered dwellings. ▪ Variable natural landscapes and sensitivity along the corridor. ▪ Generally low scale of development, with exceptions (eg Lincoln Gap wind farm, electricity transmission infrastructure). ▪ Rural and remote townships. ▪ Cultural value to traditional landowners.	
Biological Environment (BE)						
BE1	Biosecurity	▪ Potential for movement, spread and/or introduction of weed / pest species during construction phase: earthworks, vehicle and machinery movements. ▪ Biofouling or ballast water from shipping traffic generated by project. ▪ Introduction of marine structures may encourage colonisation by opportunistic or invasive species.	▪ Highest risk during construction phase. ▪ Low risk during operation / maintenance. ▪ Transmission through marine waters at desalination plant. ▪ Geographically large project area for terrestrial portions of the development.	▪ Direct: localised impact ▪ Indirect: effects on ecosystems within broader gulf inc. Marine Parks and commercial fishing industry, flow on effects to tourism, agriculture.	Desal Plant ▪ Dynamic coastal & marine environment – effect of waves, tides, currents and wind. ▪ Historical sheep grazing on majority of desalination plant site. ▪ Gulf supports marine parks, commercial fishing, aquaculture and marine based tourism activities. Ancillary Water & Electricity Transmission Infrastructure ▪ Significant variation along corridor / sites. ▪ Presence of weed / pest species subject to surveys. ▪ The region supports agricultural activities which may be susceptible to weeds / pathogens. ▪ Feral animals are well established in the project area.	STANDARD
BE2	Marine Flora and Fauna	▪ Potential incidental clearance of vegetation (seagrass) during construction – current plan is to avoid. ▪ Potential physical impact to fauna during construction and operation . ▪ Underwater noise and vibration. ▪ Operational marine discharge (refer also to PE1).	▪ Different impacts during construction and operation. ▪ Extent of impact on the seabed depends on final methodology for intake and outfall pipelines. ▪ Impacts may be influenced by hydrodynamics of the Spencer Gulf, seasonal variations, weather events.	▪ Direct: impacts from discharge, seawater intake, coastal and marine infrastructure. ▪ Indirect: flow on effects to ecosystems, recreation, aquaculture and fishing industry from changes in water conditions. ▪ Cumulative: approved Iron Road deep sea port. ▪ Perceived impacts. ▪ MNES: potential significant impact to listed threatened species, communities, and migratory species. To be addressed in	Desal Plant ▪ Spencer Gulf Bioregion. ▪ Shall benthos <16m depth: areas covered by dense seagrass – greatest coverage at northern end of site. ▪ Mid Benthos <18m: main bare fine sand and silty sediment, scattered invertebrates. ▪ Deep benthos >20m: bare silt and clumps of mixed invertebrates, sparse mixed algae. Razor clams at 17-20m depth. ▪ Rocky reefs in discrete patches in shallow water close to shoreline providing valuable habitat. ▪ Highest infauna diversity aligns with seagrass coverage including syngnathids (seahorses and pipefish). ▪ Potential megafauna species include whales, dolphin, fur seals, sealions, turtles, sharks. ▪ High diversity of fish species including pipefish, toadfish, leatherjackets, leafy sea dragon. ▪ Temperature and salinity gradients in the gulf create environmental niches or transition zones – species have	DETAILED

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
				DCCEEW Assessment Requirements.	adapted to local conditions. Some tropical and subtropical species are supported. ▪ Biologically Important Area for the Australian sea lion and southern right whale. ▪ Biologically Important Area for various non-threatened marine birds. ▪ Commercial fisheries species (notably western king prawn and snapper) which are reliant on recruitment and juvenile nursery areas in the northern reaches of the gulf. ▪ Giant Australian Cuttlefish – EPBC listed habitat in northern reaches of the gulf.	
BE3	Terrestrial Flora and Fauna	▪ Construction: clearance of vegetation and extensive land disturbance; disturbance from construction activities may include noise, dust, vibration, light, vehicle strike. ▪ traverses watercourses. ▪ Operation: new light sources; fragmentation of habitat by pipeline / transmission line; bird strike from newly installed transmission lines.	Desal Plant ▪ Localised impacts at facility during construction and operation. Pipeline & Ancillary ▪ Maximum 50m wide pipeline corridor comprising temporary and permanent vegetation clearance. ▪ Potential impact of construction activities on aquatic (freshwater) ecology where the pipeline traverses watercourses (if water is present, not largely semi-arid environments.	▪ Direct – permanent clearance associated with construction, ongoing requirements to maintain clearances to new infrastructure assets. ▪ Direct – impacts from construction (noise, dust, light, vehicle strike etc). ▪ Indirect – bird strike from newly installed transmission lines. ▪ Cumulative: approved Iron Road deep sea port. ▪ MNES: potential significant impact to listed threatened species, communities, and migratory species. To be addressed in DCCEEW Assessment Requirements.	Desal Plant ▪ Majority of site cleared for agriculture. ▪ Remnant vegetation in small, isolated blocks, roadside vegetation, coastal (rushland/sedgeland on the headland and extending to pocket beaches north and south. ▪ Majority of native vegetation is degraded and in relatively poor condition – historic land clearance, vegetation isolation, weed infestations, grazing and refuse dumping. ▪ Waretta and Butler IBRA vegetation associations. ▪ Biologically Important Area for various non-threatened marine birds. ▪ Numerous seabird species identified in area including several EPBC listed species. Ancillary Water & Electricity Transmission Infrastructure ▪ Significant variation along corridor / sites ranging from agricultural land, minor ephemeral water crossings, isolated patches of remnant vegetation, through to open woodlands (varying levels of disturbance). ▪ Largely semi-arid environments. ▪ Interaction with roadside vegetation and creek crossings. ▪ Munyaroo Conservation Park. ▪ Conservation significant flora and fauna species.	DETAILED
Climate Change and Resource Efficiency (CCRE)						
CCRE1	Climate Change Adaptation	▪ Potential impact to desalination plant site from rising sea level exacerbated by storm surge events and wave patterns. ▪ Climate change effects on salinity and Spencer Gulf hydrodynamics. ▪ Impact to infrastructure from climate change related hazards.	▪ Physical threats to desal site from sea level rise, storm surges and changing weather patterns. ▪ Changes in marine environment and weather patterns may alter the impact of the desal plant on the receiving environment.	▪ Direct: damage to infrastructure from climate change related events. ▪ Indirect: supports the provision of a secure, renewable water source that is not impacted by	▪ Max, min and average temperatures will increase. ▪ Average annual rainfall will decline. ▪ Number and intensity of heavy rainfall events will increase. ▪ Time spent in drought will increase. ▪ Sea level rise, exacerbated by storm surge events and wave patterns. ▪ Fire danger anticipated to increase. ▪ Sea surface temperatures will continue to rise.	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
		▪ Sustainable water source for the region.	▪ Physical threat to pipeline and infrastructure through increased hazard risk.	climate change; supports the growth of green technologies to assist in transition to low-carbon economy.	▪ Likely increased salinity and pH in Spencer Gulf. ▪ Upper reaches of the gulf are sensitive to salinity, which may be exacerbated by climate change.	
CCRE2	Greenhouse Gas Emissions	▪ Emissions (type and amount) from the desal plant. ▪ Emissions from vehicles associated with the development (construction & operational)	▪ Spatial extent of emissions transmission unknown.	▪ Direct: emissions ▪ Indirect & cumulative: contribution of emissions to climate change and pollution.	Desal Plant ▪ Sensitive coastal and marine environment. ▪ Disturbed terrestrial site – agricultural landscape. Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area.	STANDARD
CCRE3	Sustainable Use of Resources	▪ Construction material requirements for desal plant, pipeline and ancillary infrastructure including water and electricity. ▪ Opportunities for re-use of excavated materials / spoil from desalination plant and pipeline construction. ▪ Ongoing use of seawater – renewable source. ▪ Ongoing electricity requirements. New transmission infrastructure required, possible on-site generation. ▪ Ongoing maintenance requirements.	▪ Impacts at source of construction materials and associated with transportation to the site (ie supply chain). ▪ Impacts at source of power generation.	▪ Direct: ongoing electricity use. ▪ Indirect: reduced reliance on Great Artesian Basin, River Murray, and ground water sources; possible decommissioning of Pt August to Woomera Pipeline. ▪ Indirect: impacts associated with sourcing materials for construction (eg fossil fuels, large volumes of concrete, steel).	Desal Plant ▪ Sensitive coastal and marine environment. ▪ Pastoral land with connectivity to State road network. Ancillary Water & Electricity Transmission Infrastructure ▪ Variation along corridor / sites. ▪ Covers large geographical area.	STANDARD
CCRE4	Waste Management	Desal Plant ▪ Various types and volumes of waste generated during construction including spoil and wastewater from tunnel boring / jack-up barge. ▪ Various types and volumes of waste generated during operation including chemicals and hazardous substances. Pipeline & ancillary ▪ Waste management protocols required at all temp laydown areas, accommodation camps, work sites along corridors. ▪ Possibility of multiple active work locations along the corridor.	▪ Localised storage / treatment of waste streams within project site during construction. ▪ Off-site transportation of waste materials (to landfill, recycling, other waste receivers etc).	▪ Direct: generation of waste, potential for sedimentation, spills, ongoing discharge of concentrated brine to marine waters. ▪ Indirect: transportation of wastes to/from site, pressure on landfill sites, opportunities for recycling.	Desal Plant ▪ Sensitive coastal and marine environment. Ancillary Water & Electricity Transmission Infrastructure ▪ Variation along corridor / sites. ▪ Covers large geographical area.	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
		Unlikely to generate significant volumes of waste during operation.				
Land, Regional and State Economies (LRSE)						
LRSE1	Local, regional and state economies	▪ New sustainable water source. ▪ Job creation during construction, skill development. ▪ Impact of temporary construction activities (environmental, housing, services, amenity). ▪ Price / wage inflation. ▪ Townships in the region may benefit from increased demand for services.	▪ Local, regional and state-wide impacts. ▪ Greatest direct impact during construction. ▪ Ongoing impact through provision of sustainable water source for the region.	▪ Direct: job creation, increased demand for local housing / services / supplies. ▪ Indirect: indirect jobs in transport and logistics, support functions (food, accommodation etc); expansion of customer markets (mining, agriculture, hydrogen industry). ▪ Cumulative: approved Iron Road deep sea port (particularly if construction periods overlap).	Desal Plant ▪ Historical sheep grazing on majority of desalination plant site. ▪ Broader locality is predominantly agricultural land (sheep / lambs and broadacre crops) with scattered dwellings. ▪ Port Neill 7km to NE – small population with economy supported from surrounding agricultural districts, closest boat ramp. ▪ Tumby Bay 30km to SW – major population centre of the Council area with large population of retirees, central of agricultural district, fishing and tourism industries. Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area. ▪ Numerous communities / varying demographic profiles along corridors / sites. ▪ Whyalla, Port Augusta, Port Lincoln are the largest population centres. ▪ The region supports marine industries (fishing, aquaculture, shipping, tourism), agricultural industries (dryland cropping), and mining.	DETAILED
Hazards and Risks (HR)						
HR1	Bushfire	▪ Risk likely higher during construction with heavy machinery, ignition points. ▪ Potential for higher fuel loads during summer. ▪ Potential for spread of bushfire to neighbouring properties and beyond. ▪ Dependent on weather conditions.	▪ Severity, duration and extent of impact dependent on various factors including type of fire emergency, local conditions, emergency response capacity.	▪ Direct: damage to property / infrastructure; risk to life; loss of essential services. ▪ Indirect: transmission of smoke, fumes, pollutants via air and surface waters; impacts to adjacent land uses in event of emergency.	Desal Plant ▪ Site within Hazards (Bushfire – General) Overlay ▪ CFS Tumby Bay and District Group (Region 6) with stations at Port Neill, Lipson, Brooker, Ungarra, Yallunda Flat, Tumby Bay, Koppio, Kockaleechie. Supported by Region 6 Air Support. ▪ No recorded bushfires at site / locality for last 40 years. Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area – Regions 4 and 6 of SA. ▪ Whyalla serviced by SA Metropolitan Fire Service. ▪ Varying fire risk areas & site conditions. ▪ Varying proximity to emergency services.	STANDARD
HR2	Flooding	▪ Flooding risk (from surface waters / stormwater or storm surge).	▪ Dependent on site location and local conditions	▪ Direct: damage to property ▪ Indirect: mobilisation and transmission of contaminants / pollutants	Desal Plant ▪ Hazards (Flooding – Evidence Required) Overlay ▪ Potential drift hazard zone. ▪ Nearest SES Station Tumby Bay (Eyre District). Ancillary Water & Electricity Transmission Infrastructure ▪ Hazards (Flooding – Evidence Required) Overlay	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
					▪ Covers large geographical area – SES North Region (Eyre and Outback districts). ▪ Varying site conditions (largely semi-arid environments).. ▪ Varying proximity to emergency services.	
HR3	Site and Groundwater Contamination	▪ Potential for spills / leaks of pollutants during construction. ▪ Construction activities may include abrasive blasting, concrete batching, fuel burning, treatment of water (chlorine etc), flushing of pipeline. ▪ Potential for contamination to be encountered during construction. ▪ Operational activities may include chemical storage and warehousing. ▪ Interaction with groundwater and surface water including creek crossings.	▪ Marine, coastal and terrestrial environments. ▪ Potential impacts during construction and operation. ▪ On and off-site impacts dependent on mobilisation and transmission of contaminants / pollutants (due to wind, water action etc).	▪ Direct: spills or accidents Indirect: mobilisation and transmission of contaminants / pollutants	Desal Plant ▪ Negligible acid sulfate soil potential. ▪ Historical sheep grazing on majority of desalination plant site. ▪ Potential historical sources of contamination include use of pesticides, herbicides, fuel storage, septic tanks and asbestos from older buildings. Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area. ▪ Site conditions variable along the corridor. ▪ Potential interaction with acid sulfate soils. ▪ Section 83A (EP Act) site contamination notifications over land at Whyalla, , adjacent Stuart Highway at Pernatty Lagoon (Oakden Hills) & Olympic Dam.	STANDARD
HR4	Dangerous Substances	▪ Construction activities may include abrasive blasting, concrete batching, fuel burning, chemical use and storage, treatment of water (chlorine etc), flushing of pipeline. ▪ Operational activities may include chemical storage and warehousing.	▪ Potential impact if pollutants enter waterways, surface waters, marine waters	▪ Direct: spills or accidents ▪ Indirect: mobilisation and transmission of contaminants / pollutants	Desal Plant ▪ Sensitive coastal and marine environment Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area. ▪ Varying site conditions.	STANDARD
Land Use and Site Conditions (LUSC)						
LUSC1	Land tenure, protected areas and land use	Desal Plant ▪ Loss of agricultural land to infrastructure land use. ▪ Marine exclusion zones and loss of fishing grounds. ▪ Interaction with private land, Crown land, native title, offshore waters. Pipeline & Ancillary ▪ Interaction with numerous land uses, tenure and other land use rights along the corridor. ▪ Adjacency to various land uses. ▪ Tenure arrangements may include easements, licences, freehold acquisition and temporary lease or licence.	Desal Plant ▪ Land and offshore. ▪ Potential impacts of the desalination plant on existing adjacent marine parks, aquaculture zones & leases, commercial and recreational fisheries. Pipeline & Ancillary ▪ 600km long, up to 50m wide corridor. ▪ Follows existing transmission corridors where possible. ▪ Interaction with protected areas.	▪ Direct: temporary and permanent disruption of existing land uses; fragmentation of land by infrastructure corridors. ▪ Indirect: land not available / restricted for future, intended purposes. ▪ MNES: potential significant impact to Commonwealth Lands. To be addressed in DCCEEW Assessment Requirements.	Desal Plant Land: ▪ District Council of Tumby Bay. ▪ Rural and Conservation Zones. ▪ Land owned by IRD Port Assets Pty Ltd and leased to local farmers. ▪ Site is within the Declared area for the Iron Road Deep Sea Port major development. ▪ Native Title and ILUAs. Desal Plant Marine: ▪ Out of Council area. ▪ Coastal Waters and Offshore Islands Zone. ▪ Port Neill Aquaculture Zone – 2.5km northeast; Port Neill Aquaculture Exclusion Zone adjacent the subject site; no current leases or licences. ▪ Closest aquaculture leases 33km north (Arno Bay) and 30km south (Cape Euler).	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
					▪ Franklin Harbour Marine Park to northeast. ▪ Sir Joseph Banks Marine Park / Conservation Park to south. ▪ Lipson Island conservation reserve to south. ▪ Commercial and recreational fisheries for numerous species; aquaculture potential. ▪ Spencer Gulf shipping lane for export of bulk goods and petroleum products. Ancillary Water & Electricity Transmission Infrastructure ▪ Seven (7) local government areas. ▪ Predominantly Rural and Remote Areas Zone, with variability closer to townships. Major land uses in the region are cropping, livestock grazing and mining operations. ▪ Various tenure arrangements. ▪ Mining tenements and mineral exploration licences. ▪ Department of Defence land including Cultana Training Centre, Woomera Commonwealth land. ▪ Native Title and ILUAs. ▪ Munyaroo Conservation Park, Whyalla Conservation Park. ▪ Major infrastructure includes Sydney-Darwin & Adelaide-Darwin rail lines, major highways, Moomba to Port Bonython liquid line, Moomba Adelaide Pipeline system, high voltage overhead transmission lines, Lincoln Gap wind farm.	
Physical Environment (PE)						
PE1	Coastal and Marine	▪ Potential physical impacts to physical coastal & marine environments and processes. ▪ Interruption of marine habitat connectivity from temporary pipes during construction. ▪ Potential impacts on hydrodynamics, water movements (currents and wave climate). ▪ Operational marine discharge – mixing of marine waters with brine: potential impacts on marine ecology, water quality, plume dispersion, toxicity / accumulation of (e.g. anti scalants). Refer also to BE2 (marine flora and fauna).	▪ Localised physical impact from built form. ▪ Localised impact at outfall risers. ▪ Near-field zone impacts. ▪ Far-field zone impacts.	▪ Direct: permanent infrastructure and ongoing discharge of concentrated brine to marine waters. ▪ Indirect: potential impacts to marine based industry from visual and environmental impacts. ▪ Cumulative: Approved Iron Road deep sea port.	▪ Coastal Area Overlay. ▪ Spencer Gulf Bioregion, Dutton Marine Biounit. ▪ Relatively sheltered system – semi-enclosed body of water. ▪ Relatively shallow – typical depth of 40m in the lower gulf and 15-20m in the upper gulf. ▪ 'Inverse estuary' – evaporation exceeds freshwater input, resulting in increasing temperature and salinity in the upper gulf, particularly in the summer months. ▪ Naturally low in nutrients and readily responsive to nutrient inputs. ▪ Low to moderate wave energy – ocean swell and wind generated sea waves, driven by tidal currents. ▪ Whole of gulf circulation with annual exchange of water via a clockwise 'gyre', with ocean water drawn northwards along the western gulf. ▪ Salinity 36 to 38psu (compared to 35 psu in open waters off SA coast) – higher due to lack of freshwater inputs and high rates of evaporation. ▪ Consistent sub-tidal topography, free of navigational structures.	DETAILED

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
					▪ The 20m depth contour is approx. 1200m (1.2km) offshore.	
PE2	Soils, Landform and Geology	Desal Plant ▪ Bulk earthworks (excavation and filling of land) to create terraces. ▪ Potential physical penetration of coastal environment for intake and outfall pipelines. ▪ Soil erosion. Pipeline & Ancillary ▪ Extensive land disturbance to construct the pipeline. ▪ Below ground installation proposed except at discreet locations.	Desal Plant ▪ Localised modification to landform will occur during construction phase – temporary (ie stockpiling) and permanent. ▪ Extent of impact on the seabed depends on final methodology for intake and outfall pipelines. Pipeline & Ancillary ▪ 600km long, up to 50m wide corridor. ▪ Excavation for temporary and permanent infrastructure.	▪ Direct: permanent infrastructure, and changes to natural landform. ▪ Indirect: changes to overland water flows and other ecological processes; impact on cultural values.	Desal Plant ▪ Dune capped granite headland surrounded by low hills and rises. ▪ Shoreline includes two small pocket beaches. ▪ Rocky reef in discrete patches of shallow water close to the shoreline. ▪ Thin to moderate layer of soil (i.e. between 1 m and 9 m thick) of sandy to clayey soil layers that may contain calcrete rubble, overlying a weathered bedrock zone of sandy gravel (approx. 2m thick), above strong, coarse grained igneous to metamorphic rock in the form of granite or gneiss (to max depth 30m). ▪ Negligible acid sulfate soil potential. ▪ Negligible subsoil acidity. ▪ Inherent fertility ranges from moderate and moderately low, and very low on the headland. ▪ Expansive clays will require further consideration. Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area. ▪ Varying site conditions along the corridor. ▪ Eyre Yorke Block and Gawler IBRA bioregions (various subregions). ▪ Notable feature – the Carrapateena lateral pipeline traverses the Arcoona Plateau (stony tablelands landscape). ▪ Notable feature – Lake Dutton and Lake Windabout in the northern third of the project area (highly ephemeral salt lakes) with cultural value to traditional owners.	STANDARD
PE3	Surface Water and Groundwater	▪ Accidental spills from equipment, fuel and chemical storage. ▪ Soil erosion and run-off from stockpiles / disturbed surfaces. ▪ Soil compaction. ▪ Alterations to existing surface flow patterns. ▪ Potential for intersection with groundwater at desalination plant (tunnel boring launch shaft, intake and outfall pipes). ▪ Release of water to environment from pipeline – pH and re-chlorination management.	▪ Potential impacts during construction. ▪ Impacts may be within the construction footprint and off-site / downstream depending on local factors (hydraulics, hydrology, soil and topography, vegetation). ▪ Operational impacts are expected to be negligible. ▪ Discharges from the pipeline from (planned) periodic flushing or draining events covered by standard operating procedures.	▪ Direct: changes to surface water and groundwater flows, sedimentation, pollutants from accidental spills. ▪ Indirect: movement of water and pollutants (from accidental spills) off site, downstream impacts. ▪ Cumulative: approved Iron Road deep sea port.	Desal Plant ▪ Ephemeral creek systems draining towards the coast. ▪ Spring fed creek located 2km inland from the coast. ▪ Water erosion potential ranges from moderate and moderately high to low on the headland. ▪ Limited information on groundwater. No groundwater dependent ecosystems are known to occur. Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area. ▪ Largely semi-arid environments. ▪ Varying site conditions along the corridor; however groundwater is generally of poor to marginal quality. No groundwater dependent ecosystems are known to occur.	STANDARD

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
			▪ Potential for unplanned water discharge from the pipeline (scour valves) – unlikely.		▪ Pipeline alignment includes major and minor creek crossings. Watercourses in the northern portion of the project area are highly episodic. ▪ No surface water features of formal conservation significance.	
Design (DQ)						
DQ1	Urban Design and Place-Making	▪ Extensive cut and fill during construction to create a benched site. ▪ New built infrastructure – industrial in nature. ▪ Potential visual and amenity impacts. ▪ Opportunities for visitor / tourist facilities. ▪ Opportunities for landscaping / re-vegetation.	▪ Ongoing impact over life of project. ▪ Day time vs nighttime impacts may be different.	▪ Direct: visual impact ▪ Indirect: impacts to use and enjoyment of surrounding coastal land and marine waters. ▪ Perceived: Reduced amenity due to industrial-scale development on the coast. ▪ Cumulative: approved Iron Road deep sea port.	Desalination Plant ▪ Coastal location. ▪ Agricultural landscape – majority of site cleared of vegetation and minimum built form. ▪ Undulating, visually 'open' landscape with views towards coast. Ancillary Water & Electricity Transmission Infrastructure ▪ NA	STANDARD
Social and Community (SC)						
SC1	Aboriginal Cultural Heritage	▪ Legislative requirements for Native Title and Traditional Owner rights –. ▪ . ▪ Aboriginal Heritage Act 1993: it is an offence to damage, disturb or interfere with an Aboriginal site, object or remains without an authorisation. ▪ Potential to disturb previously undiscovered sites of cultural significance during construction, primarily from ground disturbance. ▪ Possible impact on intangible cultural values and connection to country. ▪ Positive impact on mound springs from reduced reliance on groundwater.	▪ Large geographical area with various sites and traditional owners. ▪ Temporary and/or permanent damage / disturbance during construction. ▪ Low risk during operation – no ground disturbance required outside of previously cleared / disturbed land.	▪ Direct: impact to cultural heritage sites / places, connection to country, intangible cultural values. ▪ Indirect: loss of trust in government, wellbeing of Aboriginal communities. ▪ Cumulative: degradation of cultural values and heritage places.	Desal Plant ▪ Traditional lands of Barngarla People. ▪ Archaeological sites of interest previously identified. ▪ Aboriginal cultural values may be significant to sightlines associated with significant landscape features. Ancillary Water & Electricity Transmission Infrastructure ▪ Traditional lands of Barngarla People and Kokatha People. ▪ Native Title rights and Indigenous Land Use Agreements (ILUAs). ▪ Numerous recorded and/or registered sites exist adjacent the project alignment. ▪ Aboriginal cultural values may be significant to sightlines associated with significant landscape features.	DETAILED
SC2	Community Wellbeing / Social Impact Assessment	▪ Community concern regarding infrastructure land uses in pastoral, coastal and marine environments. ▪ New interface impacts. ▪ Pressure on / competition for housing, local services, facilities, infrastructure.	▪ Different impacts during construction and operation. ▪ Increased disturbance during construction, with multiple work fronts along the pipeline at any one time.	▪ Direct: positive and negative impacts on local communities. ▪ Perceived: environmental and health impacts. ▪ Cumulative: approved Iron Road deep sea port	Desal Plant ▪ Few sensitive receptors. ▪ Wider community and interest group concern for sensitive coastal / marine environments. ▪ Transient / tourist population on Eyre Peninsula. . ▪ 3km NE of Cowleys Beach (parking area). ▪ 10km N-NE of Lipson Cove (campground).	DETAILED

Library Ref	Environmental Attribute	Description	Scale of Impact	Nature of Impact	Sensitivity of Receiving Environment	Level of Assessment
		▪ Impact to community safety, lifestyles, cultural practices, amenity value. ▪ Job creation, increased demand for workers, new skill development, pathways for further education.	▪ Fast construction of pipeline means that impacts to specific geographic locations are temporary and for short periods as work fronts move along the pipe route.	(particularly if construction periods overlap).	Ancillary Water & Electricity Transmission Infrastructure ▪ Covers large geographical area. ▪ Various communities including Whyalla, Port Augusta, Pimba, Woomera, Roxby Downs.	
SC3	Heritage Places and Areas	Desal Plant ▪ Possible chance finds during construction. Pipeline & Ancillary ▪ Possibility for known sites in proximity to corridor.	▪ No direct impact anticipated – known sites avoided. ▪ Alterations to visual landscape context of listed places.	▪ Direct. ▪ Indirect: new transmission lines / ancillary infrastructure may form part of landscape context for listed places.	Desal Plant ▪ No listed local or state heritage places on or near site – closest are in Port Neill. ▪ Nearest shipwreck approx. 8.3km to north. ▪ Nearest geoheritage site approx. 10km to the north. ▪ Cuttlefish Sanctuary Zone (National Heritage List) over 180km to the northeast. Ancillary Water & Electricity Transmission Infrastructure ▪ Several heritage places and geoheritage sites in proximity to the corridor.	STANDARD

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STATE PLANNING COMMISSION

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24 September 2024

Hon Nick Champion
Minister for Planning

By email: [redacted]

Dear Minister

Assessment Requirements for an Environmental Impact Statement – Northern Water Project

On 17 January 2024, in your capacity as Minister for Planning, you directed that the proposed Northern Water project become subject to the procedures of an Impact Assessed development, pursuant to section 108(1)(c) of the *Planning, Development and Infrastructure Act 2016* (the PDI Act).

The Office of Northern Water Delivery (formerly Infrastructure SA) is the proponent for this development.

On 8 April 2024 the delegate of the Australian Government Minister for the Environment and Water decided, under section 75 and section 87 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), that the proposed action is a controlled action and requires assessment and approval under the EPBC Act due to the potential for significant impact(s) on matters of national environmental significance (MNES).

The delegate also decided that the project will be assessed under a project-specific accredited assessment process under the PDI Act.

In accordance with section 112 of the PDI Act, the State Planning Commission (the Commission) is now responsible for determining the level of detail required in relation to an Environmental Impact Statement (EIS) through Assessment Requirements.

The Assessment Requirements were developed in partnership with the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) and incorporate both Commonwealth along with State requirements.

In determining the State level assessment requirements, relevant local councils and numerous State agencies, as listed below, have provided feedback:

- Environment Protection Authority (EPA)
- Department for Energy and Mining (DEM)

- Department for Environment and Water (DEW)
- Department for Infrastructure and Transport (DIT)
- Attorney-General's Department – Aboriginal Affairs and Reconciliation (ADG-AAR)
- Department of Primary Industries and Regions SA (PIRSA)
- Arid Lands Landscape Board
- Eyre Peninsula Landscape Board
- Country Fire Service SA (CFS)

Formal comments from the Proponent have also been considered by the Commission. The proponent also made a presentation to the Commission at its meeting on 5 September 2024.

A copy of the Assessment Requirements is enclosed for your reference and are scheduled to be released on the PlanSA website, and made available to the proponent, Council and agencies, in 5 business days from the date of this letter.

The Proponent will now utilise these requirements in the production of an EIS under section 113 of the PDI Act.

The Commission looks forward to providing you with further advice in relation to this proposal in due course.

Yours sincerely



Craig Holden
Chair

Enc Assessment Requirements – Environmental Impact Statement – Northern Water Project

THE SOUTH AUSTRALIAN

GOVERNMENT GAZETTE

PUBLISHED BY AUTHORITY

ADELAIDE, THURSDAY, 25 JANUARY 2024

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Printed and published weekly by authority of T. FORESTO, Government Printer, South Australia
$8.55 per issue (plus postage), $430.00 per annual subscription—GST inclusive
Online publications: www.governmentgazette.sa.gov.au

GOVERNOR'S INSTRUMENTS

APPOINTMENTS

Department of the Premier and Cabinet
Adelaide, 25 January 2024

Her Excellency the Governor in Executive Council has been pleased to appoint the undermentioned to the Libraries Board of South Australia, pursuant to the provisions of the Libraries Act 1982:

Member: from 25 January 2024 until 24 January 2027
Andrew John Culley
Kedeisha Noree Kartinyeri

By command,

STEPHEN CAMPBELL MULLIGHAN, MP
For Premier

24ART0001CS

Department of the Premier and Cabinet
Adelaide, 25 January 2024

Her Excellency the Governor in Executive Council has noted Dr James Muecke AM's conclusion as Lieutenant-Governor of South Australia, and revoked the Commission of Dr James Muecke AM as Lieutenant-Governor of South Australia, to take effect upon the swearing-in of Lieutenant-Governor designate, Dr Richard James Dunbar Harris SC OAM.

By command,

STEPHEN CAMPBELL MULLIGHAN, MP
For Premier

DPC24/006CS

Department of the Premier and Cabinet
Adelaide, 25 January 2024

Her Excellency the Governor in Executive Council has been pleased to appoint Dr Richard James Dunbar Harris SC OAM as Lieutenant-Governor of South Australia commencing on 9 February 2024, pursuant to the Letters Patent 1986, as amended by Orders in Council in 2001 and 2023, noting the appointment as Lieutenant-Governor will be at the Governor's Pleasure by Commission under the Public Seal of South Australia.

By command,

STEPHEN CAMPBELL MULLIGHAN, MP
For Premier

DPC24/006CS

COMMISSION

Appointing DR RICHARD JAMES DUNBAR HARRIS SC OAM to be Lieutenant-Governor of the State of South Australia

Her Excellency The Honourable Frances Jennifer Adamson, Companion of the Order of Australia, Governor in and over the State of South Australia:

TO

Dr Richard James Dunbar Harris SC OAM

GREETING:

In the exercise of all enabling powers, **I, the said Governor,** with the advice and consent of the Executive Council do hereby:

1. Appoint you the said Richard James Dunbar Harris to be the Lieutenant-Governor in and over the State of South Australia with all the powers, rights, privileges and advantages belonging or appertaining to that Office.
2. Authorise, empower and command you to exercise and perform the powers and functions appertaining to that Office.
3. Declare that, so soon as you take the Oath of Allegiance and the Official Oath under the Letters Patent constituting the Office of Governor of the State of South Australia, this present Commission will supersede the Commission, bearing date the Twenty-seventh day of January, 2022, appointing Dr James Muecke AM, to be Lieutenant-Governor of the State of South Australia.

Given under my hand and the Public Seal of South Australia, at Adelaide this Twenty-fifth day of January 2024.

By command,

STEPHEN CAMPBELL MULLIGHAN, MP
For Premier

Recorded in Register of Commissions, Letters Patent, Etc., Vol. XXIX

Clerk of Executive Council

PROCLAMATIONS

South Australia

Advance Care Directives (Review) Amendment Act (Commencement) Proclamation 2024

1—Short title

This proclamation may be cited as the *Advance Care Directives (Review) Amendment Act (Commencement) Proclamation 2024*.

2—Commencement of Act

The *Advance Care Directives (Review) Amendment Act 2023* (No 38 of 2023) comes into operation on 1 March 2024.

Made by the Governor

with the advice and consent of the Executive Council
on 25 January 2024

REGULATIONS

South Australia

Advance Care Directives (Miscellaneous) Amendment Regulations 2024

under the *Advance Care Directives Act 2013*

Contents

Part 1—Preliminary

1 Short title
2 Commencement

Part 2—Amendment of *Advance Care Directives Regulations 2014*

3 Insertion of regulation 4A
4A Electronic copies of advance care directives
4 Amendment of regulation 5—Giving advance care directives
5 Amendment of regulation 8—Appointment of substitute decision-makers
6 Amendment of regulation 9—Copies of advance care directives
7 Amendment of regulation 12—Interstate advance care directives and corresponding laws
8 Substitution of regulation 12A
12A Exemption from requirement to give effect to advance care directives where suicide attempt or self-harm
9 Substitution of Schedule 1

Schedule 1—List of suitable witnesses

Part 1—Preliminary

1—Short title

These regulations may be cited as the *Advance Care Directives (Miscellaneous) Amendment Regulations 2024*.

2—Commencement

These regulations come into operation on the day on which section 3 of the *Advance Care Directives (Review) Amendment Act 2023* comes into operation.

Part 2—Amendment of *Advance Care Directives Regulations 2014*

3—Insertion of regulation 4A

After regulation 4 insert:

4A—Electronic copies of advance care directives

For the purposes of section 5A of the Act, electronic copies of an advance care directive of the following kinds are prescribed:

(a) an electronic copy entered on the My Health Record system;

(b) an electronic copy entered on the Sunrise EMR system;

(c) an electronic copy entered on an electronic record system approved by the Chief Executive,

in each case being an electronic copy that was, prior to being entered on the relevant system, certified as a true copy of a particular advance care directive by a person, or a person of a class, included on the list of suitable witnesses set out in Schedule 1.

4—Amendment of regulation 5—Giving advance care directives

Regulation 5—after its present contents (now to be designated as subregulation (1)) insert:

(2) Without limiting the ways in which a certification may be made, or a part of an advance care directive completed or signed, under subregulation (1), a person giving an advance care directive may do so by electronic means.

5—Amendment of regulation 8—Appointment of substitute decision-makers

Regulation 8—after subregulation (1) insert:

(1a) Without limiting the ways in which a certification may be made, or a part of an advance care directive completed or signed, under subregulation (1), a substitute decision-maker may do so by electronic means.

6—Amendment of regulation 9—Copies of advance care directives

Regulation 9—after subregulation (2) insert:

(3) For the purposes of section 24(2)(c) of the Act, it is a requirement that the health practitioner accesses the electronic copy of the advance care directive on—

(a) the My Health Record system; or

(b) the Sunrise EMR system; or

(c) an electronic record system approved by the Chief Executive.

7—Amendment of regulation 12—Interstate advance care directives and corresponding laws

(1) Regulation 12(1)(g)—delete "2000" and substitute:

1995

(2) Regulation 12(1)—after paragraph (g) insert:

(ga) an advance care directive instrument under the *Guardianship and Administration Act 1995* of Tasmania that is in force;

(3) Regulation 12(2)(e)—delete "2000" and substitute:

1995

8—Substitution of regulation 12A

Regulation 12A—delete regulation 12A and substitute:

12A—Exemption from requirement to give effect to advance care directives where suicide attempt or self-harm

(1) For the purposes of section 36(1b)(a) of the Act, the following information is required:

(a) the name, address and age (if known) of the person to whom the health care was provided;

(b) the date or dates on which the health care was provided to the person

(c) the location or locations at which the health care was provided to the person

(d) a description of the health care provided to the person;

(e) the grounds for the health practitioner's suspicion that the person had attempted suicide or self-harmed;

(f) the grounds for the health practitioner's opinion that the provision of the health care was reasonably necessary to save the life of the person.

(2) For the purposes of section 36(1b)(b) of the Act, a report must comply with the following requirements:

(a) the report must be made to the Chief Executive in a manner and form determined by the Chief Executive;

(b) the report must include such information, or be accompanied by such records and documents, as may be required by the Chief Executive.

(3) In this regulation—

Chief Executive means the Chief Executive of the administrative unit of the Public Service that is responsible for assisting a Minister in the administration of the Act and includes a person for the time being acting in that position.

9—Substitution of Schedule 1

Schedule 1—delete Schedule 1 and substitute:

Schedule 1—List of suitable witnesses

The following persons, or classes of persons, are suitable witnesses:

(a) health practitioners;

(b) persons enrolled on the roll of the Supreme Court of a State or Territory, or the High Court of Australia, as a legal practitioner (however described);

(c) Commissioners for taking affidavits in the Supreme Court;

(d) Justices of the Peace;

(e) police officers;

(f) social workers;

(g) teachers.

Editorial note—

As required by section 10AA(2) of the *Legislative Instruments Act 1978*, the Minister has certified that, in the Minister's opinion, it is necessary or appropriate that these regulations come into operation as set out in these regulations.

Made by the Governor

with the advice and consent of the Executive Council
on 25 January 2024

No 2 of 2024

South Australia

Road Traffic (Miscellaneous) (Prescribed Breath Analysing Instrument) Amendment Regulations 2024

under the *Road Traffic Act 1961*

Contents

Part 1—Preliminary

1 Short title
2 Commencement

Part 2—Amendment of *Road Traffic (Miscellaneous) Regulations 2014*

3 Amendment of regulation 14—Approval of apparatus and kits for breath analysis etc (section 47H of Act)

Part 1—Preliminary

1—Short title

These regulations may be cited as the *Road Traffic (Miscellaneous) (Prescribed Breath Analysing Instrument) Amendment Regulations 2024*.

2—Commencement

These regulations come into operation on the day on which they are made.

Part 2—Amendment of *Road Traffic (Miscellaneous) Regulations 2014*

3—Amendment of regulation 14—Approval of apparatus and kits for breath analysis etc (section 47H of Act)

Regulation 14(1)—after paragraph (b) insert:

(c) Dräger Alcotest 9510.

Editorial note—

As required by section 10AA(2) of the *Legislative Instruments Act 1978*, the Minister has certified that, in the Minister's opinion, it is necessary or appropriate that these regulations come into operation as set out in these regulations.

Made by the Governor

with the advice and consent of the Executive Council
on 25 January 2024

No 3 of 2024

South Australia

Passenger Transport (Vehicle Age Limit) Amendment Regulations 2024

under the *Passenger Transport Act 1994*

Contents

Part 1—Preliminary

1 Short title
2 Commencement

Part 2—Amendment of *Passenger Transport Regulations 2009*

3 Amendment of regulation 135—Maximum age of vehicles

Part 1—Preliminary

1—Short title

These regulations may be cited as the *Passenger Transport (Vehicle Age Limit) Amendment Regulations 2024*.

2—Commencement

These regulations come into operation on the day on which they are made.

Part 2—Amendment of *Passenger Transport Regulations 2009*

3—Amendment of regulation 135—Maximum age of vehicles

Regulation 135(1)(b)—delete "10 years old" and substitute:

12 years old

Editorial note—

As required by section 10AA(2) of the *Legislative Instruments Act 1978*, the Minister has certified that, in the Minister's opinion, it is necessary or appropriate that these regulations come into operation as set out in these regulations.

Made by the Governor

with the advice and consent of the Executive Council
on 25 January 2024

No 4 of 2024

STATE GOVERNMENT INSTRUMENTS

ASSOCIATIONS INCORPORATION ACT 1985

ORDER PURSUANT TO SECTION 42(2)

Dissolution of Association

WHEREAS the CORPORATE AFFAIRS COMMISSION (the Commission) pursuant to section 42(1) of the *Associations Incorporation Act 1985* (the Act) is of the opinion that the undertaking or operations of **ART MUSEUM OF KANGAROO ISLAND ESTABLISHMENT ASSOCIATION INCORPORATED** (the Association) being an incorporated association under the Act are being carried on, or would more appropriately be carried on by a Company Limited by Guarantee incorporated under the *Corporations Act 2001* (Cth) **AND WHEREAS** the Commission was on **2 NOVEMBER 2023** requested by the Association to transfer its undertaking to **ART MUSEUM OF KANGAROO ISLAND LIMITED** (Australian Company Number **670 073 444**), the Commission pursuant to section 42(2) of the Act **DOES HEREBY ORDER** that on **25 JANUARY 2024** the Association will be dissolved, the property of the Association becomes the property of **ART MUSEUM OF KANGAROO ISLAND LIMITED** and the rights and liabilities of the Association become the rights and liabilities of **ART MUSEUM OF KANGAROO ISLAND LIMITED**.

Given under the seal of the Commission at Adelaide this **23rd** day of **January 2024**.

LISA BERRY
A delegate of the Corporate Affairs Commission

ASSOCIATIONS INCORPORATION ACT 1985

ORDER PURSUANT TO SECTION 42(2)

Dissolution of Association

WHEREAS the CORPORATE AFFAIRS COMMISSION (the Commission) pursuant to section 42(1) of the *Associations Incorporation Act 1985* (the Act) is of the opinion that the undertaking or operations of **AUSTRALIASIAN ASSOCIATION FOR CLINICAL BIOCHEMISTRY AND LABORATORY MEDICINE INCORPORATED** (the Association) being an incorporated association under the Act are being carried on, or would more appropriately be carried on by a Company Limited by Guarantee incorporated under the *Corporations Act 2001* (Cth) **AND WHEREAS** the Commission was on **11 OCTOBER 2023** requested by the Association to transfer its undertaking to **AUSTRALIASIAN ASSOCIATION FOR CLINICAL BIOCHEMISTRY AND LABORATORY MEDICINE LIMITED** (Australian Company Number **674 275 926**) the Commission pursuant to section 42(2) of the Act **DOES HEREBY ORDER** that on **25 JANUARY 2024** the Association will be dissolved, the property of the Association becomes the property of **AUSTRALIASIAN ASSOCIATION FOR CLINICAL BIOCHEMISTRY AND LABORATORY MEDICINE LIMITED** and the rights and liabilities of the Association become the rights and liabilities of **AUSTRALIASIAN ASSOCIATION FOR CLINICAL BIOCHEMISTRY AND LABORATORY MEDICINE LIMITED**.

Given under the seal of the Commission at Adelaide this **23rd** day of **January 2024**.

LISA BERRY
A delegate of the Corporate Affairs Commission

ASSOCIATIONS INCORPORATION ACT 1985

SECTION 43A

Deregistration of Associations

NOTICE is hereby given that the Corporate Affairs Commission approves the applications for deregistration received from the associations named below pursuant to section 43A of the *Associations Incorporation Act 1985* (SA). Deregistration takes effect on the date of publication of this notice.

ROYAL ANTEDILUVIAN ORDER OF BUFFALOES BOSTON LODGE NO 14 INCORPORATED [A650]
THE AUSTRALIAN INSTITUTE OF INTERNATIONAL AFFAIRS (SOUTH AUSTRALIAN BRANCH) INCORPORATED [A20790]
PRIME SAMM (SA MEAT MERINO) BREEDERS SOCIETY OF SOUTH AUSTRALIA INCORPORATED [A37485]
PARINGA-MURTHO PROGRESS WAR MEMORIAL COMMUNITY CENTRE INCORPORATED [A1442]
HUNTINGTON'S SA & NT INCORPORATED [A42460]
PROFESSIONAL YOUTH WORK SA INCORPORATED [A43129]
THE KIMBA HARVEST CHRISTIAN CENTRE MANAGEMENT ASSOCIATION INCORPORATED [A37962]
LYRUP PROGRESS GROUP INCORPORATED [A42517]
LIMESTONE COAST CONNECT INCORPORATED [A44672]
COMMUNITY TRANSPORT ASSOCIATION INCORPORATING NORTHERN TERRITORY INCORPORATED [A41900]
VINEYARD LUTHERAN SCHOOL, CLARE VALLEY INCORPORATED [A36354]

Given under the seal of the Commission at Adelaide this **23rd** day of **January 2024**.

LISA BERRY
Team Leader, Lotteries & Associations
A delegate of the Corporate Affairs Commission

COLLECTIONS FOR CHARITABLE PURPOSES ACT 1939

South Australia

Collections for Charitable Purposes (Charities Code of Practice) Variation Notice 2024

for the purposes of the *Collections for Charitable Purposes Act 1939*

1 - Short title

This notice may be cited as the *Collections for Charitable Purposes (Charities Code of Practice) Variation Notice 2024* (**Variation Notice**).

2 - Commencement

This Variation Notice comes into operation on 29 January 2024.

3 – Variation of existing Charities Code of Practice

This Variation Notice will have the effect that the *Charities Code of Practice* as created on 1 March 2013 and amended on 1 December 2016 is repealed and replaced with the *Charities Code of Practice* set out in this Variation Notice.

4 – Charities Code of Practice

The *Charities Code of Practice* set out in this notice is varied under section 3 of the *Collections for Charitable Purposes Act 1939*.

Schedule 1—Charities Code of Practice

Part 1 - Preliminary

1 – Citation

This code of practice may be cited as the *Charities Code of Practice* under the *Collections for Charitable Purposes Act 1939.*

2 – Commencement

This code of practice will come into operation on 29 January 2024.

3 – Purpose of the code

The purpose of this code of practice is to:

(a) establish required practices for the conduct and management of charitable collections within South Australia;

(b) ensure collection activities give confidence to potential donors in the charity sector;

(c) ensure donors are given the opportunity to make informed decisions about donating;

(d) ensure donors' rights to privacy are respected;

(e) ensure that the decision not to donate is respected; and

(f) ensure collectors' rights are respected by licensees.

4 - Interpretation

(1) In this code of practice:

Act means the *Collections for Charitable Purposes Act 1939.*

charitable organisation or ***charity*** means the holder of a section 6 licence pursuant to the Act and includes a Commonwealth registered entity registered under the *Australian Charities and Not-for-profits Commission Act 2012* of the Commonwealth. A Commonwealth registered entity on giving written notice to the Minister, is taken to hold a section 6 licence for the purposes of the Act.

commercial fundraiser has the same definition as 'paid collector' in the Act.

contact details means the name of a contact person and their contact address, a telephone number and an email address if applicable.

ongoing donation means an agreement between a donor and a charitable organisation for the regular payment of donations on an ongoing basis.

(2) Expressions defined in the Act have the same meanings in this code of practice.

5 – Mandatory nature of the code

(1) Under:

(a) section 6(5)(a) of the Act, a Commonwealth registered entity's authority to act as a collector under subsection (3) is subject to the condition that the entity or any other person authorised by the holder of the licence to act as a collector comply with the code of practice (as in force from time to time); and

(b) section 12(2)(b) of the Act, a licence may be granted subject to any conditions that the Minister thinks fit, including conditions requiring the holder of the licence or any other person authorised by the holder of the licence, to comply with provisions of a code of practice issued by the Minister.

(2) This code of practice is in addition to, and does not derogate from, obligations under the Act or other licence conditions imposed by or under the Act.

(3) Failure to comply with a provision in this code of practice will be a breach of licence condition and may result in disciplinary action in accordance with the Act.

Part 2 – Required practices

6 – Hours and location of collection activities

When conducting fundraising activities, charitable organisations must ensure that their employees, volunteers, contractors and anyone else who they engage or arrange to raise funds on their behalf:

(1) Never conduct door-to-door or telephone fundraising activity at the following times:

- before 9 am or after 5 pm on a weekend
- before 9 am or after 6 pm (door-to-door) or 8pm (telephone) on a weekday
- on a public holiday, unless the public holiday is closely connected with a fundraiser's charitable purpose.

7 – Identification requirements for collectors

When conducting fundraising activities, charitable organisations must ensure that their employees, volunteers, contractors and anyone else who they engage or arrange to raise funds on their behalf:

(1) Always explain the purpose of their charity and the purpose to which the funds raised will be applied in ways that are appropriate for the audience.

(2) Always be clearly, and individually, identifiable by the public (including to display identification that contains the individual's name, whether they are a volunteer, employee or acting in some other capacity for a charitable organisation or commercial fundraising organisation, and that organisation's name and contact details).

8 – Principles for Fundraising Activities

When conducting fundraising activities, charitable organisations must ensure that their employees, volunteers, contractors and anyone else who they engage or arrange to raise funds on their behalf:

(1) Always make and keep written records of fundraising activities that can be easily read and understood.

(2) Always acknowledge and comply with a:

- refusal to make a donation
- request not to receive future solicitations (including marketing and promotional materials)
- request to be contacted at a more convenient time or by a different means
- request to limit the number, type or frequency of solicitations.

(3) Never mislead, deceive or knowingly use false or inaccurate information when fundraising.

(4) Never place undue or unreasonable pressure on a person when fundraising, or act unconscionably in any way to obtain a donation.

(5) Never exploit the trust, lack of knowledge, lack of capacity, apparent need for care and support, or vulnerable circumstances of any donor.

(6) Always make it clear whether a donation is a one-off or an ongoing donation, and clearly explain how to end an ongoing donation.

(7) For commercial fundraisers engaged to fundraise for a charitable organisation, never accept a donation without having explained that they are part of an organisation that makes a profit from fundraising as well as how they are paid.

9 – Other Fundraising Principles

At all times, charitable organisations must:

(1) Conduct all reasonable due diligence when engaging third parties to assist, support or deliver fundraising activities on its behalf.

(2) Make and keep written records of the total funds raised and the purposes for which funds are applied.

(3) Take all reasonable measures to protect the health, safety and wellbeing of fundraisers employed or directly engaged by them, as well as members of the public, when fundraising.

(4) Establish and maintain a complaints process that allows for proper investigation and redress of fundraising complaints that may be made by the public and encourage anyone with concerns about a fundraising activity conducted by or on behalf of the charity to contact them.

(5) Ensure information covered by the *Privacy Act 1998* of the Commonwealth (the Privacy Act) is collected, used and managed in accordance with the Australian Privacy Principles where required under the Privacy Act.

(6) Always ensure remuneration to commercial fundraisers engaged to fundraise for a charitable organisation is not excessive when compared to money or goods received for the charitable purpose of the fundraising.

Dated: 17 January 2024

ANDREA MICHAELS
Minister for Consumer and Business Affairs

HOUSING IMPROVEMENT ACT 2016

Rent Control

The Minister for Human Services Delegate in the exercise of the powers conferred by the *Housing Improvement Act 2016*, does hereby fix the maximum rental per week which shall be payable subject to Section 55 of the *Residential Tenancies Act 1995*, in respect of each house described in the following table. The amount shown in the said table shall come into force on the date of this publication in the *Gazette*.

Address of Premises	Allotment Section	Certificate of Title Volume/Folio	Maximum Rental per week payable
Unit 2 24 Robertson Road, Moana SA 5169 (AKA 24B) - Rear property	Allotment 128 Deposited Plan 3752 Hundred of Willunga	CT5190/820	$0.00
Unit 1 24 Robertson Road, Moana SA 5169 (AKA 24A) - front property	Allotment 128 Deposited Plan 3752 Hundred of Willunga	CT 5190/820	$0.00

Dated: 25 January 2024

CRAIG THOMPSON
Housing Regulator and Registrar
Housing Safety Authority, SAHA
Delegate of Minister for Human Services

HOUSING IMPROVEMENT ACT 2016

Rent Control Revocations

Whereas the Minister for Human Services Delegate is satisfied that each of the houses described hereunder has ceased to be unsafe or unsuitable for human habitation for the purposes of the *Housing Improvement Act 2016*, notice is hereby given that, in exercise of the powers conferred by the said Act, the Minister for Human Services Delegate does hereby revoke the said Rent Control in respect of each property.

Address of Premises	Allotment Section	Certificate of Title Volume/Folio
Lot 2 Greenhill Road, Summertown SA 5141	Allotment 2 Filed Plan 5513 Hundred of Onkaparinga	CT5459/161
314 Esplanade, Moana SA 5169	Allotment 59 Deposited Plan 3752 Hundred of Willunga	CT5238/946

Dated: 25 January 2024

CRAIG THOMPSON
Housing Regulator and Registrar
Housing Safety Authority, SAHA
Delegate of Minister for Human Services

JUSTICES OF THE PEACE ACT 2005

SECTION 4

Notice of Appointment of Justices of the Peace for South Australia by the Commissioner for Consumer Affairs

I, Dini Soulio, Commissioner for Consumer Affairs, delegate of the Attorney-General, pursuant to section 4 of the *Justices of the Peace Act 2005*, do hereby appoint the people listed as Justices of the Peace for South Australia as set out below.

For a period of ten years for a term commencing on 6 February 2024 and expiring on 5 February 2034:

Yvonne May ZIESING
Robert John YATES
Julie Anne WOODMAN
Judith Lorraine WILSON
Susan Margaret VIRGILI
Glen Stephen TREBILCOCK
Daniela TOMLINS
Roger James THOMAS
Gaynor SMALLWOOD-SMITH
Pieter Craig SCOTT
David Peter SCOTLAND
Fiona Maree SANDERS
Lynn Victoria RAWLEY
Anjila Devi NAIDU
Norma Rosalee MATTERS
Robert William MAIOLO
Dudley Theodor KLEMM
David Myles JONES
Jane Rosemary JOHNSTON
Geoffrey David GRAY
Karen Elizabeth GIBBS
Wendy Maree FACCENDA
John William EDWARDS
Walter John DOLLMAN
Carroll CRAM

Dated: 19 January 2024

DINI SOULIO
Commissioner for Consumer Affairs
Delegate of the Attorney-General

LAND ACQUISITION ACT 1969

SECTION 16

Form 5—Notice of Acquisition

1. Notice of acquisition

The Commissioner of Highways (the Authority), of 83 Pirie Street, Adelaide SA 5000, acquires the following interests in the following land:

Comprising the entirety of the right, estate or interest of Pratima Thapa and Manoj Ghimire, whether as lessee, as sub-lessee or as licensee or otherwise in that piece of land being the whole of Unit 2 in Strata Plan 3507 comprised in Certificate of Title Volume 5031 Folio 752.

This notice is given under Section 16 of the *Land Acquisition Act 1969*.

2. Compensation

A person who has or had an interest consisting of native title or an alienable interest in the land that is divested or diminished by the acquisition or the enjoyment of which is adversely affected by the acquisition who does not receive an offer of compensation from the Authority may apply to the Authority for compensation.

2A. Payment of professional costs relating to acquisition (Section 26B)

If you are the owner in fee simple of the land to which this notice relates, you may be entitled to a payment of up to $10,000 from the Authority for use towards the payment of professional costs in relation to the acquisition of the land.

Professional costs include legal costs, valuation costs and any other costs prescribed by the *Land Acquisition Regulations 2019*.

3. Inquiries

Inquiries should be directed to: Petrula Pettas
GPO Box 1533
Adelaide SA 5001
Telephone: 08 7133 2457

Dated: 22 January 2024

The Common Seal of the COMMISSIONER OF HIGHWAYS was hereto affixed by authority of the Commissioner in the presence of:

ROCCO CARUSO
Manager, Property Acquisition
(Authorised Officer)
Department for Infrastructure and Transport

DIT 2023/07295/01

LAND ACQUISITION ACT 1969

SECTION 16

Form 5—Notice of Acquisition

1. Notice of acquisition

The Commissioner of Highways (the Authority), of 83 Pirie Street, Adelaide SA 5000, acquires the following interests in the following land:

Comprising the entirety of the right, estate or interest of Matthew Buckland and Sheridan Chandler, whether as lessee, as sub-lessee or as licensee or otherwise in that piece of land being the whole of Unit 3 in Strata Plan 13624 comprised in Certificate of Title Volume 5288 Folio 132.

This notice is given under Section 16 of the *Land Acquisition Act 1969*.

2. Compensation

A person who has or had an interest consisting of native title or an alienable interest in the land that is divested or diminished by the acquisition or the enjoyment of which is adversely affected by the acquisition who does not receive an offer of compensation from the Authority may apply to the Authority for compensation.

2A. Payment of professional costs relating to acquisition (Section 26B)

If you are the owner in fee simple of the land to which this notice relates, you may be entitled to a payment of up to $10,000 from the Authority for use towards the payment of professional costs in relation to the acquisition of the land.

Professional costs include legal costs, valuation costs and any other costs prescribed by the *Land Acquisition Regulations 2019*.

3. Inquiries

Inquiries should be directed to: Petrula Pettas
GPO Box 1533
Adelaide SA 5001
Telephone: 08 7133 2457

Dated: 22 January 2024

The Common Seal of the COMMISSIONER OF HIGHWAYS was hereto affixed by authority of the Commissioner in the presence of:

ROCCO CARUSO
Manager, Property Acquisition
(Authorised Officer)
Department for Infrastructure and Transport

DIT 2023/07432/01

MOTOR VEHICLES ACT 1959

South Australia

Motor Vehicles (Conditional Registration—Recognition of Motor Vehicle Clubs) Notice 2024 – Auto Motives Car Club Incorporated

under the *Motor Vehicles Act 1959*

1—Short title

This notice may be cited as the Motor Vehicles (Conditional Registration—Recognition of Motor Vehicle Clubs) Notice 2024 – Auto Motives Car Club Incorporated.

2—Commencement

This notice takes effect from the date it is published in the Gazette.

3—Interpretation

In this notice—

Act means the *Motor Vehicles Act 1959*;

Code of Practice means the 'Code of Practice – Conditional Registration Scheme for Historic, Individually Constructed, Left-Hand Drive and Street Rod Vehicles' published by the Department for Infrastructure and Transport;

Conditional Registration Scheme or ***Scheme*** means the scheme for conditional registration of historic, individually constructed, left hand drive, street rod and vehicles under section 25 of the Act and regulations 15 and 16 of the Motor Vehicles Regulations 2010;

Department means the Department for Infrastructure and Transport;

Federation means the Federation of Historic Motoring Clubs SA Incorporated;

MR334 form means an 'Approval for Registration of Vehicle on the Conditional Registration Scheme (MR334)';

Prescribed log book means a log book in a form approved by the Registrar;

Registrar means the Registrar of Motor Vehicles;

Regulations means the Motor Vehicles Regulations 2010.

4—Recognition of motor vehicles clubs

The motor vehicle clubs specified in Schedule 1 are, subject to the conditions set out in clause 5, recognised for the purposes of regulation 16 of the Regulations.

5—Conditions of recognition

A motor vehicle club specified in Schedule 1 must comply with the following conditions:

(a) the club must maintain a constitution approved by the Registrar;

(b) the club must nominate and have members authorised by the Registrar (authorised persons). The club's authorised person(s) are responsible for approving applicants and motor vehicles for registration under the Scheme. This includes confirming that Scheme applicants are financial members of a club; any other details as required by the Registrar on the MR334 form; and to inspect members' vehicles when requested to do so by the Registrar;

(c) the club must issue a prescribed log book to club members for each of their vehicles to record vehicle use;

(d) the club must cancel a member's prescribed log book when a member resigns, must ensure that a statutory declaration is provided when a member's log book is lost or destroyed, must keep details of members' prescribed log book return sheets and forward copies of the same to the Registrar or Federation annually as required;

(e) the club must create and maintain records detailing all its financial members, its authorised persons, all vehicles for which an MR334 form has been issued, all statutory declarations received and prescribed log books issued and returned to the club;

(f) the club must keep records for a period of 5 years from the date of the document and these records must include all duplicate MR334 forms, all records of motor vehicle inspections undertaken in accordance with paragraph (b), all statutory declarations provided by members for the purposes of paragraphs (d), all prescribed log books issued by reference to their serial number, the member's name and the vehicle for which it was issued, and to make all such records available for inspection or provide copies of the records at the request of the Registrar for audit purposes;

(g) the club must ensure, as far as practicable, that all members comply with the Code of Practice;

(h) the club, as far as practicable, must report to the Registrar or the Federation details of members and motor vehicles not complying with the conditions and criteria set out in the Code of Practice for the Scheme;

(i) the club must provide to the Registrar, within 2 months after the end of the club's financial year, an annual report detailing members from that financial year with vehicles registered under the Scheme who are no longer financial members of the club;

(j) the club must notify the Registrar, in writing, within 14 days of resolution to cease operation as a club and must provide the club records specified in paragraph (f) to the Registrar within 14 days of its dissolution;

Note—

Under regulation 16(3)(c) of the *Motor Vehicles Regulations 2010*, the Registrar may, by notice in the Gazette, withdraw the recognition of a motor vehicle club if satisfied that the club has contravened or failed to comply with a condition applying to its recognition by the Registrar, or if there is other good cause to withdraw the recognition.

Schedule 1—Recognised motor vehicle clubs

Historic, individually constructed, left-hand drive, street rod vehicles and motor vehicle clubs.

Auto Motives Car Club Incorporated

Made by the Deputy Registrar of Motor Vehicles

On 16 January 2024

NATIONAL PARKS AND WILDLIFE ACT 1972

Parks of the Central Fleurieu Peninsula Management Plan 2023

I, SUSAN CLOSE, Minister for Climate, Environment and Water, hereby give notice under the provisions of Section 38 of the *National Parks and Wildlife Act 1972* that, on 28 December 2023, I adopted a plan of management for the Bullock Hill Conservation Park, Cox Scrub Conservation Park, Finniss Conservation Park, Gum Tree Gully Conservation Park, Hesperilla Conservation Park, Hindmarsh Valley National Park, Kyeema Conservation Park, Mount Billy Conservation Park, Mount Magnificent Conservation Park, Myponga Conservation Park, Nixon-Skinner Conservation Park, Scott Conservation Park, Spring Mount Conservation Park, Stipiturus Conservation Park and Yulte Conservation Park.

Copies of the plan may be obtained from:

- https://www.environment.sa.gov.au/topics/park-management/statewide-park-strategies/park-management-plans
- Department for Environment and Water Customer Service Centre, ground floor, 81-95 Waymouth Street, Adelaide SA 5000
- Victor Harbor National Parks and Wildlife Service office. 3 Eyre Terrace, Victor Harbor SA 5211

Dated: 28 December 2023

HON SUSAN CLOSE MP
Minister for Climate, Environment and Water

PLANNING, DEVELOPMENT AND INFRASTRUCTURE ACT 2016

SECTION 131(25)

Direction by the Minister

Pursuant to section 131(25) *Planning, Development and Infrastructure Act 2016*, I direct that an Environmental Impact Statement be prepared with respect to the proposed development (known as the Northern Water Project) referred to in Development Application No 23034957 lodged with the State Planning Commission on 7 December 2023 by Infrastructure SA.

Dated: 17 January 2024

HON NICK CHAMPION MP
Minister for Planning

SHOP TRADING HOURS ACT 1977

Trading Hours—Exemption

NOTICE is hereby given that pursuant to section 5(9)(b) of the *Shop Trading Hours Act 1977* (the Act), I, Kyam Maher MLC, Minister for Industrial Relations and Public Sector, do hereby declare:

- Non-exempt shops situated within the Central Business District (CBD) Tourist Precinct are exempt from the provisions of the Act between the hours of:
  - 5.00 pm and 6.00 pm on Saturdays, 17 February 2024 and 24 February 2024

This exemption is subject to the following conditions:

- Normal trading hours prescribed by section 13 of the Act shall apply at all other times.
- Each employee who works in a shop during the extended hours has voluntarily accepted an offer by the shopkeeper to work.
- Any and all relevant industrial instruments are to be complied with.
- All work health and safety issues (in particular those relating to extended trading hours) must be appropriately addressed.

Dated: 23 January 2024

HON KYAM MAHER MLC
Minister for Industrial Relations and Public Sector

SHOP TRADING HOURS ACT 1977

Trading Hours—Exemption

NOTICE is hereby given that pursuant to section 5(9)(b) of the *Shop Trading Hours Act 1977* (the Act), I, Kyam Maher MLC, Minister for Industrial Relations and Public Sector, do hereby declare:

- Non-exempt shops situated within the Central Business District (CBD) Tourist Precinct are exempt from the provisions of the Act between the hours of:
  - 5.00 pm and 6.00 pm on Saturdays, 2 March 2024 and 9 March 2024

This exemption is subject to the following conditions:

- Normal trading hours prescribed by section 13 of the Act shall apply at all other times.
- Each employee who works in a shop during the extended hours has voluntarily accepted an offer by the shopkeeper to work.
- Any and all relevant industrial instruments are to be complied with.
- All work health and safety issues (in particular those relating to extended trading hours) must be appropriately addressed.

Dated: 23 January 2024

HON KYAM MAHER MLC
Minister for Industrial Relations and Public Sector

SHOP TRADING HOURS ACT 1977

Trading Hours—Exemption

NOTICE is hereby given that pursuant to section 5(9)(b) of the *Shop Trading Hours Act 1977* (the Act), I, Kyam Maher MLC, Minister for Industrial Relations and Public Sector, do hereby declare:

- Non-exempt shops situated within the Central Business District (CBD) Tourist Precinct are exempt from the provisions of the Act between the hours of:
  - 5.00 pm and 6.00 pm on Saturday, 16 March 2024

This exemption is subject to the following conditions:

- Normal trading hours prescribed by section 13 of the Act shall apply at all other times.
- Each employee who works in a shop during the extended hours has voluntarily accepted an offer by the shopkeeper to work.
- Any and all relevant industrial instruments are to be complied with.
- All work health and safety issues (in particular those relating to extended trading hours) must be appropriately addressed.

Dated: 23 January 2024

HON KYAM MAHER MLC
Minister for Industrial Relations and Public Sector

SHOP TRADING HOURS ACT 1977

Trading Hours—Exemption

NOTICE is hereby given that pursuant to section 5(9)(b) of the *Shop Trading Hours Act 1977* (the Act), I, Kyam Maher MLC, Minister for Industrial Relations and Public Sector, do hereby declare:

- Non-exempt shops situated within the Central Business District (CBD) Tourist Precinct are exempt from the provisions of the Act between the hours of:
  - 5.00 pm and 6.00 pm on Saturday, 6 April 2024

This exemption is subject to the following conditions:

- Normal trading hours prescribed by section 13 of the Act shall apply at all other times.
- Each employee who works in a shop during the extended hours has voluntarily accepted an offer by the shopkeeper to work.
- Any and all relevant industrial instruments are to be complied with.
- All work health and safety issues (in particular those relating to extended trading hours) must be appropriately addressed.

Dated: 23 January 2024

HON KYAM MAHER MLC
Minister for Industrial Relations and Public Sector

SOUTH AUSTRALIAN SKILLS ACT 2008

Part 4—Apprenticeships, traineeships and training contracts

PURSUANT to the provision of the *South Australian Skills Act 2008*, the South Australian Skills Commission (SASC) gives notice that determines the following reactivation of archived pathways aligned to the Certificate II in Aeroskills (MEA20418), in addition to those published in past *gazette* notices.

***Trade/ #Declared Vocation/ Other Occupation**	**Qualification Code**	**Qualification Title**	**Nominal Term of Training Contract**	**Probationary Period**	**Supervision Level Rating**
Aircraft Maintenance Worker (Aircraft Structures Non Trade)#	MEA20418	Certificate II in Aeroskills	12 Months	60 Days	Medium
Aircraft Maintenance Worker (Avionics Non Trade)#	MEA20418	Certificate II in Aeroskills	12 Months	60 Days	Medium
Aircraft Maintenance Worker (Mechanical Non Trade)#	MEA20418	Certificate II in Aeroskills	12 Months	60 Days	Medium

Dated: 25 January 2024

JOHN EVANGELISTA
Director, Traineeship and Apprenticeship Services
Department for Education

THE REMUNERATION TRIBUNAL

REPORT—NO. 15 OF 2023

2023 Review of Salary of the Governor of South Australia

INTRODUCTION

1. The Remuneration Tribunal (**Tribunal**) has jurisdiction under section 14 of the *Remuneration Act 1990* (SA) (**Act**) and section 73 of the *Constitution Act 1934* (SA) (**Constitution Act**), to determine the rate of salary payable to Her Excellency the Governor of South Australia (**the Governor**).
2. As explained in this report, the Tribunal has decided to increase the salary payable to the Governor to $495,754. The Tribunal has issued an accompanying determination, which applies from 1 February 2024.

BACKGROUND

3. In late 2021, the Tribunal undertook a review of the salary of the Governor. As part of that review, it considered it necessary to establish a sustainable basis for the remuneration of the Governor.
4. It noted that it did not consider it appropriate or necessary to undertake a traditional work value assessment of the duties of the Governor, given those functions are enshrined in our constitution and democratic system.
5. Having undertaken an interjurisdictional comparison, the Tribunal observed that the salary at that time was materially lower than the median salary of Governor's in other Australian jurisdictions. It noted that if the anomaly was not addressed, there was the potential to indicate a lessor role for the Governor of South Australia.
6. As such, the Tribunal increased the Governor's salary in two tranches as follows:

Salary	**Operative Date**
$408,695 per annum	on and from 1 January 2022
$463,375 per annum	on and from 1 January 2023

THE REVIEW PROCESS

7. On 8 November 2023, in accordance with section 10(2) and 10(4) of the Act, the Tribunal wrote to and invited submissions by 4 December 2023 in respect of this review from:

a. Her Excellency the Governor of South Australia

b. The Honourable Premier of South Australia – as the Minister responsible for the Act who may make submissions or introduce evidence in the public interest

8. The Tribunal also placed a notice on its website from 8 November 2023 inviting submissions from affected persons by 4 December 2023.

9. On 10 November 2023, the Official Secretary to the Governor wrote to the Tribunal advising that the Governor did not intend to make a submission in relation to the Tribunal's review of the Governor's salary, leaving the matter to the discretion of the Tribunal.

10. On 10 November 2023, the Premier's representative confirmed that the Premier did not intend to make a submission.

11. No other submissions were received by the Tribunal in relation to this review.

CONSIDERATION AND CONCLUSION

12. The Consistent with the remarks made in 2021, the Tribunal continues to be of the view that the role of Governor of South Australia should be regarded as comparable to that of Governors in other states. This approach recognises the significant importance of this unique role within the State.

13. As such, the Tribunal has considered the below data in relation to the salaries of Governors in other jurisdictions.

Salaries of Governors in Other Jurisdictions		
Jurisdiction*	**Governor Salary Per Annum**	**Relevant Authority**
QLD	$450,126	Act of Parliament
WA	$485,073	Independent Tribunal
CTH**	$495,000	Act of Parliament
TAS	$496,507	Act of Parliament
VIC	$500,140	Act of Parliament
NSW	$521,720	Independent Tribunal
Median Salary ex SA	$495,754	
Average Salary ex SA	$491,428	
SA	$463,375	Independent Tribunal

**NT and ACT have not been included as there is no office of Governor in those jurisdictions.*

***The Australian Constitution prevents the salary of the Governor-General from being altered during an incumbent's time in office.*

14. Because of the unique function of the Governor's role, the Tribunal is unable to apply normal work value principles to assess remuneration. There are no South Australian public functions which can be regarded as comparable, or for whom the Governor's remuneration sets a precedent. The Tribunal is concerned that, unless the benchmark approach established in its last review is maintained, the Governor's remuneration level will again fall behind directly comparable rates in other States and thus necessitate a significant adjustment in future years.

15. Accordingly, the Tribunal has decided to increase the salary of the Governor to $495,754.

16. An accompanying Determination has been issued and will take effect from 1 February 2024.

Dated: 22 January 2024

MATTHEW O'CALLAGHAN
President

DONNY WALFORD
Member

MARK YOUNG
Member

DETERMINATION—NO. 15 OF 2023

Salary of the Governor of South Australia

DETERMINATION

1. Pursuant to section 73 of the *Constitution Act 1934* (SA), the Remuneration Tribunal hereby determines that the salary of the Governor of South Australia shall be $495,754.

2. This Determination operates from 1 February 2024.

Dated: 22 January 2024

MATTHEW O'CALLAGHAN
President

DONNY WALFORD
Member

MARK YOUNG
Member

THE REMUNERATION TRIBUNAL

REPORT—NO. 16 OF 2023

2023 Review of Electorate Allowances for Members of the Parliament of South Australia

INTRODUCTION

1. The Remuneration Tribunal (**Tribunal**) has conducted a review of Determination 17 of 2022 which sets electorate allowances for members of Parliament.

2. As explained in this report, the Tribunal has determined that no increase will be awarded and therefore Determination 17 of 2022 will continue to apply.

BACKGROUND

3. The Tribunal made the following comments in Report 17 of 2022 as part of the 2022 review process:

   "8. The Tribunal does not have current data on how members currently spend the electorate allowance, and acknowledges that this may vary substantially depending on the electorate and the member. Historically the Tribunal has recognised that a significant component of the allowance covers the cost of running a motor vehicle in the servicing of electorates. The Tribunal has noted changes in motor vehicle arrangements for members of Parliament which are likely to impact on this historical element of electorate costs imposts. Without attempting to give a fully exhaustive list the Tribunal has also previously noted other items of expense, including accommodation and travelling expenses (not otherwise covered), donations, subscriptions, telephone, printing, stationery and postage.

   9. Accordingly, the Tribunal has consistently reviewed electorate allowances against cost of living increases rather than against wage setting criteria. Absent any indication that this approach is no longer applicable, the Tribunal has adopted a but (sic) generally consistent approach this year.

   14. The Tribunal proposes to review the basis for electorate allowances in 2023. That review is expected to include consideration of the cost of items and amounts to be covered by the electorate allowance to ensure an appropriate basis for the allowance amount in the future. Submissions in this respect will be invited."

THE REVIEW

4. On As part of this year's review, the Tribunal considered past reports and determinations of the electorate allowance reviews to assess the categories of expenditure that the electorate allowances are used for.

5. Past reports consistently describe the components of the electorate allowance as follows:

   "a significant component of the allowance covers the cost of running a motor vehicle in servicing of electorates. Other items of expense may include accommodation and travelling expenses (not otherwise covered), donations, subscriptions, telephone, printing, stationery and postage without attempting to give a fully exhaustive list."

6. The Tribunal has sought to ascertain what categories of expenses the electorate allowance is used for in the past. In 1969, 1975, 1994 and 2003 the Tribunal attempted to obtain detailed information from members of Parliament on the actual expenses incurred in servicing electorates. On each occasion the Tribunal was only able to elicit very limited information due to limited participation from members of Parliament in completing surveys and providing sufficient detail as to actual expenditure.

7. Of particular interest is the notion that "a significant component of the allowance covers the cost of running a motor vehicle in servicing electorates". There appears to be no past evidence available that describes what is meant by a "significant component" and whether it is a set amount, or percentage of the total electorate allowance for each electorate, which is apportioned to the cost of running a motor vehicle.

8. In 2003, members of Parliament raised the issue of the allocation of motor vehicles as part of the Tribunal's review. As part of the 2003 review, Report 2 of 2003 stated:

   "Allocation of Motor Vehicles

   A number of Members of Parliament made submissions for the allocation of motor vehicles to South Australian Members of Parliament on the basis that all other States had arrangements in this regard.

   The Tribunal is informed that Federal Members along with Members in Victoria, Western Australia and the Northern Territory have access to motor vehicles under various arrangements. However Members in New South Wales, Queensland and some Members in Tasmania do not have vehicles provided.

   The Crown Solicitor has confirmed that, under the *Parliamentary Remuneration Act 1990*, the Tribunal does not have the power to determine that motor vehicles be supplied to Members of Parlia-ment (sic) as part of their salary and allowances. Having regard to section 6A of the Act, both Parliament and the Crown have the power to provide Members of Parliament with motor vehicles. Indeed that power has been exercised with the provision of a motor vehicle to one Member of Parliament in lieu of a chauffer (sic) driven vehicle.

   As a significant component of the Electorate Allowance covers the cost of running a vehicle in the servicing of electorates, if vehicles are provided to Members of Parliament the Tribunal would need to consider a downward adjustment of the electorate allowance."

9. Legislative changes that were subsequently made established that the Tribunal is restricted from reducing the electorate allowance and other allowances and expenses by reason of the provision of any non-monetary benefits (i.e. provision of a motor vehicle).

10. In 2004 the Government introduced an administrative scheme to allow members of Parliament a fully maintained vehicle subject to a $7,000 financial contribution from the electorate allowance of each member of Parliament who participated in the scheme.

11. Little occurred in relation to the electorate allowance reviews after this time. In 2006 the Tribunal awarded an increase to the electorate allowance for the first time since 2003. Determination 5 of 2006 continued to apply until 2014 – that is, no increase was awarded during this period. In 2014 the Tribunal issued Determination 2 of 2014 which restated the exact same electorate allowances as provided in 2006. Some minor amendments were made to the electorates but no amendments were made to the amounts.

12. From 2015 to 2017, no increases were awarded.

13. From 2018 to 2022 small increases were applied to the electorate allowances.

14. As part of this 2023 review, the Tribunal requested a copy of the vehicle administrative scheme, as referred to above, from the South Australian Government Financing Authority. The proper title of the scheme is the *Members of Parliament Remuneration Vehicle Scheme*. That scheme requires a base annual financial contribution of $7,000 from participating members of Parliament, provided that the total annual cost of the vehicle does not exceed the ordinary limit. Amounts that exceed the ordinary limit are required to be

paid by the member of Parliament. This scheme operates, for the most part,[1] independent of the Tribunal, however, is relevant due to the portion of the electorate allowance that is attributed to it.

15. Consistent with the remarks made in Report 17 of 2022, the Tribunal determined to issue a survey to members of Parliament as part of the 2023 review. The purpose of the survey was to seek information about the expenditure for which the electorate allowances are currently used. The Tribunal distinguished electorate allowances from other allowances or expense recovery arrangements for members of Parliament because the electorate allowance provides for categories that are not otherwise covered by another instrument, scheme or benefit.

16. The survey was issued on 26 September 2023 with a return date of 30 October 2023. At the same time, and in accordance with sections 10(2) and 10(4) of the *Remuneration Act 1990* (**Act**), the Tribunal wrote to and invited submissions by 30 October 2023 in respect of this review from:

    a. the Honourable Premier of South Australia – as the Minister responsible for the Act who may make submissions or introduce evidence in the public interest

    b. members of Parliament

    c. the Treasurer

    d. the Independent Commissioner Against Corruption (**ICAC**)

17. The Tribunal also advertised its intention to review Determination 17 of 2022 on its website from 26 September 2023. Submissions were also invited by 30 October 2023.

18. On 26 September 2023, the ICAC advised that no submission would be made.

19. On 26 October 2023, the Premier's representative confirmed that no submission would be made.

20. The Tribunal has only received one response to the survey.

21. No other submissions were received in respect of this review.

[1] There is a clause that allows a member of Parliament who has a medical condition to apply to the Remuneration Tribunal for approval of a non-standard vehicle. The Remuneration Tribunal does not otherwise have any involvement in administering or determining the scheme.

CONSIDERATION AND CONCLUSION

22. Section 4(2) of the Act provides as follows:

    "The Remuneration Tribunal must, in determining electorate allowances and other remuneration for members of Parliament—

    (a) have regard not only to their parliamentary duties but also to—

        (i) their duty to be actively involved in community affairs; and

        (ii) their duty to represent and assist their constituents in dealings with governmental and other public agencies and authorities; and

    (b) must not reduce an amount payable merely because there has been a change in basic salary."

23. The Tribunal does not believe that the survey response enables any general conclusions to be reached about the utilisation of the electorate allowance and the Tribunal will not apply CPI as may have occurred in past Determinations. Simply put, the Tribunal does not have sufficient information available to it to conclude that the electorate allowance is sufficient to enable a member of Parliament to undertake their parliamentary duties, be actively involved in community affairs and represent and assist their constituents in dealings with governmental and other public agencies and authorities.

24. It is not clear whether the categories of accommodation and travel, donations, subscriptions, telephone, stationery and postage remain relevant or whether these categories are now considered as outdated. It is also quite possible that the electorate allowance is used for other expenses that the Tribunal is not aware of – technologies and the state have certainly evolved since these categories were first referenced. However, the Tribunal is not in a position to consider such matters when there is inadequate evidence before it.

25. The Tribunal is also unable to confirm the proposition that a "significant" component of the electorate allowance is for the cost of running a motor vehicle, particularly given the *Members of Parliament Remuneration Vehicle Scheme* which continues to operate.

26. For these reasons, the Tribunal finds that there is no justification for awarding an increase to the electorate allowances.

27. Accordingly, Determination 17 of 2022 will continue in operation.

Dated: 22 January 2024

MATTHEW O'CALLAGHAN
President

DONNY WALFORD
Member

MARK YOUNG
Member

LOCAL GOVERNMENT INSTRUMENTS

CITY OF ONKAPARINGA

LOCAL GOVERNMENT ACT 1999

Resignation of Councillor

NOTICE is hereby given in accordance with section 54(1)(b) and 54(6) of the *Local Government Act 1999* that a vacancy has occurred in the office of Councillor for Pimpala Ward, due to the resignation of Councillor Kevin Rilett, effective from Saturday 27 January 2024.

PHU NGUYEN
Chief Executive Officer

DISTRICT COUNCIL OF COOBER PEDY

STANDARD PRE-PAYMENT AND POST-PAYMENT CONTRACT

Electricity Retail Service—January 2024

This contract sets out the terms on which we connect and sell electricity to you as a customer at your current supply address.

These standard terms and conditions are published in accordance with section 36 of the *Electricity Act 1996* (SA) (the **Act**). These standard terms and conditions will come into force on 8 January 2024 and, when in force, the terms will, by law, be binding on you and us. The document does not have to be signed to be binding.

Conditions of connection, sale and supply

Preamble

This contract governs the relationship between the supplier of electricity retail services and the customer using the service.

The contract is separated into three sections: general conditions, post-payment meter conditions, and pre-payment meter conditions.

Part A: General conditions (clauses **Error! Reference source not found.**through to 3416 inclusive) apply to both post-payment and pre-payment customers (in addition to the relevant specific conditions in either Part B or Part C dependent on whether you are a post-payment customer or a pre-payment customer).

Part B: Post-payment conditions (clauses 35 **Error! Reference source not found.**through to 43 inclusive) apply to post-payment customers only.

Part C: Pre-payment conditions (clauses 44 through to 57 inclusive) apply to pre-payment customers only.

Part A: General conditions for post-payment and pre-payment customers

1. The Parties

   1.1. This **contract** is between:
   District Council of Coober Pedy (ABN 51 908 978 026) of Lot 773 Hutchison Street, Coober Pedy, SA, 5723 (referred to in this contract as **we**, **our**, or **us**); and

   you, the **customer** as defined in the **Act** and to whom this **contract** applies (referred to in this **contract** as **you** or **your**).

2. Services provided under this contract

   2.1. This **contract** sets out the terms on which **we** connect **your supply address** to our electricity distribution network, maintain that connection and sell and supply electricity at that **supply address**.

   2.2. The services **we** will provide under this **contract** are:

   (a) connection services

   (b) maintaining **your** connection to **our** distribution network

   (c) the **sale and supply** of electricity, and

   (d) other services as set out in **our fees and charges schedule**.

   2.3. In return **you** are required to pay the amounts due to **us**. **You** are also required to perform **your** other obligations under this **contract**.

3. Definitions

   3.1. Words appearing in bold type **like** this have the following meaning:

account	can refer to any of the following: (a) a **pre-payment meter** account (b) a **post-payment meter** account (c) an amount owing on the **pre-payment meter** as a result of **emergency credit** or **friendly credit** being consumed by the **customer** prior to payment.
Act	means the *Electricity Act 1996* (SA) as amended from time to time.
applicable regulatory instruments	means any Act (including without limitation, the **Act**) or regulatory instrument made under an Act (including without limitation, the **Regulations**), the **Code**, the **Pre-payment Code** or any other industry codes, guideline, or other regulatory instrument issued by the **Commission** which applies to **us**.
best endeavours	means to act in good faith and use all reasonable efforts, skill and resources.
billing cycle	means the period covered by each bill for **post-payment meter accounts** or **prepay recharges**.
Centrepay	means the free service for **customers** whereby bills may be paid as regular deductions from the **customer's** government welfare payments.

Code	means the Small-scale Electricity Networks Code, published by the **Commission**, as amended from time to time.
Commission	means the Essential Services Commission of South Australia, established by the *Essential Services Commission Act 2002* (SA).
connection, sale and supply services	means: (a) either or both of the following: (i) connecting **your supply address** to **our** distribution network; or (ii) increasing the maximum capacity of any existing connection between **your supply address** and **our** distribution network; and (b) maintaining **our** network to ensure that electricity will flow through **our** network to **your supply address**; and (c) selling electricity to **you** at **your supply address.**
contract	means these terms and conditions for sale or supply which **we** supply energy to the **supply address**.
customer	has the meaning given under section 4 of the **Act**.
electrical equipment	means wiring systems, switchgear, control gear, accessories, appliances, luminaires and fittings used for such purposes as generation, conversion, storage, transmission, distribution or utilisation of electrical energy.
emergency credit	means an amount of $10 credit that will be available when a **customer's pre-payment meter** account balance has $5 or less remaining.
explicit informed consent	means the consent provided by a **customer** under the **Pre-payment Code.**
fees and charges schedule	means **our** schedule of current **tariffs** and charges applying to **you** from time to time that is available on **our** website.
financial hardship	means a circumstance of experiencing a lack of financial means to pay a particular debt owed to **us,** which may be either ongoing or temporary, but does not include circumstances where a person chooses not to meet a liability for an unpaid debt or challenges a legal obligation to pay a particular debt.
force majeure event	means an event outside the control of the **parties**, the occurrence of which could not be reasonably foreseen by the **parties**, or if it could be foreseen, could not reasonably have been guarded against.
friendly credit	means credit that is automatically used when a **customer's pre-payment meter credit** is exhausted during the **protected period**.
industry Ombudsman	means the industry Ombudsman responsible for dealing with disputes under the **Act**.
licence	means the **licence** issued to **us** by the **Commission** under the **Act**, authorising the operation of our distribution network and the retailing of electricity.. A copy of **our licence** may be viewed on the **Commission's** website at www.escosa.sa.gov.au.
life support system	means a **life support system** as defined in the **Code** and the **Pre-payment Code.**
mains	means the electrical conductors, owned and maintained by the **customer**, connecting the point of supply and the main switchboard and form part of the **customers'** installation.
medical practitioner	has the meaning given in the **Pre-payment Code**.
parties	means both the **customer** and the **licensee**
post-payment meter	means an electricity metering system that requires payment for access to, and use of, electricity after it has been consumed.
pre-payment meter	means a device, componentry, software or other mechanism associated with a metering system at a **customer's connection point** which operates to permit the flow of electricity through the meter when activated by a card, code or some other method.
prepay recharge	means the dollar and cent value of credit added to **your** pre-payment account balance at the time of payment.
Pre-payment Code	means the Prepayment Meter System Code published by the **Commission**, as amended from time to time.
protected period	means the period where a **customer** cannot experience **self-disconnection** in accordance with clause 48 of this **contract**.
Regulations	means the *Electricity (General) Regulations 2012* (SA), as amended by time to time.
retailer	means District Council of Coober Pedy that sells electricity at **your supply address**.
retail licence	means the **licence** issued to the licensed retailer by the **Commission** under the **Act**, authorising the retailing of electricity, as amended from time to time. A copy of the **retail licence** may be viewed on the **Commission's** website at www.escosa.sa.gov.au.
self-disconnection	means the interruption to supply because a **pre-payment meter** has no credit available and includes an interruption to supply because the **pre-payment meter** has no **emergency credit** available.
smart meter	means a meter that allows information to be sent and received through an electronic communications network, including the quality of energy supplied, how much electricity is being used and the cost of supply.
supply address	means the address at which we supply **you** with electricity under this **contract**.

supply point	(a) means a point on a domestic property at which **your** electrical installation is connected to **our** distribution network or (b) means each point on a commercial property at which **your** electrical installation is connected to **our** distribution network.
tariff	means a charge per unit of electricity consumed.
we, us or **our**	means the **licensee**
you or **your**	means the **customer**
your equipment	means the equipment at the **customer's** premises for the distribution and use of electricity, which is not **our** equipment.

4. Does this contract apply to you?

4.1. This document applies to **you** if **your supply address** is connected or becomes connected to **our** distribution network and, in either case, **you** have not expressly agreed to different terms and conditions with **us**.

5. When does the contract start?

5.1. If **your supply address** is already connected to **our** distribution network, this **contract** will start on the day this document comes into force. This **contract** will take over **our** previous arrangement with **you** for **connection, sale and supply services** including and from the date that this document comes into force**.**

5.2. This document comes into force on the day specified by **us** in the notice of the standard terms and conditions published in accordance with s36 of the **Act**.

5.3. If **your supply address** is not connected to **our** distribution network, this **contract** will start on the earlier of:

(a) the day on which **you** start using electricity at that **supply address,** and

(b) the day on which **we** advise **you** that **we** have approved **your** application under clause 7.

6. When does this contact end?

6.1. This **contract** will come to an end on the day:

(a) **we** disconnect **your supply address** under clause 27 and **you** are no longer entitled to be reconnected, or

(b) **we** issue **you** with a final account and **you** have paid that amount.

7. Notices

7.1. Unless this document or **our licence**, the **Code** for **post-payment meter customers** and the **Pre-payment Code** for **pre-payment meter customers**, says otherwise (for example, where phone calls are allowed), all notices must be sent in writing.

7.2. Unless otherwise specified in this **contract**, a reference to writing includes email.

7.3. If **we** are required under **our licence**, the **Code** or the **Pre-payment Code** to provide or issue any document, bill, or written notice to **you** and **you** have provided to **us** an electronic mail (email) address and consent for **us** to use that email address to send communications to **you**, **we** may send or issue that document, bill or notice to that email address for that purpose.

7.4. **We** will revert to alternative means of communication at **your** request, or where the email address provided by **you** indicates to **us** that the message has failed to deliver to **you** and resend any document, bill or written notice that has failed to deliver by email to **your** alternative means of communication.

7.5. **We** can also send **you** notices at **your supply address** or the most recent address that **we** have for **you**. If a notice is sent by priority post, **we** can assume that **you** have received the notice on the second **business day** after it was sent and if a notice is sent by regular/standard post **we** can assume that **you** have received the notice on the fourth **business day** after it was sent.

8. What do you have to do to receive a connection?

8.1. When **you** apply for **connection, sale and supply services** or any alteration/s or addition/s at **your supply address**, **we** will require **you** to satisfy some pre-conditions. **We** will explain any pre-conditions that may apply to **you** when **you** apply for connection.

8.2. **Our** obligation to give **you connection, sale and supply services** for **your supply address** does not start until **you** satisfy **us** that **your supply address** and **your** connection to **our** distribution network comply with **our** requirements.

9. Will you have to put in extra equipment?

9.1. **We** may require **you** to arrange to have a licensed electrician install **electrical equipment** (such as meters, service lines, sealing devices, transformers or switch gear), at **your** own cost, to enable **your supply address** to be supplied with electricity safely and efficiently.

9.2. **We** may impose these requirements when **you** apply to be connected to **our** distribution network or at any other time, whilst **you** are connected. For example, the requirements might be designed to:

(a) prevent or minimise adverse effects on the supply of electricity to other **customers**

(b) balance the load over the phases of **your** electricity supply

(c) help **us** locate and get to your metering equipment easily

(d) ensure that proper protective equipment is installed and used, or

(e) ensure that proper safety standards are observed.

9.3. **We** may also decide where and how overhead and underground cables are connected to **your supply address**, as well as how many **supply points** will be needed and where they will be situated.

9.4. In deciding whether to impose such requirements, **we** will take into account the requirements of **our licence**, the **Code** and the **Prepayment Code**.

10. Quality and reliability of electricity supplied to your supply address

10.1. **We** are required by the conditions of **our licence** to supply electricity to **you** under this **contract** at specified standards of quality and reliability.

10.2. **You** should be aware that the quality and reliability of electricity supplied at **your supply address** might be affected by fluctuations and interruptions from time to time for a number of reasons, including:

(a) the location of your **supply address**

(b) whether **your supply address** is served by underground or overhead mains

(c) the weather conditions

(d) animals, vegetation, the actions of vandals and other people

(e) the existence of emergency or dangerous conditions

(f) damage to an electricity network

(g) the design and technical limitations of **our** network

(h) normal maintenance and operational switching by **us**, and

(i) the demand for electricity at any point in time.

10.3. **You** should understand that unexpected fluctuations or interruptions in the electricity supply might cause damage to **your** equipment or cause it to malfunction. **We** recommend that **you** give careful consideration to taking out insurance or installing devices (at **your** own cost) to protect **your** equipment and property when these fluctuations or interruptions occur.

11. Access to your supply address

11.1. **We** may enter and remain in **your supply address** to:

(a) inspect electrical installations to ensure that it is safe to connect or reconnect electricity supply

(b) take action to prevent or minimise an electrical hazard

(c) investigate a suspected theft or diversion of electricity

(d) read or check the accuracy of the electricity meter

(e) examine electrical installations to determine load classifications

(f) install, repair, replace or remove electricity meters, control apparatus and other electrical installations

(g) disconnect electricity supply for safety or non-payment reasons, or

(h) for other purpose(s) as authorised under the **Act**.

11.2. Only **our** electricity officers who are appointed in accordance with Part 7 of the **Act** may enter into or remain on **your supply address** for the purposes set out in clause 11.1.

11.3. **You** do not have to give access to someone who does not, when **you** ask:

(a) identify themself as one of **our** employees or agents, and

(b) identify themself as **our** electricity officer appointed in accordance with Part 7 of the **Act,** and

(c) produce a proper identity card issued by **us**.

11.4. **We** must give **you** reasonable notice before coming onto **your supply address** unless:

it is an emergency, or

an occupier of the **supply address** has agreed, or

access is otherwise authorised under the **Act** or other legal powers.

11.5. Where **your supply address** contains a hazard, **you** must inform the authorised officers of the hazard and provide our authorised officers with safe access to **your supply address** including providing any necessary protective clothing or equipment.

12. Privacy and confidentiality

12.1. Subject to clause 12.2 of this **contract we** must keep information about **you** confidential.

12.2. **We** may, however, disclose information about **you:**

(a) if required or permitted by law to do so

(b) if **we** are required or permitted by **our licence**, the **Code** for **post-payment metering system customers** and the **Pre-payment Code** for **pre-payment metering system customers**, to do so, such as to a law enforcement agency or a regulatory agency, and/or

(c) where **you** give us written consent to disclose specific information for a particular purpose.

12.3. **We** are required to keep records of **our customers** as required by the **Code** and **Pre-payment Code**, and other legal requirements, as well as good business practice. **We** will keep records of the follow information:

(a) **your** energy usage

(b) **your** payment history

(c) **your** contact details

(d) information about the standard terms and conditions made available to **you**

(e) information about and referral to State Government assistance programs made to **you**

(f) information on independent financial and other relevant counselling services recommended to **you**, and

(g) any general energy efficiency advice or referral to an energy efficiency advice service made to **you**.

13. We can amend this contract

13.1. **We** can amend **our contract** with **you** at any time in accordance with section 36 of the **Act**, provided the amendments satisfy the requirements of **our licence**, the **Code** for **post-payment metering system** customers and the **Pre-payment Code** for **pre-payment metering system** customers. Any amendment will take effect from the date referred to in the Gazette.

14. Our liability

14.1. The *Competition and Consumer Act 2010* (Cth) and other laws imply certain conditions, warranties and rights into contracts that cannot be excluded or limited.

14.2. Unless one of these laws requires it, **we** give no condition, warranty or undertaking and **we** make no representation to **you** about the condition or suitability of electricity, its quality, fitness, or safety, other than those set out in this **contract**.

14.3. Any liability **we** have to **you** under these laws that cannot be excluded but that can be limited is (at **our** option) limited to:

(a) providing equivalent goods or services provided under this **contract** to **your supply address**. or

(b) paying **you** the cost of replacing the goods or services provided under this **contract** to **your supply address** or acquiring equivalent goods or services.

15. Force majeure

15.1. If but for this clause, either party would breach these conditions of connection and supply **contract** due to the occurrence of a **force majeure event**:

(a) The obligations of the party under this **contract**, other than an obligation to pay money, are suspended to the extent to which they are affected by the **force majeure event** for so long as the **force majeure event** continues, and

(b) The affected party must use its **best endeavours** to give the other party prompt notice of that fact including full particulars of the **force majeure event**, an estimate of its likely duration, the obligations affected by it and the extent of its effects on those obligations and the steps taken to remove, overcome or minimise those effects.

15.2. For the purposes of this clause, if the effects of a **force majeure event** are widespread **we** will be deemed to have given **you** prompt notice if we make the necessary information available by way of a 24-hour telephone service within 30 minutes of being advised of the **force majeure event** or otherwise as soon as reasonably practicable.

15.3. Either party relying on this clause by claiming a **force majeure event** must use its best endeavours to remove, overcome or minimize the effects of that force majeure event as quickly as reasonably practicable.

15.4. Nothing in this clause will require a distributor or a **customer** to settle an industrial dispute which constitutes a **force majeure event** in any manner other than the manner preferred by that distributor or a **customer**.

16. Applicable law

16.1. The laws of South Australia govern this **contract**.

16.2. The courts of the State of South Australia and Federal Courts sitting in South Australia have exclusive jurisdiction in connection with this **contract**.

17. Queries, complaints and dispute resolution

17.1. If **you** have a query or a complaint relating to the connection or supply of electricity **to your supply address**, or this **contract** generally, **you** may contact **us** as follows (as updated and notified to **you** from time to time):

Email: dccp@cpcouncil.sa.gov.au
Phone: 08 8672 4600
Post: PO Box 425, Coober Pedy, SA, 5723

17.2. If **you** remain dissatisfied with **our** response, or are unable to reach a satisfactory solution after contacting **us**, **you** may refer the matter to the Energy and Water Ombudsman (SA) (EWOSA) for assistance. EWOSA is a free, independent service that investigates and resolves disputes between customers and electricity retailers when **you** are unable to solve an issue directly.

The EWOSA contact details are (as updated from time to time):

Website: ewosa.com.au
Telephone: 1800 665 565
Post: GPO Box 2947, Adelaide, SA, 5001

Tariffs and charges

18. Price for services provided

18.1. **Our** current **tariffs** and charges for the **connection, sale and supply services** and other services are set out in the **fees and charges schedule** that is available on **our** website, https://www.cooberpedy.sa.gov.au/council/finance/fees-and-charges.

18.2. **Our fees and charges schedule** explains the conditions that need to be satisfied for each particular **tariff**.

18.3. If, at the time this **contract** is published and comes into legal affect, **your supply address** is already connected to **our** distribution network, the **tariff** and other charges currently applying to **you** for **connection, sale and other services** at the **supply address** will continue to apply, until **we** inform **you** in accordance with clause 7.

18.4. If **your supply address** is not already connected to **our** distribution network, or **you** have changed **your supply address** at any time, the **tariff** and other charges applying to **you** will be as set out in **our fees and charges schedule**.

18.5. In some cases, **you** will be able to select a **tariff** to apply to **you**. In those cases, if **you** do not choose a **tariff** at the time of applying for connection, **we** will assign one to **you** until **you** notify **us** differently.

19. Switching tariffs

19.1. **You** must tell **us** within 10 **business days** if **your** circumstances relating to **your tariff** or charge change.

19.2. If **you** think **you** satisfy all the conditions applying to another **tariff** or charge, **you** can ask **us** to review **your** current circumstances to see whether that **tariff** or charge can apply to **you**.

20. Variation of tariffs or charges

20.1. If **your tariff** rate or charge applying to **you** changes, **we** will advise **you** at least 20 **business days** in advance before the variation takes effect.

(a) **We** will advise **you** by notice in writing to **your** email address or to **your** residential address if an email address has not been provided.

21. Changes to the tariff rates and charges during a billing cycle

21.1. If a **tariff** or charge applying to **you** changes during a **billing cycle**, **your** charges for that **billing cycle** will be calculated on a pro-rata basis using:

(a) the old tariff or charge up to and including the date of change, and

(b) the new tariff or charge from that date to the end of the billing cycle.

22. Goods and services tax (GST)

22.1. The amounts specified in the **fees and charges schedule** in effect from time to time are (or will be) stated to be inclusive of GST. Apart from these amounts there may be other amounts paid by **you** or by **us** under this **contract** that are payments for "taxable supplies" as defined for GST purposes. To the extent permitted by law, these other payments will be increased so that the GST payable on the taxable supply is passed on to **you** as the recipient of that taxable supply.

22.2. Any adjustments for GST under this clause will be made in accordance with the requirements of the *Competition and Consumer Act 2010* (Cth) and any other applicable legislation.

23. Consumption information

23.1. On request, **we** will make available to **you** at no charge, such information relating to consumption at **your supply address** as is required by **our licence**, the **Code** and the **Pre-payment Code**.

24. Payment difficulties and hardship

24.1. If **you** have difficulties paying **your** bill or account, **you** should contact **us** as soon as possible. **We** will provide **you** with information about various payment options and, where applicable, payment assistance, including any provisions in the **Code** and in the **Pre-payment Code**, which address payment difficulties and financial hardship.

25. Undercharging

25.1. Where **you** have been undercharged **we** will inform **you** and **we** may recover from **you** any amount **you** have been undercharged in accordance with the requirements of the **Code** and the **Pre-payment Code** as amended from time to time.

25.2. **We** must offer **you** the opportunity to pay this amount in instalments over the same period of time during which **you** were undercharged.

25.3. If **we** have undercharged **you**, within 10 **business days** of becoming aware of the undercharged amount, **we** will contact **you**, advise **you** of the undercharged amount, and indicate whether or not **we** propose to recover the undercharged amount from **you**.

25.4. If **we** decide to recover the undercharged amount from **you**, **we** will:

(a) Limit the amount to be recovered to the amount undercharged in the 9 months prior to informing **you** of the undercharging (or such other period as allowed under the **Code** as amended from time to time),

(b) provide details and explanation of the amount to be recovered, and

(c) not charge **you** any interest or penalty on the amount being recovered.

26. Meter review

26.1. If **you** request that the meter reading or metering data be checked, or that the meter be tested, then **we** will arrange for this to occur within a reasonable timeframe. Unless the meter is found to be faulty, **you** will be liable for any costs incurred by **us** in checking or testing the meter. **We** may request that you pay the amount in advance.

Disconnection and reconnection

27. Disconnection of supply

27.1. Subject to the requirements of **our licence,** the **Code** and the **Pre-payment Code**, **we** can arrange for the disconnection of **your supply address** if:

(a) **you** do not pay **your** bill by the last day for payment and, in the case of residential customers, **you** refuse to agree to an instalment plan or payment option offered by **us**

(b) **you** fail to comply with the terms of an agreed instalment plan or payment option

(c) **you** use electricity illegally or breach clause (a), or

(d) **we** are entitled or required to do so under the conditions of our **licence** or by law (such as in the case of an emergency and/or for health and safety reasons).

27.2. **You** may request **us** to disconnect **your supply address**, provided **you** have given **us** prior notice of at least three **business days**. This request must be made in writing, in person at **our** offices, or by telephone.

27.3. **We** must comply with the conditions of **our licence**, the **Code** and the **Pre-payment Code**, (such as giving **you** the required notices and warnings) before arranging for the disconnection of **your supply address**.

28. Reconnection after disconnection

28.1. **We** will reconnect a disconnected **supply address** provided all connection charges are paid prior to 2:30 pm on a **business day** or if due to circumstances beyond **our** reasonable control, as soon as possible on the next **business day**. **We** may choose to refuse to reconnect **you**, if **we** are allowed to do so under **our licence** and any requirements under the **Code** or the **Pre-payment Code** (such as where the circumstance leading to the disconnection has not been fixed).

28.2. **We** will arrange a suitable time with **you** for the reconnection of **your supply address**.

(a) If **you** make a request to be reconnected before 4.00pm on a **business day**, **we** will use **our best endeavours** to arrange for the reconnection of **your supply address** on the day of the request, and in any event, by the next **business day**.

(b) If **you** make a request to be reconnected after 4.00pm but before 9.00pm on a **business day**, **we** may charge an after-hours connection fee, and will endeavour to arrange for the reconnection of your **supply address** on the day of the request. If an after-hours reconnection is not possible, **we** will arrange for reconnection of **your supply address** by the end of the next **business day** and the after-hours connection fee will not apply.

(c) If **you** make a request to be reconnected after 9.00pm on a **business day**, **we** will arrange for the reconnection of **your supply address** by the end of the next **business day**.

28.3. Where a **supply address** has been disconnected for a period of six (6) calendar months or longer from the date of disconnection, **we** will require **you** to obtain (and keep) at **your cost** an Electrical Certificate of Compliance (ECC), issued by a current South Australian licensed electrical contractor, and verifying that the electrical installation complies with the requirements of the **Act** for that **supply address** before any reconnection will occur.

29. Interruptions to supply

29.1. **We** may interrupt or limit the electricity supply to **your supply address** at any time for any of the following purposes:

(a) inspecting, testing, repairing, adjusting or removing **our** equipment

(b) inspecting, testing, repairing or adjusting **your** equipment

(c) inspecting, testing, repairing or adjusting **our** electricity distribution network

(d) maintaining the safe and efficient operation of **our** electricity distribution network

(e) complying with the directions of the system controller, or

(f) to deal with an emergency.

29.2. **We** must give **you** reasonable notice before interrupting or limiting the electricity supply to **your supply address** unless:

(a) the interruption is for less than 15 minutes

(b) it is an emergency, or

(c) the occupier of the supply address has agreed.

30. Illegal or improper use

30.1. If **you** have breached clause 32 of this **contact**, **we** may, in accordance with **our licence**, the **Code** and the **Pre-payment Code**:

(a) estimate the amount of electricity so obtained and bill **you** for that amount, and

(b) recover that amount from **you**, as well as costs and interest, and

(c) disconnect **your supply address** immediately.

Your obligations

31. What you are responsible for

31.1. **You** are responsible for:

(a) maintaining the electrical installation at **your supply address** in a safe condition

(b) ensuring that any changes to the electrical installation at **your supply address** are performed by an electrician lawfully permitted to do the work and that **you** obtain and keep an Electrical Certificate of Compliance issued in respect of any of the changes

(c) the protection of **our electrical equipment** located at **your supply address**

(d) ensuring that any structures and vehicles are kept clear of **our electrical equipment**

(e) ensuring an Application for an Alteration form is forwarded to **us** by **you** or **your** electrician within 3 **business days**, when **you** change **your** electricity supply requirements by installing additional electrical appliances or equipment of capacity 2.5kW or greater

(f) seeking **our** approval prior to installing any additional appliances or equipment of capacity 5kW or greater, so that **we** can assess the ability of **our** network and **your** connection to the network to meet **your** additional requirements and advise **you** if any additional work is required and the associated costs (if any)

(g) new installations with a maximum demand in excess of 100 kW must incorporate onsite generation for the purposes of network maximum demand control configured for automatic connection to the total site electrical load on remote command from the power station. Final system design must be submitted to and approved by **us** prior to agreement to provide supply

(h) if **you** have, or intend to have, electricity generating equipment at the **supply address**, this equipment must comply with District Council of Coober Pedy Distributed Generation Policy. In particular, no feed in is permitted and no feed in **tariff** is offered, unless explicitly authorised by District Council of Coober Pedy. This authorisation will provide limits on the amount of exports and the terms applicable

(i) providing sufficient information to **us**, on request and within a reasonable period of time, so that **we** can calculate the electricity used by any unmetered loads that **you** have

(j) where information on **your** unmetered load has been provided to **us**, advising **us** as soon as reasonably practicable, whenever there is a change to this unmetered load, and

(k) ensuring safe and convenient access for **our** electricity officers to **your supply address** for the purposes expressed in clause 11 and responding promptly to any request made by **us** regarding such access.

32. What you must not do

32.1. **You** must <u>not</u>:

(a) allow electricity supplied by **us** to be used other than at the **supply address** and in accordance with this **contract**

(b) use at the **supply address** electricity supplied for use at another **supply address**

(c) sell electricity to any other person except in accordance with a licence issued by the **Commission** or with an exemption granted under the **Act**

(d) tamper with, or permit tampering with, the meter or associated **electrical equipment**

(e) allow electricity supplied to the **supply address** to bypass the meter.

(f) damage or interfere in any way with **our electrical equipment**

(g) make a connection to **our** distribution network or increase the capacity of an existing **supply point**

(h) allow a person who is not an electrician lawfully permitted to do the work, to perform any work on the electrical installation

(i) use, or cause to be used, electricity in a manner that:

(i) interferes with **our** distribution network

(ii) interferes with the supply or quality of supply, to other **customers**, or

(iii) causes damage or interference to any third party

(j) give **us** false, incomplete or incorrect information about which **tariff** and charges should apply to **you**

(k) use electricity supplied under a specific **tariff** for a purpose other than as contemplated by that **tariff**

(l) install appliances or equipment of capacity 5kW or greater without receiving **our** prior approval, to allow us to determine if additional works are required and the associated costs (if any), or

(m) otherwise use electricity or tamper with **your** electrical installation in a way contemplated as improper or in an illegal manner.

33. Vacating a supply address

33.1. You must give **us** as **your** retailer at least 24 hours' notice, either written or by phone, of **your** intention to vacate **your supply address**, together with a forwarding address for **your** final bill.

33.2. When **we** receive the notice, **we** must arrange for **your** meter to be read on the date specified in **your** notice, or if the date specified in **your** notice cannot reasonably be met by **us**, then the **parties** must negotiate reasonably to agree an alternative date for **your** meter to be read by **us** and for a final bill to be sent to **you** at the forwarding address stated in **your** notice.

33.3. If you do not give **us** the required notice, or if **you** do not give **us** access to **your** meter on the date specified in **your** notice or an alternative date agreed to by **you** and **us**, **you** will be responsible for all gas used at the **supply address** until **we** become aware that **you** have vacated **your supply address** and **we** arrange, within a reasonable timeframe, for **your** meter to be read

34. Information we need

34.1. **You** must provide **us** with all information **we** reasonably require for the purposes of this **contract**. All information **you** provide must be correct. **You** must tell **us** within a reasonable period of time, if information **you** have provided to **us** changes (for example, if **your** address changes, or the purpose for which **you** are buying electricity changes).

Part B: Terms and conditions exclusive to post-payment customers

Clauses 35 to 43 (inclusive) apply only to **post-payment meter customers** and do not affect the rights, obligations and liabilities of **pre-payment meter customers**.

35. Billing

35.1. **We** will send **you** a bill as soon as reasonably practicable after the end of each **billing cycle**.

35.2. The bill will be in a form and contain such information as is required by **our licence** and any applicable requirements of the **Code**, as amended from time to time.

35.3. **We** must send a bill:

(a) to **you** at the email address or the physical address currently nominated by **you**, or

(b) to a person authorised in writing by **you** to act on **your** behalf at the email address or the physical address currently specified by **you**.

35.4. If **we** fail to issue a bill following the end of a **billing cycle**, **we** will offer **you** the option of paying for any electricity used during the relevant **billing cycle** under an instalment plan. The maximum period of that instalment plan will be the greater of the period during which **we** did not bill **you** or twelve months.

36. Calculating the bill

36.1. The amounts **you** owe under this **contract** will be calculated based on:

(a) the application of the prices set out in **our fees and charges schedule**, and

(b) information from reading **your** meter or from using an approved estimating system, and

(c) the amount for any other services supplied under this **contract**.

37. Estimating the electricity usage

37.1. If **you** are **post-payment customer** and **your** meter is unable to be read for any reason (for example, access to the meter cannot reasonably be gained, or the meter breaks down or is faulty), **we** can estimate how much electricity was supplied to **your supply address** by using other information (such as **your** previous bills or **your** electricity usage history).

37.2. If **your** meter is subsequently able to be read, the bill will be adjusted for the difference between **our** estimate and the actual amount of electricity used, based on the reading of the meter.

37.3. If **your** meter was unable to be read due to **your** actions or inaction, **we** may impose the charge in the **fees and charges schedule** for arranging for **your** meter to be read at a subsequent time.

38. Paying your bill

38.1. The amount **you** must pay, the due date and the method(s) of payment for the services **we** provide under this **contract** will be set out in the bill sent to **you**.

38.2. **You** can pay the bill using any of the payment methods listed on the bill. If a payment **you** make is dishonoured (e.g. where a cheque or credit card payment is not honoured), and **we** incur a fee as a result, **you** must reimburse **us** the amount of that fee.

39. Late payments

39.1. If **you** are a **post-payment customer** and **you** do not pay **your** account on time, **you** may be required to pay **our** reasonable costs of recovering that amount from **you**. **You** may also be required to pay interest on the outstanding amounts at a rate approved by the **Commission** from time to time for a specific group of **customers**, as outlined in the **Code**

40. Undercharging

40.1. Further to clause 25.4, if **we** decide to recover the undercharged amount from **you**, **we** will:

(a) Offer **you** time to pay the undercharged amount by agreed instalments. The period of time taken to recover any undercharged will not be longer than the period during which the undercharging occurred. If the undercharging has occurred over 12 months or more, the period of time taken to recover any undercharged amount will be limited to 12 months.

40.2. If **we** have undercharged **you**, or not charged **you** at all, for electricity used as a result of **your** fraud, illegal consumption, or illegal connection of electricity, **we** will estimate the consumption for which **you** have not paid and will issue a bill for the unpaid amount.

41. Overcharging

41.1. Where **you** have been overcharged, **we** will inform **you** and follow the required procedures for repaying the money as outlined in the **Code**.

41.2. If the amount cannot be credited to **your** next bill (for example, if **you** will not have another bill from **us**), **we** must repay the amount as directed by **you**, within 10 **business days**.

42. Reviewing your bill

42.1. If **you** disagree with the amount **you** have been charged, **you** can ask **us** to review **your** bill or account. The review will be undertaken in accordance with the requirements of **our licence** and the **Code**.

42.2. If **your** bill or account is being reviewed, **you** are still required to pay the greater of:

(a) the portion of the bill which **you** do not dispute; or

(b) an amount equal to the average of **your** bills or account charges in the last twelve months (excluding the bill(s) in dispute).

42.3. **You** must also pay any future bills, accounts or prepay recharges.

42.4. **We** will inform **you** of the outcome of **your** bill review as soon as reasonably possible, but in any event, within 20 **business days**.

42.5. If, after conducting a review, the bill is found to be correct, **you** will be required to pay the outstanding amount of the bill.

42.6. If the bill is found to be incorrect, the bill will be adjusted in accordance with clause 40 or clause 41, as the case may require.

43. Security deposits

43.1. If **you** have paid a security deposit, **we** must pay **you** interest on the deposit at a rate and on terms required by **our licence** and the **Code**.

43.2. **We** may use **your** security deposit, and any interest earned on the security deposit, to offset any amount **you** owe under this **contract**:

(a) if **you** fail to pay a bill and, as a result, **we** arrange for the disconnection of **your supply address**, or

(b) in relation to a final bill (i.e., the bill **we** issue when **you** stop buying electricity from **us** at **your supply address**).

43.3. If **you** are purchasing electricity for business or commercial use, **we** may request that **you** increase the amount of **your** security deposit in accordance with **our licence** and the **Code**.

Part C: Terms and conditions exclusive to pre-payment customers

Clauses 44 to 57 (inclusive) apply only to **pre-payment meter customers** and do not affect the rights, obligations and liabilities of **post-payment meter customers**.

44. Eligibility for pre-payment metering

44.1. The **supply address** must be fitted with a smart meter by **us** specifically designed to accommodate prepaid arrangements.

44.2. **You** may only enter into a **pre-payment meter** arrangement if **explicit informed consent** is provided by **you** to **us**. **Explicit informed consent** can only be provided after timely, accurate, verifiable, and truthful information regarding the pre-payment terms and conditions are provided to **you**.

(a) This consent can be in the form of a telephone conversation, written correspondence, or electronic communications signed by **you**.

(b) We will not pressure **you** to enter into a **pre-payment meter** arrangement with **us** and all information provided will be in plain language appropriate to **you**.

44.3. **We** will not enter into a **pre-payment meter** arrangement if you require a **life support system** or a person who is a registered user of a **life support system** resides at **your supply address**.

(a) If **you** are on a **pre-payment meter** arrangement, **you**, a **medical practitioner**, or an authorised party acting on **your** behalf must inform **us** as soon as reasonably practicable if **your supply address** maintains a **life support system**.

45. Credit retrieval

45.1. If **you** decide that **you** no longer want to be on **our** pre-payment system, **your pre-payment meter** arrangements are terminated, or **your pre-payment meter** arrangements otherwise end, **you** are entitled to retrieve any unused credit on **your** account.

45.2. On **your** last day under **your pre-payment meter** arrangements, **we** will verify the amount of electricity used, and how much credit **you** have remaining. **We** will then transfer any remaining credit back to **you** through an Electronic Funds Transfer, within three **business days**. Please provide **us** with **your** banking and account details at this time. Please be aware that the transfer may take time for **your** bank to process, which will vary depending on **your** bank. Where **you** do not have a bank account, **we** will arrange for any credit to be returned to **you** via an agreed method and within a reasonable timeframe.

46. Disclosure statement

46.1. **We** will provide **you** with a written disclosure statement at the time **your explicit informed consent** is obtained which will include:

(a) the date of commencement of the pre-payment arrangements

(b) current fees, charges, and **tariffs** that are applicable

(c) the method by which **you** will receive any State Government energy concession **you** are entitled to

(d) methods of payment and the locations of payment centres or recharge facilities

(e) the amount of **emergency credit** provided to **you**

(f) connection and installation costs

(g) termination and/or reversion charges

(h) dispute resolution options

(i) any right to rescind these prepaid standard terms and conditions, and

(j) **our** contact details for enquiries, complaints, and emergency service.

46.2. If **you** require the written disclosure statement in a language other than English or in a different format suitable for **your** needs, **we** will use **our** best efforts to make a copy available in **your** preferred language or format.

47. Emergency credit

47.1. **We** will provide **you** with $10 of **emergency credit**. The **emergency credit** can only be used if **you** run out of credit on **your** account and need to recharge. **Emergency credit** will be offered on the smart meter and **you** do not need to contact **us** to use **emergency credit**.

47.2. If **you** are using **emergency credit**, **you** will need to purchase more electricity as soon as reasonably practicable. If **you** do not purchase more electricity and **you** run out of **emergency credit**, **your** electricity may be **self-disconnected**.

47.3. If **you** use **emergency credit** and need to repay **us**, **you** can choose to have a portion of **your** future electricity purchases dedicated to repaying the **emergency credit** used. **You** may pay up to 30% of a future **pre-pay recharge** payment, or payments, toward the **emergency credit** repayment.

47.4. **You** can also choose to pay the entire **emergency credit** debt amount in a single payment.

48. Protected period and friendly credit

48.1. Outside the hours of 10:00am and 3:00pm on weekdays (except public holidays) is a **protected period** and **your pre-payment meter** will not **self-disconnect you** if **you** run out of **emergency credit**.

48.2. During the **protected period**, if **you** run out of **emergency credit**, **your** electricity will remain connected and will operate on **friendly credit**. Any **friendly credit** provided to **you** will need to be repaid.

48.3. **Friendly credit** will be automatically activated if **your emergency credit** runs out during the **protected period**, and there is no need for **you** to contact **us** to activate the use of **friendly credit**.

48.4. If **you** use **friendly credit** and need to repay **us**, **you** can choose to have a portion of **your** future electricity purchases dedicated to repaying the **friendly credit** used. **You** may pay up to 30% of a future **pre-pay recharge** payment, or payments, toward the **friendly credit** repayment.

48.5. **You** can also choose to pay the entire **friendly credit** debt amount in a single payment.

49. System testing

49.1. **You** may request that **we** test and check **your** pre-payment meter if **you** believe it is not accurate. Upon receiving your request, **we** will make immediate arrangements to do one or more of the following as **we** determine is appropriate in the relevant circumstances:

(a) check the metering date

(b) check / test the pre-payment meter system, and/or

(c) check / test the meter installation at **your** connection point.

49.2. **We** may charge a fee for the reasonable costs of testing of the meter. **We** will advise **you** what fees **you** will need to pay, and **you** will be required to pay the fees for testing the meter in advance.

49.3. If we find that **your** meter is inaccurate or not operating correctly, **we** will:

(a) correct any overcharging or undercharging

(b) refund the testing fee paid in advance

(c) make immediate arrangements to replace or repair the pre-payment meter, and

(d) advise **you** of the existence of **our** dispute resolution processes available.

50. Reversion and transfer

50.1. At any time, **you** may request the cancellation of **your pre-payment meter** arrangement and be reverted to a standard **post-payment meter** arrangement.

50.2. Upon receiving this request, **we** will make immediate arrangements to either remove the **pre-payment meter** and install a standard **post-payment meter** or revert the **pre-payment meter** to its standard operating mode so that the meter operates as a standard **post-payment meter**. **You** will not be required to pay to remove the **pre-payment meter**, install a standard **post-payment meter** or revert the **pre-payment meter** to a standard **post-payment meter**.

51. Billing

51.1. **We** will establish a **pre-payment meter customer** account for **you**, which will be utilised for the charging of supply charges and electricity consumption.

51.2. **We** will provide you with the following information regarding **your pre-payment meter**:

(a) instructions on how to operate the **pre-payment meter**

(b) instructions on how the **emergency credit** facility operates

(c) instructions on how the **friendly credit** facility operates

(d) instructions on how to obtain a refund of remaining credit when **your customer contract** is terminated, and

(e) instructions on how and where payments to **your pre-payment meter account** can be made.

52. Maintaining your energy supply

52.1. The method of payment for the services **we** provide under this **contract** will be set out in the **pre-payment meter** instructions provided to **you** (and available on **our** website).

52.2. **We** will ensure that facilities are available to **you** to make the required payments. At a minimum, **we** will ensure:

(a) **you** can make cash top up purchases at two locations which are readily accessible, one of which being open between 9:00am and 5:00pm every day (including Saturdays, Sundays, and public holidays, except for Christmas day)

(b) by a 24-hour phone service that operates every day (including Saturdays, Sundays, and public holidays, except for Christmas day) for top up purchases using credit card, debit card, or electronic funds transfer.

i) we may accept any other telephone payment method, provided that it is agreed upon by both **you** and **us**.

(c) a 24 hour electronic or other payment method which operates everyday (including Saturdays, Sundays, and public holidays, except for Christmas day).

52.3. The minimum amount **you** can pay to top up **your** account is $10.00.

53. Financial hardship

53.1. **We** are required to identify situations where **you** may be experiencing difficulties in paying **your** bill or **prepay recharge**. This may be if **you**:

(a) disconnect three times within three months for longer than 240 minutes on each occasion, or

(b) self-disconnect for more than 24 hours.

53.2. In such cases, **we** may offer **you** the opportunity to pay **your** bill or **prepay recharge** under an instalment plan and provide **you** with information about various payments options and, where applicable, payment assistance.

53.3. **Our** obligations for **customers** experiencing financial hardship can be found in the **Pre-payment Code**.

54. Undercharging

54.1. Further to clause 25 if **we** decide to recover the undercharged amount from **you**, **we** will:

(a) Offer **you** time to pay the undercharged amount, either by agreed instalments or by an agreed adjustment to the charges in the **pre-payment meter**. The period of time taken to recover any undercharged will not be longer than the period during which the undercharging occurred. If the undercharging has occurred over 12 months or more, the period of time taken to recover any undercharged amount will be limited to 12 months.

54.2. If **we** have undercharged **you**, or not charged **you** at all, for electricity used as a result of **your** fraud, illegal consumption, or illegal connection of electricity, **we** will estimate the consumption for which **you** have not paid and either:

(a) bill **you** for all of the unpaid amounts, or

(b) make a reasonable agreement with **you** to adjust the charges in **your pre-payment meter** to recover the unpaid amount.

55. Overcharging

55.1. If **you** have been overcharged by **us**, within 10 **business days** of being informed of the overcharge, **we** will ask **you** for instructions regarding whether any overcharged amount should be repaid to **you** or added to the balance of **your pre-payment meter** account.

55.2. **You** need to provide **us** with instructions for the overcharged amount within 20 **business days**. If, after 20 **business days**, **you** do not provide **us** with any instructions, **we** must add the overcharged amount to the balance of **your pre-payment meter** account.

56. Reconnection after self-disconnection

56.1. Further to clause 28, if **you** are **self-disconnected** due to running out of **emergency credit** and/ or **friendly credit**, **your pre-payment meter** will recommence supply as soon as information is communicated to the pre-payment meter that a payment to **your** account has been made which brings **your** balance into credit.

57. Privacy and confidentiality

57.1. In addition to the information stated in clause 12, **we** also collect and retain the following information specifically for **pre-payment metering customers**:

(a) the explicit informed consent provided when **you** enter into a **pre-payment meter** arrangement,

(b) information about **self-disconnections** due to running out of **emergency credit**, and

(c) information about offers made to **you** to revert the **pre-payment meter** to a standard **post-payment meter** operating mode.

LIGHT REGIONAL COUNCIL

S193(4) OF THE LOCAL GOVERNMENT ACT 1999

Exclusion from Community Land Provisions

Notice is hereby given pursuant to s193(6)(a) of the *Local Government Act 1999*, that on 26 September 2023 Light Regional Council resolved to exclude the following land from classification as community land pursuant to section 193(4) of the *Local Government Act 1999*:

Allotment 343 in File Plan 176415, Certificate of Title Volume 5754 Folio 795 to be acquired by Council.

Dated: 25 January 2024

RICHARD DODSON
Chief Executive Officer

WATTLE RANGE COUNCIL

Revocation of Community Land Classification

NOTICE is hereby given that Wattle Range Council at its meeting held on 16 January 2024, resolved pursuant to Section 194 (3)(b) of the *Local Government Act 1999*, to revoke the community land classification of the land known as Allotment 301, Cullens Road, Southend, Hundred of Rivoli Bay that is contained in Deposited Plan 55711, Certificate of Title Volume 5921, Folio 66.

The purpose of the revocation is to allow the subject land to be sold by either public auction or private treaty.

Dated: 25 January 2024

BEN GOWER
Chief Executive Officer

PUBLIC NOTICES

TRUSTEE ACT 1936

PUBLIC TRUSTEE

Estates of Deceased Persons

In the matter of the estates of the undermentioned deceased persons:

BELL Mary Louise late of 30 Sussex Terrace Westbourne Park Of no occupation who died 20 January 2023
DANIEL Gloria May late of Third Street Cleve Laundress who died 20 February 2023
GOLDIE John Patrick late of 29 Homestead Avenue Walkley Heights Of no occupation who died 2 June 2023
HOLMES Doreen Ada late of 11 Mawson Road Salisbury Retired Secretary who died 27 January 2023
KNOBLAUCH William Robert late of 38 Nairne Road Woodside Retired Orderly who died 31 August 2023
MCOMISH David Gentle Arnot late of 7 Newton Street Whyalla Retired Carpenter who died 17 November 2020
PETTIFOR David Edward late of 504 Rosedale Road Rosedale Of no occupation who died 21 July 2023
PITTAWAY Pamela Joan late of 34 Tolmer Road Elizabeth Park Retired Factory Worker who died 27 November 2023
WISSELL Patricia late of 17 Burnley Street Fulham Child Care Worker who died 17 July 2023

Notice is hereby given pursuant to the *Trustee Act 1936*, the *Inheritance (Family Provision) Act 1972* and the *Family Relationships Act 1975* that all creditors, beneficiaries, and other persons having claims against the said estates are required to send, in writing, to the office of Public Trustee at GPO Box 1338, Adelaide SA 5001, full particulars and proof of such claims, on or before 23 February 2024 otherwise they will be excluded from the distribution of the said estate; and notice is also hereby given that all persons indebted to the said estates are required to pay the amount of their debts to the Public Trustee or proceedings will be taken for the recovery thereof; and all persons having any property belonging to the said estates are forthwith to deliver same to the Public Trustee.

Dated: 25 January 2024

N. S. RANTANEN
Public Trustee

NOTICE SUBMISSION

The South Australian Government Gazette is published each Thursday afternoon.

Notices must be emailed by 4 p.m. Tuesday, the week of publication.

Submissions are formatted per the gazette style and a proof will be supplied prior to publication, along with a quote if applicable. Please allow one day for processing notices.

Alterations to the proof must be returned by 4 p.m. Wednesday.

Gazette notices must be submitted as Word files, in the following format:

- Title—the governing legislation
- Subtitle—a summary of the notice content
- Body—structured text, which can include numbered lists, tables, and images
- Date—day, month, and year of authorisation
- Signature block—name, role, and department/organisation authorising the notice

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- Contact details of the person responsible for the notice content
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All instruments appearing in this gazette are to be considered official, and obeyed as such

Printed and published weekly by authority of T. FORESTO, Government Printer, South Australia
$8.55 per issue (plus postage), $430.00 per annual subscription—GST inclusive
Online publications: www.governmentgazette.sa.gov.au

KNET: 21326035

Ministerial Direction Process – Crown Development > Impact Assessed – Northern Water Project Accreditation under EPBC Act – Required Steps and Actions for joined up assessment.

Step	Required Action	Time Allowed	Responsible Entity	Notes
1	Infrastructure SA lodges crown development application with State Planning Commission	-	Proponent	Lodgement to spcapplications@sa.gov.au
2	DTI-PLUS provides advice to Minister for Planning in regard to directing an EIS be prepared.	15 BDs	DTI-PLUS	DTI-PLUS will consult with state agencies in the preparation of its advice to the Minister
3	Minister makes decision on EIS direction pursuant to s.131(25)	-	SA Minister for Planning	Notice of decision provided to ISA, DCCEEW, Council, and published on SA Planning Portal. If affirmative, Minister's letter seeks preparation and lodgement of an EIS Scoping application to allow Assessment Requirements to be prepared. If declined, crown process continues and accredited assessment with DCCEEW cannot be sought
4	Proponent prepares EIS Scoping Application, which also considers potential impacts on MNES matters		Proponent	
5	Proponent lodges EIS Scoping Application with Minister for Planning		Proponent	Lodgement to spcapplications@sa.gov.au (and cc'd to impact assessed team)
6	Proponent formally refers to DCCEEW	-	Proponent	Initial pre-referral discussions encouraged.
7	DTI-PLUS reviews EIS Scoping Application.	2-4 weeks	DTI-PLUS	Further information may be sought form proponent.
8	DCCEEW determines adequacy of referral documentation – Referral Validation stage	2-12 weeks	DCCEEW	Commonwealth can request further information from proponent. There is no statutory clock during this validation period.
9	DCCEEW prepares recommendation on whether proposal/referral is a 'controlled action' under EPBC Act. If recommending a controlled action, a recommendation on the assessment approach is also provided – Referral assessment stage.	20 BDs (includes 10 BDs referral consult period)	DCCEEW and Commonwealth Minister (or delegate)	During the referral assessment stage DCCEEW can stop clock and request detailed and/or technical information from proponent on MNES matters likely to be impacted With agreement from the proponent, the assessment clock can be suspended for an agreed period, to enable an accredited assessment approach to be negotiated

	Commonwealth Minister (or delegate) makes a decision on whether the proposed action (referral) is a 'controlled action' and a decision on the assessment approach (in this case that would be an 'accredited' assessment process).			with the state. DCCEEW to negotiate admin arrangements for accredited assessment with DIT-PLUS before or shortly after referral decision. **Note:** *It is recommended that the State advice at the referral consultation period that the State would like to conduct an accredited assessment process with DCCEEW if this project is deemed a 'controlled action'. This can avoid stopping the clock for the assessment approach decision and get an accredited assessment approach decision together with the referral decision, all within the 20 BD.*
CONTROLLED ACTION CONFIRMED – JOINT ASSESSMENT PROCESS ENLIVENED UNDER EPBC/PDI ACT				
10	DTI-PLUS prepares and consults upon draft Assessment Requirements	40 BDs	DTI-PLUS	Technical Working Group (TWG - created and chaired by DTI-PLUS) will coordinate agency/proponent meetings. With a joined-up assessment, DCCEEW is part of TWG. Local Council(s), state agencies and proponent can provide comment on draft AR (requirement under PDI Act), further information may be requested. DCCEEW may seek specialist advice to inform their requirements.
11	DCCEEW is provided with and reviews draft Assessment Requirements	15 BDs or to be negotiated	DCCEEW	DCCEEW may seek additional information from proponent on MNES matters, or clarification from DTI-PLUS before finalising their formal response on adequacy of the AR.
12	TBC – Public exhibition of Assessment requirements by DTI-PLUS	30 BDs (TBC)	DTI-PLUS	SPC to consider requirement as to whether exhibition of draft Assessment Requirements is required by the Commonwealth and the State.
13	SPC considers and endorses draft Assessment Requirements	20 BDs	State Planning Commission	SPC may seek additional information or advice – including as a result of responses received from the public if draft AR is exhibited for comment.
14	DTI-PLUS seeks endorsement of Minister to release AR	-	DTI-PLUS	
15	Minister considers and determines release of AR		SA Minister for Planning	Final AR published on Plan SA project page. DCCEEW officer will send an acknowledgement receipt of the final

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				AR to the State officer within 5 BDs of receiving the final AR. **Note:** *If the ARs of DCCEEW are not included in the final AR, acknowledgement from the State is required that these will be resolved during the revision of the draft EIS.*
ASSESSMENT REQUIREMENTS CONFIRMED				
EIS PREPARATION AND CONSULTATION				
16	Proponent prepares draft Environmental Impact Statement (EIS)	-	Proponent	
17	DTI-PLUS reviews adequacy of draft EIS and then prepares advice to Minister for public release	35 BDs	DTI-PLUS	Initial review by DTI-PLUS, then circulated to TWG who provides feedback on draft EIS as to whether it meets the AR, including proponent's approach, level of investigations, accuracy of predicted outcomes, comments on draft chapters etc… Adequacy of draft EIS will determine the timing of the next step.
18	DCCEEW is provided with and undertakes adequacy review of draft EIS and provides advice to DTI-PLUS	To be negotiated	DCCEEW	**Note:** *If comments on draft EIS from DCCEEW are not included, acknowledgement from the State is required that these comments will be resolved during the preparation of the Assessment Report.*
19	Minister determines adequacy of draft EIS for release, including confirming public consultation process.		SA Minister for Planning	Minister must also have regard to Community Engagement Charter under PDI Act, including any additional consultation requirements
20	Public Exhibition	30 BDs	DTI-PLUS	EIS and appendices published on Plan SA project page, with notice in local papers/Advertiser. Public information session held near proposed location.
21	DCCEEW (along with other agencies) receives draft EIS for formal comment	20 BDs	DCCEEW	
22	Proponent prepares draft Response Document	-	Proponent	Submissions provided to proponent, along with agency comments within 5 BDs after close of notification.
ASSESSMENT REPORT COMMENCED				
23	DTI-PLUS reviews adequacy of draft Response Document and then	15 BDs	DTI-PLUS	Consolidated TWG feedback provided to applicant 5 BDs after feedback responses received.

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	prepares advice to Minister for public release.			
24	Minister determines adequacy of Response document for release.	-	SA Minister for Planning	Response document (and appendices) and public submissions published on Plan SA project page.
25	DTI-PLUS prepares draft Assessment Report, including agency consultation on working drafts	65-75 BDs	DTI-PLUS	Draft AR includes dedicated Assessment sections on MNES matters and conditions.
26	DCCEEW provided copy of final draft AR for comment on MNES matters	To be negotiated	DCCEEW	DCCEEW may seek additional information from proponent on MNES matters, or clarification from DTI-PLUS before finalising their formal response.
27	SPC considers and endorses Assessment Report. Advice provided to Minister.	-	State Planning Commission	DCCEEW confirms status of EPBC process so that the Commission and SA Minister can be briefed.
ASSESSMENT REPORT CONFIRMED				
28	DTI-PLUS advises Minister on SPC recommendation and final AR	10 BDs	DTI-PLUS	Includes SA Crown Solicitors Office review of draft decision notice.
29	Minister makes decision	-	SA Minister for Planning	DTI-PLUS advise, proponent, local Council, agencies and public representors about decision. Decision notice and AR published on Plan SA project page (or such other means as the Minister thinks appropriate).
STATE ASSESSMENT DECISION MADE				
30	DTI-PLUS advise DCCEEW of SA Minister's decision	5 BDs	DTI-PLUS	Final AR, Decision notice provided to DCCEEW
31	DCCEEW commence separate Approval decision process using the State Assessment Report.	30 BDs (including 10 BDs of proposed decision consultation)	DCCEEW	Includes: - preparation of proposed decision brief - 10 BDs comment period from proponent and relevant Ministers on the proposed decision - final decision recommendation
32	Commonwealth Minister for Environment and Water makes decision on whether to approve the project.		Commonwealth Minister (or delegate)	DCCEEW provides a copy of the CW Min decision to DTI-_PLUS

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33	Proponent seeks to *progressively* satisfy post approval reserved matters and/or conditions	-	Proponent	
34	DTI-PLUS consult with TWG to determine adequacy of final documentation	-	SA Minister for Planning (or delegate)	TWG (including DCCEEW) consider final plans and documentation.

State	
Commonwealth	
Proponent	
State Planning Commission	
SA Minister	
CW Minister	

PlanSA

Assessment Requirements Library

Impact Assessed Development

s.108 (1)(b)(c) of the PDI Act 2016

Version 1.0 – December 2022



plan.sa.gov.au

Government of South Australia
Department for Trade and Investment

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1. INTRODUCTION

For impact assessed development – either declared by the Minister or prescribed by regulation under s.108(1)(b) or (c) of the *Planning, Development and Infrastructure Act 2016* (the Act) – the State Planning Commission (the Commission) has the responsibility to prepare Assessment Criteria (i.e. guidelines) for the preparation of an Environmental Impact Statement (EIS) by the developer.

An EIS seeks to understand the nature and extent of potential impacts of a particular development or project on its receiving environment from a social, economic and environmental perspective. An EIS is the main assessment document that informs the general public, state agencies, local councils and the Commission on how critical assessment issues have been investigated, and attributable impacts avoided, mitigated and/or managed.

The process in developing, consulting upon, and implementing project specific Assessment Requirements in the preparation of an EIS document is outlined under s.112-113 of the Act and Practice Direction 17.

This library resource has been developed as a preliminary reference guide for both developers, practitioners and Planning and Land Use Services (PLUS) assessment staff alike, to help understand likely assessment matters to be addressed and information requirements needed in preparing an EIS, and to populate the Assessment Requirements template contained in Practice Direction 17.

The library contains a set of *baseline* criteria, for both the detailed and/or standard level assessment of typical issues, which may be modified or updated as needed for each project, whilst more specific criteria, that may be unique to a certain development or the nature of a potential impact for individual projects, will be further developed in consultation with state agencies (and where needed, the Commonwealth) during the drafting process

The Commission has ultimate responsibility in setting the Assessment Requirements under the Act, an iterative process informed by professional advice, state agency and council feedback, proponent review and specialist members (when appointed to the Commission for a particular project).

The initial development of the Assessment Requirements library was undertaken by JBS&G, an Environmental Consultancy, who were commissioned by PLUS, Department for Trade and Investment, to specifically develop a suite of model criteria for impact assessed developments under the Act.

The library will be periodically updated by PLUS.

2. LIBRARY FORMAT AND PRESENTATION

The Assessment Requirements Library Guide has been developed as a reference document in association with Practice Direction 17. It is not a statutory document or instrument under the Act, but assists in the preparation of *draft* Assessment Requirements for the Commission's consideration for each impact assessed project where an EIS is required by the Act.

In recognition that an impact assessed development may result in significant impacts, including cumulative impacts, the library is arranged in nine assessment themes or environmental attributes, covering (1) amenity and environmental quality, (2) biological environment, (3) climate change and resource use efficiency, (4) economic environment, (5) hazards and risks, (6) land use and site conditions, (7) physical environment, (8) design and (9) social and community. Each environmental attribute may have multiple sub-attributes.

The detail in which the EIS considers each environmental attribute and the level of assessment required should be proportionate to the scale, nature and extent of potential impacts.

These impacts may be classified as 'detailed' (focussed assessment) or 'standard' (general consideration) and provide guidance to proponents on the level of assessment expected for an environmental attribute or potential impact for their EIS investigations.

3. KEY FACTORS TO CONSIDER

The following factors should be considered in identifying whether the level of assessment required for an environmental attribute in the context of specific project is 'standard' or 'detailed':

- scale of the impact taking into account intensity, geographical extent and duration
- nature of the impact which should consider direct, indirect, cumulative and perceived impacts
- sensitivity of the receiving environment
- the ability to avoid, minimise and/or offset the impacts of the project, to the extent known at the scoping application stage
- the complexity of technical assessments and investigations required to identify and assess mitigation measures.

Cumulative impacts of the proposed project on environmental attributes are characterised by impacts which are:

- impacts to environmental values over time or in combination with other impacts in the dimensions of scale, intensity, duration or frequency of the impacts
- created by the activities on other adjacent, upstream and downstream developments and infrastructure, and landholders.

To assist in the preparation of Assessment Requirements, a proponent will be asked to prepare an initial EIS Scoping study, which should provide a detailed overview of the key factors that have been considered in the initial assessment of potential impacts (and focus of preliminary investigations) for the EIS.

Refer to **Table 1** below.

Table 1: Description and examples of key factors to consider during scoping

Key factor	Components of factor	Description of example
Scale of the Impact	Severity	The scale or degree of the impact relative to the current situation or adopted standards or performance measures. The intensity may be measured quantitatively and compared to reference values (e.g. area of vegetation cleared, air and water quality, noise levels, change or disruption to ecological community function) or qualitatively.
	Geographical extent	The geographical reach of the impacts of the development or the range within which the impacts are observable.
	Duration	The timeframe over which the impact occurs (e.g. for a short period, during construction only; during operations permanently). It may also refer to the period/s in which the impacts are observable and the regularity of the impacts (e.g. irregular, intermittent, regularly during operations).
Nature of the Impact	Direct impacts	Impacts caused directly by the development. They usually occur at the same time as the development and within the vicinity of the site (e.g. vegetation clearing, air emissions).
	Indirect impacts	Impacts that occur as a consequence of the development or its direct impacts. Impacts may be delayed and happen further away from the site (e.g. project changes water table, changes affect wetland and causes an impact on groundwater dependent ecosystems).

Key factor	Components of factor	Description of example
		Impacts may also occur due to growth or land use changes facilitated by the project (e.g. a new transmission line may open up new areas for renewable energy generation).
	Cumulative impacts	The combined impacts of the project on a matter combined with other relevant existing and future projects (e.g. marine impacts from multiple port developments).
	Perceived impacts	There are a range of perceptions of the same impacts by people or groups.
Sensitivity of the Receiving Environment	Existing regulations and guidance	The degree of sensitivity expressed in legislation or relative to adopted standards and performance measures (e.g. Guidelines for the use of the *Environment Protection (Noise) Policy 2007*).
	Value to society	Environmental value: e.g. water quality, natural habitat). Social value: e.g. community value, landscape, recreation, lifestyle disturbance, water quality, cultural heritage, amenity. Economic value: e.g. water supply, critical transport routes.
	Vulnerability / resilience to change	The degree of vulnerability of the environment to the impacts of the project or resilience to cope with change. Regard should be had to the likely scale and nature of the impacts of the development and the sensitivity and adaptive capacity of the environment.

4. ASSESSMENT LEVEL CHARACTERISTICS

The level of assessment required for an environmental attribute in the context of a specific project will be determined as ‘standard’ or ‘detailed’ based on the scale of the project, nature of the impacts, sensitivity of the receiving environment, ability to avoid, minimise and/or offset the impacts and complexity of technical assessment required.

When project impacts are well understood and not likely to be significant if managed through conventional management and mitigation measures, it is expected that a ‘standard’ level of assessment would be appropriate and detailed investigations would not be warranted. Alternatively, where significant or cumulative impacts are likely or there is sufficient complexity, uncertainty or need for further investigation, these should be designated as ‘detailed’ requirements. This ensures the assessment effort is directed to matters requiring detailed investigation.

For example, some forms of development – such as dredging works and disposal methods for a major port development – may result in significant environmental impacts requiring a ‘detailed’ assessment, whilst other activities may have more easily determined and quantifiable impacts, requiring a ‘standard’ level of assessment (i.e. carparking requirements). Other activities may still require an initial investigation to determine whether or not a detailed assessment is required, and where it remains unclear that either a standard or detailed assessment is required, a full assessment will be needed.

Typical characteristics of ‘standard’ and ‘detailed’ levels of assessment are provided in **Table 2**. A detailed level of assessment is required if the impact of the development has one or more of the characteristics set out below.

Detailed requirements will generally supplement standard level requirements.

Table 2: Characteristics of detailed and standard assessment

Level of Assessment	Characteristic of the impact of the development
Standard	The project is unlikely to result in significant impacts on the environmental attribute if managed through conventional management and mitigation measures, including cumulative impacts. While the assessment of the impacts of the development on the environmental attribute will involve technical specialists, these impacts are likely to be: • well understood by regulators and stakeholders • relatively easy to predict using standard methods • capable of being mitigated to comply with relevant standards or performance measures. The assessments will be supported by quantitative assessment methods, although the focus and coverage may be on specific project components or project locations. The assessment is unlikely to involve any significant uncertainties, or require any detailed cumulative impact assessment.

Level of Assessment	Characteristic of the impact of the development
Detailed	The development has a high / medium probability of causing significant environmental impact on the environmental attribute, including cumulative impacts. There is a high / medium probability of impacts on the development from external environmental factors, such as those associated with climate change (sea-level rise, increased frequency of bushfire, floods etc). It is considered important by the Commission, and/or there is a public perception that an activity has the potential to cause significant impacts on the environmental attribute (even though this may be mistaken), or the activity has been the subject of extensive media coverage. Potential impacts to a Matter of National Environmental Significance (MNES) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*). The development raises requirements under other legislation applicable for the development (e.g. prescribed activities of environmental significance under the *Environment Protection Act 1993*). Assessment of the impacts of the development on the environmental attribute will require detailed studies and investigations to be carried out by technical specialists. During this assessment, these specialists may need to: • work closely with specialists assessing the impacts of the project on other environmental attributes to determine the likely indirect impacts of the project • undertake a detailed cumulative impact assessment for the project. Assessment is likely to involve several uncertainties in relation to one or more of the following and specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management). • data collection (e.g. baseline information, availability of data for cumulative impacts assessment) • identifying the specific mitigation measures or suitable offsets for the project • the methods available for predicting the impacts of the project, including the indirect and cumulative impacts • criteria for evaluating the acceptability of the impacts of the project • specific strategies may be required to address these uncertainties (e.g. further monitoring, review, technical investigations and adaptive management).

5. STRUCTURE OF THE ASSESSMENT REQUIREMENT LIBRARY

The Assessment Requirements (ARs) library comprises example ARs based on a list of environmental attributes that would ordinarily be addressed in an EIS. Table 3 outlines the structure of the Assessment Requirements structure, and Table 4 provides an overview of the nine environmental attributes that comprise the full library.

Table 3: Structure of example Assessment Requirements

AR element	Content
Objective	An environmental objective for each environmental attribute should be identified which identifies the desired outcome. The EIS should demonstrate how the project will meet this objective.
Context	This section sets out the context for the environmental attribute. This may include the legislative framework, the scope of the potential issues, importance of the issue to the South Australian community, or any relevant broader context (national / international).
Considerations	This section sets out the baseline or minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Such considerations may include evidence that publicly available databases have been searched, identification of important matters under State and Commonwealth legislation, basic overview of existing / known environmental, social and economic conditions has been provided, and a preliminary desktop assessment of potential issues has been undertaken.
Assessment Requirements	Example standard and Detailed Assessment Requirements which may apply following consideration of the key scoping factors (see Table 1) and align with the characteristics in Table 2 above). For some environmental attributes, only examples of Detailed Assessment Requirements have been provided as the nature and scale of projects typically assessed by EIS would generally require detailed assessment (e.g. social and economic impact assessments).
Suggested guidance documents	This is a suggested (and not exhaustive) list of existing legislation, policies, guidelines, standards etc. that should be considered by the proponent in the assessment.

Please note - Additional Information for assessors for each environmental attribute and sub-sections is provided in italics.

Table 4: Assessment categories and environmental attributes

Assessment category	Environmental attribute and typical issues
Amenity and Environmental Quality	**Air quality** Ground level concentrations (include construction / traffic), odour, stack emissions, receptors (location and sensitivity). **Noise / Vibration** Noise / vibration type (include traffic noise), underwater noise, noise level, sensitive receptors and location. Sensitive receptors may include terrestrial and marine fauna. **Transport and Traffic** Traffic disruptions- commuter and local, public transport, pedestrians / cyclists, changes to traffic flow and volumes - temporary / ongoing, road / maritime safety, car parking, presence of heavy vehicles, impacts to road pavement, marine traffic / shipping. **Visual amenity** Interface with adjoining land, landscape changes, built form, light spill
Biological Environment	**Biosecurity** Weeds, pest species (including marine pests), diseases and pathogens. **Matters of National Environmental Significance** Nationally threatened species and communities, migratory species, wetlands of national importance (Ramsar), Commonwealth marine areas. **Marine Flora and Fauna** Marine protected areas, threatened species, communities/ ecosystems, seagrass clearance, biodiversity loss. **Terrestrial and Aquatic Flora and Fauna** Protected areas, threatened species and communities, native vegetation clearance, habitat loss through clearing fire or fragmentation, biodiversity loss.
Climate Change and Resource Use Efficiency	**Climate Change Adaptation** Climate change risk assessment **Greenhouse gas emissions** Greenhouse gas emissions including emissions reduction targets, NGER reporting, cumulative impacts on state and national GHG inventories and targets. **Sustainable use of resources** Sustainable procurement, products / materials, energy efficiency **Waste Management** Waste hierarchy; waste recycling / disposal

Assessment category	Environmental attribute and typical issues
Economic Environment	**Local, regional and state economies** Economic impact assessment which addresses workforce / employment, existing economic land and marine uses (primary production, tourism, ports, fisheries), infrastructure - utilities (energy, water), telecommunications, ports, rail), displacement, competition, opportunities, temporary and ongoing for existing businesses / industries, property and land values
Hazards and Risks	**Bushfire, Floods, Site Contamination** Hazard risk management, bushfire, flooding, contamination and dangerous goods
Land Use and Site Considerations	**Land Tenure, Protected Areas and Land Use** Land tenure (freehold, pastoral lease, mining, oil and gas, native title, crown land), generalised land use, population centres, major infrastructure and utilities (including marine infrastructure), P&D Code Overlays and Zones, reserved areas (including marine parks), changes / displacement of land uses
Physical Environment	**Coastal and Marine** Coastal land systems (dunes, estuaries, beaches, island), and marine water quality **Soils, Landform and Geology** Erosion and sedimentation, soil compaction and inversion, contamination (spills), land subsidence and acid sulfate soils. **Surface Water and Groundwater** Surface water quality (sedimentation, wastewater, spills, use of surface water) and groundwater use and quality.
Design	**Design Quality** Supporting design excellence to create desirable and socially inclusive places.
Social and Community	**Aboriginal cultural heritage** Known and unknown Aboriginal sites, objects and remains **Community wellbeing** Social impact assessment which addresses impacts to specific groups, impacts to services, impacts / displacement of residential areas, public safety (including perceptions), recreation and public space amenity **Heritage Places and Areas** Listed national, state and local heritage sites

6. ASSESSMENT REQUIREMENTS LIBRARY

Environmental Attribute 1: Amenity and Environmental Quality

AEQ1: Air Quality

Objective

To ensure the development does not have unacceptable adverse air quality impacts on the surrounding receiving environment, in particular sensitive receivers in proximity to polluting development.

Context

Emissions from a development which impact on air quality have the potential to adversely affect human health and amenity, terrestrial and marine fauna and flora and other sensitive receivers. The extent of impacts is also affected by the ability of the surrounding environment and local and regional meteorology to influence the dispersal of contaminants and assimilate additional contaminants.

Impacts to air quality from or to a proposed development can be caused by emissions (e.g. particulates, dust or odour) from a variety of sources. These sources include point sources such as chimney stacks, process flares, crushers, storage bins, stockpiles and biological treatment lagoons), diffuse sources such as dust from unsealed areas of the site, and fugitive emissions such as leaks from containment vessels).

The *Environment Protection (Air Quality) Policy 2016* (Air Quality EPP) sets out the air quality standards adopted by the SA EPA, and should be read in conjunction with the the EPA's Ambient Air Quality Assessment 2016 publication.

Guidance on meeting requirements in the Air Quality EPP is provided in *the Evaluation distances of effective air quality and noise management 2016* which provides recommended evaluation distances between polluting activities and sensitive receivers within which potential adverse impacts need to be assessed.

[The Assessment Requirements for Greenhouse Gas Emissions address emissions reduction and National Greenhouse and Energy Reporting for the development]

Considerations for air quality

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts to air quality from or to a development should consider:

- Description of the activities likely to generate emissions with potential to impact air quality (including odour) and identification of the likely nature and level of those emissions (diffuse, point source or fugitive).

- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993*, but without limiting a wider consideration on meeting a *general environmental duty* (as required by section 25 of the EP Act), the Objects of the EP Act and Environment Protection Policies.
- Description of the existing character, land uses and environmental values of the receiving air environment and any nearby sensitive places and receivers
- Whether the development is defined as a sensitive use in the guidance document for evaluation distances and likely to be impacted by nearby uses. If so, whether there is likely to be an interface issue (based on application of evaluation distances)?
- The likelihood of air quality impacts on the health and biodiversity of ecosystems
- Overview of potential impacts to air quality during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for air quality impact assessment should be prepared to assist proponents]

1. Describe the existing air environment at the proposed development site and the surrounding area and airshed, including local and regional meteorology, existing sources of contaminants and background / ambient levels of air contaminants.
2. Provide an emissions inventory and description of the characteristics of contaminants or materials that would be released from point and diffuse sources and fugitive emissions when carrying out the development activity. This should address construction, commissioning, operation, upset conditions, and closure of the proposed development.
3. Provide an assessment of predicted impacts of emissions on environmental values of the receiving environment in accordance with the Air Quality EPP. Assessment should take into account the sensitivity and assimilative capacity of the receiving environment and the practices and procedures that would be used to avoid or minimise impacts.
4. Provide an assessment of the compatibility of the development's air emissions with existing or potential land uses in surrounding areas and the cumulative impact of emissions with other known releases of contaminants, materials or wastes associated with existing development and possible future development (i.e. as described by approved plans and existing project approvals).
5. Describe the proposed mitigation measures to protect the environmental values for air quality, how the relevant standards and indicators may be achieved. If required, revisit project design and construction methodologies to reduce air quality impacts to demonstrate that the Air Quality EPP will be met.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to air quality may be required]:

- The preliminary assessment indicates that there is high or medium probability that significant air emissions from the development will be dispersed beyond the development's site boundaries.

- There is a public perception that the development has the potential to cause significant air quality impacts, and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- The preliminary assessment indicates that there is high or medium probability that air quality impacts from the proposed development will exceed the Air Quality EPP criteria (including criteria for odour or ground level concentrations).
- The preliminary assessment indicates that there is high or medium probability that the development will be impacted by significant air emissions from surrounding uses.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act.
- The potential impacts to a MNES (e.g. nationally threatened species) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*).

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Provide an air quality impact assessment prepared by an appropriately qualified specialist for all potential sources of dust / particles and gaseous pollutants associated with the construction and ongoing operation of the proposed development, to identify any known or potential human health and amenity effects of air emiss ions (including point source and diffuse sources) on the residential population and local businesses and describe how these would be mitigated, minimised, managed and monitored.
3. The impact assessment must include modelling undertaken in accordance with the *Environment Protection (Air Quality) Policy 2016* and the EPA's *Ambient Air Quality Assessment 2016* guidance document. Techniques used to obtain the predictions should be referenced and key assumptions and data sets explained.
4. Impact assessment must outline the impacts of dust / particles and gaseous pollutants on existing commercial operations and any other identified nearby sensitive receivers in the vicinity of the proposed development, including cumulative impacts.
5. If potential impacts of air emissions on MNES require approval under the EPBC Act, an assessment of air quality impacts on the affected MNES must be prepared by an appropriately qualified specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 16: Emissions and Hazardous Activities
- *Environment Protection Act 1993*
- *Environment Protection (Air Quality) Policy 2016*
- Evaluation distances of effective air quality and noise management 2016 (SA EPA)
- Ambient Air Quality Assessment 2016 (SA EPA)
- Emission Testing Methodology for Air Pollution 2012 (SA EPA)

AEQ2: Noise / Vibration

Objective

To ensure the development does not have unacceptable adverse noise or vibration impacts on the surrounding environment, in particular sensitive receivers in proximity to noise sources.

Context

Noise or vibration from a development has the potential to adversely affect human health and amenity, terrestrial and marine fauna and other sensitive receivers such as vibration-sensitive equipment.

The main legislation relevant to noise is the *Environment Protection Act 1993* (EP Act), which creates a general environmental duty (GED) to take all reasonable and practical steps to prevent or minimise any resulting environmental harm.

The *Environment Protection (Noise) Policy 2007* (Noise EPP) establishes criteria for the assessment and management of various noise sources, including industrial, mechanical noise, construction noise. As not all noise sources are managed by the Noise EPP, where the Noise EPP does not address the noise source the GED under the EP Act is used.

The Noise EPP provides a legal framework for the assessment of a wide range of complex noise issues, balancing legitimate activities which cause noise, with the rights of people who are exposed to and potentially affected by the noise. The Noise EPP should be read in conjunction with the *Guidelines for the use of the Environment Protection (Noise) Policy 2007*. Noise is often commonly defined as unwanted sound and can include underwater noise and groundborne noise/vibration.

Guidance on meeting requirements in the Noise EPP is provided in the *Evaluation distances of effective air quality and noise management*. This document provides recommended evaluation distances between polluting activities and sensitive receivers within which adverse impacts need to be assessed.

Noise that impacts matters of national environmental significance (MNES) such as nationally listed fauna species may have implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

[The Assessment Requirements for Land address land use, land tenure and protected areas.]

Considerations for noise and vibration

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts of noise and vibration from a development should consider:

- Description of the activities likely to generate noise / vibration and identification of the likely nature and level of noise (including development related traffic).
- Description of the existing character, land use, land use category and environmental values of the receiving environment and any nearby sensitive places and receivers (including MNES).
- Whether the development is defined as a sensitive use in the guidance document for evaluation distances and likely to be impacted by nearby uses

- Whether the noise / vibration impacts are of a type that would be covered by the Noise EPP
- Identification of activities which are excluded from the Noise EPP and may be regulated under the GED of the EP Act. *Note - The general environmental duty is a requirement of the Environment Protection Act to (amongst other obligations) ensure that a person must not undertake an activity unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.*
- The likelihood of noise / vibration impacts on the health and biodiversity of ecosystems.
- Overview of potential noise / vibration impacts during construction and operation.

The SA EPA has advised that the *Environment Protection (Noise) Policy 2007* is in the process of being updated. Information regarding the public consultation of the Draft *Environment Protection (Commercial and Industrial) Noise Policy 2022* can be found at: www.epa.sa.gov.au/community/have_your_say .

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for noise modelling should be prepared to assist proponents]

1. Describe and illustrate the locations of any noise and vibration sensitive receivers both proposed or existing (including marine and terrestrial fauna). Also describe any other environmental values that could be impacted by noise emitted from or to the development.
2. Describe current background noise and vibration levels at sensitive receivers, including their location, who they are, and how have they been defined. *Note – the analysis must clearly identify all types of sensitive receivers, noting that these could include commercial/industrial land uses, and for the protection of the workers at those sites*.
3. Describe sources and characteristics of noise and vibration that would be emitted during the construction, commissioning, operation, upset conditions, and closure of the development.
4. If MNES have been identified, undertake an assessment of potential noise impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
5. Provide an assessment of the compatibility of the development's noise emissions with existing or potential land uses in surrounding areas and the cumulative impact of emissions with other known noise / vibration emissions associated with existing development and possible future development (i.e. as described by approved plans and existing project approvals).
6. Describe noise emission and vibration impacts on fauna, including nocturnal species, and how these impacts will be managed.
7. Describe and design strategies to mitigate noise and vibration impacts and how environmental management objectives for noise and vibrations would be achieved. If required, revisit project design and construction methodologies to reduce noise/vibration impacts to demonstrate that the Noise EPP and/or environmental duty will be met.

Underwater noise

8. Describe how underwater noise from the development (including piling, dredging, drilling, shipping movements and onshore blasting etc) could impact marine fauna.

9. Undertake assessment of underwater noise and demonstrate how the development will meet the General Environmental Duty under the *Environment Protection Act 1993*.

10. Describe and design environmental management strategies to mitigate noise and vibration impacts of underwater noise on marine fauna.

Categorisation of Matters Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to noise and vibration may be required]:

- The preliminary assessment indicates that there is high or medium probability that noise / vibration impacts from the proposed development on sensitive receivers, or on the proposed development from existing noise sources, will exceed the Noise EPP or not meet the General Environmental Duty under the *Environment Protection Act 1993*.
- There is a public perception that the development has the potential to cause significant noise or vibration impacts, and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the *Environment Protection Act 1993. Note - The general environmental duty is a requirement of the Environment Protection Act to (amongst other obligations) ensure that a person must not undertake an activity unless the person takes all reasonable and practicable measures to prevent or minimise any resulting environmental harm.*
- The potential impacts to a MNES (e.g. nationally threatened species) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*).

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

2. Provide an impact assessment of noise / vibration from or on the proposed development, prepared in accordance with the *Guidelines for the use of the Environment Protection (Noise) Policy 2007** by a suitably experienced, professional acoustic engineering consultant. ***Note – this policy is under active review and may soon be replaced by the Environment Protection (Commercial and Industrial) Noise Policy.*

3. The assessment should describe changes to background noise and vibration levels as a result of the development (during both the construction and operational phases). Sufficient data should be gathered to provide baseline information for comparison with any future monitoring undertaken during the construction and operational phases.

4. The noise assessment should include noise contours from a suitable acoustic model for all significant noise generating activities operating under worst case acoustic and meteorological (and or oceanographic for marine underwater noise) conditions for the transmission of noise from source to receivers.

5. If potential impacts of noise and vibration on MNES require approval under the EPBC Act, an assessment of noise / vibration impacts on the affected MNES must be prepared by a suitably experienced, professional acoustic engineering consultant. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

6. Provide a vibration assessment prepared by a suitably experienced, professional acoustic engineering consultant, assessing the worst case predicted vibration from the development. The report must describe what reasonable and practicable measures will be taken to minimise vibration impacts on sensitive receivers, including marine mammals where relevant, and the likely effectiveness of these measures, with a view to demonstrating how the 'General Environmental Duty' (as described in section 25 of the *Environment Protection Act 1993*) will be met.

7. Underwater noise modelling must be undertaken by suitably experienced specialist. Modelling must include modelling of bed substrates (acoustically reflective or acoustically absorptive) to understand the propagation beyond the proximity of the noise source (e.g. piling). The assessment must identify the distance to which there would be a biological impact to aquatic species.

8. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

9. Describe how environmental management objectives for noise and vibrations would be achieved, monitored, audited and reported, and how corrective actions would be managed.

10. Propose environmental management strategies that will avoid long-term impacts of underwater noise on marine fauna and describe how objectives would be monitored and audited, and how corrective actions would be managed.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 16: Emissions and Hazardous Activities
- *Environment Protection Act 1993*
- Environment Protection (Noise) Policy 2007
- Evaluation distances of effective air quality and noise management (SA EPA)
- *Guidelines for the use of the Environment Protection (Noise) Policy 2007*
- Department for Infrastructure and Transport Underwater Piling Noise Guidelines (new version in prep).
- Guidelines for the assessment of noise from rail infrastructure (SA EPA Guideline)
- Road Traffic Noise Guidelines (DIT Guideline)

AEQ3: Transport and Traffic

Objective

To ensure impacts to the safety and efficiency of transport modes and the broader transport and traffic system and infrastructure are avoided or mitigated.

Context

Movement of plant, equipment, materials and workers during the construction phase of a development lead to impacts on local and regional transport and traffic infrastructure. Impacts can range from traffic disruption, changes to traffic flow and volume, road safety, car parking, the presence of heavy vehicles and impacts to road pavements. There also may be ongoing impacts from operations and maintenance activities for some projects.

[The Assessment Requirements for Air Quality address air quality impacts to amenity and liveability due to transport and traffic (e.g. dust and fuel emissions); the Assessment Requirements for Noise and Vibration address noise and vibration impacts to amenity and liveability from traffic and transport.]

Considerations for transport and traffic

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts to transport and traffic from a development should consider:

- Description of materials to be transported, anticipated timing, sources of materials, routes, number and methods of transport (e.g. shipping, heavy vehicles, rail, air)
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. railway operations, aerodromes, bulk shipping, helicopter landing facilities)
- Identification of key potential impacts to:
    - transport and traffic infrastructure during both construction and operational phases (temporary or permanent)
    - access to arterial or local roads, rail, air or port facilities
    - road safety impacts
    - pedestrians, cyclists or public transport
    - car parking.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for transport impact assessment should be prepared to assist proponents]

1. A Transport and Access Impact Assessment should be prepared by a suitably qualified traffic and access engineer, evaluating current and proposed access arrangements including the effect on the arterial road network and car parking, and vehicle interface with the local road network. Any assessment must address implications for the entire supply chain and the traffic and access impact for the construction, operation, maintenance and decommissioning phases.

2. The assessment should determine the transport system asset improvements, asset management / maintenance requirements, and operational management requirements to accommodate the increase in movements and/or vehicle sizes/mass for affected transport assets and services across all modes for the proposal's construction / implementation and operational phases. The assessment should provide where relevant:

    - A summary of the transport task for the development (including workforce and end-to-end supply chain (input and output)) during construction, operations and decommissioning phases of the development. This should address predicted traffic volumes, proposed vehicle types, number/frequencies, hours of activity and traffic peaks, any requirements that are outside of the current gazetted heavy vehicle networks, and any measures required to ensure compliance with the 'Heavy Vehicle National Law'.
    - A description of the existing transport and traffic environment (using traffic data, accident statistics) and include (where relevant) public transport networks, car parking, school bus routes, and public pedestrian, cycle pathways or trails.
    - Any operational management measures to minimise delays and ensure safety for other transport users (e.g. temporary road closures/detours), including transport of plant and equipment to/from the site.
    - Requirements for temporary or permanent modifications to roads or rail infrastructure (including rail crossings and bridges), upgrades to road surfaces, access on arterial and / or local roads and car parking as a result of the development including any increase (temporary or ongoing) in maintenance requirements of transport assets.
    - Any management measures for transport of hazardous materials.
    - Describe how identified impacts to transport and access will be mitigated. Mitigation strategies may include works, contributions or other strategies that can be documented in a traffic management plan. Strategies must be prepared in close consultation with relevant transport authorities, including local government.

<u>Maritime operations (if relevant)</u>

3. Describe expected marine traffic volumes to and from port / wharves, including expected boat/ship movements, timing and patterns.

4. Describe marine traffic impacts associated with these movements (e.g. interaction with other vessels, impacts to navigation aids) including to existing operators (e.g. tourist operators, ferry services, recreational users).

5. Discuss the measures that will be undertaken to mitigate these impacts and any safety measures that will be implemented to ensure public safety.

<u>Rail operations (if relevant)</u>

6. Assess the potential impacts of any temporary or permanent disruption of existing freight and passenger rail services that would be due to either track works, increased rail traffic, or subsidence.

7. Discuss the measures that will be undertaken to mitigate these impacts.

<u>Air operations (if relevant)</u>

8. Assess the capacity of existing airports or airfields to handle the demand for air transport of people and/or freight. If existing facilities do not have sufficient capacity, describe and illustrate the requirements for any new or altered air transport facilities (e.g. runways, radar, lights and/or beacons.

9. Describe the likely additional number of flights, size of aircraft, their frequency and timing, particularly noting any increase in night arrivals or take-offs. Describe and illustrate any air routes that would take new or increased air traffic.

10. Describe any features of the project that could impact on air transport, such as the placement of waste dumps, stacks or flares beneath flight paths.

11. Discuss the measures that will be undertaken to mitigate these impacts.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to traffic and transport may be required]:

- The preliminary assessment indicates that there is high or medium probability of large scale and significant ongoing disruption or modification to traffic movement and/ or infrastructure.
- The preliminary assessment indicates there is high or medium probability for extensive and ongoing direct and indirect impacts to transport systems (including rail, road and maritime systems).
- There is a public perception that the development has the potential to cause large scale and ongoing disruption to transport and traffic and / or potential transport and traffic impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act (e.g. railway operations, aerodromes, bulk shipping, helicopter landing facilities)

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

2. The scope of a transport and traffic impact assessment requiring detailed assessment will build on the Standard Assessment Requirements and be driven by the scale, nature and location of the development and the anticipated transport and traffic impacts. It is expected that the content of the assessment would be determined in consultation with state and local government and other transport infrastructure operators.

3. The detailed transport and traffic impact assessment report must be prepared by a suitably qualified planner/engineer and will address end-to-end supply chain (input and output) potential impacts to road, rail, maritime and air transport operations (where relevant). The transport and traffic impact assessment must address each proposed project-affected mode (e.g. road, rail, air, port and sea) for each phase of the proposed project.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 11: Strategic Transport Infrastructure
- Relevant Regional Plans
- Planning and Design Code (online)
- AUSTROADS Guide to Road Design
- AUSTROADS Guide to Traffic Management
- Highway Capacity Manual Volume 2 (HCM)
- Heavy Vehicle National Law (schedule to the Heavy Vehicle National Law Act 2012 (Qld).
- Australian Level Crossing Assessment Model (ALCAM 2020).

AEQ4: Visual Amenity, Landscape and Open Space

Objective

To ensure adverse effects on visual amenity, landscape and open space values are avoided or minimised and opportunities to enhance these values are maximised.

Context

Perceived impacts to visual amenity can be subjective and are driven by the sensitivity of the viewpoint and the perspective of the viewer. Scenic quality is an important aspect of visual amenity and is a significant environmental and community resource. Locations potentially sensitive to changes in visual amenity include residential dwellings, locations of public and private importance, tourist destinations and heritage sites and major roads.

Potential impacts at sensitive locations result from the presence of temporary and permanent development infrastructure and alteration or removal of public open space, landscape buffers and vegetation which affect enjoyment of open space. Light spillage from temporary and permanent infrastructure can also decrease the amenity of adjacent neighbourhoods, parks and community facilities.

The Planning and Design Code provides for performance outcomes designed to enhance the visual appearance of development and minimise aesthetic impacts of the design and siting of structures on residential areas and townships, rural vistas, the natural environment, existing public views to landscape from key vantage points, scenic routes and public roads. A planning assessment undertaken for the development would address the required performance outcomes for visual amenity under the Code.

[The Assessment Requirements for Community Wellbeing / Social Impact Assessment address potential temporary or permanent effects of developments on the use of open space and the enjoyment of passive and active recreational opportunities.]

Considerations for visual amenity, landscape and open space

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. [Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Currently, there is no formalised standard methodology at local, state or federal government levels for visual assessment. Preliminary assessment in the proponent's scoping application of the potential impacts to visual amenity, landscape and open space from a development should consider:

- A description of the elements of the development (including activities and infrastructure) likely to result in temporary or permanent impacts to visual amenity in terms of landscape and open space values (including night lighting).
- An overview of the existing landscape character and the likely sensitive locations and landscapes / open space which would be the focus of further detailed visual impact assessment (including areas covered by the Significant Landscape Protection Overlay of the Code)
- A description of the likely impacts of the development (both temporary and permanent) on surrounding sensitive locations, scenic or significant vistas, including light spill.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for visual impact assessment should be prepared to assist proponents]

1. Provide a description of the landscape character, features and values of the development area and its environs. This should address (where relevant):
    - components of the development that may result in impacts to visual amenity
    - public and private viewsheds to the development and the visual values of the area
    - viewsheds in which the development features, including from nearby residences, public lookouts, tourist attractions, roads and key vantage points in the vicinity
    - existing built features within the landscape and their impact on the existing landscape and visual setting.
2. Describe the effects of the development on visual amenity and landscape quality for residents and visitors for both near and distant views, from important viewing points, including from the land and sea. This should include construction, operations and closure / rehabilitation aspects of the proposal and address light spill from the development.
3. If required, provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.
4. Describe the rationale for the major design elements of the proposed development and measures to mitigate their visual impact.
5. Describe how the design and construction of all buildings and structures will be controlled to ensure cohesive visual amenity, including details of construction materials, colours and landscaping for all buildings and structures.
6. Describe the use of screening / amenity / landscape plantings and potential broad scale revegetation, including the opportunities for the use of locally endemic species.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to visual amenity may be required]:

- The preliminary assessment indicates that there is high or medium probability of significant visual impact on sensitive visual receptors from the project including on scenic landscape quality or the visual amenity of an urban landscape.
- There is a public perception that the development has the potential to cause significant visual impact on sensitive visual receptors and / or potential visual impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Provide a visual impact assessment (VIA) undertaken by an appropriately qualified specialist that addresses the visual impacts of the development on sensitive visual receptors. This should include:
    - A quantitative desktop assessment to determine the theoretical visual impact of the development, including determination of the Theoretical Zone of Visual Influence (TZVI) to assist in defining the visual impact study area, and a description of the landscape character, features and values of the project area and its environs.
    - Determination of the TZVI and visual impacts study area using spatial data analysis and photomontages to model the visual impact. Photomontages should be selected to provide a variety of views toward the development in a variety of landscape contexts.
    - A qualitative assessment of the photomontage to verify and support the quantitative analysis and assess the level of visual impact.
2. In response to the VIA, describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

Urban landscapes

3. Provide a visual impact assessment (VIA) undertaken by an appropriately qualified specialist that addresses the visual impacts of the development on sensitive visual receptors *[in accordance with the requirements above]*. The VIA should describe the proximity of proposed structures to the nearest dwellings and any potential impacts of the proposal on quality of lifestyle and how the visual landscape and amenity will be altered by the development, for residents and visitors.
4. Outline and evaluate potential design and siting options that could avoid and minimise potential effects on landscape, open space and visual amenity of neighbouring residences and communities and additional management strategies that may further minimise potential effects.
5. Demonstrate that the development provides a high-quality design that complements natural landscaped settings, open space and surrounding locality.
6. Provide details of the interfaces of the development and demonstrate how the landscape integrates and merges into the built form to minimise the visual impact.
7. Describe alternative measures for minimising potential loss of visual amenity (for example structural design and placement and screening) and detail any compensatory and site rehabilitation measures that will be undertaken to minimise visual impacts as a result of vegetation clearance.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 2 Design Quality
- Principles of Good Design
- Guidance Note for Landscape and Visual Assessment (2018)
- Guidelines for Landscape and Visual Impact Assessment (Third Edition) (2013), Landscape Institute;
- Visual Landscape Planning in Western Australia. (2007). A manual for evaluation, assessment, siting and design, Western Australian Planning Commission;
- Swanwick, C. (2013). Guidelines for Landscape and Visual Impact Assessment. 3rd ed.

Environmental Attribute 2. Biological Environment

BE1: Biosecurity

Objective

To ensure that construction and operation of the development avoids the introduction or spread of biosecurity threats including pest or nuisance animal and plant species (including marine pests), diseases and pathogens.

Context

Biosecurity is the protection of terrestrial and marine environments, agricultural industries and human health from the adverse impacts of biological threats, such as invasive pest animal and plant species, diseases and pathogens. Development can pose biosecurity risks through the introduction or spread of these threats to local and regional areas or State waters.

Pest plants (weeds) compete with crops, pasture, livestock and native flora and fauna, contaminate crops and seeds, degrade production resources and the value of the natural environment. Pest species such as Queensland Fruit Fly and diseases such as Pacific Oyster Mortality Syndrome (POMS) have the potential for significant impacts to important primary industries in South Australia.

Declared and noxious exotic plant and animal species are regulated under the *Landscape South Australia Act 2019* and the *Fisheries Management Act 2007*. The Commonwealth *Biosecurity Act 2015* regulates biosecurity risks associated with goods, people and conveyances entering Australia.

[Note: South Australia's proposed Biosecurity Act was still in draft form at the time of writing these Assessment Requirements].

Considerations for biosecurity

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential biosecurity threats from a development should consider:

- Description of the activities with potential to introduce or spread exotic, pest or nuisance animal and plant species, diseases and pathogens to terrestrial, aquatic and marine environments
- An overview of existing exotic, pest or nuisance plant and animal species, and diseases and pathogens in the development's terrestrial, aquatic and marine environs
- An overview of existing uses and environmental values of the development's terrestrial, aquatic and marine environs and any sensitive places and receivers (including MNES) which may be impacted by biosecurity threats.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for biosecurity impact assessment should be prepared to assist proponents]

Terrestrial / Aquatic

1. Describe the extent and significance of existing exotic, pest or nuisance plant and animal species, diseases and pathogens in the development's terrestrial and aquatic environs.

2. Describe the existing uses and environmental values of the development's terrestrial and aquatic environs and any sensitive places and receivers (including MNES) which may be impacted by introduced biosecurity threats.

3. If MNES have been identified, undertake an assessment of potential biosecurity threats to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

4. Identify the potential for the introduction or dispersal of new exotic, pest or nuisance plant and animal species, diseases and pathogens, and the associated implications for native species, habitat, agricultural land and other environmental values.

5. Identify the potential for increased distribution and abundance of existing exotic, pest or nuisance plant and animal species, disease and pathogens, and the associated implications for native species, habitat, agricultural land and other environmental values.

6. Propose measures to remove, control and limit the introduction or spread of exotic, pest or nuisance plants and animals, diseases and pathogens on the development site and any areas under the proponent's control (e.g. decontamination of vehicles, mobile plant, equipment and materials), having regard to the effectiveness of such mitigation measures in the past. This includes declared plants and animals under relevant State and Commonwealth legislation.

Marine

7. Describe the extent and significance of existing exotic, pest or nuisance plant and animal species, diseases and pathogens in the development's marine environs.

8. Describe the existing uses and environmental values of the development's marine environs and any sensitive places and receivers (including MNES) which may be impacted by introduced biosecurity threats.

9. If MNES have been identified, undertake an assessment of potential biosecurity threats to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

10. Provide a biosecurity risk analysis that outlines the potential risk of introduction of exotic marine organisms and disease (e.g. through vessel ballast water, bilge and/or biofouling) and measures proposed to eliminate this risk.

11. Outline strategies to prevent the introduction of exotic marine organisms and disease (including from incoming ship ballast and bilge waters or biofoulings).

12. Detail the response procedure that will be followed in the event of a new exotic organism being detected.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to biosecurity may be required]:

- The preliminary assessment indicates that there is a high probability that the development will result in exposure to declared plant and animal pest species (including marine pests) diseases and pathogens.

- The development involves shipping operations and is proposed to be a first port of call for international ships travelling to Australian waters.
- There is a public perception that the development has the potential to cause a significant biosecurity threat and / or potential biosecurity impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.
- The potential impacts to a MNES (e.g. nationally threatened or migratory species) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*).
- The proposal is located on Kangaroo Island requiring consideration of the *Biosecurity Strategy for Kangaroo Island 2017–2027*

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. If potential biosecurity impacts on MNES require approval under the EPBC Act, an assessment of the potential impacts on the affected MNES must be prepared by a suitably experienced and professional specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
3. Describe how the proposal is consistent with the *Biosecurity Strategy for Kangaroo Island 2017–2027* (where relevant).
4. Detail a monitoring program that would audit the success of biosecurity measures, identify whether objectives have been met, and describe corrective actions to be used if monitoring indicates objectives are not being met.

Marine

5. Provide information on the proposed management techniques for incoming ship ballast and bilge waters.
6. Describe how the introduction of exotic marine organisms or notifiable pathogens (disease) will be avoided or managed.
7. Outline strategies to monitor for the early detection of marine exotic organisms at or near the site, especially on and around marine infrastructure (e.g. wharf, jetty)
8. Outline measures to ensure consistency with the Australian Ballast Water Management Requirements (and national biofouling management guidelines)
9. Outline strategies to monitor and prevent the introduction of vermin and other nuisance species that can be attracted to port facilities, and measures to manage and monitor such species.
10. Outline strategies to monitor, control and manage biofouling of wetted surfaces.

11. Describe how the proposal is consistent with the *Biosecurity Strategy for Kangaroo Island 2017–2027* (where relevant).

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy: SPP8 Primary Industry; SPP4: Biodiversity
- Relevant Regional Plans
- *Landscape South Australia Act 2019*
- *Fisheries Management Act 2007*
- *Biosecurity Act 2015 (Cth)*
- Biosecurity Strategy for Kangaroo Island 2017–2027
- South Australia's Biosecurity Policy 2020-2023
- Declared Plant Policies - *Landscape South Australia Act 2019*
- Australian Pest Animal Strategy 2017-2027
- State Landscape Strategy
- Marine Pest Plan 2018-202: The national strategic plan for marine pest biosecurity
- National biofouling management guidelines

BE2: Marine Flora and Fauna

Objective

To ensure that the nature and scale of the development avoids or minimises adverse effects on biodiversity, threatened and protected marine flora and fauna species, their ecological communities and habitat.

Context

The large, sheltered tidal gulf ecosystems of Gulf St Vincent and Spencer Gulf and the far west coast region from Streaky Bay to Davenport provide habitat for some of the largest areas of temperate mangrove, seagrass and tidal saltmarsh communities in Australia. Marine fauna and flora of South Australia includes both the typical cold temperate biota of Tasmania, Victoria and southern New South Wales and the transitional warm to cool temperate biota of southern Western Australia.

South Australia has many fish species of conservation significance, including seadragons, seahorses and pipefish, as well as the world's largest known breeding aggregation of Australian giant cuttlefish. Southern Bluefin Tuna are listed as conservation dependent and are a commercially important species whose offshore feeding and migration paths are of importance to the industry. Our waters are feeding, breeding and calving grounds for endangered blue whales, bottlenose dolphins, sperm and pilot whales, and southern right whales.

The *Marine Parks Act 2007* protects a variety of habitats, from sandy beaches and sheltered seagrass beds to mud habitats on the abyssal plain. Marine national park and sanctuary zones established under the Act are the core conservation areas, protecting vital feeding, breeding, nursery and resting areas for marine plants and animals.

Marine fish, some marine invertebrates and crustaceans are protected under the *Fisheries Management Act 2007*, while marine mammals (e.g. seals, whales and dolphins) are protected under the *National Parks and Wildlife Act 1972*. Seagrass is protected under the *Native Vegetation act 1992*.

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* protects Matters of National Environmental Significance which include nationally threatened species and ecological communities, migratory species and Commonwealth marine areas.

[The Assessment Requirements for Noise address potential impacts of underwater noise on marine fauna; the Assessment Requirements for Biosecurity address the potential impact of marine pests, ballast water and biofouling).

Considerations for native fauna

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

State and Commonwealth government databases provide publicly available spatial data relevant to marine flora and fauna. The Code includes Overlays for Coastal Areas, Marine Parks and the Coastal Waters and Offshore Islands Zone. Preliminary assessment in the proponent's scoping application of marine flora and fauna should consider important habitat features, conservation significant species and public and private protected areas including but not limited to:

- Identification of marine protected areas (including aquatic reserves, marine parks (State and Commonwealth), special purpose areas, Adelaide Dolphin Sanctuary and rock lobster sanctuaries)
- Identification of State listed threatened marine species from review of the Biological Database of South Australia
- Identification of nationally listed threatened marine and / or migratory species from review of the EPBC Act protected matters database
- Identification of fauna colonies (sealions, fur seals, coastal wader birds, shorebirds and seabird sites)
- Identification of relevant coastal and marine Code Overlays applicable to the development.
- Description of the development activities with the potential to impact on marine flora or fauna species
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. dredging, desalination plants etc
- Overview of potential impacts to the coastal and marine water environment during construction and operation
- Preliminary assessment of the potential for significant impacts to Matters of National Environmental Significance (MNES) protected under the EPBC Act.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for marine flora and fauna impact assessment should be prepared to assist proponents]

[Marine developments often intersect the coastal zone and therefore their assessment will require consideration of the interconnectivity of this environment including the use of other relevant assessments for the specific development, e.g. underwater noise assessment for construction of a port]

1. Describe the location of marine protected areas (State and Commonwealth), sanctuaries and fisheries which may be impacted by the development.
2. Describe the location, extent, condition and significance of native marine fauna populations, including individual species and communities in the surrounding area (on land, cliffs and adjoining waters, including islands). Include listed threatened and migratory fauna species in the development's environs and identify those that are likely to be disturbed during construction and / or maintenance.
3. Identify and characterise the nearshore, benthic and offshore marine environment. Quantify and detail the extent, condition and significance of the marine flora and fauna (including individual species and communities) that currently exist on site, and within the immediately adjacent sites. Address any sensitive receptors including seagrasses, macro algae and other reef habitat and marine benthic biota and macrofauna.
4. Describe the development activities with the potential to impact on marine species, habitats and listed threatened and migratory fauna species and provide an assessment of how those impacts will be avoided or mitigated. Address discharge to marine waters, seabed disturbance and creation of artificial habitat (e.g. presence of development infrastructure).

5. Identify the potential impacts of shipping, transhipping and barge movements on estuarine and marine species. Address vessel interactions with marine megafauna.
6. If MNES have been identified, undertake an assessment of impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*
7. Identify all potential sources of light pollution from the construction and operation of the proposed development. Describe their impacts on marine species, including nocturnal species and how these impacts will be managed.
8. Detail appropriate buffer distances that would be required between proposed development (including coastal access points) and threatened marine species, including feeding areas, nesting / breeding and roosting sites.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to marine flora and fauna may be required]:

- The preliminary assessment indicates a high or medium probability that the development has the potential to cause significant impacts to marine protected areas or State listed vulnerable and endangered marine species
- There is a public perception that the development has the potential to cause significant impacts to marine protected areas, State listed vulnerable and endangered marine species or these potential impacts have been the subject of extensive media coverage
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act (e.g. dredging)
- The potential impacts to a Matter of National Environmental Significance (MNES)(e.g. nationally listed threatened, migratory species, Commonwealth marine environment) are likely to require referral and assessment under the *Environment Protection Biodiversity and Conservation Act 1999*)
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. If potential impacts on MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by an appropriately qualified specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
3. Describe the nature and extent of the impacts likely to affect listed threatened native marine fauna species and populations during both construction and operation. Describe the ability of communities and individual species to recover, especially threatened or significant species (including those listed under the *National Parks and Wildlife Act 1972*). Detail any residual impacts that cannot be avoided and propose measures to offset the residual loss.

4. Assess the potential impacts of the proposed project's activities in the coastal zone. Model the spread and assess the impacts of any sediment plume to be created by dredging, construction or excavations. Assess the potential loss of habitat or diversity that could result from the activity and assess any potential impacts on commercial or recreational fisheries, including impacts that could arise from the loss of nursery habitat (e.g. seagrass beds, reefs, or, mangroves) of target species (such as prawns and fish). Assess the potential short-term or long-term impacts of noise on marine fauna, particularly cetaceans.
5. Detail the potential impact, including cumulative impacts, (such as any likely increase in vessel numbers, or habitat fragmentation and loss) on marine fauna, both during construction and operation, including ecologically and economically important species (e.g. fisheries)
6. The assessment will also need to take into consideration the outputs of any underwater noise assessment, physical coastal and marine assessment, biosecurity assessment for potential impacts and incorporation of suitable mitigation measures in line with those and other relevant assessments for the development.
7. Prepare a Marine and Coastal Environment Management Plan, prepared by a suitably qualified coast and marine expert, which details the existing environment, identifies any coastal hazards (e.g. sand drift) and significant coastal or marine features or habitats. The report should also assess the impacts of the proposed operations and documents the environmental protection controls and measures to be implemented and monitored. The plan is to accord with the *Marine Parks Act 2007* and any relevant Marine Park management plan. The plan should address impacts on marine organisms from development activities (including noise, vibration, and water quality).

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy: SPP4 Biodiversity
- Special Legislative Schemes: *Marine Parks Act 2007*
- Relevant Regional Plans
- Legislation
- National Strategy for Reducing Vessel Strike on Cetaceans and other Marine Megafauna
- Other standards

BE3: Terrestrial and Aquatic Flora and Fauna

Objective

To ensure that the nature and scale of the development avoids or minimises adverse effects on biodiversity, threatened and protected terrestrial and aquatic flora and fauna species, their ecological communities and habitat.

Context

South Australia's protected area system comprises protected areas on public, private and Aboriginal lands, and covers nearly one third of the State. It conserves most of the remaining native vegetation in the State's agricultural zone and large areas of native vegetation in the pastoral region. Protected areas in South Australia are generally reserved under the *National Parks and Wildlife Act 1972*, *Wilderness Protection Act 1992*, *Crown Land Management Act 2009* and *Forestry Act 1950*, and Indigenous Protected Areas.

Many ongoing pressures on local ecosystems continue to threaten biodiversity. Threats include widespread clearance of native vegetation, weed invasion and predation by exotic pest species, pollution and soil degradation, inappropriate fire regimes, destruction of habitat and more recently climate change. Numerous native species and communities are in decline and many are threatened and facing extinction. A significant number of local extinctions have already occurred, especially amongst small mammal species, birds and plants species.

South Australia's threatened plants and animals are listed under the threatened species schedules of the *National Parks and Wildlife Act 1972* while freshwater and marine fish, some marine invertebrates and crustaceans are protected under the *Fisheries Management Act 2007*. As part of protections for ecological communities of conservation concern, clearance of native vegetation is regulated under the *Native Vegetation Act 1991* and incentives and assistance are provided to landholders to help them preserve, enhance and manage native vegetation.

The *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* protects Matters of National Environmental Significance which include nationally threatened species and ecological communities, migratory species and wetlands of international importance (Ramsar wetlands).

[The Assessment Requirements for Marine Flora and Fauna address potential impacts on marine species.]

Considerations for terrestrial and aquatic flora and fauna

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

State and Commonwealth government databases provide publicly available spatial data relevant to native vegetation, protected areas and threatened species. The Code includes Overlays addressing Landscape and Vegetation. Preliminary assessment in the proponent's scoping application of terrestrial flora and fauna should consider important habitat features, conservation significant species and public and private protected areas including but not limited to:

- Identification of protected areas reserved under the National Parks and Wildlife Act 1972, Wilderness Protection Act 1992, Crown Land Management Act 2009 and Forestry Act 1950, and Indigenous Protected Areas
- Identification of areas protected under Heritage Agreements under the *Native Vegetation Act 1991*

- Identification of key areas of native vegetation relevant to the development
- Identification of State listed threatened flora and fauna species from review of the Biological Database of South Australia
- Identification of nationally listed threatened flora and fauna and / or migratory species from review of the EPBC Act protected matters database
- Identification of nationally significant wetlands including Ramsar wetlands
- Identification of relevant Code Overlays applicable to the development.
- Description of the development activities with the potential to impact on threatened flora or fauna species or native vegetation
- Overview of potential impacts to terrestrial flora and fauna during construction and operation.
- Preliminary assessment of the potential for significant impacts to Matters of National Environmental Significance (MNES) protected under the EPBC Act

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for terrestrial and aquatic flora and fauna impact assessment should be prepared to assist proponents]

Protected areas

1. Describe the location of public or private protected areas reserved under the *National Parks and Wildlife Act 1972*, *Wilderness Protection Act 1992*, *Crown Land Management Act 2009* and *Forestry Act 1950*, and Indigenous Protected Areas which may be impacted by the development. Include reference to areas under Heritage Agreements through the *Native Vegetation Act 1991.*

2. Assess the impacts on public and private protected areas from the development including management of interface issues (e.g. biosecurity, fire management, access) and any implications for Heritage Agreements.

Flora and Native Vegetation

3. Describe the location, extent, condition and significance of native vegetation, including listed threatened flora species and ecological communities in the development's environs, and identify those that may need to be cleared or disturbed during construction and / or maintenance.

4. Identify and characterise any wetlands or groundwater dependant ecosystems that may be affected by altering the hydrogeological environment.

5. Describe the development activities with the potential to impact on native vegetation and listed threatened flora species and ecological communities, and provide an assessment of how those impacts will be avoided, mitigated or offset.

6. If MNES have been identified, undertake an assessment of impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*

7. If required, prepare a Native Vegetation Clearance Data Report prepared by an Accredited Consultant approved by the Native Vegetation Council. The assessment should undertake a survey of the vegetation and fauna (including EPBC Act Listed threatened species and communities), detail compliance with the impact mitigation hierarchy and describe how the significant environmental benefit would be achieved.

8. Detail potential impacts of fire on native vegetation, and the effects of fire risk management processes during construction, operation and maintenance.

9. Outline measures to mitigate effects on native vegetation by addressing the mitigation hierarchy, including any compensatory activities in already degraded areas and use of existing easements. Refer to guidelines produced by the Native Vegetation Council and outline the likely effectiveness of any mitigation measures adopted during both construction and maintenance.

Fauna

10. Describe the location, extent, condition and significance of native fauna populations (including aquatic and subterranean fauna such as stygofauna) and listed threatened and migratory fauna species in the development's environs, and identify those that are likely to be disturbed during construction and / or maintenance.

11. Describe the development activities with the potential to impact on native fauna species and listed threatened and migratory fauna species and habitats, and provide an assessment of how those impacts will be avoided or mitigated.

12. If MNES have been identified, undertake an assessment of impacts to MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth].*

13. Identify all potential sources of light pollution from the construction and operation of the proposed development. Describe their impacts on native fauna, including nocturnal species, and how these impacts will be managed.

14. Detail appropriate buffer distances that would be required between the proposed development and threatened species, including feeding areas, nesting sites and roosting sites.

15. Identify the potential impact of fire / explosion on native fauna, and the effects of fire risk management processes during both construction, operation and maintenance.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to native flora may be required]:

- The preliminary assessment indicates a high or medium probability that the development has the potential to cause significant impacts to public or private protected areas, State listed vulnerable and endangered flora and / fauna, and / or significant native vegetation clearance.
- There is a public perception that the development has the potential to cause significant impacts to public or private protected areas, State listed vulnerable and endangered flora and / fauna and / or significant native vegetation clearance and / or these potential impacts have been the subject of extensive media coverage.
- The potential impacts to a Matter of National Environmental Significance (MNES)(e.g. nationally listed threatened species, Ramsar Wetland) are likely to require referral and assessment under the *Environment Protection Biodiversity and Conservation Act 1999*).

- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

2. If potential impacts on MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by an appropriately qualified specialist. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*.

3. Prepare a Native Vegetation Clearance Data Report prepared by an Accredited Consultant approved by the Native Vegetation Council. The assessment should undertake a survey of the vegetation and fauna (including EPBC Act Listed threatened species and communities), detail compliance with the impact mitigation hierarchy and describe how the significant environmental benefit would be achieved.

4. Provide an assessment undertaken by an appropriately qualified specialist of the direct and indirect effects of the development on listed threatened flora species and ecological communities and populations, habitat and native vegetation that may occur over the life of the development:

    - Describe the location, extent, condition and significance of listed threatened native fauna species and populations that may be affected during construction and operation.

    - Describe the extent location, extent, condition, significance and habitat value of native vegetation species and communities proposed to be cleared by the development.

    - Identify significant wildlife habitat and characterise wildlife movement within the broader development area that could be directly or indirectly impacted by the development including alteration of habitat conditions (e.g. habitat fragmentation, severance of wildlife corridors or habitat linkages) that may occur over the life of the development. Assess the potential impacts on habitat connectivity of listed or other protected fauna species including but not limited to migratory species.

    - Include alteration of conditions that may directly or indirectly impact wetland, riparian and in-stream environments and undertake an assessment of the impacts of the development on aquatic ecology including impacts on key fish habitat and threatened species of fish (where relevant).

    - Describe the ability of communities, populations or individual species to recover, regenerate or be rehabilitated during construction and operation including maintenance.

    - Assess the ability of habitat to recover, especially for resident or migratory shore birds and listed threatened or significant species.

    - Describe the measures that will be taken to address displaced native fauna (if any).

    - Detail any residual impacts that cannot be avoided, and propose measures to offset the residual loss.

5. Detail any changes in biological diversity that may result at the interface between the development and existing native vegetation (i.e. the 'edge effect') during construction and over the life of the development.

6. Describe the monitoring measures, reporting regimes and audits for native flora and fauna that will be undertaken to measures implemented to mitigate impacts to flora and fauna are effective.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 4: Biodiversity
- Special Legislative Scheme: *River Murray Act 2003*
- Relevant Regional Plans
- *National Parks and Wildlife Act 1972*
- *Fisheries Management Act 2007*
- *Native Vegetation Act 1991*
- *Landscape South Australia Act 2019*
- South Australian Arid Lands Biodiversity Strategy
- Other standards.

Environmental Attribute 3: Climate Change and Resource Efficiency

CCRE1: Climate Change Adaptation

Objective

To ensure that development and design are climate resilient and risks from climate change are reduced.

Context

In the context of climate change, it is important that measures are taken to reduce greenhouse gas emissions associated with a development, but also protect the proposed development is resilient to the impacts of a changing climate in the longer term.

Adapting to the changing climate is also essential to ensure the State's environment, businesses and communities have the resilience to cope with the changes. Priorities for climate change adaptation are set out in the *South Australian Government Climate Change Action Plan 2021 – 2025** and include urban greening and water sensitive urban design, securing the coastal environment against increased coastal erosion and flooding and reducing risk and building resilience to more frequent and severe bushfires, storms, floods and heatwaves. **Note – this is in the process of being updated by DEW.*

The *Landscape South Australia Act 2019* expressly recognises the significance of climate change in managing landscapes and natural resources, including the need for both mitigation and adaptation. State Planning Policy 5 Climate Change notes that the planning system has a role enabling future adaptation through the appropriate location of development and inclusion of risk mitigation measures.

[The Assessment Requirements for Greenhouse Gas Emissions address emissions reduction and National Greenhouse and Energy Reporting for the development; the Assessment Requirements for Sustainable Use of Resources addresses the use of resources to lower greenhouse gas emissions]

Considerations for Climate Change Adaptation

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts from climate change on the development should consider:

- An overview of the development's vulnerabilities (including activities or structures) to South Australian climate change projections (e.g. increasing temperatures, extreme heat and heat waves, decline in rainfall, increased drought, extreme rainfall events, harsher fire weather, and sea level rise).
- The overview should identify risks that may affect the development over the developments lifetime (i.e. taking into account the period from construction time to the end of its useful life / replacement).

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for climate change adaptation should be prepared to assist proponents]

1. Undertake a climate risk assessment of the relevant potential impacts on the development of projected climate change over the lifetime of the development (e.g. increasing temperatures, extreme heat and heat waves, decline in rainfall, increased drought, extreme rainfall events, harsher fire weather, and sea level rise). Include proposed adaptive management strategies.

   For developments with a lifetime to 2050 or before, the risk assessment should be based on climate projections from the RCP 8.5 scenario (high greenhouse gas emissions scenario). For developments with a lifetime beyond 2050, the risk assessment should be based on climate projections under both the RCP 8.5 and RCP 4.5 scenario (moderate greenhouse gas emissions scenario).

2. Examine the potential cumulative effects of climate change from a risk management perspective (including adaptive management strategies).

3. Where relevant, outline the potential effects of, and identify strategies to protect against, extreme weather events, including a 1% AEP storm event and sea level rise as per Coast Protection Board policy and allowances from a risk management perspective, including adaptive management strategies. Include mitigation strategies should the structure not withstand such an event.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to climate change may be required]:

- The preliminary assessment of the development's vulnerabilities to aspects of projected climate change indicates that a high probability of significant impacts to the proposed development.

- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential climate change impacts and risks to the surrounding environment and on the development. Outline and justify any trade-offs in the design.

2. Undertake a detailed climate change risk assessment by a suitably qualified environmental expert to ensure that climate risks are fully taken into account and adaptation options are adequately assessed and addressed during development's planning and design phase. The risk assessment should consider:

   - Whether past extreme events caused physical damage or impacted similar developments or operations.

   - Direct and indirect impacts of projected climate changes on the development or its operations e.g. failure of local power supply during severe storm or heatwave, drought related drying of water wells, road closures due to flooding impacts, bushfire and whether the development can avoid or mitigate risks from those impacts

   - Whether detailed modelling is required to inform the risk / adaptation response (e.g. hydrological modelling)

- Adaptation treatments that will be implemented and indicative timing (what will be undertaken in the short, medium and long term) such as:
    - building to maintain standards and level of service for the climate change scenario expected at end of life
    - plan an upgrade program to progressively adapt infrastructure as climate change occurs
    - redesign and reconstruct as required in response to verified climate change as part of existing maintenance or project upgrades.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 5 Climate Change
- Relevant Regional Plans
- Guide to climate projections for risk assessment and planning in South Australia
- Climate Change Adaptation Guideline (DIT)
- South Australian Government Climate Change Action Plan 2021-2025

CCRE2: Greenhouse gas emissions

Objective

To ensure the development minimises greenhouse gas emissions associated with its construction and operation so as to meet South Australia's goal to reduce greenhouse gas emissions by more than 50% below 2005 levels by 2030 and achieve net zero emissions by 2050.

Context

Under the PDI Act an EIS for a major development must include an analysis of the expected, predicted or potential effects of a development on the climate (i.e. through greenhouse gas emissions) and any proposed measures designed to mitigate or address those effects.

The *Climate Change and Greenhouse Emissions Reduction Act 2007* sets out State's greenhouse gas emission reduction targets the framework for government to work with business and the community to reduce emissions and build resilience to the impacts of climate change. In South Australia the main sectors contributing as emissions sources are energy, agriculture, industrial processes and waste.

In addition, the land use, land use change and forestry sector acts as both a source (deforestation activities) and a carbon sink (e.g. forest growth).

Some developments will be required to track and report greenhouse gas emissions as required under the *National Greenhouse and Energy Reporting Act 2007* (NGER Act), which establishes the national reporting framework for corporations and facilities required to report their energy use and greenhouse gas emissions.

[The Assessment Requirements for Climate Adaptation address climate change adaption and risk assessment; the Assessment Requirements for Sustainable Use of Resources addresses the use of resources to reduce greenhouse gas emissions]

Considerations for greenhouse gas emissions

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts of the development's greenhouse gas emission should consider:

- Description of the activities likely to generate greenhouse gases (GHG) and a description by type.
- An overview of the likely nature of Scope 1, Scope 2 and Scope 3 GHG emissions from the development

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for greenhouse gas emissions should be prepared to assist proponents]

1. Undertake a greenhouse gas assessment that:
    - identifies all sources GHG emissions that would be generated

- provides the estimated annual GHG emissions from each source
- provides an estimate of yearly net GHG emissions and emissions intensity, including an uncertainty assessment
- provide an inventory of projected annual Scope 1 and Scope 2 emissions for each GHG over the life of the development. Provide an estimate of annual Scope 3 GHG emissions for the life of the development.

2. Describe how the project will contribute to South Australia's emissions targets i.e. 100% renewable energy target by 2030, 50% emissions reduction below 2005 level by 2030 and zero net emissions by 2050.
3. Describe measures that have been incorporated in the design to minimise, reduce and ameliorate greenhouse gas emissions, particularly the use of alternative or renewable energy sources and off-sets, energy efficiency and energy conservation measures, and if it incorporates integrated passive design principles and climate-responsive techniques and features and identify barriers to implementation.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to biosecurity may be required]:

- If the preliminary assessment indicates that there is a high to medium probability that the development will generate significant greenhouse gas emissions, the proponent must quantify estimated emissions that can be minimised and reduced from the adoption of specific measures.
- If there is a public perception that the development has the potential to result in significant greenhouse gas emissions and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Explain feasible alternatives that were considered to avoid or reduce the project's emissions as well as the alternative of not proceeding with the proposed project. Address conceptual, technological, locality, configuration, scale and individual elements or components.
2. Undertake a detailed greenhouse gas emissions assessment prepared by a suitably qualified environmental expert for the development which describes:
   - measures (preferred and alternatives) proposed to avoid and/or minimise Scope 1 and Scope 2 GHG emissions of the development
   - options for avoiding and/or mitigating Scope 3 emissions (e.g. working with supply chain and customers).

3. The assessment should include:

    - opportunities and commitments for offsetting GHG emissions (including timeframe for implementation) through accredited and verified offsets that represent genuine emissions reductions within Australia (i.e. will be recognised in the National Greenhouse Accounts)

    - opportunities to reduce greenhouse emissions through renewable energy use and innovation

    - any voluntary initiatives, such as projects undertaken as a component of national programs, or research into reducing the lifecycle and embodied energy carbon intensity of the proposed project's processes or products

    - any additional carbon offsetting options for emissions that cannot be reduced (including, but not limited to, through carbon offsets, vegetation management). Offsetting activities should adhere to best practice standards (i.e. Climate Active standard, which only allows accredited offsets).

4. Quantify the emissions expected to be abated for each avoidance and mitigation measure.

5. Compare preferred measures for emission controls and energy consumption with best practice International environmental management in the relevant industry sector.

6. Describe and commit to:

    - periodic energy audits that measure progress towards improving energy efficiency

    - a process for regularly reviewing new technologies to identify opportunities to further reduce GHG emissions and use energy efficiently, consistent with best practice environmental management

    - monitoring, auditing and transparent public reporting on: GHG emissions from all relevant activities; the success of mitigation measures; and, the project's contribution to achieving South Australia and Australia's greenhouse gas commitments.

    - ongoing training and capacity building around decarbonisation options, technology and reporting.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy 5: Climate Change
- Relevant Regional Plans
- *Climate Change and Greenhouse Gas Emissions Reduction Act 2007*
- *National Greenhouse and Energy Reporting Act 2007*
- South Australian Government Climate Change Action Plan 2021-2025
- Greenhouse gases and energy - scope 1, 2 and 3 emissions
- Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Standard

CCRE3: Sustainable Use of Resources

Objective

To ensure opportunities to procure and use resources efficiently and sustainably are maximised, supporting South Australia's transition to the circular economy.

Context

It is a sustainability principle of the PDI Act that policies and practices should promote sustainable resource use, reuse and renewal and minimise the impact of human activities on natural systems that support life and biodiversity.

Sustainable procurement and use of resources requires consideration of inputs of natural resources, energy and water and the pollution produced from the manufacture, use and disposal of goods (such as the toxicity of the materials used and greenhouse gas emissions), and biodiversity loss resulting from removal or alteration of natural resources.

The concept of the 'circular economy' is set out in the *Green Industries SA Act 2004* and *South Australia's Waste Strategy 2020-2025.* The circular economy is a self-sustaining system which aims to keep materials in use, or 'circulating', for as long as possible. It extracts the maximum value from materials while in use, then recovers and reuses them in other forms.

A sustainable approach to the use of resources will reduce the demand on raw materials with a higher environmental footprint, contributing to lowering greenhouse gas emissions, water and energy use, fewer impacts to biodiversity and a reduction in waste production.

[The Assessment Requirements for Greenhouse Gas Emissions addresses emissions reduction targets, estimates of greenhouse gas emissions and National Greenhouse gas reporting]

Considerations for sustainable use of resources

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the sustainable use of resources should consider:

- An overview of the development activities where sustainable use of resources is being considered including:
    - embodied energy in construction materials and consumables during operation (e.g. quarry products, concrete, asphalt, metals, fuels
    - extraction, production, transportation of fuels
    - transportation of purchased materials and waste
    - disposal of waste
    - electricity use
    - use of renewable or alternative technologies
    - materials and resources minimisation
    - energy and water efficiency

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of sustainable resource use should be prepared to assist proponents]

1. Describe the sustainability objectives of the development and the approach and methodology used to achieve these objectives.
2. Describe design guidelines for aspects of the development (including transport options) that would be adopted to ensure sustainability.
3. Describe how sustainability of the development will be audited.
4. Identify ways in which power use can be minimised or supplemented, especially using alternative energy sources, energy efficient measures and energy conservation.
5. Describe the proposed approach to matters such as design, construction methods, materials and equipment to reduce energy use (including vehicle emissions), disposal of waste, water use efficiency during construction and operation over the life of the project.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of greenhouse gas emissions may be required]:

- The preliminary assessment indicates that there is a high probability that the development will generate significant greenhouse gas emissions
- There is a public perception that the development has the potential to result in significant greenhouse gas emissions and /or these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Undertake a high-level estimate of whole of life greenhouse gas emissions associated with the construction and operation of the development and outline measures to minimise emissions through material selection including recycled products, operating methods and offsets. Estimates should cover Scope 1, 2 and 3 emissions and include:
    - embodied emissions of construction materials used in construction of the facility and consumables during operation (e.g. quarry products, concrete, asphalt, metals, fuels)
    - extraction, production, transportation of fuels
    - transportation of purchased materials and waste
    - disposal of waste;
    - use of natural gas, and
    - electricity use.

2. Prepare a sustainability assessment prepared by a suitably qualified environmental expert. The assessment should measure the ecological footprint of the development and address sources of greenhouse gas emissions, the use of renewable or alternative technologies, materials and resources minimisation, energy and water efficiency measures, greenhouse gas reductions and other sustainability initiatives during construction and operational phases.

3. Where relevant, provide details of Environmentally Sustainable Design (ESD) techniques proposed for the development including holistic solutions to building performance and services. Demonstrate if and how the development achieves the following:

    - incorporates integrated passive design principles and climate-responsive techniques and features such as building and window orientation, use of eaves, verandahs and shading structures, water harvesting, at ground landscaping, green walls, green roofs and photovoltaic cells

    - is sited and designed to maximise passive environmental performance and minimise energy consumption and reliance on mechanical systems, such as heating and cooling

    - is sited, oriented and designed to maximise natural sunlight access and ventilation to main activity areas, habitable rooms, common areas and open space.

Suggested guidance documents – indicative only, others may apply.

- State Planning Policy: SPP3 Adaptive Reuse, SPP2 Design Quality
- Relevant Regional Plans
- *Green Industries SA Act 2001*
- *Climate Change and Greenhouse Gas Emissions Reduction Act 2007*
- Regulator guidelines, policies
- Other standards

CCRE4: Waste Management

Objective

To ensure that waste generated, transported or received as part of the development is managed in accordance with the waste hierarchy and in a manner that protects all environmental values.

Context

Management of waste is regulated by the EPA through implementation of the waste management hierarchy set out in the *Environment Protection Act 1993* (EP Act) and the *Environment Protection (Waste to Resources) Policy 2010*.

The waste management hierarchy prioritises various waste management approaches where avoiding the waste generation is most preferable and disposal of waste is the least preferable and should only occur where other waste management options, such as recycling, are not possible.

An EPA licence is required for most activities involving the transport, storage, recovery, processing, disposal or treatment of solid waste and most hazardous wastes are banned from disposal to landfill under the Waste to Resources EPP. Many activities producing listed waste (which are defined in 'Schedule 1 of the EP Act) are also required to be licensed by the EPA.

[The Assessment Requirements for Sustainable Use of Resources addresses the circular economy and the sustainable procurement and use of resources.]

Radioactive Waste

This waste stream is not dealt with under the *Environment Protection (Waste to Resources) Policy 2010*, instead the Commonwealth's *Radiation Protection and Control Act 1982* or other Commonwealth laws have jurisdiction on these matters.

Considerations for waste management

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Preliminary assessment in the proponent's scoping application of the potential impacts of waste from a development should consider:

- An overview of the activities likely to generate waste during construction and operation
- Overview of types of waste likely to be generated during construction and operation
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993 (*e.g. an activity involving a listed waste*).*

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for waste management should be prepared to assist proponents]

1. Identify, quantify and classify all the expected waste streams to be generated from the proposed project activities during the construction, operation, rehabilitation and decommissioning phases of the development.

2. Assess and describe the proposed management measures against the waste management hierarchy, namely: avoid and reduce waste generation, recycle, reuse, recover, treatment and disposal. This includes the generation, storage and transport of waste.

3. Prepare a waste management and minimisation plan (for demolition, construction and operation where relevant), detailing the sources of waste, the location of waste storage (including separation of waste streams, such as recyclables, hard waste and e-waste) and disposal facilities on the site or development -related sites (e.g. laydowns) and provide details of how these facilities will be serviced.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of waste management may be required]:

- The preliminary assessment indicates that there is a high probability that the development will generate a significant or hazardous waste stream.
- The development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. an activity involving a listed waste)
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe the quantity, and physical and chemical characteristics of each hazardous waste, any attributes that may affect its dispersal in the environment, and its associated risk of causing environmental harm.

2. Describe the location (including temporary and final locations), design, construction and operation of proposed waste management storage, stockpiling, treatment (including the separation of waste streams, such as recyclables, hard waste, hazardous waste) and disposal facilities and areas and provide details of how these facilities will be serviced and managed to avoid causing any unacceptable environmental harm. Include reference to which type of wastes (including hazardous and radioactive wastes) will be located in which facilities. Include details of design and management measures that will be used to minimise the risk of leakages/spills and prevent site contamination.

3. Describe contingency and monitoring measures in the event of incidents or equipment or operational failures (including loss of containment) from proposed waste storage or disposal facilities.

4. If there is no available licenced waste management pathway, identify contingency measures for dealing with or disposing of all types of hazardous or listed wastes generated in the course of operations (including but not limited to wastes containing asbestos, cyanides, hydrocarbons and organic compounds and per- and poly-fluoroalkyl substances).

Radioactive waste

5. Quantify the volume and radiological characteristics (including radionuclide activity concentrations) of the solid and liquid radioactive waste from all relevant components of the proposal.

6. Describe the method of storage of the solid and liquid radioactive waste from all relevant components of the proposal during ongoing operations.

7. Describe the method of disposal of the solid and liquid radioactive waste from all relevant components of the proposal after operations are completed.

Suggested guidance documents – indicative only, others may apply

- State Planning Policy: Adaptive Reuse
- Relevant Regional Plans
- *Environment Protection Act 1993*
- *Green Industries SA Act 2004*
- *Environment Protection (Waste to Resources) Policy 2010*
- *Environment Protection (Movement of Controlled Waste) Policy 2014*
- *South Australia's Waste Strategy 2020-2025.*

Environmental Attribute 4: Local, Regional and State Economies

LRSE1: Economic Impact Assessment

Objective

To ensure adverse economic impacts arising from construction and operation of the development are avoided or mitigated, and net economic benefits to the region and state are created.

Context

Major projects and developments have the potential for significant job creation and an economic stimulus for the local area, the region and the state. Impacts, both positive and negative may be experienced in the local and State economies during construction and operations with the potential for immediate and long terms effects on residents, businesses and surrounding uses.

[The Assessment Requirements for Community Wellbeing / Social Impact Assessment address the social impacts of a development; the Assessment Requirements for Land addresses land use, land tenure and protected areas]

Considerations for economic impact assessment

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The preliminary assessment provided in the scoping application should consider a high-level baseline description of the local and regional economic environment (i.e. without the development), against which further assessment of the positive and negative impacts of the development are to be measured. Information would include a **brief overview** of:

- key economic stakeholders and communities
- key local, regional, state and national industries and businesses
- other resource and infrastructure projects in the area, both planned and currently operating, based on publicly accessible information
- relevant local and state government economic plans and strategies
- potential economic impacts and benefits.

Assessment Requirements

Detailed Assessment Requirements

[The following provides guidance for possible Detailed Assessment Requirements to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

[A general EIS guideline on the requirements of an economic impact assessment should be prepared to assist proponents]

1. Provide a full economic analysis of the development including the long-term economic viability and efficiency of the operational aspects of the development, incorporating a regional impact analysis (RIA) and cost-benefit (risk return) analysis (CBA).

2. The RIA should focus on the direct impact of the project on the local, regional and state economies. The identification of economic impacts should include the prediction of spending on goods, services, taxes etc. during construction and operation of the project and the distribution of income generated by the project.

3. The CBA should assess the impact of the project on the economic welfare of the economies of interest by estimating a dollar value for as many economic, social and environmental benefits and costs as can reasonably be predicted.

4. Consideration of regional economic impacts should include:

    - An outline of the skill level requirements of any new workforce, the component of the workforce that is expected to be hired locally, and the type of employment this would entail (e.g. full time, permanent, sub-contractors, casual, skilled labour, truck drivers etc) and identify if this employment would be continuous/year round.

    - Description of the existing significant economic activities and facilities in the areas (e.g. industrial, commercial, primary production (e.g. mining, agriculture, horticulture, viticulture, aquaculture, fishery), tourism) in the project area.

    - Identification of the impacts of the development will have on existing users of distribution networks for gas, electricity, waste, potable water, sewerage, and communication systems.

5. Describe any potential economic effects locally and regionally and the potential to attract value add development and commercial ventures including:

    - potential employment opportunities and the expected impacts on the local workforce during construction and operational stages and flow-on impacts on local business

    - information on local and indigenous employment and training opportunities associated with the proposal

    - the economic effect of the construction and on-going workforce regionally. Include consideration of impact of development on existing industries and local businesses if workers change employment e.g. mining taking skilled workers from trades and agriculture due to higher wages.

    - effects on accommodation supply and demand

    - an analysis of existing supply chain and prospective suppliers, as well as any gaps in the supply chain

    - secondary economic effects, including property and land values, potential to attract new industries and commercial ventures. Describe the positive and negative effects on existing businesses / industries (e.g. displacement, competition or opportunities)

    - the proposal's anticipated effect on State and local investment, research and development, educational effects, employment generation and flow-on impacts on business.

    - the proposal's anticipated effect on State and local investment and the region as a wholeIdentifying employment and investment opportunities, including the 'multiplier effect' for the local area, the broader regional economy and community and South Australia.

    - any economic implications for the State and the region if the development does not proceed.

6. Describe any blue carbon storage values at the site and or surrounds, and any associated impacts or benefits either direct or indirect as a result of the development. [Coastal ecosystems are important for mitigating the impacts of climate change. The carbon captured and stored in coastal ecosystems such as seagrass meadows, saltmarshes and mangroves is known as ‘Blue Carbon’].

Suggested guidance documents – indicative only, others may apply

- State Planning Policy: SPP1 Integrated Planning; SPP8 Primary Industry; SPP9 Employment Lands; SPP10 Key Resources; SPP11 Strategic Transport Infrastructure; SPP12 Energy
- Relevant Regional Plans
- Relevant Landscape Board Landscape Plans
- 20 Year State Infrastructure Strategy
- Regional Development Strategy

Environmental Attribute 5: Hazards and Risks

HR1: Bushfire

HR2: Flooding

HR3: Site and Groundwater Contamination

HR4: Dangerous Substances

Objective

To ensure the risk of, and adverse impacts from natural and man-made hazards from the development are avoided, minimised or mitigated to protect people, property and the environment.

Context

Developments can present a range of hazards and risks derived from infrastructure or activities associated with the site (e.g. transmission lines, gas pipelines, storage and transport of dangerous substances).

Hazards can also include the development's vulnerability to or enhancement of existing risks such as bushfire or flooding, site and groundwater contamination.

Risk assessments are undertaken to describe the potential risks to people and property associated with all components of the development, and evaluate the safeguards that would reduce the likelihood and severity of hazards, consequences and risks to people and the environment, within and adjacent to the development.

Major bushfire risks are addressed in the *South Australia State Bushfire Management Plan 2020-2025* prepared under the *Fire and Emergency Services Act 2005*, which and sets out the governance arrangements for bushfire management in South Australia including requirements for preparation and implementation of Bushfire Management Area Plans.

Management of the risks of contaminated sites under the *Environment Protection Act 1993* requires known or suspected groundwater contamination to be reported to the EPA for assessment, and if necessary remediation to treat, contain, remove or manage the contamination.

Dangerous goods are substances and articles which, because of their chemical or physical properties, pose hazards requiring special controls and licensing under the *Dangerous Substances Act 1979* for their safe transport and storage.

State requirements in respect to site contamination investigations, existing site conditions and remediation requirements for intended (future) land uses are outlined in *Practice Direction 14 Site Contamination Assessment 2021*, Plan SA

[The Assessment Requirements for Climate Adaptation address climate change adaption and risk assessment]

Considerations for assessment of hazards

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) maps the Code overlays for bushfire and flooding hazards. Other publicly available spatial datasets include bushfire management areas, fire history, flood mapping, groundwater prohibition areas (GPAs) and section 83A notifications for contamination of underground water.

Preliminary assessment in the proponent's scoping application of the potential impacts from hazard(s) on the proposed development should consider the following:

- Identification of relevant bushfire and flooding hazard Code Overlays applicable to the development.
- Identification of the relevant Bushfire Management Area.
- An overview of any previous or existing land uses that might have affected or contaminated the land or groundwater
- Identification of any groundwater prohibition areas or any notifications under section 83A of the EP Act
- Whether the development involves a change in land use to a more sensitive use (in the context of site contamination) for the purposes of the Planning and Design Code.
- Overview of the development activities likely to involve transport and storage of dangerous substances and the likely nature of those substances.
- Identification of any other potential hazards associated with the development which are likely to require further risk assessment (e.g. the development is likely to be classed as a major hazard facility)

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of hazards and risks should be prepared to assist proponents]

Hazard assessment

1. Undertake a risk assessment which describes the potential risks to people and property that may be associated with the proposed project for all components of the development. The assessment must address the following matters (where relevant):

    - Potential hazards (e.g. those associated with transmission lines, petroleum and gas pipelines, storage and use of dangerous substances and explosives), accidents, fire, occurrence of contaminated land and abnormal events that may occur during all stages of the proposed project, including estimated probabilities of occurrence. Describe measures that would be taken to minimise the risks of these events.

    - Assess the vulnerability of the area to natural and induced hazards, including floods, bushfires and storm events. Consider the relative frequency and magnitude of these events together with the risk they pose to the construction, operation and decommissioning of the proposed project, as well as the rehabilitation of the site. Describe measures that would be taken to minimise the risks of these events.

- Evaluate the risk of fire, explosion, containment facility failure or other high consequence events at the site and any potential impacts on human health and to the environment. This should include a description of the critical controls (and how they will be maintained) that will be used to minimise the risks and mitigate the impacts from these catastrophic risks.
- Assess how siting, layout and operation of the development will avoid or mitigate risks, particularly with regard to the release of hazardous materials during natural hazard events (e.g. bushfire or flooding).

2. Hazard analysis and risk assessment in accordance with *AS/NZS ISO 31000:2018 Risk* management *guidelines and with HB203:2006 Environmental risk management principles and processes*
3. The hazard assessment should address the following (where relevant):
    - Bushfire
        - Evaluate and identify any bushfire risks on the site, in particular how risks from bushfire will be minimised with regards to the potential for uncontrolled bushfire events, high levels and exposure to ember attack, impact from burning debris, radiant heat, likelihood and direct exposure to flames from a fire front.
        - Explain how the buildings and structures will be designed, configured, sited and the use of materials in order to reduce the impact of bushfire (i.e. buildings should reduce the potential for trapping burning debris against or underneath the building or structure, or between the ground and building floor level in the case of buildings on stilts and located on flatter sites and away from vegetated areas that pose an unacceptable bushfire risk).
    - Flooding
        - Describe the history of flooding onsite and in proximity to the development site. Describe current flood risk for a range of annual exceedance probabilities up to the probable maximum flood for the proposed project site. Use flood modelling to assess how the proposed project may potentially change flooding and run-off characteristics on-site and both upstream and downstream of the site. The assessment must consider all infrastructure associated with the proposed project including levees, roads, and linear infrastructure, and all proposed measures to avoid or minimise impacts.
        - Identify the potential impacts on people, property, infrastructure and the environment from potential flood risk (where relevant).
        - Evidence must be provided to demonstrate that the securing of storage containers of hazardous contaminants during flood events meets relevant requirements of the *Environment Protection Act 1993*.
    - Site and Groundwater Contamination
        - Describe the historical land use and potential for contamination of soils and sediments and describe any known or suspected soil contamination that could be re-suspended, released or otherwise disturbed as a result of the development
        - Detail any known or potential sources of contaminated of groundwater that could be impacted by the development.

    - Detail procedures to be adopted to confirm whether site contamination exists (such as site history, site audit, and site contamination reporting) and any remedial measures proposed.
    - Detail management measures that will be required during construction and operation to prevent site contamination.
    - Demonstrate compliance with the assessment methodology and site acceptability requirements for the intended use(s) of the development sought by *Practice Direction 14 Site Contamination Assessment 2021*, Plan SA

- Dangerous substances and hazardous materials
    - Identify all dangerous and hazardous substances and any explosives to be used, transported, stored, processed or produced and the rate of usage.
    - Describe the use, handling and disposal of these materials during construction and operation, with reference to storage (including any associated fire protection facilities).
    - Describe how hazardous contaminants and waste substances produced by the development will be treated or contained until their disposal at an approved facility.
    - Evaluate the potential effects of any accidents involving dangerous substances on the environment and public health in the vicinity of the site.
    - Evaluate the risks associated with the secure storage, use and transportation of explosives in accordance with the *Explosives Act 1936* and codes and standards including Australian Standard AS2187.1 Explosives - Storage, transport and use - storage.
- Electromagnetic fields
    - Provide an assessment of potential hazards and risks associated with electric and magnetic fields (EMF) having regard to the latest advice of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA);
- Emergency Management
    - Describe the emergency response plan in the event of an emergency, including evacuation measures and arrangements for coordination with the responsible response organisations, including exercise and training plans for emergency response.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of hazards and risk may be required]:

- The preliminary assessment indicates a high to medium probability that there are significant hazards or risks associated with the development.
- There is a high / medium probability of impacts on the development from external environmental factors such as those associated with climate change (sea-level rise, increased frequency of bushfire, floods etc).
- There is a public perception that the development has the potential to present a significant hazard or risk to the surrounding environment / community and / or potential for significant hazard or risk has been the subject of extensive media coverage.

- The issue is considered by the Commission to warrant detailed assessment
- The proposed development includes an activity that would require a major hazard facility licence.
- The change of land use is to a more sensitive use and the preliminary assessment indicates high or medium probability of site contamination being present on the site as a result of a class 1 potential contamination activity having occurred on the site (refer Practice Direction14)
- The preliminary assessment indicates that the development is located within a High or Medium bushfire or flooding Overlay.
- The preliminary assessment indicates that the development is located within a groundwater prohibition area or area subject to section 83A notification.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

Risk Assessment and Hazard Management

1. Undertake an assessment of the risks to public safety, paying particular attention to bushfire and flooding risks, emergency egress and evacuation, the handling and use of any dangerous substances and potential impacts to high pressure gas pipelines.
2. Prepare a Hazard Management Plan that considers the risks and hazards associated with all components of, and activities associated with, the proposed development. The plan should address public and workplace safety, emergency response strategies and identify third party restricted and exclusion zones.
3. Prepare a Fire Hazard Management Plan that considers requirements both during the construction and operations phases, including measures to minimise fire risk at and to/from the site, resources and training required, sources of water to fight fires (and how this water will be accessed), options to utilise and coordinate with other operations in the region/area, and cost recovery.
4. Describe the application of the major hazard facility provisions of the *Work Health and Safety Regulations 2012* to the development.
5. Undertake a Quantitative Risk Assessment of the major hazard facility to identify the hazards associated with the facility, determine the potential frequencies and consequences of the identified hazards, determine the systems availability of the protection systems and quantify the risks associated with a facility

Site / groundwater contamination (where relevant)

6. Describe the approach for obtaining a statement of site suitability statement as it applies to the development (if required). Identify additional investigations proposed or likely to be required.

Radiation (where relevant)

7. Describe the measures to control and minimise releases and subsequent exposure of radionuclides to the environment, members of the public and non-human biota from relevant components of the development during ongoing operations and after rehabilitation of the site.

8. Describe the measures to control and minimise radiation exposures to workers from relevant components of the development during ongoing operations.

9. Describe and assess the radiation exposure pathways to workers, the public and non-human biota from relevant components of the development during ongoing operations and after rehabilitation of the site.

10. Outline how the radiation exposure pathways to workers, the public and the environment from relevant components of the development would be monitored during construction, operation and closure/rehabilitation of the site.

Suggested guidance documents – indicative only, others may apply

- State Planning Policy: SPP15 Natural Hazards; SPP5 Climate Change; SPP16 Emissions and Hazardous Activities; SPP14 Water Security and Quality
- Relevant Regional Plans
- *Fire and Emergency Services Act 2005*
- *Emergency Management act 2004*
- *Environment Protection Act 1993*
- *Dangerous Substances Act 1979*
- Practice Direction 14 – Site Contamination Assessment 2021
- South Australia State Bushfire Management Plan 2020-2025
- Guidelines for the assessment and remediation of site contamination
- Australian Code for the Transport of Dangerous Goods by Road and Rail

Environmental Attribute 6: Land Use and Site Conditions

LUSC1: Land Use, Land Tenure, and Protected Areas

Objective

To ensure that the impacts of development on environmental, social and economic values of adjoining land uses, land tenures and protected areas are avoided or minimised.

Context

The potential impact of development is considered in the context of the existing land uses, land tenure and protected areas which surround them. Once the general land use context is defined, the broader social and economic impacts of development on adjoining land uses, and the local impacts such as traffic access, noise and visual impacts can be assessed.

Consideration should also be given to protection of state significant, viable and established developments (such as large-scale mining, manufacturing, chemical handling, waste management and energy generation) from encroachment by incompatible adjoining development.

Land tenure is the legal relationship which identifies rights to use and occupy an area of land. Land tenures can be overlapping and developments may require consideration of impacts on a range of different tenures. Land tenures relevant to a development in South Australia include freehold title, Crown land, pastoral leases, mining and petroleum tenements, Native Title and agreements with traditional owners, native vegetation heritage agreements, and a range of other leases or licences. A fundamental consideration when assessing activities on Crown land is whether native title has been extinguished.

Protected areas to be considered include nationally protected areas such as Ramsar wetlands, wilderness protection areas, national parks, conservation parks, regional reserves, game reserves and recreation parks established under the *National Parks and Wildlife Act 1972* and *Wilderness Protection Act 1992* to protect environmentally and culturally significant areas. Similarly, ocean-based parks established under the *Marine Parks Act 2007* protect a variety of marine habitats and species, and conserve places with strong cultural heritage associations. The *Forestry Act 1950* provides for management of areas reserved for native and plantation forestry.

Special Legislative Schemes are set out under the State Planning Policies for areas protected under legislation as being of significant environmental importance to the state. These include the *River Murray Act 2003,* the *Adelaide Dolphin Sanctuary Act 2005, the Marine Parks Act 2007, Arkaroola Protection Act 2012, Character Preservation (Barossa Valley) Act 2012, Character Preservation (McLaren Vale) Act 2012.*

[The Assessment Requirements for Economic Impacts address economic impacts on land use e.g. property and land values; the Assessment Requirements for Community Wellbeing / Social Impact Assessment address the social impacts of development on adjoining land uses; the Assessment Requirements for Air Quality address air quality impacts to adjoining land uses (e.g. dust and fuel emissions); the Assessment Requirements for Noise and Vibration address noise and vibration impacts to adjoining land uses; the Assessment Requirements for Visual Impact address impacts to visual amenity, landscape and open space; the Assessment Requirements for Transport and Traffic address impacts to safety and efficiency of transport and traffic systems and infrastructure; the Assessment Requirements for Terrestrial and Aquatic Flora and Fauna address impacts to the ecosystems, habitats, and species in protected areas].

Considerations for land tenure, land use and Protected Areas

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) and other government databases provide publicly available spatial data relevant to land use, land tenure and protected areas. Preliminary assessment in the proponent's scoping application of the potential impacts of the development should consider identification of key land uses and land tenures in the region surrounding and at the interface with the development including but not limited to:

- location / footprint of the proposed development
- location of population centres
- significant existing industrial or other facilities
- existing major infrastructure and utilities (e.g. roads, rail, transmission lines, electricity transmission lines, power stations, oil, gas and water transmission pipelines, storage reservoirs, desalination plants, airstrips)
- generalised land uses in the region
- land uses adjoining the development
- land tenure (e.g. freehold title, Crown land, pastoral leases, mining and petroleum tenements, native title and agreements with traditional owners, native vegetation heritage agreements)
- relevant Planning and Design Code Overlays and Zones
- areas subject to Special Legislative Schemes under the State Planning Policies
- areas reserved for conservation purposes and other protected areas (State and Commonwealth) including marine parks, state forests and Indigenous Protected Areas

The preliminary assessment should also identify key potential impacts to existing / adjoining land use and activities including property access, privacy and enjoyment and conduct of regular or seasonal activities.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for impact assessment for land use, land tenure and protected areas should be prepared to assist proponents]

1. Provide details of the existing land uses (including relevant Planning Code Overlays and Zones), land tenures and protected areas at, overlapping or adjoining the development site. *[Note this information will form the basis of the 'existing environment' description for other environmental attributes addressed in the EIS].*

2. Provide details of site services and infrastructure including utility services (water, gas, electricity, sewerage disposal, wastewater, drainage, trenches or conduits); location of ground and roof plant and equipment (electricity transformers; air conditioning; solar panels etc). *[Note this information will form the basis of the 'existing environment' description for other environmental attributes addressed in the EIS].*

3. Provide details of the development (activities or structures) with the potential to impact on existing land uses, land tenures and protected areas that overlap, adjoin or are in the region of the development. *[Note this information will form the basis of the existing environment description for other environmental attributes addressed in the EIS].*

4. Describe existing or potential native title rights, claims and interests which may be impacted by the development (including with the use of maps) the following native title considerations:

    - land or waters where native title has been determined to exist by the Federal Court
    - land or waters that are covered by a native title determination application
    - land or waters that are covered by a registered Indigenous Land Use Agreement.

5. Describe in general terms the potential impacts of the development on existing or adjoining land use. *[Note that many impacts and mitigation measures will be addressed under Assessment Requirements for other environmental attributes and should be cross-referenced accordingly in the EIS].*

6. Describe (where relevant) potential impacts of the development for Crown land, pastoral leases, petroleum and mining tenements and Native Vegetation Heritage Agreements or any other relevant land tenures (including leases and licences). *[Note that many impacts and mitigation measures will be addressed under Assessment Requirements for other environmental attributes and should be cross-referenced accordingly in the EIS].*

7. Describe (where relevant) potential impacts of the development or areas protected under legislation or Special Legislative Schemes. *[Note that many impacts and mitigation measures will be addressed under Assessment Requirements for other environmental attributes and should be cross-referenced accordingly in the EIS].*

8. Provide an assessment of local impacts to adjoining land uses identified in the scoping application (e.g. property access (fencing, gates), privacy and enjoyment, conduct of regular or seasonal activities (e.g. grape vintage, sowing, harvesting, mustering, spraying, lambing) and describe any measures to mitigate these impacts.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to land tenure, land use and protected areas may be required]:

- The preliminary assessment indicates that a high probability of significant impacts to an area protected under the *National Parks and Wildlife Act 1972*, the *Wilderness Protection Act 1992* or by a Special Legislative Scheme.
- Native Title has not been extinguished at the site of the development.
- There is a public perception that the development has the potential to cause significant impacts to a protected area and / or potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

2. Describe the potential impact on the relevant Native Title Claimants and ongoing enjoyment of native title rights (if any) by native titleholders, and the proposed management of potential impacts through an Indigenous Land Use Agreement, or other measure in accordance with the *Native Title Act 1994*

3. Provide a summary assessment of the potential impacts to the protected area or land tenure and how these would be addressed, with cross reference to the outcomes of the detailed assessment undertaken for the relevant key environmental attributes under other Assessment Requirements.

Suggested guidance documents – indicative only, others may apply

- State Planning Policies for South Australia Special Legislative Schemes
- State Planning Policy: SPP9 Employment Lands, SPP10 Mineral and Energy Resources; SPP1 Integrated Planning
- Relevant Regional Plans
- *Adelaide Dolphin Sanctuary Act 2005*
- *Arkaroola Protection Act 2012*
- *Character Preservation (Barossa Valley) Act 2012*
- *Character Preservation (McLaren Vale) Act 2012*
- *Coast Protection Act 1972*
- *Crown Land Management Act 2009*
- *Forestry Act 1950*
- *Landscape South Australia Act 2019*
- *Marine Parks Act 2007*
- *Mining Act 1971*
- *National Parks and Wildlife Act 1972*
- *Native Title Act 1993 (Cth)*
- *Native Title Act 1994 (SA)*
- *Pastoral Land Management and Conservation Act 1989*
- *Petroleum and Geothermal Energy Act 2000*
- *River Murray Act 2003*
- *Wilderness Protection Act 1992.*

Environmental Attribute 7: Physical Environment

PE1: Coastal and Marine

Objective

To ensure the natural features and processes of coastal systems are protected so that the environmental values of the coast are maintained.

To ensure the quality and productivity of marine waters, sediment and biota are protected so that environmental values are maintained.

Context

The South Australian coastal and marine environment has high intrinsic, aesthetic, social, environmental and economic values. It includes beaches, islands, oceans, dune systems, tidal waters, wetlands and cliffs. The natural features of the coastal environment provide vital habitat, contribute to biodiversity and play an important role in protecting development and human occupation from flooding and erosion. Substantial economic benefits are also derived from sustainable coast-dependent development such as aquaculture and ports.

The interface between sea and land is dynamic and subject to coastal hazards such as flooding, erosion, sand dune drift and acid sulfate soils. Climate change and ongoing sea level rise has increased risks for coastal developments and the viability of tide dependent ecosystems and aquaculture and fisheries industries. Onshore development can have significant land-based impacts to marine habitats (e.g. reefs and seagrasses) from nutrients and sediments, stormwater, wastewater and industrial discharges.

The Coast Protection Board is responsible for protecting and restoring the coast and development for aesthetic and other purposes under the *Coast Protection Act 1972*.

[The Assessment Requirements for Native Flora and Native Fauna address the provision of information about coastal and marine flora, fauna and ecosystems; the Assessment Requirements for Biosecurity address marine pests and biofouling; the Assessment Requirements for Historic Heritage address historic shipwrecks; the Assessment Requirements for Soil, Landform and Geology address acid sulfate soils]

Considerations for coastal and marine

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) provides spatial data for coastal and marine waters related matters including Code overlays for Coastal Areas, Coastal Flooding, Marine Parks and the Coastal Waters and Offshore Islands Zone.

Other publicly available coastal and marine related spatial datasets include mapping of aquatic reserves, the Adelaide Dolphin Sanctuary, rock lobster sanctuaries, the State marine park network and zones and associated data (e.g. special purpose areas).

Preliminary assessment in the proponent's scoping application of the potential impacts to the coastal and marine environment should consider:

- Description of known uses of the coastal area and marine waters in the development environs
- Description of the coastal and marine water features and environmental values and any nearby sensitive places and receivers (including MNES).

- Identification of relevant coastal and marine Code Overlays applicable to the development.
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993* (e.g. dredging)
- Description of the development activities with potential to impact on coastal systems and marine water quality
- Overview of potential impacts to the coastal and marine water environment during construction and operation.
- Preliminary assessment of the potential for significant impacts to Matters of National Environmental Significance (MNES) protected under the EPBC Act.
- Where relevant, outline the potential effects of, and identify strategies to protect against, extreme weather events, including a 1% AEP event and sea level rise as per Coast Protection Board policy and allowances from a risk management perspective, including adaptive management strategies. Include mitigation strategies should the structure not withstand such an event.
- Investigate coastal erosion hazard risks and identify a suitable erosion buffer distance (in addition to a public reserve) that allows for at least 100 years of coastal retreat for single buildings or small-scale developments, or 200 years of coastal retreat for large scale developments (unless for operational reasons the development requires a coastal location, e.g. a port facility).
- If there is not a suitable coastal erosion hazard buffer, describe what coastal protection measures will implemented to protect the development or identify what formal commitments exist to protect the public reserve and the development from erosion.
- Describe measures to be adopted for the prevention or remediation of sand drift.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

Coastal systems

1. Describe existing coastal environmental values including estuarine, littoral and marine environmental values (e.g. water quality, benthos, aquatic flora and fauna, mangrove areas, salt marsh, and amenity) that could be impacted by construction or operation of the development.
2. Describe current processes and recently historical estuarine, littoral and marine morphology with a description of the processes shaping the coastal system (e.g. tides, rivers, floods, coastal currents, sediment transport, major storms, rocky headlands, or islands)
3. If MNES have been identified, undertake an assessment of potential impacts relevant to the MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

4. Describe the legislative, regulatory and planning contexts for coastal systems that apply to the development including marine parks.

5. Describe existing residential, commercial or recreational uses of the coastal system that could be impacted by construction or operation of the development.

6. Provide details of proposed works with potential to affect coastal processes including buildings and infrastructure to be built on the shore or on land close to the shore and excavations on or near the shore.

7. Identify the flooding and erosion risks to the site (including flooding and erosion exacerbated by sea level rise and extreme weather events) and measures to reduce the risks.

8. Provide details of how natural processes and the protective function of landforms and vegetation will be maintained in sea erosion and storm tide inundation areas.

9. Identify any potential for Coastal Acid Sulfate Soils (CASS) to be encountered on the site and how this might be mitigated (refer to the Coast Protection Board policy on CASS).

10. Assess the potential impacts to the coastal system and existing uses from the development and propose mitigation measures to avoid or minimise those impacts during construction and operation.

Coastal Environment

11. Describe the effect of the proposed development on coastal features and associated vegetation communities and outline management and rehabilitation measures for these areas, including reference to long-term strategies to protect vegetation on coastal dunes.

12. Describe measures to be adopted for the remediation of sand drift, should it occur within the dune system as a direct result of the development.

13. Identify the impact of coastal erosion due to expected sea level rise of 0.3 metre to 2050 and 1.0 metre to 2100.

14. Detail the impacts of the construction and operation of the supply and discharge pipes for the abalone farm, especially any effect on coastal processes.

15. Describe the effect on the coastal wetlands on the site, including from the introduction of primary production or similar activities (where relevant).

16. Describe the effect on the conservation values of the nearby conservation areas (including conservation parks, national parks, land with heritage agreements etc)

17. Describe the effect on the habitat value of on-site native vegetation that provides a wildlife corridor along the coast (including coastal Crown land).

Marine waters

18. Provide a description of the physical oceanography within the study area including surface and subsurface current patterns, current velocities, waves, storm surges, longshore drift processes, tidal patterns, and tide levels for the site, in proximity to the site, and along marine shipping routes.

19. Provide bathymetric information for the study area and along marine shipping routes.

20. Describe seasonal marine water quality including water temperature, turbidity, total suspended solids, salinity and pH.

21. Describe historical marine uses and the potential for contamination of sediments and describe any known or suspected sediment contamination within the study area that could be re-suspended released or otherwise disturbed as a result of the project.

22. Provide details of proposed works with potential to affect marine waters and current uses. The description should include the following matters (where relevant):

    - potential impacts of shipping and offshore transhipping operations on the marine environment
    - any jetties, bunds, harbour walls, groynes, channel markers, or other infrastructure, to be built in waters
    - any proposals to undertake transhipping of material in state waters or the Commonwealth marine area

23. If the development requires the construction of structures on or adjacent to coastal geological formations:

    - describe the underlying geology and the nature of the soils with special reference to coastal landforms
    - identify geological, seabed and substrate impacts that may occur as a result of any dredging activity that will be undertaken during the construction phase. Detail measures for managing these impacts.
    - identify the total 'in water' footprint of the proposed development (including all areas to be dredged and/or altered)
    - Describe the potential for pollution (e.g. sediment plumes, spills to land and water, discharge of stormwater and wastewater) of marine waters during construction and operation. Identify locations where discharge to marine waters or land may occur during construction, operation or decommissioning of the development.

24. Assess the potential impacts of the proposed project's activities in marine waters including any potential impacts on marine parks, commercial or recreational fisheries effects of the development on nursery habitat (e.g. seagrass beds, reefs, or, mangroves) of target species (such as prawns and fish). Include spills of fuels and chemicals from water and land-based activities, run-off / discharge from land-based activities and propose mitigation measures to avoid or minimise those impacts during construction and operation.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to coastal and marine may be required]:

- The preliminary assessment indicates that a high or medium probability of significant impacts to the coastal and/or marine environment from the development.
- There is a high or medium probability of impacts on the development from external environmental factors such as those associated with climate change (.e.g. sea-level rise,)
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act.

- There is a public perception that the development has the potential to cause significant impacts to coastal systems and / or marine waters (including marine parks) and those impacts have or are likely to be the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment
- Potential impacts to a MNES (e.g. Ramsar Wetland, Commonwealth marine area) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Describe coastal engineering requirements for the location, orientation and type of infrastructure (e.g. causeway and/or jetty and wharf structures).
3. Describe materials that will be used to construct the infrastructure (e.g. causeway, jetty), including any treatment that the materials may have been subject to, prior to immersion in water.
4. Describe the impacts of infrastructure construction (port, wharf, jetty, berthing pocket, rock wall, retaining structures and mooring dolphins) on foreshore, intertidal, seabed and benthic communities (especially any nursery/spawning areas). Describe measures that will be undertaken to mitigate these impacts.
5. Describe, and provide baseline information on, the existing seabed profile, bathymetry, sedimentary profiles (including particle sizes), sand movement, water flow and tidal movement patterns through and around the proposed infrastructure.
6. Identify any possible changes to the seabed, bathymetry, sedimentary profiles (including particle sizes), and sand movement water flow and tidal movement patterns as a result of the development during both the construction and operational phases. Identify the impacts this may have on sensitive marine flora and fauna and commercial aquaculture activities in the region, and outline mitigation strategies.
7. Describe the contaminants and toxicants that may accumulate on the site and the risks during stormwater events (where not managed) to the adjacent aquatic environments and commercial industries (e.g. fisheries and aquaculture) that rely on those environments.
8. Identify the risks from the exposure of fine sediments or clays that would impact adversely on water quality (turbidity and light penetration) and contribute to the production of sediment plumes in the region during both construction and operation phases. Outline the impacts this may have on commercial aquaculture activities in the region.
9. Detail measures to protect foreshore areas during and after construction, including potential marine and terrestrial protection areas and associated buffers.

Dredging

10. Describe any capital dredging for navigation channels, berths, swing basins or harbours, maintenance dredging for navigation channels, berths, swing basins or harbours.

11. Describe the volume, chemical and physical characteristics of the dredged or excavated material, with particular regard to acid sulfate soils

12. Describe the proposed disposal or placement options for dredged or excavated material, including an assessment of whether disposal in waters or for land reclamation would be likely to receive approval.

13. Consider how spoil disposal may impact on recreation, flora and fauna, public access and amenity. For example, dredging spoil on coastal land can lead to significant sand drift nuisance, or interrupt nesting shorebirds.

14. Describe any dredging activity that will be undertaken during the construction phase. Outline impacts that dredging may have on sediment loads and the neighbouring commercial aquaculture operation. Detail measures for managing these impacts, including management of dredge spoil in accordance with EPA guidelines.

15. Identify potential impacts of dredging, bed levelling, and/or the potential impacts of shipping and offshore transhipping operations on the marine environment. The impact assessment must also address changes in water quality, including increased water turbidity or other contaminants, due to the disturbance of benthic sediments or the disposal and/or relocation of material. Consider potential ecological impacts due to changes in water quality or the disturbance of the benthos. Provide strategies to avoid, mitigate and manage potential impacts.

16. Identify geological, seabed and substrate impacts that may occur as a result of any dredging activity that will be undertaken during the construction phase. Detail measures for managing these impacts.

17. Detail a monitoring program that would audit the success of mitigation measures, measure whether objectives have been met, and describe corrective actions to be used if monitoring shows that objectives are not being met.

    Note – the SA EPA has produced a *Dredge Guideline 2020* that outlines information requirements for the assessment of proposed dredging at the development application stage (as well as guidance regarding the licensing process).

Shipping

18. Describe the potential impacts on marine parks (State) from the construction and operation of the development, including the passageway of ships to and from any port / wharf development and determine appropriate measures to manage, offset or mitigate these impacts.

19. Outline measures to protect water quality and the marine environment from shipping activities, especially turbulence during docking and manoeuvring.

20. Detail measures for managing solid waste, black water and grey water from ships.

MNES

21. If potential impacts of noise and vibration on MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by a suitably experienced, specialist consultant. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

Suggested guidance documents – indicative only, others may apply

- State Planning Policy: SPP13 Coastal Environment, SPP4 Biodiversity
- Relevant Regional Plans
- *Coast Protection Act 1972*
- *Environment Protection Biodiversity and Conservation Act 1999*
- *Aquaculture Act 2001*
- *Adelaide Dolphin Sanctuary Act 2005*
- *Fisheries Management Act 2007*
- *Marine Parks Act 2007*
- A Strategy for Implementing CPB Policies on Coastal Acid Sulfate Soils in South Australia
- *Dredge Guideline 2020* SA EPA
- www.epa.sa.gov.au/environmental_info/water_quality/programs/dredge-guideline

PE2: Soil, Landform and Geology

Objective

To ensure development is undertaken in a manner that protects the productivity and quality land including, soil, subsoil and landform and avoids impact to other environmental values.

Context

Challenges to the sustainable use and management of soil and land resources include wind and water erosion, soil acidification, soil salinisation and soil structure decline.

The topographical position of a soil in the landscape influences different rates of erosion and deposition, drainage, and leaching. Removal of vegetation, disturbance of soil and changes to landform from development can result in soil erosion, exposure of subsoil and loss of the ability to of soil to store water and nutrients.

Downstream effects of soil erosion include siltation of watercourses and water storages and reduction on water quality in creeks, rivers and coastal areas.

Acid sulfate soils have elevated concentrations of metal sulfides and generate acidic conditions when exposed to oxygen. If incorrectly handled, these soils may potentially impact on human health and the environment, and may also result in damage to infrastructure constructed on acid sulfate soil material.

The *Landscape South Australia Act 2019* provides for the protection and management of the State's natural resources, including provisions relating to land and water resource management. Regional landscape plans and control policies are in force under the Act to guide management of water and soil by Landscape Boards. Soils are one of the seven priorities in the State Landscape Strategy.

[The Assessment Requirements for Surface water and Groundwater address surface and groundwater quality; the Assessment Requirements for Coastal and Marine address marine water quality.]

Considerations for soil, landform and geology

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Publicly available soil and landform spatial datasets include landscape mapping of bioregions, land systems, soils classes, soil attributes (e.g. erosion, potential salinity, acid sulfate soils), geology and earthquake data. Preliminary assessment in the proponent's scoping application of the potential impacts soil, landform and geology from a development should consider:

- Description of the development activities with potential to impact on soils, landform or geology
- Description of the nature and condition of the existing physical environment in the proposal's study area, including reference to soil characteristics, landform, land systems and geology.
- Identification of the application of the acid sulfate soil Code Overlay to the development.
- Identification of potential acid sulfate soils applicable to the development
- Identification of relevant Landscape Board plans and strategies for soil and landform applicable to the development

- Overview of potential impacts to soil and landform from the development during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

1. Provide a detailed description of the soils, landform and geology in the area of the development including the potential for water and wind erosion, soil salinity, acid sulfate soils and soil contamination. The description should:
    - Characterise soil types and structures in the development area and identify the potential location and disturbance of dispersive, acid sulfate, saline or potentially contaminated soils, or soils of other special characteristics that could affect or be affected by the development.
    - Identify hydrological, geomorphic or meteorological conditions that may contribute to susceptibility to erosion (e.g., channels, steep slopes, wind).
    - Identify any areas of ground instability and any ground conditions that may be susceptible to subsidence from development activities (e.g. tunnelling, deep excavation, dewatering) and direct and indirect changes to vegetative cover. Identify properties, structures and infrastructure that may be susceptible to subsidence.
2. Describe the development activities with potential to impact on soils and ground stability.
3. Address the implications of seismicity in the area in relation to both the construction and operation of the development.
4. Identify the risks of contamination of land from spills of fuel (or other toxic substances). Describe measures for the prevention and containment of spills, describe the contingency plans to be implemented in the event of spills, and comment on their expected effectiveness.
5. If acid sulfate soils would be disturbed or unexpectedly encountered during construction, describe measures to avoid oxidation of the sulfides, treat and neutralise the acid if it forms and manage any excavated material.
6. Ensure that appropriate soil contamination investigations have been undertaken and that soil generated from earthworks is managed in accordance with EPA guidelines, including for re-use on site or removal of material off-site for re-use, treatment or disposal.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to soils, landform and geology may be required]:

- The preliminary assessment indicates that a high or medium probability of significant erosion and / or land subsidence may occur as a result of the development including during construction.
- There is a public perception that the development has the potential to cause significant impacts to soils or landform and / or potential impacts have been the subject of extensive media coverage.

- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

2. Describe how all potential high-impact elements of the development (e.g. spoil dumps, water management dams, creek and watercourse diversions and crossings, right of ways and easements, subsidence areas and borrow pits) are capable of being managed and rehabilitated to achieve the agreed final land use and topography. The proposed final landform should be

   - safe and structurally stable, with no environmental harm being caused by anything on or in the land and able to sustain a post development land use.

   - a functional hydrologic system that prevents erosion, maximises connectivity and prevents upstream and downstream surface and groundwater contamination in the long term should be re-established

   - be consistent with the surrounding natural topography and landscape.

3. For developments likely to cause land subsidence, assess and provide comprehensive surface subsidence predictions using tools or techniques that enable the location, extent and scale of subsidence, and its effect over time on surface landforms and hydrology to be understood. Propose detailed mitigation measures for any significant impacts that would result from subsidence including impacts on infrastructure, land, hydrology, flora and fauna.

Suggested guidance documents – indicative only, others may apply

- State Planning Policy: SPP10 Mineral and Energy Resources, SPP4 Biodiversity
- Relevant Regional Plans
- *Landscape South Australia Act 2019*
- *Environment Protection Act 1993*
- Site Contamination - acid sulfate soil materials
- State Landscape Strategy
- Stormwater pollution prevention - Code of Practice for the building and construction industry (EPA)
- Environmental management of dewatering during construction activities (EPA)
- Construction environmental management plan (EPA)

PE3: Surface Water and Groundwater

Objective

To ensure the quality of groundwater and surface water is protected so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.

Context

South Australia's low rainfall limits the state's ability to capture water meaning the state is heavily reliant on the River Murray system for much of our water supply. Reservoirs in the Mount Lofty Ranges catchment area are also an important source of water for metropolitan Adelaide, while regional areas rely on water supplied via one of the large pipelines from the River Murray, small rural reservoirs or from local dams and groundwater bores.

Groundwater is critical to the health of ecological communities and the viability of many agricultural, pastoral, mining and tourism industries. Groundwater is also used for domestic water supply, irrigated horticulture, industrial applications and irrigation of recreational and sports fields throughout the metropolitan area.

Some surface and groundwater resources across South Australia are prescribed and managed through the water licensing system under the *Landscape South Australia Act 2019* to ensure water use remains sustainable. Protection of natural waters and the stormwater system from pollution is managed through the *Environment Protection Act 1993* and the *Environment Protection (Water Quality) Policy 2015* (Water Quality EPP).

The quality and volume of surface and ground water resources (affected by a development) has the potential to impact matters of national environmental significance (MNES) such as Ramsar Wetlands may have implications under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

[The Assessment Requirements for Coastal and Marine address marine water quality; the Assessment Requirements for Soil, Landform and Geology address soil erosion and acid sulfate soils; the Assessment Requirements for Hazards and Risks address flooding hazard; the Assessment Requirements for Native Flora and Native Fauna address groundwater dependent flora, fauna and ecosystems].

Considerations for surface water and groundwater

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) provides spatial data for water resource related matters including Code overlays for the Mount Lofty Ranges water supply catchments, the Murray Darling Basin, prescribed surface water areas, prescribed water resources areas, prescribed watercourses and prescribed wells areas.

Other publicly available water related spatial datasets include mapping of surface water catchment, watercourse and water bodies, groundwater basins and aquifers, shallow standing water levels and groundwater prohibition areas. Preliminary assessment of surface and groundwater in the proponent's scoping application should consider where relevant:

- Description of the development activities with potential to impact on the quality of surface and groundwater (including disposal of wastewater).
- Whether the development involves a prescribed activity of environmental significance under the *Environment Protection Act 1993*

- Description of known users of surface water and groundwater resources.
- Overview of the existing surface water and groundwater features and environmental values of the receiving environment and any nearby sensitive places and receivers (including MNES).
- Identification of relevant water-related Code Overlays applicable to the development.
- Identification of relevant Landscape Board Water Allocation Plans and Water Affecting Activity Policies applicable to the development.
- Overview of potential impacts to surface and groundwater from the development during construction and operation.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

Surface water

1. Describe existing surface water environmental conditions upstream and downstream of the site (including seasonal variations and variations with flow) of waterbodies, watercourses, drainage channels, wetlands and floodplains. Water quality, any existing site contamination and potential sources of surface water pollution should be addressed.
2. Describe present and potential users and uses of water in areas which may be affected by the development, including residential, municipal, agricultural, industrial, recreational and environmental uses of water.
3. If MNES have been identified, undertake an assessment of potential impacts to surface and groundwater relevant to the MNES. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*
4. Describe the legislative, regulatory and planning contexts for surface water that apply to the development.
5. Describe the potential for pollution (e.g. sediment plumes, spills to land and water, discharge of stormwater and wastewater, dewatering) of water bodies, watercourses, drainage channels, wetlands and floodplains during construction and operation. Identify locations where discharge to surface waters or land may occur during construction, operation or decommissioning of the development.
6. Describe potential alteration to surface water flows as a result of the development (including to waterbodies, watercourses, wetlands, floodplains, beds and banks) and include details of the nature of the works. Discuss the implications of these changes for downstream water uses and describe how these impacts will be minimised.
7. Describe the options for supplying water to the development including potable water (if relevant) and temporary demands during the construction period. Describe on-site storage and treatment requirements for wastewater from accommodation and/or offices and workshops.

8. Identify the risks of contamination of land from spills of fuel (or other toxic substances). Describe measures for the prevention and containment of spills, describe the contingency plans to be implemented in the event of spills, and comment on their expected effectiveness.

9. Describe the proposed mitigation measures to protect the environmental values for surface water quality, how the relevant standards and indicators may be achieved, to protect surface water during construction and operation. Provide details of proposed wastewater and stormwater management, as well as any water sensitive design features as part of the development. If required, revisit project design and construction methodologies to reduce impacts surface water quality to demonstrate that the Water Quality EPP will be met.

10. Prepare a Soil Erosion and Drainage Management Plan which describes the site characteristics, including the existing topography and runoff characteristics. The plan should describe the measures proposed to prevent soil erosion and contaminated runoff from leaving the site during construction, operations and closure / decommissioning (including any opportunities for water sensitive design). Include inspection, maintenance and monitoring of effectiveness of soil erosion measures.

11. Describe measures for storage and management of stockpiled topsoil and subsoils to minimise potential adverse effects on local hydrology and water quality, restoring soil profiles, drainage and productivity, as well as landscape rehabilitation in the context of decommissioning of earth structures. Include sediment and erosion controls where required (e.g. temporary berms, controlling water movement into and around the site, stockpile management and stabilisation of non-paved operational areas).

<u>Groundwater</u>

12. Describe the known groundwater related environmental conditions including quality and significance of groundwater in the area of the development and any surrounding area potentially affected by the proposed development's activities. Include the following (where relevant):

    - describe the nature, type, geology / stratigraphy and depth to and thickness of the aquifers, hydraulic properties and value as water supply sources

    - any existing site contamination, and any identified potential sources of groundwater pollution

    - characterise the quality and volume of the groundwater including seasonal variations of groundwater levels

    - describe existing groundwater supply infrastructure (e.g. bores, wells, or excavations).

13. Describe the legislative, regulatory and planning contexts for groundwater that apply to the development.

14. Describe present and potential users and uses of groundwater water in areas potentially affected by the development, including residential, municipal, agricultural, industrial, recreational and environmental uses of water including groundwater dependent ecosystems (GDE).

15. Describe the potential changes to hydrology (including water quality), as a result of the proposal, and the implications of these changes. Water quality impacts should consider any parameters (e.g. metals, non-metal inorganics) considered important for existing groundwater users / uses in the vicinity of the projected area of impact.

16. Where groundwater would be taken by the development, quantify the volume of water that would be taken, the timeframe over which the take would occur and the potential impact on groundwater users.

17. Describe stormwater and wastewater management and the potential impact on groundwater resources in particular with regard to fuel and chemicals used in construction and / or operation of the development. Describe measures proposed for management of stormwater and wastewater during construction and operation to avoid impacts to groundwater.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to surface and groundwater may be required]:

- The preliminary assessment indicates that there is high or medium probability that water quality impacts from the proposed development will result in a breach of the Water Quality EPP mandatory provisions or related Code of Practice.
- The preliminary assessment indicates that there is high or medium probability the development has the potential to cause significant impacts to current or future water uses.
- There is a public perception that the development has the potential to cause significant impacts to water quality or to current or future water uses and these potential impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment
- The development is located in the area subject to the *Special Legislative Schemes River Murray Act 2003*.
- A proposed activity is likely to be classed as a prescribed activity of environmental significance under the Environment Protection Act.
- A proposed activity will require a licence or permit under relevant Landscape Board Water Allocation Plans and Water Affecting Activity Policies
- Potential impacts to a MNES (e.g. Ramsar Wetland) are likely to require referral and approval under the *Environment Protection Biodiversity and Conservation Act 1999*.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

Surface water

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.

2. *Surface and Integrated Water Management Plan*: may be required to ensure activities meet requirements set out in the relevant Landscape Board water affecting activity / water allocation plan. The plan must:

    - describe activities such as construction, modification or removal of dams or basins on activities on watercourses, lakes, floodplains, springs, wetlands, waterholes and surface water storage structures

- detail how these activities will be carried out, materials to be used (including specifications) and machinery/tools required to carry out the works and
- detail the anticipated impacts of the activities and the measures and actions proposed to reduce or mitigate the impact on the stability and integrity of the water resources are to be addressed

This plan must also incorporate measures and actions to address (but not be limited to) the following issues may be required:

- Site plan identifying all water related features and infrastructure for the storage, treatment and/or reuse of potable water, stormwater, wastewater and irrigation water.
- Water balance information, including the total water needs of all components of the development.
- Total wastewater generation from the development (based on projected wastewater volumes per day).
- A description of how all wastewater is collected, managed and relayed/discharged (including computations to demonstrate acceptable control discharge to effluent treatment facilities and details of any upgrades to the system that may be required).
- Predicted stormwater generation volumes and details of stormwater quality improvements, including the location and sizing of bio-retention swales and basins, anticipated quality improvements and details of any other proposed stormwater quality treatment features.
- Contingencies to address any detrimental effects, especially on local hydrology.

<u>Discharge of Wastewater (where relevant)</u>

3. Identify the quantity, quality and location of all potential discharges of water and contaminants by the proposed project, including treated wastewater and sewage. Describe whether the discharges would be from point sources (whether uncontrolled and controlled discharges) or diffuse sources (such as irrigation to land of treated wastewater/sewage effluent), and describe the receiving environment (such as land or surface waters).
4. Provide a risk assessment of the potential impacts on waters, in the near-field or far-field, resulting from controlled or uncontrolled discharges from the site. Address the following matters with regard to every potential discharge of contaminated water:
    - Describe the circumstances in which controlled and uncontrolled discharges might occur.
    - Provide stream flow data and information on discharge water quality, including any potential variation in discharge water quality that will be used in combination with proposed discharge rates to estimate in-stream dilution and water quality. Chemical and physical properties of any wastewater, including concentrations of constituents, at the point of entering natural surface waters must be discussed along with toxicity of effluent constituents to human health, flora and fauna.
    - Provide an assessment of the available assimilative capacity of the receiving waters given existing water quality and other potential point source discharges in the catchment. Options for controlled discharge at times of natural stream flow must be investigated to ensure that adequate flushing of wastewater is achieved.
    - Provide water quality limits that are appropriate to maintain background water quality and protect other water uses.

- Describe the necessary streamflow conditions in receiving waters under which controlled discharges will be allowed.

Groundwater

5. Provide an assessment and groundwater model that demonstrates the impact on the relevant groundwater resource (e.g. Great Artesian Basin), including other uses. The assessment and groundwater model should incorporate current information from government agencies, the relevant Water Allocation Plan and strategic or regional plan. The model should identify (where relevant):

    - the impact of the proposed extraction of the additional water on the groundwater resource including:

        - a description in the context of the existing monitoring information, presented as groundwater contour maps, hydrographs, concentration plots and in tabulated form.

        - impact of the extraction on each aquifer described in terms of water pressure and water quality at the local and regional level.

        - groundwater contour maps of source aquifers should be provided overlain with GDEs (including EPBC-listed springs) and bores.

    - the impact of the proposed extraction of the additional water on the other aquifers, described in terms of water pressure and water quality at the local and regional level.

MNES

6. If potential impacts to a MNES require approval under the EPBC Act, an assessment of impacts on the affected MNES must be prepared by a suitably experienced, professional acoustic engineering consultant. *[Note this would be modified depending on referral status and interaction with the EPBC Act bilateral and the Commonwealth]*

Suggested guidance documents – indicative only, others may apply

- State Planning Policies: Special Legislative Schemes. SPP 17 Special Legislative Scheme River Murray Act 2003
- State Planning Policy: SPP14 Water Security and Quality : includes planning principles, objectives and policy to protect South Australia's water supply catchments and water dependent ecosystems
- *Environment Protection Act 1993*
- *Environment Protection (Water Quality) Policy*
- *Stormwater Code of Practice*
- Landscape Board Water Allocation Plans and Water Affecting Activity Policies
- State Landscape Strategy

Environmental Attribute 8: Design

D1: Design Quality

Objective

To ensure good design outcomes that improve our quality of life and create sustainable developments and built form environments that bring lasting benefits to communities.

Context

Design quality of the built environment relates to how successful buildings, places and spaces meet the needs of the people who use and experience them.

South Australia's planning system has identified high-quality design as one of the seven principles of good planning. State Planning Policy Two, *Design Quality*, encourages good design solutions to complex social, economic and environmental challenges.

PLUS State Assessment and the Office for Design and Architecture SA (ODASA) provide a free and confidential pre-lodgement service. It is a collaborative process in which proponents, the assessment authority and referral agencies work closely to achieve the best possible design, planning and development outcomes.

State Design Review is an integral part of the pre-lodgement service that supports high-quality design outcomes, improves access to independent design expertise and assists with informed decision-making during the assessment of impact assessed projects. It is an independent evaluation process in which a panel of built environment experts reviews the design quality of development proposals

Design Review is most effective when undertaken early in the planning and design process—prior to lodgement of an Environmental Impact Statement—where the opportunities to effect positive change are greatest.

This process can run in parallel to the EIS scoping and preparation process for projects with an architecture, urban design, public realm and/or open space focus.

[The Assessment Requirements for Amenity and Environmental Quality, Social and Community and Climate Change and Resource Efficiency are also relevant].

Considerations for design excellence

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

Design Review in South Australia is guided by the Principles of Good Design. These Principles help us recognise, discuss and support the role that design plays in making our buildings and places better for people, the environment and economy.

South Australia's six Principles of Good Design are:

- Context: Good design is contextual because it responds to the surrounding environment and contributes to the existing quality and future character of a place.
- Inclusive: Good design is inclusive because it creates places for everyone to use and enjoy, by optimising social opportunity and equitable access.

- Durable: Good design is durable because it creates buildings and places that are fit-for-purpose, adaptable and long-lasting.
- Value: Good design adds value by creating desirable places that promote community and local investment, as well as enhancing social and cultural value.
- Performance: Good design performs well because it realises the project potential for the benefit of all users and the broader community.
- Sustainable: Good design is sustainable because it is environmentally responsible and supports long-term economic productivity, health and wellbeing.

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

1. Provide a contextual analysis and identify site-specific issues including
    - existing site conditions
    - existing built form, heritage context (if applicable), setbacks and land uses within the locality
    - existing transportation networks and movement patterns (public transport, bicycle paths, pedestrian paths)
    - existing landscape (Significant and Regulated trees, street trees, Park Lands)
    - environmental conditions (orientation, outlook and views, noise sources).
2. Describe the design principles that are informing the design outcome and public realm contribution.
3. Demonstrate the proposal's precinct/site-wide movement strategy with consideration given to the following:
    - arrival experience
    - access and parking for vehicles, buses, emergency vehicles, waste collection, service delivery vehicles and bicycles
    - pedestrian movement including for People with Restricted Mobility.
4. Demonstrate the proposal's site configuration and built form massing strategy informed by the contextual analysis, design principles, movement strategy, planning policy parameters and 3D massing studies.
5. Describe the concept for the built form composition and architectural expression (including materiality) informed by the design principles and contextual analysis.
6. Describe the proposal's landscape design response with consideration given to Water Sensitive Urban Design (WSUD) principles, management of site levels, planting palette, wayfinding and signage, lighting and any fixtures.
7. Demonstrate the proposal's servicing strategy including the location of any required services infrastructure and the proposed material/screening treatment of any visible services.

8. Describe the proposal's Environmentally Sustainable Design (ESD) strategy and targets.
9. Describe how the proposal considers Crime Prevention Through Environmental Design (CPTED) principles.
10. Provide a detailed schedule of external materials, finishes and colours, supported by a physical materials sample board.
11. Provide visualisations (including long view perspectives) to demonstrate the proposal in context.
12. Demonstrate the impact of the proposal on adjacent land uses and the public realm, for example building bulk and scale, overshadowing, overlooking and view retention.
13. Provide a full set of documentation including site plan, plans, elevations (including streetscape elevations where relevant), sections/site sections and shadow diagrams

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to historic heritage may be required]:

- The preliminary assessment indicates an exemplary design response is required due to the nature, scale, location and/or sensitivity of the project on its environment.
- The issue is considered by the Commission to warrant detailed assessment.

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Undertake PLUS State Assessment and ODASA's pre-lodgement and State Design Review process (overseen by the Government Architect) and incorporate recommendations (where appropriate) and provide reasons where such advice cannot be fully implemented.
2. Provide a response to the DQ1: Design Quality Standard Impact Assessment Requirements.
3. Provide a 3D model (file format to be advised) of the proposal including the site context and key neighbouring sites and built form elements.

Suggested guidance documents – indicative only, others may apply

- *State Planning Policy: SPP1 Integrated Planning, SPP2 Design Quality, SPP3 Adaptive Re-use, SPP6 Housing Supply and Diversity*
- *30-Year Plan for Greater Adelaide – 2017 Update*
- *Principles of Good Design - ODASA*
- *State Design Review in South Australia - ODASA*
- *Preparing for State Design Review - ODASA*
- *Design Review Presentation Checklist - ODASA*
- *Good Design for Great Neighbourhoods and Places - ODASA*
- *Water Sensitive Urban Design - Department of Environment and Water*
- *Creating Greener Places for Healthy and Sustainable Communities - Healthy Parks Health People South Australia*

Environmental Attribute 9: Social and Community

SC1: Aboriginal Cultural Heritage

Objective

Avoid damage, disturbance or interreference (together, impacts) to Aboriginal sites, objects and remains (together, Aboriginal heritage) and maximise opportunities to appropriately complement and preserve these values.

Context

South Australia is home to over 30 Aboriginal groups, with distinct beliefs, cultural practices and languages. Many places across the state have great cultural and spiritual significance to Aboriginal people.

Aboriginal heritage comprises both the physical evidence of Aboriginal occupation and use of the land (campsites, stone tools etc.) as well as their spiritual and traditional connection to the land (songlines, ceremony sites etc.). Many areas of the state have never been the subject of comprehensive Aboriginal heritage survey. Unknown Aboriginal heritage may also be uncovered or discovered during ground disturbing works, even where there is no indication of its presence on the surface.

Aboriginal heritage is protected under the Aboriginal Heritage Act 1988 (SA). Development works have the potential to impact Aboriginal heritage, particularly in areas with known Aboriginal heritage significance. There are penalties under the Aboriginal Heritage Act 1988 (SA) for unauthorised impacts to Aboriginal heritage,

To ensure that the appropriate level of engagement with Aboriginal groups is carried out, proponents should prepare an Aboriginal Engagement Plan (AEP) early in the process.

The AEP should identify the Recognised Aboriginal Representative Body (RARB) for the area (where appointed), or relevant Traditional Owner representatives where a RARB is not appointed. For the purposes of this document, Traditional Owner representatives may include individual Traditional Owners, and relevant Aboriginal groups/organisations, including native title bodies. The AEP should also include the steps that will be taken to facilitate meaningful and effective consultation with these Aboriginal stakeholders.

See Aboriginal Affairs and Reconciliation's (AAR's) Managing Aboriginal Heritage in South Australia Factsheet for further information on engaging with Aboriginal groups.

[The Assessment Requirements for Land address matters relating to Native Title.]

Considerations for Aboriginal cultural heritage

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

In many cases, impacts to Aboriginal heritage can be avoided through early consultation with relevant Aboriginal parties, and by engaging qualified heritage experts to undertake appropriate assessments. Preliminary assessment of Aboriginal heritage in the proponent's scoping application must include:

- identification of known Aboriginal heritage relevant to the search area, provided through AAR's central archives search request process

- identification of the RARB or, where no RARB is appointed, Traditional Owner representatives relevant to the search area, provided through AAR's central archives search request process
- assessment of the potential for unrecorded Aboriginal heritage to exist within the project area, made by an appropriately qualified heritage expert (archaeologist and/or anthropologist).
- early consultation with the RARB (where relevant) or, where there is no RARB appointed, relevant Traditional Owner representatives for the area. It is possible that multiple groups should be consulted.

AAR maintains a non-exhaustive list of heritage consultants operating in South Australia: www.agd.sa.gov.au/aboriginal-affairs-and-reconciliation/aboriginal-heritage/commercial-aboriginal-heritage-consultants-working-in-south-australia

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

1. Describe any consultation with the RARB or any relevant Traditional Owner representatives relevant to the project area. Details of Aboriginal heritage provided by Traditional Owners during consultation or discussed in the EIS must remain confidential and are not to be disclosed or published by the proponent.
2. Describe the outcomes of AAR's central archives search for the project area, including consideration of any restricted Aboriginal sites and instances where approval from Traditional Owners may be required to access further information about the nature and/or location of the heritage.
3. Describe any Aboriginal heritage surveys or assessments relevant to the project area, including historic reports where relevant and accessible. These may include desktop-based heritage assessments, heritage survey/inspection reports, Work Area Clearance reports or other risk assessments. Where an Aboriginal heritage assessment is undertaken, it must be done by an appropriately qualified heritage expert.
4. Where there is a high risk of discovery of Aboriginal heritage within the project area, it is recommended that the proponent engage Traditional Owners and a qualified heritage expert (archaeologist and/or anthropologist) to carry out an on-ground heritage survey/inspection of the project area.
5. Identify any potential impacts to recorded or unrecorded Aboriginal heritage in the project area (noting that the specific location of any heritage must not be identified in the EIS).
6. Outline measures to avoid or minimise impacts to recorded and unrecorded Aboriginal sites, objects and remains in the project area during construction and operations phases. Where impacts to Aboriginal heritage are proposed, the proponent must hold valid authorisations under the Aboriginal Heritage Act 1988 (SA).
7. Preparation of a Aboriginal heritage discovery plan or Cultural Heritage Management Plan (if required) to protect and appropriately manage Aboriginal heritage during all phases of the project.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to noise and vibration may be required]:

- The preliminary assessment indicates that there is high or medium probability of causing a impacting known Aboriginal heritage.
- The preliminary assessment indicates that there is high or medium probability of impacting unknown or unrecorded Aboriginal heritage.
- There is a public perception that the development has the potential to cause significant impact to Aboriginal cultural heritage and / or potential impacts to Aboriginal heritage have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to known and unknown Aboriginal heritage. Where impacts to Aboriginal heritage cannot be avoided, provide detailed justification for this.
2. An on-ground cultural heritage survey undertaken by qualified heritage experts (ideally an anthropologist and an archaeologist) in consultation with the RARB/Traditional Owner representatives. Where practical, this survey should cover the entirety of the project area.
3. The subsequent Aboriginal heritage report should:
    - be prepared by a suitably qualified heritage expert
    - clearly outline the results of the heritage survey, including the location of Aboriginal heritage within the project area, as well as any areas where unrecorded sub-surface Aboriginal heritage is likely to occur
    - consider the results of the AAR central archives search results, as well as any other searches of local archives or other relevant databases
    - consider the views of the RARB, or where no RARB is appointed, Traditional Owner representatives. Note that any sensitive or restricted information relating to Aboriginal heritage must remain confidential, and should not be publicly disclosed
    - consider both the archaeological and anthropological/ethnographic values of the area, based on relevant literature, previous heritage assessments etc.
    - consider the project's potential impacts to known and unknown Aboriginal heritage
    - provide recommendations for the management of Aboriginal heritage during project works, in light of the above
4. A Cultural Heritage Management Plan (CHMP) must be prepared by an appropriately qualified heritage expert in consultation with the RARB/Traditional Owner representatives that:

- addresses the potential for the project to impact known and unknown Aboriginal heritage
- outlines measures agreed with the RARB/Traditional Owner representatives to be taken in order to manage and protect Aboriginal cultural heritage wherever possible
- establishes processes for the management and protection of Aboriginal heritage before, during and after the proposed development, which may include:
    - establishment of avoidance or 'no-go' zones to avoid known heritage or areas of identified high risk
    - establishment of bunting or fencing around known Aboriginal heritage
    - conditional access areas (e.g. limits on heavy machinery in particular areas)
    - the engagement of Aboriginal heritage monitors to observe ground disturbing works in high risk areas - noting that the location and details about the heritage must not be made public.
- includes an Aboriginal heritage discovery protocol, outlining the steps that will be taken in the event of an Aboriginal heritage discovery

Suggested guidance documents – indicative only, others may apply

- State Planning Policy 7: Cultural Heritage
- Relevant Regional Plans
- *Aboriginal Heritage Act 1988* (SA)
- *Native Title Act 1993* (Cth)
- *Native Title Act 1994* (SA)
- Guideline 1- Recognised Aboriginal Representative Bodies (AGD-AAR)
- Guideline 2- Division A2 Agreements (AGD-AAR)
- Guideline 3 - Local Heritage Agreements (AGD-AAR)
- Guideline 4 - Aboriginal heritage registers (AGD-AAR)
- Guideline 5 – Negotiating in Good Faith (AGD- AAR)
- Discovery of Aboriginal Sites and Objects Fact Sheet (AGD-AAR)
- Managing Aboriginal Heritage in South Australia – Factsheet (AGD-AAR)
- Aboriginal Heritage Discovery Protocol (DPC-AAR)

SC2: Community Wellbeing / Social Impact Assessment

Objective

To ensure adverse effects on the community near the development are avoided or minimised including with regard to community cohesion, access to services and facilities and health impacts and capitalise on opportunities to enhance benefits for communities.

Context

Major projects and developments have the potential to significantly change the way a community functions and how people live, work, play and interact with one another on a day-to-day basis. This can include impacts to physical and mental health, social, cultural and economic well-being, access to and quality of infrastructure, services and facilities, access to and control over resources, impacts on peoples' jobs, properties or businesses and impacts to physical safety, exposure to hazards or risks.

There is significant value in collaboration of proponents with stakeholders to achieve integrated development and informed decision making and identification of relevant stakeholders is a key part of the scoping phase of social impact assessment (SIA).

Effective engagement with relevant stakeholders enables them to have ownership in the decision making process and incorporating stakeholder ownership of the SIA process, through their "buy-in" to the process, is key to effective stakeholder engagement.

To ensure that the appropriate level of engagement is carried out, it is beneficial to prepare a Stakeholder Engagement Plan very early in the SIA process that identifies the appropriate stakeholders, the issues they are likely to be interested in (many of which can be taken from the key risks and impacts identified in the EIS assessments) and describes the proposed timing and mechanisms for engagement.

SIA is particularly important in areas of Aboriginal cultural heritage or historic heritage, native title, pastoral leases or any land use and ownership with direct linkages between community livelihoods, primary industry, natural resource conditions and sustainable development. It is essential to engage in a meaningful, culturally appropriate, way with the different groups to promote social accountability and reduce the potential for future conflicts.

[The Assessment Requirements for Economic Impacts address the economic impacts; the Assessment Requirements for Land address land use, land tenure and protected areas; the Assessment Requirements for Air Quality address air quality impacts to amenity and liveability (e.g. dust and fuel emissions); the Assessment Requirements for Noise and Vibration address noise and vibration impacts to amenity and liveability; the Assessment Requirements for Visual Impact address impacts to visual amenity, landscape and open space; the Assessment Requirements for Transport and Traffic address impacts to safety and efficiency of transport and traffic systems and infrastructure; the Assessment Requirements for Aboriginal Cultural Heritage address matters relating to protection Aboriginal sites, objects and remains; the Assessment Requirements for Hazards and Risk address matters relating to public safety and risk management.]

Considerations for social impact assessment

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The preliminary assessment in the proponent's scoping application of the impacts to community wellbeing from a development should consider a high-level baseline description of the existing social conditions within an indicative social impact study area. Information would include a **brief overview** of:

- the proposed study area which identifies the social and geographic boundaries of the social impact assessment
- the location, character and basic demography of potentially affected communities (including nearby regional communities)
- existing industries and land uses, infrastructure, facilities and services, including education, health and emergency services
- nature of existing housing and accommodation
- key potential social impacts and benefits.

Assessment Requirements

Categorisation of Impacts Requiring Detailed Assessment

[Detailed Assessment Requirements for social impact would generally be required for impact assessed projects due to the nature and scale of the potential social impacts, the unique set of social factors and the complexity and uncertainties inherent in social impact assessment. Consequently standard assessment requirements have not been developed.]

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.]

1. Provide a social impact assessment (SIA) of the development which addresses:
    - the existing social environment of communities potentially impacted by the project
    - the potential social impacts (both positive and negative) of the project, and how they will be managed and monitored
2. The SIA should include social baseline information which includes but is not limited to:
    - a demographic profile of potentially affected communities
    - an analysis of community characteristics (e.g. community history and culture, land / property ownership)
    - an overview of land use, key industries in the region, and relevant local and state government plans
    - an overview of the capacity and accessibility of infrastructure, facilities and services, including education, health and emergency services
    - an analysis of the existing housing and accommodation market, including availability, capacity and affordability
    - a profile of the local and regional labour market, including likely availability of personnel with skills relevant to the project
    - details of other resource, infrastructure and major projects in the area (planned and currently operating).

- Key matters to be addressed by the SIA (for both construction and operation) are:

  Workforce Management incorporating (where relevant)-

  - a summary workforce profile, including the estimated proportion of FIFO workers
  - an analysis of the local and regional labour market, and an assessment of potential social impacts, including employment opportunities, training and development opportunities and possible labour shortages within local communities due to project demand. Include analysis of impact on labour market of skilled workers changing employment.
  - an assessment of opportunities for local workers to commute to and from work
  - workforce management measures which *[may]* include:
    - measures to enhance potential employment opportunities for local and regional communities, and to mitigate potential negative social impacts
    - provisions to prioritise recruitment of workers from local and regional communities, then workers who will live in regional communities
    - proposed training and development initiatives to improve local and regional skills and capacity including, where relevant, initiatives for traditionally under-represented groups.

  Housing and Accommodation incorporating (where relevant):

  - proposed workforce accommodation arrangements including details of any proposed project workforce accommodation facilities or purpose-built housing developments
  - an analysis of the local and regional housing and accommodation market, and an assessment of potential social impacts, including:
    - potential impacts to availability and affordability of housing (open market and rental) and other forms of accommodation
    - consequences of project induced housing market changes for local residents
    - potential opportunities for local accommodation providers
  - workforce housing and accommodation management measures which *[may]* include:
    - measures to enhance potential benefits for project workers and the community, and to mitigate potential negative social impacts
    - policies regarding housing and accommodation support to be provided to project workers and their families who wish to live locally.

  Local Business and Industry Procurement incorporating (where relevant):

  - a profile of the skills, services and materials required by the project
  - an analysis of local and regional supplier capability and capacity relevant to the project, and an assessment of potential social impacts, including opportunities to enhance the capacity of local businesses and supply chains and risks associated with monopolisation of goods and services by the project
  - local business and industry procurement plan for construction and operation which *[may]* include:
    - procurement strategies and initiatives for local and nearby regional suppliers, including Aboriginal and Torres Strait Islander owned businesses, and actions to facilitate participation

- proposed policies and programs to build local and regional capacity and capability, and reduce barriers to entry
- processes that embed the local business and industry procurement strategies into the contracting model for the project
- measures to mitigate any potential negative social impacts on local industries
- details of any established industry guidelines or codes of practice which the proponent has committed to complying with.

Health and Community Well-being incorporating (where relevant):

- an analysis of the availability, accessibility and capacity of, and an assessment of potential project impacts on, existing social services, facilities and infrastructure such as healthcare and emergency response, transport and utilities, education and childcare, and community support services
- an analysis of the health and well-being of potentially impacted communities (in particular relevant disadvantaged groups e.g. Aboriginal people, disability, elderly), and an assessment of potential social impacts, including:
  - community health, safety and security
  - livelihoods, economic well-being and access to resources
  - community lifestyles and cultural practices, amenity value, social character, and community cohesion
  - potential temporary or permanent effects on community recreational facilities, affecting the use of open space and the enjoyment of passive and active recreational opportunities.
- health and community wellbeing management measures which *[may]* include:
  - measures to ensure that the level of service provided to the local community by existing social services, facilities and infrastructure is not reduced
  - measures to mitigate potential health and well-being impacts on local communities, and enhance potential benefits
  - the level of on-site health services to be provided for workers
  - details of any workforce code of conduct to govern worker interactions with local communities
  - emergency response arrangements and management measures agreed with emergency service providers, for incidents both on and off the project site
  - details of any community development programs to be implemented, and the outcomes to be achieved.

Suggested guidance documents – indicative only, others may apply

- State Planning Policies; SPP1 Integrated Planning; SPP6 Housing Supply and Diversity; SPP2 Design Quality; SPP3 Adaptive Reuse
- Relevant Regional Plans
- Landscape Board Landscape Plans

SC3: Heritage Places and Areas

Objective

To ensure that the nature and scale of the development does not compromise the recognised heritage significance of a heritage place or heritage area.

Context

Cultural heritage significance may be recognised at the national, state-wide or local government level and can be associated with aesthetic, archaeological, architectural, cultural, scientific or social attributes of a place.

South Australian State Heritage areas, places and objects are listed and protected under the *Heritage Places Act 1993* and the Planning and Design Code (the Code). Local heritage places are also protected under the Code.

South Australia's historic shipwrecks and relics in marine and inland waters are protected either under the *Historic Shipwrecks Act 1981* (SA waters) or the *Underwater Cultural Heritage Act 2018* (Cth waters).

Commonwealth Heritage Places are natural, Indigenous and historic heritage places on Commonwealth land and waters or under Australian Government control. National Heritage Places are natural, historic or indigenous places with outstanding value to the Australian nation, outside of Commonwealth land. Commonwealth Heritage, National Heritage and World Heritage, are protected under the *Environment Protection Biodiversity and Conservation Act 1999*.

[The Assessment Requirements for Visual Impact address impacts to visual amenity, landscape and open space, the Assessment Requirements for Land addresses land use, land tenure and protected areas]

Considerations for historic heritage

[This is the baseline/ minimum information that would be expected in the scoping application submitted by the proponent to allow Assessment Requirements to be developed. Guidance along these lines could be provided to proponents prior to submission of the scoping application.]

The South Australian Property and Planning Atlas (SAPPA) provides spatial data for heritage-related matters including locations of State heritage places and areas and indicative footprints, National and Commonwealth heritage places, and historic shipwrecks in South Australian and Commonwealth waters. Code Overlays for State Heritage Places, State Heritage Areas, Local Heritage Places, Heritage Adjacency, Historic Areas and Character Areas are also mapped.

Preliminary assessment in the proponent's scoping application of the potential impacts to historic heritage from a development should consider:

- Identification of listed or nominated State, National, Commonwealth or World heritage places and areas in the development area
- Identification of relevant Code heritage Overlays and Zones applicable to the development
- Identification of historic shipwreck sites (marine and inland waters) (State and Commonwealth)
- Identification of key potential impacts by an appropriately qualified heritage consultant (depending on the location and nature of the heritage sites identified).

Assessment Requirements

Standard Impact Assessment Requirements

[The following is guidance for possible Standard Assessment Requirements, to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive.] [A general EIS guideline on the requirements for assessment of impacts to the coastal and marine environment should be prepared to assist proponents]

1. Provide details of the location, nature and known potential heritage values of all historic heritage potentially affected by the development particularly State and Commonwealth-listed places and areas (including shipwrecks).
2. Provide an assessment of potential impacts from the development on all State heritage and other listed historic heritage places and areas (including shipwrecks). If applicable, this study should be undertaken.
3. If Commonwealth, National and World Heritage places have been identified, undertake an assessment of potential impacts to heritage values.
4. Provide design, management and site protection strategies (prepared by an appropriately qualified heritage consultant in accordance with the PDI Code if relevant) to avoid, mitigate or manage negative impacts on heritage values and enhance any positive impacts.

Categorisation of Impacts Requiring Detailed Assessment

[Considering the key factors for the level of assessment (refer Section 5 of this document), the following are examples where detailed assessment of potential impacts to historic heritage may be required]:

- The preliminary assessment indicates a high or medium probability of significant impacts to the heritage significance of a heritage place, heritage area or historic shipwreck from the development.
- The potential impacts to a Commonwealth, National or World heritage place are likely to require referral and approval under the Environment Protection Biodiversity and Conservation Act 1999.
- There is a public perception that the development has the potential to cause significant impacts to the heritage significance of a place and / or potential heritage impacts have been the subject of extensive media coverage.
- The issue is considered by the Commission to warrant detailed assessment

Detailed Assessment Requirements

[The following is guidance for possible Detailed Assessment Requirements (to supplement the Standard Assessment Requirements), to be adapted as required for specific projects, and should not be regarded as definitive or exhaustive].

1. Describe location and design options considered, reasons for selection and how the proposed location and /or design avoids and / or mitigates potential impacts and risks to the surrounding environment. Outline and justify any trade-offs in the design.
2. Provide a heritage impact assessment undertaken by an appropriately qualified heritage expert of the potential impacts of the development against relevant Code provisions including any relevant Statement of Significance, Heritage Guidelines, Heritage Standards, Historic Area Statement or Character Area Statement.

3. If potential impacts on heritage values of a Commonwealth, National and World heritage place require approval under the EPBC Act, a heritage impact assessment must be undertaken by an appropriately qualified heritage consultant.

Suggested guidance documents – indicative only, others may apply

- State Planning Policy 7: Cultural Heritage
- Relevant Regional Plans
- *Heritage Places Act 1993* (SA)
- *Historic Shipwrecks Act 1981* (SA)
- *Underwater Cultural Heritage Act 2018* (Cth)
- *Environment Protection and Biodiversity Act 1999* (Cth)
- Heritage Impact Statement Guidelines for State Heritage Places
- Relevant Statements of Significance, Heritage Guidelines, Heritage Standards, Historic Area Statements or Character Area Statements under the PDI Code.

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PlanSA Service Desk on **1800 752 664**

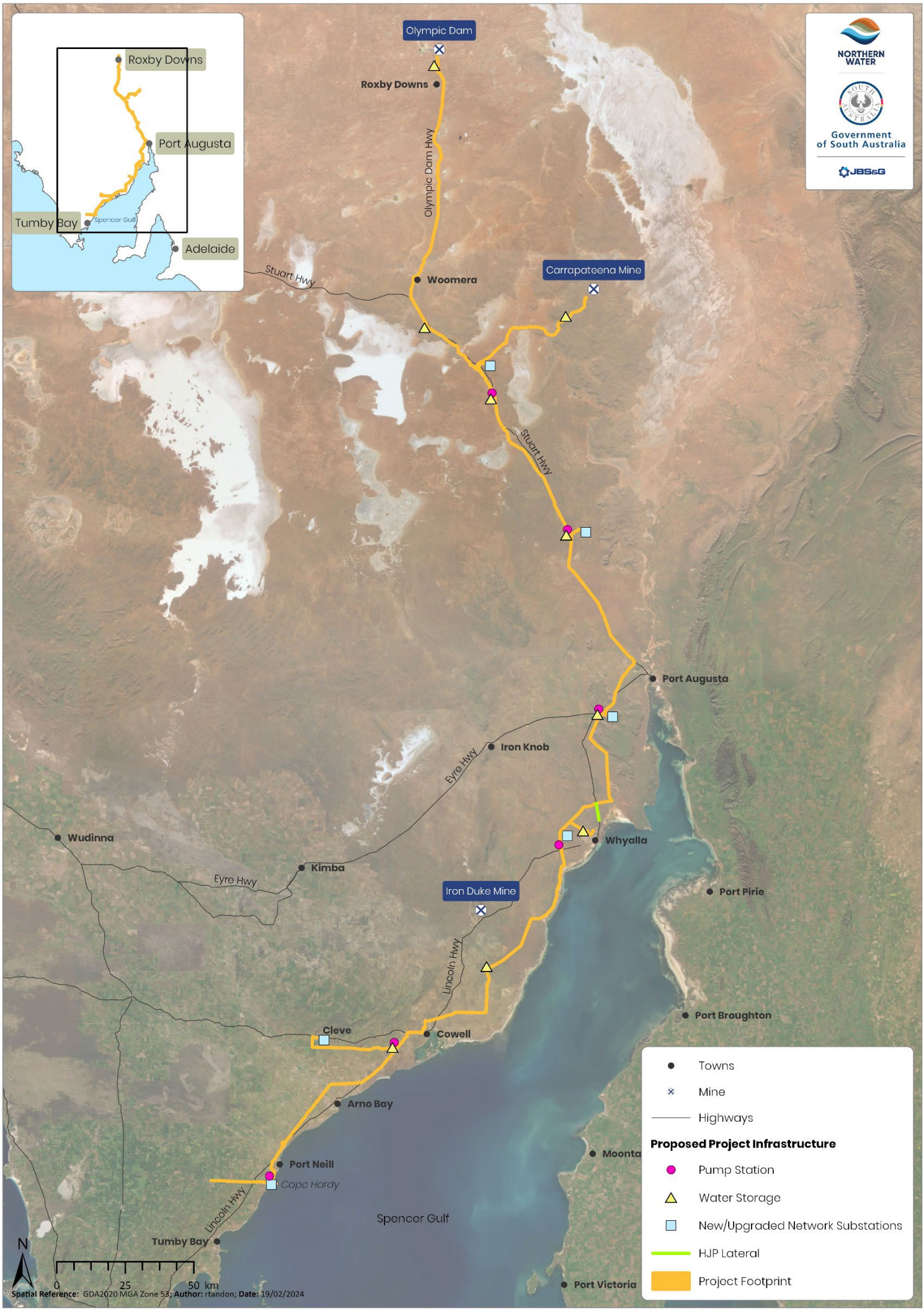


Figure 1-1: Northern Water Project location

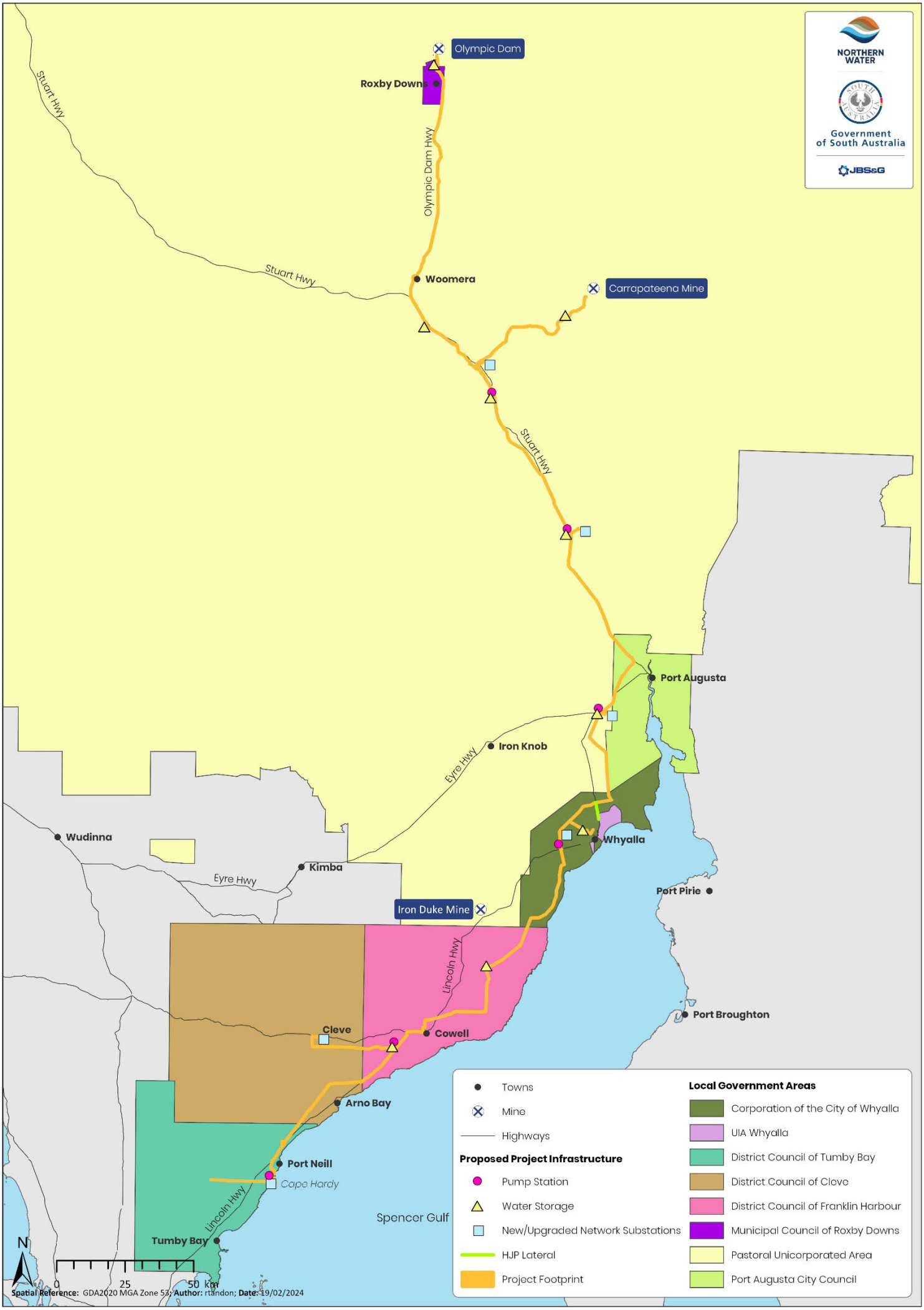


Figure 4-1: Relevant Local Government Areas

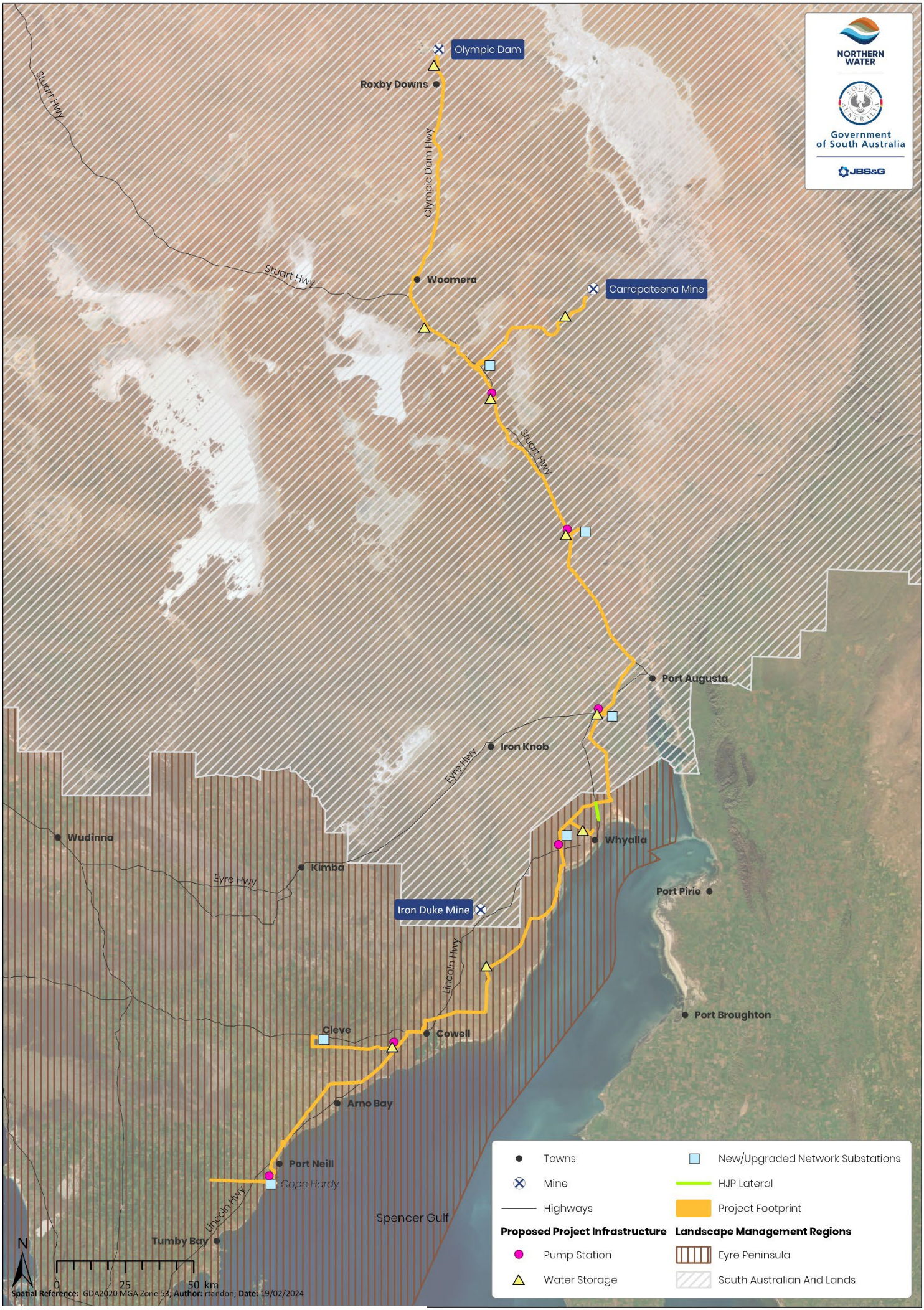


Figure 4-2: Relevant Landscape Management Regions

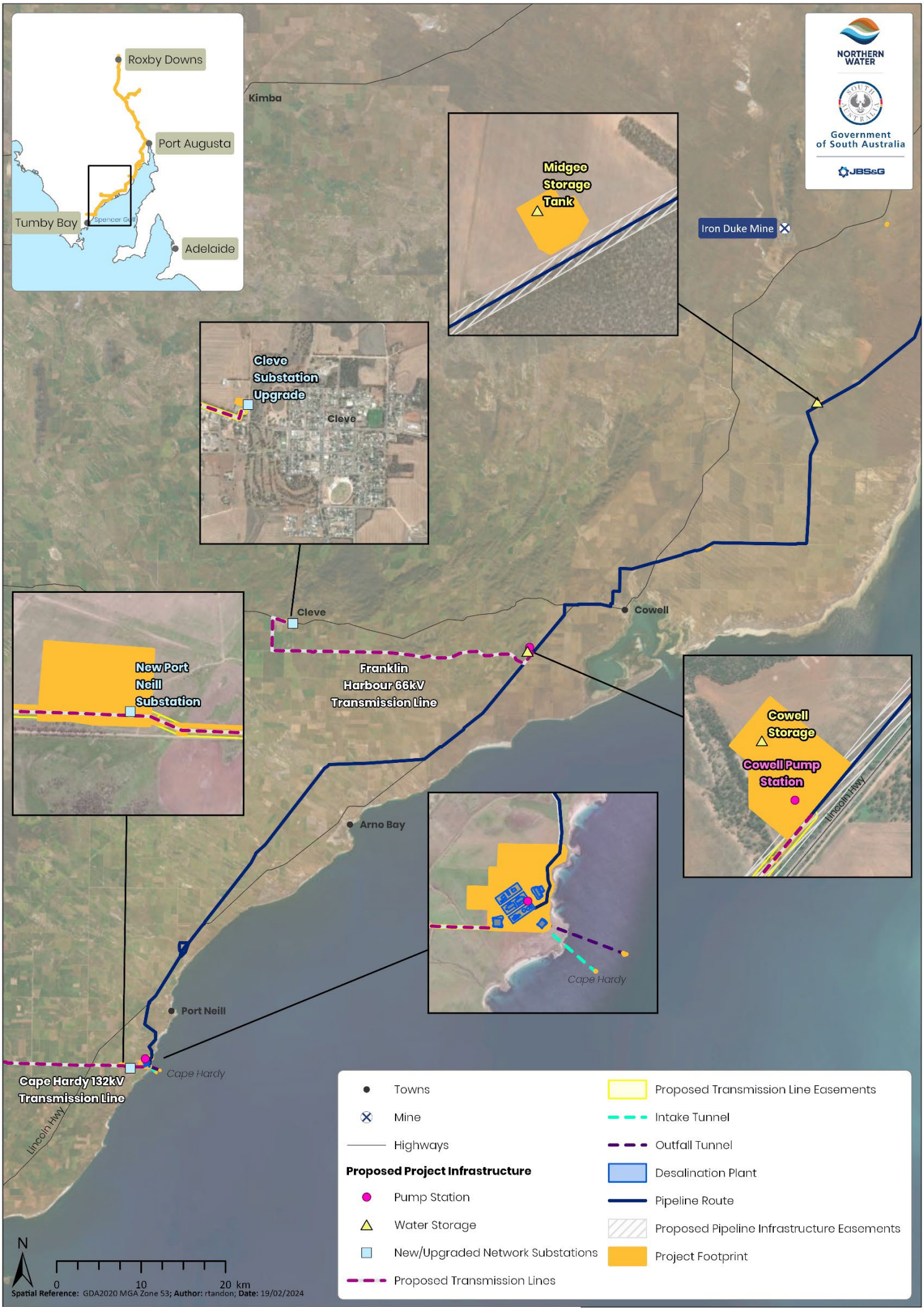


Figure 5-2: Proposed location of Project infrastructure (southern section)

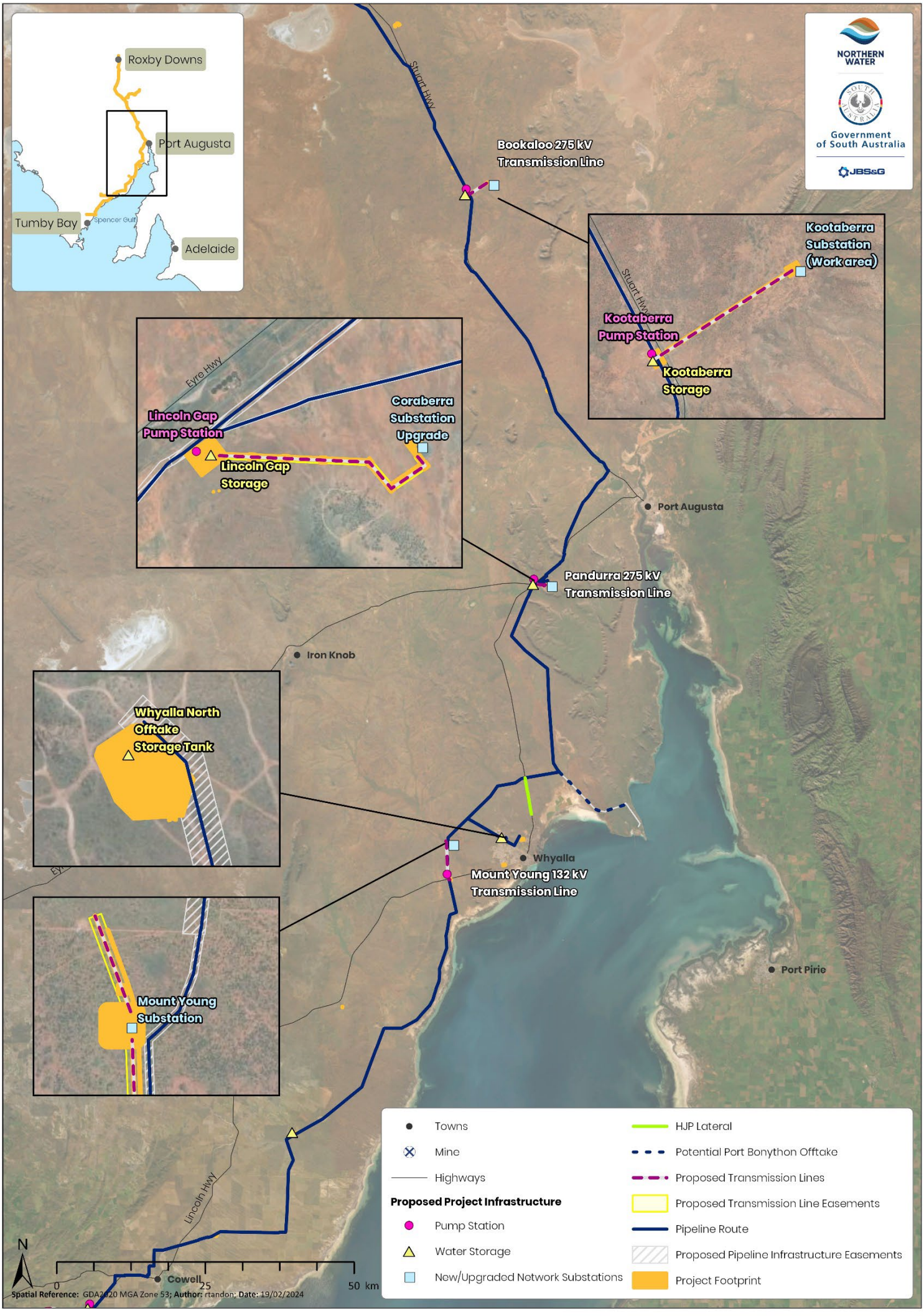


Figure 5-6: Proposed location of Project infrastructure (central section)

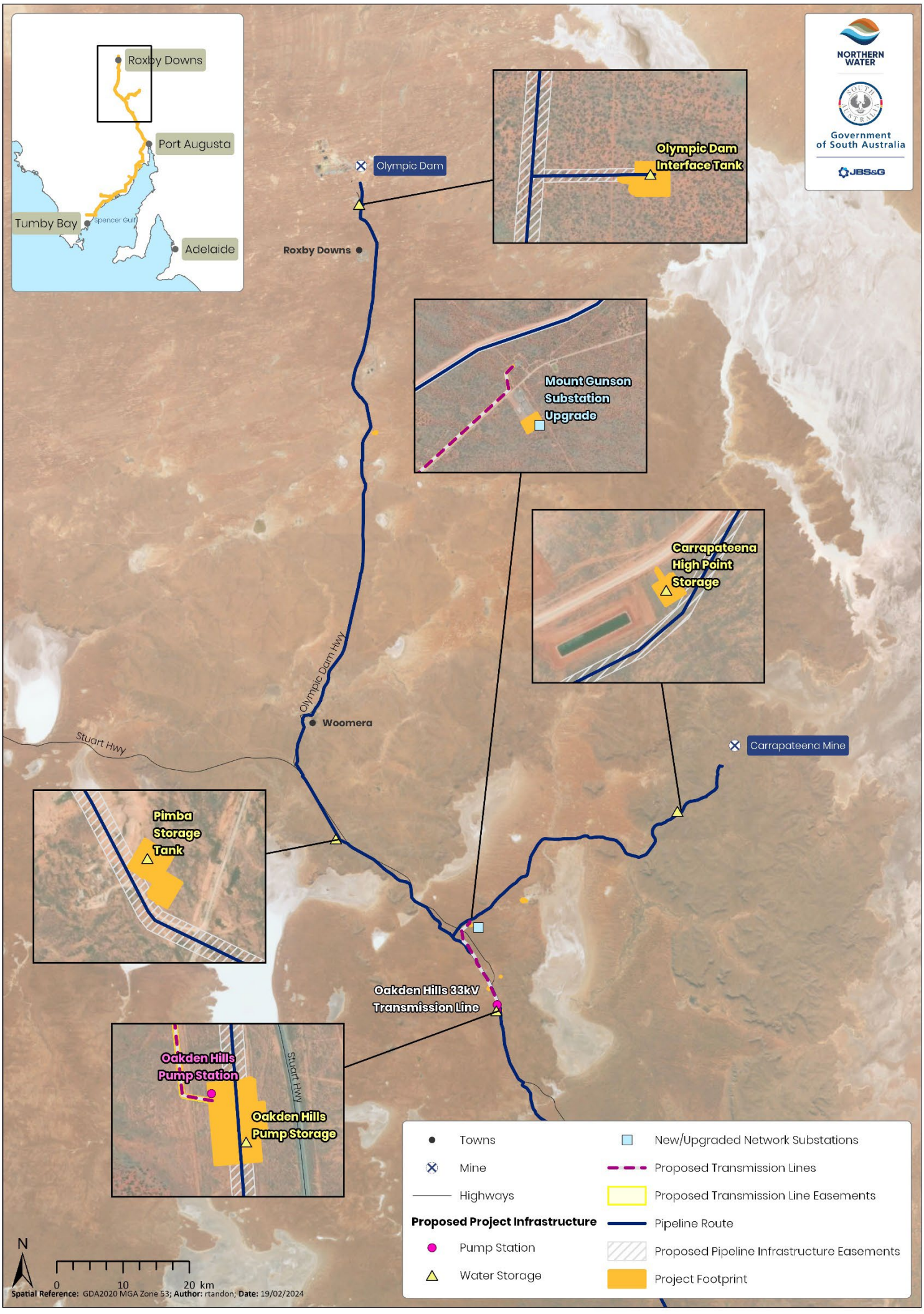


Figure 5-7: Proposed location of Project infrastructure (northern section)

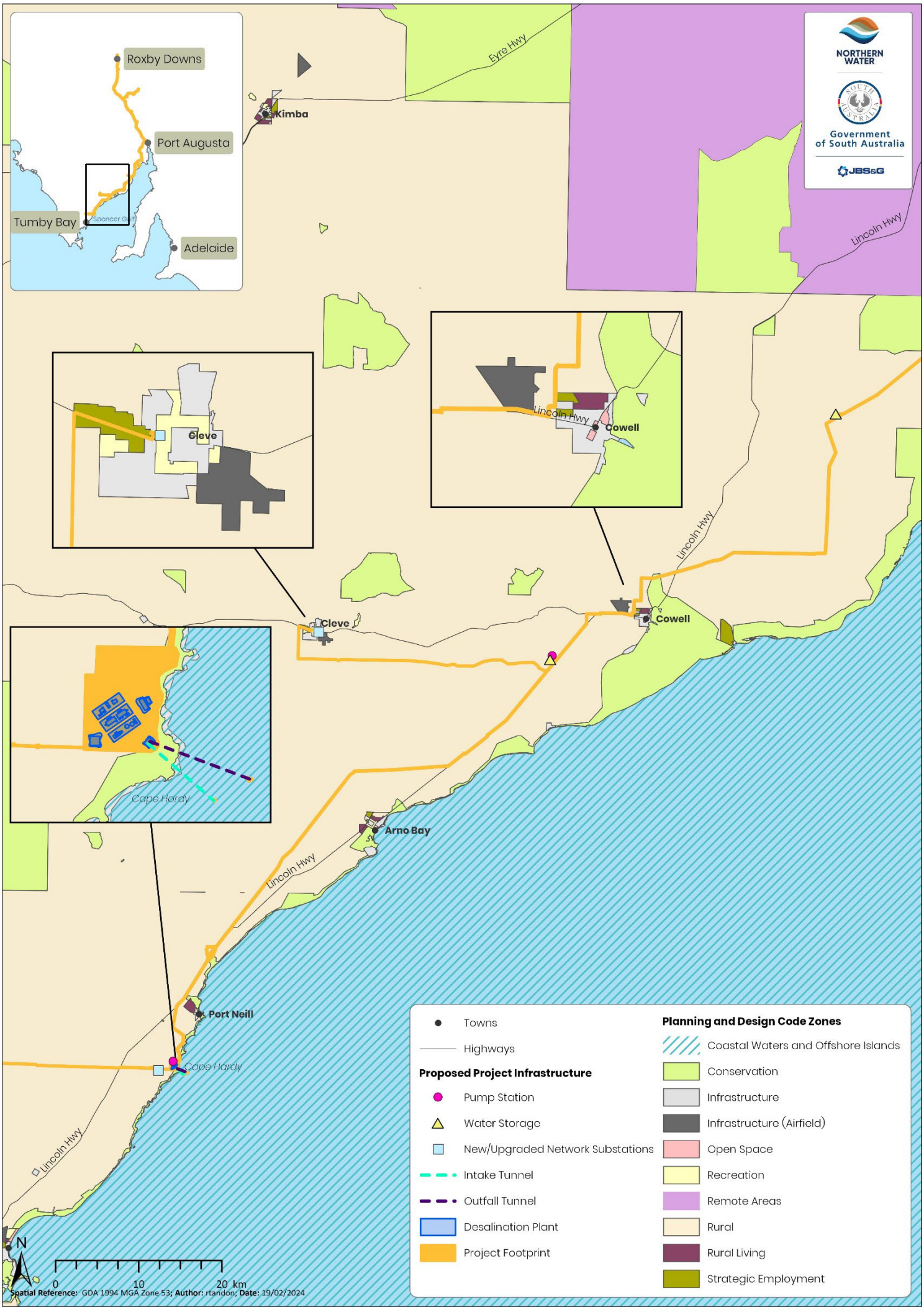


Figure 7-1: Relevant Planning and Design Code Zones - southern section

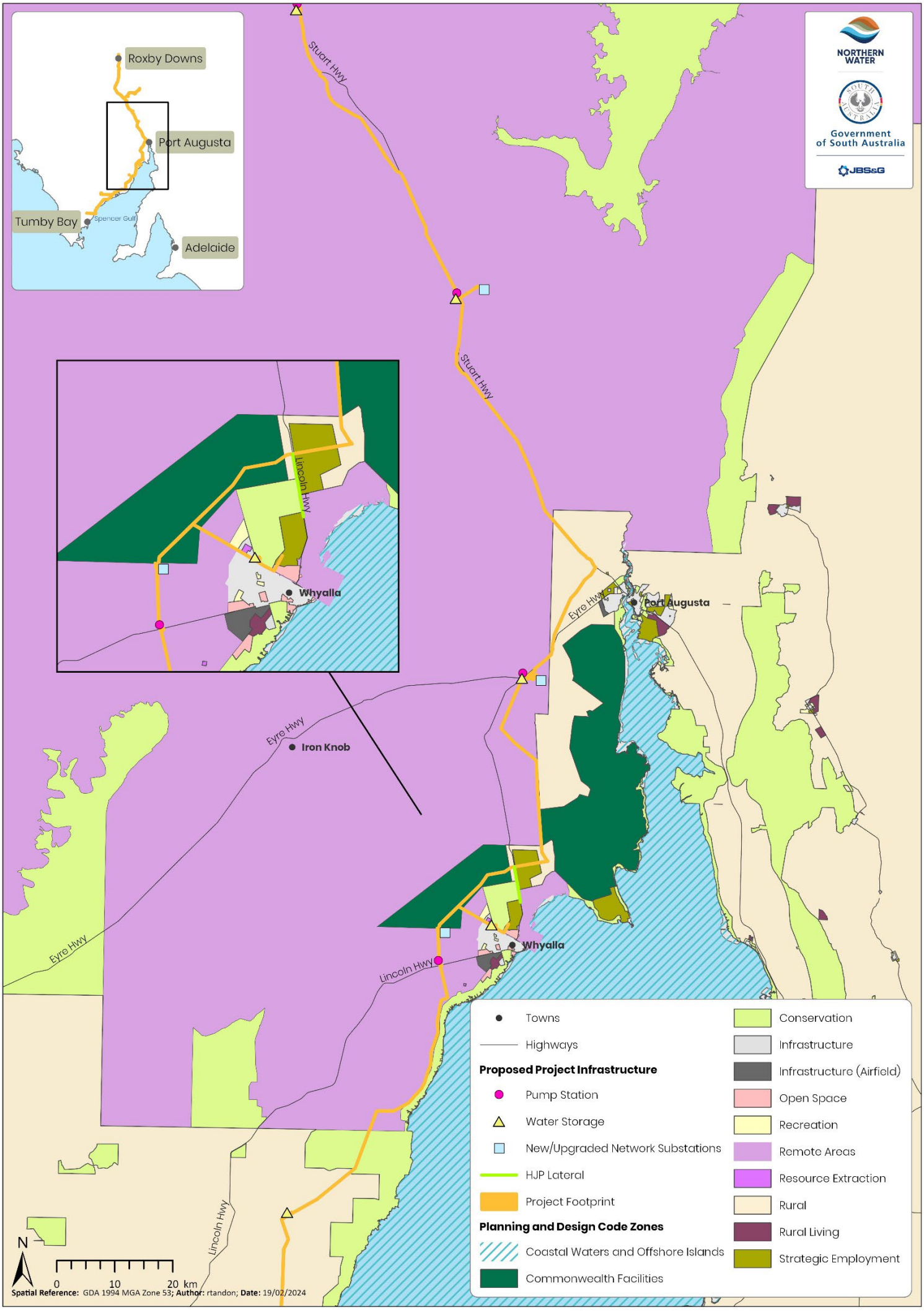


Figure 7-2: Relevant Planning and Design Code Zones - central section

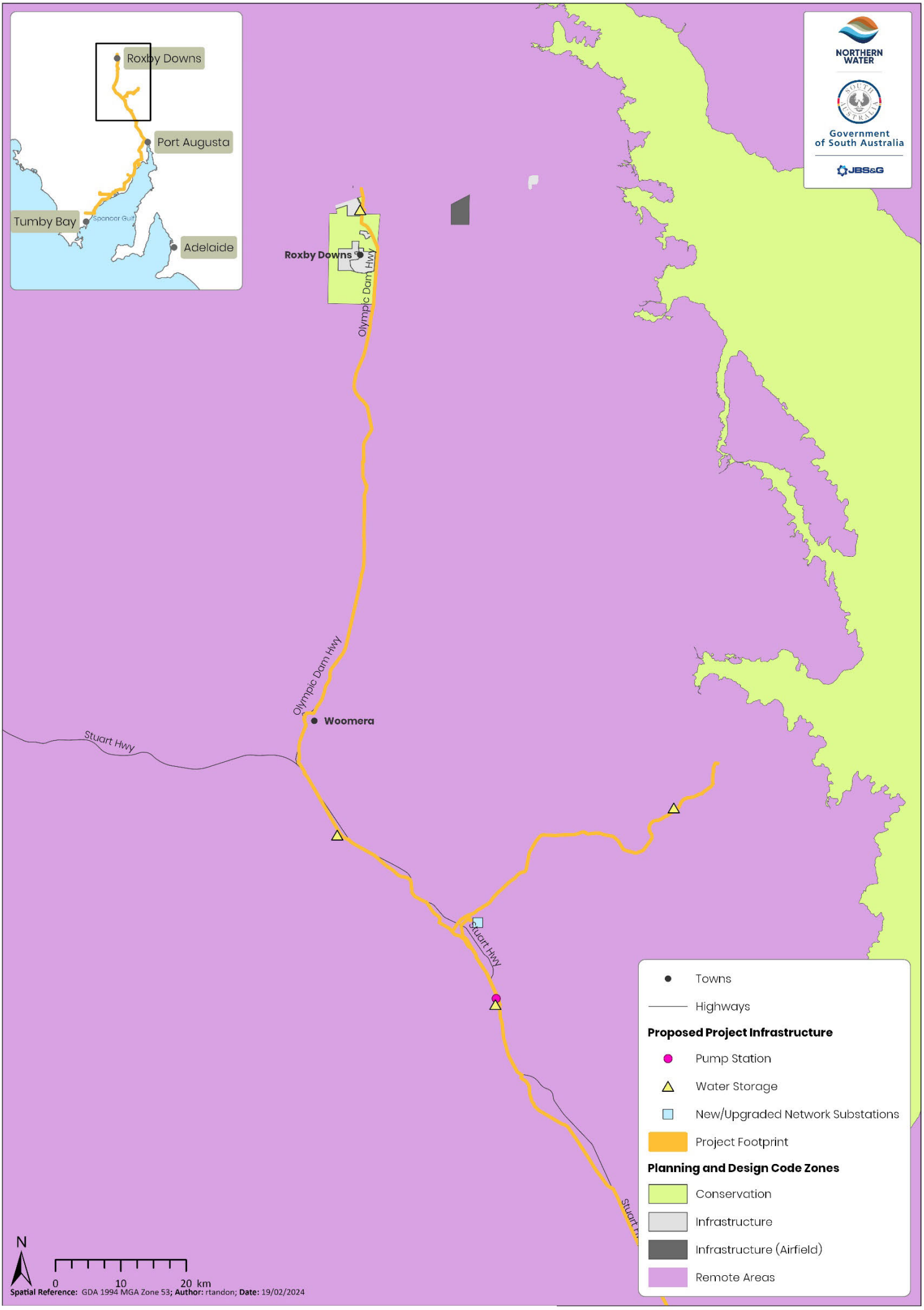


Figure 7-3: Relevant Planning and Design Code Zones - northern section

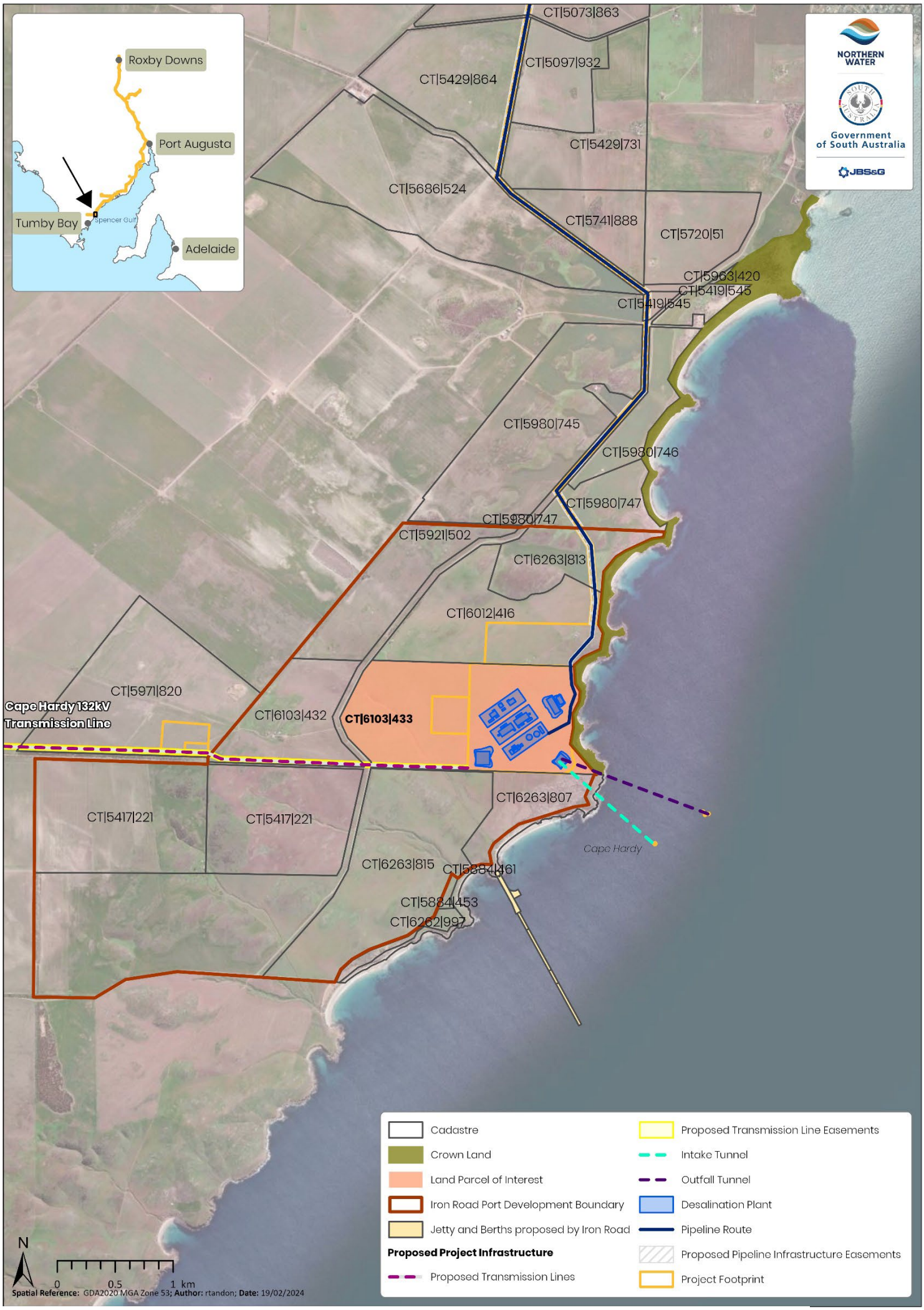


Figure 9-1: Relevant land parcels at Cape Hardy and approved Iron Road port development footprint

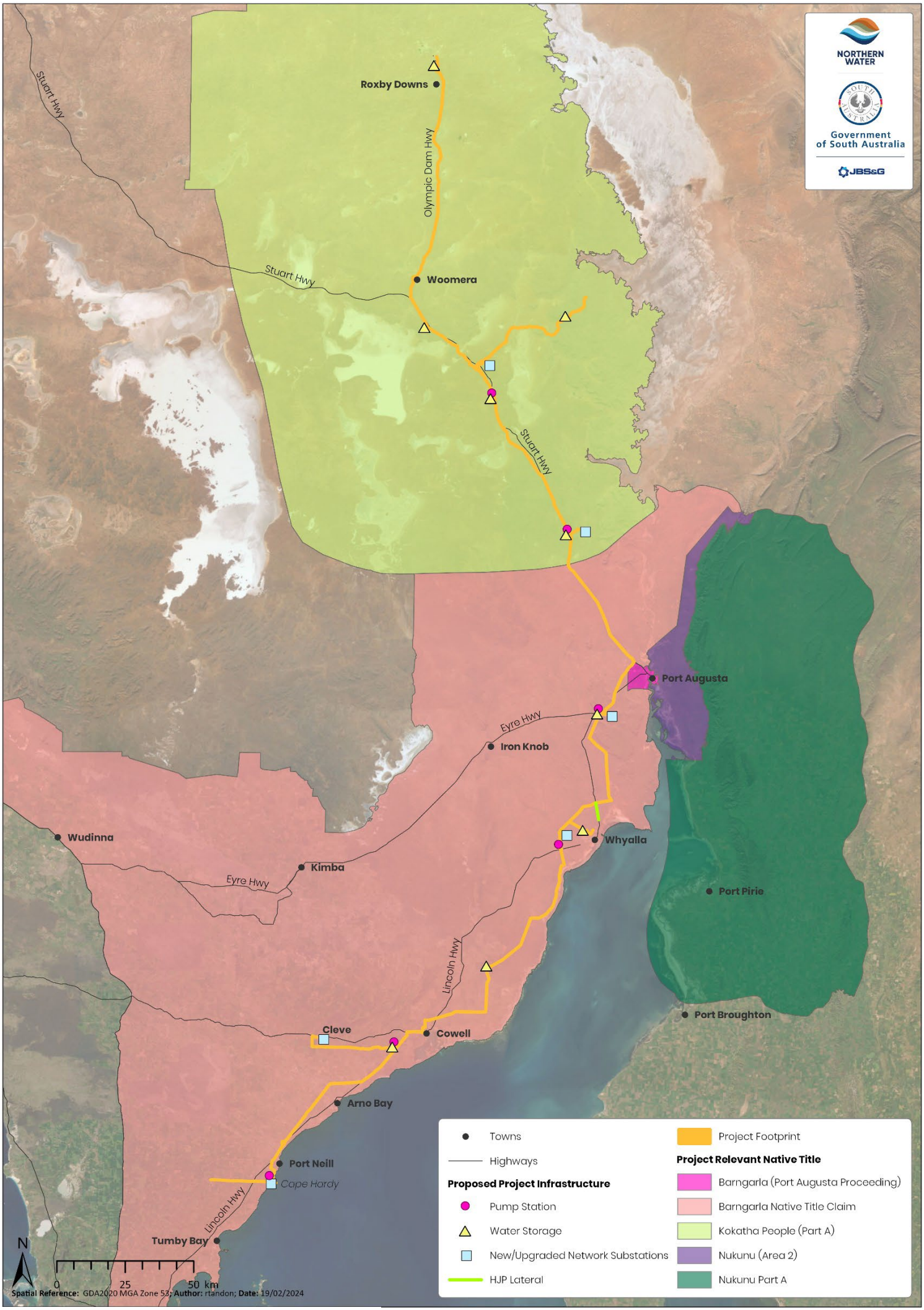


Figure 9-2: Native Title Determination Areas

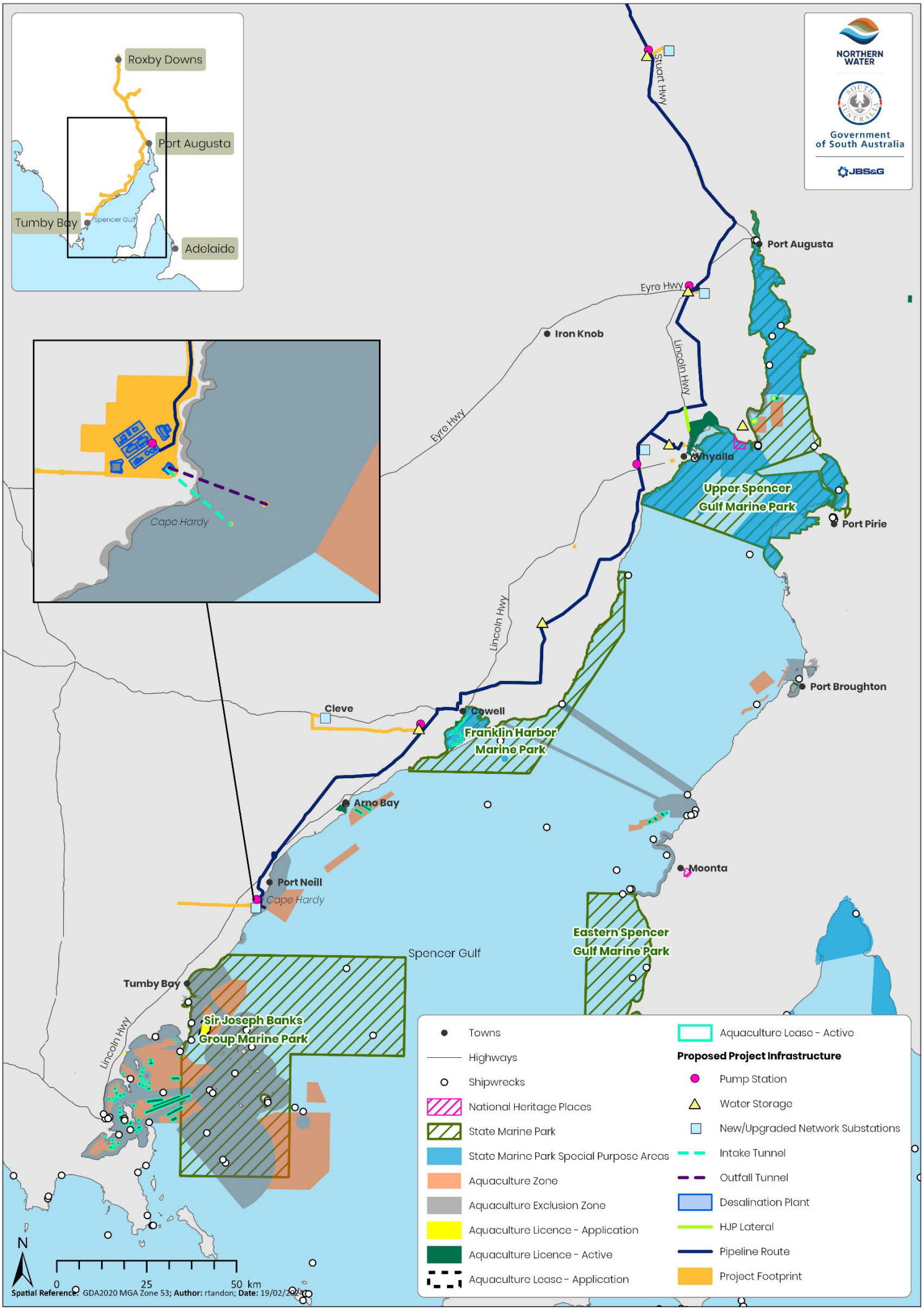


Figure 9-3: Uses of marine waters - National Heritage Places, marine parks, aquaculture zones and historic shipwrecks

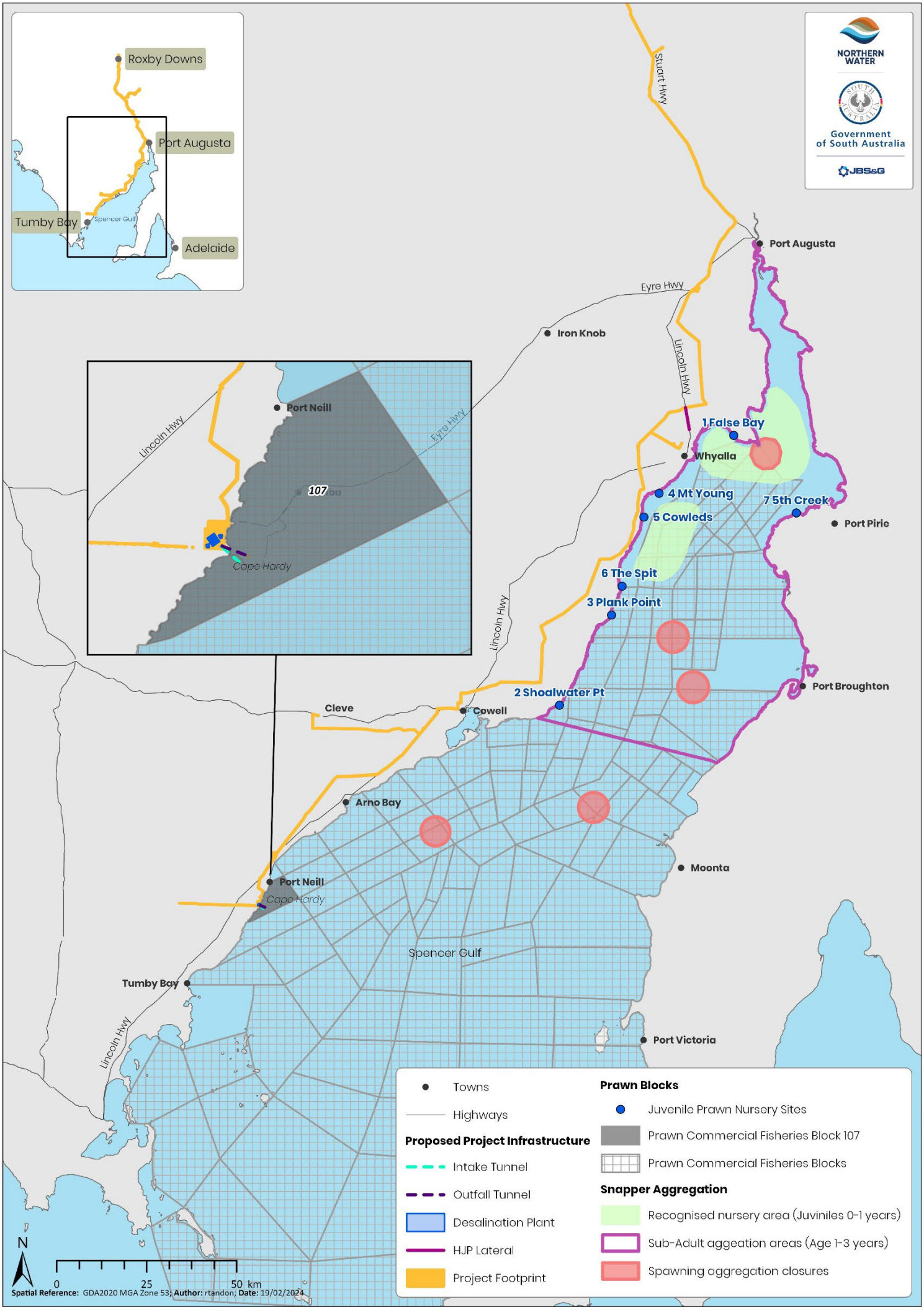


Figure 9-4: Prawn and snapper fisheries in the Spencer Gulf

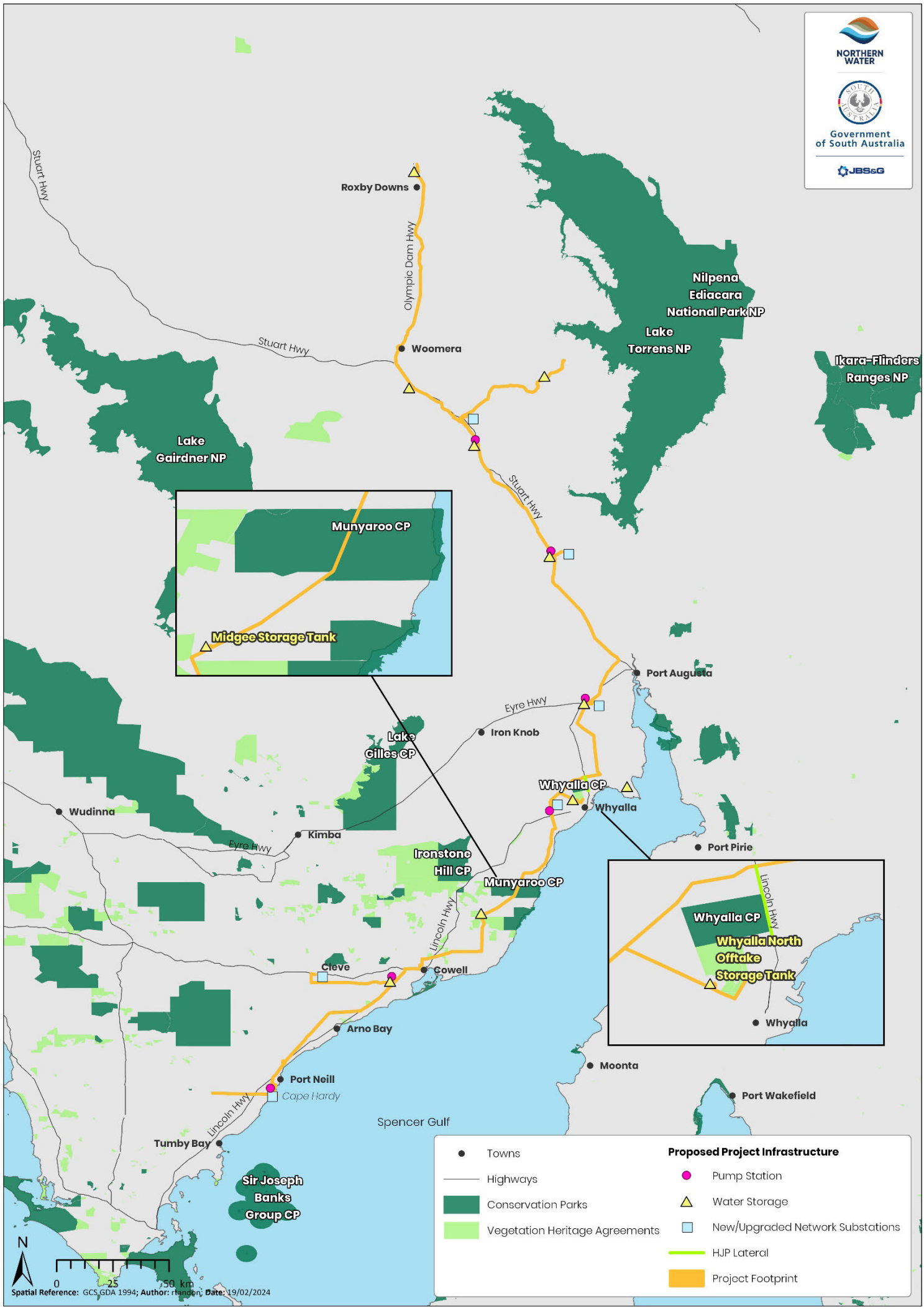


Figure 9-5: Areas managed for conservation and vegetation heritage agreements

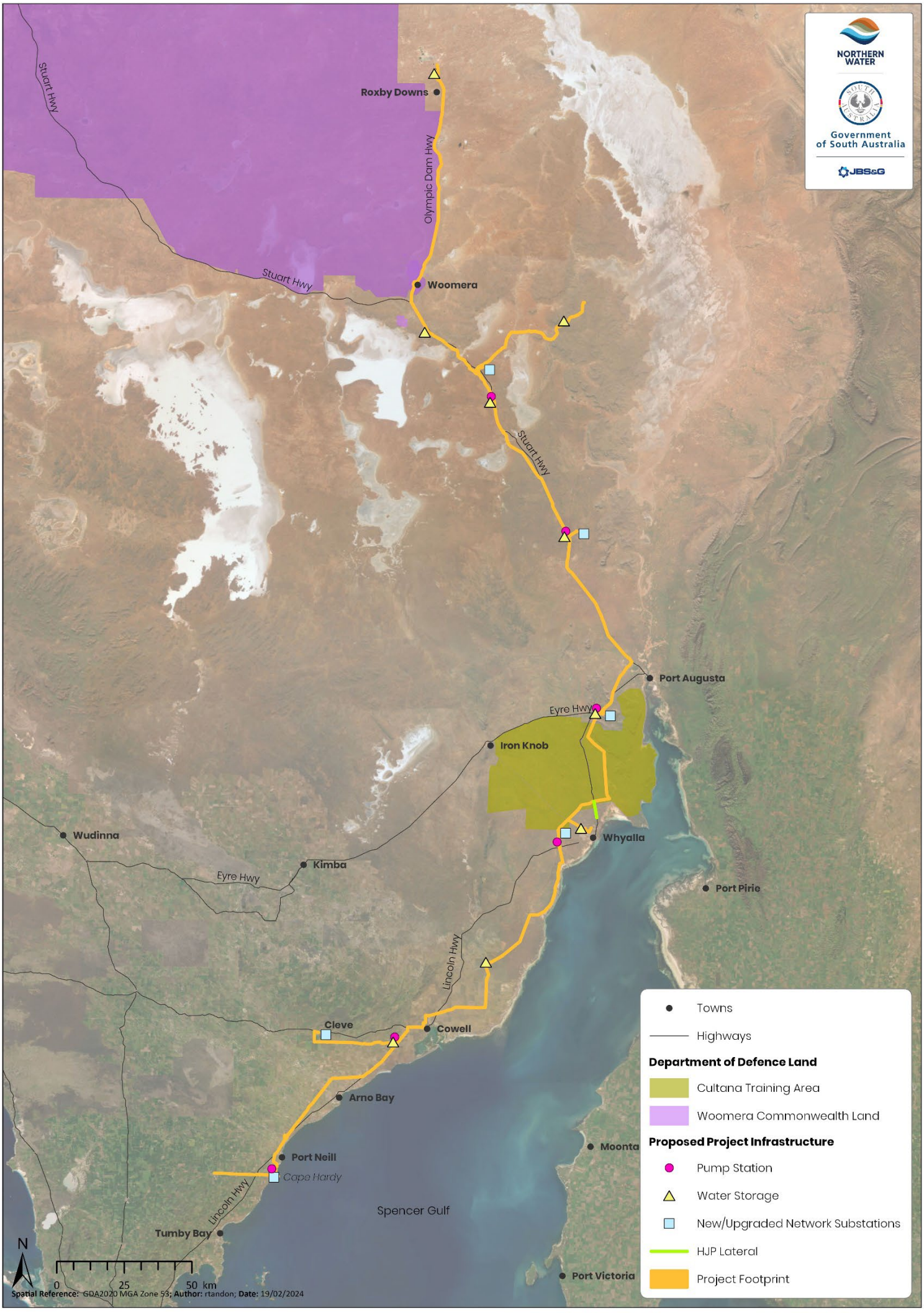


Figure 9-6: Department of Defence land



Figure 9-7: Existing major infrastructure – southern section

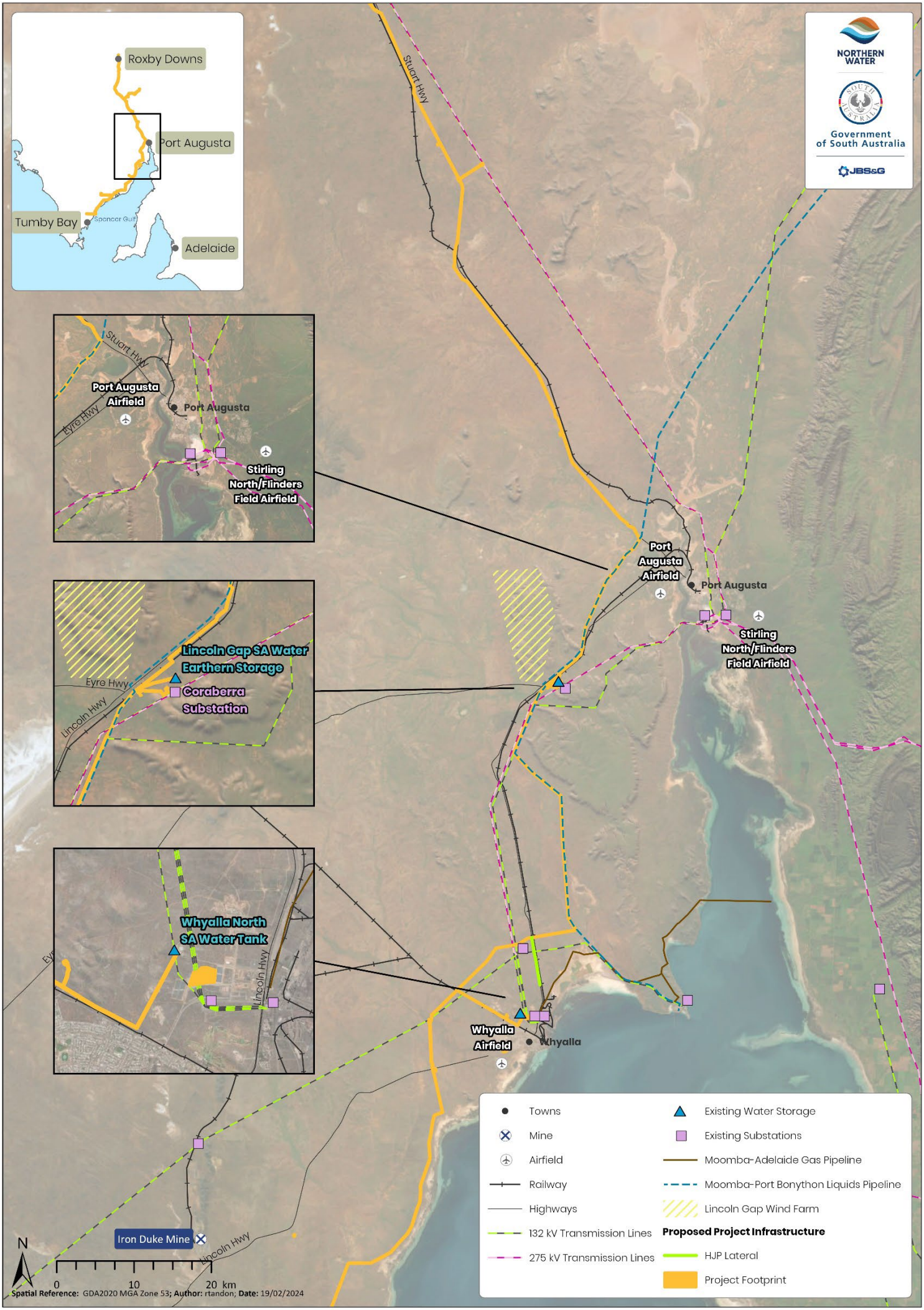


Figure 9-8: Existing major infrastructure – central section

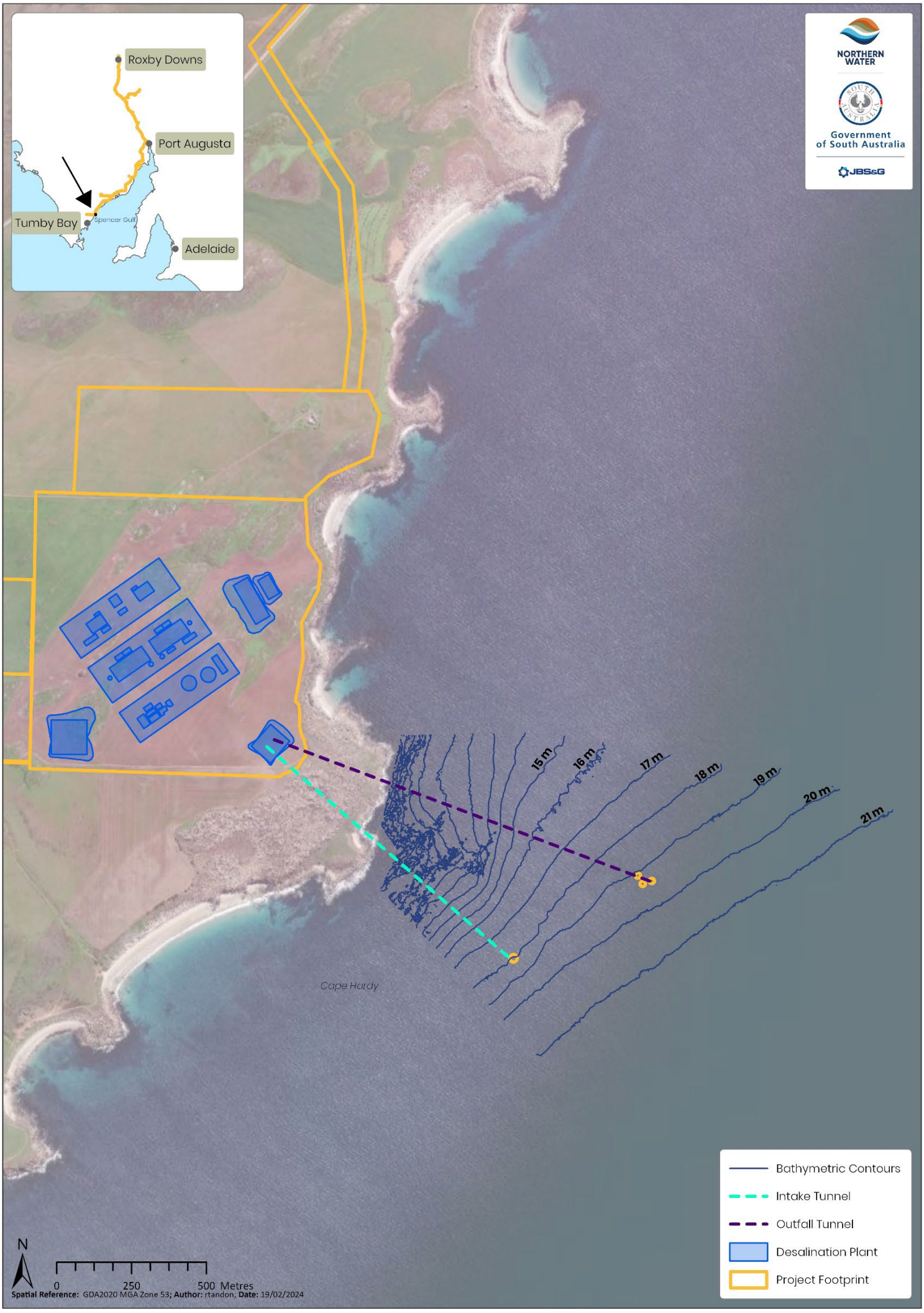


Figure 9-10: Spencer Gulf bathymetry at the desalination plant site

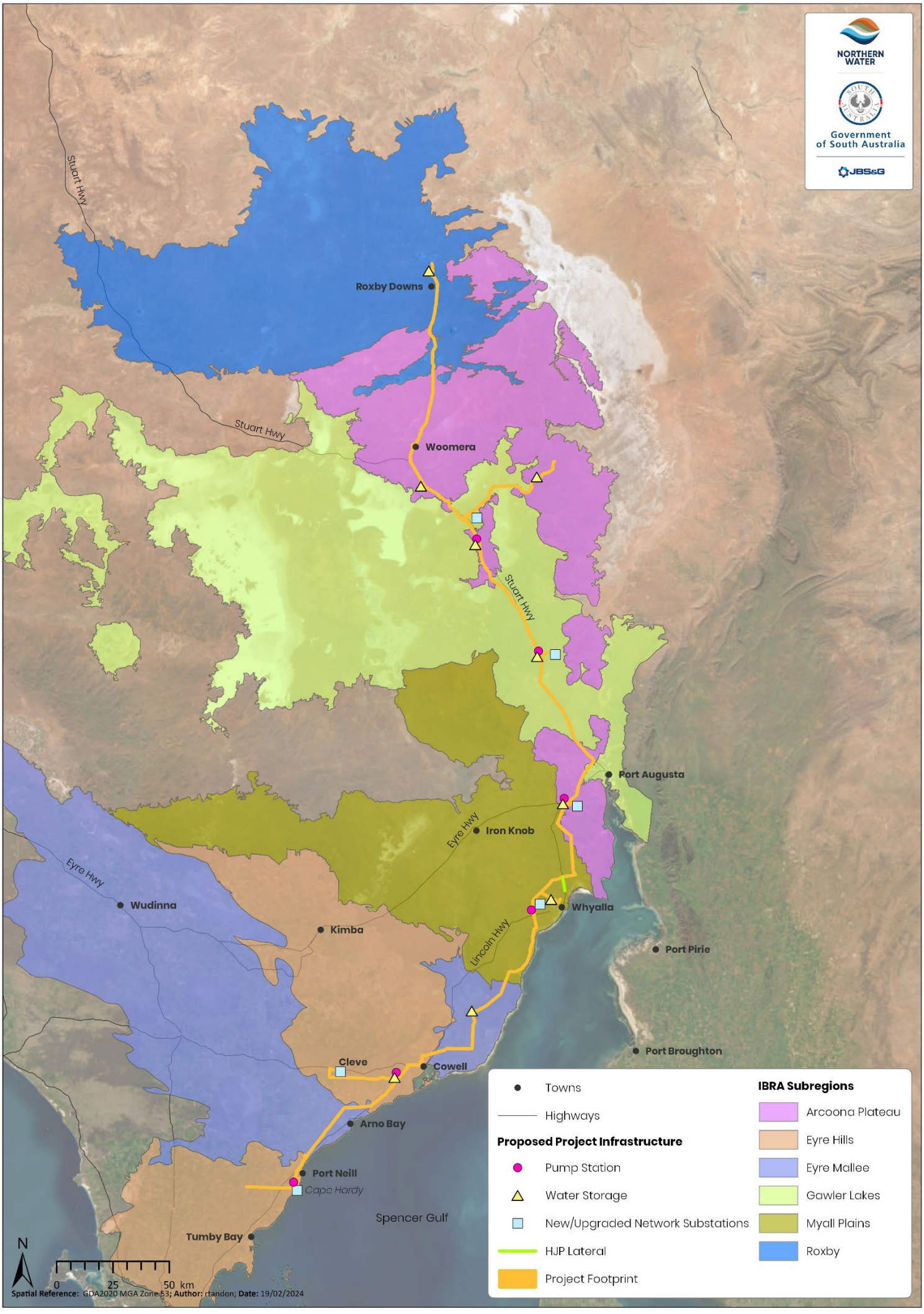


Figure 9-12: IBRA subregions in the Project area

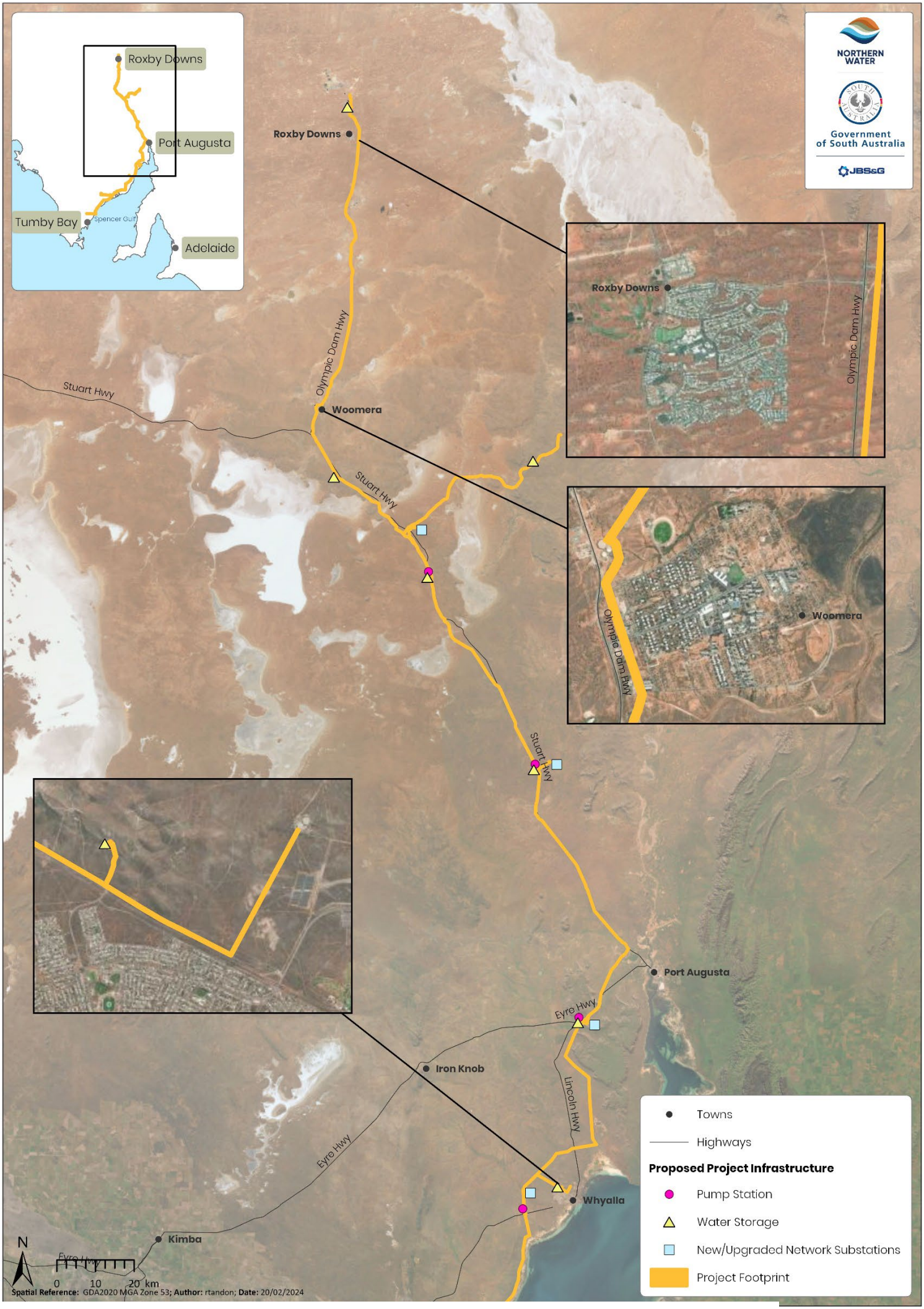
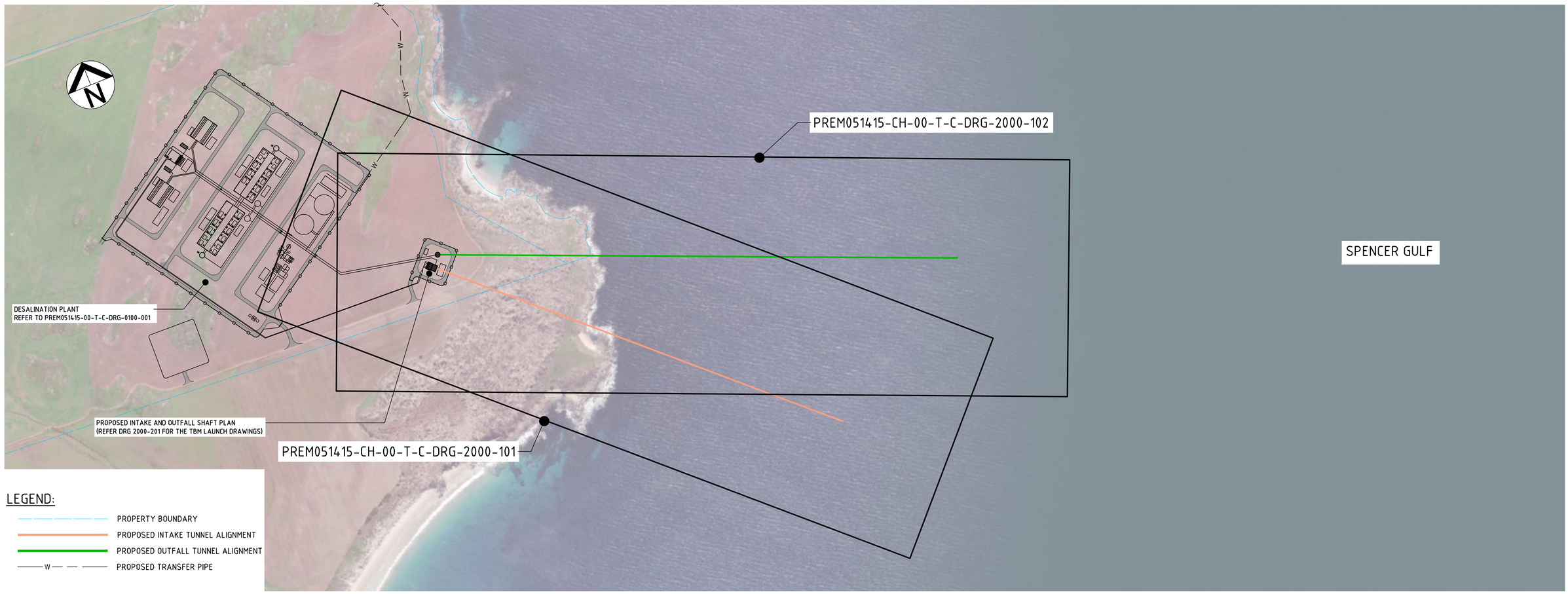


Figure 9-13: Proximity of proposed Project infrastructure to Whyalla, Woomera and Roxby Downs

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DATE: 8/18/2023 1:52:58 PM NAME: GENNA BALDONADO

NORTHERN WATER SUPPLY
MARINE WORKS

DRAWING INDEX		
DRAWING NUMBER	DRAWING TITLE	DRAWING TITLE
PREM051415-CH-00-T-C-DRG-2000-001		DRAWING INDEX AND OVERVIEW PLAN
PREM051415-CH-00-T-C-DRG-2000-101	INTAKE	PLAN AND LONGITUDINAL SECTION - SHEET 1
PREM051415-CH-00-T-C-DRG-2000-102	OUTFALL	PLAN AND LONGITUDINAL SECTION - SHEET 1
PREM051415-CH-00-T-C-DRG-2000-201	TBM LAUNCH AREA	GENERAL ARRANGEMENT
PREM051415-CH-00-T-C-DRG-2000-251	ALTERNATIVE CONSTRUCTION METHOD	GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-2000-252	ALTERNATIVE CONSTRUCTION METHOD	LONGITUDINAL SECTION
PREM051415-CH-00-T-C-DRG-2000-701	DETAILS	INTAKE AND OUTFALL TYPICAL DETAILS



OVERVIEW PLAN
SCALE 1:5000

SCALE 1:5000 (A1)
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100 50

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PROJECT: NORTHERN WATER ENGINEERING REFERENCE DESIGN			
DRAWN: G.BALDONADO	DRAWING CHECK: J.FISHBURN	REVIEWED: G.FINLAYSON DATE 18.08.23	APPROVED: A.CHITTY DATE 18.08.23
DESIGNED: H.SANDLAND	DESIGN REVIEW: BH, SH, SC		

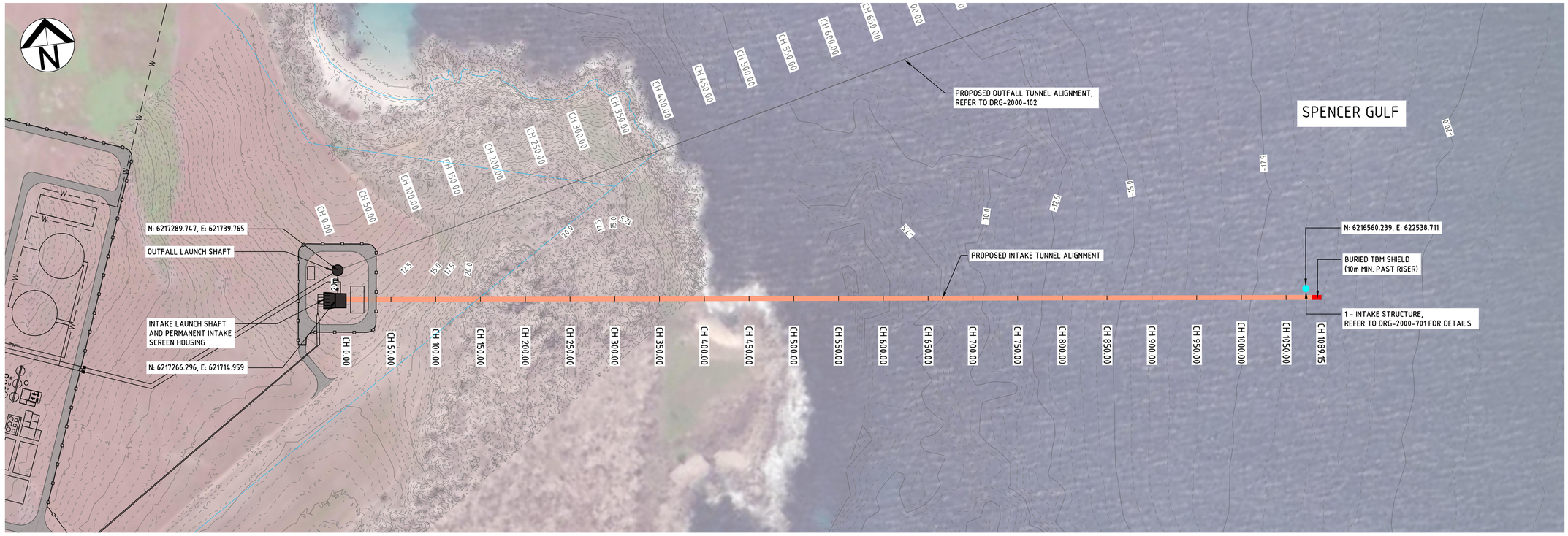
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DRAWING INDEX AND OVERVIEW PLAN

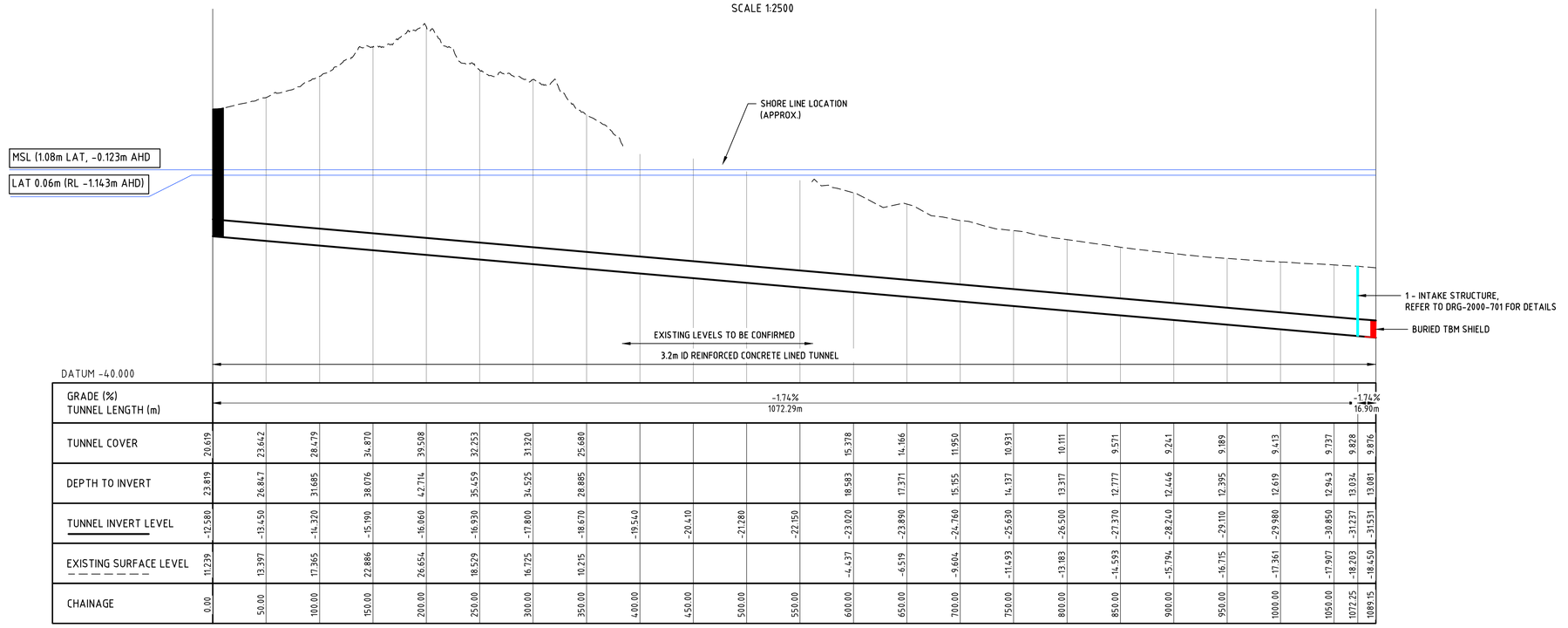
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PLAN
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EXISTING SURFACE LEVEL	11.239	13.397	17.365	22.886	26.654	18.529	16.725	10.215					-4.437	-6.519	-9.604	-11.493	-13.183	-14.593	-15.794	-16.715	-17.361	-17.907	-18.203	-18.450
TUNNEL INVERT LEVEL	-12.580	-13.450	-14.320	-15.190	-16.060	-16.930	-17.800	-18.670	-19.540	-20.410	-21.280	-22.150	-23.020	-23.890	-24.760	-25.630	-26.500	-27.370	-28.240	-29.110	-29.980	-30.850	-31.237	-31.531
DEPTH TO INVERT	23.819	26.847	31.685	38.076	42.714	35.459	34.525	28.885					18.583	17.371	15.155	14.137	13.317	12.777	12.446	12.395	12.619	12.943	13.034	13.081
TUNNEL COVER	20.619	23.642	28.479	34.870	39.508	32.253	31.320	25.680					15.378	14.166	11.950	10.931	10.111	9.571	9.241	9.189	9.413	9.737	9.828	9.876

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SCALE 1:2500 (A1) HORIZONTAL — 0 50 100 150 200 250m; 50 25

NOTE: ALL LEVELS IN m AHD (UNLESS NOTED OTHERWISE). CHART DATUM (CD) 0.0 LEVEL IS EQUIVALENT TO LOWEST ASTRONOMICAL TIDE (LAT) AND -1.203m AHD.

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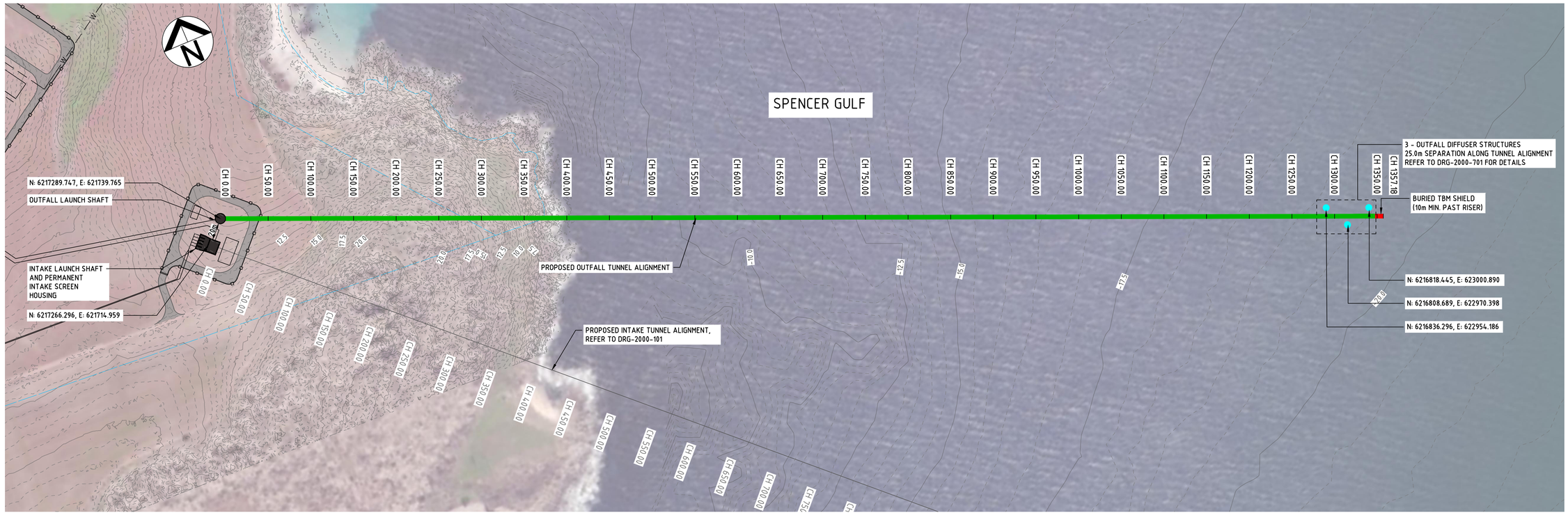
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G.BALDONADO	J.FISHBURN	G.FINLAYSON	A.CHITTY
DESIGNED	DESIGN REVIEW	DATE 18.08.23	DATE 18.08.23
H.SANDLAND	BH, SH, SC		

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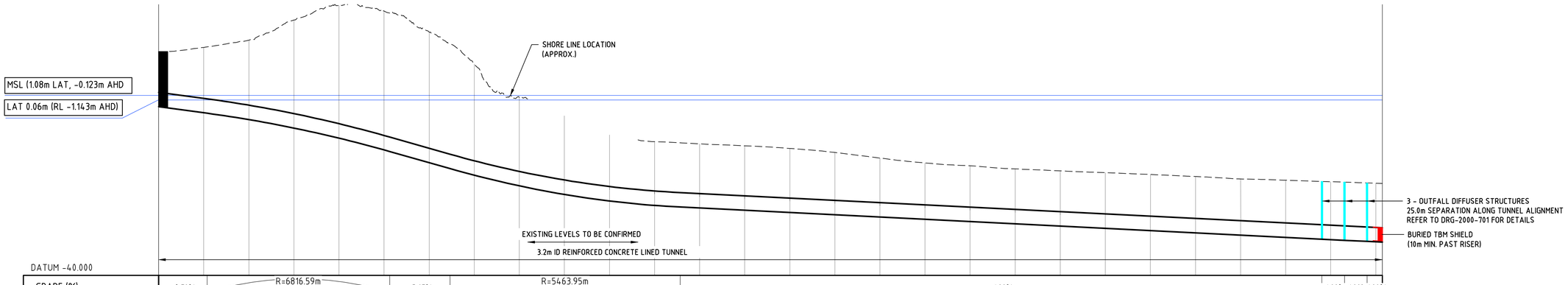
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DATE: 8/18/2023 1:53:58 PM NAME: GENNA BALDONADO



PLAN
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TUNNEL COVER	9.000	11.276 14.385 17.585 20.761 23.961 26.191 27.567 25.738 21.434 16.339 10.920 11.015 10.999 10.616 9.873 9.281 9.141 8.968 9.029 9.126 9.239 9.266 9.237 9.445					9.575	9.618	9.684 9.713 9.802 9.824
DEPTH TO INVERT	12.200	14.476 17.585 23.961 29.391 30.167 28.938 24.634 19.539 14.120 14.215 14.281 14.199 13.816 13.073 12.481 12.341 12.168 12.229 12.326 12.439 12.466 12.437 12.645					12.775	12.818	12.884 12.974 13.003 13.024
TUNNEL INVERT LEVEL	-2.632	-3.981 -5.488 -7.360 -9.599 -12.205 -15.037 -17.806 -20.166 -22.669 -23.514 -24.502 -25.075 -25.575 -26.075 -26.575 -27.075 -27.575 -28.075 -28.575 -29.075 -29.575 -30.075 -30.575 -31.075 -31.575					-31.978	-32.075	-32.228 -32.479 -32.576 -32.647
EXISTING SURFACE LEVEL	9.568	10.495 12.097 16.601 19.792 18.563 13.901 6.828 -0.627					-19.203	-19.257	-19.344 -19.505 -19.573 -19.623
CHAINAGE	0.00	50.00 100.00 150.00 200.00 250.00 300.00 350.00 400.00 450.00 500.00 550.00 600.00 650.00 700.00 750.00 800.00 850.00 900.00 950.00 1000.00 1050.00 1100.00 1150.00 1200.00 1250.00					1290.277 1300.00	1315.277	1340.277 1350.00 1357.18

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10 8 6 4 2

SCALE 1:2500 (A1) HORIZONTAL
0 50 100 150 200 250m
50 25

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G.BALDONADO	J.FISHBURN	G.FINLAYSON	A.CHITTY
DESIGNED	DESIGN REVIEW	DATE 18.08.23	DATE 18.08.23
H.SANDLAND	BH, SH, SC		

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PLAN & LONGITUDINAL SECTION

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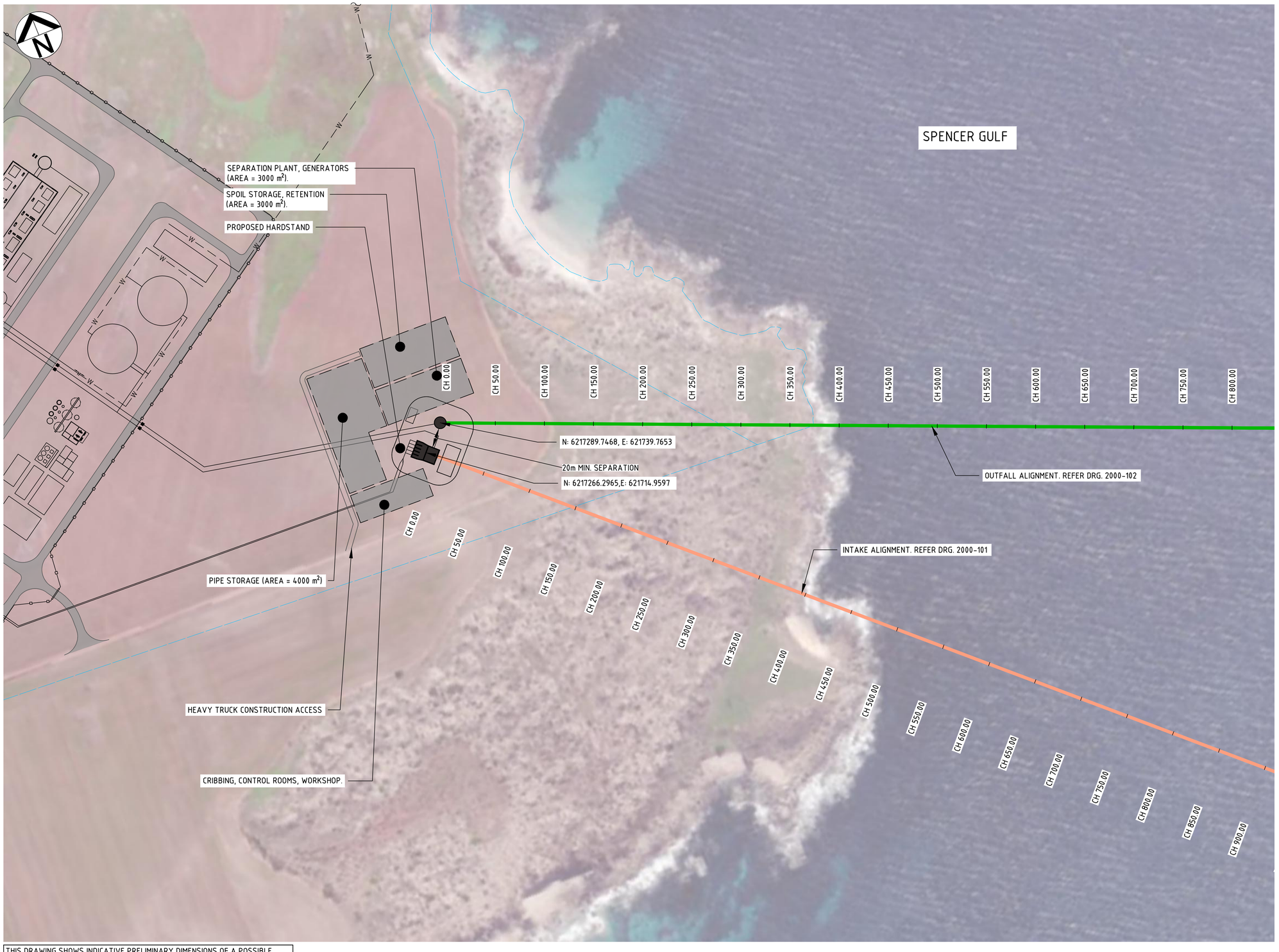
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- PROPOSED OUTFALL TUNNEL ALIGNMENT
- PROPOSED TRANSFER PIPE
- PROPOSED TEMPORARY FACILITY
- PROPOSED PERMANENT FACILITY

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OVERVIEW PLAN
SCALE 1:2000

SCALE 1:2000 (A1) 0 40 80 120 160 200m
40 20

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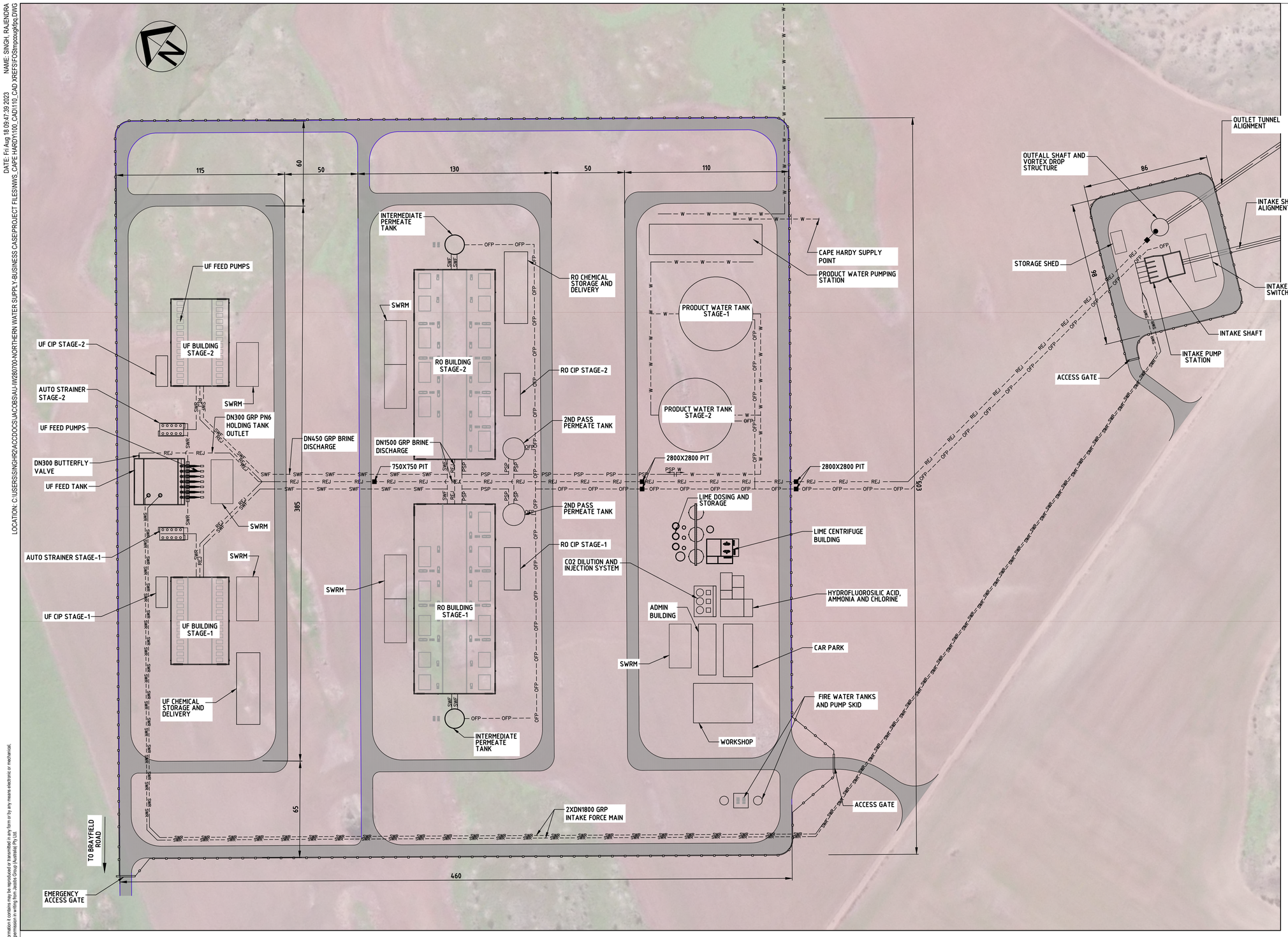
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H.SANDLAND	NW		

TITLE
MARINE WORKS
TBM LAUNCH AREA
GENERAL ARRANGEMENT

SCALE	DRAWING No	REV
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DATE: Fri Aug 18 09:47:39 2023 NAME: SINGH, RAJENDRA
LOCATION: C:\USERS\SINGHR2\ACCDOCS\JACOBS\AU-WW280700-NORTHERN WATER SUPPLY-BUSINESS CASE\PROJECT FILES\NWS_CAPE HARDY\100_CAD\110_CAD XREFS\FOS\mpcowgkfpd.DWG



LEGEND:

- FENCE LINE
- PRODUCT WATER
- PERMEATE SECOND PASS
- HIGH VOLTAGE ELECTRICAL
- SEAWATER FILTERED
- SEAWATER RAW
- REJECT WATER
- OVERFLOW PIPES
- ENERGY DISSIPATION STRUCTURES
- TRAFFIC FLOW DIRECTION
- STAGE 2 WORKS

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2. CO-ORDINATES PROVIDED ARE INDICATIVE ONLY AND IN MGA2020 ZONE 53.

DESALINATION PLANT SITE LAYOUT PLAN
SCALE 1:1500

SCALE 1:1500 (A1) 0 20 40 60 80 100m
27 13.5

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REV	DATE	APP'D	REVISION
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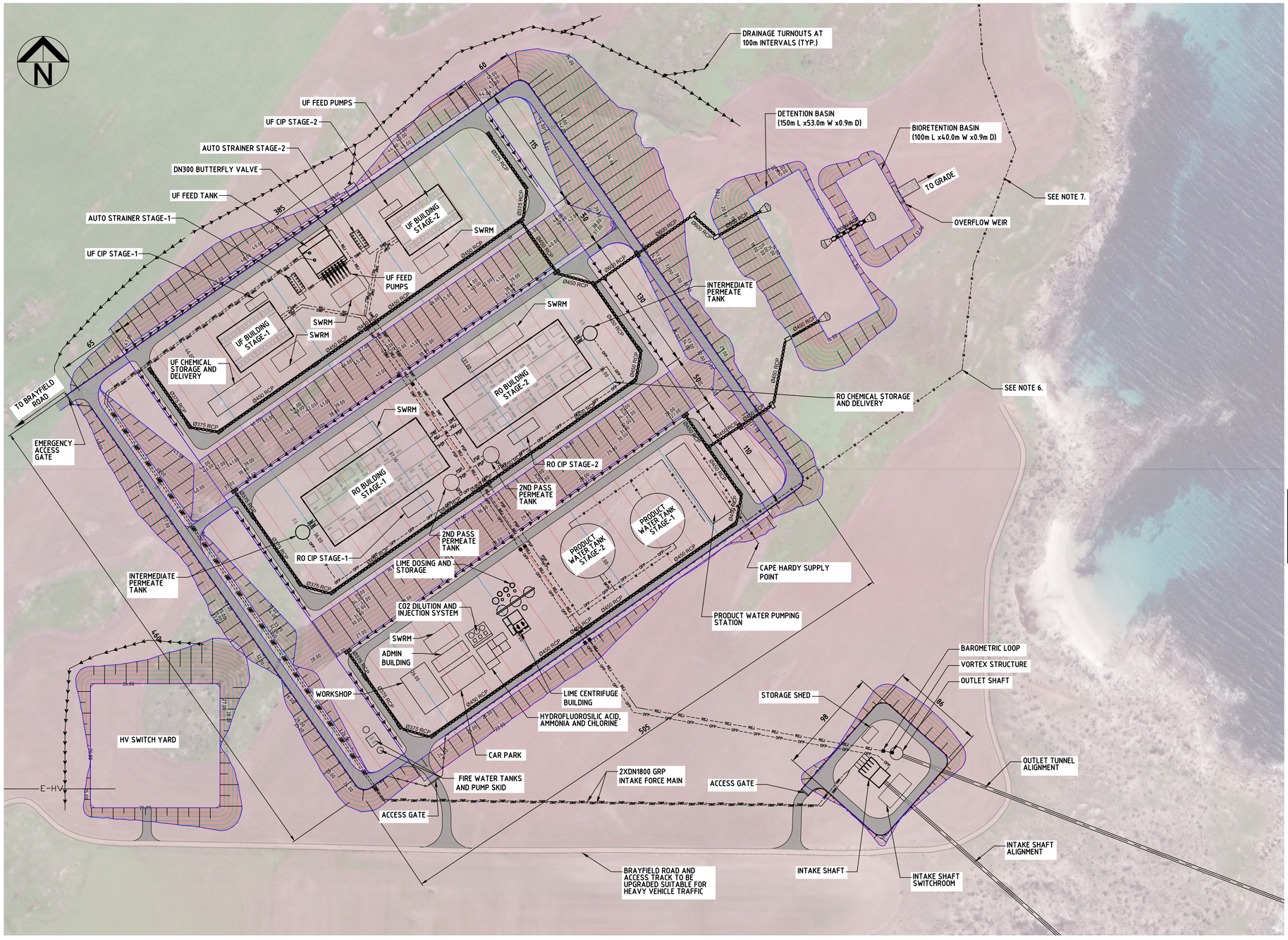
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PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN
DRAWN	D. BHAGWAT
DESIGNED	C. CINI
DRAWING CHECK	
DESIGN REVIEW	D. WILLIAMS
REVIEWED	C. CINI — DATE 21.07.23
APPROVED	D. WILLIAMS — DATE 21.07.23

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DATE: Fri Aug 18 12:48:12 2023 NAME: SINGH, RAJENDRA



DESALINATION PLANT EARTHWORKS AND DRAINAGE PLAN

SCALE 1:2000

LEGEND:

- FENCE LINE
- HEADWALL - REFER DIT STD DRG S-4020-21
- JUNCTION PIT - REFER DIT STD DRG S-4080-1
- GRATED INLET PIT - REFER DIT STD DRG S-4080-7
- DELIVERY BUNDED AREA SUMP
- CHEMICAL SPILL RETENTION TANK
- STORMWATER PIPE
- OPEN DRAIN
- RIP RAP
- SURFACE MAJOR CONTOUR (1.00m INTERVAL)
- SURFACE MINOR CONTOUR (0.25m INTERVAL)
- EARTHWORKS BATTER
- TRAFFIC FLOW DIRECTION
- E-HV — HIGH VOLTAGE TRANSMISSION LINE
- FENCE LINE
- W — PRODUCT WATER
- PSP — PERMEATE SECOND PASS
- HVE — HIGH VOLTAGE ELECTRICAL
- SWF — SEAWATER FILTERED
- SWR — SEAWATER RAW
- REJ — REJECT WATER
- OFP — OVERFLOW PIPES
- ENERGY DISSIPATION STRUCTURES

EARTHWORKS VOLUME TABLE

AREA OF WORKS (m^2)	TOP SOIL CUT (M^3)	BANK CUT (m^3)	ROCK CUT (m^3)	COMPACTED FILL (m^3)	NET BALANCE (m^3)
333,000	67,000	229,500	314,800	447,400	-176,000 (CUT)

NOTE: EARTHWORKS CALCULATIONS ARE BASED ON A TOPSOIL STRIP DEPTH OF 0.2m AND A SHRINKAGE FACTOR OF 0.89 FOR SOIL AND 1.33 FOR ROCK.

NOTES:

1. ALL DIMENSIONS ARE IN THE METRES, UNLESS NOTED OTHERWISE.
2. CO-ORDINATES PROVIDED ARE INDICATIVE ONLY AND IN MGA2020 ZONE 53.
3. ADDITIONAL ROAD ACCESS TO THE MAIN PLANT AREA TO CONNECT BETWEEN THE UF TERRACE LEVEL AND BRAYFIELD ROAD IS REQUIRED BUT NOT SHOWN.
4. RISING MAIN FROM THE PRODUCT WATER PUMPING STATION TO CAPE HARDY IS NOT SHOWN. A BLANK FLANGE OUTSIDE THE PUMPING STATION TO BE PROVIDED FOR A POSSIBLE CONNECTION FOR LOCAL DEMANDS.
5. REFER TO DRAWING PREM051415-CH-00-T-E-DRG-1411-013 FOR YARD ELECTRICAL LAYOUT DETAILS.
6. DRAWING PREM051415-CH-00-T-C-DRG-1120-801 PRESENTS THE ORIGINAL PIPE ALIGNMENT CHAINAGE. THE RISING MAIN FOR PS1 CONNECTS AT CHAINAGE 875 AT THIS POINT. THE LENGTH OF RISING MAIN UPSTREAM OF THIS POINT IS APPROXIMATELY 330m.
7. THE RISING MAIN CHAINAGES ARE SHOWN OF THE PLAN SERIES PREM041415-CH-00-T-C-DRG-1120-001 AND LONGITUDINAL SECTIONS PREM051415-CH-00-T-C-DRG-1120-801, 814, 820, 840, 841.

SCALE 1:2000 (A1) 0 40 80 120 160 200m; 40 20

NOT FOR CONSTRUCTION

REV	DATE	APP'D	REVISION
0	09.08.23	D.W.	ISSUED FOR INFORMATION

SCALES AT A1

NORTHERN WATER — Government of South Australia

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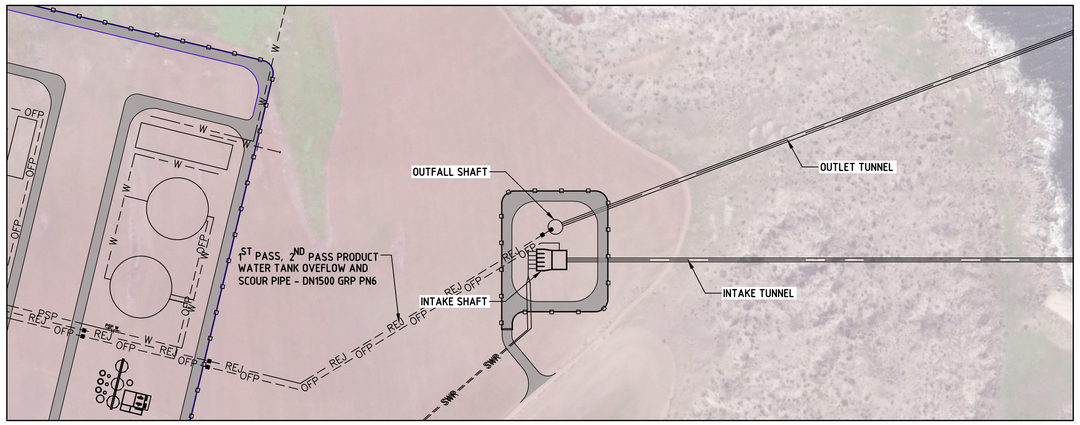
CLIENT	GOVERNMENT OF SOUTH AUSTRALIA			
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN			
DRAWN S. RAJENDRA	DRAWING CHECK	REVIEWED C. CINI DATE 21.07.23	APPROVED D. WILLIAMS DATE 21.07.23	
DESIGNED C. CINI	DESIGN REVIEW D. WILLIAMS			

TITLE: DESALINATION PLANT EARTHWORKS AND DRAINAGE LAYOUT

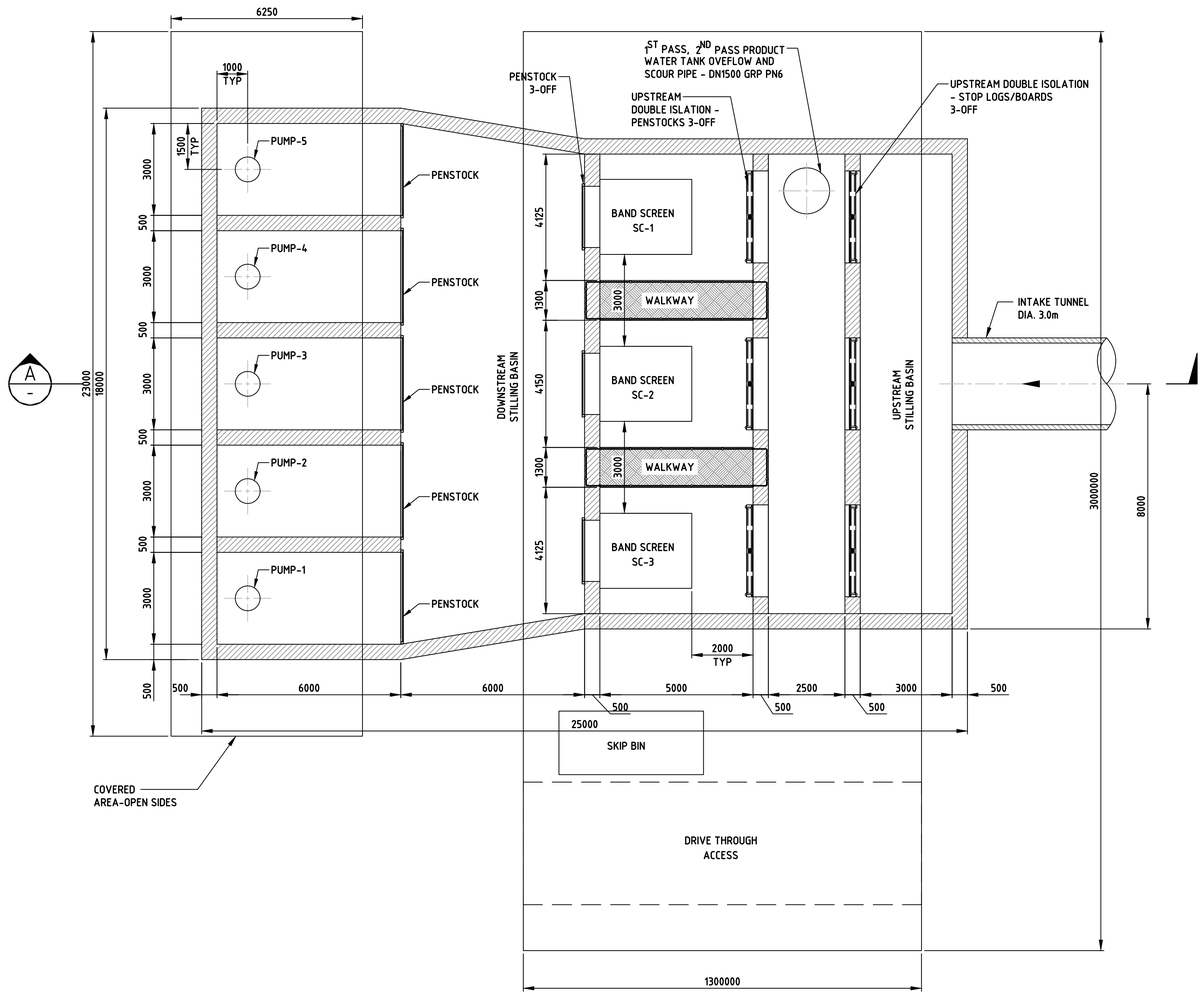
SCALE 1:2000 | DRAWING No PREM051415-CH-00-T-C-DRG-0100-002 | REV 0

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DATE: 8/18/2023 1:48:11 PM NAME: SINGH, RAJENDRA
LOCATION: C:\Users\SINGHR2\ACCDocs\Jacobs\AU-IW280700-Northern Water Supply-Business Case\Project Files\NWS_Cape Hardy\100_CAD\160_CAD DESAL\PREM051415-CH-00-T-C-DRG-0200-001_CAPE HARDY - INTAKE SHAFT GA.dwg
\ACCDocs\Jacobs\AU-IW280700-Northern Water Supply-Business Case\Project Files\NWS_Cape Hardy\100_CAD\160_CAD DESAL\PREM051415-CH-00-T-C-DRG-0200-001_CAPE HARDY - INTAKE SHAFT GA.dwg



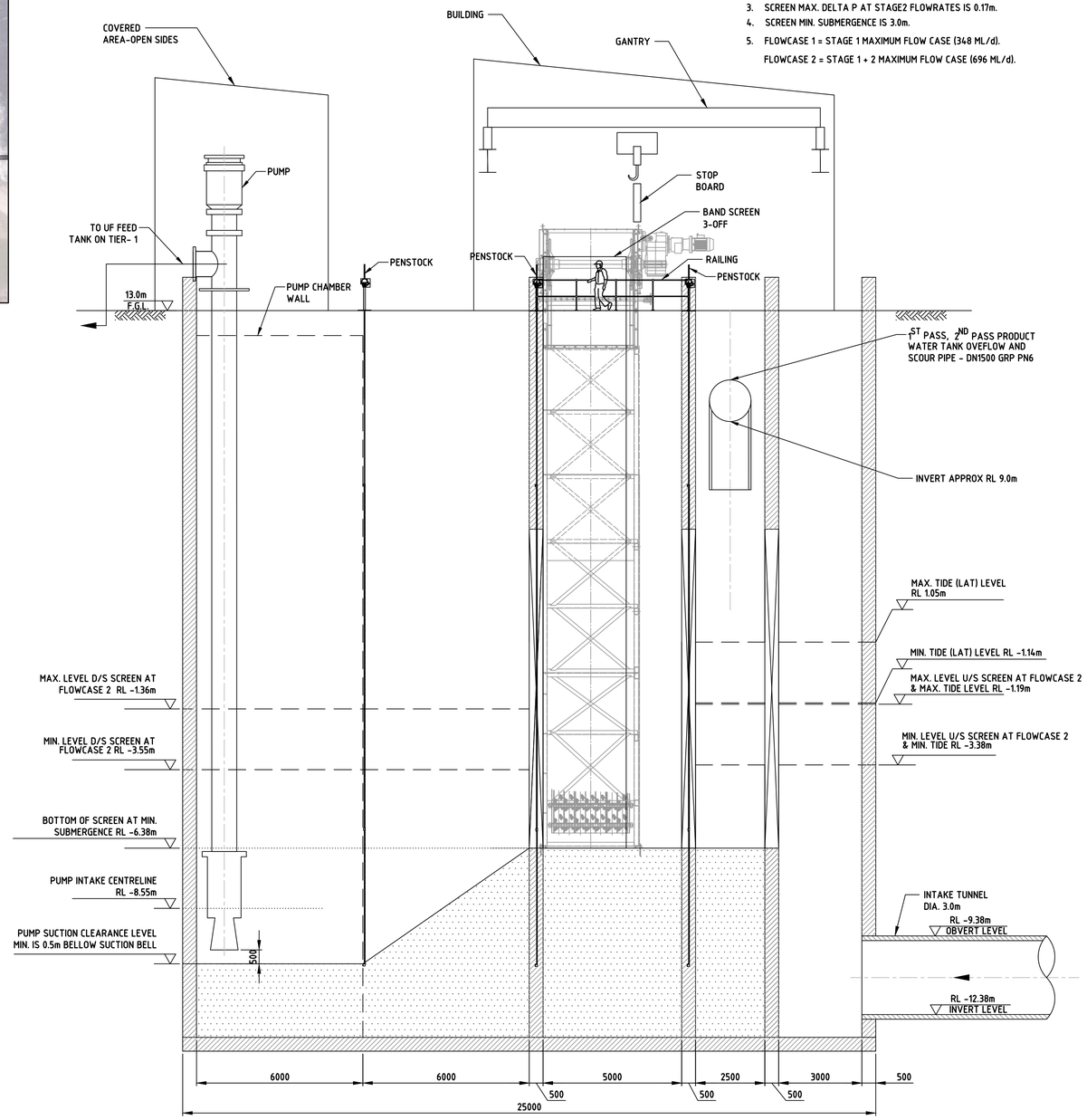
LOCALITY PLAN
SCALE 1:2500



INTAKE SHAFT SITE LAYOUT - PLAN
SCALE 1:100

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES & LEVELS ARE IN mAHD, UNLESS NOTED OTHERWISE.
2. CO-ORDINATES PROVIDED ARE INDICATIVE ONLY AND IN MGA2020 ZONE 53.
3. SCREEN MAX. DELTA P AT STAGE2 FLOWRATES IS 0.17m.
4. SCREEN MIN. SUBMERGENCE IS 3.0m.
5. FLOWCASE 1 = STAGE 1 MAXIMUM FLOW CASE (348 ML/d).
   FLOWCASE 2 = STAGE 1 + 2 MAXIMUM FLOW CASE (696 ML/d).



INTAKE SHAFT SITE LAYOUT
SECTION A - SCALE 1:100

SCALE 1:100 (A1) 0 2000 4000 6000 8000 10000mm
SCALE 1:2500 (A1) 0 50 100 150 200 250m

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REV	DATE	APP'D	REVISION
0	09.08.23	D.W.	ISSUED FOR INFORMATION

SCALES AT A1

NORTHERN WATER | Government of South Australia

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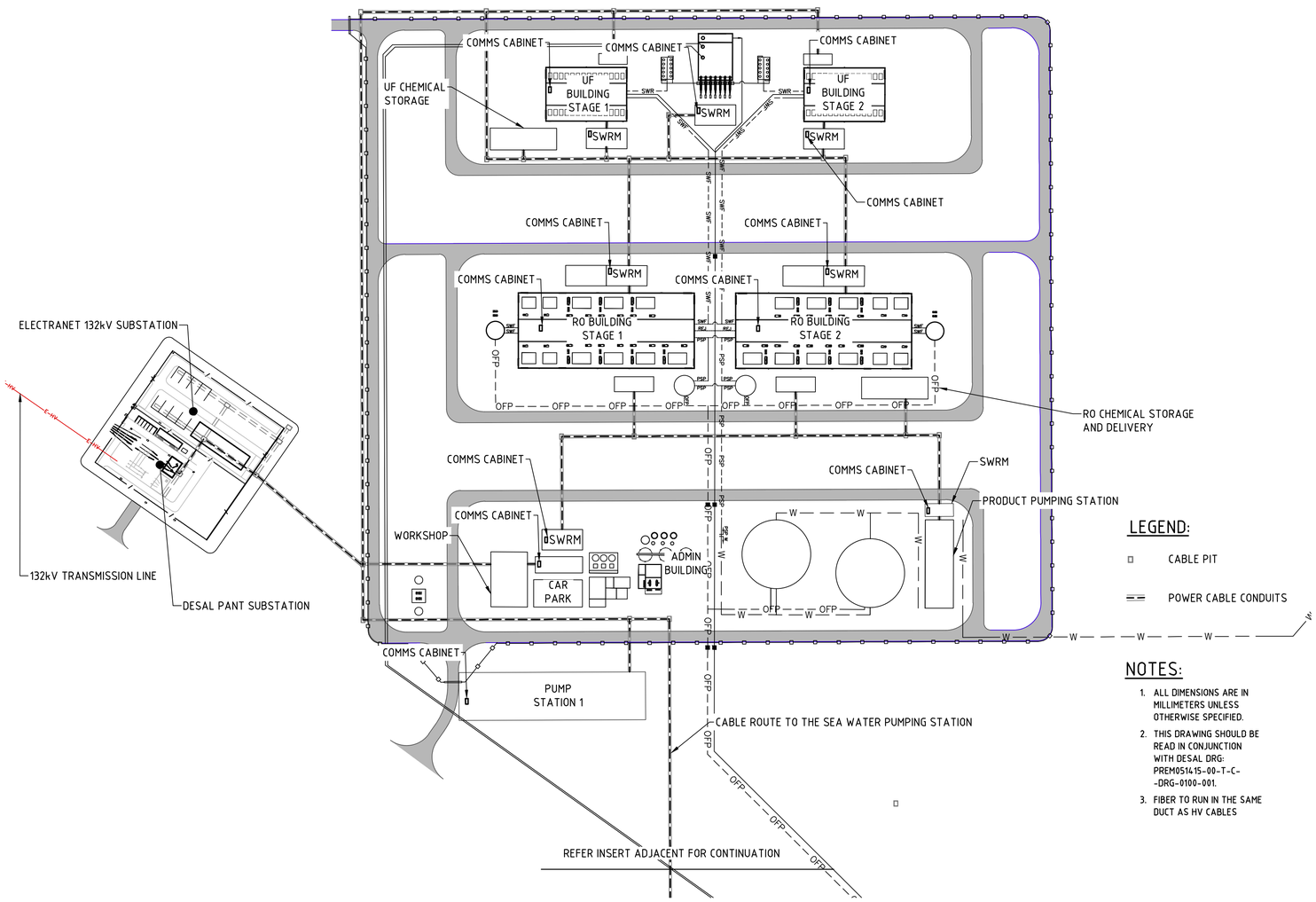
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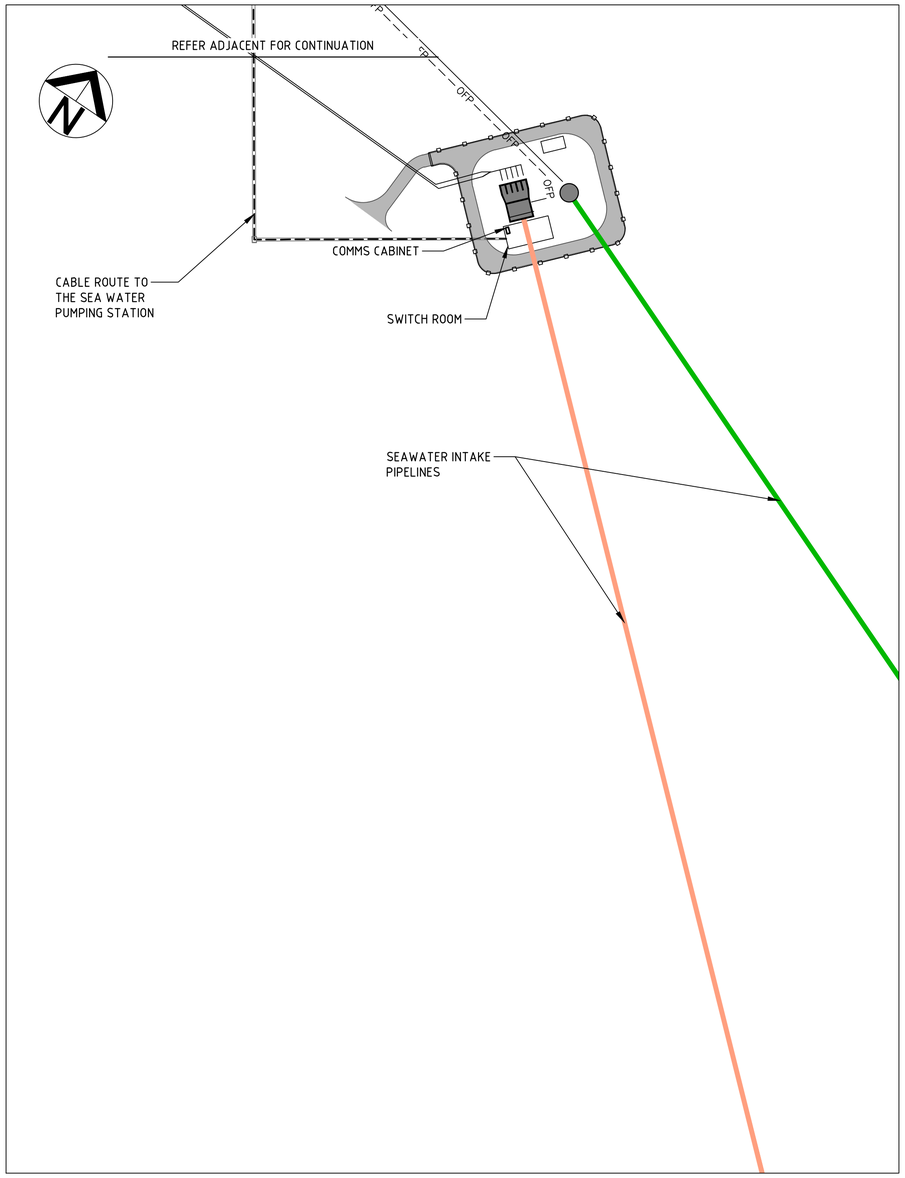
CLIENT	GOVERNMENT OF SOUTH AUSTRALIA
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN
DRAWN	D. BHAGWAT
DRAWING CHECK	
REVIEWED	C. CINI 08.08.23
APPROVED	D. WILLIAMS 08.08.23
DESIGNED	C. CINI
DESIGN REVIEW	D. WILLIAMS
SCALE	1:100
DRAWING No	PREM051415-CH-00-T-C-DRG-0200-001
REV	0

TITLE
DESALINATION PLANT
INTAKE SHAFT GENERAL ARRANGEMENT

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DATE: 18/08/2023 4:30:44 PM NAME: BAHEE DEVENDRAN
LOCATION: C:\12d\SWdata\P-00-12D-001133-12589435 - Northern Water Supply_2290\CADD\Drawings\Electrical\PREM051415-CH-00-T-E-DRG-1411-013.dwg





INSERT

LEGEND:

- CABLE PIT
- POWER CABLE CONDUITS

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DESAL DRG: PREM051415-00-T-C--DRG-0100-001.
3. FIBER TO RUN IN THE SAME DUCT AS HV CABLES

SCALE 1:2000 (A1)

0 40 80 120 160 200m

40 20

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REV	DATE	APP'D	REVISION
0	18.08.23	AC	ISSUED FOR INFORMATION

SCALES AT A1

NORTHERN WATER

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CLIENT	GOVERNMENT OF SOUTH AUSTRALIA
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN

DRAWN	DRAWING CHECK	REVIEWED	APPROVED
B.DEVENDRAN	J. FISHBURN	N.TOOLEY	A.CHITTY
DESIGNED	DESIGN REVIEW	DATE 18.08.23	DATE 18.08.23
S.MERRINGTON	R. ORSCHULOK		

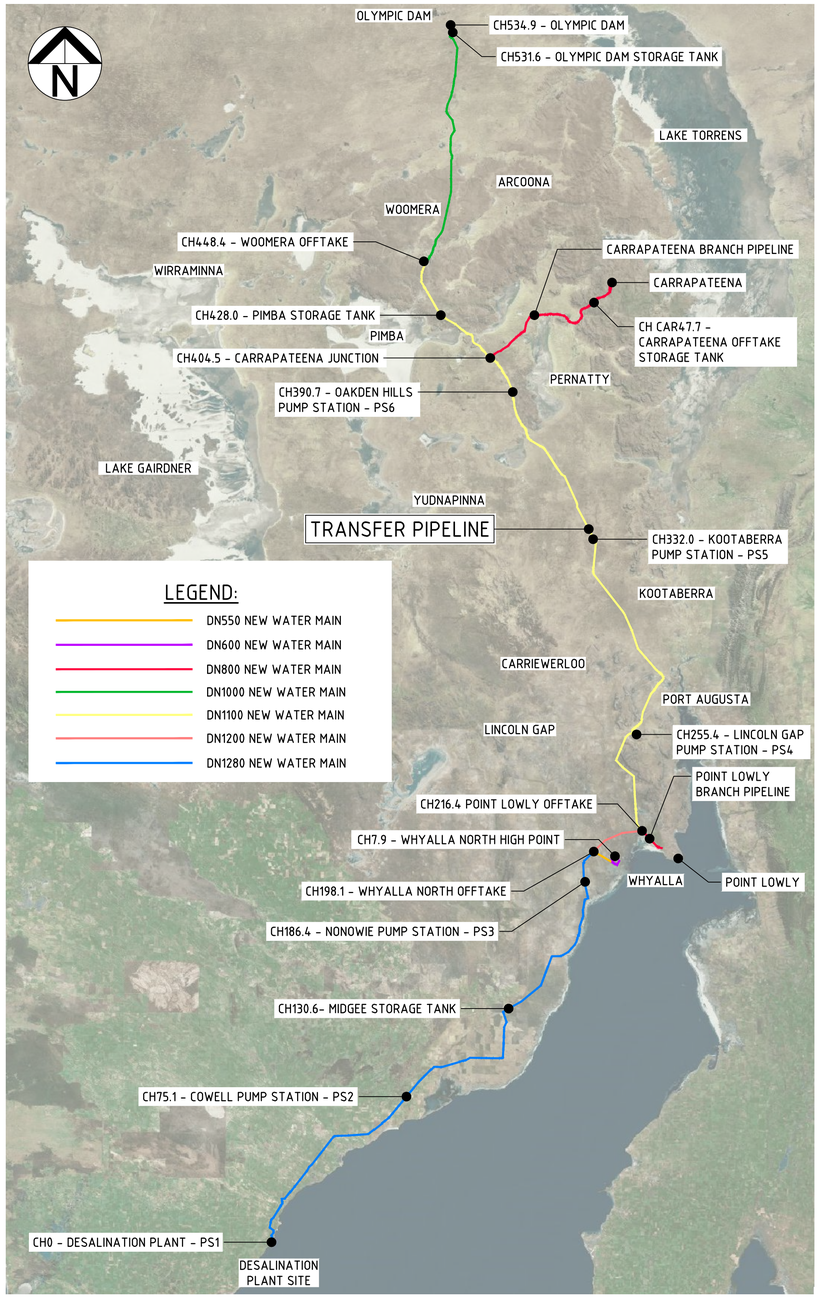
TITLE
TRANSFER SYSTEM INFRASTRUCTURE
DESAL PLANT MAIN SUB & ELECTRANET 132kV SUB
GENERAL ARRANGEMENT & SITE PLAN

SCALE	DRAWING No	REV
AS SHOWN	PREM051415-CH-00-T-E-DRG-1411-013	0

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DATE: 18/08/2023 5:01:41 PM NAME: JASON FISHBURN
LOCATION: C:\12dSW\data\P-00-12D-001133-12589435 - Northern Water Supply, 2290\CADD\Drawings\Civil\PREM051415-CH-00-T-C-DRG-1000-001.dwg

NORTHERN WATER SUPPLY
TRANSFER SYSTEM INFRASTRUCTURE



PLAN

NOT TO SCALE

NOTE: CHAINAGE SHOWN IS IN KILOMETERS

DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	DRAWING TITLE
PREM051415-CH-00-T-C-DRG-1000-001		COVER SHEET, DRAWING INDEX, OVERVIEW PLAN
PREM051415-CH-00-T-C-DRG-1000-002	TRANSFER PIPELINE	PIPE, VALVE AND CROSSING SCHEDULES
PREM051415-CH-00-T-C-DRG-1120-801	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 1 OF 14
PREM051415-CH-00-T-C-DRG-1120-802	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 2 OF 14
PREM051415-CH-00-T-C-DRG-1120-803	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 3 OF 14
PREM051415-CH-00-T-C-DRG-1120-804	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 4 OF 14
PREM051415-CH-00-T-C-DRG-1120-805	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 5 OF 14
PREM051415-CH-00-T-C-DRG-1120-806	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 6 OF 14
PREM051415-CH-00-T-C-DRG-1120-807	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 7 OF 14
PREM051415-CH-00-T-C-DRG-1120-808	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 8 OF 14
PREM051415-CH-00-T-C-DRG-1120-809	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 9 OF 14
PREM051415-CH-00-T-C-DRG-1120-810	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 10 OF 14
PREM051415-CH-00-T-C-DRG-1120-811	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 11 OF 14
PREM051415-CH-00-T-C-DRG-1120-812	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 12 OF 14
PREM051415-CH-00-T-C-DRG-1120-813	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 13 OF 14
PREM051415-CH-00-T-C-DRG-1120-814	TRANSFER PIPELINE	LONGITUDINAL SECTIONS 14 OF 14
PREM051415-CH-00-T-C-DRG-1120-820	WHYALLA NORTH BRANCH PIPELINE	LONGITUDINAL SECTION
PREM051415-CH-00-T-C-DRG-1120-830	POINT LOWLY BRANCH PIPELINE	LONGITUDINAL SECTION
PREM051415-CH-00-T-C-DRG-1120-840	CARRAPATEENA BRANCH PIPELINE	LONGITUDINAL SECTIONS 1 OF 2
PREM051415-CH-00-T-C-DRG-1120-841	CARRAPATEENA BRANCH PIPELINE	LONGITUDINAL SECTIONS 2 OF 2
PREM051415-CH-00-T-A-DRG-1200-201	TRANSFER PUMP STATIONS 2 & 3	ARCHITECTURAL GA PLAN - GROUND FLOOR
PREM051415-CH-00-T-A-DRG-1200-202	TRANSFER PUMP STATIONS 2 & 3	ARCHITECTURAL GA PLAN - MEZZANINE
PREM051415-CH-00-T-A-DRG-1200-203	TRANSFER PUMP STATIONS 2 & 3	ARCHITECTURAL GA PLAN - ROOF PLAN
PREM051415-CH-00-T-A-DRG-1200-204	TRANSFER PUMP STATIONS 2 & 3	ARCHITECTURAL ELEVATIONS
PREM051415-CH-00-T-A-DRG-1200-205	TRANSFER PUMP STATIONS 2 & 3	ARCHITECTURAL SECTIONS
PREM051415-CH-00-T-A-DRG-1200-206	TRANSFER PUMP STATIONS 2 & 3	ARCHITECTURAL 3D AXONOMETRIC VIEWS
PREM051415-CH-00-T-A-DRG-1200-207	TRANSFER PUMP STATIONS 4,5 & 6	ARCHITECTURAL GA PLAN - GROUND FLOOR
PREM051415-CH-00-T-A-DRG-1200-208	TRANSFER PUMP STATIONS 4,5 & 6	ARCHITECTURAL GA PLAN - MEZZANINE
PREM051415-CH-00-T-A-DRG-1200-209	TRANSFER PUMP STATIONS 4,5 & 6	ARCHITECTURAL GA PLAN - ROOF PLAN
PREM051415-CH-00-T-A-DRG-1200-210	TRANSFER PUMP STATIONS 4,5 & 6	ARCHITECTURAL ELEVATIONS
PREM051415-CH-00-T-A-DRG-1200-211	TRANSFER PUMP STATIONS 4,5 & 6	ARCHITECTURAL SECTIONS
PREM051415-CH-00-T-A-DRG-1200-212	TRANSFER PUMP STATIONS 4,5 & 6	ARCHITECTURAL 3D AXONOMETRIC VIEWS
PREM051415-CH-00-T-M-DRG-1200-211	TRANSFER PUMP STATIONS 2 & 3	MECHANICAL PLAN DETAIL
PREM051415-CH-00-T-M-DRG-1200-212	TRANSFER PUMP STATIONS 2 & 3	MECHANICAL SECTION DETAIL
PREM051415-CH-00-T-M-DRG-1200-213	TRANSFER PUMP STATIONS 4,5 & 6	MECHANICAL PLAN DETAIL
PREM051415-CH-00-T-M-DRG-1200-214	TRANSFER PUMP STATIONS 4,5 & 6	MECHANICAL SECTION DETAIL
PREM051415-CH-00-T-S-DRG-1200-220	STRUCTURAL	GENERAL NOTES
PREM051415-CH-00-T-S-DRG-1200-221	STRUCTURAL - PS 2 & 3	FOOTING PLAN
PREM051415-CH-00-T-S-DRG-1200-222	STRUCTURAL - PS 2 & 3	FRAMING PLAN - ROOF
PREM051415-CH-00-T-S-DRG-1200-223	STRUCTURAL - PS 2 & 3	SECTIONS
PREM051415-CH-00-T-S-DRG-1200-224	STRUCTURAL - PS 4,5 & 6	FOOTING PLAN
PREM051415-CH-00-T-S-DRG-1200-225	STRUCTURAL - PS 4,5 & 6	FRAMING PLAN - ROOF
PREM051415-CH-00-T-S-DRG-1200-226	STRUCTURAL - PS 4,5 & 6	SECTIONS
PREM051415-CH-00-T-S-DRG-1200-301	STRUCTURAL - 2ML TANK	BASE AND WALLS PLAN
PREM051415-CH-00-T-S-DRG-1200-302	STRUCTURAL - 2ML TANK	FRAMING PLAN - ROOF
PREM051415-CH-00-T-S-DRG-1200-303	STRUCTURAL - 2ML TANK	SECTIONS
PREM051415-CH-00-T-S-DRG-1200-304	STRUCTURAL - 5, 8, 10ML TANK	BASE AND WALLS PLAN
PREM051415-CH-00-T-S-DRG-1200-305	STRUCTURAL - 5, 8, 10ML TANK	FRAMING PLAN - ROOF
PREM051415-CH-00-T-S-DRG-1200-306	STRUCTURAL - 5, 8, 10ML TANK	SECTIONS

DRAWING INDEX

DRAWING NUMBER	DRAWING TITLE	DRAWING TITLE
PREM051415-CH-00-T-P-DRG-1200-901	PROCESS FLOW DIAGRAM	DISTRIBUTION SYSTEM
PREM051415-CH-00-T-P-DRG-1200-902	PIPING & INSTRUMENTATION DIAGRAM	TYPICAL PUMP STATION STORAGE & PUMPS
PREM051415-CH-00-T-P-DRG-1200-903	PIPING & INSTRUMENTATION DIAGRAM	TRANSFER PUMP STATION 2 & 3
PREM051415-CH-00-T-P-DRG-1200-904	PIPING & INSTRUMENTATION DIAGRAM	TRANSFER PUMP STATION 4,5 &6
PREM051415-CH-00-T-P-DRG-1212-901	PIPING & INSTRUMENTATION DIAGRAM	MIDGEE
PREM051415-CH-00-T-P-DRG-1213-901	PIPING & INSTRUMENTATION DIAGRAM	NONOWIE
PREM051415-CH-00-T-P-DRG-1220-901	PIPING & INSTRUMENTATION DIAGRAM	WHYALLA NORTH
PREM051415-CH-00-T-P-DRG-1240-901	PIPING & INSTRUMENTATION DIAGRAM	LINCOLN GAP
PREM051415-CH-00-T-P-DRG-1270-901	PIPING & INSTRUMENTATION DIAGRAM	CARRAPATEENA & OLYMPIC DAM TANK
PREM051415-CH-00-T-P-DRG-1280-901	PIPING & INSTRUMENTATION DIAGRAM	PIMBA STORAGE TANK
PREM051415-CH-00-T-P-DRG-1285-901	PIPING & INSTRUMENTATION DIAGRAM	WOOMERA OFFTAKE TO WOOMERA TANKS
PREM051415-CH-00-T-C-DRG-1211-101	COWELL - PUMP STATION 2	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1211-102	COWELL - PUMP STATION 2	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1212-101	MIDGEE - STORAGE TANK	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1212-102	MIDGEE - STORAGE TANK	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1213-101	NONOWIE - PUMP STATION 3	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1213-102	NONOWIE - PUMP STATION 3	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1220-101	WHYALLA NORTH - STORAGE TANK	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1220-102	WHYALLA NORTH - STORAGE TANK	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1240-101	LINCOLN GAP - PUMP STATION 4	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1240-102	LINCOLN GAP - PUMP STATION 4	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1250-101	KOOTABERRA - PUMP STATION 5	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1250-102	KOOTABERRA - PUMP STATION 5	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1260-101	OAKDEN HILLS - PUMP STATION 6	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1260-102	OAKDEN HILLS - PUMP STATION 6	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1270-101	CARRAPATEENA OFFTAKE - STORAGE TANK	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1270-102	CARRAPATEENA OFFTAKE - STORAGE TANK	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1280-101	PIMBA - STORAGE TANK	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1280-102	PIMBA - STORAGE TANK	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1285-101	WOOMERA OFFTAKE	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1285-102	WOOMERA OFFTAKE	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1295-101	OLYMPIC DAM - STORAGE TANK	CIVIL SITE PLAN
PREM051415-CH-00-T-C-DRG-1295-102	OLYMPIC DAM - STORAGE TANK	CIVIL GENERAL ARRANGEMENT PLAN
PREM051415-CH-00-T-C-DRG-1299-721	PIPELINE DETAILS	PIPELINE HIGHWAY / ROAD CROSSING
PREM051415-CH-00-T-C-DRG-1299-722	PIPELINE DETAILS	PIPELINE RAILWAY CROSSING
PREM051415-CH-00-T-C-DRG-1299-723	PIPELINE DETAILS	PIPELINE TRENCH DETAIL
PREM051415-CH-00-T-C-DRG-1299-724	PIPELINE DETAILS	DIRECT BURIED ISOLATION VALVE
PREM051415-CH-00-T-C-DRG-1299-725	PIPELINE DETAILS	SCOUR VALVE
PREM051415-CH-00-T-C-DRG-1299-726	PIPELINE DETAILS	AIR VALVE
PREM051415-CH-00-T-C-DRG-1299-727	PIPELINE DETAILS	WATER PIPE CROSSING & GAS PIPE CROSSING
PREM051415-CH-00-T-C-DRG-1299-728	PIPELINE DETAILS	CREEK CROSSING
PREM051415-CH-00-T-C-DRG-1299-729	PIPELINE DETAILS	CATHODIC PROTECTION DETAILS
PREM051415-CH-00-T-C-DRG-1299-741	STORAGE DETAILS	TYPICAL TANK PLAN AND SECTION
PREM051415-CH-00-T-C-DRG-1299-742	STORAGE DETAILS	TANK DETAILS
PREM051415-CH-00-T-C-DRG-1299-743	STORAGE DETAILS	ACCESS STAIR AND PLATFORM PLAN
PREM051415-CH-00-T-C-DRG-1299-761	TYPICAL DETAILS	FLOW CONTROL SCHEMATICS

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0	18.08.23	AC	ISSUED FOR INFORMATION

SCALES AT A1

NORTHERN WATER

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CLIENT	GOVERNMENT OF SOUTH AUSTRALIA
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN

DRAWN	DRAWING CHECK	REVIEWED	APPROVED
A.MONGHIT	J.FISHBURN	N.TOOLEY	A.CHITTY
DESIGNED	DESIGN REVIEW	DATE 18.08.23	DATE 18.08.23
S.CARTER	M.WHITE		

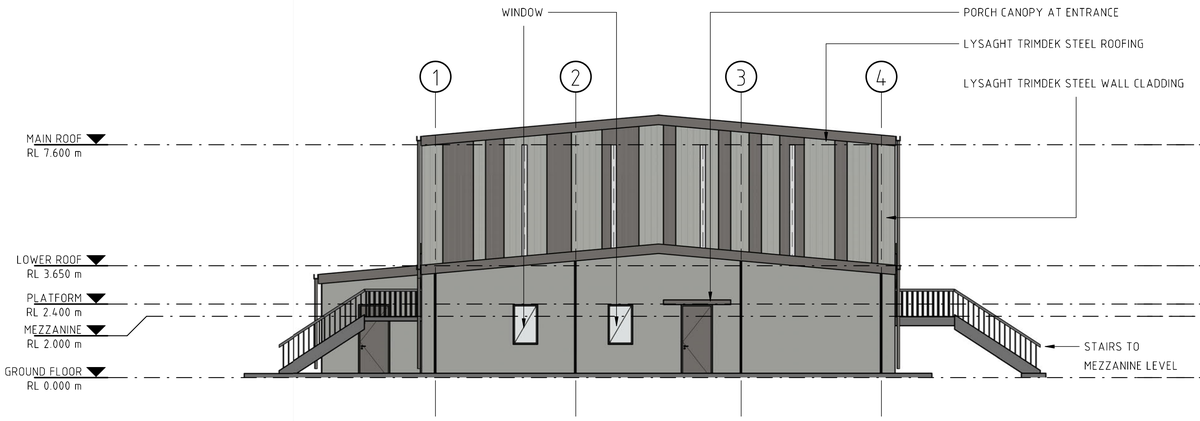
TITLE: TRANSFER SYSTEM INFRASTRUCTURE

COVER SHEET, DRAWING INDEX, OVERVIEW PLAN AND GENERAL NOTES

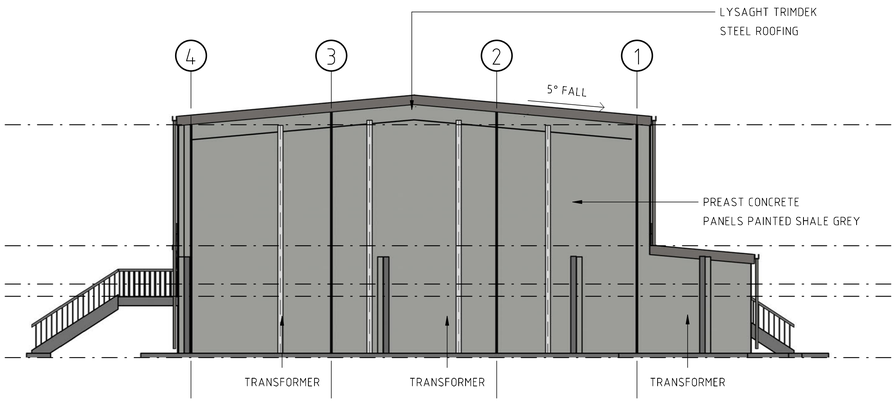
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AS SHOWN	PREM051415-CH-00-T-C-DRG-1000-001	0

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DATE: 18/08/2023 12:40:05 AMNAME: E. OMONDI
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LOCATION:



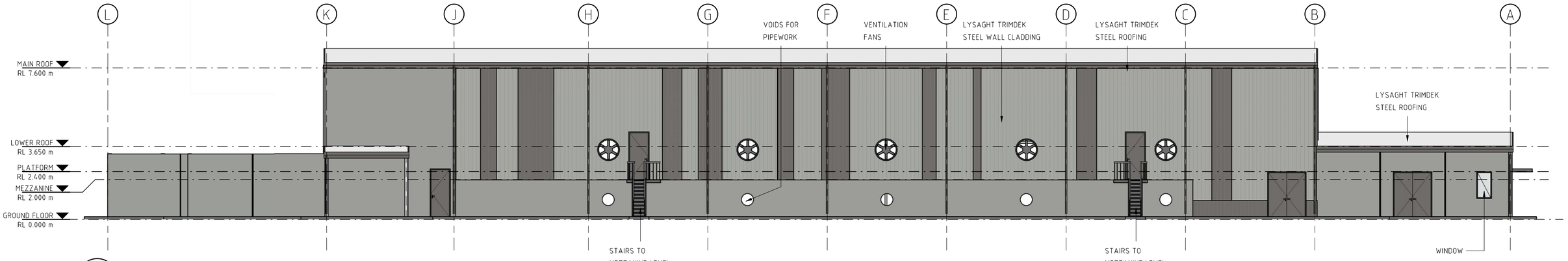
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SCALE 1 : 100



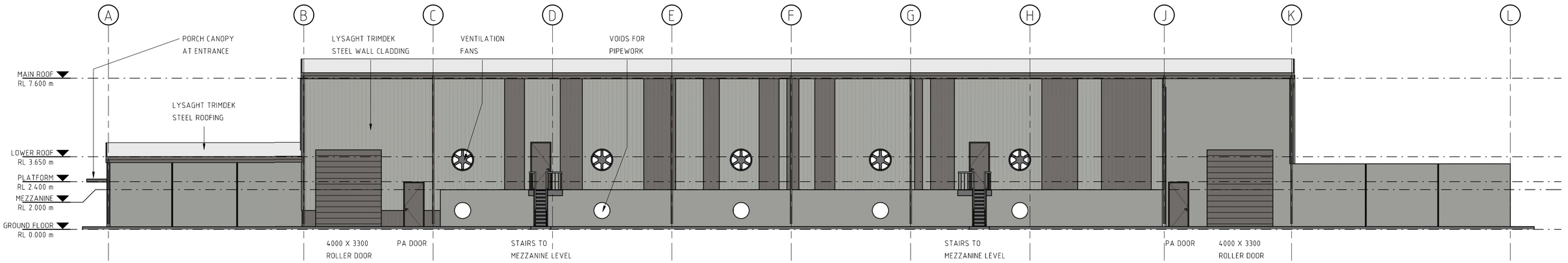
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SCALE 1 : 100

NOTES
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COLORBOND STEEL COLOUR GUIDE:
- SURFMIST: ROOF
- SHALE GREY: WALLS
- WALLABY: WALLS, DOORS, FASCIAS AND GUTTERS



3/201 ELEVATION
SCALE 1 : 100



4/201 ELEVATION
SCALE 1 : 100

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0 1000 2000 3000 4000 5000 mm
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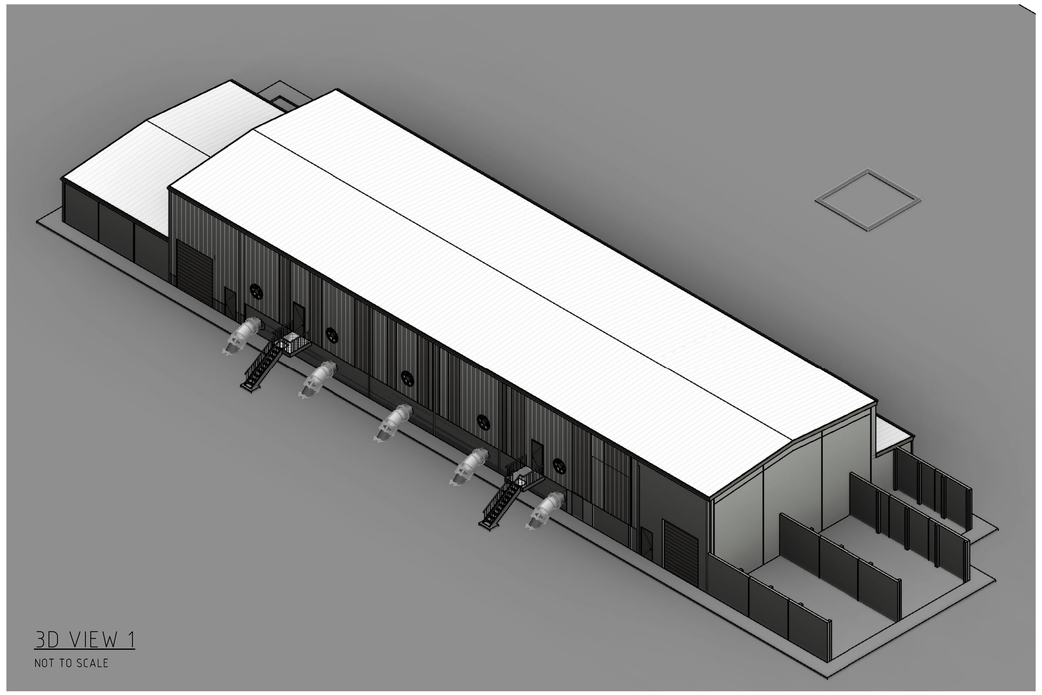
CLIENT	GOVERNMENT OF SOUTH AUSTRALIA		
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN		
DRAWN E. OMONDI	DRAWING CHECK J. FISHBURN	REVIEWED N. TOOLEY DATE 18.08.23	APPROVED A. CHITTY DATE 18.08.23
DESIGNED E. OMONDI	DESIGN REVIEW J. WILLIAMS		

TITLE
TRANSFER SYSTEM INFRASTRUCTURE TRANSFER PUMP STATIONS 2 & 3 ARCHITECTURAL ELEVATIONS

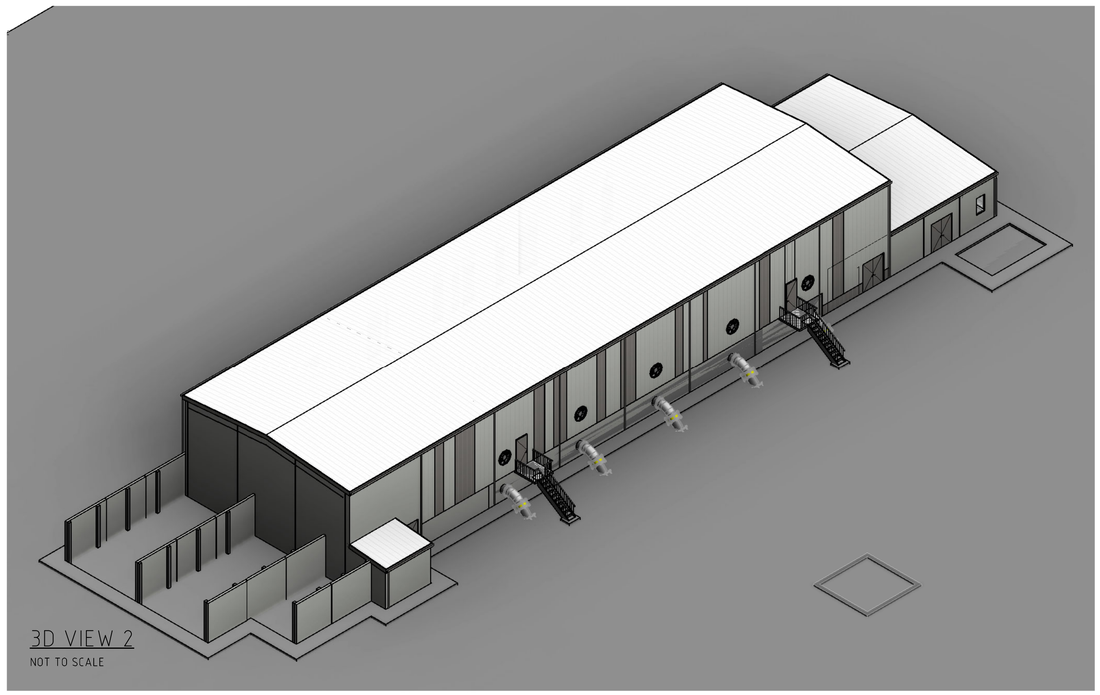
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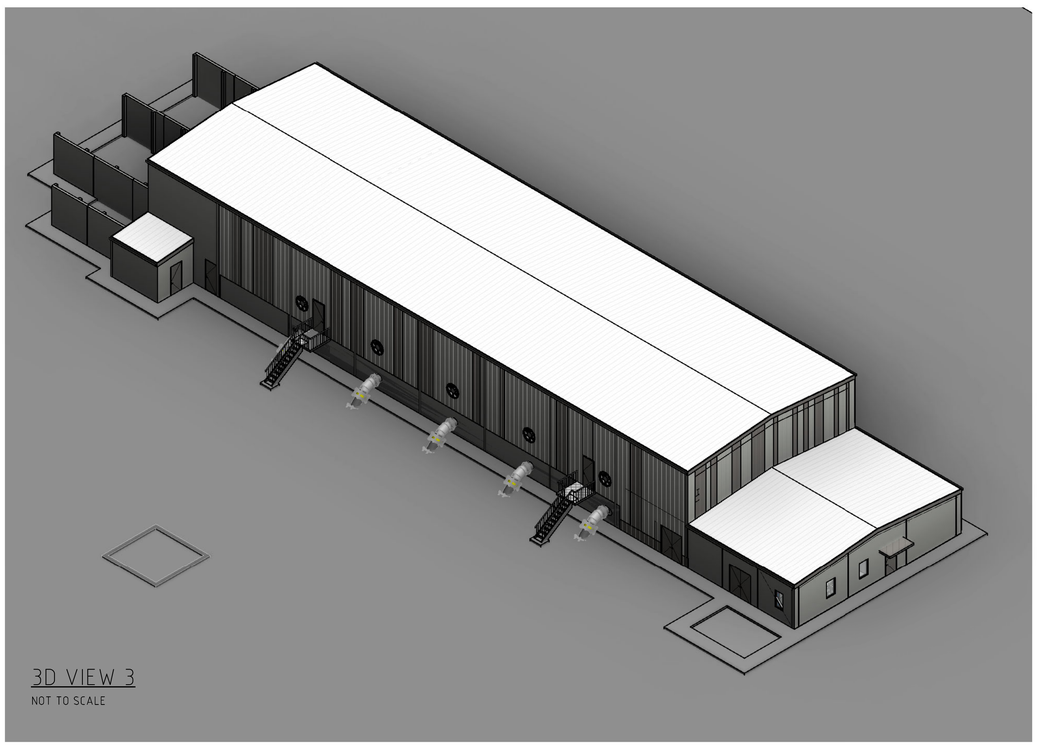
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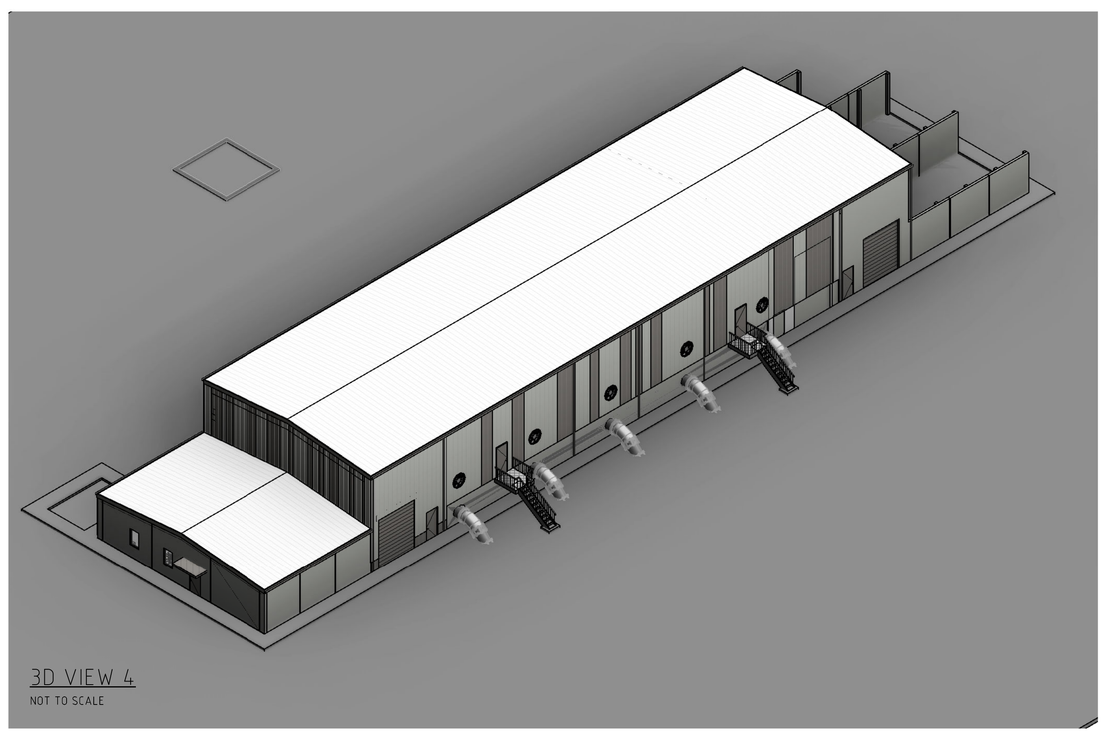
3D VIEW 1
NOT TO SCALE



3D VIEW 2
NOT TO SCALE



3D VIEW 3
NOT TO SCALE



3D VIEW 4
NOT TO SCALE

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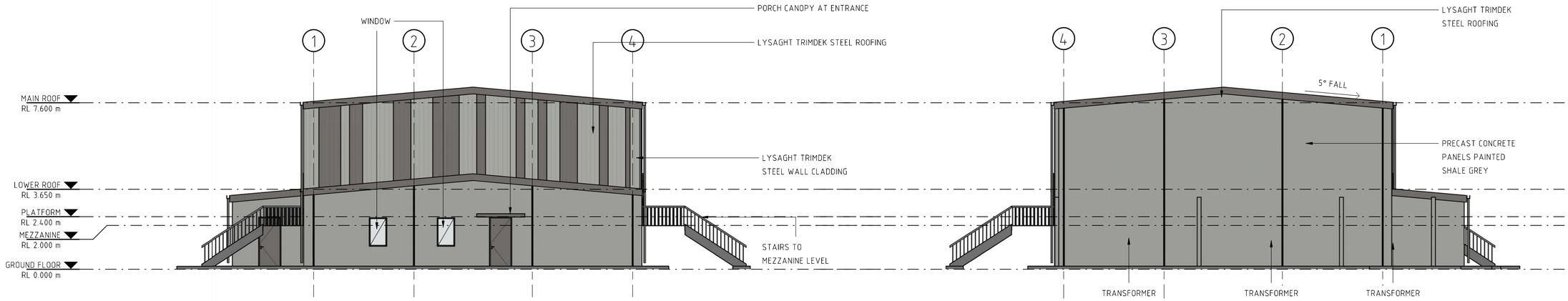
CLIENT	GOVERNMENT OF SOUTH AUSTRALIA		
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN		
DRAWN	E. OMONDI	DRAWING CHECK	J. FISHBURN
REVIEWED	N. TOOLEY	APPROVED	A. CHITTY
DESIGNED	E. OMONDI	DESIGN REVIEW	J. WILLIAMS
DATE	18.08.23	DATE	18.08.23

TITLE
TRANSFER SYSTEM INFRASTRUCTURE
TRANSFER PUMP STATIONS 2 & 3
ARCHITECTURAL 3D AXONOMETRIC VIEWS

SCALE	DRAWING No:	REV
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DATE: 18/08/2023 12:01:07 AM NAME: E. OMONDI
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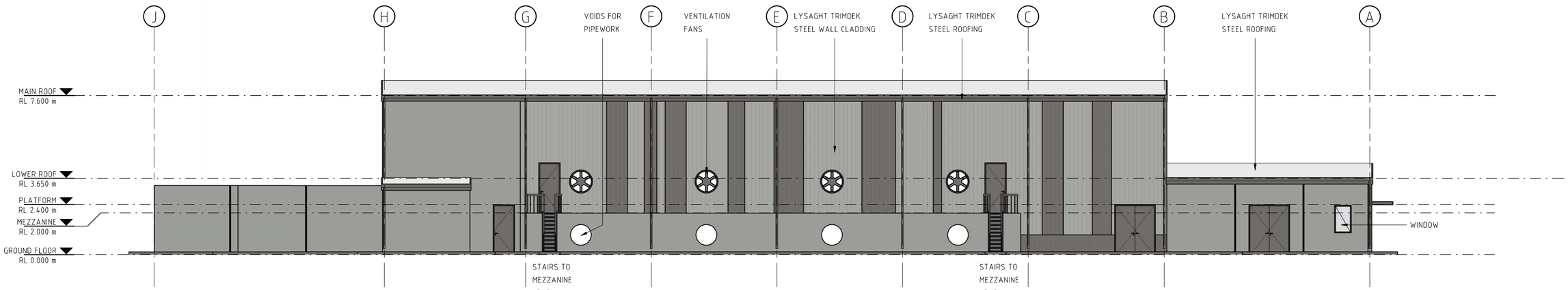


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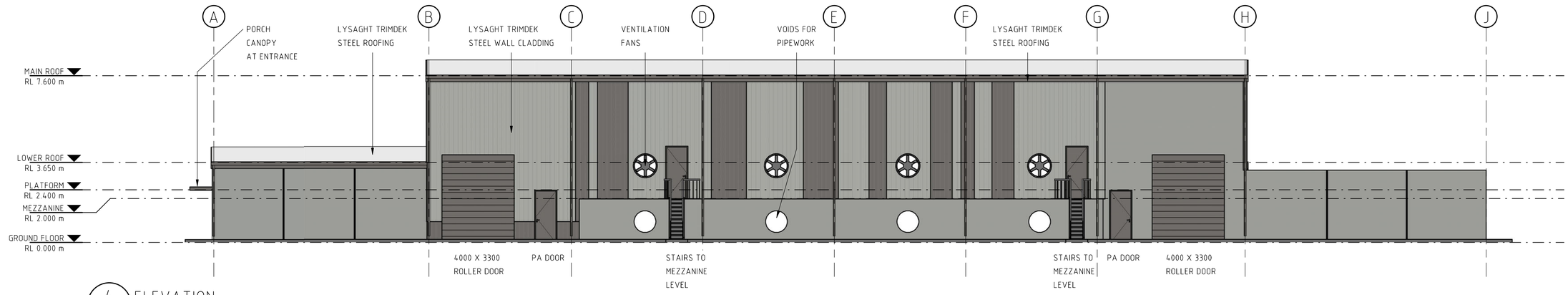
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SCALE 1 : 100

NOTES
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- WALLABY: WALLS, DOORS, FASCIAS AND GUTTERS



3/207 ELEVATION
SCALE 1 : 100



4/207 ELEVATION
SCALE 1 : 100

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SCALE 1:100 AT ORIGINAL SIZE

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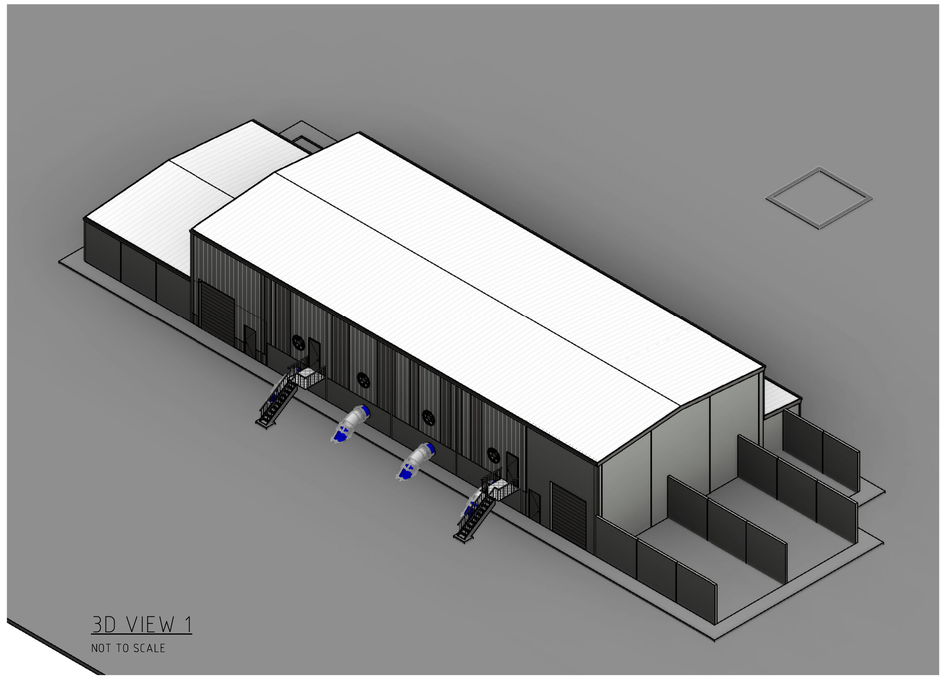
CLIENT	GOVERNMENT OF SOUTH AUSTRALIA		
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN		
DRAWN E. OMONDI	DRAWING CHECK J. FISHBURN	REVIEWED N. TOOLEY	APPROVED A. CHITTY
DESIGNED E. OMONDI	DESIGN REVIEW J. WILLIAMS	DATE 18.08.23	DATE 18.08.23

TITLE
TRANSFER SYSTEM INFRASTRUCTURE
TRANSFER PUMP STATIONS 4, 5 & 6
ARCHITECTURAL ELEVATIONS

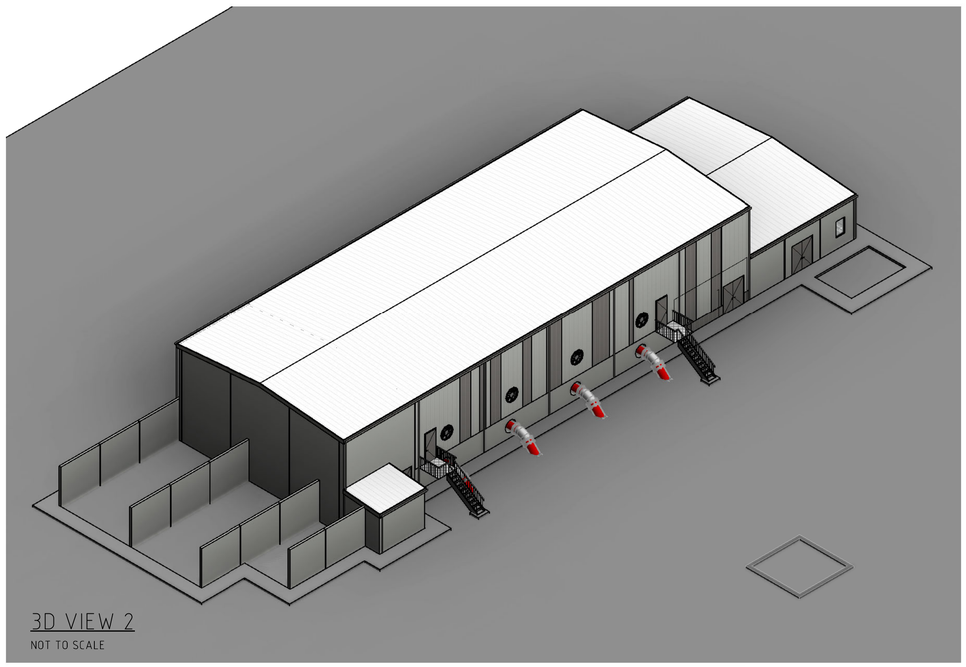
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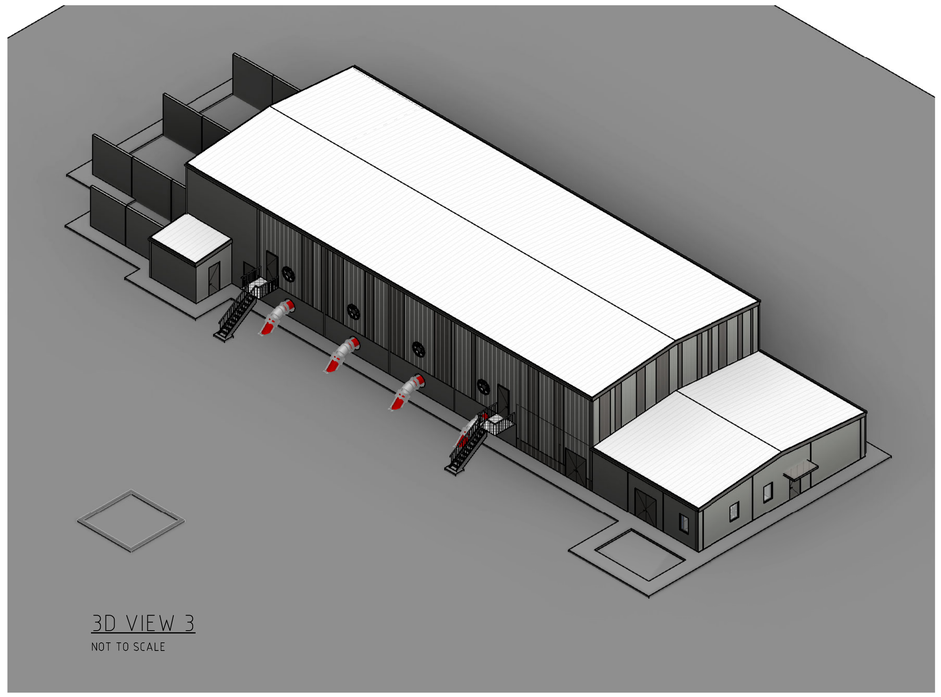
DATE: 18/08/2023 12:57:54 PM NAME: E. OMONDI
LOCATION: Autodesk Docs://125894/35 - Northern Water Supply/125894-35-NWS-TRANSFER PUMP STATIONS 4, 5 & 6-ARC-R22.rvt



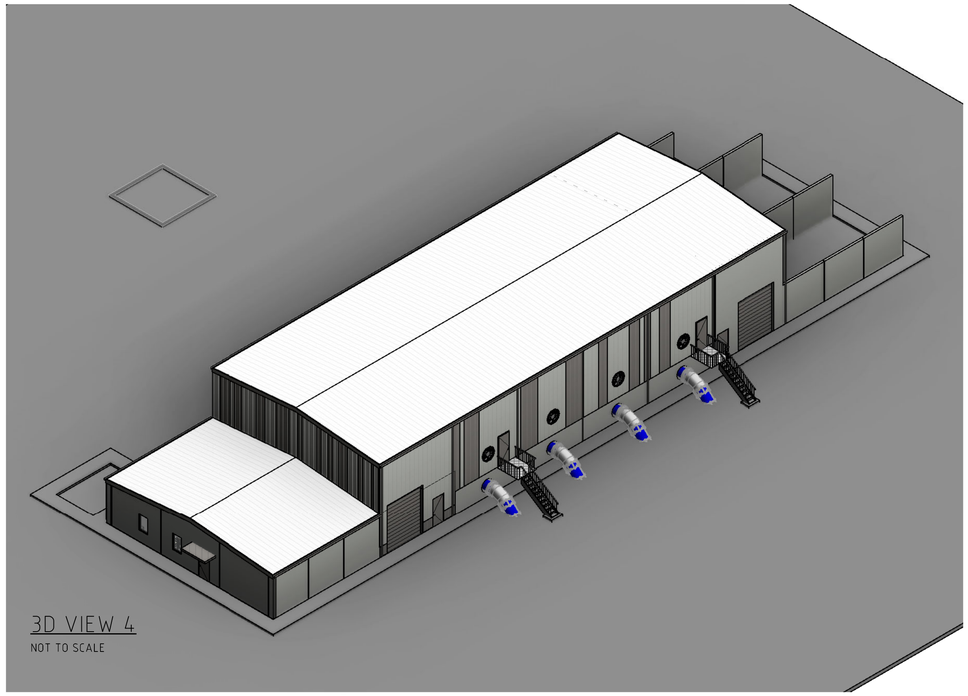
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3D VIEW 2
NOT TO SCALE



3D VIEW 3
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3D VIEW 4
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CLIENT	GOVERNMENT OF SOUTH AUSTRALIA		
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN		
DRAWN	E. OMONDI	DRAWING CHECK	J. FISHBURN
REVIEWED	N. TOOLEY	APPROVED	A. CHITTY
DESIGNED	E. OMONDI	DESIGN REVIEW	J. WILLIAMS
DATE	18.08.23	DATE	18.08.23

TITLE
TRANSFER SYSTEM INFRASTRUCTURE
TRANSFER PUMP STATIONS 4, 5 & 6
ARCHITECTURAL 3D AXONOMETRIC VIEWS

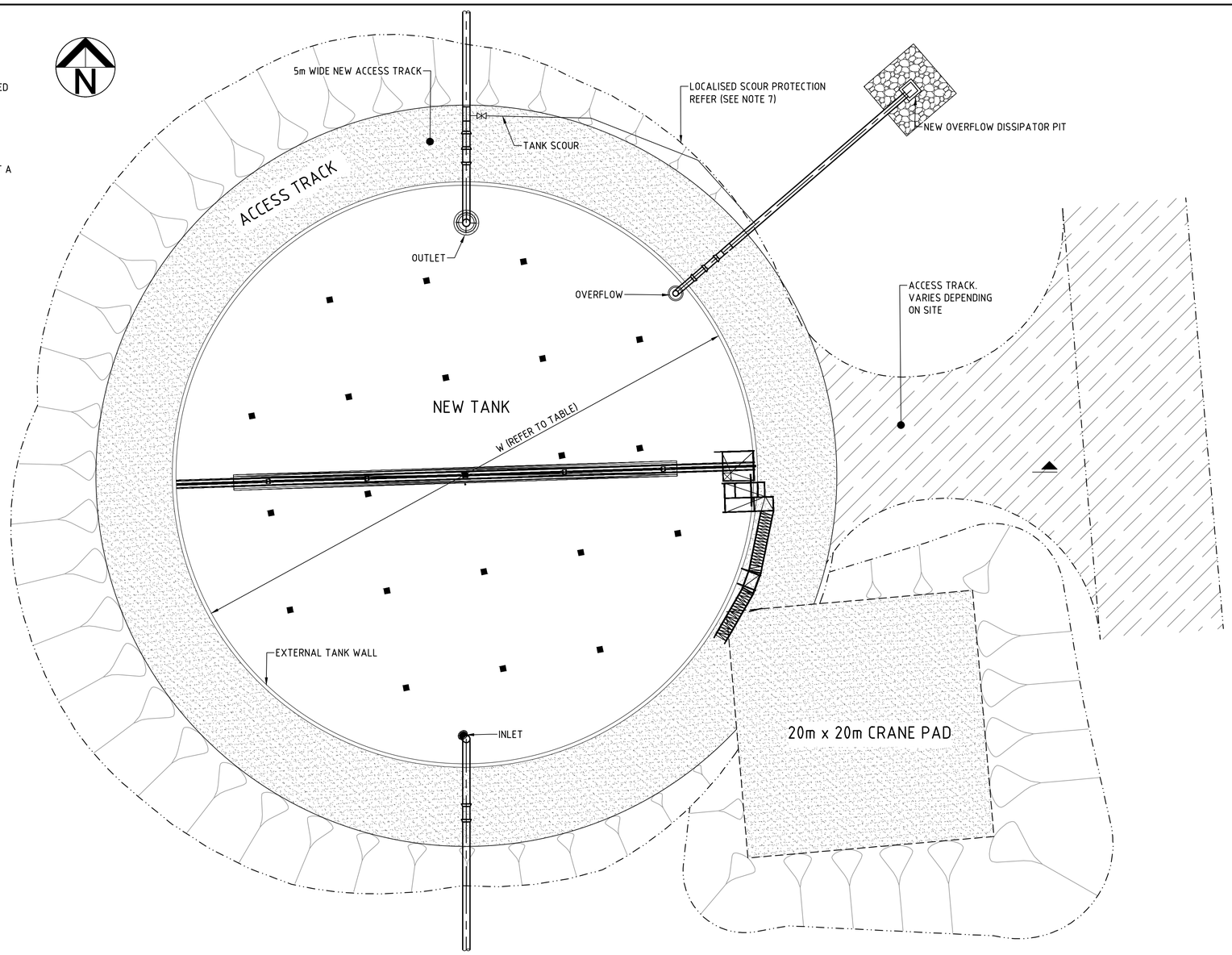
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DATE: 18/08/2023 5:11:15 PM NAME: JASON FISHBURN
LOCATION: C:\12dSW\data\P-00-12D-001133-12589435 - Northern Water Supply, 2298\CADD\Drawings\Civil\PREM051415-CH-00-T-C-DRG-1299-741.dwg

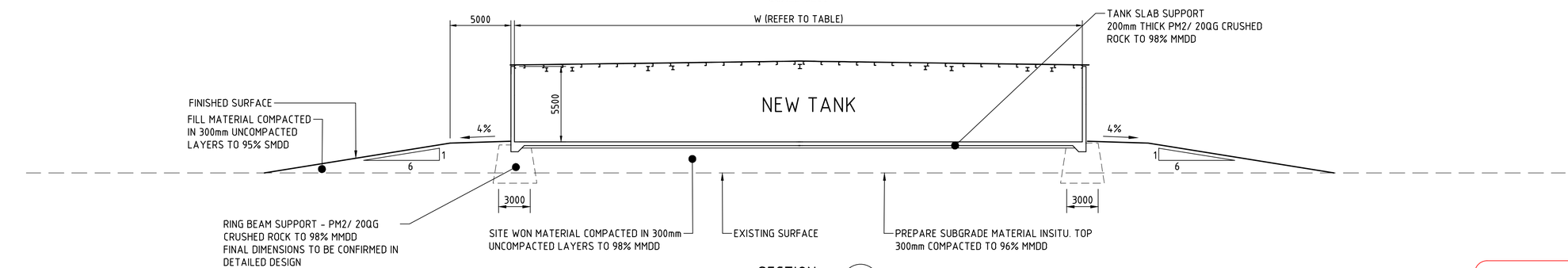
NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
2. STORMWATER INFRASTRUCTURE NOT SHOWN FOR CLARITY.
3. MAXIMUM FILL BATTER SLOPE IS 1:2.5 FOR SITE WON MATERIAL (1:3 PREFERRED) AND 1:2 FOR ENGINEERED FILL MATERIAL. THE EXPOSED SURFACE OF ALL BATTERS SHALL BE STABILISED WITH GRASSROOTS EROSION CONTROL MATTING OR APPROVED EQUIVALENT.
4. DESIGN VEHICLE – 12.5m RIGID FLAT BED TRUCK – ALL MOVEMENTS.
5. FOR TANK ACCESS AND ROOF STRUCTURE REFER TO STRUCTURE DRAWING.
6. FILL BATTER ABOVE THE RETAINING WALL, COMPACTED PM2/ 20QG TO BE USED FOR FILL MATERIAL AT A MAX. GRADE OF 1:1.5. TARGET GRADE OF 1:2.
7. RIP-RAP TO CONSIST OF THE FOLLOWING:
   - ROCK DIAMETER 100mm
   - THICKNESS 200mm
   - LENGTH 6 x OUTLET DIAMETER
   - WIDTH TO TAPER AT GRADE OF 1:5.



PLAN
SCALE 1:200

NEW TANK SCHEDULE			
TANK LOCATION	STORAGE (ML)	W (m)	STAGE
PS2 – COWELL PUMP STATION	10	55	2
MIDGEE	10	55	2
PS3 – NONOWIE PUMP STATION	10	55	2
WHYALLA NORTH	2	25	2
PS4 – LINCOLN GAP PUMP STATION	8	50	1
PS5 – KOOTABERRA PUMP STATION	8	50	2
PS6 – OAKDEN HILLS PUMP STATION	8	50	2
CARRAPATEENA OFFTAKE	2	25	1
PIMBA	5	40	1
OLYMPIC DAM	5	40	1



SECTION A
SCALE 1:200

SCALE 1:200 (A1)
0 4 8 12 16 20m
4 3 2 1

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CLIENT	GOVERNMENT OF SOUTH AUSTRALIA
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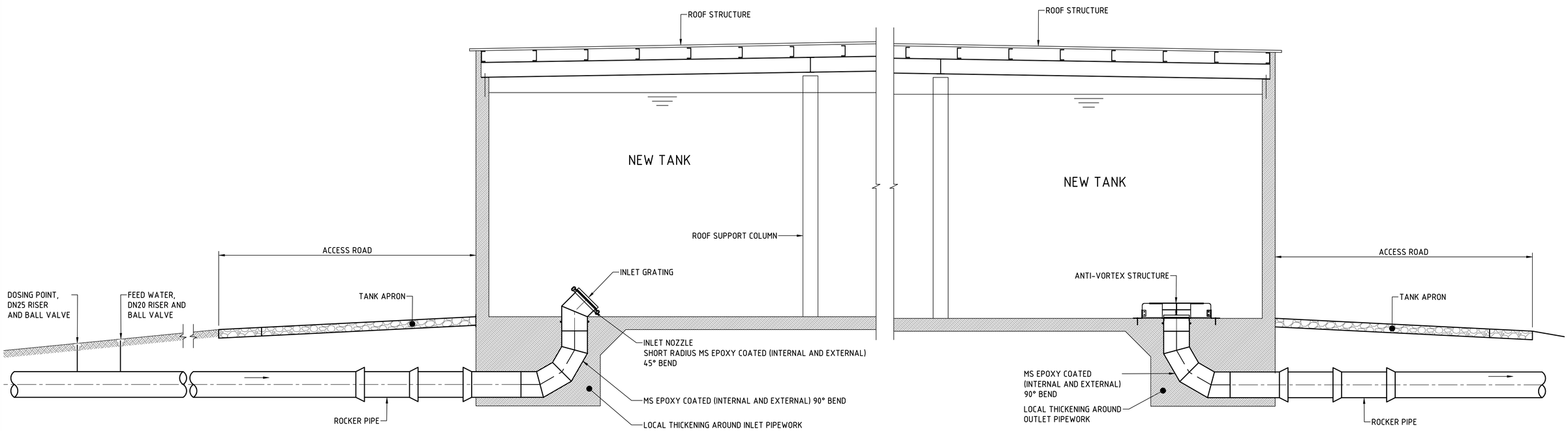
DRAWN	DRAWING CHECK	REVIEWED	APPROVED
A.KHAN	J.FISHBURN	N.TOOLEY	A.CHITTY
DESIGNED	DESIGN REVIEW	DATE 18.08.23	DATE 18.08.23
S.CARTER	D.ELLIS		

TITLE: TRANSFER SYSTEM INFRASTRUCTURE STORAGE DETAILS - PLAN AND SECTION TYPICAL TANK

SCALE	DRAWING No	REV
AS SHOWN	PREM051415-CH-00-T-C-DRG-1299-741	0

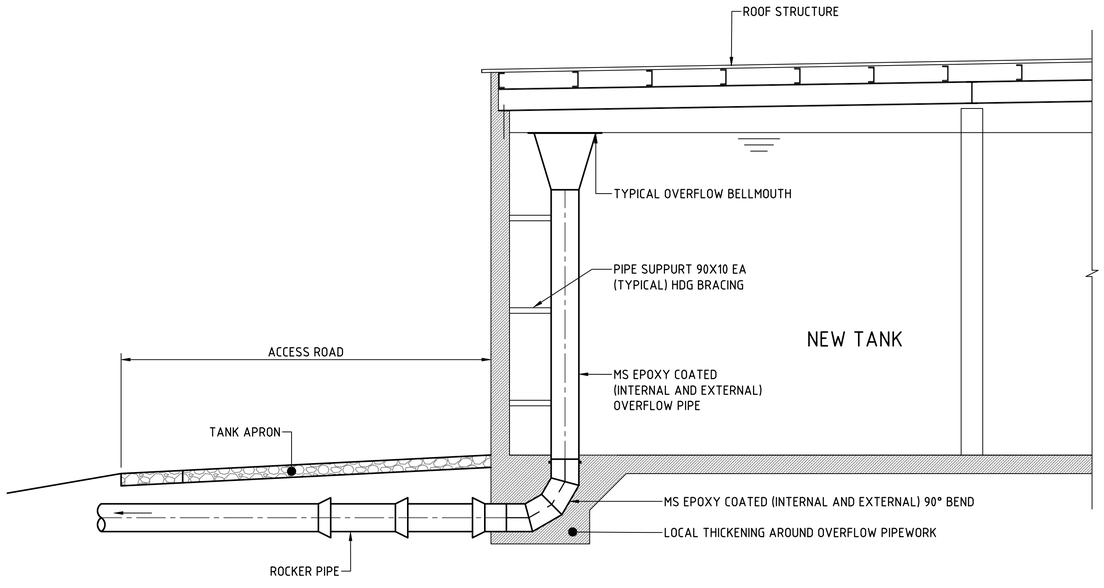
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DATE: 17/08/2023 2:11:40 PM NAME: JEYZON REGLAMOS
LOCATION: C:\12dSW\data\P-00-12D-001133-12589435 - Northern Water Supply_2290\CADD\Templates\NWS_Alliance Titleblock.dwg



TYPICAL SECTION THROUGH INLET PIPE
NOT TO SCALE

TYPICAL SECTION THROUGH OUTLET PIPE
NOT TO SCALE



TYPICAL SECTION THROUGH OVERFLOW PIPE
NOT TO SCALE

TANK	INLET	OUTLET	OVERFLOW
COWELL	DN1280	DN1280	DN1280
MIDGEE	DN100	DN1280 (GRAVITY)/DN100 (PUMPED)	DN1280
NONOWIE	DN1280	DN1280	DN1280
WHYALLA NORTH	DN550	DN600	DN550
LINCOLN GAP	DN300 / DN1100	DN1100	DN1100
KOOTABERRA	DN1100	DN1100	DN1100
OAKDEN HILLS	DN1100	DN1100	DN1100
CARRAPATEENA OFFTAKE	DN800	DN800	DN800
PIMBA	DN80 (WITH REDUCER FROM DN100)	DN1100 (GRAVITY) / DN100 (PUMPED)	DN1100
OLYMPIC DAM	DN1000	DN1000	DN1000

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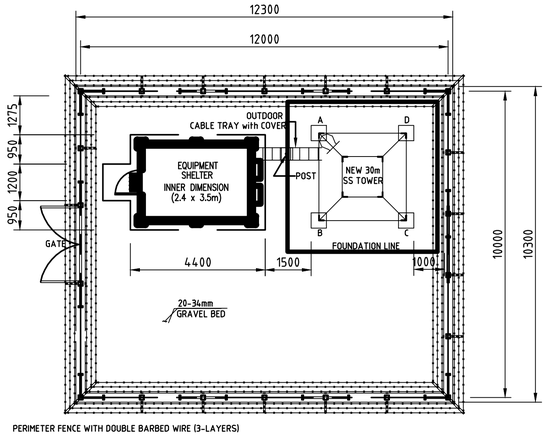
CLIENT	GOVERNMENT OF SOUTH AUSTRALIA		
PROJECT	NORTHERN WATER ENGINEERING REFERENCE DESIGN		
DRAWN A.KHAN	DRAWING CHECK J.FISHBURN	REVIEWED N.TOOLEY DATE 18.08.23	APPROVED A.CHITTY DATE 18.08.23
DESIGNED S.CARTER	DESIGN REVIEW D.ELLIS		

TITLE
TRANSFER SYSTEM INFRASTRUCTURE
STORAGE DETAILS
TANK TYPICAL DETAILS

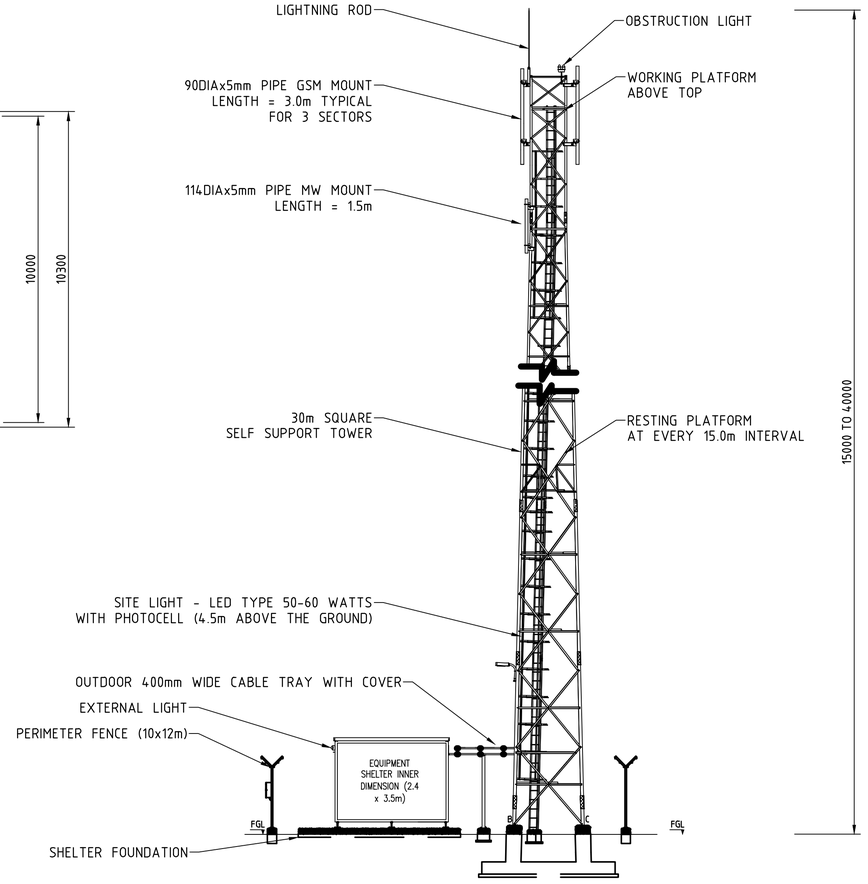
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DATE: 18/08/2023 3:30:10 PM NAME: BAHEE DEVENDRAN
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SITE LAYOUT PLAN



TOWER LAYOUT ELEVATION

TYPICAL COMMUNICATION TOWER

SCALE 1:100

SCALE 1:100 (A1) 0 2000 4000 6000 8000 10000mm
2000

NOT FOR CONSTRUCTION

REV	DATE	APP'D	REVISION
0	18.08.23	AC	ISSUED FOR INFORMATION

SCALES AT A1

NORTHERN WATER

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DESIGNED S.MERRINGTON	DESIGN REVIEW R.ORSCHULOK	DATE 18.08.23	DATE 18.08.23

TITLE
TRANSFER SYSTEM INFRASTRUCTURE
PUMP STATION - TYPICAL COMMUNICATION TOWER
GENERAL ARRANGEMENT

SCALE	DRAWING No	REV
AS SHOWN	PREM051415-CH-00-T-E-DRG-1405-024	0

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B	Second Review	Alecia Wright	17/08/2023
C	Third Review (aligned to EPBC Referral and Crown DA)	Alecia W and Antony L	22/12/2023
D	Draft issued for EOI (not used)	Alecia W and Antony L	2/2/2024
E	Fourth Review (Client comments addressed)	Alecia W and Antony L	2/2/2024
0	Fifth review (alignment with HJP/ SIA)	Alecia W and Antony L	22/02/24

Document Status

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