Environmental Impact Report -Renewable Energy Feasibility Permit - Met Masts

2025

SOUTH AUSTRALIA

Government of South Australia

OFFICIAL

As guests on Aboriginal land, the Department for Energy and Mining (DEM) acknowledges everything this department does impacts on Aboriginal country, the sea, the sky, its people, and the spiritual and cultural connections which have existed since the first sunrise. Our responsibility is to share our collective knowledge, recognise a difficult history, respect the relationships made over time, and create a stronger future. We are ready to walk, learn and work together.

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Cover photo. Installed Meteorological Mast (ART Group, 2024)

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Abbreviations and glossary

Abbreviation / Glossary	Definition
AAR	Aboriginal Affairs and Reconciliation
BDBSA	Biological Databases of South Australia
CASA	Civil Aviation Safety Authority
DEM	Department for Energy and Mining
DEW	Department for Environment and Water
DIT	Department for Infrastructure and Transport
EIR	Environmental Impact Report
EPA	Environment Protection Authority
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
GPS	Global Positioning System
HRE Act	*Hydrogen and Renewable Energy Act 2023*
IBRA	Interim Biogeographic Regionalisation for Australia
NEPM	*National Environment Protection (Assessment of Site Contamination) Measure (1999)* amended in 2013
NPW Act	*National Parks and Wildlife Act 1972*
PIRSA	Department of Primary Industries and Regions
REFP	Renewable Energy Feasibility Permit
SEO	Statement of Environmental Objectives
SPR	Source, pathway, receptor
WAA	Water affecting activity

1. Introduction

1.1 Purpose

This document has been prepared to meet the specific requirements of an Environmental Impact Report (EIR) under the *Hydrogen and Renewable Energy Act 2023* (the HRE Act). It has been prepared in accordance with current legislative requirements, in particular section 61 of the HRE Act, and regulation 32 of the *Hydrogen and Renewable Energy Regulations 2024* (Regulations).

This EIR applies to feasibility activities carried out under a Renewable Energy Feasibility Permit (REFP) which has been granted in accordance with section 8 of the HRE Act.

Feasibility activities are defined in the HRE Act under section 8 (9) as:

- constructing, installing, operating, maintaining or decommissioning infrastructure necessary for assessing the feasibility of generating renewable energy from a renewable energy resource; or
- undertaking an activity of a kind prescribed by the regulations for the purposes of this definition.

For the purposes of this EIR, feasibility activities therefore include the construction, installation, operation, maintenance and decommissioning of meteorological masts.

This EIR is applicable to non-designated land within South Australia for the purposes of undertaking feasibility activities within an REFP.

Exploring for a renewable energy resource is a regulated activity under the HRE Act. On non-designated land (i.e. lands excluding pastoral leases, State waters, and other Crown Land determined by regulation), undertaking feasibility activities must be authorised under a REFP. A REFP can only be granted (and authorised operations can only be undertaken under a REFP) if there is an approved Statement of Environmental Objectives (SEO) in force, in accordance with section 62(1) of the HRE Act.

As feasibility activities are generally limited in scope, temporary, of small footprint and low environmental impact when compared with other renewable energy infrastructure projects it is considered that preparation of multiple EIRs for activities undertaken on an REFP may result in unnecessary expense and delays for proponents and regulators. Therefore, the Department for Energy and Mining (DEM) determined that a State-wide EIR and SEO will streamline the approval process and ensure consistency for most feasibility activities undertaken under a REFP within South Australia without detriment to protection of the environment. Proponents that elect to adopt this EIR and associated SEO must demonstrate that the proposed activities (project) is within the scope of the EIR and must provide an assessment against the objectives, assessment criteria, and leading performance criteria set out in the SEO to demonstrate that all relevant objectives will be met.

1.2 Scope

This EIR has been developed to apply to activities undertaken under a REFP by permit holders and their contractors. A corresponding SEO has also been developed to set out the environmental objectives with which the regulated activities must conform. The SEO establishes criteria that determines how the achievement of these objectives will be assessed and defines immediately reportable and reportable incidents. The SEO has been developed based on the matters contained in this EIR.

This EIR:

- describes relevant feasibility activities;
- describes the regional characteristics of the South Australian environment in which the operations take place;
- identifies potential environmental impacts and consequences; and
- proposes measures to minimise the potential consequences.

This SEO only applies to activities that are considered feasibility activities under the HRE Act. Therefore, activities excluded from the scope of the EIR and SEO includes, but are not limited to:

- upgrading existing access tracks or construction of new ones
- geotechnical investigations
- campsites
- aerial surveys
- portable remote sensing devices (e.g., SoDAR or LiDAR)
- vehicle based surveys (e.g., topographical or cadastral surveys, ecological surveys, heritage surveys[1], unexploded ordnance surveys, contaminated land assessments, geophysical surveys, traffic surveys)
- other site surveys (e.g., installation of noise or air quality monitors, inspections associated with hydrological or visual impact assessments which may involve taking photographs from selected sites and installing photo point markers)

These activities are not feasibility activities under the HRE Act and therefore do not require authorisation under the HRE Act to be conducted on non-designated land. These activities may instead be undertaken in agreement with the landowner and must comply with the requirements of other applicable legislation.

1.2.1 Exclusions and Constraints

The following are excluded from the coverage of this EIR:

- Areas defined as reserves under the *National Parks and Wildlife Act 1972*
- A wilderness protection area or a wilderness protection zone both within the meaning of the *Wilderness Protection Act 1992*
- The Arkaroola Protection Area within the meaning of the *Arkaroola Protection Act 2012.*
- Maralinga Tjarutja lands as defined by the *Maralinga Tjarutja Land Rights Act 1984*
- Anangu Pitjantjatjara Yankunytjatjara lands as defined by the *Anangu Pitjantjatjara Yankunytjatjara Land Rights Act 1981*.
- Activities deemed to be Level 4 for proposed vegetation clearance, in accordance with the Native Vegetation Council Risk Assessment Fact Sheet. Projects deemed to be Level 3 for proposed clearance are generally excluded but can be considered on a case-by-case basis.
- Activities deemed to have significant impact to Matters of National Environmental Significance (MNES).
- Areas within the Planning and Design Code (P&D Code) Coastal Areas Overlay, Coastal Flooding Overlay, the River Murray Flood Plain Protection Overlay, Heritage Adjacency Overlay, and the Significant Landscape Protection Overlay.
- Native Vegetation Heritage Agreement and Significant Environmental Benefit Offset areas.
- Character Preservation Districts of the Barossa Valley and Clare Valley.

Subsequently, proponents proposing meteorological masts within any of the areas excluded by this EIR would

[1] Typically, a physical inspection, involving traversing the proposed development location (by foot or vehicle). Hand excavation or test pitting is not generally expected to be undertaken during the feasibility phase and would only be employed where imperative. Appropriate authorisation under the Aboriginal Heritage Act is needed for any excavations or test pitting where required (e.g. if undertaken within Aboriginal sites).

1.3 Environmental Commitment

Permit holders shall be committed to responsible environmental management of all phases of proposed operations and must commit to achieving the environmental objectives outlined in the SEO.

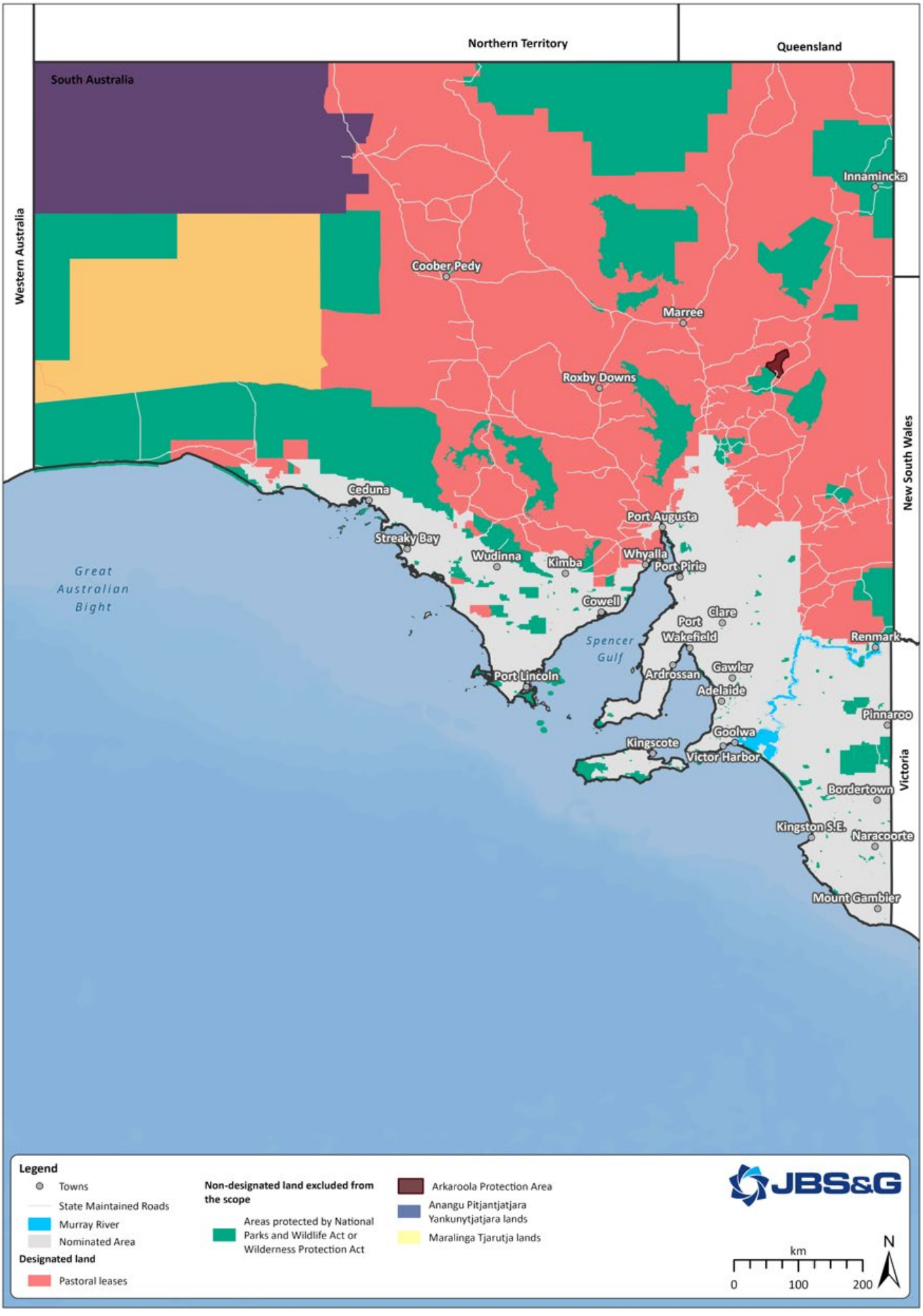


Figure 1 Nominated Area and scope exclusions for the EIR..

2. Legislative Requirements

2.1 Hydrogen and Renewable Energy Act 2023

The HRE Act regulates the generation of hydrogen and renewable energy in South Australia. It defines regulated activities and establishes a framework for regulation of these activities.

Exploration for renewable energy on non-designated land is regulated under section 8 of the Act. As per section 8 (1), a REFP authorises the permit holder to undertake feasibility activities within the permit area. Section 8(9)(a) of the Act defines feasibility activities as constructing, installing, operating, maintaining or decommissioning infrastructure necessary for assessing the feasibility of generating renewable energy from a renewable energy resource, e.g. construction and installation of meteorological masts.

2.1.1 Statement of Environmental Objectives

Under section 62 of the Act, a REFP (or any other licence) must not be granted unless an approved SEO in respect of the proposed operations is in force, and a permit holder must not undertake authorised operations under a permit unless an approved SEO is in force.

Section 62 states that an SEO must address matters contained in the EIR. The SEO must set out environmental objectives, assessment criteria, leading performance criteria and immediately reportable and reportable incidents.

2.1.2 Environmental Impact Report

Section 61 of the Act requires that an EIR addressing proposed authorised operations must be prepared for the purpose of the approval of an SEO. The EIR must assess the environmental impact of authorised operations against environmental impact assessment criteria that are determined by the Minister.

Under section 61(2) of the Act, an EIR must:

- take into account the environment, cultural and other values as those matters are relevant to the assessment
- take into account risks inherent in the authorised operations to the health and safety of the public
- contain sufficient information to make possible an informed assessment of the likely impact of the authorised operations on the environment
- include an assessment of the environmental impact of authorised operations to which the report applies against the environmental impact assessment criteria
- be prepared in accordance with the requirements of the regulations.

Regulation 32 requires that the EIR contains the following:

- a description of the authorised operations to be undertaken and the location at which the operations are to be undertaken
- a description of the specific elements of the environment that can reasonably be expected to be affected by authorised operations, with particular reference to the environment and existing land uses
- data relating to biodiversity within the area of land to which the report relates that can reasonably be expected to be affected by authorised operations
- an assessment of the heritage and cultural values of Aboriginal people and other persons in relation to the area of land to which the report relates that can reasonably be expected to be affected by authorised operations, and the public health and safety risks inherent in undertaking those operations (insofar as these matters are relevant in the particular circumstances)

- if relevant and required by the Minister—an assessment of the continuity of supply with respect to hydrogen
- information on consultation that has occurred on the potential impacts of the proposed activities, including specific details about relevant issues that have been raised and any response to those issues (but not including confidential information).

Section 4(3) of the Act defines the environment as including:

- land, air, water (including both surface and underground water and sea water), organisms, ecosystems, flora, fauna and other features or elements of the natural environment
- buildings, structures and other forms of infrastructure, and cultural artefacts
- existing or permissible land use
- public health, safety or amenity
- the heritage, aesthetic, Aboriginal, social and cultural values of an area
- the social or economic effects associated with regulated activities.

This document fulfils the requirements of an EIR for authorised activities under a REFP and has been prepared in accordance with current legislative requirements with section 61 of the Act and regulation 32 of the Regulations.

2.1.3 EIR and SEO Approval

Once approved, the SEO will be written into the Regulations and made available to applicants to adopt in accordance with section 62(4) of the HRE Act, whereby they can demonstrate their proposed authorised operations are within the intended scope of this EIR and accompanying SEO.

2.2 Operational Management Plan

Section 66 of the Act requires that a permit holder must not commence operations under a permit unless an Operational Management Plan has been approved by the Minister[2].

Under Section 66, an operational management plan must:

- specify the authorised operations proposed to be undertaken
- specify the statement of environmental objectives to which the plan applies
- specify how proposed authorised operations will be managed, including details of the management systems and controls that will ensure compliance with the relevant statement of environmental objectives
- contain any other information and comply with any other requirements as prescribed by the regulations

Regulation 37 of the *Hydrogen and Renewable Energy Regulations 2024* (HRE Regulations) mandates that an Operational Management Plan must set out the following:

- policies of the permit holder that address the achievement of regulatory requirements and objectives;
- resources that will be applied to effectively implement the plan;
- recognised industry practices and procedures that will be applied in—
    - undertaking authorised operations; and
    - achieving compliance with regulatory requirements

[2] A pre commencement guideline can be found on DEM's website: 009-Pre-commencement-requirements-for-final-on-ground-approvals.pdf

- processes for managing physical, operational, procedural or organisational changes in respect of authorised operations;
- systems that will manage risks allowing achievement of the regulatory objectives arising from undertaking authorised operations including—
    - the controls that will be implemented to eliminate or reduce risks associated with authorised operations; and
    - the systems that will ensure the implemented controls will be clearly defined and achieved;
- practices and procedures to ensure employees, contractors and visitors to the permit area have the appropriate competency, training (including ongoing training), induction and supervision;
- mechanisms for consulting and communicating with external parties in relation to authorised operations;
- systems to identify, investigate and report incidents arising from authorised operations;
- practices and procedures to be followed in the event of an emergency relating to authorised operations;
- the manner in which the effectiveness of a matter referred to in a preceding paragraph will be monitored, evaluated, audited and reviewed;
- the manner in which the permit holder intends to comply with the statement of environmental objectives in force in relation to authorised operations;
- the day on which authorised operations will, or are proposed to, commence;
- any other relevant matter as determined by the Minister.

The Operational Management Plan provides an additional opportunity for the Minister to ensure that the proposed activities and their impacts can be effectively managed and are consistent with the approvals obtained in the EIR and SEO approval process. This is particularly relevant for activities that are conducted under an SEO that applies to a broad geographical area, as it provides site-specific detail that is not usually contained in the broad-scoping documents.

2.3 Land Access

A pre-condition for approval of a REFP requires the applicant to provide evidence that they have, or will acquire, a right or interest of land sufficient to undertake proposed feasibility activities, as per Section 8 (5)(a) of the HRE Act.

In addition, the permit holder must provide a Notice of Commencement of Operations to resource tenements at least 42 days before any activity is undertaken in accordance with section 77.

2.4 Other Legislation

A variety of legislation applies to hydrogen and renewable energy activities. Legislation that is particularly relevant to REFP activities are listed below (note that this is not a comprehensive list of all applicable legislation).

Commonwealth

Aboriginal and Torrens Strait Islander Heritage Protection Act 1984

Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)

Native Title Act 1993

South Australia

Aboriginal Heritage Act 1988

Biosecurity Act 2025

Civil Aviation Act 1988

Coast Protection Act 1972

Crown Lands Management Act 2009

Dangerous Substances Act 1979

Environment Protection Act 1993

Fire and Emergency Services Act 2005

Heritage Places Act 1993

Highways Act 1926

Landscape South Australia Act 2019

Local Nuisance and Litter Control Act 2016

National Parks and Wildlife Act 1972

Native Title (South Australia) Act 1994

Native Vegetation Act 1991

River Murray Act 2003

South Australian Public Health Act 2011 and *Public Health (Wastewater) Regulations 2013*

Work Health and Safety Act 2012.

3. Description of activities

3.1 Meteorological masts

Meteorological masts are used to obtain wind field data at potential wind farm sites. The masts accommodate different sensors that accurately measure wind speed, wind direction and other weather data which is used to design the optimal turbine layout for maximum energy generation. Meteorological masts can also be equipped with other sensors, e.g. microphones, cameras, radar, to collect data and monitor bird and bat activity.

A meteorological mast would typically be installed early in the feasibility assessment stage. As a project is developed more masts may be progressively erected to collect data across the site. Temporary masts may be in place until wind farm construction activities commence in order to capture hourly, seasonal and year to year data, before being removed totally, or removed and replaced by a permanent mast in an alternative location. A period of correlation overlap (e.g. 6 months) between the temporary and permanent masts may be needed before removal of temporary masts. Alternatively, masts may remain permanently and continue to monitor meteorological data throughout operation of the wind farm.

The mast consists of a supporting structure (either a pole or a lattice tower) and is anchored by guy wires (cables). Sensors and data loggers are powered by a small solar panel mounted on the mast. The height of the mast is generally aligned with the proposed turbine hub height, whose height may exceed 150 m. The mast is protected by a lightning rod and its top third section is typically coated in a contrasting aviation safety paint scheme as per the national airports safeguarding framework guidelines[3] (refer Plate 2 and Plate 3). Outer guy wires with high visibility marker balls, flags or sleeves are generally also required, in line with Civil Aviation Safety Authority (CASA) requirements[4].

Masts have a small footprint at their base with a larger guy wire span (proportional to mast height). Concrete footings are installed at the mast base and at each contact point from the guy wire to the ground with a buried anchor system secured with locking pins and attachment points are in contrasting colours. Concrete footings may be pre-cast concrete blocks or poured on-site The central anchor point, located at the intersection of the guy wire layout, is generally a cement pad of roughly 1.5 metres (m) by 1.5 m and the supporting guy wire anchor points measure approximately 3.4 m by 0.8 m, extending to a depth of approximately 2 m. Fencing may be installed around the mast base and each footing to protect them from livestock or third-party access if required.

Excavation works for footings may, in some instances, intersect shallow groundwater and may require dewatering. There may also be instances where other non-groundwater related temporary dewatering activities may be required, for example, after significant rainfall. In accordance with the EPA guideline, *Environmental management of dewatering during construction activities,* water removed during dewatering activities is classified as wastewater and must not be discharged directly or indirectly to surface waters and all reasonable and practicable alternatives to environmental discharge must be considered. Dewatering of groundwater may require a relevant permit or licence relating to water affecting activities or water allocation plan.

Additional laydown and storage areas may be required adjacent to the masts during construction.

[3] National Airports Safeguarding Framework – Guideline D: Managing the risk to aviation safety of wind turbine and installations (wind farms)/ wind monitoring towers.

[4] Advisory Circular AC 139.E-05v1.1 Obstacles (including wind farms) outside the vicinity of a CASA certified aerodrome.

Plate 1: Truck transport of 140 m meteorological mast components

[Source: Future Engineering and Communication]

Where possible, masts are located in areas where there is limited native vegetation. The area of clearance for a meteorological mast is usually less than 1.0 ha, consisting of clearance at the mast base and each anchor point and to provide area for equipment laydown and access for excavators. Some vegetation removal or trimming may be required under the guy wires to maintain sufficient clearance between the wires and trees, however grasses and shrubs can typically remain.

Mast construction typically takes 1-2 weeks (depending on access and site topography).

Meteorological masts, once constructed, do not require a permanent on-site presence for operation and require infrequent maintenance via scheduled inspections, e.g. visual checks, six monthly detailed inspections, three to five yearly structural maintenance works. Maintenance undertaken may include inspections for structural integrity and/or protective coatings, replacement of mechanical parts and/or electronic component replacement or calibration.

If the mast is to be removed, the mast structure is dismantled and trucked offsite. Sub-surface concrete footings would generally remain, buried below ground level at approximately 600 milimeters (mm) depth, however the minimum depth of cover required would ultimately depend on landholder requirements and future land uses e.g. cropping. Best practice restoration of the site is generally to rip compacted areas and allow natural revegetation, however this is site dependent and best practice revegetation for specific revegetation types should be investigated to inform site restoration.

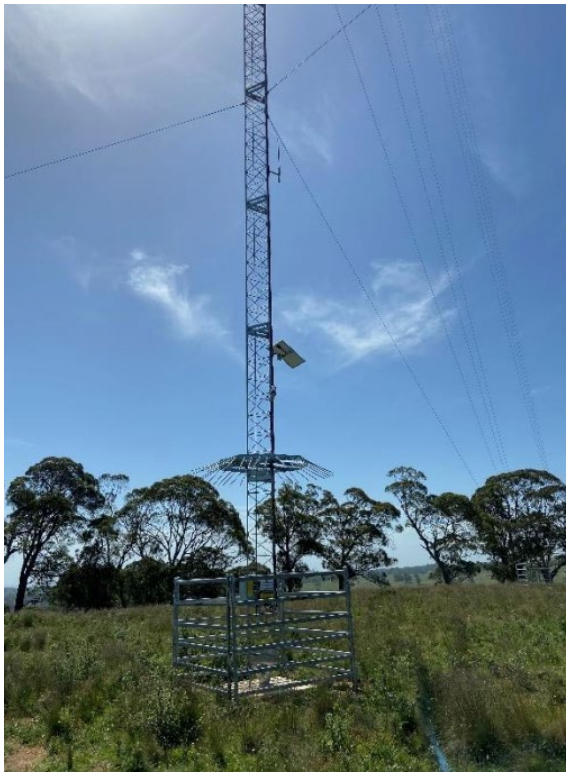


Plate 2: Meteorological mast base (105m), logger and fencing enclosure

[Source: Precinct Urban Planning]

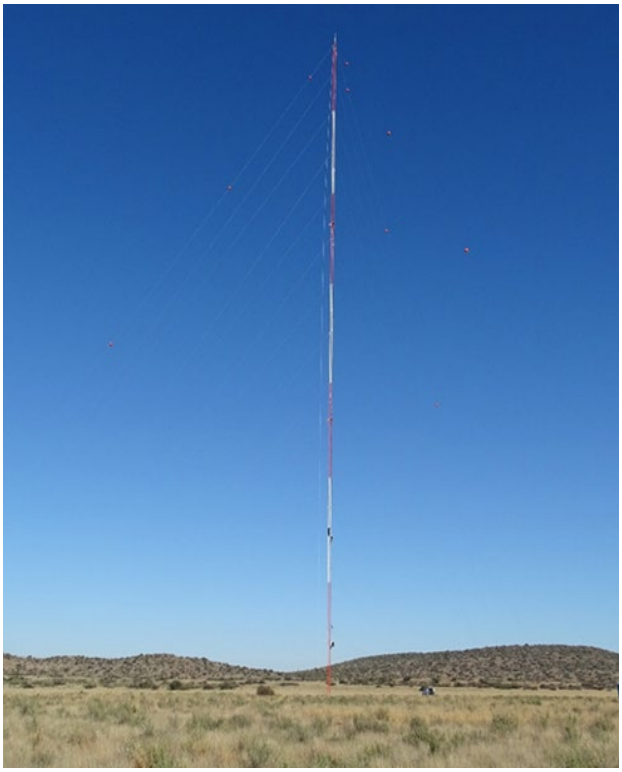


Plate 3: Meteorological mast (160m)

[Source: GEO NET]

4. Overview of Existing Environment

This section provides an overview of the existing environment of non-designated land in South Australia to which this EIR applies (the Nominated Area), refer to Section 1.2.1 for exclusions. Figure 1 shows the Nominated Area and areas excluded from the scope of the EIR., .

4.1 Landscape and Bioregions

4.1.1 Landscape management regions

South Australia is divided into nine landscape regions established under the *Landscape South Australia Act 2019* (Landscape SA Act). Non-designated land occurs within all of these, however the Nominated Area is generally comprised of the seven landscape regions where non-designated land is concentrated as follows (refer Figure 2):

- Eyre Peninsula
- Green Adelaide
- Hills and Fleurieu
- Kangaroo Island
- Limestone Coast
- Murraylands and Riverland
- Northern and Yorke

The Nominated Area also encompasses the South Australian Arid Lands landscape region. Although land in this region is largely held under pastoral lease (which is designated land and therefore outside the scope of this EIR), this EIR applies to those locations in the region where non-designated land exists (e.g. in remote townships such as Marree, Coober Pedy, Roxby Downs and Innamincka).

The Alinytjara Wilu̱rara landscape region generally comprises the Maralinga Tjarutja lands and Anangu Pitjantjatjara Yankunytjatjara lands which are not covered by this EIR (refer Section 1.2.1 Exclusions and Constraints).

The landscape regions are administered by landscape boards, whose role is to administer the Landscape SA Act and define the priorities relevant to management of the natural resources of each region. Construction and operation activities undertaken under this REFP will need to align with the landscape management plans and policies for the landscape regions within which the development takes place.

4.1.2 Climate

Average temperatures and rainfall are highly variable across the Nominated Area. The South Australian climate can be classified within three climate zones (ABS, 2014; ABCB, 2019). The Limestone Coast, Kangaroo Island and the Hills and Fleurieu landscape regions fall within a climate zone characterised by a mild temperate Mediterranean climate with four distinct seasons. Winters are mild to cool with low humidity and summers are hot to very hot with moderate humidity, with proximity to the ocean moderating temperatures by a few degrees. Average annual rainfall in the Limestone Coast ranges between 300 and 600 mm while rainfall is higher in the Hills and Fleurieu and Kangaroo Island (ranging between 600 – 900 mm) (BOM, 2024). The north-eastern region of the Northern and Yorke landscape region (including Burra and Peterborough) also falls within climate zone, although temperatures can be slightly warmer in summer and cooler in winter due to the distance from the ocean. Rainfall averages are also lower (200 – 400mm).

The climate zone for the Eyre Peninsula and Northern and Yorke, Green Adelaide, the Murraylands and Riverland landscape regions is characterised by a warm temperate Mediterranean climate with mild winters and with low humidity and hot to very hot summers and moderate humidity. The Flinders Ranges and the Leigh Creek areas also fall within this climate zone. Rainfall varies across these regions with coastal areas

experiencing higher average annual rainfall (300 – 600 mm) than inland areas (200 – 400mm). Average rainfall is lowest in the Murraylands and Riverland region (100 - 300 mm) (BOM, 2024).

The third zone generally encompasses the South Australian Arid Lands and the Alinytjara Wilurara landscape regions which experience hot to very hot dry summers with hot, dry winds and cool winters with cold dry winds. Humidity is low all year round with a high diurnal temperature range. Rainfall is low and variable (around 200 – 240 mm annually) (BOM, 2024).

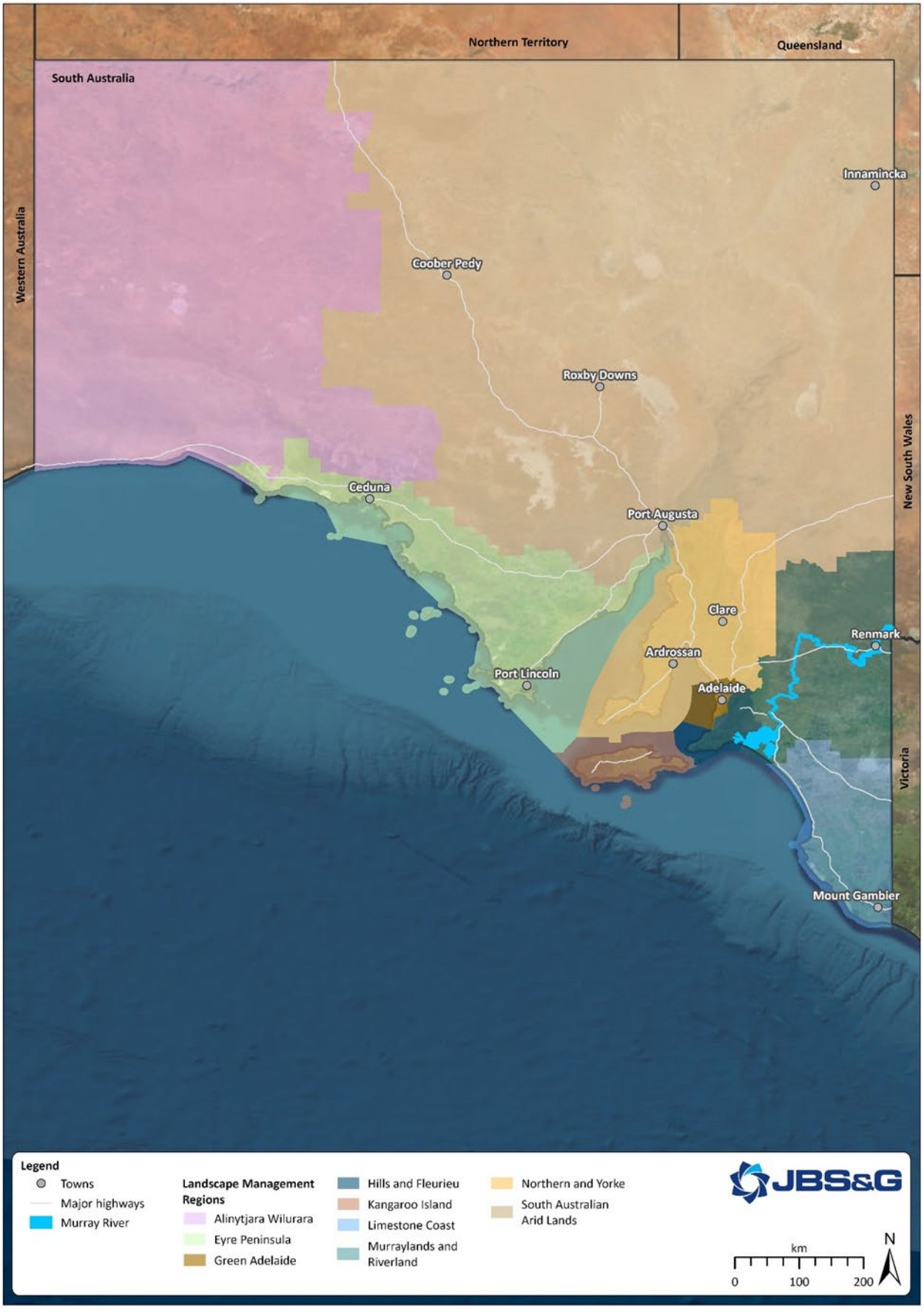


Figure 2 South Australian landscape management regions

4.1.3 Bioregions, landforms and soils

South Australia contains 17 terrestrial bioregions of the Interim Biogeographic Regionalisation for Australia (IBRA). The IBRA system classifies Australia's landscapes into bioregions based on their characteristics including climate, geology, landform, native vegetation and fauna (DCCEEW, 2023).

The Nominated Area primarily falls within the Eyre Yorke Block, Flinders Lofty Block, Gawler, Kanmantoo, Murray Darling Depression, Naracoorte Coastal Plain, Nullarbor and Southern Volcanic Plain IBRA regions (refer Figure 3). These IBRA regions present a diversified range of land systems, landforms and ecological communities. A general description of these bioregions is provided in Table 1.

Table 1 Relevant IBRA regions within the Nominated Area

Bioregion	General description
Eyre Yorke Block	The Eyre Yorke Block bioregion is characterised by hilly plains with scattered salt lakes, rocky outcrops and sands (Government of South Australia, n.d). Climate is temperate with warm summers and cool winters. The vegetation is dominated by mallee woodland and shrublands, with areas of eucalypt and *Callitris* woodlands, samphire and *Melaleuca* shrublands, and tussock grasslands. Most of this bioregion supports land use related to agriculture.
Flinders Lofty Block	The Flinders Lofty Block bioregion is characterised by mountain ranges and wide flat plains (Government of South Australia, n.d). Climate varies from north to south, with the north experiencing a semi-arid and arid climate with hot dry summers and cool mild winters, while the south has a Mediterranean climate with warm to hot summers and cool moist winters. Vegetation types include tussock grasslands, chenopod and samphire shrublands, acacia forests and woodlands, *Callitris* forests and woodlands, eucalypt woodlands, hummock grasslands and mallee woodlands and shrublands. The land in the north is mainly used for grazing and nature conservation, while in the south land is used for grazing, cereal cropping, forestry, winemaking and urban development. Large areas in the south were cleared for agriculture in the early days of European settlement.
Gawler	The Gawler bioregion is characterised by rounded landscapes, rocky hills, plains and salt-encrusted lake beds (Rangelands, 2008). Vegetation types include spinifex grasslands, open woodlands and chenopod shrubs. Sheep and some cattle grazing is the most extensive industry (in terms of area) but mining, particularly copper, uranium and gold at Olympic Dam, provides the main source of revenue. Iron ore is also extracted in the Iron Knob area.
Kanmantoo	The Kanmantoo bioregion includes the Fleurieu Peninsula and Kangaroo Island (Government of South Australia, n.d). Landscapes are diverse with rugged, coastal landscape, with sections of cliffs, rocky headlands, sandy beaches, and extensive heathland and scrub. Climate is temperate with warm summers and cool winters. Vegetation has been extensively cleared. Remaining native vegetation include heath, forests and woodland mainly dominated by mallee and eucalypts. This bioregion is known as a "biodiversity hotspot". Main land uses are related to agriculture and nature conservation.
Murray-Darling Depression	The Murray-Darling Depression bioregion is characterised by broad, rolling plains, sand dunes and lakes (Government of South Australia, n.d). The climate is semi-arid in the north with hot summers and mild winters. The south experiences a Mediterranean climate with warm to hot summers and cool moist winters. The vegetation consists of large areas of mallee shrublands and woodlands and there are also open woodlands, tussock grasslands, heath and acacia shrublands. Much of the native vegetation in the bioregion has been cleared for grazing, irrigated horticulture and growing cereal crops

Bioregion	General description
Naracoorte Coastal Plain	The Naracoorte Coastal Plain bioregion is characterised by broad rolling plains separated by low ranges, and sand ridges, sand dunes and limestone cliffs on the coast (Government of South Australia, n.d). Climate is cool, moist and Mediterranean. Approximately 90% of the vegetation has been cleared. Remaining native vegetation is dominated by mallee shrublands and woodlands, heath sedgelands, chenopod and samphire shrublands, and eucalypt woodlands and open woodlands. The cleared land in this bioregion is mostly used for grazing cattle and sheep, cereals and other crops, forestry, wine grapes and dairying.
Nullarbor	The Nullarbor bioregion spans across areas of Western Australia and South Australia. It is characterised by broad, gently undulating limestone plains with calcareous shallow loams and calcareous loamy soils (Rangelands, 2008). Climate is arid to semiarid. The vegetation is dominated by chenopod including bluebush and saltbush species with scattered western myall or mulga. In South Australia, this bioregion predominantly supports conservation areas.
Southern Volcanic Plain	The Southern Volcanic Plain bioregion spans across areas of Victoria and South Australia (Government of South Australia, n.d). The landscape shows a number of extinct volcanoes supporting large lakes or wetlands. Climate is temperate with warm and dry summers and cool winters. Vegetation has been extensively cleared. Remaining native vegetation is rare and dominated by eucalypt forest and woodlands, healthy shrublands and sedgelands. In South Australia, this bioregion predominantly supports land uses related to agriculture and forestry.

Acid sulphate soil

Acid sulphate soil materials is the term applied to soils, sediment or rock in the environment that contain elevated concentrations of metal sulfides (principally pyriteFeS_2 or monosulfides in the form of iron sulfide-FeS), which generate acidic conditions when exposed to oxygen (EPA, 2007). In South Australia, actual and potential coastal acid sulphate soils occupy approximately 2,410 km_2 and have an estimated acid reservoir of two million tonnes. Metal sulfides have been associated with historical mining of copper, gold and silver/lead deposits and within sediments throughout the state. They are also associated with some of South Australia's coal deposits (EPA, 2007).DEW has also created an acid sulphate soil potential mapping, which shows the proportion of land susceptible to the development of acid sulphate soils (DEW, 2020) and acid sulphate soil potential is viewable on NatureMaps under the Soils layer. Areas at risk of acid sulphate soils are mainly found along the coast or near freshwater areas and the majority of the Nominated Area is not at risk of being affected.

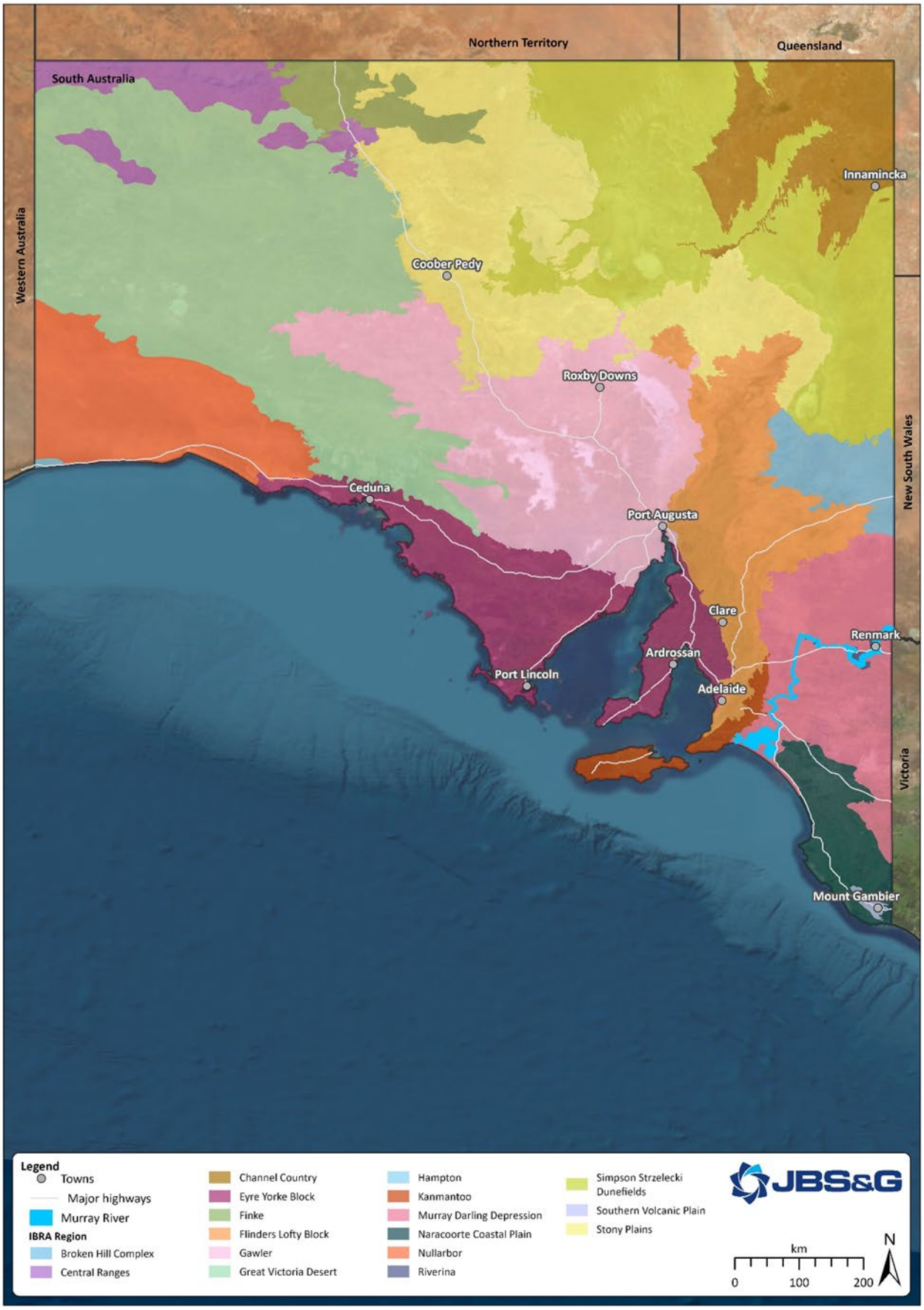


Figure 3 IBRA regions within South Australia

4.2 Water Resources

4.2.1 Surface Water

The Nominated Area encompasses a number of surface water basins and watercourses that play a significant role in the economy and natural environment of South Australia. Surface water basins and major watercourses are shown in Figure 4. Surface water features, including watercourses, are available on NatureMaps.

The Murray-Darling Basin is the largest system of waterways in Australia (DCCEEW, 2024). The Murray River flows through the east of the State in a westerly then southerly direction and into the ocean at Goolwa, south of Adelaide. It is the longest river in Australia and provides essential water resources to the State for agriculture, industrial, domestic and recreational uses (DEW, 2025). Approximately 75% of the water taken every year from the Murray River is used for primary production such as irrigation of crops and water supply to livestock (DEW, 2025). The Murray River finishes in the Coorong, a 145 km long lagoon that stretches along the southeastern coast of the State. Along with the Lower Lakes, including Lake Alexandrina and Lake Albert, the Coorong provides a range of habitats to many threatened species and is protected under the Ramsar convention (refer Section 4.5.3 Conservation).

The Hills and Fleurieu landscape region includes watercourses that are important natural resource to the State, supplying about 40 % of Adelaide's water needs including drinking water, irrigation water and water supply to livestock (EPA, 2011; Landscape SA, 2024). The Onkaparinga River is the second largest permanent river in South Australia and flows in a south-westerly direction from the Mount Lofty Ranges to Port Noarlunga. Other important watercourses in this region include the River Torrens / Karrawirra Pari that flows through Adelaide and discharges into Gulf St Vincent, and the Gawler River that flows through the city of Gawler.

Watercourses on Kangaroo Island are predominantly ephemeral (DEW, 2020; EPA, 2023). The Cygnet River catchment is the largest drainage catchment of the island, while the Middle River catchment includes the largest surface water reservoir on the island, providing water resource for agriculture as well as drinking water. Other important watercourses on Kangaroo Island include the Stunsail Boom River, Rocky River, Eleanor River and Harriet River (DEW, 2020).

Drainage of the Northern and Yorke region is characterised by ephemeral watercourses which originate in the Mount Lofty Ranges and drain eastwards towards the plains or west towards the coast. Yorke Peninsula has very little drainage definition and many surface water catchments terminate in landlocked saline lakes (N&Y NRMB, 2008).

Eyre Peninsula has limited surface water features. Watercourses are generally ephemeral and restricted mostly to the east coast. Large salt lakes and seasonal lakes are present north of Eyre Peninsula in the Gawler IBRA region, including Lake Acraman, Lake Gairdner, Lake MacFarlane, and Lake Gilles.

Numerous large ephemeral drainage lines originate in the Flinders Ranges in the south of the South Australian Arid Lands region and drain west towards Lake Torrens or east towards Lake Frome. The north of this landscape region includes several large salt lakes, saltpans, seasonal lakes and ephemeral rivers that are part of the Lake Eyre Basin. This is one of the largest internally draining river system in the world, spanning across 1.2 million km^2 (DCCEEW, 2024). Main surface water systems in the Lake Eyre Basin include Lake Eyre, Lake Frome and the ephemeral Cooper Creek and Diamantina River. These water systems have a high ecological importance, providing essential feeding and breeding habitats to native fauna and in particular to migratory birds (DEH, 2009).

Constructed farm dams are used to capture and store surface water across much of the Nominated Area.

Within the Nominated Area, there are eight watercourses and one surface water area that are prescribed under the Landscape SA Act. These are all located in the south-eastern part of the State and include Morambro Creek, Murray River, Onkaparinga River, River Torrens, Gawler River, Little Para River, Chapmans Creek Intake, and Middle Beach Intake (refer Figure 4).

The Nominated Area also overlaps with a number of prescribed water resources areas (PWRA) that regulate both surface water and groundwater use. These include the Eastern and Western Mount Lofty Ranges, Clare and Barossa Valley, Baroota (north of Port Pirie) and Marne River and Saunders Creek PWRAs.

The Landscape SA Act and the Water Affecting Activities Control Policies for each landscape management region set out a number of water affecting activities that must not be undertaken without a permit. These are usually avoidable by micro siting of infrastructure to avoid watercourses and surface water features and to maintain surface water flows during construction and operation.

4.2.2 Groundwater

Groundwater resources are variable across the Nominated Area. Available mapping indicates that depth to the shallowest aquifer and groundwater yield and salinity is highly variable across the Nominated Area (South Australian Government, 2025).

Harrington and Cook, (2014) identify three main groundwater resources in South Australia:

- the southwestern section of the Great Artesian Basin (GAB), which is one of the largest ground water basins in the world and overlaps with all of north-eastern South Australia
- the Murray–Darling Basin in south-eastern South Australia along the Murray River
- the Otway Basin aquifers in south-east South Australia.

Porous, extensive and highly productive aquifers are found within the GAB and within parts of the Murray–Darling Basin and most of the Otway Basin (Harrington & Cook, 2014). Zones with porous and extensive aquifers of low to moderate productivities can be found around these highly productive aquifers. The Adelaide geosyncline that runs from the Mount Lofty Ranges to the Flinders Ranges on the other hand supports fractured or fissured, extensive aquifers of low to moderate productivity. The rest of the State including north-western South Australia, the Eyre Peninsula, Kangaroo Island and sections of the Northern and Yorke landscape regions supports local aquifers of generally low productivity (Harrington & Cook, 2014).

Groundwater systems are recognised to host important habitat for Groundwater Dependent Ecosystems (GDEs). GDEs include aquatic, terrestrial and subterranean ecosystems that depend on the permanent or intermittent availability of groundwater and generally present as surface expressions of groundwater or within the subsurface. The national inventory for GDEs is available at the Groundwater Dependent Ecosystems Atlas.

Groundwater uses in South Australia are diverse and are related to agricultural, pastoral, mining and tourism activities, domestic water supply, irrigation and industrial applications such as beverage manufacture and linen washing (Government of South Australia, 2024).

Aquifers that are used for domestic water supply are mostly located in the South East, Eyre Peninsula and the northern region of South Australia (SA Water, 2025). Although the State's potable water supply is predominantly provided from surface water sources (including the River Murray), a number of larger population centres rely on groundwater supplies including Mount Gambier and Port Lincoln. SA Water also operate a number of desalination plants to treat groundwater for supply to the community, including at Marla, Oodnadatta, Hawker, Leigh Creek, Yalata and several locations in the APY Lands (SA Water, 2025).

Groundwater regulation in South Australian is the responsibility of the Department for Environment and Water (DEW), the Environment Protection Authority (EPA), the Department for Energy and Mining (DEM), and the relevant Landscape Board through Water Allocation Plans (EPA, 2024). The environmental values of groundwater are protected by the *Environment Protection (Water Quality) Policy 2015*. Monitoring of groundwater quantity and quality in South Australia is undertaken via a groundwater monitoring network that includes more than 3,000 groundwater wells distributed throughout the State. Groundwater well data is available via WaterConnect.

There are several prescribed well areas in state, located in the South East, Eyre Peninsula, Adelaide plains, Fleurieu Peninsula, Murraylands and in the northeastern corner of the State. The Far North Prescribed Wells Area is the largest prescribed wells area, covering a surface equivalent to 32 % of South Australia (Landscape SA Arid Lands, n.d). As noted in Section 4.2.1, there are also a number of prescribed water resources areas,

where both surface water and groundwater resources are prescribed. Prescribed wells areas and prescribed water resources areas are managed under the Landscape SA Act and a water licence must be obtained for certain uses of groundwater from these areas.

Under the Landscape SA Act, activities relating to groundwater wells require an authorisation or a permit from the Minister via the Department for Environment and Water, and other activities relating to groundwater may require a Water Affecting Activity permit from the regional Landscape Board.

Figure 4 Major watercourses and surface water basins in South Australia

4.3 Flora, Fauna and Biodiversity

South Australia's native biodiversity is globally unique. It forms an integral part of the State's cultural heritage and identity, as well as underpinning wellbeing and economic prosperity (EPA, 2023).

Pursuant to regulation 32(2)(c) of the HRE Regulations, ecological data collected must be submitted to the Department for Environment and Water (DEW) following the completion of an ecological survey. Ecological data collection and submission should be undertaken in format consistent with the Biological Databases of South Australia (BDBSA) – Contributing Data fact sheet.

Appropriate survey methods should be adopted in the collection of ecological data that are specific to the objectives of the survey and/or to the target species, relevant standard survey methods are outlined on the DEW's Data collection and management webpage. The CSIRO publication, Wildlife Research in Australia, also provides guidance on appropriate survey methods for different types of fauna.

4.3.1 Native Vegetation

Extensive land clearance has resulted in the removal of the majority of native vegetation in the agricultural districts of the State, with approximately 26% of native vegetation remaining (SPC, 2020), this is reflected in Figure 5.

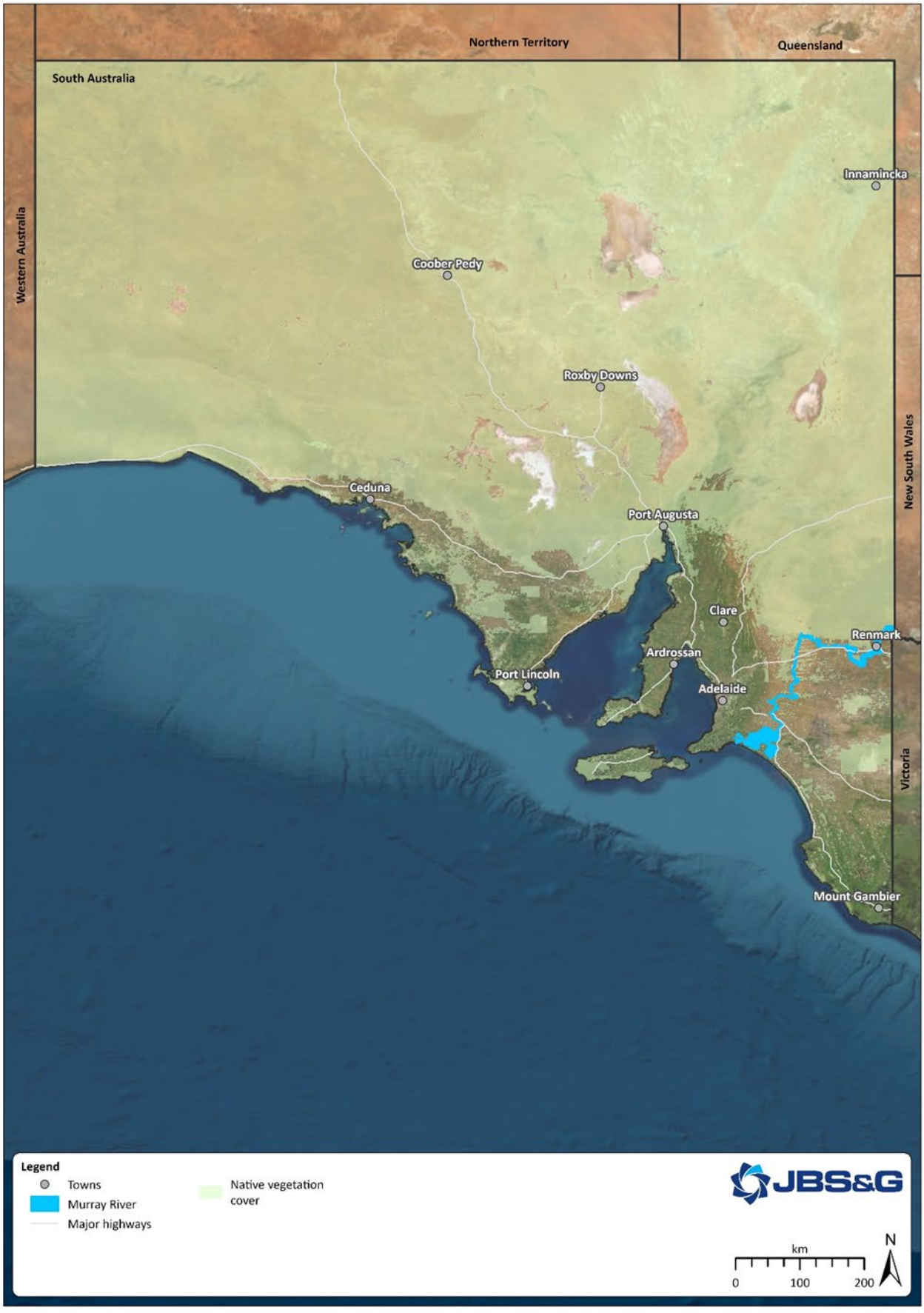
The Nominated Area is predominantly within the agricultural districts and has been extensively cleared. Large areas of native vegetation are mainly restricted to land set aside for conservation. Non-designated land generally supports smaller patches of vegetation, however there are larger blocks (e.g. 200 ha or more) remaining on non-designated land. Many roadsides and other linear corridors also contain important vegetation remnants.

Broad vegetation types occurring in the Nominated Area include (DEW, 2024):

- *Acacia* shrublands and woodlands
- *Allocasuarina* forest and woodland
- *Alectryon* woodland and shrubland
- *Callitris* forest and woodland
- Chenopod shrubland
- Coastal shrubland
- *Eucalyptus* forest and woodland
- Eucalyptus mallee forest and mallee woodland
- Fernland/herbland
- Grasslands including hummock grassland and tussock grassland
- *Melaleuca* shrubland, forest and woodland
- *Myoporum* woodland
- Rushland / sedgeland
- Samphire shrubland

Native vegetation is protected under the *Native Vegetation Act 1991* (Native Vegetation Act). Approval is required under the Native Vegetation Act to clear native vegetation unless the clearing activity meets circumstances prescribed under the Regulations[5]. Where native vegetation clearance is approved under the Act or Regulations requires a 'significant environmental benefit' to be implemented to offset the clearance, in accordance with guidelines published by the Native Vegetation Council, this includes the prioritisation of on-ground offsets rather than payments to the fund.

[5] Regulations 12 and 16 and clause 34 (Infrastructure) of Schedule 1 of the *Native Vegetation Regulations 2017* potentially apply to the proposed activities. Under these Regulations, vegetation may be cleared for infrastructure, provided that it is in the public interest, has development authorisation where required, is undertaken in accordance with the written approval of the Native Vegetation Council, and a 'significant environmental benefit' is achieved via an approved management plan or a payment into the Native Vegetation Fund.



Client: Department of Energy and Mining; **Job Number:** 68029

Figure 5 Native vegetation cover

4.3.2 Native flora and fauna

South Australia is home to a diversity of native flora and fauna species. There are over 4,000 native or naturalised flora species recognised in the State, and more than 800 terrestrial vertebrate fauna species including over 140 mammal species, over 450 bird species, over 240 reptile species and 26 amphibian species (DEW, 2025; DEW, 2009).

Native flora and fauna typically rely on remnant native vegetation for habitat, however some species persist in disturbed areas. A number of native fauna species utilise farmland and other cleared or disturbed areas as habitat, primarily for foraging.

Native flora and fauna are protected under the *National Parks and Wildlife Act 1972* (NPW Act). The NPW Act also lists rare or threatened flora and fauna species, as discussed in Sections 4.3.4 and 4.3.5. Native flora species also include those that are recognised as culturally important plants for Aboriginal people.

4.3.3 Threatened ecological communities

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) lists ecological communities that are nationally threatened. Examples of nationally threatened ecological communities in South Australia that may occur in the Nominated Area include:

- Buloke Woodlands of the Riverina and Murray-Darling Depression Bioregions
- Eyre Peninsula Blue Gum (*Eucalyptus petiolaris*) Woodland
- Drooping sheoak grassy woodland on calcrete of the Eyre Yorke Block Bioregion
- Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-Eastern Australia
- Iron-grass Natural Temperate Grassland of South Australia
- Kangaroo Island Narrow-Leaved Mallee (*Eucalyptus cneorifolia*) Woodland
- Peppermint Box (*Eucalyptus odorata*) Grassy Woodlands in South Australia
- Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains
- Subtropical and Temperate Coastal Saltmarsh
- Swamps of the Fleurieu Peninsula
- Mallee Bird Community of the Murray Darling Depression Bioregion.

Ecological communities that are considered threatened at a State level also occur throughout the Nominated Area. These communities are listed in the provisional list of threatened ecosystems in SA (DEW in progress).

4.3.4 Threatened flora species

There are currently over 100 South Australian plant species listed as nationally threatened under the EPBC Act. At a State level, over 800 plant species are listed as threatened under the NPW Act. Of these, 41 are considered to be extinct in South Australia (DEW, 2024).

Potentially occurring threatened flora species available on the EPBC Act Protected Matters Search Tool and the BDBSA. These databases have not been used for the purposes of developing this EIR due to the size of the Nominated Area and number of threatened species across the Nominated Area, however, should be used for individual projects to determine the existing environment and potentially impacted species for a specific project area and to inform potential impacts and any further on-ground survey investigations.

Notable threatened flora species in each of the landscape regions in the Nominated Area are presented in Table 2 below .[6].

Table 2 Notable threatened flora species

Landscape management region	(a) Notable threatened flora species	
Eyre Peninsula	Chalky wattle *Acacia cretacea* Fat-leaved wattle *Acacia pingulfolia* Resin wattle *Acacia rhetinocarpa* Whibleys wattle *Acacia whibleyana* Prickly raspwort *Haloragis eyreana*	Silver daisy bush *Olearia pannosa* ssp *pannossa* West Coast mintbush *Prostanthera calycina* Ironstone mulla mulla *Ptilotus beckerianus* Tufted bush-pea *Pultenaea trichophylla* Bead samphire *Tecticornia flabelliformis*
Green Adelaide and Hills and Fleurieu	Mount Compass oak-bush *Allocasuarina robusta* White beauty spider-orchid *Caladenia argocalla* Zig-zag bitter-pea *Daviesia pectinata* Mount Compass swamp gum *Eucalyptus paludicola* Clover glycine *Glycine latrobeana*	Fleurieu Peninsula guinea-flower *Hibbertia tenuis* Monarto mintbush *Prostanthera eurybioides* Large-flower groundsel *Senecio megaglossus* Austral lady's tresses *Spiranthes australis* Mount Lofty speedwell *Veronica derwentiana ssp. homalodonta*
Kangaroo Island	Downy starbush *Asterolasia phebalioides* Kangaroo Island spider-orchid *Caladenia ovata* Twining finger-flower *Cheiranthera volubilis* Hindmarsh correa *Correa calycina* Kangaroo Island phebalium *Leionema equestre* Kangaroo Island logania *Logania insularis* Small-flowered daisy-bush *Olearia microdisca*	Kangaroo Island pomaderris *Pomaderris halmaturina* subsp.*halmaturina* Splendid bush-pea *Pultenaea villifera* var. *glabrescens* MacGillivray spyridium *Spyridium glabrisepalum* Spiral sun-orchid *Thelymitra matthewsii*
Limestone Coast	Limestone spider-orchid *Caladenia calcicola* Coloured spider-orchid *Caladenia colorata* Elegant spider-orchid *Caladenia formosa* Avenue cassinia *Cassinia tegulata* Clover glycine *Glycine latrobeana* Green-striped greenhood *Pterostylis chlorogramma*	Leafy greenhood *Pterostylis cucullata* Swamp greenhood *Pterostylis tenuissima* Large-fruit Fireweed *Senecio macrocarpus* Woods well spyridium *Spyridium fontis-woodii* Metallic sun-orchid *Thelymitra epipactoides*
Murraylands and Riverland	Resin wattle *Acacia rhetinocarpa* Coloured spider-orchid *Caladenia colorata* Greencomb Spider-orchid *Caladenia tensa* Peep Hill Hop-bush *Dodonaea subglandulifera* Silver daisy bush *Olearia pannosa* ssp *pannosa*	Lowan phebalium *Phebalium lowanense* Monarto mintbush *Prostanthera eurybioides* Yellow swainson-pea *Swainsona pyrophila* Metallic sun-orchid *Thelymitra epipactoides*
Northern and Yorke	Resin wattle *Acacia rhetinocarpa* Spiny daisy *Acanthocladium dockeri* Bayonet spider-orchid *Caladenia gladiolata* Large-club spider-orchid *Caladenia macroclavia* Ghost spider-orchid *Caladenia* sp. *Brentwood*	Osborne's eyebright *Euphrasia collina* ssp. *osbornii* Clover glycine *Glycine latrobeana* Spalding blown grass *Lachnogrostis limitanea* Silver daisy bush *Olearia pannosa* ssp *pannossa*
South Australian Arid Lands	Balcanoona wattle *Acacia araneosa* Purple-wood wattle *Acacia carneorum* Menzel's wattle *Acacia menzelii* Birds Nest wattle *Acacia pickardii* Slender bell-fruit *Codonocarpus pyramidalis*	Salt pipewort *Eriocaulon carsonii* Mt Finke grevillea *Grevillea treueriana* Arckaringa daisy *Olearia arckaringensis* Slender Darling-pea *Swainsona murrayana*

[6] Notable species have been selected based primarily on information on Landscape Board websites and in regional Landscape Plans.

4.3.5 Threatened fauna species

There are currently over 90 South Australian fauna species listed as nationally threatened under the EPBC Act. This includes a range of mammal, bird, reptile, amphibian and fish species (DEW, 2024).

At a State level, there are 324 fauna species listed as threatened under NPW Act, including 100 mammals, 163 birds, 53 reptiles and 8 amphibians (DEW, 2024). This includes the 24 mammal and 8 bird species that are considered to have become extinct in South Australia since European settlement.

Potentially occurring threatened flora species available on the EPBC Act Protected Matters Search Tool and the BDBSA. These databases have not been used for the purposes of developing this EIR due to the size of the Nominated Area and number of threatened species across the Nominated Area, however, should be used for individual projects to determine the existing environment and potentially impacted species for a specific project area and to inform the potential impacts and any further on-ground survey investigations.

Notable threatened fauna. in each of the landscape regions in the Nominated Area are presented in Table 3 below.[7].

Table 3 Notable threatened fauna species

Landscape management region	(b) Notable threatened flora species
Eyre Peninsula	Hooded plover *Thiniornis cucullatus* Malleefowl (Nganamara) *Leipoa ocellata* Mallee whipbird *Psophodes leucogaster leucogaster* Southern emu-wren *Stipiturus malachurus intermedius* Sandhill dunnart *Sminthopsis psammophila* Southern brown bandicoot *Isoodon obesulus obesulus* Western Grasswren *Amytornis textilis myall* Southern Whiteface *Aphelocephala leucopsis* Heath goanna *Varanus rosenbergi*
Green Adelaide and Hills and Fleurieu	Slender-billed thornbill *Acanthiza iredalei rosinae* Southern whiteface (eastern) *Aphelocephala leucopsis* Chestnut-rumped heathwren *Hylacola pyrrhopygia parkeri* Hooded robin (south-eastern) *Melanodryas cucullata cucullata* Mt Lofty Ranges Southern emu-wren *Stipiturus malachurus intermedius* Southern brown bandicoot *Isoodon obesulus obesulus* Grey-headed flying-fox *Pteropus poliocephalus*
Kangaroo Island	Kangaroo Island glossy black-cockatoo *Calyptorhynchus lathami halmaturinus* Kangaroo Island shy heathwren *Hylacola cauta halmaturina* Kangaroo Island brown-headed honeyeater *Melithreptus brevirostris magnirostris* Kangaroo Island white-eared honeyeater *Nesoptilotis leucotis thomasi* Kangaroo Island whipbird *Psophodes leucogaster lashmari* Kangaroo Island southern emu-wren *Stipiturus malachurus halmaturinus* Kangaroo Island dunnart *Sminthopsis fuliginosus aitkeni* Kangaroo Island echidna *Tachyglossus aculeatus multiaculeatus*
Limestone Coast	Australasian bittern *Botaurus poiciloptilus* South-eastern red-tailed black cockatoo *Calyptorhynchus banksii graptogyne* Malleefowl (Nganamara) *Leipoa ocellata* Southern bent-wing bat *Miniopterus orianae bassanii* Orange-bellied parrot *Neophema chrysogaster*

[7] Note: Notable species have been selected based on information on Landscape Board websites and in regional Landscape Plans.

Landscape management region	(b) Notable threatened flora species
	Hooded plover *Thiniornis cucullatus* Striped Legless Lizard *Delma impar* Swamp Skink *Lissolepis coventryi* Southern bell frog (growling grass frog) *Litoria raniformis*
Murraylands and Riverland	Malleefowl (Nganamara) *Leipoa ocellata* Hooded robin (south-eastern) *Melanodryas cucullata cucullata* Regent parrot *Polytelis anthopoplus monarchoides* Mallee whipbird *Psophodes leucogaster leucogaster* Mallee emu-wren *Stipiturus mallee* Southern bell frog *Litoria raniformis* Southern purple spotted gudgeon *Mogurnda adspersa*
Northern and Yorke	Malleefowl (Nganamara) *Leipoa ocellata* Plains wanderer *Pedionomus torquatus* Mallee whipbird *Psophodes leucogaster leucogaster* Hooded plover *Thinornis rubricollis* Yellow footed rock wallaby *Petrogale xanthopus* Kreft's tiger snake *Notechis ater ater* Pygmy blue-tongue lizard *Tiliqua adelaidensis*
South Australian Arid Lands	Short-tailed grasswren *Amytornis merrotsyi merrotsyi* Thick-billed grasswren *Amytornis modestus* Grey falcon *Falco hypoleucos* Plains wanderer *Pedionomus torquatus* Kowari *Dasyuroides byrnei* Dusky hopping mouse *Notomys fuscus* Plains mouse *Pseudomys australis* Bronzeback legless lizard *Ophidiocephalus taeniatus*

4.3.6 Migratory species

Over 35 species of birds listed as migratory under the EPBC Act are predicted to occur in the Nominated Area by the EPBC Act Protected Matters Search Tool (DCCEEW, 2024). These are predominantly migratory shorebirds that breed in the northern hemisphere and overwinter in Australia, utilising habitats such as wetlands or intertidal mudflats. Species include Great Knot (*Calidris tenuirostris*), Bar-tailed Godwit (*Limosa lapponica*), Sharp-tailed Sandpiper (*Calidris acuminata*), Red Knot (*Calidris canutus rogersi*), Curlew Sandpiper (*Calidris ferruginea*), Pectoral Sandpiper (*Calidris melanotos*), Red-necked Stint (*Calidris ruficollis*), Great Knot (*Calidris tenuirostris*), Oriental Plover (*Charadrius veredus*), Eastern Curlew (*Numenius madagascariensis*), Grey Plover (*Pluvialis squatarola squatarola*).

Many of the wetlands listed under the Ramsar convention (refer 4.5.3 Conservation) provide important habitat for migratory species.

4.3.7 Weeds, pests, pathogens and disease

The transport and construction of meteorological masts may result in the spread of weeds, pests and/or pathogens. Meteorological masts that are transported from interstate or, in particular, from or through areas of known weed or pathogen infestation, have the potential to spread or introduce weeds, pests, or pathogens, which have been demonstrated to adversely impact native species, the landscape, and primary production.

Weeds

Weeds that are a significant threat to agriculture, the natural environment and public health and safety are declared under the Landscape SA Act. The Landscape SA Act sets out the legal framework for management of declared plants, including but not limited to:

- banning the sale or controlling the movement of declared weeds
- destroying or controlling infestations of declared weeds
- notifying authorities when an infestation is detected.

Declared weeds of note currently within the Nominated Area include:

- Bridal creeper *Asparagus asparagoides*
- Khaki weed *Alternanthera pungens*
- Buffel grass *Cenchrus ciliaris*
- Innocent weed *Cenchrus incertus*
- Cactus Opuntia, *Cylindropuntia* and *Austrocylindropuntia* spp.
- African boxthorn *Lycium ferocissimum*
- Chilean needlegrass *Nassella neesiana*
- Broomrape *Orobanche* spp.
- African rue *Peganum harmala*
- Silverleaf nightshade *Solanum elaeagnifolium*
- Gazania *Gazania*
- Bathurst burr *Xanthium spinosum*.

The list of declared weeds is not static and can change over time, information on declared weeds within a given area is held by the relevant landscape board or can be found on the PIRSA website. Landscape Boards are generally also responsible for pest plant strategies that provide guidance on pest plant management in their landscape region.

Introduced plant species that are not declared under the Landscape SA Act can also impact agriculture and native vegetation.

Currently, 32 Weeds of National Significance (WONS) are listed under the Australian Weeds Strategy that have been identified based on their invasiveness, potential for spread and environmental, social and economic impacts. Further information on WONS and their occurrence as well as individual national strategic management plans for individual WONS are available via Weeds Australia.

Pests

Pest animals can also pose a significant threat to agriculture, the natural environment and public health and safety. Pest animals are included within the List of Declared Animals under the Landscape SA Act and the pest animals of greatest concern to South Australia are listed by the Department of Primary Industries and Regions (PIRSA). Pest animals that may be present in the Nominated Area include, but are not limited to:

- Feral deer
- Feral goat *Capra hircus*
- Fox *Vulpes vulpes*
- Rabbit *Oryctolagus cuniculus*
- Feral cat *Felis catus*
- Wild dog *Canis familiaris*
- Feral pig
- House mouse *mus musculus*

Landscape Boards support landowners and other stakeholders in the management of pest animals, including pest animal (declared) management plans, the coordination of control programs as well as outlining priorities and strategies for pest control.

The federally coordinated response to pest animals in Australia, the Australian Pest Animal Strategy, provides national guidance on best practice vertebrate pest animal management.

Pathogens and disease

Pathogens and disease can impact native vegetation and agricultural activities. Pathogens relevant to the Nominated Area include:

- Phytophthora, which is a fungus-like organism, carried in soil and water, that can cause disease and death to a wide variety of native plant species, fruits, vegetables and garden plants.
- plant pests and diseases such as grape phylloxera
- animal pathogens such as Johne's Disease.

Pathogens such as these are generally not widespread in South Australia. They are primarily managed by the Department of Primary Industries and Regions (PIRSA) under a range of legislation and policies, including the *Plant Health Act 2009*, the Landscape SA Act, the *Livestock Act 1997,* and South Australia's Biosecurity Policy. Notifiable animal diseases are specified on the PIRSA website.

Reported locations of infestations of Phytophthora are shown on NatureMaps on the 'Phyophthora Records' category under the 'Fauna and Flora' layer. The Department for Infrastructure and Transport (DIT) have published the *Phytophthora (Dieback) Control Environmental Instruction* (DIT, 2022), which identifies high, medium and low risk potential threat areas for Phytophthora in South Australia.

High potential threat areas in South Australia include areas which are conducive to the spread of Phytophthora based on climactic and soil factors and locations of known infestations, which include:

- Mt Lofty Ranges (Angaston to Cape Jarvis);
- Kangaroo Island; and
- Parts of the South East.
- Medium potential threat areas in South Australia include areas where Phytophthora has not yet been recorded but there is a moderate potential of it becoming established:Parts of the Adelaide Plains and Mid-North;
- Southern Eyre Peninsula;
- South East; and
- Southern York Peninsula.

Low potential threat areas are those where Phytophthora has not yet been recorded and there is a low likelihood of becoming established, i.e. all other parts of the state that are not medium or high potential threat areas.

The Instruction includes a risk assessment process to determine the risk and subsequent level of controls required for a particular site.

4.4 Population Centres and Infrastructure

4.4.1 Population centres

South Australia's population in 2024 is over 1.8 million people with more than 75% concentrated in the Greater Adelaide area (which incorporates the Green Adelaide and part of the Hills and Fleurieu landscape regions). The remainder of the population (approximately 406,000 people) is distributed through regional South Australia (defined as those parts of South Australia north of Gawler, east of Mount Barker and south of McLaren Vale) (Idcommunity, 2024).

Adelaide and most of the larger population centres in the Nominated Area are located on the coast. Important coastal centres include Whyalla, Port Augusta, Port Pirie, Port Lincoln and Ceduna on the Eyre Peninsula, Moonta, Wallaroo and Ardrossan on Yorke Peninsula, Victor Harbor and Goolwa on the Fleurieu Peninsula and Kingscote on Kangaroo Island. Larger centres located further inland which provide services to the surrounding rural hinterlands include Mount Gambier and Naracoorte in the Limestone Coast landscape region, Renmark, Berri, Mannum and Murray Bridge in the Murraylands and Riverland, and Clare, Jamestown and Hawker in the Mid North and Flinders Ranges regions.

By contrast, the largest land management region, the South Australia Arid Lands, makes up less than 2% of the State's population which is geographically dispersed. The largest inland towns in this region, Coober Pedy and Roxby Downs, are both associated with mining and are home to less than 5,000 people, while other townships including Innamincka, Andamooka, Oodnadatta, William Creek and Marree all have significantly less than 500 residents.

The largest local government areas by population are generally located with the Green Adelaide, Hills and Fleurieu and Limestone Coast landscape regions.

Smaller townships outside of regional centres support rural and regional communities. Rural townships are smaller in population than regional centres, generally provide basic amenities, and are reliant on a few primary sources of industry that support the local economy e.g. forestry, agriculture. Rural townships often have a strong sense of community, facilitate community events and provide a social hub for people living around these areas in both dispersed rural dwellings and dwellings within or near a rural township.

4.4.2 Major infrastructure

Roads

The State government through the Department for Infrastructure and Transport manages around 25% of South Australia's total road network which includes 13,000 km of sealed roads and 10,000 km of unsealed roads. This includes all roads classified as arterial roads and all local roads within Unincorporated Areas (in the north of the State) (refer Figure 6).

Due to the population distribution of the State, many of the major highways are located in the south-eastern portion of South Australia, connecting rural centres in this region to Adelaide, and South Australia as a whole to the eastern states. Major highways in this region include the Princes Highway, the Dukes Highway, the Barrier Highway and the Sturt Highway. These highways also connect to the Eyre and Stuart Highways which are the primary arterial routes connecting South Australia to Western Australia and the Northern Territory and are significant routes for transcontinental travel and freight movements.

There are a range of secondary highways which are important connectors of rural centres and communities to the major highways, providing important access to services for local communities and for visitors to the regions. These include roads such as the Flinders Highway, Lincoln Highway, Augusta Highway and Flinders Ranges Way on the Eyre Peninsula, the Yorke and Copper Coast Highways on Yorke Peninsula, the Mallee Highway in the Murraylands and Riverland and the Riddoch Highway in the Limestone Coast.

There are key outback routes which provide access to remote communities for local residents, services and visitors. Despite being mainly unsealed, these routes are of relatively high standard, providing safe and reliable (weather permitting) access for local residents and tourists, and accommodate heavy vehicle traffic, particularly associated with mining and energy resource operations. These routes include the Birdsville Track, the Strzelecki Track and the Oodnadatta Track.

The local road network is an extensive network of over 75,000 km of sealed and unsealed roads across the State which are maintained by councils. These roads are key infrastructure that connects and supports communities, families, businesses, community inclusion, and access and safety.

Rail

The State Government maintains the metropolitan passenger rail network within Adelaide which operates services within Greater Adelaide including to Gawler and Seaford (DPTI, 2013). There have been no intrastate regional passenger services in South Australia since 1990.

Private operators maintain and manage the State's freight rail network which links strategically important economic regions, seaports and regional centres. These rail corridors play an important role in moving freight and long haul, bulk products such as grain and minerals, and include the transcontinental rail line that connects Sydney to Perth and Adelaide to Darwin.

The transcontinental line is managed by the Australian Rail Track Corporation (ARTC) and provides regional and interstate passenger and freight services. Passenger services on the transcontinental rail line are tourism-oriented and include the Indian Pacific (Sydney – Perth) and the Ghan (Adelaide – Darwin) services. The rail line passes through Port Augusta and Pimba before heading west and on to Darwin and Perth.

There are presently two heritage railways in South Australia run by volunteers - the Steam Ranger is based at Mount Barker and runs services through to Victor Harbor. The Pichi Richi Railway is based at Quorn and runs services through to Port Augusta.

Airports and airfields

The primary airport for South Australia is located in Adelaide providing domestic and international services to the State, with a secondary aerodrome at Parafield. Regional airports operated by local councils provide important services to regional communities and businesses. The Eyre Peninsula region is serviced by CASA certified aerodromes at Ceduna, Streaky Bay, Tumby Bay, Wudinna, Kimba, Port Lincoln, Cleve and Whyalla. Communities at Port Pirie, Renmark, Naracoorte, Mount Gambier and Kingscote on Kangaroo Island are similarly supported by air service through council operated aerodromes.

In the South Australian Arid Lands, air services are provided through Coober Pedy, Port Augusta and Leigh Creek, with smaller aerodromes at Olympic Dam, Carrapateena, Prominent Hill and Moomba operated by resource companies to support their activities.

Informal rural and private airfields exist across the State, these are generally used for agricultural purposes, including crop spraying and can be used to facilitate firefighting.

Energy

Since the closure of the coal fired Northern Power Station in Port Augusta in May 2016, the State has progressed to be a national leader in renewable energy capacity (Government of South Australia, 2024) . South Australia currently generates more than 70% of its electricity from renewable sources and by 2025/2026, this is projected to reach 85%, with a target of 100% net renewable energy by 2027.

Renewable energy in South Australia is generated from wind farms, rooftop solar systems, solar photovoltaic (PV) farms and solar thermal farms, complemented by large-scale battery energy storage systems.

Major wind farms located across the Eyre Peninsula, Northern and Yorke, Murraylands and Riverland and Hills and Fleurieu landscape regions include Lincoln Gap, Hornsdale, Lake Bonney, Hallett, Snowtown, and Cape Jervis.

Large-scale solar facilities use PV technology to convert sunlight to electricity. Major solar farm locations in South Australia include Port Augusta, Whyalla, Mannum, Tailem Bend, Coonalpyn and Streaky Bay.

Electricity transmission interconnectors allow the import and export of electricity to and from other states. South Australia currently has two interconnections with Victoria, the Heywood and the 220 MW Murraylink interconnector which is an underground system and has a converter station located at the South Australian end near Berri. Project EnergyConnect is an 800 MW interconnector which will connect South Australia to New South Wales and provide an additional connection to Victoria. The South Australian end is in Robertstown in the Mid North.

The electricity transmission network within South Australia consists of approximately 6,600 km of transmission lines ranging in capacity from 66 kV to 275 kV (Electranet, 2024). The electricity distribution network is operated by SA Power Networks and consists of more than 88,000 km of power lines that deliver electricity to more than 860,000 customers (Energy Networks Australia, 2024).

Natural gas is also used to generate electricity and supply houses and businesses. Buried transmission pipelines, directly and indirectly, deliver natural gas to the Adelaide metropolitan area and major regional

areas. These include the Moomba to Adelaide Pipeline, the South East Australia Gas (SEA Gas) pipeline from Port Campbell in Victoria to Adelaide, South East South Australia pipeline (SESA), connecting the SEA Gas pipeline to gas facilities at Katnook/Ladbroke Grove, South East Pipeline System (SEPS), delivering gas from Katnook to Snuggery and Mount Gambier, and the SA Riverland pipeline, which transfers gas from Angaston to Berri then onto Mildura in Victoria. A connection on the SA Riverland pipeline also supplies Murray Bridge with natural gas.

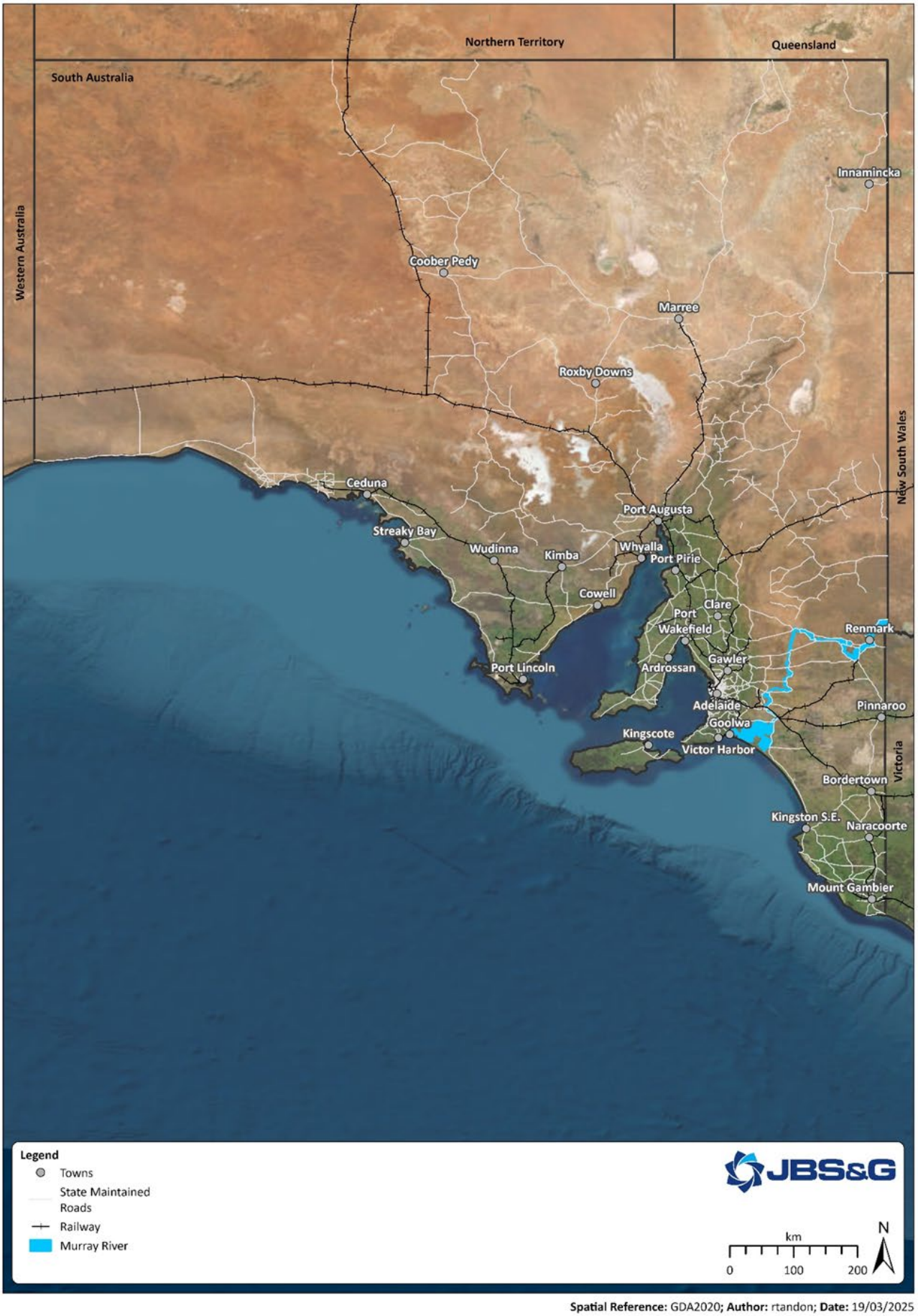


Figure 6 Population centres and road and rail infrastructure

4.5 Land Use

4.5.1 Primary production

Agriculture

Agricultural production covers around 53% of South Australia, with more than 40% used for stock grazing of native vegetation and the remainder cleared for cropping, modified pastures and horticulture (EPA, 2018). Figure 7 shows generalised land used across the state.

Sheep are South Australia's most widespread livestock and are farmed throughout the pastoral, cereal and high rainfall regions of the Eyre Peninsula, Northern and Yorke, Hills and Fleurieu, Kangaroo Island, Limestone Coast, Murraylands and Riverland landscape regions. Cattle production is undertaken mainly in the Adelaide Hills, the Lower South East and Far North districts. Dairying is concentrated in the Adelaide, Lower South East and Lower Murray districts.

Grain cropping is focused on the Eyre Peninsula, Limestone Coast, Murraylands and Riverland and Northern and Yorke landscape regions. Annual rainfall across these cropping regions ranges from 300 mm at Ceduna, 570 mm at Clare, 335 mm at Lameroo in the east and 575 mm at Naracoorte in the South East. Wheat, barley, oat and triticale account for more than 80% of SA's cropping area, with a range of grain legumes and canola making up the balance.

Wine and Horticulture

The highest proportion of South Australia's vineyards are located in the Hills and Fleurieu, Limestone Coast and Murrayland and Riverland landscape regions with major growing areas in the Barossa and Clare Valleys, the Riverland, Adelaide Hills, Fleurieu Peninsula and Coonawarra regions.

Horticultural production is concentrated in regions with suitable climate, soils and water resources. The Adelaide Hills and Limestone Coast are high rainfall cool climate regions, suited for apples, pears, cherries and strawberries. The Limestone Coast also produces vegetable seeds, onions and processing potatoes. Surface and underground water resources in the Riverland support production of citrus, stonefruit, almonds, olives, onions and potatoes. The Adelaide Plains is the primary vegetable production area, with in-field production of vegetables and greenhouses producing tomatoes, capsicum and cucumbers.

Forestry

The Limestone Coast region is well known for its timber production and extensive wood processing industry, with wood harvested from plantations being used for house frame construction, infrastructure, fencing, furniture, bio-energy and household tissue papers. Other significant forestry regions include the Mount Lofty Ranges, Mid North and Kangaroo Island. Plantations in the State cover more than 180,000 hectares and the main species grown are softwood (mostly radiata pine) and hardwood (mostly Tasmanian blue gum.

4.5.2 Mining and energy resources

The exploration and mining of mineral and energy resources is administered by the Department for Energy and Mining (DEM) under the *Mining Act 1971* (Mining Act) and *Energy Resources Act 2000* (ER Act).

South Australia is a globally important producer of copper, uranium and zircon and emerging as a significant producer of iron ore, particularly magnetite iron ore that can be used in the production of green steel. Gold, silver and critical minerals such as rare earths, graphite and kaolin-halloysite are also found across the State.

While most major mining operations are undertaken on pastoral leases with many located across the northern parts of South Australia, there are a number (underway or emerging) on non-designated land, particularly in the landscape regions of Eyre Peninsula, Northern and Yorke and Limestone Coast. Small and large quarries across the State also exist on non-designated land, or land that is close to communities including within the Adelaide metropolitan area.

Production tenements granted under the Mining Act and ER Act provide the holders with an exclusive right to the minerals or resources within the boundaries of those tenements.

The mining production tenements located on non-designated land include:

- gypsum, graphite, kaolin, jade and magnetite (Eyre Peninsula)
- clay, zinc, copper, gold and silver (Hills and Fleurieu)
- lime sand (Kangaroo Island)
- limestone (Limestone Coast)
- heavy mineral sands (Murraylands and Riverland)
- copper-gold and gypsum (Northern and Yorke)
- salt harvesting in several regions including the Northern and Yorke and Green Adelaide.

Mineral exploration licences exist over much of the State, including non-designated land, although Kangaroo Island has no granted exploration licences and only one application. In addition to copper, gold and graphite, there are exploration licences for uranium (Eyre Peninsula and Northern and Yorke), and the Limestone Coast has several exploration licences for rare earths, some of which may progress to production tenements.

The majority of south Australia's energy resources production occurs in the Cooper Basin in the far north-east of the state, predominantly on pastoral land. Energy resources exploration, production and associated activities including gas pipelines exist across many areas of non-designated land, particularly in the Limestone Coast, Northern and Yorke and Eyre Peninsula landscape regions.

A Petroleum Exploration Licence (PEL) exists over much of Kangaroo Island, with only those areas reserved for conservation purposes excluded. Other PELs exist on the Limestone Coast between Naracoorte and Mount Gambier, the southern half of the Yorke Peninsula, much of the east coast of the Eyre Peninsula and an area between Adelaide and the southern Flinders Ranges. These PELs allow exploration for a range of regulated resources, including natural gas and naturally occurring hydrogen. Beach Energy has several Petroleum Production Licences and a small gas processing plant south of Penola, in the Limestone Coast region.

Resources tenements under the Mining Act or ER Act are relevant to activities conducted under the HRE Act, as the HRE Act recognises a person that holds a resources tenement as an owner of land.

Information on all exploration, mining, hydrogen and energy resource tenure is available on DEM's South Australian Resources Information Gateway (SARIG) database https://map.sarig.sa.gov.au/

4.5.3 Contaminated sites

Previous land uses may have resulted in contamination to soils or groundwater. Historical agricultural land uses may include the use of herbicides, pesticides and/or insecticides and may also include sheep dips, waste or animal burials, as well as historical maintenance or storage facilities. Historical site use should be investigated to determine suitable locations for disturbance. Contaminated sites that are reported to the EPA are recorded on the Site contamination index, however, unknown site contamination may exist and may be encountered during disturbance activities.

Unexploded ordnance

Items of explosive ordnance (e.g. ammunition, bombs and grenades) that have failed to detonate correctly upon use, but which are still at risk of exploding, are known as unexploded ordnance (UXO). Locations historically used for military staging and training during World War 2 and lands more recently associated with military testing and training exercises may contain UXO.

Projects undertaken on these lands must ensure the proposed development is being constructed safely and not in an area where UXO may be present. The requirement for a UXO site survey is determined following desktop assessment including historic land uses, geophysical mapping and risk assessment. If required, surveys are carried out by appropriately qualified specialists.

The Department of Defence identifies and maintains a record of areas affected, or suspected of being affected by UXO that may influence the nature of land use on the Defence UXO map.

4.5.4 Conservation

Conservation areas exist across South Australia including on or near non-designated land. Conservation areas discussed below are available on NatureMaps.

Conservation areas may include parks and reserves proclaimed under the *National Parks and Wildlife Act 1972* (NPW Act), Wilderness Protected Areas under the *Wilderness Protection Act 1992*, native vegetation heritage agreement areas (NVHA) and Ramsar wetlands. Conservation areas also include areas of significant environmental benefit (SEB) established under the EPBC Act or the *Native Vegetation Act 1991*.

Conservation parks and reserves are present within all landscape management regions and many are located on non-designated land. Regional reserves and Wilderness Protected Areas are not located on non-designated land.

NVHAs are conservation areas on private land which are established between the landowner and the Minister responsible for the administration of the *Native Vegetation Act 1991*. They are created in perpetuity to protect and enhance the site's flora and fauna. For example, areas can be established for private sanctuaries, to provide an extension to an existing conservation or national park, or to form part of a wildlife corridor (DEW, 2024).

An on-ground SEB or environmental offset is an area of land for conservation to compensate for the impact to the environment. Under the *Native Vegetation Act 1991*, the establishment of SEB offset areas is designed to maintain or improve the same vegetation type that occurs at the site of impact, must be located as close to the area of impact as possible to ensure local impacts are adequately offset, and are conserved in perpetuity. Under the EPBC Act, an environmental offset must be established where impacts to MNES cannot be avoided and must relate directly to the environmental impact of the project.

NVHAs and SEB and/or environmental offset areas exist within all landscape management regions containing non-designated land.

There are six Ramsar wetlands in South Australia, five of which are located within the Murraylands and Riverland (Banrock Station Wetland Complex, Riverland and the Coorong, Lakes Alexandrina and Albert Wetland) and Limestone Coast (Piccaninnie Ponds Karst Wetlands, Bool and Hacks Lagoons and part of the Coorong, Lakes Alexandrina and Albert Wetland) landscape regions. Only the Banrock Station Wetland Complex is held completely under private ownership (DEW, 2024). The remaining Ramsar wetland is located in the South Australia Arid Lands region, the Coongie Ramsar Wetlands.

The six Ramsar wetlands are of international importance and nominated by Australia as part of the Ramsar Convention treaty which aims to halt the worldwide loss of wetlands and to conserve, through wise use and management, those that remain (DCCEEW, 2013). Ramsar wetlands are protected under the EPBC Act.

4.5.5 Tourism

Each of the landscape regions are popular tourist destinations for a number of reasons, with most non-designated land across the State located adjacent or nearby the coastal regions.

South Australia has world-famous wine regions in the Hills and Fleurieu, Limestone Coast and Northern and Yorke landscape regions, including McLaren Vale, Clare Valley, the Barossa and Coonawarra. Most regions are also known for having a significant food industry, and the Eyre Peninsula, Limestone Coast, Northern and Yorke and Kangaroo Island all have a thriving seafood industry.

The Eyre Peninsula is also known for its landscapes, fishing, surfing, beaches and wildlife, including cage diving with sharks and swimming with Cuttlefish and other marine fauna, together with camping and hiking within National Parks.

The Northern and Yorke region includes a mix of coastal tourist towns (e.g. Moonta, Wallaroo, Ardrossan, Port Vincent) and the wineries of the Barossa Valley.

The Hills and Fleurieu has historical towns and pristine beaches, particularly along the southern coast where whales, seals and dolphins can be spotted, and the popular tourist towns of Victor Harbor, Port Elliot, Goolwa and Carrickalinga.

Kangaroo Island is knowns for its eco-tourism and is home to a variety of native animals including sea lions, seals, koalas and kangaroos. It also hosts the Kelly Hill Caves which contains a network of hidden caves that are available for guided tours.

In addition to beaches, wine and seafood, the Limestone Coast hosts several cave systems including the Tantanoola Caves and Naracoorte Caves Conservation Parks and the Cave Garden at Mount Gambier.

The Murray River, located within the Murraylands and Riverland landscape region, is popular with locals and tourist for a range of aquatic activities including houseboating, paddle steamer cruises and water skiing. This region is also home to the River Murray International Dark Sky Reserve which covers more than 3,200 km^2.

Green Adelaide encompasses the City of Adelaide and metropolitan area including the coastline and the historic city of Port Adelaide. Adelaide is well known for its churches, the Adelaide Oval, Port River cruises and approximately 40 km of beaches from Semaphore in the north to Hallett Cover in the south.

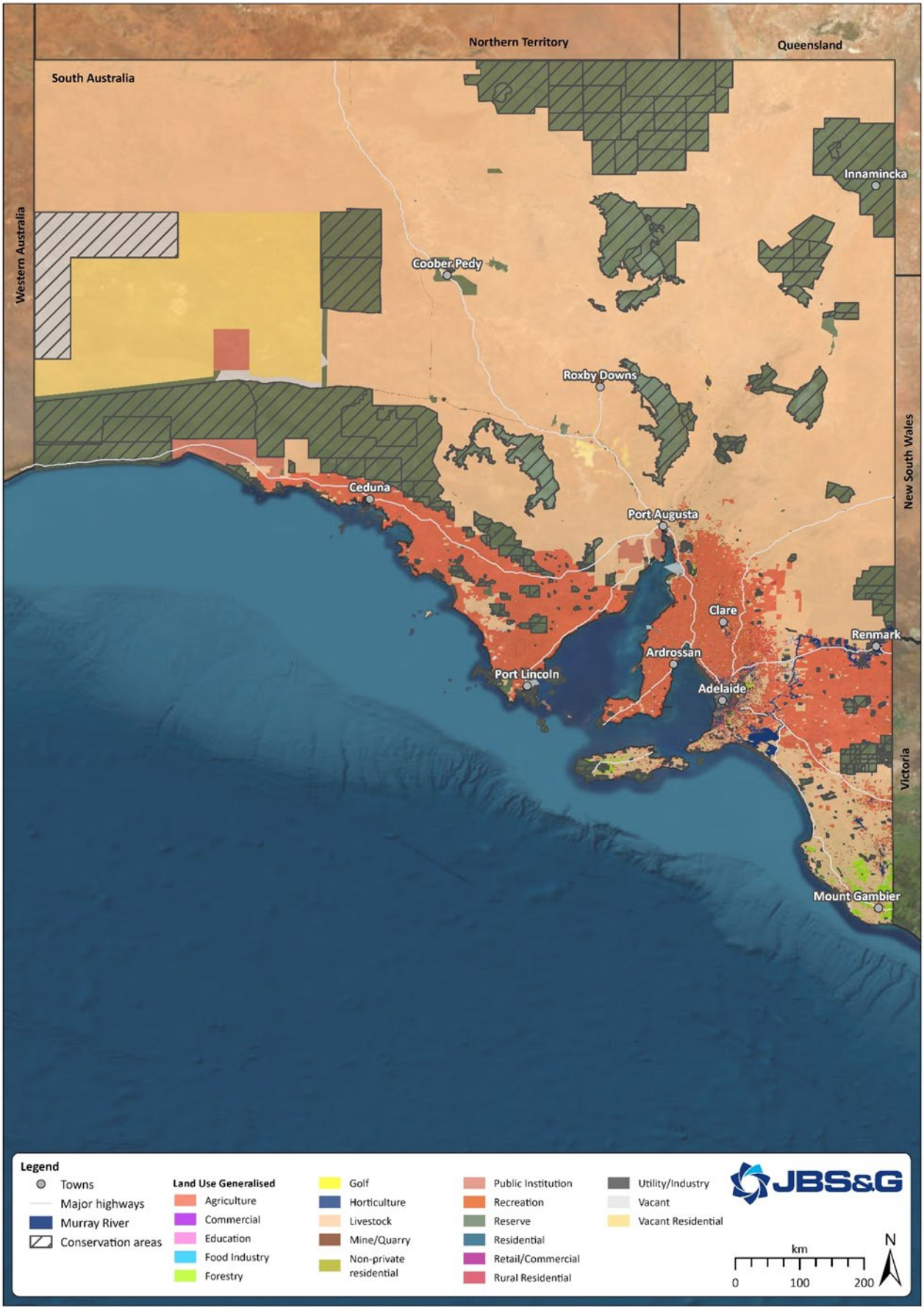


Figure 7 Land use within South Australia

4.6 Heritage

4.6.1 Aboriginal heritage

Aboriginal sites, objects and remains (together, Aboriginal heritage) may intersect any part of the State, including non-designated land.

Aboriginal sties, objects or remains are defined under section 3 of the Aboriginal Heritage Act 1988 (AH Act) as being of significance to Aboriginal tradition or Aboriginal archaeology, anthropology or history.

The Attorney-General's Department – Aboriginal Affairs and Reconciliation (AAR) has published guidelines and fact sheets to assist proponents with identifying and protecting Aboriginal heritage such as:

- *Managing Aboriginal Heritage in South Australia* guide (Attorney Generals Department, n.d) which provides information on how to search AAR's central archives and access information on the central archives, engagement with Traditional Owners and actions to take to ensure Aboriginal heritage is not damaged, disturbed or interfered with during project activities.
- *Discovery of Aboriginal Sites and Objects* fact sheet (DPC, n.d) which provides guidance on what to do should Aboriginal heritage be found. The fact sheet includes important Information about culturally sensitive areas (e.g. areas within close proximity to creeks, rivers, watercourses etc) and stopping works in the vicinity of the heritage discovery and reporting it to the Minister for Aboriginal Affairs, through AAR.
- *Aboriginal Heritage Discovery Protocols* (DPC, 2023) which sets out steps to follow upon the discovery of Aboriginal heritage in South Australia.

Certain landscape features are more likely to contain evidence of Aboriginal occupation and/or be Aboriginal sites and therefore pose a higher risk for the discovery of Aboriginal heritage. Landscape features that often have cultural significance include distinctive hills, rocky outcrops, rock holes or trees.

Other examples of landscape features and the types of Aboriginal sites that they are often associated with, and which may be considered cultural sites (DPC, n.d) include:

- clay pans, lakes, rivers and estuaries may contain stone artefact scatters, shell middens, rock art, campsites and stone arrangements
- rocky outcrops may contain quarries, rock art, rock holes, stone arrangements, ceremonial sites and stone artefact scatters
- dunes and sand hills may include stone artefact scatters, campsites and burials
- craters and sink holes are often cultural sites
- areas in close proximity to the coast may include campsites, stone artefact scatters, shell middens and burials
- areas within close proximity to creeks, rivers, watercourses, lakes, waterholes, rock holes, wells and springs, whether permanent, seasonal or ephemeral, may also contain campsites, stone artefact scatters, burials and other signs of Aboriginal occupation, especially in arid zones
- areas which have been less developed, such as parks, open land or road verges, may still contain artefact scatters or subsurface archaeological material such as burials and earth ovens
- places bearing Aboriginal names, or place names which are English translations of Aboriginal names or indications of Aboriginal interaction with the landscape

The *Aboriginal Heritage Act 1988* (AH Act) provides for the legal protection and preservation of all Aboriginal heritage (known and unknown) in the State.

Under Section 20 of the AH Act, all Aboriginal heritage must be reported to the Minister for Aboriginal Affairs as soon as practicable. Reports must give particulars of the nature and location of the heritage discovery and

may be made to AAR to satisfy this requirement. Discoveries of potential human remains must be reported to SA Police immediately on 131 444, as required under the *Coroners Act 2003*.

Under Section 21 of the AH Act, it is an offence to excavate land for the purposes of uncovering Aboriginal heritage without authorisation from the Minister for Aboriginal Affairs.

Under Section 23 of the AH Act, it is an offence to damage, disturb or interfere with Aboriginal heritage without authorisation from the Minister for Aboriginal Affairs.

The AH Act establishes the central archives, which includes the Register of Aboriginal Sites and Objects (Register). The central archives hold information on recorded heritage throughout the State; however, it is not a complete record of all heritage in the State. Undertaking a search of the central archives prior to undertaking any ground-disturbing works will reduce the risk of inadvertently damaging, disturbing or interfering with any recorded Aboriginal heritage.

Early consultation with relevant Traditional Owners about a proposed project is a key step in understanding the Aboriginal heritage profile of the area and how Aboriginal heritage may be protected and avoided during project works. Feedback from Traditional Owners may include information on whether specific elements of a project pose particular risk to known or unknown Aboriginal heritage. Importantly, early engagement may allow any future project to be designed in a way that does not impact Aboriginal heritage, potentially minimising project costs and delays.

Native Title

Native Title, under the *Native Title Act 1993*, is a property right under Australian law that recognises that Aboriginal and Torres Strait Islander people continue to have interests, rights, and connection to land and waters according to their traditional laws and customs. Native Title may be claimed where it has not been extinguished, i.e. doesn't apply to land where people have exclusive possession, such as privately owned freehold land. Within the Nominated Area, Native Title may exist over some types of non-designated land, e.g. over Perpetual Leases.

Native Title determinations and claims are hosted by the Native Title Tribunal and can be searched on the Native Title Register and/or the Register of Native Title Claims. The Native Title Tribunal also host the Register of Indigenous Land Use Agreements. A list of Native Title determinations in South Australia are available on the South Australian Native Title Services webpage.

4.6.2 Non-Aboriginal heritage

A site or place may be of national, State or local heritage significance because of its history, evolution, rare qualities, or contribution to historical understanding. These places are often identified to protect and enable their special heritage values to be passed on to future generations. These sites can be viewed on NatureMaps.

Non-Aboriginal heritage in South Australia includes historical buildings and monuments, relics of agricultural and industrial heritage, archaeological artefacts and fossils, caves, mines and volcanic and geological sites, shipwrecks, lighthouses and whaling stations.

Heritage registers aren't comprehensive and conducting a search on a heritage register doesn't preclude the existence of unknown heritage or unanticipated discoveries of actual or potential heritage items.

State and local heritage

The South Australian Heritage Register contains information about State Heritage Areas, Places and related Objects of State significance. The Register is maintained by the South Australian Heritage Council under the *Heritage Places Act 1993*. The South Australian Heritage Places Database contains details about South Australia's Local and State Heritage Places, Objects and Areas.

In South Australia heritage-listings currently on the State Heritage Register include:

- Over 2,300 State Heritage Places and 17 State Heritage Areas
- Over 7,000 Local Heritage Places and 204 Local Heritage Areas.

A State Heritage Area is a clearly defined region with outstanding natural or cultural elements significant to South Australia's development and identity. It may include early or important settlements, other significant towns or suburbs of heritage value, or natural landscapes, and are notable for their distinct heritage character or 'sense of place'. State Heritage Areas in the Nominated Area includes the townships of Burra, Goolwa, Mintaro, Mount Torrens and Penola, the Moonta Mines and the Mount Gambier Volcanic Complex.

State Heritage Places (SHPs) include properties in a State Heritage Area and SHPs of geological, palaeontological, speleological and archaeological significance.

Local Heritage Areas exhibit discernible historic character that is worthy of retention for present and future generations and Local Heritage Places are recognised for their historical attributes or contribute to historical themes of a local area. These areas and places are listed by the relevant Council.

Geoheritage

Evidence of the geological processes that formed the Earth, and of the plants and animals that have lived on the Earth, can be found in landforms and natural rock outcrops, river banks, sea cliffs and shore platforms, in road cuttings, mines, quarries and other excavations. Some of the features displayed at these sites are sufficiently outstanding or rare that they are recognised, described, protected and enjoyed as part of South Australia's natural heritage.

The State's geoheritage sites are administered by the South Australian Geological Heritage Subcommittee of the Geological Society of Australia in close cooperation with the Geological Society of South Australia and DEW. The locations and defined boundaries of all geoheritage sites are available via the South Australian Resources Information Gateway (SARIG) (DEM, 2021).

4.7 Amenity

4.7.1 Noise

The noise environment in South Australia varies significantly between suburban, rural and remote areas.

In rural and remote areas, background noise levels are generally dominated by natural sources such as wind and waves (in coastal areas) with some contribution from incidental traffic and intermittent or periodic agricultural activities (e.g. farm equipment movements, frost fans, or aerial spraying). Traffic noise levels increase near major roads, and within townships there is an increase in traffic and residential noise. Some locations experience industrial noise originating from industry including mining activities, smelting and metallurgical operations, agricultural facilities (e.g. silos) and port operations.

In suburban areas and larger townships or regional cities, noise from road, rail and aircraft traffic, construction noise, entertainment venues, air conditioners and other household appliances contribute to the noise environment, particularly in daytime and evening hours.

The EPA regulates noise from business and industry under the *Environment Protection (Commercial and Industrial Noise) Policy 2023,* which sets noise level guidelines and standards for industrial, commercial and licensed premises. Meanwhile, local councils handle residential, construction and non-industrial noise issues under the *Local Nuisance and Litter Control Act 2016.*

4.7.2 Air quality

Air quality in South Australia is generally good, but varies between rural and urban areas and across different regions.

The State of the Environment Report 2023 (EPA SA, 2023b) highlights that air pollution levels over the past five years have largely remained within national standards. Notably, 2022 marked the best air quality year since 2017, excluding the significant 40% reduction in carbon monoxide observed during the 2020 pandemic lockdowns.

Major contributors to air pollution in the State include emissions from motor vehicles, various industries, and domestic wood heaters, as well as bushfires. The impacts of climate change, such as drier land conditions, are exacerbating the risk of bushfires in regional areas, leading to increased dust and smoke pollution.

Air quality is regulated by the EPA through monitoring, policy development and enforcement under the *Environment Protection Act 1993* and the *Environment Protection (Air Quality) Policy 2016* (Air EPP).

Various measures are used to monitor air quality in Australia, to reduce the impacts on human health from pollution from the effects of urbanisation and industrialisation. Impacts to human health from poor air quality include respiratory illness, aggravation of cardiovascular and respiratory diseases, and even premature death. Recent research indicates that fine particles pose a greater risk to South Australian communities than other air pollutants (EPA, 2023).

The EPA collects air quality data at 10 monitoring stations located across the State (7 metropolitan locations, 3 regional centre locations). Industries must report their air emissions via the National Pollutant Inventory (NPI) to assist the EPA with the management of air pollutants. The EPA is responsible for licensing industries that emit air pollutants to better manage what is being released to the environment. Unlicensed emissions of odours, dust and smoke from facilities are managed by authorised officers under the *Local Nuisance and Litter Control Act 2016*.

4.7.3 Visual amenity

The visual amenity of a landscape or location is derived from a combination of the character and sensitivity of a landscape or view, and the effect of a development on its scenic appeal. The absence of urban development and major infrastructure generally results in a higher quality of landscape character. Vertical structures such as meteorological masts have the potential to affect visual amenity, particularly in landscapes which are in rural and remote areas and are otherwise relatively unobstructed by built form, such as coastlines, open plains and elevated locations.

The Nominated Area encompasses a diverse range of visual landscapes, including:

- the broadacre agricultural production regions of the Eyre and Yorke Peninsulas, the Mid North, Murray Mallee and South East. These regions are populated by small farming communities and characterised by extensive farmlands, large scale farming infrastructure and cleared paddocks where native vegetation has been reduced to small or linear remnants.
- the rural residential, horticultural and viticultural regions of the Adelaide Hills, Barossa and Clare Valleys and Fleurieu Peninsula. The picturesque hills, plains and townships of these regions are valued by residents and visitors for their scenic quality, which is contributed to by vineyards, orchards and historic buildings.
- the Riverland, Murray River and Lakes region which is dominated by the riverine, floodplain, wetland and coastal lagoon systems of the Murray River. This visual landscape and the lifestyle, primary production and tourism opportunities provided by the River Murray system is unique in the otherwise semi-arid to landscapes of most of South Australia.
- the outback areas in the Far North, including the Flinders Ranges, Lake Eyre and Cooper Creek which are highly valued for their wilderness and rugged scenic character and uninterrupted panoramic views.

Meteorological masts proposed to be located within 500m of the following zones described in the Planning and & Design Code under the PDI Act or within 500 m from a non-associated (non-stakeholder) dwelling, township and/or tourist accommodations will be required to undertake visual impact assessment:

- Township Zone which is generally used to identify country towns that provide a range of services
- Rural Settlement Zone which applies to rural settlements of a smaller scale than townships
- Rural Living Zone which applies to rural areas where dwellings are anticipated along with farming. This zone envisages a spacious, secluded and peaceful residential lifestyle within semi-rural or semi-natural environments.
- Rural Neighbourhood Zone which applies to residential land in regional areas characterised by larger blocks than the Neighbourhood Zone, but smaller than the Rural Living Zone.

- Neighbourhood type zones; Business Neighbourhood Zone, City Living Zone, Established Neighbourhood Zone, General Neighbourhood Zone, Golf Course Estate Zone, Hills Neighbourhood Zone, Housing Diversity Neighbourhood Zone, Master Planned Neighbourhood Zone, Master Planned Renewal Zone, Master Planned Township Zone, Neighbourhood Zone, Residential Park Zone, Rural Living Zone, Rural Neighbourhood Zone, Rural Settlement Zone, Rural Shack Settlement Zone, Suburban Neighbourhood Zone, Township Zone, Township Neighbourhood Zone, Urban Renewal Neighbourhood Zone, Waterfront Neighbourhood Zone.

5. Environmental Impact Assessment

This section summarises the methodology and results of the environmental impact assessment for the construction, operation, maintenance and decommissioning of meteorological masts.

5.1 Methodology

The impact assessment method has been developed in accordance with the Environmental Impact Assessment Criteria published under the HRE Act (DEM, 2024), using guidance provided in the Environmental Impact Assessment Criteria Guideline (DEM, 2024).

The impact assessment was undertaken using the following steps:

1. **Identifying environmental elements** that could be impacted by the proposed regulated activities (Criteria 1).
2. **Identifying the potential impact events** that could impact elements of the environment during the construction, operation and decommissioning phases (Criteria 2)**.**
3. **Confirming the potential of impact events to occur** (Criteria 3)**.**
4. **Identifying relevant control and management measures** for each potential impact event, needed to eliminate or otherwise reduce any potential environmental harm to as low as reasonably practicable (part Criteria 4).
5. **Identifying uncertainties and assumptions** associated with the effectiveness of control and management strategies (part Criteria 4).
6. **Assessing environmental significance** of each potential impact event, based on the sensitivity of the receiving environment and the magnitude of potential impacts, considering factors such as the frequency, duration, extent and severity of impacts as well as potential cumulative impacts (Criteria 5)**.**
7. **Developing environmental objectives and assessment criteria** for all potential impacts determined for the elements of the environment. These objectives will be carried through to the SEO (Criteria 6).

The results of the impact assessment were then captured in the impact assessment summary tables provided in Section 5.2.

The steps followed in the impact assessment are described below.

5.1.1 Identifying environmental elements

Elements of the environment that have the potential to be impacted by the regulated activities were first identified. All phases of the regulated activities including construction, operation and closure were considered.

The following elements of the environment were identified and considered in this environmental impact assessment:

- flora and Fauna

- surface water
- groundwater
- air quality
- noise and vibration
- soil and land quality
- visual amenity
- existing land use
- Aboriginal and non-Aboriginal heritage
- public health and safety
- social environment (including land use and infrastructure).

Weeds/pests and waste have been considered under the relevant receptors (e.g. flora / fauna, land use, soil and land quality) rather than being listed as a separate environmental element.

5.1.2 Identifying potential impact events

Elements of the environment may be impacted in different ways by the regulated activities. All potential impacts from the regulated activities were identified and defined as potential impact events.

Each potential impact event was characterised by:

- the source of impact, defined as the activities associated with the proposed operation that could reasonably be expected to negatively impact a receptor for the environmental element (considering construction, operation or decommissioning and rehabilitation stages);
- the pathway of impact, defined as the mechanism by which a proposed activity may interfere with environmental elements; and,
- the environmental receptor of impact, defined as the component of the environmental element that may be detrimentally affected by the proposed activity in the absence of control measures.

Any uncertainties in the identification and description of the sources, pathways and environmental receptors as a result of assumptions or knowledge gaps were identified for each potential impact event.

5.1.3 Confirming the potential of impact events to occur

For each potential impact event, the occurrence of the source, pathway and environmental receptor within the proposed regulated activities scope and at the proposed location was verified.

Potential impact events for which the full source, pathway and environmental receptor linkage was confirmed were considered as having the potential to occur and relevant control and management measures were then identified.

Potential impact events for which the source, pathway and environmental receptor linkage was incomplete were not considered as having the potential to occur and were not considered further in this environmental impact assessment.

5.1.4 Identifying relevant control and management measures

Measures to control and manage potential impact events were identified. The hierarchy of controls approach was adopted consistently with the Environmental Impact Assessment Criteria Guideline (DEM, 2024). Identification of control and management measures considered the following priority of order:

- **Elimination** measures that eliminate the source of a potential impact event, preventing the impact from occurring.

- **Substitution** measures that replace the material or process at the source of a potential impact event with a less hazardous one, significantly reducing the likelihood of a potential impact event to occur.
- **Design and engineering (physical) control** measures that act to separate the source from the pathway and environmental receptor to either:
    - avoid or reduce the likelihood of a potential impact event to occur, or
    - avoid or reduce the consequences of an impact event occurring
- **Management system control** measures that implement a procedure to manage the activity at the source of a potential impact event to either:
    - avoid or reduce the likelihood of a potential impact event to occur, or
    - avoid or reduce the consequences of an impact event occurring

5.1.5 Identifying uncertainties and assumptions

Uncertainties and assumptions related to the likely effectiveness of the proposed control and management strategies were identified. This included the assumptions underlying any analysis or modelling undertaken to assess potential impacts and effectiveness of proposed measures.

5.1.6 Assessing environmental significance

The level of significance of potential impacts was assessed considering the following factors outlined in the Environmental Impact Assessment Criteria Guideline (DEM, 2024):

- the level to which a potential impact can be avoided through elimination (prevention)
- the estimated frequency of the potential impact occurring
- the anticipated duration of the potential impact
- the extent of the potential impact
- the severity of the potential impact
- the cumulative effects (if any) of the potential impact when considered in conjunction with other impacts on the same receptor
- the sensitivity of the receiving environment.

Each of the factors required to undertake the significance assessment has been defined in Table 4.

Table 4. Definitions used to assess significance of potential impacts

Factor	Description
Avoidance	Yes – Impacts can be avoided through the identified controls
	No – Impact cannot be avoided through the identified controls
Frequency	High: Impacts occur frequently or are present throughout the life of the project
	Moderate: Impacts occur several times during the lifespan of activities
	Low: Impacts occur infrequently
	Rare: Impacts not expected or only occur in exceptional circumstances
Duration	Permanent: Impacts to the environment are permanent and non-reversible
	Long lasting: Impact to the environment persist for a period of years but are reversible
	Short term: impacts of less than a year duration and are reversible
Extent	Widespread: Impacts occur on a regional scale
	Moderate: Impacts extend beyond the project site and immediate surrounds without occurring on a regional scale
	Localised: Impacts are limited to the project site and immediate surrounds
Severity	High: Statutory reference values or environmental quality standards are exceeded

Factor	Description
	Moderate: Statutory reference values or environmental quality standards are not exceeded but the impact results in an increase in the occurring content/level
	Low: imperceptible or indistinguishable from natural background levels
Cumulative	Yes: Receptors are already impacted by similar activities
	Possible: Receptors could be impacted by similar activities depending on the site
	No: Receptors are not already impacted by similar activities
Sensitivity	Refer Table 5-1

Overall environmental significance

The overall environmental significance of each potential impact event was assessed using a matrix that considered the sensitivity of the receiving environment and the magnitude of the impact (Table 7).

Categories for sensitivity and magnitude used in this matrix are defined in Table 5 and Table 6. (Note: The categories of magnitude consider frequency, duration, extent, severity and cumulative effects, and align with the more detailed definitions provided in Table 4 above).

Impacts were considered acceptable if they were in the 'Negligible' or 'Low' category of environmental significance, while impacts in the 'Moderate' category were generally considered acceptable if they were as low as reasonably practicable (ALARP) following the application of mitigation measures. High and Major impacts would be considered unacceptable necessitating redesign of the regulated activities (however there were no High or Major impacts identified).

Additional commentary providing justification why impacts are considered ALARP for 'Moderate' impacts is provided in the impact assessment summary tables in Section 5.2.

The environmental significance assessment considers any proposed controls or management measures to determine the outcome of the significance assessment.

Table 5. Criteria for sensitivity

Sensitivity	Description
High	• The environmental value is protected as a result of Australia's international commitments • The environmental value holds a statutory protection (national parks, etc) • The environmental value is intact • The environmental value is unique to the environment in which it occurs. It is isolated to the affected system/area which is poorly represented in the region, territory, country or the world. • It has not been exposed to threatening processes, or they have not had a noticeable impact on the integrity of the environmental value.
Moderate	• The environmental value is recorded as being important at a regional or local level. • The environmental value is in a moderate to good condition despite it being exposed to threatening processes. • It is relatively well represented in the systems/areas in which it occurs but its abundance and distribution are limited by threatening processes. • Threatening processes have reduced its resilience to change.
Low	• The environmental value is not listed on any recognised or statutory register. • It is in a poor to moderate condition as a result of threatening processes • It is abundant and widely distributed or representative examples exists throughout the host systems/areas. • There is no detectable response to change or change does not result in further degradation of the environmental value.

Table 6. Criteria for magnitude

Magnitude	Description
High	An impact that is widespread and/or is permanent or long-lasting. An impact that occurs frequently. Statutory reference values or environmental quality standards are exceeded.

Moderate	An impact that has a relatively large scope or is long-lasting. An impact that occurs several times during the lifespan of activities. Statutory reference values or environmental quality standards are not exceeded but the impact results in an increase in the occurring content/level.
Low	An impact with no or little effects on the receptor. The effects have a limited scope and are short-term. An impact that is infrequent.

The significance of potential impacts was assessed, based on a consideration of the sensitivity of the receiving environment and the magnitude of the impact. The matrix below shows how the significance of an impact is determined.

Table 7. Significance Assessment Matrix

	Magnitude of Impact		
Sensitivity of Environmental Value	**High**	**Moderate**	**Low**
High	Major	High	Moderate
Moderate	High	Moderate	Low
Low	Moderate	Low	Negligible

5.1.7 Developing environmental objectives and assessment criteria

Environmental objectives and assessment criteria were developed for all potential impacts determined through the environmental impact assessment process. Objectives were developed to align with the elements of the environment. These objectives are defined in the impact assessment summary tables provided in Section 5.2 and will be carried through to the SEO.

Leading performance criteria were also developed for impact events that rely significantly on a control strategy to reduce the potential environmental impact.

Note: Due to the large geographical area feasibility activities could occur in and their relatively low impact nature, the assessment criteria and leading performance criteria are less specific than would be the case for a defined project (e.g. renewable energy infrastructure) at a defined site with the potential for a higher level of impact.

5.2 Environmental Impact Assessment Summary Tables

The results of the environmental impact assessment for each impact event are captured in the summary tables provided in the following sections.

Brief discussion of impact significance is provided for each environmental element before the summary tables. Due to the nature of REFP activities and the relatively low level of impact, the summary tables have been used to provide the majority of the relevant information, and additional detailed discussion was not considered to be necessary.

5.2.1 Soil and land quality

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to soil and land quality.

Context summary for soil and land quality

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Landscape South Australia Act 2019* ▪ *Environment Protection Act 1993* ▪ *Environment Protection (Waste to Resources) Policy 2010 (Waste to Resources EPP)* ▪ *South Australian Public Health (Wastewater) Regulations 2013* ▪ *Environment Protection (Water Quality) Policy 2015*	▪ EPA guideline 080/016 *Bunding and Spill Management* ▪ AS 1940 - The storage and handling of flammable and combustible liquids ▪ Australian Dangerous Goods Code ▪ *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended 2013) ▪ Guideline 638/07 *Site contamination – acid sulphate soil materials* ▪ National Acid Sulphate Soils Guidance (2018) – National acid sulphate soils identification and laboratory methods and manual ▪ SA Waste Strategy 2020-2025		▪ Soil quality ▪ Landform ▪ Users of land

Impact events

The impact events relevant to soil and land quality are:

- Vegetation clearance, earthworks and use of roads and tracks result in soil inversion, compaction or erosion and in reduced land quality
- Disturbance of existing contaminated soil, acid sulphate soils, or UXO resulting in spread of contamination and/or reduction of soil or land quality.
- Spills of fuel or chemicals result in deterioration of soil, surface water and/or groundwater quality

Impact assessment outcomes

The impact assessment detailed in the following tables indicates that these impacts are generally in the **Low** category. Potential impacts from the proposed activities are localised and small scale and readily manageable using standard control measures.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Soil and land quality: *Impact ID #SOI01*	
Impact event	**Vegetation clearance, earthworks and use of roads and tracks result in soil inversion, compaction or erosion and in reduced land quality**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Vegetation clearance and earthworks for meteorological mast installation and off-road vehicle use.	Direct disturbance Indirect (dust, water spraying)	Land users Vegetation Soil quality and quantity	Yes – potential for soil impacts	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using land system data across the Nominated Area. The location of the activity site and presence of sensitive landforms, steep topography or erosion-prone soil has not been determined. Siting will determine SPR linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Existing roads or tracks are used for access where possible. ▪ Landowner consulted regarding land-disturbing activities to minimise potential for surface disturbance and facilitate rehabilitation (where required). Consultation with relevant Landscape Board may also be relevant. ▪ Wet weather operations are avoided to prevent track damage. ▪ Micro-siting preferentially selects naturally clear or previously cleared areas and clearance of native vegetation is avoided, particularly longer-lived shrubs and trees. ▪ No construction in landscapes with sensitive features such as wetlands or salt lakes. ▪ Sediment and erosion control measures installed where necessary. ▪ Soil stockpiles are appropriately managed, e.g. through covering, of a reduced height and/or for minimal duration. ▪ Area of excavation is restricted to the smallest practicable. ▪ Suitability of water is determined prior to use for water spraying (e.g. dust control measure). ▪ Compacted areas of soil (e.g., laydown areas) are rehabilitated in consultation with the landowner ▪ Any excavations are backfilled with subsoil being placed below topsoil. ▪ Any cleared native vegetation is respread during restoration in line with consultation and landowner agreement and in accordance with a Native Vegetation Council management plan where in place. ▪ Restoration of land disturbance to be undertaken through consultation with, and to the satisfaction of the landowner.	Moderate to high certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

▪ Any infrastructure that the landowner would like to retain (e.g. meteorological mast pad, laydown or storage pads) must be requested through DEM and subject to relevant regulatory approvals.	

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No** – Earthworks will be required to establish access and meteorological mast sites. Vegetation clearance may be required for particular sites.		Expected impact: **negligible** (refer to Table 7)
Frequency	**Low** – Disturbance will not be ongoing and will only occur during installation, decommissioning, and potentially for occasional maintenance.	Overall magnitude is Low (refer Table 6).	
Duration	**Short term -** Disturbance will not be ongoing and will only occur during installation, decommissioning, and potentially for occasional maintenance. If soils are affected by the proposed activities, the control measures would ensure that impacts are localised and short term.		
Extent	**Localised -** Disturbance will only occur directly at the sites of installation, decommissioning, and occasional maintenance. If soils are affected by the proposed activities, the control measures would ensure that impacts are localised and short term.		
Severity	**Low –** Impacts are reversible and change from existing conditions would be minor. Controls measures in place will ensure that disturbance is rehabilitated to existing conditions, suitable to the existing land use, and/or to a condition agreed to with the landowner.		
Cumulative	**Possible -** Design and engineering controls, and management system controls are put in place to avoid soil degradation and facilitate rehabilitation. Because of this the activities are not expected to have any significant cumulative effects on soil quantity and quality.		
Sensitivity	**Low -**The Nominated Area predominately falls within the agricultural districts with a high level of human disturbance and clearance. Activities are not expected to result in further degradation of soils. However, the sensitivity and environmental value/condition of the receiving environment will vary depending on the features of the work area and should be considered on a case-by-case basis..		

	Proposed environmental objective	Assessment criteria	Leading performance criteria
SEO	No significant adverse changes in soil stability, structure, quality or composition resulting from feasibility activities	▪ Landowner consulted regarding land-disturbing activities to minimise potential for surface disturbance and facilitate rehabilitation (where required). ▪ OMP includes relevant management plan/procedure that effectively manages and	▪ Desktop and field assessment undertaken to ensure proposed meteorological mast location avoids both sensitive land systems that are prone to erosion and/or of importance to the landowner. ▪ Integrity of sediment and erosion controls inspected following significant rainfall events and any necessary maintenance implemented.

		minimizes soil inversion, compaction and erosion to reduce potential for impacts to land quality. ▪ OMP includes frequency of audits/inspections carried out to ensure and demonstrate no evidence of significant soil disturbance (e.g. erosion, wheel ruts, heavily compacted areas, soil inversion), or where these occur, they are remediated in a timely manner. ▪ No reasonable complaints received regarding soil compaction, inversion, erosion or reduced land quality are left unresolved.	▪ Sediment and erosion control measures installed, maintained and monitored where necessary. ▪ Micro-siting preferentially selects naturally clear or previously cleared areas and clearance of native vegetation is avoided, particularly longer-lived shrubs and trees.
	Rehabilitate land adversely affected by feasibility activities	▪ OMP includes a decommissioning and rehabilitation plan (or similar) that outlines how any infrastructure or equipment will be decommissioned and the land rehabilitated. ▪ Rehabilitation of disturbed areas occurs progressively and is completed at the conclusion of construction.	▪ Final decommissioning and rehabilitation plan to be provided 6 months prior to decommissioning activities commencing. Plan to be approved by DEM. ▪ Rehabilitation is included in the projects time plan and budget.

Soil and land quality: *Impact ID #SOI02*	
Impact event	**Disturbance of existing contaminated soil, or acid sulphate soils, or UXO resulting in spread of contamination and/or reduction of soil or land quality.**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Disturbance of contaminated sites, UXO or acid sulphate soils via earthworks for meteorological mast installation.	Soil	Soil quality	Yes – Areas with a probability of occurrence of Acid Sulphate Soils exist in the Nominated Area. There is potential for isolated and localised existing contamination and potential UXO sites associated with historic land use	Construction Decommissioning	SPR confirmation is based on desktop assessment using acid sulphate soil mapping across the Nominated Area. The location of the activity site and presence of existing contaminated soil, UXO, or acid sulphate soil has not been determined. Siting will determine SPR linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**

▪ Undertake desktop assessment for presence of potential acid sulphate soils or existing contamination for the activity site.
▪ Micro-siting avoids areas of potential acid sulphate soils or existing contamination as far as practicable.
▪ Undertake field screening to determine presence of acid sulphate soil or existing contamination if excavating in a risk area in accordance with EPA Guidelines.
▪ Implement procedures to manage acid sulphate soils encountered during construction, which may include:
  ▪ placing any intercepted soils identified as potential acid sulphate soils in an isolated bunded stockpile area
  ▪ treating any identified acid sulphate soil with agricultural lime in accordance with the EPA guideline prior to backfill
▪ Implement procedures that will be implemented in the case of a discovery of potentially contaminated soil or groundwater, including measures to contain material and treat it on site or remove off-site for treatment or disposal at an appropriately licensed facility.
	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment		**Environmental significance assessment outcome**
Avoidance	**No -** Design and engineering controls, and management system controls are put in place to avoid or	Expected impact: negligible (refer to Table 7.)

	manage areas of acid sulphate soils or existing contamination, however, unexpected occurrences may be present.	
Frequency	**Low -** The proposed activities are small scale and require limited earthworks which further reduces the risk of impacts. Disturbance will not be ongoing and will only occur at construction, decommissioning and potentially for occasional maintenance.	Overall magnitude is low (refer Table 6).
Duration	**Short term -** Disturbance will not be ongoing and will only occur at construction, decommissioning and potentially for occasional maintenance. Impacts would be reversible.	
Extent	**Localised –** Disturbance will only occur directly at the sites of installation, decommissioning, and occasional maintenance. If soils are affected by the proposed activities, the control measures would ensure that impacts are localised and short term.	
Severity	**Low –** Change from existing conditions would be minor or improved based on control measures.	
Cumulative	**No –** Control measures in place would ensure that any interaction with acid sulphate soils or contaminated sites were either avoided or improved from the existing condition.	
Sensitivity	**Low -**The Nominated Area predominately falls within the agricultural districts with a high level of human disturbance and clearance. Activities are not expected to result in further degradation of soils. However, the sensitivity and environmental value/condition of the receiving environment will vary depending on the features of the work area and should be considered on a case-by-case basis..	

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No significant adverse changes in soil stability, structure, quality or composition, resulting from feasibility activities	• Management and monitoring measures for existing contaminated soil or acid sulphate soils will be documented in the Construction Environmental Management Plan, where required. • Records of audits/inspections carried out in accordance with the OMP demonstrate existing soil contamination/acid sulphate soils have been appropriately managed (if encountered).	• Desktop assessment undertaken for potential acid sulphate soils or existing contamination and activity location avoids risk areas. • Micro-siting avoids areas of potential acid sulphate soils or existing contamination as far as practicable. • Field screening undertaken for presence of acid sulphate soil existing contamination if excavating in a risk area.

Soil and land quality/Surface water quality/ Groundwater quality: *Impact ID #SOI03*	
Impact event	**Spills of fuel or chemicals result in deterioration of soil, surface water and/or groundwater quality**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Hydrocarbon spills from vehicles and construction equipment. Spills from used chemicals.	Leaching/infiltration through unsaturated soil to shallow groundwater. Migration through shallow aquifers to receptors. Recharge from surface water bodies (after run-off of spills to surface water).	Soil quality Groundwater quality Surface water quality Groundwater Dependent Ecosystems (GDE)	Yes – there will be machinery with fuel onsite and potential for other chemicals to be onsite.	Construction Operation Decommissioning	Uncertainty on the extent of impact, however, assumed that area of a spill will be limited due to limited volume of fuels and chemicals onsite. The location of the activity site and presence of receptors has not been determined. Siting will determine SPR linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Fuel and chemicals are stored and handled in accordance with relevant standards and guidelines, including AS 1940, EPA guideline 080/16 Bunding and Spill Management and the Australian Dangerous Goods Code (ADG). ▪ Refueling undertaken using appropriate drip capture systems ▪ Where possible refuel vehicles at service stations or other designated third-party refueling locations. ▪ No refueling outside designated refueling / servicing areas. ▪ No refueling near watercourses. ▪ No fuels or chemicals to be stored onsite outside of construction and decommissioning activities. ▪ Spills or leaks are immediately reported (both internally and to State regulators as required) and clean up actions initiated. ▪ Spills that cannot be immediately contained, cleaned up and or delineated (both vertically and laterally) will be assessed and remediated in consultation with DEM and consistent with relevant guidelines (e.g. EPA guidelines). ▪ Areas affected by a spill are fenced if threat is posed to livestock or native fauna. Consultation to be undertaken with landholders to ensure appropriate practices are developed and implemented to mitigate risks and impacts to any properties that are organic certified.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No** Control strategies in place to manage impacts to ALARP are well understood and are regularly implemented. Design and engineering controls, and management system controls are put in place to avoid spills of fuel or chemicals.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low –** Access to the site is expected to occur infrequently, only to occur at construction, decommissioning and potentially for occasional maintenance.	Overall magnitude is low (refer Table 6).	
Duration	**Short term – E**xtent of spill will be limited due to limited volume of fuels and chemicals onsite		
Extent	**Localised -** Limited quantities of fuel, oil and chemicals are expected to be present on site on access tracks and within the footprint of the meteorological mast.		
Severity	**Low -** Limited quantities of fuel, oil and chemicals are expected to be present on site and are required to be remediated in the event of a spill.		
Cumulative	**Possible - -** Existing contaminated sites may exist however, are expected to be avoided and any potential spills are expected to be of small quantities and remediated as required by the control measures.		
Sensitivity	**Moderate -**The Nominated Area predominately falls within the agricultural districts, sensitivity and environmental value/condition of the receiving environment will vary depending on the features of the work area. The abundance and distribution of groundwater, surface waters in South Australia may be limited by threatening processes and may have reduced resilience to change.		

	Proposed environmental objective	Assessment criteria	Leading performance criteria
SEO	No significant adverse changes in soil stability, structure, quality or composition, resulting from feasibility activities	▪ Records of audits/inspections carried out in accordance with the OMP demonstrate that any escape of chemical, fuel or oil to land is immediately contained and removed. ▪ Any contaminated materials generated in response to clean up of a minor spill or leak will be disposed off-site at an EPA approved facility.	▪ Fuel and chemicals are stored and handled in accordance with relevant standards and guidelines, including AS 1940, EPA guideline 080/16 Bunding and Spill Management and the Australian Dangerous Goods Code (ADG). ▪ Inspections demonstrate no evidence of spills of as a result of activities undertaken. ▪ Personnel trained in correct procedures for use of materials, including refueling and clean- up ▪ Appropriate spill response equipment is available on site.
	No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or quantity	▪ Records of audits/inspections and/or incident management system carried out in accordance with the OMP demonstrate no unauthorised discharge or escape of any liquid (including wastewater, processed substance, chemical or fuel) or solid wastes to surface and/or groundwater.	▪ Fuel and chemicals are stored and handled in accordance with relevant standards and guidelines, including AS 1940, EPA guideline 080/16 Bunding and Spill Management and the Australian Dangerous Goods Code (ADG). ▪ Records of inspections / audits demonstrate compliance. ▪ Personnel trained in correct procedures for use of materials, including refueling and clean- up. ▪ Appropriate spill response equipment is available on site.

5.2.2 Surface water and groundwater

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to surface water.

Context summary for surface water and groundwater

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Environment Protection Act 1993* ▪ *Environment Protection (Water Quality) Policy 2015* ▪ *Landscape South Australia Act 2019*	▪ Stormwater Pollution Prevention – Code of Practice for the Building and construction industry (EPA, 1999) ▪ Guideline EPA 080/16 *Bunding and Spill Management* ▪ AS 1940 - The storage and handling of flammable and combustible liquids ▪ Australian Dangerous Goods Code ▪ *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended 2013) ▪ Goal Attainment Scaling (GAS) criteria for borrow pit construction, management and rehabilitation (DSD, 2014) ▪ Environmental management of dewatering during construction activities ▪ Regional Landscape Board water affecting activity control policies		▪ Surface water ▪ Surface water users ▪ Groundwater (quantity) ▪ Groundwater dependent ecosystems

Impact events

The impact events relevant to surface water and groundwater are:

- Sedimentation during the regulated activities results in a deterioration of surface water quality
- Civil construction works adversely impacting surface water and groundwater resources through disturbance
- Spills of fuel or chemicals result in deterioration of soil, surface water and/or groundwater quality (see Impact ID #SOI03 above).

Impact assessment outcomes

The impact assessment detailed in the following tables indicates that the impacts spans between **low-moderate**, due to the sensitivity of surface water as an environmental value. However, potential impacts from the proposed activities are localised and small scale and readily manageable using standard control measures.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Surface water: *Impact ID #SWR01*	
Impact event	**Sedimentation during the regulated activities results in a deterioration of surface water quality**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Vegetation clearance and earthworks for meteorological mast installation and construction of temporary laydowns.	Surface runoff	Surface water Surface water users	Yes – Watercourses and waterbodies occur within the Nominated Area (Section 4.2).	Construction Decommissioning	SPR confirmation is based on desktop assessment using watercourse mapping across the Nominated Area. The location of the activity site and presence of surface water features has not been determined. Siting will determine SPR linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Undertake surface water assessment prior to work and identify permanent and ephemeral surface water features ▪ Micro-siting avoids areas with permanent or ephemeral surface water. ▪ Water affecting activity permits obtained where required under the relevant landscape board's Water Affecting Activities Control Policy. ▪ Excavated material is stockpiled and reused for backfill wherever possible ▪ Sediment and erosion control measures, e.g. earth bunds, soil stablisers, silt fences) installed where necessary ▪ Integrity of sediment and erosion controls inspected following significant rainfall events and any necessary maintenance implemented	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No** - The primary control measure is avoidance of surface water bodies, limiting the possibility for sedimentation to reach water bodies, however, complete avoidance may not be possible for all projects.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low –** Clearance of native vegetation and earthworks are expected to occur infrequently, i.e. at construction. Potential additional earthworks required at decommissioning and for occasional maintenance. However, disturbed areas over time may result in sedimentation of runoff to surface waters.	Overall magnitude is low (refer Table 6).	
Duration	**Long lasting –** Impacts are generally expected to be limited based on the small scale nature of disturbance activities. Control measures identified are recognised as standard practice for limiting sedimentation to surface		

	waters. However, disturbed areas over time may result in sedimentation of runoff to surface waters that may be difficult to reverse.		
Extent	**Localised -** Proposed activities are small scale and generally require limited vegetation clearance and earthworks, any sedimentation runoff to surface water would be limited in extent. Control measures identified are recognised as standard practice for limiting sedimentation to surface waters.		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to generate impacts that would result in the degradation of surface water quality.		
Cumulative	**Possible - -**Potential cumulative effects on surface water quality depend on scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for sedimentation to generate cumulative effects on surface waters.		
Sensitivity	**Moderate -**The Nominated Area predominately falls within the agricultural districts, sensitivity and environmental value/condition of the receiving environment will vary depending on the features of the work area. Based on the climate across the Nominated Area, the abundance and distribution of surface waters in South Australia may be limited by threatening processes and may have reduced resilience to change.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or quantity from feasibility activities	▪ Management and monitoring measures for erosion, sedimentation and surface water impacts documented in the Construction Environmental Management Plan, where required. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate no deterioration of surface water quality within or near the activity location when compared with adjacent areas. ▪ Water Affecting Activity Permit is obtained from the relevant landscape board where required.	▪ Desktop assessment undertaken to identify if a Water Affecting Activity Permit is required under the relevant landscape board's Water Affecting Activities Control Policy. ▪ Micro-siting avoids areas with permanent or ephemeral surface water. ▪ Sediment and erosion control measures installed where necessary. ▪ Integrity of sediment and erosion controls inspected following significant rainfall events and any necessary maintenance implemented.

Surface water: *Impact ID #SWR02*	
Impact event	**Civil construction works adversely impacting surface water and groundwater resources through disturbance**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Alteration of drainage patterns or displacement of groundwater as a result of civil construction work disturbance.	Direct disturbance	Surface water Surface water users Groundwater dependent ecosystems Groundwater quantity and quality	Yes – Watercourses and waterbodies occur within the Nominated Area	Construction Decommissioning	SPR confirmation is based on desktop assessment using watercourse mapping across the Nominated Area. The location of the activity site and presence of surface water features has not been determined. Siting may reduce SPR linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Sites are located and constructed to maintain pre-existing water flows (e.g. channel contours are maintained on floodplains and at creek crossings). ▪ Desktop assessments undertaken to identify areas for avoidance for water resources with high sensitivity and associated habitat, including GDEs. ▪ Water affecting activity permits obtained where required under the relevant landscape board's Water Affecting Activities Control Policy. ▪ Dewatering activities are undertaken in accordance with an approved Operational Management Plan prepared in accordance with the requirements of the EPA *Environmental management of dewatering during construction activities* guideline and the requirements of the *Landscape South Australia Act 2019*. ▪ Micro-siting avoids areas of inundation, which may result in bogging, or creation of heavy wheel track rutting (e.g. more than 200 mm deep). ▪ Drainage patterns are restored, to as near as possible, to their undisturbed state as soon as practicable following completion of activities. ▪ Groundwater dependent ecosystems are identified and avoided.	Moderate to high certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No -** The primary control measure is avoiding impacts through pre-construction siting, however, there may be instances where a project intersects groundwater or surface water.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low –** Disturbance activities are expected to occur infrequently, i.e. at construction. Potential additional earthworks required at decommissioning and/or for occasional maintenance.	Overall magnitude is low (refer Table 6).	

Duration	**Short term –** Impacts are generally expected to be limited based on the small scale nature of disturbance activities. Control measures identified are recognised as standard practice for controlling impacts to water resources.		
Extent	**Localised -** Proposed activities are small scale and generally require limited disturbance. Control measures identified are recognised as standard practice for controlling impacts to water resources.		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to generate impacts that would result in the degradation of water resources.		
Cumulative	**Possible - -**Potential cumulative effects on groundwater and surface water will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects on water resources, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Moderate -**The Nominated Area predominately falls within the agricultural districts, sensitivity and environmental value/condition of the receiving environment will vary depending on the features of the work area. The abundance and distribution of groundwater and surface waters in South Australia may be limited by threatening processes and may have reduced resilience to change.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or quantity from feasibility activities	▪ Management and monitoring measures for impedances to surface water flow documented in the Construction Environmental Management Plan, where required. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate no unauthorised impedance of surface water flow or change in groundwater quantity or quality that results in adverse impacts to native flora or fauna and groundwater dependent ecosystems. ▪ No new water affecting activities as defined under the *Landscape South Australia Act 2019* undertaken unless an applicable permit has been obtained. ▪ Compliance with an approved OMP that includes a dewatering management plan, where required, that has been prepared in accordance with the EPA *Environmental management of dewatering during construction activities.*	▪ Desktop and field assessments (where required) undertaken to ensure meteorological mast installation sites are located and constructed to maintain pre-existing water flows and avoid GDEs. ▪ Desktop assessment undertaken to determine appropriate management of wastewater generated from dewatering activities, where required. ▪ Desktop assessments undertaken to identify if a Water affecting activity permit is required under the relevant landscape board's Water Affecting Activities Control Policy. ▪ Desktop assessments undertaken to identify areas for avoidance for water resources with high sensitivity and associated habitat, including GDEs. ▪ Micro-siting avoids areas of inundation, which may result in bogging, or creation of heavy wheel track rutting (e.g. more than 200 mm deep).

	Rehabilitate land adversely affected by regulated activities	▪ Compliance with an approved OMP that includes a decommissioning and rehabilitation plan (or similar) that outlines how any infrastructure or equipment will be decommissioned and the land rehabilitated, including restoration of drainage patterns to as near as possible to their undisturbed state. ▪ Records demonstrate no reasonable stakeholder complaints regarding restoration of drainage patterns are left unresolved.	▪ Inspections demonstrate no evidence of alteration of drainage patterns as a result of activities following rehabilitation. ▪ Restoration of land disturbance to be approved by the landowner or in accordance with landowner's wishes.

5.2.3 Flora, fauna and biodiversity

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to flora and fauna.

Context summary for flora and fauna

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Native Vegetation Act 1991* ▪ *National Parks and Wildlife Act 1972* ▪ *Landscape South Australia Act 2019* ▪ *Fire and Emergency Services Act 2005* ▪ *Environment Protection (Commercial and Industrial Noise) Policy 2023* ▪ *South Australia's Biosecurity Policy 2020-2023* ▪ *Controlled Substances (Pesticides) Regulations 2017* ▪ *Environment Protection and Biodiversity Conservation Act 1999* (Cth)	▪ National Light Pollution Guidelines for Wildlife ▪ GAS criteria for borrow pit construction, management and rehabilitation (DSD, 2014) ▪ Australian Weeds Strategy 2017-2027 (Commonwealth of Australia, 2017) ▪ AS1940 - The storage and handling of flammable and combustible liquids.		▪ Native vegetation ▪ Native flora and fauna ▪ Threatened flora ▪ Threatened and migratory fauna

Impact events

The impact events relevant to flora and fauna are:

- Clearance or disturbance of native vegetation results in a loss or degradation of native vegetation and biodiversity
- Alteration of drainage patterns results in changes to vegetation community structure and composition
- Introduction and spread of weed(s), pest(s) and/or pathogen(s) alter existing vegetation structure and composition, and outcompete native vegetation
- Presence of personnel, vehicles, noise and vibration or lighting during the regulated activities impacts local fauna
- Regulated activities interfere with listed threatened or migratory fauna species, resulting in reduced abundance.
- Direct mortality of fauna as a result of collision with vehicles, aircraft or infrastructure

Impact assessment outcomes

The impact assessment detailed in the following tables indicates that expected impacts are generally in the **Negligible** to **Low** category. Control measures targeted at assessing the sites prior to commencement of work will make sure areas of higher sensitivity will be avoided. Potential impacts from the proposed activities are localised and small scale and readily manageable using standard control measures.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Flora and fauna: *Impact ID #BIO01*	
Impact event	**Clearance or disturbance of native vegetation results in a loss or degradation of native vegetation and biodiversity**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Vegetation clearance for meteorological mast installation and construction of temporary laydowns	Direct disturbance	Native flora and fauna including threatened flora	Yes – The Nominated Area contains blocks of native vegetation. There are several notable threatened species across the different landscape regions	Construction	SPR confirmation is based on desktop assessment using summary ecological data across the Nominated Area. The location of the activity site has not been determined and field studies have not been undertaken. Native vegetation and significant flora may occur in areas where it has not been detected/predicted in desktop studies.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Appropriately trained and experienced personnel will undertake ecological assessment prior to work and identify any areas of sensitivity or "no-go" areas, including consultation with the relevant landscape board to inform ecological assessments where relevant. ▪ Ecological assessments will consider cumulative impacts of disturbance to identified species within the area and further avoidance or management measures will be implemented to avoid impacts where they are assessed to result in cumulative impacts to particular species. ▪ DEW biodiversity values mapping used in desktop component of ecological assessment where available. ▪ Naturally clear or previous cleared areas or areas with few long-lived species will be selected where possible. ▪ Native vegetation will not be cleared if existing cleared areas can be utilised. ▪ Micro-siting is undertaken in line with the native vegetation mitigation hierarchy. ▪ Trees, large shrubs and flora of conservation significance will be avoided. ▪ Suitably qualified personnel will assess the disturbance area for locations of vegetation associations or plant species of conservation significance that will not be disturbed, removed or traversed by vehicles. ▪ Identified areas of vegetation sensitive to disturbance and unlikely to recover readily from vehicle traverses will not be traversed by vehicles. ▪ Repeated driving along temporary access routes will be avoided where likely to result in long-term damage to vegetation. ▪ Existing access roads or tracks are used for access where possible. ▪ Water quality, including salinity levels, is determined to be suitable prior to use for water spraying (e.g. as dust control measure).	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

▪ The conservation needs of species will be considered and appropriate management strategies implemented where necessary. ▪ Where vegetation clearance is required, approval under the Native Vegetation Act is obtained where relevant. ▪ Where required, under an approval for native vegetation clearance by the Native Vegetation Council, an on-ground offset or payment to the fund is undertaken. ▪ Any areas of clearance will be rehabilitated where necessary (e.g. by respreading vegetation or reseeding with local seed sources where appropriate) in accordance with an approved Native Vegetation Council management plan.	

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No -** Controls in place prioritise avoidance and where unavoidable, ensuring approvals required from the Native Vegetation Council, offset contributions made (on-ground or payment to the fund), and site rehabilitated as required.		Expected impact: **Negligible** (refer to Table 7)
Frequency	**Low –** Clearance is only expected to occur during construction.	Overall magnitude is low (refer Table 6).	
Duration	**Short term -** Clearance is only expected to occur during construction and clearance required is expected to be limited based on the area required for a meteorological mast and the impacts are generally considered reversible. There may be instances where clearance is approved for species that require longer periods to re-establish, however, these are not expected to be common based on the exclusions within this EIR and the existing land use (cleared, agricultural) expected for metrological mast siting.		
Extent	**Localised -** The proposed activities are small scale and the work area that could be affected by disturbances is expected to be not greater than 1 ha (refer Section 3).		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to generate impacts that would result in the degradation biodiversity.		
Cumulative	**Possible - -**Potential cumulative effects on native vegetation and biodiversity will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects to impact biodiversity, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Low -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Protected areas and projects that are deemed to have significant impact to MNES are excluded from the EIR. There are patches of native vegetation that are sensitive, however, those will be avoided or subject to approval for clearance in accordance with the control measures.		

SEO	**Proposed environmental objective**	**Assessment criteria**	**Leading performance criteria**

	No clearance of native vegetation or disturbance to native fauna unless prior approval under the relevant legislation is obtained.	▪ Ecological assessment by appropriately trained and experienced personnel undertaken to determine baseline biodiversity of the site and to identify and avoid any areas of sensitivity or "no-go" areas. ▪ Where vegetation clearance is required, records demonstrate that necessary approvals under the Native Vegetation Act have been obtained and 'significant environmental benefit' obligation has been satisfied. ▪ Where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments carried out and location specific environmental management plan developed and implemented. ▪ Records (e.g. ecological assessments) demonstrate no listed threatened and/or migratory species will be significantly impacted (unless appropriate approval has been obtained). ▪ All biodiversity data collected by an appropriately qualified professional and reported to the Biological Databases of South Australia (BDBSA) and DEM pursuant to HRE Regulation 32(2)(c). ▪ Management and monitoring measures for any vegetation and or biodiversity impacts are documented in the Construction Environmental Management Plan, where required. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate there has been no unauthorised clearing of native vegetation.	▪ Site selection and infrastructure micro-siting avoid threatened flora species in line with the native vegetation mitigation hierarchy. ▪ Suitably qualified personnel will assess the disturbance area for locations of vegetation associations or plant species of conservation significance that will not be disturbed, removed or traversed by vehicles. ▪ DEW biodiversity values mapping used in desktop component of ecological assessment.

Flora and fauna: : *Impact ID #BIO02*	
Impact event	**Alteration of drainage patterns results in changes to vegetation community structure and composition**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Alteration of drainage patterns by earthworks for temporary laydowns	Surface water movement	Native vegetation Native fauna	Yes – Native vegetation is present across most of the Nominated Area and there are ephemeral drainage lines within the Nominated Area as well as permanent watercourses	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using summary ecological data and watercourse mapping across the Nominated Area. The location of the activity site and in relation to surface water features has not been determined. Siting will determine SPR linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Sites and laydown areas are located and constructed to maintain pre-existing water flows (e.g. channel contours are maintained on floodplains and at creek crossings). ▪ Water affecting activity permits obtained where required under SAAL Water Affecting Activities Control Policy. ▪ Areas of inundation, which may result in bogging, or creation of heavy wheel track rutting (e.g. more than 200 mm deep) are avoided. ▪ Drainage patterns are restored to as near as possible to their undisturbed state as soon as practicable following completion of activities.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No -** Controls in place prioritise avoidance of surface water features and drainage patters, however may be unavoidable for certain projects that would be required to implement the relevant control measures to avoid impacts to drainage patterns.		Expected impact: **Negligible - Low** (refer to Table 7).
Frequency	**Low –** Disturbance is only expected to occur during construction, decommissioning and/or for occasional maintenance.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Disturbance is only expected to occur during construction, decommissioning and occasional maintenance.		
Extent	**Localised -** The proposed activities are small scale and the work area that could be affected by disturbances is expected to be not greater than 1 ha (refer Section 3), including prioritising the avoidance of surface water features.		

Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to generate impacts that would result in the alteration of drainage patterns.		
Cumulative	**Possible - -**Potential cumulative effects on native vegetation and biodiversity will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects to impact biodiversity, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Low -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Protected areas and projects that are deemed to have significant impact to MNES are excluded from the EIR. There may be patches of native vegetation that are sensitive, however, those will be avoided or subject to approval for clearance in accordance with the control measures.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or quantity from feasibility activities	▪ Management and monitoring measures for impedances to surface water flow documented in the Construction Environmental Management Plan, where required. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate no unauthorised impedance of surface water flow that results in adverse impacts to vegetation community structure and composition. ▪ No new water affecting activities as defined under the Landscape South Australia Act undertaken unless applicable permits have been obtained.	▪ Desktop and field assessments undertaken to ensure meteorological mast installation sites are located and constructed to maintain pre-existing water flows ▪ Desktop assessments undertaken to identify if a Water affecting activity permit is required under the relevant Water Affecting Activities Control Policy.

Flora and fauna: : *Impact ID #BIO03*	
Impact event	**Introduction and spread of weed(s), pest(s) and/or pathogen(s) alter existing vegetation structure and composition, and outcompete native vegetation**

	Source	Pathway	Receptor	Confirmation of SPR	Project Phase	SPR uncertainties and assumptions
Potential impact	Weed/pest/pathogen introduction and spread which could impact agriculture and native vegetation	Vehicle, equipment and workers movement	Native vegetation Native fauna	Yes – The Nominated Area contains blocks of native vegetation. There are several notable threatened species across the different landscape regions	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using summary ecological data across the Nominated Area. The location of the activity site and presence of weeds / pests has not been determined.

Control measures	Uncertainties regarding likely effectiveness of control strategies
▪ Appropriate consultation regarding weeds, pathogens and pests is carried out with landholders and/or the Department of Primary Industries and Regions (PIRSA) / DEW / relevant landscape board (where relevant). ▪ Environmental assessment undertaken during the planning stage to identify specific weed and pests at the site. Weed/pest data shared with relevant landscape board. ▪ Pathogen desktop assessment undertaken to determine potential threat of pathogens at the site. Phytophthora assessments undertaken in line with the risk assessment process outlined in the *Phytophthora (Dieback) Control Environmental Instruction* (DIT, 2022). ▪ Management procedures in place to prevent the spread of identified weeds / diseases / pathogens, including the relevant Landscape Board Regional and District Pest Action Plans ▪ Where relevant, a specific environmental management plan for Buffel Grass or Phytophthora will be developed and implemented. ▪ Equipment that has been operating or transported from outside the State or in areas of known weed infestation must be cleaned (washed down where appropriate) before arrival at the survey location. All vehicles and equipment should generally be cleaned before arrival at site, and between properties where required, unless it is demonstrated that the risks are not significant. ▪ Details or logs of equipment cleaning are kept and are available for audit upon request. ▪ Disturbance of significant weeds, (e.g. weeds of National Significance) is avoided unless for their control. ▪ Records of detection (whether introduced by an operator or not), monitoring, eradication or control of introduced species are kept. ▪ Permit is obtained from the relevant landscape board for any transport of declared plants including soils containing declared plant materials.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment	Environmental significance assessment outcome

Avoidance	**No –** Controls in place prioritise the prevention of spread or introduction of weeds, however, the potential exists that weeds, pests, or pathogens may be introduced or spread as a result of activities.		Expected impact: **Negligible** (refer to Table 7)
Frequency	**Low –** Site access is only expected to occur during construction, decommissioning and occasional maintenance and the number of vehicles and people required on site is generally expected to be low.	Overall magnitude is low-moderate (refer Table 6).	
Duration	**Short term –** Management plans outlining the site specific control measures in place are expected to be effective in controlling the potential introduction or spread of weeds, pests or pathogens. Where the spread of weeds, pests of pathogens are identified this may have the potential to have longer lasting effects on biodiversity, however, management plans in place are required to address this.		
Extent	**Localised -** The proposed activities are small scale and the work area is expected to be not greater than 1 ha (refer Section 3).		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to result in the introduction or spread of weeds, including appropriate management plans in place if weeds, pests or pathogens are identified or spreading.		
Cumulative	**Possible - -**Potential cumulative effects on native vegetation and biodiversity will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects to impact biodiversity, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Low -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Protected areas and projects that are deemed to have significant impact to MNES are excluded from the EIR. There are patches of native vegetation that are sensitive, but those will be avoided or subject to approval for clearance in accordance with the control measures.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No introduction or spread of weeds, pest animals, pathogens or diseases as a consequence of feasibility activities.	▪ OMP includes relevant management plan/procedure that effectively manages and minimizes the potential for the introduction and or spread of weeds, pest animals or pathogens. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate that the presence of weeds, pest animals or pathogens is consistent with or better than pre-disturbance conditions and adjacent land. ▪ Declared plants and animals identified within/adjacent to operational areas are reported and managed in accordance with	▪ Records demonstrate that all equipment and vehicles are inspected, and cleaned where required, before arrival at the site. ▪ Areas of significant weeds are identified and flagged for avoidance unless for their control.

		relevant legislation, Regional Landscape Plans and declared pest animal and weed policies.	

Flora and fauna: : *Impact ID #BIO04*	
Impact event	**Presence of personnel, vehicles, noise and vibration during the regulated activities impacts local fauna**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Generation of noise/vibration during installation and decommissioning of meteorological masts	Noise and vibration Direct disturbance	Native fauna	Yes – there are possibilities for native fauna within the Nominated Area.	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using summary ecological data across the Nominated Area. The location of the activity site and occurrence and abundance of fauna has not been determined.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Appropriately trained and experienced personnel will undertake ecological assessment prior to work and identify any areas of sensitivity or "no-go" areas. ▪ Site selection to minimise potential impacts to fauna. ▪ Significant areas for native fauna (including but not limited to nesting areas for birds) are identified during the planning process and are avoided, either spatially or temporally. ▪ Equipment operated and maintained in accordance with manufacturer specifications. ▪ Maintenance of machinery to minimise unnecessary disturbing noise sources. ▪ Noisy equipment and machines are shut down when not in use. ▪ If proposed activities are in close proximity to a park or reserve established under the National Parks and Wildlife Act and indirect impacts are likely, consultation is undertaken with DEW to determine appropriate mitigation measures.	Moderate to high certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environment significance assessment outcome**
Avoidance	**No –** Controls in place prioritise the prevention of impacts to and avoidance of native fauna, however, unexpected incidents may occur.		Expected impact: **Negligible** (refer to Table 7)
Frequency	**Low –** Site access is only expected to occur during construction, decommissioning and occasional maintenance and the number of vehicles and people required on site is generally expected to be low.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Site access is only expected to occur during construction, decommissioning		

	and occasional maintenance and the number of vehicles and people required on site is generally expected to be low.		
Extent	**Localised -** The proposed activities are small scale and the work area is expected to be not greater than 1 ha (refer Section 3).		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to result in disturbance or impacts to native fauna.		
Cumulative	**Possible - -**Potential cumulative effects on native fauna will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects to impact native fauna, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Low -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Protected areas and projects that are deemed to have significant impact to MNES are excluded from the EIR. There may be the presence of native fauna that are sensitive, however, those will be identified through ecological survey and avoided.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No clearance of native vegetation or disturbance to native fauna unless prior approval under the relevant legislation is obtained.	▪ Ecological assessment by appropriately trained and experienced personnel undertaken to determine baseline biodiversity of the site and to identify and avoid any areas of sensitivity or "no-go" areas. ▪ Where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments and agencies carried out and location specific environmental management plan developed and implemented. ▪ Records (e.g. ecological assessments) demonstrate no listed threatened flora species will be significantly impacted (unless appropriate approval has been obtained). ▪ Management and monitoring measures for any vegetation and/or fauna impacts are documented in the Construction Environmental Management Plan, where required. ▪ Records (e.g. ecological assessments) demonstrate that disturbance to fauna has	▪ Significant areas for native fauna identified by a suitably trained and experienced personnel are avoided either spatially, temporally, or measures put in place to minimize disturbance.

		been considered and measures implemented to minimise it where appropriate. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate that control measures have been implemented.	

Flora and fauna: : *Impact ID #BIO05*	
Impact event	**Regulated activities interfere with listed threatened or migratory fauna species, resulting in reduced abundance**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Vegetation clearance for meteorological mast installation and construction of temporary laydowns Construction, operation noise	Direct disturbance Noise and Vibration Direct disturbance	Threatened / migratory fauna	Yes – there are possibilities for native fauna and migratory species within the Nominated Area.	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using summary ecological data across the Nominated Area. The location of the activity site and occurrence and abundance of threatened or migratory fauna has not been determined.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Appropriately trained and experienced personnel will undertake ecological assessment prior to work and identify any areas of sensitivity or "no-go" areas. ▪ DEW biodiversity values mapping used in desktop component of ecological assessment where appropriate. ▪ Areas of habitat important to threatened or migratory fauna species are identified during the planning process and impacts are avoided, either spatially or temporally. ▪ If habitat with significant conservation value is present in the vicinity of survey activities, it will be flagged and / or fenced off where necessary to prevent disturbance. ▪ The conservation needs of species will be considered and appropriate management strategies implemented where necessary.	Moderate to high certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Controls in place prioritise the prevention of impacts to and avoidance of native fauna (threatened or migratory species), however, unexpected incidents may occur.		Expected impact**: Low** (refer toTable 7)
Frequency	**Low –** Site access is only expected to occur during construction, decommissioning and occasional maintenance and the number of vehicles and people required on site is generally expected to be low. Ecological survey assessments identifying habitat for or occurrence of threatened or migratory bird species will be avoided.	Overall magnitude is low (refer Table 6).	

Duration	**Short term –** Site access is only expected to occur during construction, decommissioning and occasional maintenance and the number of vehicles and people required on site is generally expected to be low.		
Extent	**Localised -** The proposed activities are small scale and the work area is expected to be not greater than 1 ha (refer Section 3).		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to result in disturbance or impacts to native fauna.		
Cumulative	**Possible -** -Potential cumulative effects on native fauna will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects to impact native fauna, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Moderate -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Protected areas and projects that are deemed to have significant impact to MNES are excluded from the EIR. However, threatened and migratory bird species are considered to have a high level of sensitivity with limited (or no) resilience to change.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No clearance of native vegetation or disturbance to native fauna unless prior approval under the relevant legislation is obtained.	▪ Ecological assessment by appropriately trained and experienced personnel undertaken to determine baseline biodiversity of the site and to identify and avoid any areas of sensitivity or "no-go" areas. ▪ Records (e.g. ecological assessments) demonstrate no listed threatened or migratory species will be significantly impacted (unless appropriate approval has been obtained). ▪ Clearance data and/or visual inspection demonstrates no clearance outside of approved areas.	▪ Areas of habitat important to threatened or migratory fauna species are identified during the planning process and impacts are avoided, either spatially or temporally.

Flora and fauna: : *Impact ID #BIO06*	
Impact event	**Direct mortality of fauna as a result of collision with vehicles and infrastructure**

	Source	Pathway	Receptor	Confirmation of SPR	Project Phase	SPR uncertainties and assumptions
Potential impact	Collision with vehicles during construction Collision with meteorological masts	Vehicle movements, direct disturbance from masts	Native fauna including avifauna and bats	Yes – there are possibilities for native fauna within the Nominated Area.	Construction Operation Decommissioning	The location of the activity site and occurrence and abundance of fauna has not been determined.

Control measures	Uncertainties regarding likely effectiveness of control strategies
▪ Existing access roads and turn-arounds used. ▪ Drive at appropriate speed to avoid undue disturbance. ▪ Traffic and journey management procedures followed. ▪ Avoid travel at night where possible ▪ Significant areas for native fauna (including but not limited to nesting areas for birds) are identified during the planning process and are avoided, spatially (e.g. siting to avoid disturbance of sensitive species) and/or temporally (e.g. construction and maintenance activities undertaken outside of breeding season). ▪ Excavations (e.g. foundations for meteorological masts) are kept open for the minimum amount of time and are regularly checked for trapped fauna. ▪ Control measures adopted under impact ID #SAF01 that increase visibility of the meteorological mast for aviation safety may also increase visibility for avifauna.	Moderate to high certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No –** Controls in place prioritise the prevention of impacts to native fauna, however, unexpected incidents may occur.		Expected impact**: Negligible** (refer to Table 7)
Frequency	**Low –** Site access is only expected to occur during construction, decommissioning and occasional maintenance and the number of vehicles and people required on site is generally expected to be low.	Overall magnitude is low (refer Table 6).	
Duration	**Long lasting –** Site access is only expected to occur during construction, decommissioning and occasional maintenance and the number of vehicles and people required on site is generally expected to be low. Mortality of fauna is not reversible, however, impact at species level would not be expected to be significant considering controls in place and nature of works.		

Extent	**Localised -** The proposed activities are small scale, the work area limited, and relevant controls are in place to avoid native fauna.		
Severity	**Low -** Proposed activities are small scale and generally, with control measures in place, are not expected to result in disturbance or impacts to native fauna.		
Cumulative	**Possible - -**Potential cumulative effects on native fauna will depend on the scope of other projects in the area. Where multiple projects (not limited to meteorological masts) are within a similar area, the potential exists for cumulative effects to impact native fauna, however, these are generally mitigated by the relevant controls in place.		
Sensitivity	**Low -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Protected areas and projects that are deemed to have significant impact to MNES are excluded from the EIR. There may be the presence of native fauna and/or habitat that are sensitive, however, those will be identified through ecological survey and avoided. Sensitivity of native fauna within and surrounding a project area should be considered on a case-by-case basis.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No clearance of native vegetation or disturbance to native fauna unless prior approval under the relevant legislation is obtained.	▪ Ecological assessment by appropriately trained and experienced personnel undertaken to determine baseline biodiversity of the site and to identify and avoid any areas of sensitivity or "no-go" areas. ▪ Records (e.g. ecological assessments) demonstrate no listed threatened flora species will be significantly impacted (unless appropriate approval has been obtained). ▪ Management and monitoring measures for any vegetation and/or fauna impacts are documented in the Construction Environmental Management Plan, where required. ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate there are no native fauna casualties that could have reasonably been prevented through the management measures/controls described in the EIR.	▪ Significant areas for native fauna (including but not limited to nesting areas for water birds) are identified during the planning process and are avoided, either spatially or temporally. ▪ Excavations are kept open for the minimum amount of time and are regularly checked for trapped fauna.

5.2.4 Air quality

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to air quality.

Context summary for air quality

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Environment Protection Act 1993* ▪ *Environment Protection (Air Quality) Policy 2016* ▪ *Climate Change and Greenhouse Gas Emissions Reduction Act 2007* ▪ *National Greenhouse and Energy Reporting Act 2007* ▪ *Local Nuisance and Litter Control Act 2016*	▪ *National Environment Protection (Ambient Air Quality) Measure 2021*		▪ Local community ▪ Visitors ▪ Fauna ▪ Flora ▪ Stock

Impact events

The impact events relevant to air quality are:

- Dust generated during construction activities results in a deterioration of air quality at sensitive receptors.

Impact assessment outcomes

The impact assessment detailed in the table below indicates that expected impacts are generally in the **Negligible** category. Potential impacts from the proposed activities are localised, small scale and short term, and readily manageable using standard control measures.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Air quality: : *Impact ID #AIR01*	
Impact event	**Dust generated during construction activities results in a deterioration of air quality at sensitive receptors**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Generation of dust during: ▪ Meteorological masts installation ▪ Use of temporary access tracks and unsealed roads	Airborne dust deposition	Local community Visitors Native fauna Native flora Stock	Yes	Construction Decommissioning	The location of the activity site, soil type at the site and proximity to sensitive receptors has not been determined. Siting may reduce linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Dust control measures (e.g. water spraying) implemented if dust generation becomes a problem (e.g. near sensitive sites). ▪ Vehicles are driven at speeds slow enough to minimise generation of dust. ▪ Dust generating activities to be scheduled to avoid adverse weather conditions (e.g. periods of high winds). ▪ Soil stockpiles are appropriately managed, e.g. through covering, of a reduced height and/or for minimal duration. ▪ The number of site visits is restricted to as few as practicable. Existing tracks are used where possible. ▪ The extent of new exposed and stripped surface area is minimised. ▪ System is in place for logging landowner communication and logging landowner complaints to ensure that any identified amenity issues are recorded, addressed as appropriate and complaints are resolved in a timely manner.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Dust impacts may occur as a result of activities.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low -** Site access is only expected to occur during construction, decommissioning and occasional maintenance. The number of vehicles and people required on site is generally expected to be low.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Impacts are expected to be temporary and to only occur during site access/activities. Control measures are recognised to minimise dust impacts in most environments.		
Extent	**Localised –** Dust impacts are expected to be associated with site access and/or site activities.		
Severity	**Low –** Dust impacts are expected to be indistinguishable from background levels with appropriate controls in place.		

Cumulative	**Possible --** Potential cumulative effects on native fauna will depend on the scope of other projects in the area. Where multiple projects or activities (not limited to meteorological masts) are being undertaken within a similar area, the potential exists for cumulative effects to air quality. Potential cumulative impacts may occur to native flora in the event of plant die off due to dust dispersion, however, the proposed dust suppression control measures are considered reasonable industry standard practice that have been demonstrated to be effective in reducing dust dispersion.	
Sensitivity	**Low -** The Nominated Area is generally expected to predominately fall within the agricultural districts, in regional and rural settings. It is generally expected that air quality is good in these areas and may also be recognised locally as an important amenity of rural living. However, activities are not likely to generate sufficient dust to impact beyond the immediate area and control measures in place are generally considered standard practice in dust dispersion prevention where required.	

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	Minimise disturbance to receptors, land use and infrastructure.	▪ Prior to permit grant, the applicant must consult with landowners, the council, any affected Government agencies and any potentially affected receptors on the potential impacts of the meteorological mast installation and how they will be adequately managed. ▪ The applicant must provide a report that details the result of the consultation, setting out the persons consulted, any issues of concerns raised and the steps if any proposed to be taken to address those concerns. ▪ Management and monitoring measures for dust impacts to sensitive receptors are documented in the Construction Environmental Management Plan, where required. ▪ Records demonstrate that no reasonable complaints received about air quality are left unresolved.	▪ Where required, equipment to perform water-spraying is available onsite during construction and decommissioning, and implemented if dust generation becomes a problem (e.g. near sensitive sites).

5.2.5 Noise and vibration

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to noise and vibration.

Context summary for noise and vibration

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Environment Protection Act 1993* ▪ *Environment Protection (Commercial and Indutrial Noise) Policy 2023* ▪ *Local Nuisance and Litter Control Act 2016*	▪ EPA 425/23 Construction Noise Information Sheet (EPA, 2023)		▪ Local community ▪ Visitors

Impact events

The impact events relevant to noise and vibration are:

- Noise and vibration generated by the regulated activities reduces local amenity.

Impact assessment outcomes

The impact assessment detailed in the table below indicates that expected impacts are generally in the **Negligible** category. Potential impacts from the proposed activities are localised, small scale and short term, and readily manageable using standard control measures.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Noise and vibration: *Impact ID #NOI01*	
Impact event	**Noise and vibration generated by the regulated activities reduces local amenity.**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Generation of noise and vibration during: ▪ Meteorological mast installation and decommissioning ▪ Construction of temporary laydown areas	Noise and vibration	Local community Visitors	Yes	Construction Decommissioning	The location of the activity site and proximity to sensitive receptors has not been determined. Siting may reduce linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Location of sensitive receptors (e.g. residences) considered when planning activities, and avoidance or mitigation measures implemented where required. ▪ Equipment operated and maintained in accordance with manufacturer specifications. ▪ Vehicles and equipment are turned off when not in use. ▪ Activities restricted to daytime hours as far as practicable in line with the EPA 425/23 Construction Noise Information Sheet. ▪ Avoid travel at night where possible. ▪ System is in place for logging landowner complaints to ensure that issues are recorded, addressed as appropriate and complaints are resolved in a timely manner.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Noise and vibration impacts may occur as a result of activities.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low –** Noise impacts are only expected to occur during construction, decommissioning and occasional maintenance. The number of vehicles and people required on site is generally expected to be low.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Impacts are expected to be temporary and to only occur during site access/activities. Control measures are intended to reduce noise and vibration impacts to limited hours.		
Extent	**Localised –** Noise and vibration impacts are expected to be associated with site access and/or site activities.		

Severity	**Moderate –** Noise impacts are not expected to exceed statutory reference values or environmental quality standards, however, may result in an increase in the occurrence and level of noise or vibration. This should be considered on a case-by-case basis in the context of potential receptors.		
Cumulative	**Possible --** Potential cumulative effects of noise and vibration will depend on the scope of other projects in the area. Where multiple projects or activities (not limited to meteorological masts) are being undertaken within a similar area, the potential exists for cumulative effects to exist and should be considered on a case-by-case basis.		
Sensitivity	**Low -** The Nominated Area is generally expected to predominately fall within the agricultural districts, in regional and rural settings. It is generally expected that ongoing noise impacts are generally low in these areas and low noise levels may also be recognised locally as an important amenity of rural living. However, the noise and vibration generated by activities is expected to be consistent with other short term agricultural activities.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	Minimise disturbance to receptors, land use and infrastructure.	▪ Prior to licence grant, the applicant must consult with landowners, the council, any affected Government agencies and any potentially affected stakeholders on the potential impacts of the meteorological mast installation and how they will be adequately managed. ▪ The applicant must provide a report that details the result of the consultation, setting out the persons consulted, any issues of concerns raised and the steps if any proposed to be taken to address those concerns. ▪ Generation of noise during construction and operation is consistent with the EPA 425/23 Construction Noise Information Sheet (EPA, 2023) and the *Environment Protection (Commercial and Industrial Noise) Policy 2023.* ▪ Records demonstrate that no reasonable complaints received about noise levels are left unresolved	▪ Location of sensitive receptors (e.g. residences) considered when planning activities, and avoidance or mitigation measures implemented where required.

5.2.6 Landscape and visual amenity

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to landscape and visual amenity.

Context summary for landscape and visual amenity

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
Planning, Development and Infrastructure Act 2016	Planning and Design Code		▪ Local community ▪ Visitors

Impact events

The impact events relevant to landscape and visual amenity are:

- Regulated activities result in unacceptable reduced visual amenity for the local community and/or visitors.

Impact assessment outcomes

The assessment detailed in the table below indicates that expected impacts will be **low.** The meteorological masts may change the outlook of the landscape but will be preferentially installed to minimise visual impacts from public viewpoints and residents.

Environmental impact and significance assessment

The following tables detail the impact assessment for of the identified impact events.

Landscape and visual amenity: *Impact ID #VIS01*	
Impact event	**Regulated activities result in unacceptable reduced visual amenity for the local community and/or visitors**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	The experience of the area and the landscape changes when the meteorological masts become visible.	Line of sight	Local community Visitors	Yes – There are several main roads and within the Nominated Area. Tourism activities exist in the region.	Operation	The location of the activity site and proximity to sensitive receptors has not been determined. Siting may reduce linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Meteorological masts located in areas that minimise visibility from residential, tourist development, or other visually sensitive areas. ▪ A visual impact assessment is undertaken within 500 m from a non-associated dwelling, tourist accommodation, township and/or from zones listed under Section 4.7.3. System is in place for logging landowner complaints to ensure that issues are recorded, addressed as appropriate and complaints are resolved in a timely manner. ▪ Restoration of land disturbance to be undertaken through consultation with the landowner and in line with approved management plans. ▪ Any infrastructure that the landowner would like to retain (e.g. meteorological mast pad, laydown or storage pads) must be requested through DEM and subject to relevant regulatory approvals.	High certainty that proposed control measures will be effective.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Visual impacts may occur as a result of activities and additional infrastructure in the landscape.		Expected impact**: Moderate** (refer to Table 7) Through relevant control measures, which are recognised as standard industry practice (appropriately consulting with affected stakeholders as required) and given the inherent nature of meteorological mast siting to be sufficiently spaced to gather a broad range of data, i.e. will not be grouped in proximity to each other, the impacts are considered to be ALARP..
Frequency	**Moderate –** The frequency of visual impacts is project specific, with regard to how frequently a receptor may be impacted by the change in the visual amenity. It is expected that the primary visual impacts will occur as a result of the installation of the meteorological mast, which may remain in the landscape for years. At decommissioning the visual amenity of the landscape is likely to be fully restored (in consultation with landowner).	Overall magnitude is moderate (refer Table 6).	
Duration	**Long term –** Impacts are expected to occur over years. Control measures are intended to reduce impacts to visual amenity by siting masts away		

	from public view points, however may not always be possible .		
Extent	**Low** – Impacts may extend beyond the project site and immediate surrounds, without occurring on a regional scale. Meteorological masts are not considered visually intrusive, due to having a lattice structure, however safety markings or features may increase the visual impact.		
Severity	**Moderate –** Visual impacts may result in a decrease in visual amenity, this should be considered on a case-by-case basis in the context of potential receptors.		
Cumulative	**Possible --** Potential cumulative effects on visual amenity will depend on the scope of other projects in the area. Where multiple projects or activities, particularly related to other tall structures, are being undertaken within a similar area. This should be considered on a case-by-case basis in the context of potential receptors. For a particular project, meteorological masts are required to be sufficiently spaced to gather a broad range of data for the proposed wind farm site and therefore, for a given project, will not be grouped in proximity to each other.		
Sensitivity	**Moderate -** The Nominated Area is generally expected to predominately fall within the agricultural districts, in regional and rural settings. It is generally expected that visual changes to the landscape, particularly for tall structures, are not common. Visual amenity may also be recognised locally as an important amenity of rural living.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	Minimise visual impact of feasibilityactivities	▪ Records (visual impact assessments) demonstrate that meteorological mast locations have been sited to minimise visual impacts. ▪ Meteorological masts located in areas that minimise visibility from residential, tourist development, or otherwise visually sensitive areas.. ▪ Records demonstrate no reasonable complaints received about visual amenity are left unresolved. ▪	▪ Assessment is undertaken to place meteorological masts to minimise visibility from residential, tourist development, or other visually sensitive areas. ▪ Visual assessment undertaken where mast siting is proposed within 500 m from a non-associated dwelling, tourist accommodation, township and/or from zones listed within Section 4.7.3 of the EIR.
	Rehabilitate land adversely affected by regulated activities	▪ Records of audits / inspections carried out in accordance with the decommissioning and rehabilitation plan demonstrates that land has been appropriately rehabilitated, including removal of surface structures and waste, re-contouring of the ground surface	▪ Final decommissioning and rehabilitation plan to be provided 6 months prior to decommissioning activities commencing within the OMP.

		and revegetating (where required) consistent with pre-existing conditions (unless alternative agreement is reached with the regulator and landowner). ▪ Decommissioning and rehabilitation activities are undertaken in accordance with a plan that has been approved by DEM	

5.2.7 Aboriginal and non-Aboriginal heritage

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to Aboriginal and non-Aboriginal heritage.

Context summary for Aboriginal and non-Aboriginal heritage

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Aboriginal Heritage Act 1988* ▪ *Aboriginal and Torres Strait Islander Act 2005* ▪ *Native Title Act 1993* ▪ *Coroners Act 2003.*			▪ Aboriginal sites, objects and remains ▪ Traditional Owners
▪ *Heritage Places Act 1993* ▪ *PDI Act – local heritage*	P&D Code Local Heritage listings and Heritage Zones		▪ Heritage values ▪ Community

Impact events

The impact events relevant to Aboriginal and non-Aboriginal heritage are:

- Regulated activities result in damage or loss of known or unknown Aboriginal heritage
- Regulated activities result in damage or loss of all (known or unknown) non-Aboriginal heritage.

Impact assessment outcomes

The impact assessment detailed in the following tables indicates that expected impacts could vary between **Negligible-Moderate**. The value and sensitivity of Aboriginal heritage sites, objects and remains are high but control measures such as engagement with relevant Traditional Owners and undertaking Aboriginal heritage assessments are in place to avoid or manage impacts to ALARP.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Aboriginal heritage: *Impact ID #HER01*	
Impact event	**Regulated activities result in damage or loss of known or unknown Aboriginal sites, objects or remains**

	Source	Pathway	Receptor	Confirmation of SPR	Project Phase	SPR uncertainties and assumptions
Potential impact	▪ Vegetation clearance ▪ Earthworks for meteorological mast installation, construction of temporary laydowns, and constructing and/or installing any other project elements that require ground disturbance ▪ Decommissioning of project elements that require ground disturbance.	Disturbance	Traditional Owners Aboriginal communities	Yes –Aboriginal heritage may intersect the project area	Construction Decommissioning	Consultation with Traditional Owners may identify sites of Aboriginal heritage within the Nominated Area. Surveys may find Aboriginal heritage not previously recorded or determined. The location of the activity area and proximity to identified Aboriginal heritage has not been ascertained.

Control measures	Uncertainties regarding likely effectiveness and control strategies
▪ Cultural heritage risk assessment undertaken in consultation with Traditional Owners and/or by an anthropologist/archaeologist and a cultural heritage survey or 'work area clearance' s undertaken prior to land disturbing activities and other activities as required in accordance with relevant Native Title Agreement (if applicable). ▪ AAR central archives search is conducted and the area for construction is clear of any known Aboriginal heritage. ▪ Land disturbance is confined to areas subject to cultural heritage survey or work area clearance and undertaken in accordance with recommendations of the survey or work area clearance where they have been undertaken. ▪ Procedures consistent with the relevant obligations under the Native Title Agreement (if applicable) and *Aboriginal Heritage Act 1988* are in place to appropriately report and respond to any Aboriginal heritage discovered during activities. ▪ Any Aboriginal heritage discovered during operations are appropriately reported and responded to, consistent with any applicable Native Title Agreement, the *Aboriginal Heritage Act 1988* and the *Coroners Act 2003*. ▪ Aboriginal Heritage Discovery Protocols (AAR, 2023) are adopted for the project and adhered to, e.g. via a relevant management plan. ▪ Known heritage sites are identified and protected from operations. Where necessary, Aboriginal heritage or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance in line with a Cultural Heritage Management Plan (CHMP).	High certainty that proposed control measures will be effective.

▪ Proponents and their contractors have a reporting system and stop work procedure in place for Aboriginal heritage discovered during activities. ▪ All survey personnel receive appropriate cultural heritage training prior to work commencing. ▪ (Note that cultural heritage clearances, work area clearances and cultural heritage management plans are not defined under or referenced by the *Aboriginal Heritage Act 1988* and cannot authorise impacts to Aboriginal heritage.)	

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No –** Unexpected finds may occur.		Expected impact: **Moderate** (refer to Table 7) Control measures in place require desktop assessments and surveys to identify areas of Aboriginal heritage for avoidance and relevant unexpected finds procedures must be in place, including that works must cease in the event of an unexpected find. As such, impacts are managed to ALARP.
Frequency	**Low –** Control measures in place require desktop assessments and surveys to identify areas of Aboriginal heritage for avoidance, it is therefore not expected for unexpected finds to occur frequently.	Overall magnitude is moderate (refer Table 6).	
Duration	**Permanent –** Damage or loss of Aboriginal heritage is irreversible.		
Extent	**Localised –** Impacts would occur at the site of disturbance.		
Severity	**High –** Damage or loss of Aboriginal heritage, without appropriate authorisations, is a breach of the *Aboriginal Heritage Act 1988*.		
Cumulative	**Possible –**Multiple incidents of damage or loss of Aboriginal heritage will result in cumulative impacts.		
Sensitivity	**High –** Aboriginal heritage has statutory protection and where undisturbed is expected to be intact. The sensitivity of the receiving environment may vary depending on the occurrence of landforms that have a higher likelihood of being associated with Aboriginal heritage and incidence of unexpected finds.		

	Proposed environmental objective	Assessment criteria	Leading performance criteria
SEO	No damage, disturbance or interference to Aboriginal heritage and non-Aboriginal heritage unless authorised under the relevant legislation.	▪ Records of audits/inspections carried out in accordance with the OMP demonstrate no damage, disturbance or interference with any Aboriginal sites, objects and remains (all as defined under the *Aboriginal Heritage Act 1988*) unless authorisation has been obtained under the *Aboriginal Heritage Act 1988*. ▪ Any Aboriginal sites, objects and remains (together Aboriginal heritage) discovered during operations have been appropriately reported and responded to, consistent with any applicable Native Title Agreement, the *Aboriginal Heritage Act 1988* and *the Coroners Act 2003*.	▪ Records demonstrate that, where required, activities are confined to areas subject to cultural heritage survey or work area clearance and undertaken in accordance with conditions of the survey or work area clearance. ▪ In the event the conditions of a cultural heritage survey or work area clearance(s) are not complied with, the incident is appropriately reported, investigated and remediated in consultation with the relevant Traditional Owners, Native Title holders and in accordance with any applicable Native Title Agreement. ▪ Cultural heritage risk assessment undertaken in consultation with Traditional Owners and/or by an anthropologist/archaeologist and a cultural heritage survey or 'work area clearance' undertaken prior to land disturbing

		▪ Records demonstrate that works have stopped in the vicinity of a discovery of Aboriginal heritage.	activities and other activities as required in accordance with relevant Native Title Agreement (if applicable). ▪ Where required, development of and adherence to a cultural heritage management plan. ▪ Records demonstrate that Taa Wika has been searched to identify and avoid the location of registered Aboriginal heritage sites. ▪ Procedures, systems and plans are in place if Aboriginal heritage is encountered.

Non-Aboriginal heritage: *Impact ID #HER02*	
Impact event	**Regulated activities result in disturbance, damage or loss of known or unknown non-Aboriginal heritage sites or artefacts**

	Source	Pathway	Receptor	Confirmation of SPR	Project Phase	SPR uncertainties and assumptions
Potential impact	▪ Vegetation clearance and earthworks for meteorological mast installation and construction of temporary laydowns impacts unknown non-Aboriginal heritage sites or artefacts ▪ Visual disturbance at non-Aboriginal heritage sites	Disturbance	Heritage values and community	Yes	Construction	The location of the activity site and proximity to potential sites, has not been determined.

Control measures	Uncertainties regarding likely effectiveness of control strategies
▪ Heritage site registers and P&D Code (and Heritage South Australia, DEW, where appropriate) are consulted regarding the location of heritage sites and any identified sites are avoided. ▪ Known heritage sites are identified and protected from operations. Where necessary, heritage sites or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance. ▪ Proponents and their contractors have a reporting system in place for heritage sites or artefacts discovered during activities. ▪ No impact to heritage places, archaeology, and related objects protected under the *Heritage Places Act 1993* unless approval has been obtained under that Act. ▪ Any non-aboriginal sites or archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the Council will be notified, in accordance with the requirements of the *Heritage Places Act 1993*. ▪ Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.	High certainty that proposed control measures will be effective.

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No –** Unexpected finds may occur.	Overall magnitude is moderate (refer Table 6).	Expected impact**: Moderate** (refer to Table 7) Control measures in place require the identification of heritage places for avoidance and relevant unexpected finds procedures must be in place, including that works must cease in the event of an unexpected find and reported appropriately. As such, impacts are managed to ALARP.
Frequency	**Low –** Control measures in place require identification of existing heritage places for avoidance, it is therefore not expected for unexpected finds to occur frequently.		
Duration	**Permanent –** Damage or loss of heritage is irreversible.		
Extent	**Localised –** Impacts would occur at the site of disturbance.		
Severity	**High –** Damage or loss of heritage places, without appropriate authorisations, is a breach of the *Heritage Places Act 1993*.		
Cumulative	**Possible –**Multiple incidents of damage or loss of heritage places will result in cumulative		

	impacts.	
Sensitivity	**High –** Non-aboriginal heritage has statutory protection and where undisturbed is expected to be intact. Determined by the presence of registered heritage sites in areas of interest for the regulated activities on a case-by-case basis. Registered heritage areas will be identified and protected from operations.	

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No damage, disturbance or interference to Aboriginal and non-Aboriginal heritage sites, objects, remains and places unless authorised under the relevant legislation.	▪ Records of audits/inspections carried out in accordance with the OMP demonstrate no impact to non-Aboriginal heritage places and related objects protected under the *Heritage Places Act 1993* unless approval has been obtained under the *Heritage Places Act 1993.* ▪ Records will demonstrate that if a non-indigenous site or archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease immediately and the South Australian Heritage Council will be notified in accordance with the *Heritage Places Act 1993.*	▪ Records demonstrate that heritage site registers (and Heritage South Australia, DEW, where appropriate) have been consulted regarding the location of non-Aboriginal heritage sites and any identified sites, including local heritage places, have been avoided. ▪ Procedures, systems and plans are in place if archaeological artefacts are encountered.

5.2.8 Public health and safety

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to public health and safety.

Context summary for public health and safety

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Civil Aviation Act 1988 and Regulations 1988* ▪ *Fire and Emergency Services Act 2005* ▪ *Public Health Act 2011* ▪ *Work Health and Safety Act 2012* ▪ *Road Traffic Act 1961*	▪ AS1940 - The storage and handling of flammable and combustible liquids ▪ Advisory Circular 139.E-05v1.1 – Obstacles (including wind farms) outside the vicinity of a CASA certified aerodrome ▪ National Airports Safeguarding Framework – Guideline D: Managing the risk to aviation safety of wind turbine and installations (wind farms)/ wind monitoring towers. ▪ International Electrotechnical Commission (IEC) standards relating to meteorological mast, e.g. EIC 61400-12-1 ▪ Australian Standards (AS) relating to meteorological mast, e.g. AS 1170.2.		▪ Aircraft users ▪ Local and regional community ▪ Road users ▪ Public

Impact events

The impact events relevant to public health and safety are:

- Meteorological masts increase aviation hazard with potential for aircraft collision resulting in injuries or fatalities
- Fires caused by the regulated activities results in injuries or fatalities to members of the public.
- Project-related traffic increases road disturbance and/or safety hazard for local residents and other road users
- Regulated activities and associated infrastructure increase public safety hazard.

Impact assessment outcomes

The impact assessment detailed in the following tables indicated that expected impacts were generally in the **Negligible-Moderate** category. The magnitude of impact events has the potential to be high but with proposed control measures it is assessed as ALARP.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Public health and safety. ***Impact ID #SAF01***	
Impact event	**Meteorological masts increase aviation hazard with potential for aircraft collision resulting in injuries or fatalities**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Meteorological mast installation	Aircraft accident	Aircraft users	Yes – Aircraft landing areas and minor airstrips occur within the Nominated Area, as well as potential agricultural flying activity..	Operation	The location of the activity site and proximity to airstrips and landing areas has not been determined. Siting may reduce linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Identification of nearby aerodromes, landing areas and airstrips. ▪ Consultation with nearby aerodrome / landing areas / airstrip owners and local pilots. ▪ Assessment of potential issues will be undertaken to inform siting of meteorological masts. ▪ Aeronautical (aviation) risk assessment will be undertaken for meteorological masts taller than 150 m (in line with *Advisory Circular 139.E-05v1.1 – Obstacles (including wind farms) outside the vicinity of a CASA certified aerodrome)*. ▪ Notification to relevant CASA and other Commonwealth agencies (e.g. Department of Defence, RAAF, Air Services Australia) where required prior to construction. ▪ Registration of the meteorological masts on the RAAF Aeronautical Information Service database in accordance with *Advisory Circular 139.E-01v1.0 – Reporting of tall structures*. ▪ The top third of the meteorological masts will be painted in alternating contrasting bands of color. ▪ Marker balls or high visibility flags / sleeves placed on outside guy wires. ▪ Guy wire ground attachments points will have contrasting color to the surrounding environment. ▪ Use of markers or lights to increase meteorological mast visibility where required (e.g. visibility flags, flashing strobe light).	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Controls in place reduce hazards to aviation, however, don't completely remove the hazard.	Overall magnitude is moderate (refer Table 6).	Expected impact: **Moderate** (refer to Table 7) Control measures in place require the avoidance of infrastructure associated with aviation, e.g. aerodromes, landing strips and the meteorological mast must also be appropriately marked for safety and the location reported to the relevant authorities for avoidance. As such, impacts are managed to ALARP.
Frequency	**Low –** Meteorological masts will be sited avoiding areas of frequent aviation traffic.		
Duration	**Long term –** Aviation hazard will exist while the meteorological mast is in place.		
Extent	**Localised –** Aviation hazard only exists at the site of the		

	meteorological mast.		
Severity	**High –** Aviation hazards may result in injury or death. Control measures in place		
Cumulative	**Possible –** Where other tall structures, including other meteorological masts, exist within an area used for aviation, cumulative aviation hazard may occur.		
Sensitivity	**Moderate –** Meteorological masts are sited to avoid areas of aviation traffic. Occasional instances may occur where small aircraft are used in the area, of the meteorological mast, particularly in agricultural areas (e.g. agricultural spraying, stock management, or firefighting) where other tall structures may not be present. However, the masts are required to be appropriately marked for safety and the location reported to the relevant authorities for avoidance.		

	Proposed environmental objective	Assessment criteria	Leading performance criteria
SEO	No injuries, deaths or health impacts to the public or third parties from regulated activities that could have been reasonably prevented by the operator.	▪ Any notifiable incidents (as per s35 of the *Work Health and Safety Act 2012*) involving the public investigated by a suitably qualified independent third party.	▪ Guidance in the Advisory Circular 139.E-05v1.1 – Obstacles (including wind farms) outside the vicinity of a CASA certified aerodrome, is adhered to. ▪ Notification to CASA and other relevant agencies undertaken where required. ▪ Measures to ensure visibility of meteorological masts to aircraft, implemented, maintained and monitored.

Public health and safety. ***Impact ID #SAF02***	
Impact event	**Fires caused by the regulated activities results in injuries or fatalities to members of the public and/or loss of native vegetation and habitat**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Use of equipment and machinery	Spread of fire	Local and regional community Native vegetation Native fauna	Yes – there will be machinery onsite that could cause accidental ignition which lead to fire.	Construction Operation Decommissioning	The location of the activity site and the fire risk rating at this location has not been determined.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Firefighting equipment available as appropriate for location and use during construction and decommissioning. ▪ *Fire and Emergency Services Act 2005* requirements complied with (e.g. permits for 'hot work' on total fire ban days). ▪ Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors in areas of high fire risk and/or during fire danger season. ▪ Avoid driving over long dry grass. ▪ Procedures are in place to minimise the risk of initiating and propagating fire during periods of high temperatures and high winds. ▪ Hazard identification plan for immediate implementation on days of high temperatures and winds during construction and decommissioning. ▪ Meteorological masts are installed with lightning rods to direct lightning to a grounding system in the earth away from the structure and ignitable materials. ▪ Meteorological masts are designed and maintained to applicable standards. ▪ Response plan for the safety of crew personnel should a fire approach or be initiated by field crew. ▪ Crews are trained in use of firefighting equipment. ▪ Guides, codes and standards are available to provide appropriate prevention and management measures, as provided by the *Fire and Emergency Services Act 2005* and local Country Fire Service.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Unexpected fire may result from activities being undertaken.		Expected impact**: Moderate** (refer to Table 7)
Frequency	**Low –** Potential fire risk from regulated activities is only expected to occur during site access occurring on an infrequent basis, i.e. during construction, decommissioning and potential maintenance.	Overall magnitude is moderate (refer Table 6).	
Duration	**Short term –** Fire events as a result of authorised operations are only expected to occur during site access, i.e. construction, decommissioning and maintenance. Long term impacts are possible depending on the scale of the fire.		

Extent	**Moderate –** Impacts from a fire may extend beyond the project site and immediate surrounds but would not be expected to occur on a regional scale. Management system measures are put in place to prevent initiation of bushfire and ensure propagation of potential bushfire is quickly managed.		
Severity	**High –** Fires could result in death or damage to property or extensive damage to native vegetation and habitat.		
Cumulative	**Possible –** Depending on the existing environment, if fires have occurred in nearby areas or within the same area, additional fires may result in cumulative impacts. This should be considered on a case-by-case basis.		
Sensitivity	**Moderate -** The Nominated Area is generally expected to have a high level of human disturbance, predominately falling within the agricultural districts and has been extensively cleared. Meteorological masts will be sited preferentially to avoid residents and townships. Meteorological masts may be located in fire sensitive areas with high risk of ignition and where fire may not have occurred for some time. Control measures in place ensure that fire readiness is requisite to undertake authorised operations.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No injuries, deaths or health impacts to the public or third parties from regulated activities that could have been reasonably prevented by the operator.	▪ No uncontrolled fires as a result of authorised activities. ▪ OMP includes an emergency response plan (or similar) that clearly outlines the response to a fire related incident, both caused by authorized activities and/or threatening authorized activities from offsite. ▪ *Fire and Emergency Services Act 2005* requirements are complied with.	▪ Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards during on-site works.
	No clearance of native vegetation or disturbance to native fauna unless prior approval under the relevant legislation is obtained.	▪ No uncontrolled fires as a result of authorised activities. ▪ OMP includes an emergency response plan (or similar) that clearly outlines the response to a fire related incident, both caused by authorized activities and/or threatening authorized activities from offsite. ▪ *Fire and Emergency Services Act 2005* requirements are complied with.	▪ Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards during on-site works.

Public health and safety. *Impact ID #SAF03*	
Impact event	**Project-related traffic increases road disturbance and/or safety hazards for local residents and other road users**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Increased traffic during: ▪ Meteorological masts installation	Disturbance	Local community and road users	Yes – Road infrastructure with existing traffic occurs in the Nominated Area	Construction Decommissioning	The location of the activity site and access from roads has not been determined. Siting may reduce linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Existing access roads and turn-arounds used where possible. ▪ Drive at appropriate speed to avoid undue disturbance. ▪ Traffic and journey management procedures followed. ▪ Warning signage erected during operations where necessary (e.g. where there is significant traffic accessing sites from public roads). ▪ Traffic management plan developed where required	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No** – Roads must be used to undertake authorised activities.		Expected impact**: Negligible (**refer to Table 7)
Frequency	**Low –** Traffic increase is only expected to occur during construction, decommissioning and occasional maintenance activities. The number of vehicles and people required on site is generally expected to be low.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Traffic increase is only expected to occur during construction, decommissioning and occasional maintenance. The number of vehicles and people required on site is generally expected to be low.		
Extent	**Localised –** Traffic increase is only expected to occur on roads with use or access for authroised activities. It is only expected that there will be minimal additional traffic to the local road networks. There may be increased traffic in townships depending on the project, where accommodation is required.		
Severity	**Low -** It is only expected that there will be minimal additional traffic to the local road networks, on an infrequent basis and only during discrete periods that require site access.		
Cumulative	**Possible –** Potential cumulative effects depending on the scope of other projects in the area. This should be		

	considered through the relevant control measures, e.g. traffic management plan.	
Sensitivity	**Low –** Authorised operations are not expected to be undertaken in close proximity to townships and settlements where there higher existing traffic hazards exist.	

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No injuries, deaths or health impacts to the public or third parties from feasibility activities that could have been reasonably prevented by the operator.	▪ Traffic-related incidents investigated by a suitably qualified independent third party show that the accident could not have been reasonably prevented by the Operator.	▪ Traffic and journey management procedures followed ▪ All employees and contractors to comply with the *Road Traffic Act 1961* ▪ Traffic management plan developed where required

Public health and safety. ***Impact ID #SAF04***	
Impact event	**Regulated activities and associated infrastructure increase public safety hazard**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Regulated activities and associated infrastructure (e.g. meteorological masts and operation of equipment at activity location), e.g. unauthorised access.	Direct disturbance	Public	Yes – Public (e.g. landowners or tourists) could potentially access activity location.	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using high-level mapping and socio-economic data across the Nominated Area. The location of the activity site and proximity to populated areas has not been determined. Siting may reduce linkage.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Construct meteorological masts in accordance with relevant standards ▪ Restriction of public access (e.g. fencing where appropriate, anti-climb design) ▪ Undertake fitness for purpose assessments and audits of management systems to ensure operational and procedural safety at a frequency determined in the OMP. ▪ Signage to indicate restricted access to discourage third party access to infrastructure where appropriate.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Authorised activities (including the presence of infrastructure) are required to be undertaken that may result in increased public safety hazard.	Overall magnitude is low (refer Table 6).	Expected impact**: Negligible** (refer to Table 7)
Frequency	**Low –** It is not expected that the public will frequently access the work site.		
Duration	**Long term –** The presence of the meteorological masts may occur over years.		
Extent	**Localised –** Public safety hazard occurs in relation to the site of the meteorological mast.		
Severity	**Low –** Relevant controls in place (e.g. anti-climb design, fencing) ensure that the public cannot access the meteorological mast.		

Cumulative	**Low –** It is not expected that multiple meteorological masts within an area would increase the risk to public safety where appropriate safety controls are in place.	
Sensitivity	**Low –** Meteorological mast sites will be preferentially sited away from townships and residents and will generally be sited within areas of low population density and agricultural areas. Management systems in place and fitness for purpose assessments (as specified in the OMP), as well as relevant safety measures, reduce public safety hazards associated with meteorological masts.	

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No injuries, deaths or health impacts to the public or third parties from feasibility activities that could have been reasonably prevented by the operator.	▪ Any notifiable incidents (as per s35 of the Work Health and Safety Act 2012) involving the public investigated by a suitably qualified independent third party. ▪ Certification of the meteorological mast design by a qualified structural engineer prior to construction ▪ Meteorological mast constructed and verified for compliance with the certified design. ▪ Undertake fitness for purpose assessments and audits of management systems to ensure operational and procedural safety in accordance at a frequency as outlined in the OMP.	▪ Safety audits to be undertaken and any identified additional actions that could be reasonably implemented to reduce the risks to the public will be implemented.

5.2.9 Social environment, land use and infrastructure

Setting the context

The table below summarises legislation and non-legislated standards, views of affected parties and lists the key environmental receptors relevant to social environment, land use and infrastructure.

Context summary for social environment, land use and infrastructure

Applicable legislation	Applicable non-legislated standards	Views of affected parties	Environmental receptor
▪ *Landscape South Australia Act 2019* ▪ *Biosecurity Act 2015 (Cth)* ▪ *Civil Aviation Safety Regulations* ▪ *Livestock Act 1997*	▪ Guideline EPA 080/16 *Bunding and Spill Management* ▪ AS 1940 - The storage and handling of flammable and combustible liquids ▪ Australian Dangerous Goods Code ▪ *National Environment Protection (Assessment of Site Contamination) Measure 1999* (as amended 2013)		▪ Landholders ▪ Livestock

Impact events

The impact events relevant to social environment, land use and infrastructure are:

- Waste is created onsite during construction and decommissioning and is inappropriately handled
- Regulated activities disturb landholder infrastructure or activities
- Introduction and spread of weed(s), pest(s) and/or pathogen(s) impacts land use.

Impact assessment outcomes

The impact assessment detailed in the following tables indicated that expected impacts were generally in the **Negligible-Low** category. Potential impacts from the proposed activities are localised and small scale and readily manageable using standard control measures. Events such as disturbance to landowner infrastructure and introduction of weeds and pests are unlikely to occur due to the control measures to be implemented.

Environmental impact and significance assessment

The following tables detail the impact assessment for the identified impact events.

Socio-economic environment: *Impact ID #SOC01*	
Impact event	**Waste is created onsite during construction and decommissioning and is inappropriately handled**

	Source	Pathway	Receptor	Confirmation of SPR	Project Phase	SPR uncertainties and assumptions
Potential impact	Generated waste from the construction process People working on site bringing in material from outside. During decommissioning, parts of the meteorological mast might be considered waste.	Disposing of materials	Landowners Local environment	Yes	Construction Decommissioning	No significant uncertainties or assumptions

Control measures	Impact prediction uncertainties and assumptions
▪ Waste management undertaken with regard to EPA's Waste Hierarchy model and the *Environment Protection (Waste to Resources) Policy 2010.* ▪ Waste streams segregated on site where practicable to maximise opportunities for waste recovery, reuse and recycling. ▪ Containment of all waste. ▪ No waste storage near watercourses ▪ Waste removed off-site as soon as practicable and disposed of at appropriately licensed waste handling facility. ▪ Liquid wastes stored in accordance with relevant standards and guidelines, including AS 1940, EPA guideline 080/16 Bunding and Spill Management and the Australian Dangerous Goods Code (ADG). ▪ High standards of 'housekeeping' implemented. ▪ Secure systems used for storage and transport of waste. ▪ Hazardous wastes (if generated) handled in accordance with relevant legislation and standards. ▪ Licensed contractors used for waste transport where required.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented. Limited potential for unplanned event due to factors such as human error.

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No –** Waste is expected to be created on site as a result of authorised activities.		Expected impact: **Low** (refer to Table 7).
Frequency	**Low –** Control measures in place are well understood in being effective in managing waste. Waste generated on site will only occur during construction, decommissioning and occasional maintenance in low volumes.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Waste generated on site will only be present during authorised activities being undertaken. Control measures ensure that waste is appropriately removed to avoid long term impacts.		

Extent	**Localised –** Waste will only occur at the site of authorised activities.		
Severity	**Low –** With relevant control measures in place, the expected site condition will be imperceptible or indistinguishable from existing conditions related to waste.		
Cumulative	**Low -** Proposed activities are small scale and produce limited quantities of waste, cumulative impacts are not expected to occur unless improper handling of waste occurs across multiple sites or at the site.		
Sensitivity	**Moderate -** The Nominated Area is generally expected to predominately fall within the agricultural districts, where land use for cropping and livestock may be sensitive to any waste materials being improperly handled.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	Optimise waste management (in order of most to least preferable): avoidance; reduction; reuse; recycling; treatment; and disposal.	▪ Management measures for waste generated during the construction and decommissioning stages documented in the Construction Environmental Management Plan and decommissioning and rehabilitation plan. ▪ Waste management is undertaken in accordance with the EPA's Waste Hierarchy model, the *Environment Protection (Waste to Resources) Policy 2010* and *the Public Health (Wastewater) Regulations 2013*. ▪	▪ Waste is securely contained prior to removal from site. ▪ Waste removed off-site as soon as practicable and disposed of at appropriately licensed waste handling facility.
	Rehabilitate land adversely affected by feasibility activities.	▪ Records demonstrate no reasonable stakeholder complaints regarding rehabilitation of land are left unresolved.	▪ Inspections demonstrate no evidence of soil contamination or waste remaining as a result of activities.

Socio-economic environment: *Impact ID #SOC02*	
Impact event	**Regulated activities disturb landholder infrastructure or activities**

	Source	**Pathway**	**Receptor**	**Confirmation of SPR**	**Project Phase**	**SPR uncertainties and assumptions**
Potential impact	Operational activities including vehicle/worker movements and earthwork	Direct disturbance	Landholders	Yes – landholder residences and mining activities are present.	Construction Operation Decommissioning	SPR confirmation is based on desktop assessment using high-level mapping and socio-economic data across the Nominated Area. The location of the activity site and proximity to receptors has not been determined.

Control measures	**Uncertainties regarding likely effectiveness of control strategies**
▪ Landowners (including freehold owners and resource tenement/licence holders) consulted prior to proposed authorised activities to advise them of the scope, schedule and duration and discuss any specific requirements. ▪ Right or interest in the land acquired before undertaking authorised operations. ▪ Sites/routes are selected to minimize potential impacts to landowners and land use activities. ▪ Where practical, avoid periods critical to the agricultural business cycle such as seeding, harvest and lambing. ▪ Leave gates as found. ▪ Fences are not modified without landowner permission and are restored to a level satisfactory to the landowner. ▪ System is in place for logging landowner complaints to ensure that issues are recorded, addressed as appropriate and complaints are resolved in a timely manner. ▪ Site induction for all employees and contractors covers underlying land use requirements. ▪ No pets are to be kept by the crew at worksites. ▪ Restoration of land disturbances to be undertaken through consultation and agreement with the landowner and where relevant must also comply with any statutory management plans in place. ▪ Any infrastructure that the landowner would like to retain (e.g. meteorological mast pad, laydown or storage pads) must be requested through DEM and subject to relevant regulatory approvals.	High certainty that proposed control measures will be effective.

Environmental significance assessment			**Environmental significance assessment outcome**
Avoidance	**No –** Due to the nature of authorised activities being undertaken on non-designated land, activities may disturb landowner infrastructure or activities.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low –** Authorised activities will only occur at construction, decommissioning or occasional maintenance. Control measures in place require liaising with landowners prior to commencing activities	Overall magnitude is low (refer Table 6).	

	to avoid existing infrastructure where required and to avoid disruptions to land use.		
Duration	**Short term -** Authorised activities will only occur at construction, decommissioning or occasional maintenance. Control measures in place require liaising with landowners prior to commencing activities to avoid existing infrastructure where required and to avoid disruptions to land use.		
Extent	**Localised –** Authorised activities to only be undertaken at the location of the meteorological mast(s).		
Severity	**Low –** Control measures in place require liaising with landowners prior to commencing activities to avoid existing infrastructure where required and to avoid disruptions to land use.		
Cumulative	**Low –** As activities are only undertaken during discreet periods and are undertaken in consultation with the landowner(s), it is not expected that cumulative impacts will occur.		
Sensitivity	**Moderate –** The Nominated Area is generally expected to predominately fall within the agricultural districts, where land use for cropping and livestock is likely to coincide with meteorological mast locations. Landowners may be a sensitive receiver, particularly if unexpected disruptions to landowners' activities or infrastructure occur. Control measures in place require consultation with relevant landowners to mitigate unexpected activities occurring on their land.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	Minimise disturbance to stakeholders, land use and infrastructure.	▪ Prior to licence grant, the applicant must consult with landowners, the council, any affected Government agencies and any potentially affected receptors on the potential impacts of the meteorological mast installation and how they will be adequately managed. ▪ The applicant must provide a report that details the result of the consultation, setting out the persons consulted, any issues of concerns raised and the steps if any proposed to be taken to address those concerns. ▪ Landowner / stakeholder complaints are documented, and reasonable steps taken to resolve them can be demonstrated.	▪ Outcomes of consultation on the potential impacts to a receptor are reported to DEM. ▪ Landowners are consulted prior to survey activities, and relevant control and management measures consistent with those identified in the EIR are implemented. ▪ No adverse impact (outside agreed disturbance areas) on land use as a result of activities. ▪ Adverse impacts of accidental or unforeseen damage to infrastructure or disturbance to land use resolved to the reasonable satisfaction of the landowner.
	Rehabilitate land adversely affected by feasibility operations.	▪ Records of audits / inspections carried out in accordance with the decommissioning and rehabilitation plan demonstrates that land has been appropriately rehabilitated, including removal of surface structures and waste, re-contouring of the ground surface and revegetating (where required) consistent with	▪ Restoration of land disturbance to be approved by the landowner or in accordance with landowner's wishes. ▪ Final decommissioning and rehabilitation plan to be provided 6 months prior to decommissioning activities commencing. Plan to be approved by DEM.

		pre-existing conditions (unless alternative agreement is reached with the regulator and landowner)	

Socio-economic environment: *Impact ID #SOC03*	
Impact event	**Introduction and spread of weed(s), pest(s) and/or pathogen(s) impacts land use**

	Source	Pathway	Receptor	Confirmation of SPR	Project Phase	SPR uncertainties and assumptions
Potential impact	Weed/pest/pathogen introduction and spread	Vehicle, equipment, materials and worker movements	Landholders Livestock	Yes – Possibility for weeds to impact agriculture for example	Construction Operation Decommissioning	The location of the activity site and proximity to the receptors is unknown

Control measures	Uncertainties regarding likely effectiveness of control strategies
▪ Appropriate consultation regarding weeds, pathogens and pests is carried out with landholders and PIRSA / DEW / Landscape Boards (where relevant). ▪ Environmental assessment undertaken during the planning stage to identify specific weeds and pests. . ▪ Pathogen desktop assessment undertaken to determine potential threat of pathogens at the site. Phytophthora assessments undertaken in line with the risk assessment process outlined in the *Phytophthora (Dieback) Control Environmental Instruction* (DIT, 2022). ▪ Management procedures in place to prevent the spread of identified weeds / diseases / pathogens. ▪ Equipment that has been operating outside the State or in areas of known weed infestation must be cleaned (washed down where appropriate) before arrival at the survey location. All vehicles and equipment should generally be cleaned before arrival at site, and between properties where required, unless it is demonstrated that the risks are not significant. ▪ Cleaning of equipment must be carried out in accordance with pre-determined company procedures and/or industry standards. ▪ Details or logs of equipment cleaning are kept and are available for audit upon request. ▪ Disturbance of significant weeds, (e.g. weeds of National Significance) is avoided unless for their control. ▪ Records of detection (whether introduced by an operator or not), monitoring, eradication or control of introduced species are kept and shared with landscape boards.	High certainty that proposed control measures will be effective. Industry standard control measures that are well understood and that have been successfully implemented.

Environmental significance assessment			Environmental significance assessment outcome
Avoidance	**No –** Introduction or spread of weeds may occur due to on site activities.		Expected impact**: Low** (refer to Table 7)
Frequency	**Low –** Weed introduction or spread is likely to be associated with access to site and on site activities during construction, decommissioning and occasional maintenance.	Overall magnitude is low (refer Table 6).	
Duration	**Short term –** Management procedures are in place to manage the spread of weeds, pests or pathogens if they occur to avoid long term impacts.		

Extent	**Localised –** Introduction or spread of weeds, pests or pathogens is only expected to occur within areas accessed to undertake authorised activities.		
Severity	**Moderate –** If the potential impact occurs, it would result in an increase in the occurrence of weeds, pests or pathogens and would require a high level of management.		
Cumulative	**Possible –** Where the spread of weeds, pests or pathogens occurs on multiple occasions at the same site, or has occurred at nearby sites, the potential for cumulative impacts exists.		
Sensitivity	**Moderate--** The Nominated Area is generally expected to predominately fall within the agricultural districts, where land use for cropping and livestock is likely to coincide with meteorological mast locations. Weeds, pests and pathogens are a hazard to agricultural productivity and to livestock wellbeing. Control measures in place reduce the likelihood of the spread of weeds, pests or pathogens and where it may occur, management procedures are in place.		

	Proposed environmental objective	**Assessment criteria**	**Leading performance criteria**
SEO	No introduction or spread of weeds, pest animals and pathogens as a consequence of regulated activities.	▪ Baseline weed and pest animal assessment undertaken by appropriately trained and experienced personnel prior to commencing operations. ▪ Pathogen desktop assessment undertaken to determine the potential of presence or spread of pathogens and the commensurate level of control required. ▪ Management and monitoring measures for any weeds, pest animals or pathogens are documented in an appropriate management and monitoring plan, in consultation with the relevant landscape board, where required. ▪ Records of audits/inspections carried out in accordance with management and monitoring plan demonstrate that the presence of weeds, pest animals or pathogens is consistent with or better than pre-disturbance conditions and adjacent land. ▪ Declared plants occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation and Regional Landscape Plan.	▪ Records demonstrate that all equipment and vehicles are inspected, and cleaned where required, before arrival at the site.

7. Consultation

7.1 Consultation undertaken on this EIR and SEO

To inform the development of this EIR and SEO, DEM undertook consultation on the draft documents with relevant government agencies (generally referral bodies under the HRE Act) in April 2025 for a period of up to five weeks. Industry consultation was undertaken in August 2025 for an equivalent period. The responses received and how each submission has been addressed are available in **Appendix A**. .

7.2 Consultation to be undertaken by the proponent for activities proposed pursuant to this EIR and SEO

It is conditioned through the Renewable Energy Feasibility Permit Activities in South Australia Statement of Environmental Objectives, that a proponent must undertake consultation prior to the grant of a licence under the HRE Act.

Proponents must consult with landowners, the council, any affected government agencies, and reasonably affected receptors.

An owner of land, or landowner, as defined under the HRE Act, includes:

- a person who holds a registered estate or interest in the land conferring a right to immediate possession of the land; or
- a native title holder in respect of the land; or
- a person who has, by statute, the care, control or management of the land; or
- a person who is lawfully in occupation of the land; or
- a person who holds a pastoral lease in respect of the land; or
- a person who holds a resources tenement in respect of the land; or
- the holder of an aquaculture lease or aquaculture licence under the Aquaculture Act 2001; or
- a person of a class brought within the ambit of this definition by the regulations;

Relevant government agencies that should be considered for consultation include but are not limited to:

- Attorney Generals Department – Aboriginal Affairs and Reconciliation
- Civil Aviation authority
- Commissioner of Highways
- Department for Environment and Water
- Department of Primary Industries and Regions South Australia
- Department for Infrastructure and Transport
- Department for Housing and Urban Development
- Environmental Protection Authority
- Native Vegetation Council
- Outback Communities Authority
- Relevant landscape board
- Relevant council
- South Australian Country Fire Service

Generic e-mail addresses for these agencies can generally be found within the Referral of matters to prescribed body under the Hydrogen and Renewable Energy Act 2023 guideline.

Affected receptors for consultation are generally identified through the impact assessment tables in Section 5.2, for example, neighbouring receptors where they may be visually impacted, or Traditional Owners of Aboriginal sites or objects on the land that the project may impact.

The matters of consultation must be focused on potential environmental impacts and management measures identified in this EIR (and accompanying SEO) that relate specifically to the proposed activities.

Prior to licence grant, it must be demonstrated to DEM that consultation has been suitably undertaken through a report that details the persons consulted, any issues of concerns raised, and the steps, if any, proposed to be taken to address those concerns.

Licence holders are expected to engage and consult on any relevant management plans as necessary throughout the duration of the licence period.

References

AAR (2023). *Aboriginal Heritage Discovery Protocols.* Retrieved from Attorney-General's Department – Aboriginal Affairs and Reconciliation: https://www.agd.sa.gov.au/__data/assets/pdf_file/0007/995074/AAR-Aboriginal-Heritage-Discovery-Protocols.pdf

ABCB. (2019). *South Australian Climate Zone Map*. Retrieved from Australian Building Codes Board: https://www.abcb.gov.au/sites/default/files/resources/2022/Climate-zone-map-sa.pdf

ABS. (2014). *Climate Zone*. Retrieved from Australian Bureau of Statistics: https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/4671.0main+features172012#:~:text=Zone%206%20%E2%80%93%20Mild%20temperate%20(low,hot%20summers%2C%20moderate%20humidity

Attorney Generals Department. (n.d). *Managing Aboriginal Heritage in South Australia*. Retrieved from https://cdn.environment.sa.gov.au/landscape/docs/hf/Managing-Aboriginal-heritage-in-South-Australia-2024.pdf

BOM. (2024). *Rainfall update*. Retrieved from Bureau of Meteorology: http://www.bom.gov.au/climate/rainfall/

DCCEEW. (2013). *Australia's Ramsar Sites.* Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/water/wetlands/publications/factsheet-australias-ramsar-sites

DCCEEW. (2023). *Australia's bioregion (IBRA)*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/environment/land/nrs/science/ibra

DCCEEW. (2024). *About the Lake Eyre Basin*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/water/policy/national/lake-eyre-basin/about

DCCEEW. (2024). *Murray-Darling Basin*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/water/policy/mdb

DCCEEW. (2024). *Protected Matters Search Tool*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool

DEH. (2009). South Australian Arid Lands Biodiversity Strategy. In D. f. Board, *South Australian Arid Lands Natural Resources Management Region.*

DEH. (2009). *South Australian Arid Lands Biodiversity Strategy.* Adelaide: Department for Environment and Heritage.

DEM. (2021). *Promoting South Australia's geoheritage*. Retrieved from Department for Energy and Mining : https://www.energymining.sa.gov.au/industry/geological-survey/mesa-journal/previous_news/news-articles-2021/promoting_south_australias_geoheritage

DEM. (2024). *Environmental Impact Assessment Criteria - Hydrogen and Renewable Energy - Information Sheet 007.* Adelaide: Department for Energy and Mining.

DEM. (2024). *Environmental Impact Assessment Criteria Guidelines. Hydrogen and Renewable Energy Regulatory Guidelines HRERG002 .* Adelaide: Department for Energy and Mining.

DEW. (2009). *Census of South Australian Vertebrates.* Retrieved from Department of Environment, Water and Natural Resources: https://data.environment.sa.gov.au/Content/Publications/Census-of-SA-Vertebrates-2009.pdf

DEW. (2020). *Acid Sulphate Soil Potential*. Retrieved from South Australian Government Data Directory: https://data.sa.gov.au/data/dataset/acid-sulphate

DEW. (2020). *Kangaroo Island 2018-19 water resources assessment, DEW Technical report 2020/34.* Adelaide: Department for Environment and Water.

DEW. (2024). *Heritage Agreements*. Retrieved from Department for Environment and Water: https://www.environment.sa.gov.au/topics/native-vegetation/protecting-enhancing/heritage-agreements

DEW. (2024). *NatureMaps*. Retrieved from Department for Environment and Water: http://spatialwebapps.environment.sa.gov.au/naturemaps/?locale=en-us&viewer=naturemaps

DEW. (2024). *Ramsar Wetlands*. Retrieved from Department of Environment and Water: https://www.environment.sa.gov.au/topics/water-and-river-murray/water-information-and-data/water-resources-and-environments/ramsar-wetlands

DEW. (2024). *Threatened animal species*. Retrieved from Department for Environment and Water: https://www.environment.sa.gov.au/topics/biodiversity/threatened-species-and-ecological-communities/threatened-species/threatened-animal-species

DEW. (2024). *Threatened plant species*. Retrieved from Department for Environment and Water: https://www.environment.sa.gov.au/topics/biodiversity/threatened-species-and-ecological-communities/threatened-species/threatened-plant-species

DEW. (2025). *About the River Murray*. Retrieved from Department of Environment and Water: https://www.environment.sa.gov.au/topics/water-and-river-murray/basin-river-murray-lakes-and-the-coorong/about-the-river-murray

DEW. (2025). *Flora of South Australia, 5th Edition*. Retrieved from Department for Environment and Water: https://www.environment.sa.gov.au/topics/science/science-research/state-herbarium/resources/publications/flora-of-sa

DIT. (2022). *Phytophthora (Dieback) Control Environmental Instruction*. https://www.dit.sa.gov.au/standards?a=921168

DPC. (n.d). *Discovery of Aboriginal Sites and Objects*. Retrieved from Department of the Premier and Cabinet: https://www.agd.sa.gov.au/__data/assets/pdf_file/0011/807716/Discovery_SitesandObjects.pdf

DPTI. (2013). *A Functional Hierarchy for South Australia's Land Transport Network.* Retrieved from Department of Planning, Transport and Infrastructure: https://www.sa.gov.au/__data/assets/pdf_file/0016/10609/A_Functional_Hierarchy_for_SAs_Land_Transport_Network.pdf

Electranet. (2024). *Network Map*. Retrieved from Electranet: https://electranet.com.au/network/map/

Energy Networks Australia. (2024). *SA Power Networks*. Retrieved from https://www.energynetworks.com.au/members/sa-power-networks/#:~:text=SA%20Power%20Networks%20is%20South,88%2C000%20kilometres%20of%20power%20lines

EPA. (2007). *Site contamination -acid sulphate soil materials.* Adeliade: Environmental Protection Agency.

EPA. (2011). *Torrens River, 1 km west from Birdwood 2011 Aquatic Ecosystem Condition Report*. Retrieved from Environment Protection Agency: https://www.epa.sa.gov.au/reports_water/c0267-ecosystem-2011

EPA. (2018). *Features of South Australia*. Retrieved from Environment Protection Agency: https://www.epa.sa.gov.au/soe-2018/introduction/features-of-south-australia

EPA. (2019). *Guidelines for the Assessment and Remediation on Site Contamination.* Adelaide: Environment Protection Agency.

EPA. (2023). Information sheet - construction noise.

EPA. (2023). *Kangaroo Island landholders' water security plans*. Retrieved from Environment Protection Agency: https://soe.epa.sa.gov.au/resources/case-studies-papers/ki-preparing-for-future-droughts

EPA. (2023). *The State We're In.* Adelaide: Environment Protection Agency.

EPA. (2024). *Groundwater*. Retrieved from Environment Protection Agency: https://www.epa.sa.gov.au/environmental_info/water_quality/groundwater

Government of South Australia. (2004). Gawler Ranges soil conservation district plan. *Government of South Australia and Soil Conservation Council of South Australia*.

Government of South Australia. (2016). Land systems and reports. *Soil and land fact sheet no. 44. retrieved from https://data.environment.sa.gov.au/Content/Publications/SoilAttrib_FactSheet44_LandSystems.pdf*.

Government of South Australia. (2024). *Groundwater*. Retrieved from Government of South Australia.

Government of South Australia. (2024). *Our electricity supply and market*. Retrieved from Government of South Australia: https://www.energymining.sa.gov.au/consumers/energy-grid-and-supply/our-electricity-supply-and-market#:~:text=South%20Australia%20generates%20more%20than,its%20electricity%20from%20renewable%20sources

Government of South Australia. (n.d). *Eyre Yorke Block*. Retrieved from Government of South Australia: https://cdn.environment.sa.gov.au/landscape/docs/hf/eyre-yorke-block-bio-region-plus-bioicons-fact.pdf

Government of South Australia. (n.d). *Flinders Lofty Block*. Retrieved from Government of South Australia: https://cdn.environment.sa.gov.au/landscape/docs/hf/flinders-lofty-block-bio-region-plus-bioicons-fact.pdf

Government of South Australia. (n.d). *Kanmantoo*. Retrieved from Government of South Australia: https://cdn.environment.sa.gov.au/landscape/docs/hf/kanmantoo-bio-region-plus-bioicons-fact.pdf

Government of South Australia. (n.d). *Muray-Darling Depression*. Retrieved from Government of South Australia: https://data.environment.sa.gov.au/Content/Publications/murray_darling_depression_2013.pdf

Government of South Australia. (n.d). *Naracoorte Coastal Plain*. Retrieved from Government of South Australia: https://cdn.environment.sa.gov.au/landscape/docs/hf/naracoorte-coastal-plain-bio-region-plus-bioicons-fact.pdf

Government of South Australia. (n.d). *Victorian Volcanic Plain*. Retrieved from Government of South Australia: https://cdn.environment.sa.gov.au/landscape/docs/hf/victorian-volcanic-plain-bio-region-plus-bioicons-fact.pdf

Harrington, N., & Cook, P. (2014). *Groundwater in Australia.* Adelaide: National Centre for Groundwater Research and Training.

Higgins, P., Peter, J., & Steele, W. (2001). Handbook of Australian, New Zealand and Antarctic Birds. *Volume 5: Tyrant- Flycatchers to Chats. Oxford University Press, Melbourne.*

Idcommunity. (2024). *Greater Adelaide*. Retrieved from https://profile.id.com.au/australia/about?WebID=290

Landscape SA. (2024). *7 important SA river systems you may not have heard about*. Retrieved from Landscape SA: Hills and Fleurieu: https://www.landscape.sa.gov.au/hf/news/7-important-sa-river-systems-you-may-not-have-heard-about-3

Landscape SA Arid Lands. (n.d). *Consultation Report: Water Allocation Plan for the Far North .* Landscape SA Arid Lands.

N&Y NRMB. (2008). *Northern and Yorke regional NRM plan, Volume A: State of the region report.* Crystal Brook: Northern and Yorke Natural Resources Management Board.

Rangelands. (2008). *Flinders Lofty Block bioregion.* Canberra: Department of Climate Change, Energy, Environment and Water.

Rangelands. (2008). *Gawler bioregion*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/sites/default/files/env/resources/a8015c25-4aa2-4833-ad9c-e98d09e2ab52/files/bioregion-gawler.pdf

Rangelands. (2008). *Murray-Darling Depression bioregion*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/sites/default/files/env/resources/a8015c25-4aa2-4833-ad9c-e98d09e2ab52/files/bioregion-murray-darling-depression.pdf

Rangelands. (2008). *Nullarbor bioregion*. Retrieved from Department of Climate Change, Energy, the Environment and Water: https://www.dcceew.gov.au/sites/default/files/env/resources/a8015c25-4aa2-4833-ad9c-e98d09e2ab52/files/bioregion-nullarbor.pdf

SA Water. (2025). *Groundwater*. Retrieved from SA Water: https://www.sawater.com.au/water-and-the-environment/south-australias-water-sources/groundwater-sources#:~:text=Most%20aquifers%20are%20located%20in,the%20city%20of%20Mount%20Gambier

South Australian Government. (2025). *SARIG map*. Retrieved from https://map.sarig.sa.gov.au/

SPC. (2020). *Native Vegetation*. Retrieved from State Planning Reform: https://plan.sa.gov.au/__data/assets/pdf_file/0008/597842/Fact_Sheet_-_Native_Vegetation.pdf

Appendix A

Agency consultation (EIR)

Stakeholder	Document ref	Comment	DEM response
DEW Coast & River Murray		Meteorological masts and associated works have the potential to impact on sensitive environmental features (including native vegetation, wetlands, dunes, cliffs and visual amenity) and threatened species and/or ecological communities. There is also a risk that infrastructure may be impacted by hazards such as flooding, erosion and acid sulphate soils. In order to minimise these risks, it is recommended that the Planning and Design Code's Coastal Areas Overlay, Coastal Flooding Overlay and the River Murray Flood Plain Protection Area Overlay (or alternatively, the River Murray 1956 floodplain, or the 1% Annual Exceedance Probability Event being in the range* of 226,000ML-235,000ML per day flow at the border scenario) also be excluded from the coverage of the EIR. As stated in the EIR, should meteorological masts be proposed in areas excluded by the EIR, the proponents would be required to develop a separate EIR and SEO for assessment against the HRE Act. A separate process would also include a referral to the Coast Protection Board and the Minister responsible for the *River Murray Act 2003* for consideration. (*Reference: Bloss CM, Eckert G & Cetin L, 2015, *River Murray flood mitigation planning: Assessment of flood consequences, DEWNR Technical report 2015/56*, Government of South Australia, through Department of Environment, Water and Natural Resources, Adelaide).	Planning and Design Code's Coastal Areas Overlay, Coastal Flooding Overlay and the River Murray Flood Plain Protection Area Overlay have been excluded from the scope of the EIR. Correct, that a separate EIR and SEO would need to be prepared and would be referred to the Coast Protection Board and the Minister responsible for the *River Murray Act 2003*.
DEW Coast & River Murray		Whilst it is acknowledged that the list of legislation relevant to REFP activities (EIR pages 11-12) is referenced as 'not comprehensive', it is considered that given the Coast Protection Board is a referral body prescribed under HRE Regulation 40(2)(b), the *Coast Protection Act 1972* should be included in the list. Similarly, DEM should consider inclusion of the *River Murray Act 2003* as a prescribed Act listed in HRE Regulation 40(5)(t).	Suggested Acts have been added to Section 2.4.
DEW Coast & River Murray		With regard to landscape and visual amenity, the EIR and SEO refers to the intent for meteorological masts to be installed away from public viewpoints, however there appears to be no clarification of what a public viewpoint entails. It is recommended that DEM consider defining the term in the EIR and within that definition include	Text has been updated to clarify that public viewpoints will be *preferentially avoided,* understanding that it's not

		views from the sea and the River Murray (e.g. from recreational boats and watercraft, cruise ships, ferries etc).	possible to completely avoid visual impact from all public locations (including from water users) across the state.
DEW Green Adelaide		While the EIR lists notable weeds or threatened species in different regions of the state, these lists are not static i.e. as new incursions of pests or pathogens arise, they need to be considered, and a threatened species may not be on any list but still needs to be protected. DEW suggest that under each list within the EIR that the word current is used, and or, put a proviso in that the lists are not static and can change over time. Also suggest seeking information from the relevant landscape board for updated lists.	Text included to reflect that the list is not static and that information on weeds can be sought from the relevant landscape board. Text has also been updated to reflect that the listed weeds are current.
DEW Conservation and wildlife	General	Is there an opportunity to use met masts installed at potential wind farm sites to collect more than just meteorological data, for example could they measure bat activity at relevant height/s, and potentially bird monitoring for species of concern? Has this been considered, and/or undertaken on similar structures interstate?	Text has been included to reflect that technology is available to achieve this.
DEW Conservation and wildlife	General	How will cumulative impacts of multiple met masts be considered? Clearance of "usually less than 1.0 ha" per met mast sounds like quite a significant area with potentially significant (and permanent) impacts, regardless of whether they are *"generally limited in scope, temporary, of small footprint and low environmental impact when compared with larger renewable energy infrastructure projects".*	All native vegetation clearances are subject to the relevant approval from the Native Vegetation Council. This EIR and SEO exclude projects deemed to have a significant impact to MNES and projects deemed to have a risk level 4 in accordance with the NVC risk assessment fact sheet.
DEW Groundwater	Section 4.2.2 of EIR	Has existing environment been described adequately as far as this is relevant to the proposed operations? [No response required] DEW notes that groundwater has been identified as being an environmental element that may be impacted by the proposed development. However, the description of groundwater environments is generic and focussed on a large regional scale. Linking this description to site scale groundwater-related impacts or impact pathways is difficult. As per the Environmental Impact Assessment Criteria Guidelines (Hydrogen and Renewable Energy Regulatory Guidelines HRERG002), DEM (2024) (Page 6), the overview of each groundwater resources identified within	As noted, the guideline directs proponents to provide a sufficient level of detail about their specific project site to further establish the existing environment. The guideline considers that projects that develop an EIR and SEO will be specific to a

		the freehold land constituting the REFP study area as shown in Figure 1 should include the following: • the specific aquifers. Description should include: o Type of shallow aquifer: unconfined, confined. o Lateral extent and thickness of the shallow aquifers, main lithology of each aquifer. • Existing groundwater users and if quality or quantity, or both, has the potential to be impacted. • Where there are no known users, the quality or quantity, of a groundwater aquifer, or both, that has the potential to be impacted. • Groundwater Dependent Ecosystems (GDEs), if present. • The sustainability or vulnerability of the groundwater resource to additional use or impacts. • The hydrodynamics of the groundwater system. Whilst the level of publicly available groundwater information and the potential risks of a project on groundwater may vary, an appropriate amount of information concerning the site-specific groundwater hydrodynamics is expected. Such aspects of hydrodynamics, as deemed appropriate, may include: o Depth to water table. o Zone of water table fluctuation. o Recharge areas and rates. o Discharge areas. o Water balance o General groundwater flow directions, hydraulic gradients. o Hydraulic conductivity, effective porosity, groundwater flow rate/velocity. o Tidal information A table listing each of the groundwater resources and associated groundwater uses. Potential preferential pathways.	particular site. In this instance, the EIR being prepared is appliable to non-designated (free-hold land) in South Australia, it is not reasonable in this instance for the guideline to be applied, e.g. that each aquifer within the State is described. However, this level of detail is required to be investigated and reported by the proponent that elects to use this EIR to demonstrate that there are no unacceptable impacts as a result of their activity – this is generally done through an assessment against the SEO, or through the OMP where required.
DEW Groundwater	Section 5.2 of EIR Impact ID #SOI03: Spills of fuel or chemicals result in deterioration of groundwater quality.	Have the potential impacts on the environment that may arise from the proposed operations been captured? The potential impact on groundwater resources has been identified. However, the Source-Receptor-Pathway (SRP) has not been completely captured. For groundwater resources the following should be included:	Suggested text has been adopted as relevant.

		• Pathway
		  ○ Leaching/infiltration through unsaturated soil to shallow groundwater
		  ○ Migration through shallow aquifers to receptors
		  ○ Recharge from surface water bodies (after run-off of spills to surface water).
		• Receptor
		  Include:
		  ○ Groundwater
		  ○ Existing users
		  ○ Rivers, creeks, wetlands
		  ○ Groundwater Dependent Ecosystems (GDE)
		• Source-Pathway-Receptor uncertainties and assumptions
		  ○ Surface area will be relatively small.
		  ○ Contaminant would be limited to shallow soil zone.
		  ○ Natural attenuation of contaminant
		  ○ Location of GDEs, existing users and other receptors has not been determined
		  ○ Thickness of unsaturated zone, aquifer type, depth to water table, groundwater flow direction, gradient and flow rate and recharge rate have not been determined.	

DEW Science and information		At present, there is no strategic assessment that considers whether the values and risks of a potential future development in a particular location would exclude it from feasibility data collection. If existing desktop information suggests lower energy generation potential and high environmental risks, it would be preferable to not pursue feasibility permits and subsequent licencing. Ideally, a strategic desktop assessment exercise would be completed from existing publicly available datasets by SA Govt, identifying areas suitable as release areas. Areas with lower energy generation potential and high environmental risks should be removed from the proposed REFP 'study area' (SEO / EIR Figure 1). There's no point in streamlining processes for feasibility data collection in locations where we ultimately don't want to foster development.	The EIR relates to non-designated (freehold) land within South Australia, and is not applicable to the HRE release areas. Under the Act, an applicant may apply for an REFP on non-designated land, authorised activities (construction of a met mast) can only be undertaken with a relevant EIR and SEO in place, an approved OMP in place, an agreement with the landowner, and in accordance with approvals from relevant agencies, where required.

			It should also be noted that on non-designated land, other methods for collecting feasibility data (that aren't authorised operations under the Act) can be undertaken in agreement with the landowner without the requirement for approval under the Act, for example LiDAR, SODAR, geotechnical investigations.
DEW Science and information	Scope: 1.2.1	Exclusion from coverage of this EIR- doesn't exclude native veg Heritage agreements or SEB's. There is a native vegetation comment below about needing to include impacts on heritage agreement areas, this could also be expanded to include SEB areas. Or perhaps it is better to exclude these areas from coverage of the EIR.	EIR has been updated so that native vegetation heritage agreement areas and SEB offset areas have been excluded from the scope.
DEW Science and information	Description of activities	Given met masts in this standard doesn't include the pastoral zone where there is uncleared native vegetation in low forms like chenopod shrublands the description is adequate however the assumption "masts are located in areas of limited native vegetation" could exclude where there is native grasslands and low forms remnant on freehold land that supports biodiversity values. It will still be very important the proponents try to avoid siting where there is known biodiversity values.	As stated in the EIR "Where possible, masts are located in areas of limited native vegetation", the siting of met masts preferentially selects areas of limited native vegetation (where possible). Where the siting of a met mast results in impact to native vegetation, minimisation of impact must be demonstrated through an assessment against the SEO by a proponent. Through this, the proponent must demonstrate that the relevant objective of the SEO will be met. For biodiversity (see Section 5.2.3 of the EIR), this includes the requirement to

			obtain all relevant approvals from relevant co-regulators, i.e. native vegetation clearance approval.
DEW Science and information	Overview of existing environment Section 4.1.2	Section 4.1.2 doesn't have anything to suggest changing climate. Given the extent of the EIR it is very general information that is not necessarily useful. The information will sit more in the proponents OMP's.	Noted.
DEW Science and information	Section 4.3 Flora, fauna and biodiversity	Sufficient information to make an informed assessment. Data relating to biodiversity within the area of land to which the report relates that can reasonably be expected to be affected by authorised operations. Section on Pests is incomplete as it doesn't include things like feral pigs and hares, introduced rodents etc. Rather than a list again I would suggest a standard process and information source that can be updated. Section 4.5.3 not all land management for conservation is recognised under the acts listed or NVHA's and I don't think NVHA's and SEB's are reflected in any maps. It would be good to suggest a source like NatureMaps for proponents to identify all NVHA's and SEB's (Under Vegetation/Administration layers). Section 4.6.1 again can point proponents to DEW Heritage. NatureMaps which can map the layers for state and Commonwealth heritage areas and places but need to check when last updated.	Text for pest species has been updated to reflect relevant sources for information on pests. Text has been included to refer to SEB offset areas. Links to NatureMaps have been included.
DEW Science and information	sections 4.3.4 notable threatened flora and 4.3.5 Notable threatened fauna	Under sections 4.3.4 notable threatened flora and 4.3.5 Notable threatened fauna given the requirement for proponents to address all likely impacts it is confusing and potentially misleading to provide a shortlist of species from Landscape Board websites and plans given these are not the legal standard proponents need to address. Current appropriate tools for proponents to gather information is as per the footnote the EPBC Act Protected Matters Search Tool and the Biological Databases of South Australia would typically be used for a specific project to identify all potentially occurring threatened species. This document should point to the process standard that needs to be met rather than a list of species in the same way the cultural heritage section points to a process standard not a list of cultural sites. Suggest removing table 2 and 3. The Landscape Plans have a different purpose such as community education and outreach on funded projects and do not reflect the biodiversity values needing to be considered by development proponents. Landscape Plans are only updated every 5 years and are not comprehensive. Not section relevant to DEW but there is a typo in section 4.6.1 that should read" Central Archive which is administered by the AGD-AAR" not AR-AGD.	Additional text has been included to reflect that project specific searches should be conducted on the relevant databases to identify potentially impacted species. AR-ADG has been amended.
DEW Science and information		Suggests all clearance will be approved if there is an offset. Suggest rewording section 4.3.1 to "Where native vegetation clearance is approved under the Act or Regulations it requires a 'significant environmental benefit' to be implemented to	Suggested text adopted.

		offset the clearance, in accordance with guidelines published by the Native Vegetation Council"	
DEW Science and information	5.2 Standard EIR summary tables	For impact ID#HER02 SEB's should also be added to be identified and avoided. Good siting of met masts avoids the likelihood and consequence of most impacts. Control measures seem adequate.	SEB sites have been included in control measures to be identified and avoided.
DEW State heritage	Terminology	Overall, the draft EIR uses broader terms than the *Heritage Places Act 1993* (HP Act). • Remove the reference to 'cultural' when referring to non-aboriginal heritage. ○ The use of the word cultural can be confused with Aboriginal heritage.	References to 'cultural' when referring to non-Aboriginal culture have been remove where appropriate.
DEW State heritage	Section 4.6	• The use of the title 'non-aboriginal heritage' is not suited to heritage listings under the EPBC Act or World Heritage listed sites as these listings include aboriginal heritage.	Noted, document has been updated.
DEW State heritage	Section 4.6	• Consider inserting 'over' before 2,300 State Heritage Places (the current number is 2347 but will continue to change as more places are listed).	Document updated with suggested text.
DEW State heritage	Section 4.6	• The HP Act also includes designated State Heritage Places (SHPs) of geological, palaeontological, speleological and archaeological significance – consider including in description of heritage on page 39.	Suggested texted adopted.
DEW State heritage	Section 5.2	• Change reference to Heritage Branch to Heritage South Australia, DEW	Suggested text adopted.
DEW State heritage	Statutory obligations	• The EIR acknowledges that official approval (i.e. a permit) is needed but does not elaborate the permit process (no mention of applying to the South Australian Heritage Council (the Council), permit conditions, or stop-work orders).	Elaboration for the process of obtaining a permit is outside of the scope of the EIR, the permit is identified in the EIR and a necessary control to mitigate/avoid impacts, i.e. a proponent could not commence works until a permit is in place. The onus is on the proponent to obtain the relevant permit and seek advice from the relevant statutory body where required.
DEW State heritage		• Applicants should be made aware of their obligations, especially if a potential site is near or impacts a known SHP. They should be made aware of the following requirements of the HP Act:	Suggested text has been adopted as control measures and assessment criteria under impact ID HER02.

		○ If an archaeological artefact believed to be of heritage significance is encountered during excavation works, disturbance in the vicinity shall cease and the Council will be notified. ○ Where it is known in advance (or there is reasonable cause to suspect) that significant archaeological artefacts may be encountered, a permit is required prior to commencing excavation works.	
DEW State heritage	Missing HP Act Elements	• Immediate stop and notification: The HP Act explicitly requires anyone finding a heritage artefact to "cease to excavate" and notify the Council "within the period specified by the regulations" ○ P. 85 The EIR only directs those finds be "reported… consistent with requirements of HP Act" – it does not explicitly state the legal duty to stop the works. ○ Consider adding information about the need to stop works as per HP Act.	Text has been updated to reflect requirements specified in the HP Act.
DEW Native vegetation & Pastoral lands	Other legislation	- Include reference to the *Pastoral Land Management and Conservation Act 1989*, as it is possible that a met mast is constructed on pastoral land.	REFPs are not applicable to pastoral land, they are only applicable to non-designated land.
DEW Native vegetation & Pastoral lands	Elements of the environment:	- A lack of specificity (while acknowledging the limitations of a standard template) -	Noted.
DEW Native vegetation & Pastoral lands	Elements of the environment:	- 4.3.1 and 4.3.2 – Native vegetation is split across two sections. Could just be captured under 4.3.1 and leave 4.3.2 as native fauna. -	4.3.2 native flora and fauna is introducing both categories to be discussed in sections below. 4.3.1 is specifically discussing the state of native vegetation in the State.
DEW Native vegetation & Pastoral lands	Elements of the environment:	- Page 26 (section 4.3.4) contains an error, stating that Notable threatened flora species are presented in "Error! Reference source not found". -	Updated.
DEW Native vegetation & Pastoral lands	Elements of the environment:	- Page 42 (section 5.1.1): include heritage agreements or other conservation sites in environmental elements identified.	Existing land use has been included to reflect conservation areas, noting that heritage agreement areas and SEB offset areas are

			outside of the scope of this EIR.
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	- Recommending that documentation acknowledges: the mitigation hierarchy.	Section 5.1.4 outlines the priority order of mitigation and controls (elimination being the priority).
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	- Be clear that clearance of native and non-native vegetation affects receptors such as soil quality, surface water/users, migration/fauna, unknown Aboriginal heritage sites, and objects or remains.	Demonstrated through impact IDs and impact assessment.
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	- A faulty assumed correlation between project area and environmental damage (omitting the influence of that area's biodiversity score).	The disturbance of a specific project area (as identified by the elements of the environment, including biodiversity) is directly correlated with the level environmental damage.
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	- Questioning the decision to discuss offsetting in the "Impact significance summary" when rehabilitation is listed as a control measure.	Text added to reflect that where required, under an approval for native vegetation clearance by the Native Vegetation Council, an on-ground offset or payment to the fund is undertaken
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	- Swapping DEW for the Native Vegetation Council when discussing the potential need for approvals in cases of unavoidable native vegetation clearance (page 61).	Suggested edit adopted.
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	- When discussing land rehabilitation as a control measure (page 60), it is important to note that any rehabilitation effort must be undertaken in accordance with a Native Vegetation Council-approved management plan.	Suggested text added.
DEW Native vegetation & Pastoral lands	Environmental Impacts/Objectives/Mitigation/Assessment	Prioritising on-ground offsets over payments to the fund.	Text added to reflect this in section 4.3.1
DEW	Environmental Impacts/Objectives/Mitigation/Assessment	Consider including reference to critical habitat (if the Biodiversity Bill is passed).	Noted.

Native vegetation & Pastoral lands			
DEW Native vegetation & Pastoral lands	Assessment Criteria	- The EIR implies that clearance approval is not required if the application meets certain circumstances prescribed under Regulation. Though it clarifies this in footnote 5, it would be more effective in the main body of text.	Noted, for the purposes of the EIR the text is considered suitable with clarification in the footnote.
DEW Native vegetation & Pastoral lands		- Remove the word 'generally' from the following sentence: "Clearance under the Act or Regulations ~~generally~~ requires a 'significant environmental benefit' to be implemented to offset the clearance."	Text amended as suggested in section 4.3.1.
AAR	Table of contents	4.6.1 Aboriginal ~~cultural~~ heritage	Amended.
AAR	1.2.1 Exclusions and Constraints	Footnote #1 Appropriate authorisation under the *Aboriginal Heritage Act 1988* is needed for any excavations or test pitting where required (e.g. if undertaken within ~~existing registered~~ Aboriginal sites).	Amended.
AAR	2.1.2 Environmental Impact Report	• an assessment of the ~~cultural and~~ heritage and cultural values of Aboriginal ~~and Torres Strait Islander persons~~ people and other persons ~~within~~ in relation to the area of land to which the report relates that can reasonably be expected to be affected by authorised operations, and the public health and safety risks inherent in undertaking those operations (insofar as these matters are relevant in the particular circumstances)	Amended.
AAR	4.6.1 Aboriginal heritage	4.6.1 Aboriginal ~~cultural~~ heritage Aboriginal sites, objects and remains (together, Aboriginal heritage) ~~can be present on all land within~~ may intersect any part of the State, including freehold land. Aboriginal sites, objects or remains are defined under Section 3 of the *Aboriginal Heritage Act 1988* (AH Act) as being of significance to Aboriginal tradition or Aboriginal archaeology, anthropology or history. The ~~Aboriginal Affairs and Reconciliation division of the~~ Attorney-General's Department – Aboriginal Affairs and Reconciliation (AAR ~~AGD~~) has published guidelines and fact sheets to assist proponents with identifying and protecting Aboriginal heritage such as: • *Managing Aboriginal Heritage in South Australia* guide (Attorney-	Amended

		Generals Department, n.d) which provides information on how to ~~find~~ search AAR's central archives and access ~~recorded~~ information on the central archives, ~~who to liaise with~~ engagement with Traditional Owners and ~~what~~ actions ~~can be taken~~ to take to ensure Aboriginal heritage ~~sites, objects or remains are~~ is not damaged, disturbed or interfered with during project activities. • *Discovery of Aboriginal Sites and Objects* fact sheet (DPC, n.d) which provides guidance on what to do should an Aboriginal ~~site, object or remain~~ heritage be found. The fact sheet includes important information ~~on potential Aboriginal sites~~ about culturally sensitive areas (e.g. areas within close proximity to creeks, rivers, watercourses etc) and stopping works in the vicinity of the heritage discovery and reporting it to the Minister for Aboriginal Affairs, through AAR. ~~Reporting guidelines are provided (e.g. stop work procedures), together with managing any areas of Aboriginal heritage discovery.~~ ~~As noted in the *Discovery of Aboriginal Sites and Objects fact sheet (DPC, n.d.)*~~ Certain landscape features are more likely to contain evidence of Aboriginal occupation and/or be Aboriginal sites and therefore pose a higher risk for the discovery of Aboriginal ~~sites and objects~~ heritage. ~~Unusual~~ Landscape features that often have cultural significance include distinctive hills, rocky outcrops, rock holes or trees. Other examples of landscape features and the types of Aboriginal sites that they are often associated with, and which may be considered ~~cultural~~ Aboriginal sites ~~by Aboriginal People~~(DPC, n.d) include: • clay pans, lakes, rivers and estuaries may contain stone artefact scatters, shell middens, rock art, campsites and stone arrangements • rocky outcrops may contain quarries, rock art, rock holes, stone arrangements, ceremonial sites and stone artefact scatters • dunes and sand hills may include stone artefact scatters, campsites and burials • craters and sink holes are often cultural sites	

		• areas in close proximity to the coast may include campsites, stone artefact scatters, shell middens and burials • areas within close proximity to creeks, rivers, watercourses, lakes, waterholes, rock holes, wells and springs, whether permanent, seasonal or ephemeral, may also contain campsites, stone artefact scatters, burials and other signs of Aboriginal occupation, especially in arid zones • areas which have been less developed, such as parks, open land or road verges, may still contain artefact scatters or subsurface archaeological material such as burials and earth ovens • places bearing Aboriginal names, or place names which are English translations of Aboriginal names or indications of Aboriginal interaction with the landscape The *Aboriginal Heritage Act 1988* (AH Act) provides for the legal protection and preservation of all Aboriginal heritage (known and unknown) in the State. ~~Aboriginal sites, objects and remains of significance and outlines the obligations of parties to disclose sites, objects and remains.~~ Under Section 20 of the AH Act, all Aboriginal heritage must be reported to the Minister for Aboriginal Affairs as soon as practicable. Reports must give particulars of the nature and location of the heritage discovery and may be made to AAR to satisfy this requirement. Discoveries of potential human remains must be reported to SA Police immediately on 131 444, as required under the *Coroners Act 2003*. Under Section 21 of the AH Act, it is an offence to excavate land for the purposes of uncovering Aboriginal heritage without authorisation from the Minister for Aboriginal Affairs. Under Section 23 of the AH Act, it is an offence to damage, disturb or interfere with Aboriginal ~~sites, objects or remains~~ heritage ~~unless prior written~~ without authorisation ~~has been obtained~~ from the Minister for Aboriginal Affairs. ~~Aboriginal sites, objects or remains are defined under Section 3 of the AH Act as being of significance to Aboriginal tradition or Aboriginal archaeology, anthropology or history.~~ The AH Act establishes the central archives, which includes ~~requires the maintenance~~ the Register of Aboriginal Sites and Objects (Register) ~~part of the~~	

		~~Central Archive which is administered by the AR AGD~~. The ~~Register~~ central archives hold information on ~~registered and~~ recorded heritage ~~sites, objects or remains~~ throughout the State; however, it is not a complete record ~~as not~~ of all ~~sites~~ heritage in the State ~~are put forward by Traditional Owner groups for inclusion on the Register~~. Undertaking a search of the ~~Register~~ central archives prior to undertaking any ground-disturbing works will reduce the risk of inadvertently damaging, disturbing or interfering with ~~registered~~ any recorded ~~sites, objects or remains~~ Aboriginal heritage. Early consultation with relevant Traditional Owners about a proposed project is a key step in understanding the Aboriginal heritage profile of the area and how Aboriginal heritage may be protected and avoided during project works. Feedback from Traditional Owners may include information on whether specific elements of a project pose particular risk to known or unknown Aboriginal heritage. Importantly, early engagement may allow any future project to be designed in a way that does not impact Aboriginal heritage, potentially minimising project costs and delays. ~~Undertaking Aboriginal heritage surveys on freehold land can only occur with the written approval of the landowner. If approval is not provided,~~ Mitigation measures to reduce the risk of damaging, disturbing or interfering with ~~sites, objects or remains~~ Aboriginal heritage ~~would generally be implemented including~~ include: • a search of the ~~Register~~ central archives • early engagement with the relevant Traditional Owners of the project area about the proposed works • undertaking an on-ground Aboriginal heritage survey with Traditional Owners especially over areas where ground-disturbing works are proposed • a desktop assessment of the area by ~~an experienced and qualified~~ an anthropologist/archaeologist • engagement of Aboriginal heritage monitors to observe ground-disturbing works • the development of a Cultural Heritage Management Plan in consultation with relevant Traditional Owners.	
AAR	5.2.7 Aboriginal and non-Aboriginal heritage	Capital letter for Aboriginal in heading.	Amended

AAR	5.2.7 Table: Context summary of Aboriginal and non-Aboriginal heritage	Environmental Receptor column – capital letter for Traditional Owner	Amended
AAR	5.2.7 Aboriginal and non-Aboriginal heritage	The impact events relevant to Aboriginal and non-Aboriginal heritage are: • Regulated activities result in damage or loss of known or unknown Aboriginal heritage ~~sites, objects or remains~~ • Regulated activities result in damage or loss of known or unknown non-Aboriginal heritage sites or artefacts. [Suggest rewording to align with wording in *Heritage Places Act 1993*] **Impact assessment outcomes** The impact assessment detailed in the following tables indicates that expected impacts could vary between **Negligible-Moderate**. The value and sensitivity of Aboriginal heritage sites, objects and remains are high but control measures such as ~~performing site specific~~ engagement with relevant Traditional Owners and undertaking Aboriginal heritage assessments are in place to avoid or manage impacts to ALARP.	Amended.
AAR	5.2.7 Table: Aboriginal heritage: *Impact ID #HER01*	Impact event - Regulated activities result in damage or loss of known or unknown Aboriginal ~~heritage~~ sites, objects or remains	Amended
AAR	5.2.7 Table: Aboriginal heritage: *Impact ID #HER01*	Source: ▪ Vegetation clearance ~~and~~ ▪ Earthworks for meteorological mast installation, new access tracks, grading existing access tracks, investigative drilling, ~~and~~ construction of temporary laydowns and constructing and/or installing any other project elements that require ground disturbance ▪ Decommissioning of project elements that require ground disturbance.	Amended where relevant, access tracks and investigative drilling are outside of the scope of activities of this EIR.
AAR	5.2.7 Table: Aboriginal heritage: *Impact ID #HER01*	Receptor - Capitalisation of Traditional Owner	Amended

		Confirmation of SPR: - Yes –Aboriginal heritage ~~can be present on all land~~ may intersect the project area SPR uncertainties and assumptions: - Consultation with Traditional Owners may identify sites of ~~Aboriginal significance~~ Aboriginal heritage within the study area. Surveys may find Aboriginal ~~objects or remains~~ heritage not previously recorded or ~~registered~~ determined. - The location of the activity ~~site~~ area and proximity to identified Aboriginal heritage ~~sites, objects or remains~~ has not been ~~determined~~ ascertained.	
AAR	5.2.7 Table: Aboriginal heritage: *Impact ID #HER01*	Control measures: ▪ Traditional Owners consulted and cultural heritage survey or 'work area clearance' undertaken prior to land disturbing activities and other activities as required in accordance with relevant Native Title Agreement (if applicable [AAR assumes that most RELFs would be granted over freehold land (acknowledging that non-designated land could in some instances include Crown land)]). ▪ ~~AGD~~ AAR ~~database~~ central archives search is conducted and the area for construction is clear of any ~~known/registers sites, objects or artefacts~~ known Aboriginal heritage ▪ Land disturbance is confined to areas subject to cultural heritage survey or work area clearance and undertaken in accordance with ~~conditions~~ recommendations of the survey or work area clearance. ▪ Procedures consistent with the relevant obligations under the Native Title Agreement (if applicable) and *Aboriginal Heritage Act 1988* are in place to appropriately report and respond to any ~~areas of significance~~ Aboriginal heritage discovered during activities. ▪ Any Aboriginal heritage ~~sites, objects and remains~~ discovered during operations are appropriately reported and responded to, consistent with ~~the~~ any applicable Native Title Agreement, the *Aboriginal Heritage Act 1988* and the *Coroners Act 2003*. ▪ All works stop in the vicinity of the Aboriginal heritage discovery. ▪ Known heritage sites are identified and protected from operations. Where necessary, ~~cultural~~ Aboriginal heritage ~~sites~~ or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance. ▪ Proponents and their contractors have a reporting system in place for	Amended

		~~cultural sites~~ Aboriginal heritage discovered during activities. ▪ All survey personnel receive appropriate cultural heritage training prior to work commencing. ▪ (Note that cultural heritage clearances, work area clearances and cultural heritage management plans are not defined under or referenced by the *Aboriginal Heritage Act 1988* and cannot authorise impacts to Aboriginal heritage.)	
AAR		Environmental significance assessment: **Impact significance summary (avoidance, frequency, duration, extent, severity, cumulative, sensitivity, ALARP):** Sensitivity of the receiving environment will vary, given the presence of Aboriginal heritage and occurrence of landforms that have a higher likelihood of being associated with Aboriginal heritage. The value and sensitivity of Aboriginal heritage ~~sites, objects and remains~~ are **high** but control measures such as performing site specific Aboriginal heritage assessments are in place to avoid or manage impacts to ALARP. The proposed activities are small scale and generally require limited vegetation clearance and earthworks. Potential cumulative effects to Aboriginal heritage depends on the scope of other projects in the area but is generally expected to be low. With the proposed control measures the magnitude of a potential impact is assessed as **low**.	Amended
AAR		Proposed environmental objective: No damage, disturbance or interference to Aboriginal heritage and non- Aboriginal heritage ~~sites, objects, remains~~ and places. Assessment Criteria: ▪ Records of audits/inspections carried out in accordance with the OMP demonstrate no damage, disturbance or interference ~~to~~ with any Aboriginal sites, objects and remains (all as defined under the *Aboriginal Heritage Act 1988*) unless authorisation has been obtained under the *Aboriginal Heritage Act 1988*. ▪ Any Aboriginal ~~heritage~~ sites, objects and remains (together, Aboriginal heritage) discovered during operations have been appropriately reported and responded to, consistent with ~~the~~ any applicable Native Title Agreement, the *Aboriginal Heritage Act 1988* and *the Coroners Act 2003*. • Works have stopped in the vicinity of the discovery of the Aboriginal heritage.	Amended

		Leading performance criteria: ▪ In the event the conditions of a cultural heritage survey or work area clearance(s) are not complied with, the incident is appropriately reported[8], investigated and remediated in consultation with the relevant Traditional Owners, Native Title holders and in accordance with any applicable Native Title Agreement. ▪ Development of and adherence to a cultural heritage management plan where ~~required~~ one is . In the context of an Aboriginal heritage discovery, reporting to AAR is required as soon as reasonably practicable pursuant to section 20 of the *Aboriginal Heritage Act 1988* and immediately to SA Police pursuant to the *Coroners Act 2003* if the discovery includes potential human remains	
EPLB	3.1 Meteorological masts *If the mast is to be removed, the mast structure is dismantled and trucked offsite…*	Refer to recent trials to determine best revegetation practice for vegetation type. This is particularly relevant in low rainfall areas where vegetation takes much longer to recover. For example: Hydroseeding ripped areas within the same year aids faster regeneration. This is due to the increased protection the hardened hydroseeding paper mache cover provides in holding the seed in place from wind, the maintenance of contact between soil particles and seed permitting germinated seed to gain a foothold, retaining soil moisture and the addition of fertiliser in the hydroseeding mix. Hydro seeding improves rehabilitation performance, but the key factor is the reduction of grazing pressure by fencing. The recommendation from a recent study Daniel, M et al. (2025) 'Samphire project - drill pad revegetion, a review of treatment and success' recommends fencing off all areas to be rehabilitated to prevent livestock, feral and over abundant native herbivores grazing on newly germinated plants	Text has been amended to reflect that site restoration should be considered on a case-by-case basis for best practice dependent on vegetation type.
EPLB	4.3.1 Native vegetation *Extensive land clearance has resulted in the removal of the majority of native vegetation in the agricultural districts of the State, with approximately 26% of native vegetation remaining (SPC, 2020).*	This is important in our region and in Eastern EP as these areas of uncleared vegetation support biodiversity including threatened species such as the Malleefowl and Western grasswren.	Noted.

	Pastoral areas in the north of the State remain largely uncleared (see Figure 5).		
EPLB	4.3.3 Threatened ecological communities	Missing the Critically Endangered 'Drooping sheoak grassy woodland on calcrete of the Eyre Yorke Block Bioregion', that occurs within the study area for the EIR, and our region. https://www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=172	Added to list.
EPLB	Table 3 Notable threatened fauna species - Eyre Peninsula	I think we should add to this list, the threatened Western Grasswren (Gawler Ranges) (Amytornis textilis myall, EPBC: VU, NPW: V) and Southern Whiteface (Aphelocephala leucopsis), and the vulnerable Heath goanna (varanus rosenbergi).	List has been updated to include the proposed threatened species. The EIR has also been updated so that proponents are directed to consult the EPBC PMST and DEW NatureMaps.
EPLB	Table 3 Notable threatened fauna species – South Australian Arid Lands	Vulnerable Yellow footed rock wallaby (Petrogale xanthopus) should be added.	As above, proponents will be directed to consult the EPBC PMST and DEW NatureMaps.
EPLB	4.3.7 Weeds, pests and pathogens *Declared weeds of note in the Study Area include:*	Gazania should be added to the weeds of note.	Added to the list of weeds.
EPLB	5.2.1 Soil and land quality Impact ID #SOI01 – Control measures	Vehicle hygiene is crucial for biosecurity to prevent the spread of weeds, pests, and diseases. It involves cleaning vehicles to remove potential contaminants and reducing the risk of introducing pest organisms onto a property.	This is considered a relevant control under impact ID BIO03.
EPLB	5.2.1 Soil and land quality Impact ID #SOI01 – Control measures Landowner consulted regarding land-disturbing activities to minimise potential for surface disturbance and facilitate rehabilitation (where required).	Consultation and advice from local Landscape Officers can also be useful.	Text included to reflect this.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact assessment outcomes *Potential impacts from the proposed activities are localised and small scale and readily manageable using standard control measures.*	Cumulative impacts need to be assessed for threatened species.	This EIR does not apply to projects that are deemed to have a significant impact to MNES, i.e. any project that would be required to be referred under EPBC.

			This EIR also excludes any proposed native vegetation clearance with a risk level rating of Level 3 or Level 4, with the provision for projects with a Level 3 rating to be assessed on a case-by-case basis. Cumulative impacts will be required to be assessed through ecological assessments and further control measures for avoidance implemented where required.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO01 control measures *Appropriately trained and experienced personnel will undertake ecological assessment prior to work and identify any areas of sensitivity or "no-go" areas.*	Consultation with local Landscape Officers is also useful	Text included to reflect this.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO01 environmental significance assessment *Potential cumulative effects for native vegetation regionally depends on scope of other projects in the area, but generally expected to be low.*	Cumulative impacts need to be assessed for threatened species flora and fauna, and looked at holistically along with other projects proposed for the area.	This EIR does not apply to projects that are deemed to have a significant impact to MNES, i.e. any project that would be required to be referred under EPBC. This EIR also excludes any proposed native vegetation clearance with a risk level rating of Level 3 or Level 4, with the provision for projects with a Level 3 rating to be assessed on a case-by-case basis.

			Cumulative impacts will be required to be assessed through ecological assessments and further control measures for avoidance implemented where required.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO01 environmental significance assessment *and site rehabilitated as required. Due to the factors mentioned above, the magnitude of the impact is assessed as* ***low.***	Look at best practices for rehabilitation by vegetation type. This is particularly important in low rainfall and drought affected	Noted, text has been updated in the EIR to reflect this.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO01 Assessment criteria All biodiversity data collected by an appropriately qualified professional and reported in accordance with HRE Regulation 32(2)(c).	Check this this includes the requirement to submit all survey data to the BDBSA or Biodiversity Data Repository DCCEEW https://www.dcceew.gov.au/environment/environment-information-australia/biodiversity-data-repository	This requirement is relevant to the BDBSA.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO03 control measures *Appropriate consultation regarding weeds, pathogens and pests is carried out with landholders and the Department of Primary Industries and Regions (PIRSA) / DEW / SAAL Landscape Board (where relevant).*	This should include all Landscape Boards (where relavant) not just SAAL.	Text updated
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO03 control measures *Environmental assessment undertaken during the planning stage to identify specific weed, pathogens and/or pests at*	Weed data/pest data should be shared with the relevant Landscape Board.	Text updated.

	the site or within transport routes to the site		
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO03 control measures 5.2.3 Flora, fauna and biodiversity – Impact ID #BIO03 control measures *Management procedures in place to prevent the spread of identified weeds / diseases / pathogens.*	Refer to Landscape Board's Regional and District Pest Action Plans.	Text updated.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO03 control measures *Where relevant, a specific environmental management plan for Buffel Grass will be developed and implemented.*	Relevant for all regions.	Noted.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO04 control measures *Appropriately trained and experienced personnel will undertake ecological assessment prior to work and identify any areas of sensitivity or "no-go" areas*	Consultation with local Landscape Officers is useful here.	Text updated.
EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO04 Assessment criteria *Ecological assessment by appropriately trained and experienced personnel undertaken to determine baseline biodiversity of the site and to identify and avoid any areas of sensitivity or "no-go" areas.*	Submit all survey data to the BDBSA or BDR.	Text updated in EIR section 4.3 and assessment criteria, data to be submitted to BDBSA pursuant to 32(2)(c).

EPLB	5.2.3 Flora, fauna and biodiversity – Impact ID #BIO04 Assessment criteria *Where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments carried out and location specific environmental management plan developed and implemented.*	Consultation with local Landscape Officers.	Text updated to include departments and agencies.
EPLB	5.2.4 Air quality – Impact ID #AIR01 receptor	Add native flora - dust settles on vegetation and can inhibit plant respiration and photosynthesis.	Native flora included.
EPLB	5.2.7 Aboriginal and non-aboriginal heritage Context summary for Aboriginal and non-Aboriginal heritage - Aboriginal sites, objects and remains - Traditional owners	Consider adding 'culturally important plants' to environmental receptors. These are plants used for medicine, or other important cultural practices. Recent concerns have been raised by representatives of the Barngarla Peoples about the disappearance of culturally important plants due to developments in the local area, specifically the bush medicine plant *Eremophila alternifolia* (Scented Emu Bush).	Impacts to native flora from dust deposition are addressed through impact ID #AIR01. Text has been added to section 4.3.2 of the EIR to highlight that native flora species include culturally important plants.
EPLB	5.2.7 Aboriginal and non-aboriginal heritage Impact ID #HER01 environmental significance assessment *The proposed activities are small scale and generally require limited vegetation clearance and earthworks. Potential cumulative effects to Aboriginal heritage depends on the scope of other projects in the area but is generally expected to be low.*	Culturally important plants could have greater potential for cumulative effects, when taking into consideration the scope of other projects	Additional text has been included to consider cumulative impacts under impact ID #AIR01for native flora to address this.
EPLB	5.2.7 Aboriginal and non-aboriginal heritage Impact ID #HER02 control measures	Control measures to avoid clearing culturally important plants could include consultation with TOs to identify culturally important plants, using plant species distribution mapping and site surveys. Vegetation clearance and disturbance should be avoided where culturally important plants are found.	Ecological assessments are required to be undertaken and consultation and cultural heritage surveys with Traditional Owner groups are also required to be undertaken by the proponent.

EPLB	5.2.9 Social environment, land use and infrastructure Impact ID #SOC02 Assessment criteria *Prior to licence grant, the applicant must consult with landowners, the council, any affected Government agencies and any potentially affected stakeholders on the potential impacts of the met mast installation and how they will be adequately managed.*	and Landscape Boards	Landscape boards are considered to be a relevant government agency.
EPLB	5.2.9 Social environment, land use and infrastructure Impact ID #SOC03 control measures *Records of detection (whether introduced by an operator or not), monitoring, eradication or control of introduced species are kept.*	and shared with Landscape Boards	Text updated.
EPLB	5.2.9 Social environment, land use and infrastructure Impact ID #SOC03 Assessment criteria *Management and monitoring measures for any weeds, pest animals or pathogens are documented in an appropriate management and monitoring plan, where required.*	and shared with Landscape Boards	Text updated
EPLB	4.2.2 Groundwater *Groundwater regulation in South Australian is the responsibility of the Department for Environment and Water (DEW), the Environment Protection Authority (EPA) and the Department for Energy and Mining (DEM) (EPA, 2024).*	This list is incomplete. Landscape Boards, e.g. Eyre Peninsula and Limestone Coast, regulate how much groundwater can be taken, via their Water Allocation Plans.	Text updated
EPLB	4.2.2 Groundwater	Broken link	Updated

	*Section **Error! Reference source not found.**,*		
EPLB	4.2.2 Groundwater Prescribed wells areas and prescribed water resources areas are managed under the Landscape SA Act and a water licence must be obtained to use groundwater from these areas.	This is incorrect. It should say, "must be obtained for certain uses of groundwater from these areas". NOTE: Stock and domestic groundwater use does not require a licence in the Eyre Peninsula and Limestone Coast regions.	Text updated.
EPLB	4.2.2 Groundwater A Water Affecting Activities Permit under the Landscape SA Act is required to undertake any activity with the potential to adversely impact groundwater resources including drilling, deepening and backfilling wells, bores and groundwater access trenches, and draining or discharging water into a well.	This is incorrect. It should say: "Under the Landscape SA Act, activities relating to groundwater wells require an authorisation or a permit from the Minister via the Department for Environment and Water, and other activities relating to groundwater may require a Water Affecting Activity permit from the regional Landscape Board".	Texted updated.
EPLB	4.4.2 Major infrastructure Airports	Given that informal rural airfields, e.g. used for agricultural chemical spraying and fire-fighting, are associated with industrial safety risks from collisions with met towers, shouldn't they at least rate a mention in this section? This section could be called, "Airports and Airfields" as an acknowledgement of this risk area. The later section (5.2.8) indicates that this is an issue.	Text updated to include airfields.
EPLB	4.4.2 Major infrastructure Energy *Renewable energy in South Australia is generated from wind farms, solar photovoltaic (PV) farms and solar thermal farms, complemented by large-scale battery energy storage systems.*	This list is incomplete withour a mention of roof-top solar.	Text included to reflect this.
EPLB	4.5.1 Primary production Agriculture *Grain cropping is focused on the Eyre Peninsula, Limestone Coast, Murraylands and Riverland and Northern and Yorke*	You would enhance the relevance of this information if you concluded with something like, "Aerial crop spraying and fire fighting are integral parts of the broad-scale cropping landuse in the landscapes". This links the land use to the risks arising from met towers.	Land use in this context is related to met masts based on the potential for a met mast project to intersect with this land use, e.g. the disturbance

	landscape regions. Annual rainfall across these cropping regions ranges from 300 mm at Ceduna, 570 mm at Clare, 335 mm at Lameroo in the east and 575 mm at Naracoorte in the South East. Wheat, barley, oat and triticale account for more than 80% of SA's cropping area, with a range of grain legumes and canola making up the balance.		footprint of a met mast on a property of agricultural land use. Text has been included in section 4.4.2, which includes crop spraying.
EPLB	4.5.2 Mining and energy resources	You have covered energy in 4.4.2 and you only cover mining in this section, so it should be renamed "Mining".	Energy resources in this title refers to petroleum.
EPLB	4.5.4 Tourism *Each of the landscape regions are popular tourist destinations for a number of reasons, with most freehold land across the State located adjacent or nearby the coastal regions.*	This introductory paragraph would be enhanced if you used it as an opportunity to link to what this document is about, e.g. "The visual amenity of the landscape is an important asset for the tourist industry".	Visual amenity is addressed in section 4.7.3. Section 4.5 Land Use includes the description of the current land use for tourism.
EPLB	5.2.1 Soil and land quality Impact ID #SOI01 Confirmation of SPR	"SPR" is not in your Glossary and a "Find" search of the document doesn't show where you defined it	Acronym added to glossary.
EPLB	5.2.1 Soil and land quality Impact ID #SOI01 – Environmental significance assessment *Agricultural land is susceptible to wind erosion, but the proposed activities are small scale and generally require limited earthworks with low erosion potential.*	"wind or water erosion"	Text updated.
EPLB	5.2.2 surface water Applicable non-legislated standards	'Regional Landscape Board water affecting activty control policies' needs to be added to this list. These set out what surface water-affecting activities require a permit.	Text updated.
EPLB	5.2.2 Surface water Applicable legislation	Correct reference is: Landscape South Australia Act 2019 (no brackets)	Text updated.

EPLB	5.2.2 Surface water Impact ID #SWR01 control measures *Water affecting activity permits obtained where required under the South Australian Arid Lands (SAAL) Water Affecting Activities Control Policy.*	Shouldn't this include the other regions in the Study Area, which also have WAA Control Policies?	Text updated, specific reference to SAAL removed.
EPLB	5.2.2 Surface water Impact ID #SWR01 leading performance criteria *Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the SAAL Water Affecting Activities Control Policy.*	Other regions?	Text updated.
EPLB	5.2.2 Surface water Impact ID #SWR02 control measures *Water affecting activity permits obtained where required under SAAL Water Affecting Activities Control Policy*	Other regions?	Text updated.
EPLB	5.2.2 Surface water Impact ID #SWR02 leading performance criteria *Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the SAAL Water Affecting Activities Control Policy.*	Other regions?	Text updated.
EPLB	5.2.6 Landscape and visual amenity Applicable legislation	Section 7 of the Landscape South Australia Act 2019 could be considered to encompass 'landscape and visual amenity', as it states: * "recognises and protects the intrinsic values of landscapes" * 'provides for the protection of land, soil and water' indicating that "land" is more than "soil" * 'supports ... other industries (e.g. tourism)	Landscape SA Act has been added. The P&D Code has been added with regard to the visual amenity aspect within certain zoning, e.g. open space zone.

		* 'supports ... sustainable ... natural environments', where 'natural' probably includes preserving visual amenity. Also, what about the Planning Act, isn't visual amenity in there somewhere?	
SAAL	EIR – Page 26, Section 4.3.4 *Notable threatened flora species in each of the landscape regions in the Study Area are presented in Error! Reference source not found.6*	Correct the error text	Text amended.
SAAL	EIR - Page 28, Section 4.3.5 *Notable threatened fauna species in each of the landscape regions in the Study Area are presented in Error! Reference source not found.8*	Correct the error text	Text amended.
SAAL	EIR – Page 29, Section 4.3.7 Omission of WONS in this section	Should mention the consideration of Weeds of National Significance (WONS) that may fall in the study area	Information on WONS has been included in text.
SAAL	EIR – Page 30, Section 4.3.7 Mentions Pest animals, but nothing about management	Include management plans for declared pest animal species (similar to declared weeds)	Text added to reflect that landscape boards host pest management plans.
SAAL	EIR – Page 35, Section 4.5.3 Conservation There are six Ramsar wetlands in South Australia, located within the Murraylands and Riverland and Limestone Coast landscape regions. No mention of Coongie Ramsar wetland amongst the six RAMSAR	Include mention of the Coongie Ramsar wetland in the SA Arid Lands region	The Coongie Ramsar wetland is outside of the scope of this EIR as it's outside of the non-designated land area identified in the EIR. Text has been updated for completeness.

	wetlands, which is located in the SA Arid Lands region		
SAAL	EIR – Page 66, Table " Flora and fauna: : Impact ID #BIO03" " Declared plants occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation and Regional Landscape Plan."	Suggest more emphasis on managing declared pest animals (not just plants). Also, the Regional Landscape Plan is not suffice in providing specific details on management practices for each species. Hence suggest the following wording for the sentence: **"**Declared plants and animals occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation, ~~and~~ Regional Landscape Plans, and Declared pest animal and weed policies**"**	Text updated.
SAAL	EIR Section 4.3.3 Threatened Ecological Communities	Whilst there may not be many locations within the study area, there is still the potential for EPBC listed ecological community "The community of native species dependent on natural discharge of groundwater from the Great Artesian Basin".	The scope of this EIR excludes projects that significantly impact MNES (i.e. any project that would be required to be referred under EPBC). Projects that would impact ecological communities dependent on discharge from the GAB are excluded.
SAAL	EIR Section 4.3.5 Table 3 Notable threatened fauna species	Include western quoll (*Dasyurus geoffroii*) in table for SA Arid Lands, as there are sections of the Flinders Ranges that are in the study area where quolls are present.	Tables have been removed.
SAAL	EIR Section 5.2.3 Impact Events	The first three dot points all change and/or remove vegetation cover and structure and this increases the risk of predation to native species, especially if they are displaced due to clearance, and should be included as an impact event.	This is considered in the first dot point as loss of biodiversity and has been considered under impact ID BIO1 and BIO05.
SAAL	EIR Section 5.2.3 Control measures for "Impact #BI003" (pg 65)	No mention of managing pest animals. Include a measure that discusses targeted pest management to reduce risk of predation (e.g. foxes/cats) and competition and extra grazing pressure (e.g. feral herbivores), especially during the clearing phase when wildlife is being displaced.	Pest management is considered in BIO03.

SAAL	SEO & EIR General comment	The SEO and EIR correctly identify activities where Water Affecting Activity (WAA) permits are likely to be required in-line with the SAAL Boards WAA Control policy.	Noted.
DHUD	General	DHUD has reviewed and is supportive of the draft documentation. The content is comprehensive and addresses relevant planning and interface matters associated with the installation and operation of meteorological masts.	Noted.
Health	General	Having reviewed the 2 documents we feel that there is good reference to our requirements	Noted.
PIRSA	**Environmental Impact Report** *Livestock Act 1997* *Page 30*	Pathogens • Consider referencing "disease" in addition to "pathogen" throughout the Environmental Impact Report and Statement of Environmental Objectives as this terminology better aligns with terminology used in the *Plant Health Act 2009*, *Livestock Act 1997 (*and *Biosecurity Act 2025* which will repeal these Acts). • Notifiable animal diseases are specified on the PIRSA website and via the South Australian notifiable diseases published in the South Australian Government Gazette No. 81, 19 December 2024 (pp. 5030–5033) (and subsequent updates from time to time)	Text amended.
PIRSA	**Environmental Impact Report** *Livestock Act 1997* *Page 30*	Amend: "They are primarily managed by Department of Primary Industries and Regions SA under a range of legislation and policies, including the *Plant Health Act 2009*, the Landscape SA Act and South Australia's Biosecurity Policy." so that it reads: "They are primarily managed by Department of Primary Industries and Regions (PIRSA) under a range of legislation and policies, including the *Plant Health Act 2009*, *Livestock Act 1997*, the *Landscape South Australia Act 2019* and South Australia's Biosecurity Policy."	Text amended where relevant.
CASA	Pg 87	please replace the reference to 'National Airports Safeguarding framework – Guideline E: Managing the risk of distractions to pilots from lighting in the vicinity of airports' with ' National Airports Safeguarding Framework – Guideline D: Managing the risk to aviation safety of wind turbine and installations (wind farms)/ wind monitoring towers.'	Text updated.

Murraylands and Riverland Landscape Board	4.2.1 Surface water *The Study Area also overlaps with a number of prescribed water resources areas that regulate both surface water and groundwater use. These are located in the Mount Lofty Ranges and include all of the Fleurieu Peninsula up to the Barossa, the Clare Valley and Baroota (north of Port Pirie).*	Note that the area also includes the Marne Saunders and Eastern Mount Lofty Ranges PWRAs.	Text amended to reflect the PWRA areas.
Murraylands and Riverland Landscape Board	4.2.1 Surface water	Include text: These are usually avoidable by careful planning and siting of infrastructure to avoid watercourses and surface water features and to maintain surface water flows <u>during construction and operation.</u>	Text updated.
Murraylands and Riverland Landscape Board	4.3.3 Threatened ecological communities	The landscape board accept that not all species can be shown here, and the text should indicate that the list is indicative and not exhaustive.	Lists have been removed.
Murraylands and Riverland Landscape Board	4.3.3 Threatened ecological communities Limestone coast	Add to list underlined: Leafy greenhood Pterostylis cucullata Swamp greenhood Pterostylis tenuissima Large-fruit Fireweed Senecio macrocarpus Woods well spyridium Spyridium fontis-woodii Metallic sun-orchid Thelymitra epipactoides Little Dip Spider-orchid Caladenia richardsiorum	Lists have been removed.
Murraylands and Riverland Landscape Board	4.3.3 Threatened ecological communities Table 2 Notable threatened flora species Murrayland and Riverland	Additional species include Acacia menzelii, Pterostylis arenicola and Caladenia richardsiorium	Lists have been removed.
Murraylands and Riverland Landscape Board	4.3.7 Weeds, pests and pathogens Declared weeds of note in the Study Area include:	The landscape board note that not all weeds can be included here, and it is recommended that the text indicates the proponent should refer to the following website - www.pir.sa.gov.au/biosecurity/weeds/declared-weeds	Text has been included to reflect this, link included.

Murraylands and Riverland Landscape Board	5.2.1 Soil and land quality Impact ID #SOI01 Control measures No construction in landscapes with sensitive features such as wetlands or salt lakes.	It would be helpful to understand why just these features are listed, some landscapes contain critical habitats or flora which could also be included - just including wetlands/salt lakes seems odd. For example, exploration in orchid habitats can damage or destroy tubers just below the soil surface.	This control is specifically referring to the avoidance of landscape features, as they relate to the impact for erosion and compaction. Protection of flora species is discussed in through section 5.2.3.
Murraylands and Riverland Landscape Board	5.2.1 Soil and land quality Impact ID #SOI01 Pathway	Include “Indirect (dust)”	Text updated.
Murraylands and Riverland Landscape Board	5.2.1 Soil and land quality Impact ID #SOI01 Receptor	Include “Soil integrity and functionality”	Text updated.
Murraylands and Riverland Landscape Board	5.2.1 Soil and land quality Impact ID #SOI01 Control measures	Include “Stockpile management during construction”	Text updated.
Murraylands and Riverland Landscape Board	5.2.2 Surface water Impact ID #SWR01 Control measures	Water affecting activity permits obtained where required under the ~~South Australian Arid Lands (SAAL)~~relevant landscape board’s Water Affecting Activities Control Policy.	Text updated
Murraylands and Riverland Landscape Board	5.2.2 Surface water Impact ID #SWR01	Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the SAAL the relevant landscape board's Water Affecting Activities Control Policy.	Text updated.

	Leading performance criteria		
Murraylands and Riverland Landscape Board	5.2.2 Surface water Impact ID #SWR02 Control measures	Water affecting activity permits obtained where required under ~~SAAL~~ the relevant landscape board's Water Affecting Activities Control Policy.	Text updated.
Murraylands and Riverland Landscape Board	5.2.2 Surface water Impact ID #SWR02 Assessment criteria *Records of audits/inspections carried out in accordance with the OMP demonstrate no unauthorised impedance of surface water flow that results in adverse impacts to native flora or fauna and groundwater dependent ecosystems.*	This is the first time GDEs have been mentioned - they are likely to be encountered in remote areas and need special consideration. It's not clear if they should be included here or somewhere else in relation to groundwater. Perhaps they should be included under the next impact ***#BIO01***	Additional text has been included to discuss GDEs in Section 4.2 of the EIR and discussed further through the impact assessment in Section 5.2.2.
Murraylands and Riverland Landscape Board	5.2.2 Surface water Impact ID #SWR02 Leading performance criteria	Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the ~~SAAL~~ relevant landscape board's Water Affecting Activities Control Policy.	Text updated.
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity	Clearance or disturbance of native vegetation results in a loss or degradation of native vegetation and biodiversity	Text updated.
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO01 Environmental significance assessment	Agree that the activity can be low impact, in the right place, with good control measures, however that doesn't mean it is not having an impact cumulatively if threatened species or communities cannot be avoided or experience indirect disturbance. Cumulative impacts are of particular concern in areas of intense interest, such as the Goyder Renewables zone, for example.	Text updated to state that: Ecological assessments will consider cumulative impacts of disturbance to identified species within the area and

	The proposed activities are small scale and the work area that could be affected by disturbances would be maximum x ha (refer Section 3). Any disturbance is expected to be localized and short term. Potential cumulative effects for native vegetation regionally depends on scope of other projects in the area, but generally expected to be low.		further avoidance or management measures will be implemented to avoid impacts where they are assessed to result in cumulative impacts to particular species.
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO01 Assessment criteria *Where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments carried out and location specific environmental management plan developed and implemented.*	This includes state and federal approval?	The scope of the EIR doesn't include projects that would require federal approval, i.e. no significant impacts to MNES (not required to refer under EPBC).
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO02 Impact Event	GDEs might fit here?	No change required, impacts to GDEs are capture via assessment criteria and through avoiding impacts to groundwater resources.

Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO02 Control measures	Water affecting activity permits obtained where required under ~~SAAL~~ the relevant landscape board's Water Affecting Activities Control Policy.	Text updated
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO02 Proposed environmental objective	No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality, ~~or~~ resources or groundwater dependent ecosystems.	No change required, impacts to GDEs are capture via assessment criteria and through avoiding impacts to groundwater resources.
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO02 Leading performance criteria	Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the ~~SAAL~~ relevant landscape board's Water Affecting Activities Control Policy.	Text updated
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO03 Control measures	Appropriate consultation regarding weeds, pathogens and pests is carried out with landholders and the Department of Primary Industries and Regions (PIRSA) / DEW / ~~SAAL~~ relevant Landscape Board (where relevant)	Text updated
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO04 Control measures	Significant areas for native fauna (including but not limited to nesting areas for ~~water~~ birds) are identified during the planning process and are avoided, either spatially or temporally.	Text updated
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO04 Assessment criteria Records of audits/inspections carried out in accordance with the OMP demonstrate	Southern Hairy-nosed Wombats can be disturbed by construction and operation activities, avoiding them is not sufficient, there needs to be adequate planning to consider their use of the broader habitat. Wombats have been observed using construction locations to access softer sediments to dig new burrows, sometimes gnawing or damaging underground cabling or conduits to do so. Areas of intense interest such as around the Goyder renewables zone are putting pressure on wombat refugia as rainfall declines elsewhere.	Noted, this would be considered through ecological assessments.

	that fauna disturbance is reduced to as low as reasonably practicable.		
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO06 Receptor	Native fauna including avifauna and bats	Text updated
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO06 Control measures	Significant areas for native fauna (including but not limited to nesting areas for ~~water~~ birds) are identified during the planning process and are avoided, either spatially or temporally. It is unclear why water birds are singled out in the control measures - suggest deletion of the word water as all nesting birds should be avoided where possible. Additional control measures include allowing buffers between trees/roosting areas or cliff faces where possible, to reduce the risk of avifauna and bats colliding with the structures.	Text updated.
Murraylands and Riverland Landscape Board	5.2.3 Flora, fauna and biodiversity Impact ID #BIO06 Control measures The top third of the meteorological masts will be painted in alternating contrasting bands of colour. ▪ Marker balls or high visibility flags / sleeves placed on outside guy wires. ▪ Guy wire ground attachments points will have contrasting colour to the surrounding environment	This UK guidance is useful and could be adopted: “Masts should normally be marked at and up to 2 km away (depending on the range of the bird species concerned) from sites protected for or containing roost, breeding and foraging areas of collision susceptible species.” Guidance - Assessment and mitigation of impacts of power lines and guyed meteorological masts on birds | NatureScot Additional mitigation measures for met masts include: Siting the mast in a location with a low collision risk. Installing line markers on guy wires (not the mast itself). Using non-guyed masts (although if using lattice towers, developers should be aware of the potential nest/perching site opportunities these present and site them appropriately). Carrying out construction and maintenance activities outside of the breeding season (or otherwise siting the mast beyond disturbance distances of sensitive species present in the area.	Text updated to reflect the proposed control measures as appropriate.

Murraylands and Riverland Landscape Board	5.2.4 Air quality Impact ID #AIR01 Control measures	Include Stockpiles to be covered, of a reduced height or for minimal duration	Text updated.
Murraylands and Riverland Landscape Board	5.2.4 Air quality Impact ID #AIR01 Proposed environmental objective	Minimise disturbance to stakeholders, land use and associated infrastructure and adjacent vegetation and habitats.	No action required, this objective is specific to the disturbance of stakeholders and land use, impacts to vegetation and habitats are considered through section 5.2.3.
Murraylands and Riverland Landscape Board	5.2.4 Air quality Impact ID #AIR01 Leading performance criteria. Equipment to perform water-spraying is available onsite during construction, and implemented if dust generation becomes a problem (e.g. near sensitive sites).	Sometimes construction activities will use groundwater wells to supply water for dust suppression or concrete batching. In cases where groundwater salinity is significant, this can cause vegetation and soil damage. Salinity levels should be considered in determining water requirements at each location.	Control measure has been added to BIO01 and SOI01 to ensure that water quality is determined prior to use for water spraying.
Murraylands and Riverland Landscape Board	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER01 Impact event	Construction and potentially operation activities can require temporary or permanent loss of access to areas which may be of cultural significance or which are used for cultural requirements. This should also be considered.	Control measures under #HER01 are considered to suitably address this potential impact.
Murraylands and Riverland	5.2.8 Public health and safety Impact ID #SAF01	These requirements are welcomed, as they should help to reduce bird and bat mortality through collision with guide wires.	Noted.

Landscape Board	Control measures The top third of the meteorological masts will be painted in alternating contrasting bands of color. ▪ Marker balls or high visibility flags / sleeves placed on outside guy wires. ▪ Guy wire ground attachments points will have contrasting color to the surrounding environment.		
Murraylands and Riverland Landscape Board	5.2.8 Public health and safety Impact ID #SAF02 Environmental significance assessment *Sensitivity of the receiving environment will vary depending on existing land use and what type of vegetation is present. Generally it is expected to be* ***moderate***	Some of the habitats where these activities occur are very high risk for ignition, and fire may not have occurred for some time. Impacts of fires can be considerable. Preparedness during construction is critical to managing the fire risk proactively	Noted, relevant controls regarding prevention of fire are outlined in control measures and will be further elaborated by a proponent in the OMP (e.g. in an emergency response plan or bushfire plan).
SafeWork SA	N/A	No comments.	Noted.
Hills and Fleurieu Landscape Board	4.2.1 Surface water *The Onkaparinga River is the second largest permanent river in South Australia and flows in a south-westerly direction from the Mount Lofty Ranges to Port Noarlunga.*	The water resources of the Mt Lofty Ranges (and various other parts of the State) are prescribed. This includes surface water, watercourse water and underground water. Rules relating to Water affecting Activities are set-out in Water Allocation Plans which relate to each of the prescribed resources.	Noted.
Hills and Fleurieu	5.2.2 Surface water	Touches here on availability' but could also be described as 'quantity'	Noted.

Landscape Board	Impact events Alteration of drainage patterns adversely impacts surface water availability		
Hills and Fleurieu Landscape Board	5.2.2 Surface water Impact ID #SWR02 Control measure Water affecting activity permits obtained where required under SAAL Water Affecting Activities Control Policy.	from relevant Landscape Board (not only SAAL)	Text updated
Hills and Fleurieu Landscape Board	5.2.2 Surface water Impact ID #SWR02 Proposed environmental objective No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or resources	suggest use of the word 'quantity'. It's unclear to me what 'or resources' means. An alternative could be - 'No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or quantity'	Text updated
Hills and Fleurieu Landscape Board	5.2.2 Surface water Impact ID #SWR02	Replace permit	Text updated

	Assessment criteria No new water affecting activities as defined under the Landscape South Australia Act undertaken unless applicable permits have been obtained.		

Agency consultation (SEO)

Stakeholder	Document ref	Comment	DEM response
DEW State Heritage	General notes	• The objective numbering on Page 7 doesn't align with the numbering of objectives in the body of the document (i.e. under 2.1 heritage is Objective 6 but in the table on p.14 it is Objective 7) • Change reference to Heritage Branch to Heritage South Australia, DEW	Numbering corrected. Updated to Heritage South Australia
DEW State Heritage	1. Strengthening Alignment with HP Act Obligations	The SEO does reflect a high-level compliance intent, but the document does not: • acknowledge the explicit requirement to cease work on discovery of a potential heritage item (required under s27 of the HP Act) • Permit processes and timelines under the Act are not referenced (s29–30) • No reference to local heritage places, which are protected under the *Planning, Development and Infrastructure Act 2016* (but may not be relevant to this document that is to do with meteorological masts)	Text has been updated in the SEO to reflect that works will cease in the event of a non-Aboriginal archaeological discovery in accordance with the HP Act. Local heritage places have been included in the leading performance criteria for the relevant objective.
DEW State Heritage	Recommended additions:	• Add a clause under Objective 7 (p. 14) stating: "Where suspected non-Aboriginal heritage archaeological artefact are encountered, activities must cease immediately, and the South Australian Heritage Council must be notified, in accordance with Section 27 of the Heritage Places Act 1993."	Text has been updated in the SEO to reflect that works will cease in the event of a non-Aboriginal archaeological discovery in accordance with the HP Act.
DEW State Heritage	2. Operational Management Plan Improvements	The SEO suggests a Cultural Heritage Management Plan for Aboriginal heritage. Non-Aboriginal heritage could also have an equivalent compliance structure. The SEO could include a request that: • All potential heritage places (State and local) are mapped and protected, and engagement with the	Suggested dot points are considered addressed through leading performance criteria: Records demonstrate that heritage site registers (and Heritage South Australia, DEW, where appropriate) have been consulted regarding the location of non-Aboriginal heritage sites and any identified sites, including local

		Heritage South Australia or the South Australian Heritage Council is documented. • Ensure that known or suspected heritage features are considered in site selection and construction phases.	heritage places, have been avoided.
DEW Native Vegetation & Pastoral lands	2.1 Objectives	Objective 3 'No loss of abundance or diversity of native vegetation'. Need to include clearer guidance around what constitutes abundance or diversity, as it is too subjective. Include how this is measured/determined, as it would already have been approved by native vegetation clearance.	Objective has been reworded to "no clearance of native veg or disturbance to native fauna unless approval under...".
DEW Native Vegetation & Pastoral lands		- Include impacts on native vegetation heritage agreement sites. Include requirement for additional approvals relating to heritage sites and this should not be assumed as part of other approval processes.	EIR and SEO exclude native vegetation heritage agreement areas and SEB offset areas. A project specific EIR and SEO will need to be developed where it is proposed there may be impacts to these areas.
DEW Native Vegetation & Pastoral lands	2.4 Operational Management Plan	- Should stipulate 'native vegetation management plan'. Consider including critical habitat in the plan (if the Biodiversity Bill is passed).	Text updated.
DEW Native Vegetation & Pastoral lands	Table 1 Environmental objectives, assessment criteria and leading performance criteria	- Page 11 describes the 'baseline biodiversity of the site'. Would be beneficial to also include the potential improvement of the sites biodiversity if the site did not get disturbed.	The assessment criteria describes how the objective is measured, which is a commitment to no loss.
DEW Native Vegetation & Pastoral lands		- 'Where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments carried out and location specific environmental management plan developed and implemented'. This assumes that native vegetation clearance approval will be granted under the proviso of an environmental management plan. If there is going to be disturbance to vegetation and critical habitat, it should be avoided as much as possible (based on the mitigation hierarchy).	Noted, to be assessed by DEM and DEW on a case-by-case basis.

AAR	1.3 Scope	Footnote #1: Appropriate authorisation under the *Aboriginal Heritage Act 1988* is needed for any excavations or test pitting where required (e.g. if undertaken within ~~existing registered~~ Aboriginal sites).	Text updated.
AAR	2.1 Objectives	Point #6 No damage, disturbance or interference to Aboriginal sites, objects and remains (together, Aboriginal heritage) and non-Aboriginal heritage sites, objects, remains and places [Consider reword to align with language in *Heritage Places Act 1993*]	Text updated as per comment below.
AAR	Objective 7	No damage, disturbance or interference to Aboriginal heritage, and non-Aboriginal heritage sites, objects, remains and places [Consider reword to align with language in *Heritage Places Act 1993*] Assessment criteria: ▪ Records of audits/inspections carried out in accordance with the Operational Management Plan demonstrate no damage, disturbance or interference ~~to~~ with any Aboriginal sites, objects and remains (all as defined under the *Aboriginal Heritage Act 1988*) unless authorisation has been obtained under the *Aboriginal Heritage Act 1988*. ▪ Any Aboriginal ~~heritage~~ sites, objects and remains discovered during operations have been appropriately reported and responded to, consistent with the applicable Native Title Agreement, the *Aboriginal Heritage Act 1988* and the *Coroners Act 2003*. ▪ Works have stopped in the vicinity of the discovery of the Aboriginal heritage. Assessment criteria: ▪ Records demonstrate that activities are confined to areas subject to cultural heritage survey or work area clearance and undertaken in accordance with conditions of the survey or work area clearance. ▪ In the event the conditions of a cultural heritage survey or work area clearance(s) are not complied	Text updated.

		with, the incident is appropriately reported[2] , investigated and remediated in consultation with the relevant Traditional Owners, Native Title holders and in accordance with any applicable Native Title Agreement. Development of and adherence to a cultural heritage management plan where ~~required~~ one is in place. Footnote #2: ~~This may include compliance with reporting obligations~~ In the context of an Aboriginal heritage discovery, reporting to AAR is required as soon as reasonably practicable pursuant to section 20 of the *Aboriginal Heritage Act 1988* and immediately to SA Police pursuant to the *Coroners Act 2003* if the discovery includes potential human remains.	
AAR		Immediately reportable incident: 3. Disturbance to Aboriginal and non-Aboriginal ~~sites of cultural and/or~~ heritage ~~significance~~ without appropriate permits and approvals[2].	Text updated.
EPLB	Table 1 Objective 1 – assessment criteria *Landowner consulted regarding land-disturbing activities to minimise potential for surface disturbance and facilitate rehabilitation (where required).*	and Landscape Board	Text updated.
EPLB	Table 1 Objective 3 – assessment criteria *All biodiversity data collected by an*	There are very few official records of flora and fauna in some areas of our region, and at many other sites where applications for native vegetation clearance have been made. Could it be a condition (if it is not already?), that all survey records be submitted to either BDBSA or the Biodiversity Data Repository	Text updated to reflect that ecology data must be submitted to the BDBSA pursuant to regulation 32(2)(c).

	appropriately qualified professional and reported in accordance with HRE Regulation 32(2)(c).	https://www.dcceew.gov.au/environment/environment-information-australia/biodiversity-data-repository	
EPLB	Table 1 Objective 4 *Declared plants occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation and Regional Landscape Plan.*	reported to the relevant Landscape Board/s	No update required, sufficiently reflected by the requirement to report in accordance with regional landscape plans.
EPLB	Table 1 Objective 5 assessment criteria *Prior to licence grant, the applicant must consult with landowners, the council, any affected Government agencies and any potentially affected stakeholders on the potential impacts of the met mast installation and how they will be adequately managed.*	add Landscape Boards Needs to be explicit. The Office of Hydrogen has in the past, identified the Eyre Peninsula Landscape Board as a key stakeholder in their Stakeholder Engagement Plan, with a high priority to engage, but then failed to do any consultation, even after we reached out to them.	No update required to the SEO, landscapes boards are recognised as government agencies and DEM will ensure that they are included in consultation. Text has been added to the EIR to reflect this.
EPLB	Table 1 Objective 5 Leading performance criteria	Landowners, Landscape Boards, and relevant stakeholders	No change required, this relates to the objective of no disturbance to landowners, the intention of the identified leading performance indicator is to ensure that landowners are aware of activities on and access to their land (or nearby stakeholders).

	Landowners and relevant stakeholders		
EPLB	Table 1 Objective 10 Assessment criteria *OMP includes a decommissioning and rehabilitation plan (or similar) that outlines how any infrastructure or equipment will be decommissioned and the land rehabilitated.*	Need to refer to recent trials to determine best revegetation practice for vegetation type. This is particularly relevant in low rainfall areas where vegetation takes much longer to recover. For example: Hydroseeding ripped areas within the same year aids faster regeneration. This is due to the increased protection the hardened hydroseeding paper mache cover provides in holding the seed in place from wind, the maintenance of contact between soil particles and seed permitting germinated seed to gain a foothold, retaining soil moisture and the addition of fertiliser in the hydroseeding mix. Hydro seeding improves rehabilitation performance, but the key factor is the reduction of grazing pressure by fencing. The recommendation from a recent study Daniel, M et al. (2025) 'Samphire project - drill pad revegetion, a review of treatment and success' recommends fencing off all areas to be rehabilitated to prevent livestock, feral and over abundant native herbivores grazing on newly germinated plants.	No change required, text has been included in the EIR to describe this.
EPLB	Table 1 Objective 2 leading performance criteria *Water affecting activity permit is required under the SAAL Water Affecting Activities Control Policy.*	What about other regions?	Text updated.
EPLB	Table 1 Objective 2 assessment criteria	This is general enough to cover the next line, which talks about impacts to vegetation community structure and composition.	Noted.

	Records of audits/inspections carried out in accordance with the OMP demonstrate no unauthorised impedance of surface water flow that results in adverse impacts to native flora or fauna and groundwater dependent ecosystems.		
EPLB	Table 1 Objective 2 assessment criteria/leading performance criteria/controls identified in EIR *Records of audits/inspections carried out in accordance with the OMP demonstrate no unauthorised impedance of surface water flow that results in adverse impacts to vegetation community structure and composition.*	This line is not needed, as it is covered by the previous line.	Removed.
EPLB	Table 1 Objective 10 assessment criteria *commissioned and the land rehabilitated, including restoration of drainage patterns to as near as*	Given that Objective 2 requires 'No significant disturbance of drainage patterns', this comment appears to be unnecessary.	No change required. The assessment criteria is how the objective will be measured. In this instance, this is measured qualitatively by the proponent having a suitable decommissioning plan in place that must address how infrastructure will be decommissioned and the land rehabilitated.

	possible to their undisturbed state.		
EPLB	Table 1 Objective 10 assessment criteria *Records demonstrate no reasonable stakeholder complaints regarding restoration of drainage patterns are left unresolved*	Not consistent with Objective 2.	Noted.
EPLB	3.1 Incident definitions Reportable incident ***Error! Reference source not found.*** *Sets…*	Broken link	Text updated.
SAAL	SEO 2.1 Objectives Environmental objectives – Point 7. "No introduction or spread of weeds, pest animals and pathogens as a consequence of regulated activities"	It is not just the introduction of pest animal species that are a problem, but the change in vegetation structure can increase risk of predation from pest species already present in the landscape. Or feral herbivores can put more pressure on remaining resources when vegetation is cleared. The objectives should also include something around minimising the impact of pest species on native species.	This is sufficiently addressed through the requirements under the assessment criteria to be reported and managed in accordance with relevant legislation. The objective also relates to the spread of pest species which DEM considers to address this.
SAAL	SEO & EIR General comment	The SEO and EIR correctly identify activities where Water Affecting Activity (WAA) permits are likely to be required in-line with the SAAL Boards WAA Control policy.	Noted.
SAAL	SEO Section 4 Abbreviations	SAAL Landscape Board should appear in Abbreviation/Glossary.	No change required, SAAL has been removed from SEO to address other comments received.

PIRSA	**Statement of Environmental Objectives** *Livestock Act 1997* *Page 96*	Context summary for social environment, land use and infrastructure: Applicable legislation: Add *Livestock Act 1997*	Text amended.
PIRSA	**Statement of Environmental Objectives** *Livestock Act 1997* *Page 17*	Add the following footnote in relation to "5. Detection of a declared weed, animal / plant pathogen or plant pest species that has been introduced or spread as a direct result of activities." "Pursuant to the *Plant Health Act 2009* (refer reporting requirements in relation to pests), *Livestock Act 1997* (refer reporting requirements in relation to notifiable conditions)"	Text updated.
Murraylands and Riverland Landscape Board	Table 1 Objective 8 Assessment criteria	Include: CEMP and OMP includes an emergency response plan (or similar) that clearly outlines the response to a fire related incident, both caused by authorized activities and/or threatening authorized activities from offsite.	No change required, CEMP is included within an OMP.
Murraylands and Riverland Landscape Board	Table 2 Incident definitions for REFL regulated activities Footnote #4: Pursuant to *Native Vegetation Act 1991* (flora) and *National Parks and Wildlife Act 1972* (fauna)	And the EPBC Act 1999?	Text updated.
Hills and Fleurieu Landscape Board	Objective 3 Leading performance criteria …undertaken to identify if a Water affecting activity permits obtained where is required under the SAAL Water Affecting Activities Control Policy.	Refer to WAA control policy of the relevant Landscape Board and (for prescribed water resources/wells areas) the relevant Water Allocation Plan.	Text updated.
Hills and Fleurieu Landscape Board	Objective 4 Assessment criteria	"reported to the relevant Landscape Board and..."	No change required, assessment criteira already requires reporting against the relevant legislation and regional landscape plan.

	Declared plants occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation and Regional Landscape Plan.		

Industry consultation (EIR)			
Respondent	**Doc ref**	**Comment**	**DEM Response**
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC02, Impact event, *Regulated activities disturb landholder infrastructure or activities*	For context, we often get landholders asking us to relocate met masts out of cropping and access track areas to minimise impacts to agricultural practices.	Noted.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER01, Control measures, 1st dot point, *Traditional Owners consulted and cultural heritage survey or 'work area clearance' undertaken prior to land disturbing activities and other activities as required in accordance with relevant Native Title Agreement (if applicable).*	This could be challenging to achieve. Numerous met masts are installed every year and this requirement could slow the process down. Is there a middle-ground that could be achieved? I.e. on Freehold land could a Cultural Heritage Risk Assessment be completed before hand instead? This is what we have previously done for low risk Met Masts.	Text updated to include the requirement to *Cultural heritage risk assessment undertaken in consultation with Traditional Owners and/or by an anthropologist/archaeologist and a cultural heritage survey or 'work area clearance' undertaken prior to land disturbing activities and other activities as required in accordance with relevant Native Title Agreement (if applicable).* Cultural heritage risk assessments are required to be informed by a suitably qualified person (inclusive of Traditional Owners).
Industry	Section 5.2.6 Landscape and visual amenity Impact ID #VIS01, Control measures, 1st dot point, *Meteorological masts located in areas which are unlikely to be seen from public viewpoints.*	I think this will be difficult to achieve in many circumstances. Suggest they should seek to minimise visibility from residential, tourist development, or other visually sensitive areas. Met masts have to go in the most appropriate location for which to monitor the wind resource. This means that they will often be along ridgelines and other locations that are visually prominent. In saying this though, they a difficult to discern from a distance and are not visually prominent.	Control measure updated to reflect suggested text.

Industry	Section 5.2.5 Noise and vibration Impact ID #NOI01, Control measures, 4th dot point, *Activities restricted to daytime hours as far as practicable*.	Suggest amending to align with EPA information sheet: activities likely to cause adverse impact on amenity is only undertaken between 7 am and 7 pm, Monday to Saturday, unless otherwise approved by the EPA.	Control measure updated to refer to relevant EPA fact sheet.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, Control measures, 4th dot point, *Where relevant, a specific environmental management plan for Buffel Grass will be developed and implemented*.	Should Phytophthora be called out as well? Particularly if traffic and plant are moving from a high risk area to a moderate risk area like the mid-north?	Updated to include phytophthora.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, Assessment criteria, *Declared plants and animals occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation, Regional Landscape Plans and declared pest animal and weed policies*.	Suggest adding reference that a permit will be obtained for any transport of declared plants (including soils containing declared plant materials).	Suggested text added to control measures, permit to be acquired from relevant landscape board.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Source, *vegetation clearance for meteorological mast installation and construction of temporary laydowns*	For info: in our experience met mast footings are often micro-sited into disturbed areas such as access tracks.	Noted.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Leading performance criteria, *Site selection and infrastructure micro-siting avoid threatened flora species*.	Opportunity to reference Mitigation Hierarchy Agree. They are generally minimal impact and micro-sited into disturbed or lower risk areas.	Text updated to reflect this.

Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, 5th dot point, *Native vegetation will not be cleared if existing cleared areas can be utilised*.	Suggest adding reference that DEWS' Mitigation Hierarchy of native vegetation clearance will be applied.	Text updated to reflect this.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, 4th dot point, *Naturally clear areas or areas with few long-lived species will be selected where possible*.	Suggest adding 'or previously' cleared.	Text updated as suggested.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Control measures, 4th dot point, *Naturally cleared areas are used and clearance of native vegetation is avoided, particularly longer lived shrubs and trees*.	Suggest adding 'or previously' cleared	Text updated to reflect this.

Industry	Section 4.6.1 Aboriginal heritage *The the Attorney-General's Department – Aboriginal Affairs and Reconciliation (AAR) has published guidelines and fact sheets to assist proponents with identifying and protecting Aboriginal heritage such as:*	Does this mean that engagement is required with AH groups prior to the installation of met masts? If so; they have a very small footprint; could an Standard Operating Procedure that refers to Stop-Work Procedures be used instead?	Effort should be undertaken to engage early with TO's to inform a cultural heritage risk assessment and/or on the need for a survey/WAC. Procedures must be in place to stop work and report any Aboriginal heritage discovery. As noted above, a cultural heritage risk assessment can be undertaken to determine whether potential or known heritage is likely at a proposed site.
Industry	Section 4.6.1 Aboriginal heritage *The Attorney-General's Department*	Delete repeated word. If AAR agree, it might be useful to also add reference to AARs Aboriginal heritage discovery protocol (attached to email), as a standard process that can be utilised by contractors	Repeated word removed. Reference to the Aboriginal heritage discovery protocol has been included.
Industry	Section 4.6.1 Aboriginal heritage *The central archives hold information on recorded heritage throughout the State; however, it is not a complete record of all heritage in the State. Undertaking a search of the central archives prior to undertaking any ground-disturbing works will reduce the risk of inadvertently damaging, disturbing or interfering with any recorded Aboriginal heritage.*	Suggest adding a note the sites, objects and remains are protected under the AH Act, whether they are recorded in the central archives or not.	EIR states: *The Aboriginal Heritage Act 1988 (AH Act) provides for the legal protection and preservation of all Aboriginal heritage (known and unknown) in the State.*

Industry	Section 3.1 Meteorological masts *Meteorological masts can also be equipped with other sensors, e.g. cameras, radar, to collect data and monitor bird and bat activity.* DEM question to industry: Is this accurate? Are these types of sensors widely used (on-shore only) or generally just use standard BBUS methods for monitoring?	WSP's ecology team do not think this is a common practice in SA, however it is used on some wind farms interstate with anabats deployed to monitor bat activity - probably because there are more threatened bats interstate. The team recommend that if cameras, etc were deployed, they would only be useful to opportunistically collect data and would not replace BBUS surveys, especially given the low number of masts on a site compared to bird and bat sites that are typically set up with BBUS surveys.	Noted. Text retained.
Industry	Section 3.1 Meteorological masts *The height of the mast is generally smaller than the proposed wind turbine, whose height may exceed 150 m).*	Often the met mast seeks to align with the proposed hub height of the turbine.	Text updated to reflect this.
Industry	Section 3.1 Meteorological masts *Masts have a small footprint at their base with a larger guy wire span.*	Yep, they have a small footprint. Foundations consist of a small concrete base with a buried anchor system. The concrete base tends to be constructed from pre-cast concrete blocks, secured together with locking pins.	Noted. Text has been updated to reflect this.
Industry	Section 2.4 Other legislation, *South Australia*	Traffic and access can be a key issue for these projects. We suggest adding a reference to the Highways Act.	Highways Act 1926 included.
Industry	Section 1.2.1 Exclusions and constraints, *Projects deemed to have a significant impact to MNES*	Is this because there is an assumption that they will be addressed as a controlled action under the EPBC Act?	Projects that may have a significant impact to MNES will require their own EIR and SEO to provide a higher level of detail on the potential impacts that are anticipated as a result of the project, rather than being able to adopt an off-the-shelf document. Proponents, in this instance, will be required to specifically demonstrate through the EIR that relevant species have been identified and how they will be managed, this level of detail is not currently reflected in the off-the-shelf document.

Industry	Section 1.2.1 Exclusions and constraints, *Coverage of this EIR also conforms with the setback distances for wind turbines defined by the Planning and Design Code (the P&D Code) under the Planning Development and Infrastructure Act 2016, which are presented in the in the HRE Act Environmental Impact Assessment Criteria guideline prepared by DEM (DEM, 2024). Consequently, the EIR and SEO do not cover meteorological masts located within 2 km of the following zones described in the P&D Code:*	So HRE only deals with met masts more than 2 kms from these zones? Do met masts within 2 kms of these zones need their own EIR and SEO?	Recognising that met masts aren't typically visually obtrusive, the approach to managing and avoiding visual impacts has been updated. Rather than excluding projects based on the PDI Code wind turbine setbacks from the scope of this EIR and SEO, DEM will require through the SEO that where a met mast is within 500m of specific receptors/zones (e.g. associated dwelling, township, tourist accommodation) a visual impact assessment must be undertaken to demonstrate that the visual impact of the met mast will not be detrimental to those receivers, which may include consideration of the temporary nature of the structure as well as the expected visual prominence. The level of detail required in a visual assessment is commensurate to the expected level of impact.
Industry	Section 1.2.1 Exclusions and constraints, *Areas defined as reserves under the NPW Act 1982*	Have there been any discussions in relation to exclusions under the new Biodiversity Act?	The EIR and SEO only consider that current legislation. Updates will likely be required once the biodiversity act comes into place
Industry	Section 1.2 Scope, *geotechnical investigations*	Noting that geotechnical surveys (including test pits and boreholes) has always been a grey area within the SA approvals framework. To exclude it here is good and provides clear direction that geotech is not considered a regulated activity under the HRE Act. It might be good to provide a note to say that even though geotech is not a regulated activity; it is still subject to Native Veg and Aboriginal cultural heritage requirements and approvals. We've traditionally found that some proponents do their due diligence and comply with these requirements and approvals, and some don't. Consistency is required.	Text included to reflect that non-regulated activities are to be undertaken in agreement with the landowner and must comply with other applicable legislation.
Industry	Section 1.2 Scope, *campsites*	Note that these may trigger 'development' under the PDI Act.	Noted, as above, text has been added to reflect that other applicable legislation must be complied with.

Industry	General	in Windlab's view, the draft objectives and assessment criteria still impose onerous obligations that are disproportionate to the actual impacts that might arise from REFP activities. Additionally, in Windlab's experience, the draft objectives and assessment criteria impose more onerous obligations for South Australian developments when compared with other States and Territories.	DEM acknowledges this view, however, it is DEMs understanding that the objectives and assessment criteria set are generally measures that are undertaken for met mast projects. The EIR and SEO documents have been prepared to facilitate and streamline the process for application for a met mast, where a proponent wishes to use the EIR and SEO to fulfil this requirement of permit application, the proponent will be required to only denote against each objective how it will be met if it is relevant (if not relevant, i.e. impact will not occur, provide a comment to this effect).
Industry	General	Met masts are inherently low impact structures. Based on installations recently undertaken by Windlab in 2025, each mast is approximately 150 metres (m) tall, consisting of a single lattice tower supported by 9 guy wire anchor points. The central anchor point, located at the intersection of the guy wire layout, is a small cement pad of roughly 1.5 m x 1.5 m. The supporting guy wire anchor points measure approximately 3.4 m x 0.8 m, extending to a depth of 2 m. Where vegetation interferes with guy wires it is trimmed (but not removed where possible).	Text updated to reflect this.
Industry	General	From recent met mast installation experience, the total disturbance area of vegetation for the installation of a mast is less than 0.3 hectares, demonstrating a highly localised impact to vegetation. Excavation depths are typically well above the water table in most regions limiting the risk of interference with groundwater quality. Furthermore, construction involves minimal use of hazardous chemicals that could result in soil, surface water and groundwater contamination.	Noted.

Industry	General	Civil Aviation Safety Authority requires met masts to have reflective materials installed. This enhances visibility and reduces collision risks. Additionally, met masts do not contain moving parts that could disorient or harm birds and bats. Noise impacts are confined to short-term construction activities resulting in no ongoing impacts to dwellings. Maintenance works are rare and brief, noting also that these devices are typically installed in remote locations. Overall, given the met mast's small footprint, passive operation, temporary nature and negligible environmental impact, applying additional regulatory requirements would be disproportionate to their limited impacts. Such measures risk delaying critical infrastructure delivery without delivering meaningful environmental benefit.	Noted.

Industry	General	By way of example, Windlab installed a met mast in Queensland earlier this year. Having regard to the slimline design and low impacts it was determined that the effects of the development would be minor or inconsequential, considering the circumstances under which the development was categorised as assessable development. Therefore, an exemption certificate was issued under s.46 of the Planning Act 2016 (Qld) by the relevant local government. To be installed, the met mast only needed consent from the underlying landholder and a building approval from a building certifier.	DEM recognises the limited range of potential impacts met masts have. DEM notes that the described scenario is underpinned by the proponent providing justification to achieve an exemption. While the process under the HRE Act does not afford an exemption from the Act for met masts, the development of the EIR and SEO for proponents to adopt has been undertaken to streamline the process of obtaining an REFP. Through this process the proponent can adopt this EIR and SEO and do not have to develop their own to fulfil this specific requirement of an application for a permit. The proponent must only demonstrate that the adoptable EIR and SEO are relevant to their project, i.e. that the project is within scope and demonstrate how each objective will be met, so far as is relevant. Generally, it is understood that the requirements of the SEO are standard outcomes expected of industry and generally capture standard control measures that proponents would employ.
Industry	Title page	As above suggest adding Meteorological Masts to the title page to make it clear what infrastructure this report relates too	Updated.
Industry	Section 8, Abbreviations and glossary	Move to start of document - not common to have it at the end of a doc	Updated.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC03, Control measures, dot point 6, *Details or logs of equipment cleaning are kept and are available for audit upon request.*	More for a larger project?	This is demonstration that effective controls are in place where they are required.

Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC02, Control measures, dot point 10, *Restoration of land disturbances to be undertaken through consultation with, and to the satisfaction of the landowner*.	See comments above on how this relates to native vegetation restoration controls	Text updated to clarify that land restoration must be undertaken in consultation with the landowner, however, where a statutory management plan is in place this should be communicated to the landowner through consultation and complied with.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC01, Control measures, dot point 2, *Right or interest in the land acquired before undertaking authorised operations*.	Does this allow for leases?	Yes, a lease is considered a right or interest in the land.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC01, Control measures, dot point 2	More appropriate for a larger project	No update required. Relevant for all projects, in line with the EPA waste mitigation hierarchy.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC01, Control measures, dot point 10, *Licensed contractors used for waste transport*	Update dot point to *Licensed contractors used for transport of any hazardous wastes*. Most waste generated by met masts will not require licenced disposal eg. Packaging for construction materials, which will be very limited	Text updated to state *where required*.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF04, Leading performance criteria, *Safety audits to be undertaken and any identified additional actions that could be reasonably implemented to reduce the risks to the public will be implemented*.	All references to audits to be reviewed for their appropriateness for a met mast. An audit program is more appropriate to a larger scale development of longer duration. Met mast construction is typically 1-2 weeks.	No update required. Auditing of safety is not limited to major projects. While the duration of work is limited, this doesn't preclude this type of work from safety auditing.

Industry	Section 5.2.8 Public health and safety Impact ID #SAF04, Control measures, dot point 4	Add *where appropriate* to dot point. Most met masts are in remote locations where this is not needed or appropriate	Text updated to reflect this.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF03, Control measures, dot point 5, *Warning signage erected during operations where necessary (e.g. where there is significant traffic accessing sites from public roads)*.	Met masts do not result in significant traffic. Suggest removal	Retained to capture circumstances that may require this.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF03, Control measures, dot point 1, *Driver awareness training for all personnel*.	Excessive?	Removed.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF02, Control measures, dot point 3,*Crews are trained in use of firefighting equipment*.	Excessive?	No update required, consideration where fire fighting equipment has been bought to site.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF02, Control measures, dot point 3, *Ensure all vehicles are fitted with appropriate fire-fighting equipment and spark arrestors*	Excessive?	Text updated to refer to areas of high fire risk and during fire danger season
Industry	Section 5.2.8 Public health and safety Impact ID #SAF02, Control measures, dot point 2, *Fire and Emergency Services Act 2005 requirements complied with (e.g. permits for 'hot work' on total fire ban days)*.	Hot work typically not required for met masts - suggest this is added to avoidance	No update required, captured as relevant through control measures.

Industry	Section 5.2.8 Public health and safety Impact ID #SAF02, Control measures, dot point 1, *Firefighting equipment available as appropriate for location and use*.	Not appropriate for a met mast development.	No update required. As noted in the control measure, this is applicable based on the location and use, e.g. if hot-works are required.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF01, Control measures, dot points 1,2,3,4	Move to avoidance section and make it clear what level of risk requires avoidance	No update required, as explained above.
Industry	Section 5.2.8 Public health and safety *Impact events: • Fires caused by the regulated activities results in injuries or fatalities to members of the public.* *• Project-related traffic increases road disturbance and/or safety hazard for local residents and other road users* *• Regulated activities and associated infrastructure increase public safety hazard.*	Consider whether these are relevant impacts for a met mast development	DEM considers that these are relevant for a met mast, while these may be considered unlikely, the potential exists for activities to result in these impacts.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Control measures, dot points 1, 2 and 3	Move to avoidance section	No update required, as explained above.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER01, Control measures, dot point 7	Add to avoidance section noting sites and exclusion zones are to be avoided	No update required, as explained above.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER01, Control measures, dot point 1, 2, 3 and 4	All these points could be summarised in a requirement to conduct an appropriate due diligence assessment	No update required. Important to be specific in developing control measures, particularly for a broad scoping document. Noting that these control measures (and impact assessment) have been developed in consultation with AAR-AGD.

Industry	Section 5.2.6 Landscape and visual amenity Impact ID #VIS01, Control measures, *Restoration of land disturbance to be undertaken through consultation with and to the satisfaction of the landowner*	Reconcile conflict with section on native vegetation removal that has different requirements for restoration	Text updated to capture both consultation with landowner and any other commitments from issued approvals.
Industry	Section 5.2.6 Landscape and visual amenity Impact ID #VIS01, Control measures, dot point 1 and 2	Move to avoidance section	No update required, as explained above.
Industry	Section 5.2.6 Landscape and visual amenity Impact events	Consider whether these are relevant impacts for a met mast development, considering implementation of set backs	Setbacks have been removed, replaced with further assessment required where within 1km of a visual receptor.
Industry	Section 5.2.5 Noise and vibration Impact ID #NOI01, Control measures, dot point 1	Move to avoidance section	No update required, as explained above.
Industry	Section 5.2.4 Air quality Impact ID #AIR01, *Equipment to perform water-spraying is available onsite during construction, and implemented if dust generation becomes a problem (e.g. near sensitive sites).*	Given it is not typically conducted for a met mast and the control states it will be only “if dust generation becomes a problem” it should not be required to be available on site	Text updated to include *where required* to better reflect that spraying may not be applicable in all scenarios.

Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO06, Control measures, dot point 6	Move to avoidance	No update required, as explained above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO06, Control measures, dot point 1, *Driver awareness training for all personnel*.	Not appropriate for the scale of a met mast development	Removed.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO05, Control measures, dot point 3.	Move to avoidance	No update required, as explained above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO04, Control measures, dot point 3.	Move to avoidance	No update required, as explained above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO04, Control measures, dot point 2, *Site/route selection to minimise potential impacts to fauna*	More appropriate to a larger project - very few construction vehicles for a met mast - suggest removal	Route removed.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO04, Control measures, dot point 1	Move to avoidance	No update required, as explained above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, Control measures, dot point 7	Move to avoidance	No update required, as explained above.

Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, Control measures, dot point 6, *Details or logs of equipment cleaning are kept and are available for audit upon request*.	This is more appropriate to a larger project	No update required. This requirement aligns with other control measures regarding cleaning equipment that has been operating or transported from known weed infested areas.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, Control measures, dot point 1, *Appropriate consultation regarding weeds, pathogens and pests is carried out with landholders and the Department of Primary Industries and Regions (PIRSA) / DEW / relevant landscape board (where relevant)*.	Excessive for a met mast. This is more appropriate to a larger project	It is an expectation that at minimum proponents will discuss weed impacts with landowners where they may reasonably be expected to occur. This may require additional consultation/expertise sought from the relevant agencies for further management advice.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO02, Control measures, dot point 3, *Areas of inundation, which may result in bogging, or creation of heavy wheel track rutting (e.g. more than 200 mm deep) are avoided*.	Move to avoidance	No update required, as explained above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, final dot point, *Any areas of clearance will be rehabilitated where necessary (e.g. by respreading vegetation or reseeding with local seed sources where appropriate) and in accordance with an approved Native Vegetation Council management plan*.	This measure needs to be reviewed as not consistent with other controls where final land use agreed with landholder. Requirement for an approved Native Vegetation Council management plan is also not appropriate for most met masts with minimal impact to native vegetation (usually just ground cover)	If there is an instance where a NVC management plan is in place, this must be complied with. Where there is a management plan in place, this should be communicated transparently to landowners during consultation and incorporated in determining final condition of the site.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, dot points 6, 7 and 8	Move to avoidance section	No update required, as explained above.

Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, dot point 2, *Ecological assessments will consider cumulative impacts of disturbance to identified species within the area and further avoidance or management measures will be implemented to avoid impacts where they are assessed to result in cumulative impacts to particular species*.	Wording of this is excessive for a met mast assessment	This control measure is in line with the guidance for applications to clear native vegetation under the Native Vegetation Act and Regulations. i.e. *The Data Report must clearly define and account for all the clearance that can reasonably be expected to occur or be required for the development, including: Cumulative impacts – impacts resulting from the incremental impact of past, present and future activities.*
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, dot point 13, *Where vegetation clearance is required, approval under the Native Vegetation Act is obtained*	Add *where required*to end of dot point. Important to include this as there will be some instances of vegetation clearance that will not require approval e.g. removal of non native vegetation	Text updated as suggested.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, dot point 11	See comments above	No update required, as explained above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures, dot point 1, *Appropriately trained and experienced personnel will undertake ecological assessment prior to work and identify any areas of sensitivity or "no-go" areas, including consultation with the relevant landscape board to inform ecological assessments where relevant* .	Clarify meaning of ‘where relevant’ as this board consultation would not usually be conducted for a met mast assessment given its small scale	Instances may occur where expertise is required to be sought from the landscape boards. It is understood that this may not occur in all projects, however, this control measure reflects that the landscape boards have expertise and specific management plans in place for certain species.

Industry	Section 5.2.3 Flora, fauna and biodiversity *Impact events*	Reference to be made here that assessment of impacts needs to consider the NVC and EPBC processes.	No update required. This section is a list of potential impact events that may occur as a result of operations. NVC and EPBC processes have been captured within the EIR, as well as control measures and reflected through the objectives, i.e. where relevant approvals and permitting must be in place. Please note that any project that may have a significant impact on MNES under EPBC is excluded from the scope of this EIR and SEO. In this instance a project specific EIR and SEO must be developed.
Industry	Section 5.2.3 Flora, fauna and biodiversity	This is a key step to add as per the methodology outlined in Section 5.1.4 (and in line with best practice for impact assessment). Several of the control measures below can be brought up into this section. Separating out these measures also assists in guiding site selection. The following sections such as Impact events should assume these avoidance/elimination measures are implemented.	No update required. For readability, all control measures have been retained under the relevant control measures section for each impact. The impact assessment process leads to the establishment of objectives, assessment criteria and leading performance criteria that must be complied with as required in the SEO. In accordance with the EIAC, leading performance criteria are established based on any control measure that is relied upon to avoid or reduce an impact on the environment/receptors, therefore if a control measure is in place that avoids or eliminates an impact, this has been adopted as a leading performance criteria and must be considered via an assessment against the SEO by the proponent on a case-by-case basis.

Industry	Section 5.2.2 Surface water and groundwater Impact ID #SWR02, Control measures, dot points 1, 2, 5 and 7	Move to avoidance/elimination section	No update required. For readability, all control measures have been retained under the relevant control measures section for each impact. The impact assessment process leads to the establishment of objectives, assessment criteria and leading performance criteria that must be complied with as required in the SEO. In accordance with the EIAC, leading performance criteria are established based on any control measure that is relied upon to avoid or reduce an impact on the environment/receptors, therefore if a control measure is in place that avoids or eliminates an impact, this has been adopted as a leading performance criteria and must be considered via an assessment against the SEO by the proponent on a case-by-case basis.
Industry	Section 5.2.2 Surface water and groundwater Impact ID #SWR01, Control measures, dot points 1, 2 and 3.	Suggest replacing all these with an avoidance/elimination measure eg. Met masts to be X m from designated waterways	No update required. Obtaining a relevant permit to undertake works is considered a valid control measure to manage impacts where waterways can't be avoided.
Industry	Section 5.2.2 Surface water and groundwater Impact ID #SWR01, Control measures, dot point 5, *Sediment and erosion control measures , e.g. earth bunds, soil stabilisers, silt fences) installed where necessary* .	Not typically required for a met mast due to limited ground disturbance and short construction duration - suggest removing	No update required. The EIR has intentionally been developed to be broad scoping.

Industry	Section 5.2.2 Surface water and groundwater	Add section for *Required avoidance/elimination measures*. This is a key step to add as per the methodology outlined in Section 5.1.4. Several of the control measures below can be brought up into this section. Separating out these measures also assists in guiding site selection	No update required. For readability, all control measures have been retained under the relevant control measures section for each impact. The impact assessment process leads to the establishment of objectives, assessment criteria and leading performance criteria that must be complied with as required in the SEO. In accordance with the EIAC, leading performance criteria are established based on any control measure that is relied upon to avoid or reduce an impact on the environment/receptors, therefore if a control measure is in place that avoids or eliminates an impact, this has been adopted as a leading performance criteria and must be considered via an assessment against the SEO by the proponent on a case-by-case basis.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI03, Control measures, dot points 8 & 9.	These could be removed as level of detail is excessive given the very limited extent of use of hazardous materials for a met mast	No update required. The EIR has intentionally been developed to be broad scoping to allow the majority of projects to be within scope. Where a control isn't relevant for a particular project, proponents aren't required to include within their operational documents.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI03, Control measures, dot point 6, *No refuelling near watercourses* .	Suggest change to avoiding on site refueling	No update required. The EIR has intentionally been developed to be broad scoping to allow the majority of projects to be within scope. This allows for projects that may be remote to still be relevant to this EIR if they do require refuelling. Again, the objectives/assessment criteria/leading performance criteria set out in the SEO are only required to be considered on a case-by-case basis by the proponent, i.e. where refuelling is not applicable a statement stating this is sufficient.

Industry	Section 5.2.1 Soil and land quality Impact ID #SOI03, Control measures, dot point 5, *No refuelling outside designated refuelling / servicing areas*.	Met masts don't have designated areas such as this - not appropriate for a met mast development	No update required. The EIR is broad scoping, therefore have allowed consideration of future projects that may consider this as required within the scope of the project, i.e. while unlikely, if refuelling is not within the scope of this EIR and SEO and a proponent requires refuelling for a remote REFP project, they will be required to develop their own EIR and SEO, which is not the intention of this process.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI03, Control measures, dot point 2, *Refuelling undertaken using appropriate drip capture systems*	Suggest change to avoiding on site refueling	No update required. The EIR has intentionally been developed to be broad scoping to allow the majority of projects to be within scope. This allows for projects that may be remote to still be relevant to this EIR if they do require refuelling. Again, the objectives/assessment criteria/leading performance criteria set out in the SEO are only required to be considered on a case-by-case basis by the proponent, i.e. where refuelling is not applicable a statement stating this is sufficient.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI02, Control measures, dot points 1,2,3	Move to avoidance/elimination section - see feedback above	No update required. For readability, all control measures have been retained under the relevant control measures section for each impact. The impact assessment process leads to the establishment of objectives, assessment criteria and leading performance criteria that must be complied with as required in the SEO. In accordance with the EIAC, leading performance criteria are established based on any control measure that is relied upon to avoid or reduce an impact on the environment/receptors, therefore if a control measure is in place that avoids or eliminates an impact, this has been adopted as a leading performance criteria and must be considered via an assessment against the SEO by the proponent on a case-by-case basis.

Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Leading performance criteria	All comments on criteria have been added to SEO doc	Noted.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Control measures, 9th dot point, *Water quality, including salinity levels, are determined prior to use*	Baseline water monitoring, as well as water spraying, are not appropriate for a met mast development - not typically required given low level of impacts and short duration of construction	No update required. Again, the EIR has intentionally been developed to be broad scoping to allow the majority of activities across varied projects to be within scope.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Control measures, 4th dot point, *Naturally cleared areas are used and clearance of native vegetation is avoided, particularly longer lived shrubs and trees* and 5th dot point *No construction in landscapes with sensitive features such as wetlands or salt lakes*.	Move up to avoidance/elimination section	No update required. For readability, all control measures have been retained under the relevant control measures section for each impact. The impact assessment process leads to the establishment of objectives, assessment criteria and leading performance criteria that must be complied with as required in the SEO. In accordance with the EIAC, leading performance criteria are established based on any control measure that is relied upon to avoid or reduce an impact on the environment/receptors, therefore if a control measure is in place that avoids or eliminates an impact, this has been adopted as a leading performance criteria and must be considered via an assessment against the SEO by the proponent on a case-by-case basis.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Control measures, 1st dot point, *Existing roads or tracks are used for access where possible*.	Avoidance measures can include requirement to not construct and new tracks / roads - consistent with the scope of this EIR outlined in section 1.2.1	Construction of new access tracks isn't within the definition of a feasibility activity and therefore can be undertaken in agreement with the landowner where required.

Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Control measures, 13th dot point, *Restoration of land disturbance to be undertaken through consultation with, and to the satisfaction of the landowner*.	Please clarify if this is in relation to temporary disturbance from construction, or met mast decommissioning	This specific control measure relates to decommissioning. However, disturbances to the land do need to be undertaken in agreement with the land owner and as specified in other control measures, disturbances should be managed to minimise impacts.
Industry	Section 5.2.1 Soil and land quality Following table *Context summary for soil and land quality*	[add heading *Required avoidance/elimination control measures]* This is a key step to add as per the methodology outlined in Section 5.1.4 (and in line with best practice for impact assessment). Several of the control measures below can be brought up into this section. Separating out these measures also assists in guiding site selection. The following sections such as Impact events should assume these avoidance/elimination measures are implemented.	No update required. For readability, all control measures have been retained under the relevant control measures section for each impact. The impact assessment process leads to the establishment of objectives, assessment criteria and leading performance criteria that must be complied with as required in the SEO. In accordance with the EIAC, leading performance criteria are established based on any control measure that is relied upon to avoid or reduce an impact on the environment/receptors, therefore if a control measure is in place that avoids or eliminates an impact, this has been adopted as a leading performance criteria and must be considered via an assessment against the SEO by the proponent on a case-by-case basis.
Industry	Section 5.1.7 Developing environmental objectives and assessment criteria *These objectives are defined in the impact assessment summary tables provided in Section 0 and will be carried through to the SEO*.	Review section references	Updated.

Industry	Section 5.1.7 Developing environmental objectives and assessment criteria *Note: Due to the large geographical area feasibility activities could occur in and their relatively low impact nature, the assessment criteria and leading performance criteria are less specific than would be the case for a defined project (e.g. renewable energy infrastructure) at a defined site with the potential for a higher level of impact.*	See feedback - criteria should be met mast specific and appropriate to the scale and level of impacts of a met mast development	Noted.
Industry	Section 5.1.4 Identifying relevant control and management measures *Elimination measures that eliminate the source of a potential impact event, preventing the impact from occurring*	This step should be explicit in the structure of the subsections within 5.2. See suggestions in section 5.2.1	Any control measure that is relied upon to prevent or minimise an impact on a receptor has been adopted as a leading performance criteria in line with the Environmental Impact Assessment Criteria (EIAC) which must be considered in adoption of the SEO on a case-by-case assessment by the proponent.
Industry	Section 4 Overview of Existing Environment	Not sure of the value of this section given it is very broad scale - could it be completely cut to improve the conciseness and readability of the doc? (or at least cut down substantially)	No update required. Regulation 32(2)(b) requires that the EIR provide a description of the specific elements of the environment that can reasonably be expected to be affected by authorised operations. As such, this section must be retained. The developed EIR is generally applicable state-wide, therefore the description of the environment is broad scoping in nature. It is expected that proponents that elect to adopt this EIR/SEO, will provide site specific detail through an assessment of the project against the objectives.

Industry	Section 3.1 Meteorological masks *Meteorological masts can also be equipped with other sensors, e.g. microphones, cameras, radar, to collect data and monitor bird and bat activity.* DEM Question to industry: Is this accurate? Are these types of sensors widely used (on-shore only) or generally just use standard BBUS methods for monitoring?	For some met masts Tilt has added microphones to the masts to support bat monitoring. Include *microphones* after e.g.	Text updated to reflect this.
Industry	Section 3.1 Meteorological masts *Meteorological masts are used to obtain wind field data at potential wind farm sites. The masts accommodate different sensors that accurately measure wind speed, wind direction and temperature other weather data…*	Close to hub height pressure data is also vital to understand power output. Suggest updating wording to other weather data, to capture other parameters such as temp, pressure etc [update *temperature* to *other weather*]	Text updated to reflect this.
Industry	Section 3.1 Meteorological masts *Excavation works for footings may, in some instances are cases, intersect shallow groundwater and may require dewatering.*	Only in very rare cases where the groundwater is high. Main excavations for mast base and anchors is less than 2 m deep and design can be changed to avoid impact.	Noted. Dewatering activities have been included/retained in the EIR to enable a broad scope of activities to be applicable to the documents. DEM is aware of met mast projects that have required this.
Industry	Section 3.1 Meteorological masts	Paragraph 2, 3rd sentence, update *capture daily* to *capture hourly*	Text updated to reflect this.
Industry	2.2 Operational Management Plan	Please clarify level of detail required in the OMP for a met mast. Could an example OMP be made public that provides some guidance on this?	Not appropriate place for guidance on OMP in this specific EIR. Separate guidance material as suggested is better suited for this.

Industry	1.2.1 Exclusions and constraints	Suggest adding some text like this to clarify what you need to do if you don't meet the exclusions above. [Paragraph following dot points: *If a development does not meet the exclusions above, this standardised EIR would not be able to be used and a bespoke EIR would need to be prepared.]*	No update required, existing text states *proponents proposing meteorological masts within any of the areas excluded by this EIR would be required to develop a project specific EIR and SEO for assessment under the HRE Act.*
Industry	1.2 Scope These activities may instead be undertaken in agreement with the landowner.	Add text: and with consideration of the requirements of other applicable legislation.	Suggested text added.
Industry	1.2 Scope *For the purposes of this EIR, feasibility activities therefore include the construction, installation, operation, maintenance and decommissioning of meteorological masts.*	Suggest highlighting this more clearly at start of this scope section, and in introduction	Moved to section 1.1.
Industry	Section 5.1 Methodology *summary tables provided in Section 0.*	Section 0 typo.	Updated.
Industry	Section 5.1 Methodology *4. Identifying relevant control and management measures for each potential impact event, needed to eliminate or otherwise reduce any potential environmental harm to as low as reasonably achievable (part Criteria 4).*	Safe work Australia has a definition for as low as practicable. A question whether DEM wants to separate themselves from this criteria by using a clearly different term, reasonably, or use a more known term. Noting that it mainly has to do with work site hazards.	Updated, intention is to be aligned.
Industry	Section 3.1 Meteorological masts *Question to industry: Is this accurate? Are these types of sensors widely used (on-shore only) or generally just use standard BBUS methods for monitoring?*	Yes, this sounds about right. At least for bat activity pretty standard now.	Noted. Text retained.

Industry	Section 1.1 Purpose *The Department for Energy and Mining (DEM) determined that a State-wide EIR and SEO will streamline the approval process and ensure consistency for most feasibility activities undertaken under a REFP within South Australia without detriment to protection of the environment.*	I think this is a good idea, and this document has a lot of good information on different regions, vegetation etc. Just wanting to make sure that it is clear for the public how this document is to be used: would it be worth mentioning whether the proponent would identify the relevant information for their particular location and impacts and use those for their EIR REFP submission? Or use this as a template?	Noted, DEM is developing a guidance template to provide description of how to use this EIR and SEO. Text has been updated to provide a brief description of how a proponent may adopt the documents.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC01, Source	Replace *building* with *construction*	Updated.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC01, control measures, dot point 3	Not sure met mast installation and decom would warrant this - perhaps better reference would be - containment of all waste	Updated.
Industry	Section 5.2.9 Social environment, land use and infrastructure Impact ID #SOC01, assessment criteria, dot point 2	[remove dot point 2, dot point 3 is better]	Updated.
Industry	Section 5.2.8 Public health and safety Impact ID #SAF04, Source, *Regulated activities and associated infrastructure (e.g. meteorological masts and operation of equipment at activity location).*	What exactly is the source of the hazard? Is this referring to unauthorised access and accidents occurring as a result of this? eg falling from strucutre	Updated to clarify that this includes unauthorised access.

Industry	Section 5.2.8 Public health and safety Impact ID #SAF03, Source, *Construction of temporary laydown areas*	Not sure this is a source - met masts don't require "constructed" laydown areas?	Removed.
Industry	Section 5.2.8 Public health and safety Impact events, *Regulated activities and associated infrastructure increase public safety hazard.*	What is this alluding to?	Updated to clarify due to unauthorised access.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Source, *Visual disturbance at non-Aboriginal heritage sites*	I don't think this is any more relevant for non-Aboriginal heritage than Aboriginal hertiage	Noted.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Source, *non-Aboriginal heritage sites or artefacts*	The more significant issue is unknown archaeology which is protected by Heritage legisation	Noted.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Control measures, dot point 5	*No impact to heritage places, archaelogy and related objects protected under the Heritage Places Act 1993 unless approval has been obtained under that Act.*	Updated.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Control measures, dot point 2	SEB sites should be excluded - even the NSW interconnector could not get approval for clearance on such land - is this getting SEB "Heritage Agreements" which is a NVC matter confused with general 'hertiage' - delete this	Removed and included in exclusion to the EIR.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Control measures, dot point 1	Refer to PDI Act and P&D Code too	Updated.

Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER01, Control measures dot point 6	CEMP and releavnt sub-managemtn plan is the primary tool used to control this issue and incldues stop work proceedures	Text updated to refer to Aboriginal heritage discovery protocols.
Industry	Section 5.2.7 Aboriginal and non-Aboriginal heritage	Add PDI Act - local heritage to Applicable legislation Add P&D Code Local Heritage listings and Heritage Zones to Applicable non-legislated standards	Updated.
Industry	Section 5.2.6 Landscape and visual amenity Impact ID #VIS01, Control measures, dot point 2	Perhaps replace with "A visual impact assessment is undertaken to avoid siting in highly visible or scenic locations"	Suggested text adopted.
Industry	Section 5.2.6 Landscape and visual amenity Impact ID #VIS01, Control measures, dot point 1	This is not realistic as it implies not being visible from a public road - met masts will disappear in the landscape after a relatively short distance. Siting should consider the visibility given the proximity of private and public view points and the nature of the setting.	Control measure updated to minimise impacts where possible.
Industry	Section 5.2.6 Landscape and visual amenity Impact ID #VIS01, Assessment criteria, dot point 2	this is better wording but needs to also reference neighbours	Updated to include residential, tourist development, or other visually sensitive areas.
Industry	Section 5.2.6 Landscape and visual amenity Applicable non-legislated standards	Note that the PDI policy does not consider that met masts are so visually offensive as to warrant setbacks - but other infrastructure can be. So setbacks is more an indicator of poential next step rather than the met mast itself. Bear in mind that we don't want to imply that met masts are a visual problem in themselves - this would lead to arguments opposing communication towers which are much more substantial.	Noted. Setbacks have been removed, however will require visual assessment to demonstrate this point.

Industry	Section 5.2.6 Landscape and visual amenity Applicable legislation	Landscape act is about natural resources not amenity - has no control over amenity. The only legislative control is the PDI act - the zones that are excluded and the setbacks control this aspect.	Updated.
Industry	Section 5.2.6 Landscape and visual amenity	Add PDI Act to Applicable legislation Add - *setback requirements* after P&D Code in Applicable non-legislated standards	Setbacks have been removed from EIR.
Industry	Section 5.2.6 Landscape and visual amenity	Regulated activities result in *unacceptable* reduced visual amenity for the local community.	Updated.
Industry	Section 5.2.5 Noise and vibration Impact ID #NOI01, assessment criteria, dot point 1 and 2	construction impacts are very well regulated in this space - controlled via CEMP and Local Govt controls on hours of operation.	Noted.
Industry	Section 5.2.5 Noise and vibration Applicable legislation	Also include LNLC Act - this controls noise impacts during construction and decomissioning	Updated.
Industry	Section 5.2.4 Air quality Impact ID #AIR01, assessment criteria, dot point 1	is this re-establishing the consultation requirements? Given that the amount of traffic generated is minimal (significantly less than farming) this seems OTT. Should at least reference context and proximity of sensitive receivers.	Updated to refer to affected receptors (instead of stakeholders) to limit this. Affected council and government agency has been retained.
Industry	Section 5.2.4 Air quality Applicable legislation	The Local Nuisance and Litter Control Act is the primary legislation and should be listed first - reference should also be made to Councils who administer this	Updated.
Industry	Section 5.2.3 Flora, fauna and biodiversity *Presence of personnel, aircraft and vehicles, noise and vibration or lighting during the regulated activities impacts local fauna*	I really don't think that that the presence of aircraft is a realistic scenario?	Aircraft removed.

Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO06, Source, *Collision with meteorological masts*	Is there any evidence of this, any more than other infrastructure? We are talking about static met masts not turbines?	Site specific consideration should be given to this. Tall structures in any environment may introduce potential impact of collision.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO06, impact event, *Direct mortality of fauna as a result of collision with vehicles and infrastructure*	Delete reference to infrastructure.	No update required as above.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO06, Control measures, dot points 8-11	I appreciate that this is stated in an attempt to make this infrastructure more visible to fauna - but I don't believe that there is any science behind this - otherwise we would do it for communication towers, OTL towers and stobie poles. This should be deleted from this section - it would be very dangerous to confuse this with the real requirements for aviation safety	Removed, and noted that § Control measures adopted under impact ID #SAF01 that increase visibility of the meteorological mast for aviation safety may also increase visibility for avifauna.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, Control measures, dot point 5 *Equipment that has been operating outside*	or transported from	Text updated as suggested.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO03, assessment criteria, *OMP includes relevant…*	Shouldn't this be the CEMP and Decom Management Plan?	CEMP and decommissioning plan will form part of the OMP.
Industry	Section 5.2.3 Flora, fauna and biodiversity Impact ID #BIO01, Control measures	Should make reference to the micro siting process	Updated to include.

Industry	Section 5.2.3 Flora, fauna and biodiversity *Direct mortality of fauna as a result of collision with vehicles, aircraft or infrastructure*	In the context of met masts this is so unlikely as to be almost impossible - do we have evidence of collision with other stationary infrastructure such as OTL tower? and aircraft is simply not relevant. Perhaps there is confusion with wind turbines and arial spraying?	Aircraft removed. The EIR has considered potential impacts, which are broad scoping due to the coverage of the EIR. Artificial structures (towers/guy wires) may present a potential impact to avi-fauna, while it may be a rare occurrence, this should be considered particularly in sensitive areas, e.g. migratory birds, take off/landing.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI03, project phase, operation	Is this really likely during operation? We are talking about infrastructure that just sits there and does it's thing.	Operation considers any maintenance activities required.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI03, Control measures, dot points 1-6	This is a very long bow for met masts?	The EIR is broad scoping to allow for a range of potential activities, with the intention of capturing these activities through this pathway rather than requiring a project specific EIR and SEO that considers the inclusion of refuelling, which DEM recognises would only occur in minimal quantities and over a short duration.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI02, Soil and land quality, project phase, construction	If thise were to be an issue this could also occur at decommissioning?	Included in EIR.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI02, Disturbance of existing contaminated soil or acid sulphate soil resulting in spread of contamination	This would be an incredibly rare event more likely to come across UXO which is not mentioned at all. General contamination due to farming activities is much more likely - not sure how the "spread" would happen given that met mast footings are very small	UXO have been included in the EIR. Contaminated sites and ASS have been included in the EIR as they may occur within a project site, disturbance of contaminated or ASS sites shouldn't be undertaken without controls in place. Excavation and transport of contaminated soils, while they it may be a rare occurrence, has the potential to occur and generate further unintended degradation of the environment where project sites are not well understood.
Industry	Section 5.2.1 Soil and land quality Impact ID #SOI01, Assessment criteria	Add *Rehabilitation of disturbed areas occurs progressively and is completed at the conclusion of construction*	Text updated.
Industry	Section 5.1.6 Assessing environmental significance	Formatting, make bold	Updated.

Industry	Section 4.7.3 Visual amenity *The absence of urban development and major infrastructure generally results in a higher quality of landscape character. Vertical structures such as meteorological masts and wind turbines have the potential to affect visual amenity by being prominent or obtrusive elements, particularly in landscapes which are in rural and remote areas and are otherwise relatively unobstructed by built form, such as coastlines, open plains and elevated locations.*	This statement is not helpful - the planning system has had this debate (several times) and established a principle that if we are to have energy then the visibility of turbines in rural areas must be accepted. However, it is also accepted that if you live in a township or rural living zone then visual amenity is a consideration - this is why the setbacks guides were developed. This goes back to the landuse section - needs to reference townships and rural living areas. Quite apart from this - the permit relates to met masts not wind turbines and should be delete.	Paragraph updated, removal of reference to turbines and prominence, however, still recognises that visual amenity has the potential to be affected.
Industry	Section 4.7.3 Visual amenity *State's approximately 5,000 km of mainland and island coastal landscapes is highly varied and includes extensive sandy beaches and dunes, small bays intersected by rocky headlands, shore platforms and cliffs, and estuaries, mudflats and mangroves.*	These areas are excluded - by stating this you will confuse people regarding the scope of where met masts can go.	Updated to remove.

Industry	Section 4.7.3 Visual amenity *As noted in Section 1.2.1 Exclusions and Constraints, previously defined setback distances for wind turbines that are presented in the guidelines for environmental impact assessment criteria (DEM, 2024) are considered as key controls for the conservation of landscape values and the visual amenity of residents and tourism developments. The guidelines propose a 2 km setback to minimise impacts to the visual amenity of areas that are within planning zones which protect their rural residential character. These include the following zones described in the P&D Code under the under the Planning Development and Infrastructure Act:*	I think this will create too much confusion - these set backs relate to turbines. Applying this to met masts sets a new standard.	Removed.
Industry	Section 4.7.3 Visual amenity	*These regions are populated by small farming communities and characterised by extensive farmlands and rural vistas where introduced and native vegetation is largely in small or linear remnants.*	No update required.
Industry	Section 4.7.3 Visual amenity	*The guidelines propose a 2 km setback to minimise impacts to the visual amenity of areas that are within planning zones which protect their ~~rural~~ residential character.*	Removed.
Industry	Section 4.7.3 Visual amenity	include Character Preservation Areas Upon reflection - may be this whole section on what is not included should be deleted	Section has been updated.

Industry	Section 4.7.1 Noise *In suburban areas, noise from road, rail and aircraft traffic, construction noise, entertainment venues, air conditioners and other household appliances contribute to the noise environment, particularly in daytime and evening hours*.	Not sure why suburbs are referenced - might be more relevant to refer to rural living and townships.	Retained to capture suburbs within regional cities.
Industry	Section 4.7.1 Noise	*activities (e.g. farm equipment movements, <u>frost fans</u> or aerial spraying)*.	Updated.
Industry	Section 4.6.3 National heritage	I would have thought that these areas would not be included in the scope for met masts?	Removed.
Industry	Section 4.6.2 Non-Aboriginal heritage *State Heritage Places (SHPs) include properties in a State Heritage Area and SHPs of geological, palaeontological, speleological and archaeological significance*.	Archaeology - whether Aboriginal or non-aboriginal - is the key focus for protection in relation to met masts and should be expanded on. The accepted approach is to manage "unexpected finds" via protocols established in CEMPs	Section updated to reflect that registers aren't comprehensive and unexpected finds may occur. The application of unexpected finds procedures is addressed via the control measures under Section 5.
Industry	Section 4.6.1 Aboriginal heritage *Mitigation measures to reduce the risk of damaging, disturbing or interfering with Aboriginal heritage include…*	I do appreciate the need to highlight aboriginal heritage issues. However, is there a reason why this section goes into so much detail about mitigation? There are very well established procedures associated with this topic Perhaps this goes into impact tables?	Mitigation measures have been moved to the relevant impact assessment tables as suggested.
Industry	Section 4.6.1 Aboriginal heritage *Mitigation measures to reduce the risk of damaging, disturbing or interfering with Aboriginal heritage include*	Add dot point *where land has been previously disturbed (e.g. cropping) ensure a "Site Discovery Procedure" is included in CEMP*	Text updated. Mitigation measures have been moved to the relevant impact assessment tables.
Industry	Section 4.6.1 Aboriginal heritage	Typo, 3rd paragraph, remove duplication of *the*	Removed.

Industry	Section 4.5 Land use	It is not clear why dwellings and townships are not referenced here? Population centres are referenced in 4.4.1. Conservation areas are included and met masts would not be established within these areas. Tourism is included. There needs to be more reference to rural townships and communities as these are the people who would be most affected - residents might take offence that their towns are only mentioned for their tourism value	Section 4.4 updated to include some further discussion regarding rural dwellings and townships.
Industry	Section 4.4.1 Population Centres and Infrastructure *By contrast, the largest land management region, the South Australia Arid Lands, makes up less than 2% of the State's population which is geographically dispersed. The largest inland towns in this region, Coober Pedy and Roxby Downs, are both associated with mining and are home to less than 5,000 people, while other townships including Innamincka, Andamooka, Oodnadatta, William Creek and Marree all have significantly less than 500 residents*.	is this really relevant if we are talking about freehold land - most of this pastoral. Might be better to focus on the agricultural belt south of Goyders Line and the trends occurring here as this will be the main focus area of met mast activity.	EIR scope has been kept broad to allow projects statewide on freehold land, hence the inclusion of the Arid Lands.
Industry	Section 4.4.1 Population Centres and Infrastructure	*population are generally located with the ~~Green~~ Greater Adelaide,*	No updated required, Green Adelaide is the landscape board/region being referred to.

Industry	Section 4.3.7 *They are primarily managed by the Department of Primary Industries and Regions (PIRSA) under a range of legislation and policies, including the Plant Health Act 2009, the Landscape SA Act, the Livestock Act 1997, and South Australia's Biosecurity Policy. Notifiable animal diseases are specified on the PIRSA website.*	I think this issue does warrent more attention - less groundwater more this. Most met mast come from interstate and are located in agricultural areas - this elevates the risk of importing issues that are a threat to local agriculture - both crops and animals.	Text added to provide some further description of this element.
Industry	Section 4.2.2 Groundwater *Under the Landscape SA Act, activities relating to groundwater wells require an authorisation or a permit from the Minister via the Department for Environment and Water, and other activities relating to groundwater may require a Water Affecting Activity permit from the regional Landscape Board.*	The emphasis on ground water seems to be more related to mining. Met masts do not generally use or impact groundwater - are there specific activities that need to be taken into account?	This section is a description of groundwater as an element of the environment that may reasonably be impacted by activities (met mast construction). This is a high level description of groundwater across South Australia as far as is relevant to the Nominated Area.
Industry	Section 4.2.1 Surface water *These are usually avoidable by ~~careful planning~~ and micro siting of*	The common term used is "micro siting"	Updated.
Industry	Section 4.2.1 Surface water Figure 4	Should make reference to the "Watercourses in South Australia" data set available from Data SA	Included reference to NatureMaps surface water layer, including the watercourses features.

Industry	Section 3.1 Meteorological masks *The mast is protected by a lightning rod and its top third section is typically coated in a contrasting aviation safety paint scheme as per the national airports safeguarding framework guidelines*	CASA is the normal reference - met masts are classed as "tall structures" and must be reported to CASA and registered on their data base as a tall structure.	Noted. Text updated.
Industry	Section 3.1 Meteorological masks *Sub-surface concrete footings would generally remain, buried below ground level, however the minimum depth of cover required would depend on landholder requirements and future land uses e.g. cropping*	The standard clearance depth is generally 600mm	Text updated to reflect this.
Industry	Section 3.1 Meteorological masks *In the arid region of South Australia*.	There is something missing here	Removed.
Industry	Section 3.1 Meteorological masks *Excavation works for footings may, in some instances, intersect shallow groundwater and may require dewatering*.	This would be a very rare event - most wind farms and therefore most met masts are located in high terrain - rocky conditions would be more common. The over emphasis on impact to ground water seems to be a common theme.	Dewatering has been included to maintain a broad scoping EIR. DEM is aware of met mast projects that have required this and don't intend to exclude these projects from the scope of this EIR.
Industry	Section 3.1 Meteorological masks *DEM question to industry: Is this accurate? Are these types of sensors widely used (on-shore only) or generally just use standard BBUS methods for monitoring?*	This may become more prevalent as BBUS is relatively new. But may have different location requirements.	Noted. Text retained.

Industry	Section 3.1 Meteorological masts	targeted at the hub height of the likely turbine and can range between 120 to 170m. The height of the mast is generally ~~smaller than the proposed wind turbine, whose height may exceed 150 m~~).	Text updated to reflect this.
Industry	Section 3.1 Meteorological masts	*Masts have a small footprint at their base with a larger guy wire span (proportional to mast height) with outer guy wires including high visibility marker balls, flags or sleeves. Concrete footings are installed at the mast base and at each contact point from the guy wire to the ground where attachment points are in contrasting colours. Occasionally, fencing may be installed*	Text updated to reflect this.
Industry	Section 2.4 Other legislation, South Australia *South Australian Public Health Act 2011 and Public Health (Wastewater) Regulations 2013*	I don't think this is really relevant either - have yet to see a met mast with a loo	Will retain this to keep the EIR broad scoping to allow for any instance where this may be relevant.
Industry	Section 2.4 Other legislation, South Australia	Add Biosecurity Act, Electricity Act, Nuisance and Litter Control Act	Biosecurity Act and Local Nuisance and Littler Control Act have been included.
Industry	Section 2.4 Other legislation, Commonwealth Native Title Act 1993	If this applies to activities on freehold land - does this legislation really apply?	Included to capture instances where Native Title had been revived on freehold land parcels, while uncommon, has occurred for some HRE projects.
Industry	Section 1.2.1 *Areas within the Planning and Design Code Coastal Areas Overlay, Costal Flooding Overlay and the River Murray Flood Plain Protection Overlay.*	Should this list also include areas covered by Character Preservation Acts?	Updated to include both.

Industry	Section 1.2.1 *This EIR and SEO also do not cover meteorological masts located in the Significant Landscape Protection Overlay defined by the P&D Code.*	Add this to the dot point on previous page that lists other P&D Code areas	Updated.
Industry	Section 1.2.1	It might be worth reviewing this section and couple of other places in document to make sure there is one clear and comprehensive list of exclusions. I think this will be a key reference for everyone in the future.	Document has been updated to provide comprehensive list of exclusions only within this section.
Industry	Section 1.1 Purpose	*As feasibility activities are generally limited in scope, temporary, of small footprint and low environmental impact when compared with ~~larger~~ other renewable energy infrastructure*	Updated.
Industry	General	more analysis of the nature of fixed infrastructure is required - while there is a list of activities, there is no fundamental explanation of the nature of this land use. Fixed infrastructure is not really a land use in the typical sense - once in position, it generally sits there and does its thing with only periodical or sporadic site activity associated with maintenance. Plus, this infrastructure is specifically designed to minimise maintenance requirements. All other forms of land use have inputs regularly delivered, wastes and product remove, involve employees and contractors, interact with the site and thus generate much more activity during operation.	Updated to include a description of the limited nature of operation and maintenance activities.

Industry	General	in the context of the above, I note that there is an emphasis on audits which is useful for operational land uses, but getting the sites right for fixed infrastructure is more directly effective - more references should be made to the well established industry practice of “micro siting” up-front - it will make more sense to the industry, including construction contractors, and avoid issues altogether.	Proponents will be required to demonstrate how they will meet the objectives of the SEO and within scope of the EIR. Micro-siting has been included in the EIR.
Industry	General	the construction phase is the most highly impacting phase of the life of fixed infrastructure and the use of CEMPs as the primary tool for the management of construction behaviour is very well established and accepted. It is likely that the industry will similarly accept Decommissioning Plans, if they are of a similar nature (only one wind farm has been decommissioned in Australia so there is not a great deal of experience in this aspect). The EIR/SEO should make much more use of this mechanism which would place Licence holders in a stronger position of control when contracting their construction services.	Noted.

Industry	General	The only legislation that controls visual impact is the PDI Act (Landscape SA Act addresses natural resource management and does not have legislative power to address visual impact - even though some may think otherwise). The use of setbacks for wind turbines as a mechanism for addressing the visual impact of met masts is excessive. The PDI system classes met masts as relatively minor structures and as such does not impose onerous setbacks or consultation requirements. This is in the context that it is problematic to imply that met masts are required to meet higher standards than other fixed infrastructure such as stobie poles, communication towers, large flag poles etc	Updated to reflect this, however, potential impacts, where they may materialise must be consulted on with affected receptors. Setbacks have been removed.
Industry	General	there is no reference to the Character Protection Acts - these should be excluded areas. There are other P&D Code Zones/overlays that should also be referenced as exclusion areas (eg Heritage adjacency). Also there is no reference to addressing Local Heritage places and this should be included.	Character Protection Acts and Heritage Adjacency Overlay included in exclusions. Local heritage places included under section 4.6.2

Industry	General	there seems to be some rather strange emphasis on some topics that are not relevant to met masts and a lack of emphasis on others that are. For example there is an emphasis on ground water, refuelling and use of aircraft? On the other hand, most met masts are transported by road from interstate primary production areas to our primary production areas so the potential for imported contaminants (pests, pathogens etc…) is a real issue. In the environmental scene setting, there is much reference to a a range of land use types but only limited reference to rural townships and residents in agricultural areas which will be the most affected land use.	Aircraft removed. Further information provided relating to pathogens in particular phytophthora. Some further description included to rural townships and rural living.
Industry	Additional section	Suggest to include *4.6.4 Local Heritage*. This seems to have been missed	Description updated under 4.6.2
Industry	Section 3.1 Meteorological masts *Temporary masts may be in place until wind farm construction activities commence in order to capture daily, seasonal and year to year data, before being removed totally, or removed and replaced by a permanent mast close-by.*	Permanent masts are usually relocated to the edge of the project, not interfering with WTG placement and wind flow. Perhaps change to 'permanent mast in an alternative location'?	Text updated to reflect this.
Industry	Section 3.1 Meteorological masts *Question to industry: Is this accurate? Are these types of sensors widely used (on-shore only) or generally just use standard BBUS methods for monitoring?*	It is accurate, on standard BBUS	Noted. Text retained.

Industry	Section 3.1 Meteorological masts *however the minimum depth of cover required* *would depend on landholder requirements and future land uses e.g. cropping. In the arid region of South* *Australia.*	replace full stop with comma after *cropping*	Sentence has been updated to remove typo to rectify this.
Industry	5.2.8 Public health and safety Impact ID #SAF01, Control measures, *Aeronautical risk assessment will be undertaken for meteorological masts taller than 150 m.*	Suggest change to Aeronautical (Aviation) impact assessment.	Updated.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER02, Control measures, *Known heritage sites are identified and protected from operations. Where necessary, cultural heritage sites or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance.*	and approved by Traditional Owners/in line with CHMP	No update required, this impact ID relates to non-Aboriginal heritage.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID #HER01, Control measures, *Known heritage sites are identified and protected from operations. Where necessary, Aboriginal heritage or exclusion zones in the vicinity of the activities are flagged and / or fenced off to prevent disturbance.*	and approved by Traditional Owners/in line with CHMP	Text updated to reflect this.

Industry	5.2.6 Landscape and visual amenity Impact ID #VIS02, Control measures, *Meteorological masts located in areas which are unlikely to be seen from public viewpoints*.	Where possible?	Updated wording to minimise visibility.
Industry	5.2.6 Landscape and visual amenity Impact events #VIS02 impact event	*Regulated activities result in reduced visual amenity for the local community <u>and/or visitors</u>*. Per receptors.	Updated.
Industry	5.2.1 Soil and land quality Impact ID #SOI02, Control measures, *Disturbance of existing contaminated soil or acid sulphate soil resulting in spread of contamination*	Per comment above, is the impact event the spread of contamination, or is it the spread of contamination causing a reduction in quality of soil or land usability?	Updated.
Industry	5.2.1 Soil and land quality Impact ID #SOI01, Control measures, *Any excavations are backfilled with subsoil being placed below topsoil*.	OK if this is for temporary excavations (i.e. months/during the construction phase) only, but perhaps include this to make it clear? Not clear if this expected in the case where excavations for guy wire foundations (which could be pre-cast concrete) are removed at the end of the permit term (e.g. 5 years) and that there is an expectation to store subsoil and topsoil for that time to backfill in line with this once these foundations are removed?	As identified in other controls, the land needs to be rehabilitated to the prior land use/in agreement with the landowner. Therefore, topsoil must be managed appropriately to ensure this outcome, e.g. through stockpiles, or sourced from elsewhere.
Industry	5.2.1 Soil and land quality Impact ID #SOI01, Control measures, *Any cleared native vegetation is respread during restoration*.	Will this be a condition of permit? Would this take precedence over a landholder requesting a laydown or storage area to be retained?	To be considered in agreement with the landowner and in accordance with any native vegetation management plan in place.

Industry	5.2.1 Soil and land quality Impact events *Spills of fuel or chemicals result in deterioration of soil, surface water and/or groundwater quality*	It looks from the impact table #SOI03 that a single impact table is being used in this section to cover spills and soil/surface waters/groundwater - so perhaps a footnote here to highlight this, and then in the Table 5.2.2 Context summary to link this all together. Otherwise, if this aspect relates to soil and land quality then the deterioration of surface and/or groundwater quality is not an impact event for this particular aspect?	Note included under 5.2.2 Surface water and groundwater to state under Impact events: • Spills of fuel or chemicals result in deterioration of soil, surface water and/or groundwater quality (see Impact ID #SOI03 above).
Industry	5.2.1 Soil and land quality Impact events *Disturbance of existing contaminated soil or acid sulphate soil resulting in spread of contamination.*	Which then affects or reduces soil and land quality?	Updated.
Industry	5.1.6 Assessing environmental significant	Heading formatting	Updated.
Industry	5.1.3 Confirming the potential of impact events to occur *Potential impact events for which the source, pathway and environmental receptor linkage was incomplete were not considered as having the potential to occur and were not considered further in this environmental impact assessment.*	Is there a list of all potential impact events, including those where there is not considered to be an SPR, and a justification as to why there is not an SPR? Per the impact tables in Section 5.2 e.g. Uncertainties in SOI01 for soil and land quality - siting will ultimately determine the SPR linkage, so expect that all events will be noted as having the potential to occur until final siting occurs and it can then potentially be ruled out?	This will be considered via the assessment undertaken by the proponent against the SEO objectives and assessment criteria and the scope of the EIR to determine which impacts and controls/objectives are relevant.
Industry	4.6.1 Aboriginal heritage *a desktop assessment of the area by anthropologist/archeologist*	Also in consultation with relevant Traditional Owners and/or in line with the CHMP?	Text updated. Mitigation measures have been moved to the relevant impact assessment tables.

Industry	General	The draft EIR identifies a range of Planning and Design Code Overlays which would be excluded from the coverage of the generic EIR. The Overlays are identified in two separate points within Section 1.2.1 of the EIR. For ease of reference, we would suggest that reference to the Significant Landscape Protection Overlay is included in the dot point which references the Coastal Areas Overlay, Coastal Flooding Overlay and the River Murray Flood Plain Protection Overlay.	Updated to reflect this.
Industry	General	Utilisation of this policy of the Planning and Design Code as included above is in our view incorrect and inappropriate, as the visual impact of a singular stand-alone meteorological mast is substantially different to a wind turbine generator (singular and as part of an overall wind farm). Performance Outcome 8.1 clearly relates only to “wind turbine generators” within “wind farms” and should not be extended to other forms of infrastructure, whether they are related to the future development of a wind farm or not. Furthermore, the quantitative component of this policy, which is stated in DTS/DPF 8.1 is a guideline only and only relates to “wind turbine generators”.	EIR has been updated to remove set-backs and reference to wind farms/turbines. Instead, visual assessment must be undertaken where within 1km of the identified zones.

Industry	General	Whilst we acknowledge DEM's desire to incorporate some quantitative setback provisions, this should be done with reference to visual assessment of a meteorological mast, without confusion to setbacks applicable to a wind turbine generator.	EIR has adopted this measure.

Industry	General	In the absence of an applicable or appropriate performance indicator, DEM may wish to acknowledge that meteorological masts maybe visible to the public and/or adjoining land owners. The degree of visibility maybe minimised by inclusion of a generic minimum setback distance from non-associated dwellings and tourist accommodation and “neighbourhood type zones”. Neighbourhood type zones are defined in the Planning and Design Code as any of the following: “Business Neighbourhood Zone, City Living Zone, Established Neighbourhood Zone, General Neighbourhood Zone, Golf Course Estate Zone, Hills Neighbourhood Zone, Housing Diversity Neighbourhood Zone, Master Planned Neighbourhood Zone, Master Planned Renewal Zone, Master Planned Township Zone, Neighbourhood Zone, Residential Park Zone, Rural Living Zone, Rural Neighbourhood Zone, Rural Settlement Zone, Rural Shack Settlement Zone, Suburban Neighbourhood Zone, Township Zone, Township Neighbourhood Zone, Urban Renewal Neighbourhood Zone, Waterfront Neighbourhood Zone”.	Suggested edits generally adopted. DEM acknowledges the potential visual impacts that met masts may have and as such have incorporated a visual assessment (commensurate to the level of impact) to determine whether loss of visual amenity may materialise within 500m from the listed receptors or zones.

Industry	General	Applying a generic minimum setback should be based on some analysis of approved meteorological masts erected in South Australia over the past 10 years. It is, however, our experience that the majority of the meteorological masts erected have been within a Rural Zone or similar primary production area and frequently have setbacks 1 to 2 kilometres from the boundaries of the property, which ensure a significant setback to sensitive users and thereby minimise visibility.	Noted. EIR has been updated to require a visual impact assessment for met masts within 1km of a sensitive receiver.
Industry	General	Section 1.2.1 of the draft EIR contains exclusions in relation to developments requiring native vegetation clearance. It is noted that projects that require Level 4 clearance are excluded for the application of the generic EIR, whereas “Level 3 for proposed clearance are generally excluded but can be considered on a case-bycase basis”. It is unclear as to what discretion would be applied for Level 3 native vegetation clearance. It is our experience that clearance of scattered trees along an access track and small area of clearance for the meteorological mast may trigger a Level 3 clearance of vegetation. It is our respectful submission that, given a native vegetation clearance assessment and approval would continue to be required, that only Level 4 clearance be excluded from the generic EIR.	DEM require a sufficient level of detail to determine any significant impacts to the environment are appropriately controlled and to make an informed decision to recommend the approval of a project. DEM considers that the activities included within the scope of an REFP, i.e construction of a met mast only, that native vegetation clearance required would generally only require up to a level 2 clearance (up to 0.5ha/6-20 trees) and that level 3 clearance or above may present additional potential impacts that require further description (e.g. cumulative impacts, controls) through a project specific EIR and SEO. Level 3 clearance will be considered on a case-by-case basis to be within scope of the statewide EIR/SEO, where a proponent can demonstrate that potential impacts to native vegetation do not result in a significant impact to habitat, wildlife, or rare, vulnerable or endangered species or plant communities. Note that access track construction isn't included as an activity under an REFP.

Industry	General	• Scope and Application: We seek a better understanding of the intention behind these documents and how they will be applied in practice.	The EIR and SEO have been developed by DEM to allow proponents to adopt this EIR and SEO for their project to satisfy the requirements for a Renewable Energy Feasibility Permit, where their projects are within scope of the EIR and SEO. The development of these documents for adoption by proponents is intended to streamline the process for met mast projects. By adopting this EIR and SEO, proponents will not be required to develop their own.
Industry	General	• Template Complexity: The current approach appears overcomplicated for certain applications. We recommend simplifying requirements where possible.	Proponents do not need to use the EIR or SEO as a template for the purposes of adopting them to satisfy the permit requirements. Proponents will only need to demonstrate that their projects are within the scope of the EIR and demonstrate that their project will meet all relevant objectives of the SEO.
Industry	General	• Specific Issues: Consideration is needed for setbacks, groundwater, rural townships, visual impact, local heritage requirements, infrastructure, CEMP requirements and associated controls, fauna impacts, aviation, colouring requirements, and consultation requirements. Some references (e.g., to wind turbines or areas already excluded) may not be relevant and could be streamlined.	Noted. Setbacks have been removed, however will require visual assessment to demonstrate this point.
Industry	General	• Consultation and Feedback: We support a broad consultation approach and would appreciate clarity on how feedback will be incorporated.	DEM are providing a response to comments received through this consultation process and are incorporating responses as required.
Industry	General	The EIR/SEO requirements are disproportionate to the typical low impact ground disturbance of a typical temporary met mast development.	Proponents will need only to demonstrate that their projects are within the scope of the EIR and demonstrate that their project will meet all relevant objectives of the SEO to be able to adopt the documents for the purposes of an REFP.

Industry	General	the public notification requirements for the EIR/SEO are commensurate with impact assessed development under the PDI Act (see figure below) and include a public notification period of 30 business days, being published on the DEM portal, social media, and a local and/or state-wide newspaper. Under the PDI Act, impact assessed development is reserved for major developments (e.g. Olympic Dam Expansion, Port Pirie Smelter Transformation, Port Spencer Grant Export Facility etc.). Therefore, public notification requirements are also considered disproportionate to the impact of a temporary met mast installation in a (typically) rural setting.	Public notification periods do not apply where a proponent has adopted this EIR and SEO. The only consultation required by proponents via this pathway are outlined in the EIR and SEO (consultation by the proponent with affected landowner(s), Traditional Owners, and relevant government agencies.
Industry	General	Stringent setback exclusion criteria: Proposed setbacks (e.g., 2km from certain zones) are too large for met masts, limiting site viability and delaying approvals. These criteria, understood to be originally meant for wind turbines, should be reduced or removed for temporary met masts.	Setbacks have been removed. Visual assessment will instead be required where a met mast is within 1km from a receptor.

Industry	General	Objective 5 that effectively requires masts to be placed where they are 'unlikely to be seen'—an impractical expectation for temporary, low-impact infrastructure, typically with a height of 160m height. Further, the requirement of a visual impact assessment (presumably by a qualified consultant) as an assessment criteria to '…demonstrate that meteorological mast locations have been sited to minimise visual impacts' is an excessive (and costly) requirement for a temporary structure. We recommend the assessment criteria be amended to 'meteorological mast locations have been sited to minimise visual impacts'.	Updated.
Industry	General	Onerous compared to other regions: The assessment framework is more burdensome than in other Australian states, where temporary met masts often have approval exemptions.	No exemption pathway available, however, the development by DEM of this EIR and SEO for proponents to adopt intends to streamline the process. Proponents need only demonstrate they are within the scope of the EIR and demonstrate that they can meet the relevant objectives of the SEO (i.e. will not result in greater impacts).
Industry	General	If the setback exclusion criteria can be significantly reduced or removed, and relevant impacts managed through a pragmatic approach to an EIR bridging document (more clarity is needed to what this document might entail) then most of the issues we have raised would likely be resolved.	Noted. Setbacks have been removed and the EIR and SEO developed are adoptable.
Industry	1.1 Purpose *This EIR is applicable to freehold land and perpetual leasehold land within South Australia for the purposes of undertaking feasibility activities within an REFP .*	Non-designated land requires clear definition of land included i.e. all but pastoral leaseholds identified as designated land and applied consistently throughout the document	Updated to non-designated land (i.e. lands excluding pastoral leases, State waters, and other Crown Land determined by regulation e.g. freehold land).

Industry	1.1 Purpose *As feasibility activities are generally limited in scope, temporary, of small footprint and low environmental impact when compared with larger renewable energy infrastructure projects it is considered that preparation of multiple EIRs for activities undertaken on an REFP may result in unnecessary expense and delays for proponents and regulators. Therefore, the Department for Energy and Mining (DEM) determined that a State-wide EIR and SEO will streamline the approval process and ensure consistency for most feasibility activities undertaken under a REFP within South Australia without detriment to protection of the environment.*	Correct. Some of the expected investigations in SEO do not reflect this statement	noted.
Industry	1.2 Scope *This EIR and SEO does not apply to activities that are not considered regulated activities under a REFP. Activities excluded from this EIR includes, but is not limited to:*	This statement should be simplified, reads like legislation. Suggest rewording this section in line with the definition of feasibility activities rather than introducing activities that do not require a REFP, or introduce as being excluded from the requirement of an EIR, rather than excluded from this EIR. Feasibility activities are identified in the Act, suggest amending to reflect defined phrases rather than introduction of “regulated activity” as a new phrase.	Updated.

Industry	1.2.1 Exclusions and constraints ~~*Projects*~~ *Activities deemed to be Level 4 for proposed vegetation clearance , in accordance with the Native Vegetation Council Risk Assessment Fact Sheet. Projects deemed to be Level 3 for proposed clearance are generally excluded but can be considered on a case-by-case basis*.	Suggest amend project to activity for consistency	Updated.
Industry	1.2.1 Exclusions and constraints ~~Projects~~ Activities deemed to have significant impact to Matters of National Environmental Significance (MNES).	Update	Updated.
Industry	1.2.1 Exclusions and constraints *Coverage of this EIR also conforms with the setback distances for wind turbines defined by the Planning and Design Code (the P&D Code) under the Planning Development and Infrastructure Act 2016, which are presented in the in the HRE Act Environmental Impact Assessment Criteria guideline prepared by DEM (DEM, 2024). Consequently, the EIR and SEO do not cover meteorological masts located within 2 km of the following zones described in the P&D Code:*	Met masts are not assigned minimum setbacks in the PDI Act. This does not seem consistent with PDI Act approval process and overly onerous	Removed.
Industry	1.2.1 Exclusions and constraints *which are presented in the in the HRE Act Environmental Impact Assessment Criteria guideline prepared by DEM*	The HRE Act Environmental Impact Assessment Criteria guideline does not reference met masts, it only cites the PDI and mentions turbines. Remove this exclusion as not consistent with PDI or Assessment Criteria Guidelines	Removed.

Industry	1.2.1 Exclusions and constraints This EIR and SEO also do not cover meteorological masts located in the Significant Landscape Protection Overlay defined by the P&D Code .	The Significant Landscape Protection Overlay does not exclude construction of met masts, and is therefore not consistent with the approval process for under the PDI Act. REMOVE	No update required. This requirement only excludes met masts from the scope of this adoptable EIR and SEO developed by DEM. Where met masts are proposed within the significant landscape protection overlay, proponents will be required to generate a specific EIR and SEO that considers the performance outcomes of the overlay.
Industry	1.3 Environmental Commitment *Figure 1 Freehold land within South Australia*.	Relevance? Does not include perpetual lease land. Is not referenced in the document Is it worth showing map excluding excluded areas or are they not shown as they may change and are difficult to see at this scale? (Only Maralinga Tjarutja lands and Anangu Pitjantjatjara Yankunytjatjara lands from excluded land list have been shown)	Map updated.
Industry	3.1 Meteorological masts *Alternatively, masts may remain permanently and continue to monitor meteorological data throughout operation of the wind farm*.	Project met masts required for an operation wind farm will be approved and constructed as part of the broader project approval process. Met masts constructed under a REFP will be removed and not used for operations. REMOVE.	No update required. The broad scoping nature of this EIR allows for met masts to be constructed and retained for the broader project.
Industry	4. Overview of Existing Environment *The extent of the non-designated land in South Australia is shown in Figure 1*	Figure 1 excludes perpetual leasehold which is also non-designated land	Updated wording to *The extent of the non-designated freehold land in South Australia is shown in Figure 1, which includes the fall within freehold tenure to which the Nominated Area relates.*
Industry	4.1.1 Landscape management regions *Nominated Area is generally comprised of the seven landscape regions where freehold land is concentrated as follows (refer Figure 2):*	Update to reflect consistent definition for non-designated land	Updated to non-designated land.

Industry	4.1.1 Landscape management regions *Although land in this region is largely held under pastoral lease or as Crown land(4). Land held under pastoral lease or is Crown land is designated land which is outside the scope of this EIR and SEO*	Regarding footnote 4. Only other Crown land as designated in the regulations is also designated land.	Removed.
Industry	4.1.1 Landscape management regions *The Alinytjara Wilu̱rara landscape region generally comprises the Maralinga Tjarutja lands and Anangu Pitjantjatjara Yankunytjatjara lands which are not covered by this EIR*	Suggest clarify if there is any section of this landscape region to which the EIR/SEO apply. I.e. if there is freehold land outside of excluded areas	There are isolated areas of freehold land within this region associated with road corridors. While unlikely to be used for met masts, these have not been excluded from the scope of the EIR.
Industry	4.1.1 Landscape management regions *Construction and operation activities undertaken under this REFP will need to align with the landscape management plans and policies for the landscape regions within which the development takes place .*	Does DEM envisage this will form part of the OMP. Should this include where relevant?	Yes this can be addressed within the OMP. A statement to this effect (i.e. that it has been considered prior to commencement and shown to meet the intent of landscape management plans) should be provided as demonstration in the assessment against the SEO in the permit application.
Industry	4.1.3 Bioregions, landforms and soils *The information is viewable as part of the Atlas of Australian Acid Sulphate Soils and is published as a web-served GIS at the Australian Soil Resource Information System (ASRIS) site https://data.csiro.au/collection/csiro:62790* .	Is this publicly accessible? Link doesn't seem to take me to soil mapping data/web GIS . Is this the same data pulled into Nature Maps?	Removed, updated to reference NatureMaps.

Industry	4.1.3 Bioregions, landforms and soils *Areas at risk of acid sulphate soils are mainly found along the coast or near freshwater areas and the majority of the Nominated Area is not at risk of being affected.*	Is it worth including map?	Updated to include a link to NatureMaps.
Industry	4.2.2 Groundwater *Under the Landscape SA Act, activities relating to groundwater wells require an authorisation or a permit from the Minister via the Department for Environment and Water, and other activities relating to groundwater may require a Water Affecting Activity permit from the regional Landscape Board .*	Met masts do not require development of groundwater wells. Suggest rewording to make more applicable to met mast construction activities, and include where required.	The EIR is broad scoping to allow for a range of potential activities, with the intention of capturing these activities through this pathway rather than requiring a project specific EIR and SEO.
Industry	4.3.1 Native Vegetation *Pastoral areas in the north of the State remain largely uncleared (see Figure 5).*	Pastoral areas are identified as designated land and REFP's are not used for Pastoral Lease feasibility activities. REMOVE	Removed.
Industry	4.4.2 Major infrastructure *Figure 6 Population centres and road and rail infrastructure*	The river Murray (not relevant to this section) is the clearest thing on the map. Please update map to make relevant information easier to see.	Figure not updated, deemed legible to show townships/cities across the State.
Industry	4.5.1 Primary production, Agriculture	This seems to be a description of all of South Australia. Would describing the Nominated area help provide context for impact assessment (compared to description of whole state)?	Provides some context for the Nominated area within the State. Given that a proponents will be required to provide a description of where an activity will be undertaken and consult with landowners, the inclusion of a broad description of agricultural land use across the State doesn't materially impact the assessment undertaken.

Industry	4.5.2 Mining and energy resources *there are a number (underway or emerging) on freehold land ,*	Update to reflect consistent definition Wtihin the Nominated Area	Updated.
Industry	4.5.2 Mining and energy resources *The mining production tenements located on freehold land include:*	Within the nominated area Update to reflect consistent definition	Updated.
Industry	4.7.3 Visual amenity *This section requires extensive rework as is not consistent with the quoted guidelines and Acts. Additionally it references wind turbines, which will not be assessed under this draft EIR*	This section requires extensive rework as is not consistent with the quoted guidelines and Acts. Additionally it references wind turbines, which will not be assessed under this draft EIR	Updated.
Industry	4.7.3 Visual amenity Dot point 2	*the broadacre agricultural production regions of the Eyre and Yorke Peninsulas, the Mid North, Murray Mallee and South East. These regions are populated by small farming communities and characterised by extensive farmlands, large scale farming infrastructure, and ~~rural vistas~~cleared paddocks where native vegetation ~~is largely in~~has been reduced to small or linear remnants.*	Updated with suggested text.
Industry	4.7.3 Visual amenity Dot point 5, *the remote pastoral and outback areas in the Far North…*	Is this not designated land and not subject to this EIR? REMOVE	Updated to remove reference to pastoral. Some non-designated land that is not excluded from the scope exists in the far north.

Industry	4.7.3 Visual amenity *As noted in Section 1.2.1 Exclusions and Constraints, previously defined setback distances for wind turbines that are presented in the guidelines for environmental impact assessment criteria (DEM, 2024) are considered as key controls for the conservation of landscape values and the visual amenity of residents and tourism developments*.	This section references set backs attributed to wind turbine construction and does not cite met masts. The DRAFT EIR Is for met mast construction, not turbine construction. Inclusion of reference to wind turbine guidelines is misleading and could lead a referral body to request additional information not relevant to met mast construction. REMOVE	Removed.
Industry	4.7.3 Visual amenity *Meteorological masts proposed to be located within 2 km of these zones or 1500 m from non-associated (non-stakeholder) dwellings and tourist accommodation are not within the scope of this EIR*.	On what basis were these distances derived as they are not consistent with PDI Act or the HRE Act Environmental Impact Assessment Criteria guidelines. REMOVE	Removed. Noting that to use this EIR, consideration must be given to siting regarding visual amenity impacts of the met mast (i.e. demonstration of acceptability).
Industry	4.7.3 Visual amenity *The P&D Code also defines a Significant Landscape Protection Overlay which covers parts of the Flinders Ranges, Clare Valley and Barossa Valley, areas near Port Lincoln, Callington, Mount Compass, Victor Harbor and Port Elliot, and much of the coast of Kangaroo Island*.	The Overlay refers to Renewable Energy Facility. Met mast is not a renewable energy facility. REMOVE	Overlay excludes the development of a renewable energy facility. If within the overlay area proponents will need to generate their own EIR and SEO that addresses the requirements of the overlay.
Industry	5.1 Methodology Environmental Impact Assessment Criteria Guideline	Link to Page not found	Updated.
Industry	5.1 Methodology Section 0	Section #	Updated.
Industry	5.1.6 Assessing environmental significant	Should be heading	Updated.

Industry	Table 6. Criteria for magnitude	This seems to combine consequence and likelihood. Potential difficulty for low liklihood/rare events which could have large impact (or frequent, imperceptible events)	Consequence and likelihood aren't considered in the assessment (not required). A risk assessment is not required, only significance assessment of the specific aspects that have been considered to generate the rankings (within EIAC).
Industry	Table 7. Significance Assessment Matrix - Low magnitude/High sensitivity=Moderate	If the impact has 'The effect is deemed to be imperceptible or indistinguishable from natural background levels.' this should not be considered Moderate significance based on if the receptor is sensitive. Suggest reconsider the matrix. (Sensitivity may be better incorporated into Magnitude than frequency)	Using magnitude and sensitivity is an established approach to undertaking a significance assessment. Low ranking for Magnitude has been updated to remove *indistinguishable from natural background* as the impact is captured by *an impact with no or little effects on the receptor.*
Industry	5.1.7 Developing environmental objectives and assessment criteria Section 0	Section #	Updated.
Industry	5.2.1 Soil and land quality Impact ID SOI01, Control measure, *Consultation with relevant Landscape Board may also be relevant.*	Suggest removal, opens path for additional consultation/input delays. Low impact nature of met mast construction should not require this	Only required where relevant.
Industry	5.2.1 Soil and land quality Impact ID SOI01, Control measure, *Naturally cleared areas are used and clearance of native vegetation is avoided, particularly longer-lived shrubs and trees.*	Replace "Naturally" with "Previously", naturally is incorrect and implies site is undeveloped and has not been cleared for farming purposes	Updated to naturally or previously cleared.
Industry	5.2.1 Soil and land quality Impact ID SOI01, Control measure, *No construction in landscapes with sensitive features such as wetlands or salt lakes .*	Should this be "on wetlands or salt lakes", a landscape is a broad area to ban construction near and wetland or salt lake. Needs better definition	Note that areas aren't being 'banned', they aren't within the scope of this EIR and SEO due to the potential additional impacts that aren't considered within this EIR. Therefore, proponents that elect to construct met masts in landscapes with wetlands or salt lakes can make application under HRE, however, will need to develop their own EIR that specifically

			considers potential impacts to these sensitive features if they may occur.
Industry	5.2.1 Soil and land quality Impact ID SOI01, Control measure, *Water quality, including salinity levels, are determined prior to use for water spraying (e.g. dust control measure).*	This should potentially be 'suitability of water' assessed to clarify that water samples to measure salinity are not typically required (e.g. if using potable water or water typically used in that area (such as local farm bore))	Updated.
Industry	5.2.1 Soil and land quality Impact ID SOI01, Environmental significance assessment, severity, *Controls measures in place will ensure that disturbance is rehabilitated to existing conditions,*	suitable for existing land use	Updated.
Industry	5.2.1 Soil and land quality Impact ID SOI01, Leading performance criteria, *Desktop and field assessment undertaken to ensure proposed meteorological mast location avoids both sensitive land systems that are prone to erosion and/or of importance to the landowner.*	Geotech not always required for met mast. Suggest this could be desktop and field assessment (where required)	Proponents can demonstrate this via assessment against the SEO (As being applicable or not where installed).
Industry	5.2.1 Soil and land quality Impact ID SOI01, Leading performance criteria, Integrity of sediment and erosion controls inspected following significant	Where installed	Proponents can demonstrate this via assessment against the SEO (As being applicable or not where installed).

	rainfall events and any necessary maintenance implemented.		
Industry	5.2.1 Soil and land quality Impact ID SOI02, SPR uncertainties and assumptions, *SPR confirmation is based on desktop assessment using acid sulphate soil mapping across the Nominated Area.*	Definition of level of desktop assessment required, review of online portal or PSI. Suggest PSI is onerous for DRAFT EIR	PSI not required, as stated, use of acid sulphate soil mapping is sufficient.
Industry	5.2.2 Surface water and groundwater Impact ID SWR01, Environmental significance assessment outcome, *Expected impact: Moderate (refer to Table 7)*	This seems high. Sedimentation from met masts impacting surface water is generally a low risk (with controls in place where required)	Updated to low based on frequency being updated to low.
Industry	5.2.2 Surface water and groundwater Impact ID SWR01, Environmental significance assessment, Frequency, *Moderate*	Environmental significant assessment is to be considered after relevant controls have been implemented. With controls in place sedimentation is not likely to be Moderate Frequency or long lasting. Suggest frequency is reduced to Rare as sedimentation would only occur in exceptional circumstances (given the controls in place where required).	Updated to low.
Industry	5.2.2 Surface water and groundwater Impact ID SWR02, Leading performance criteria, *Desktop and field assessments undertaken to ensure meteorological mast installation sites are located and constructed to maintain pre-existing water flows and avoid GDEs*	Where required	Updated.

Industry	5.2.2 Surface water and groundwater Impact ID SWR02, Leading performance criteria, *Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the relevant landscape board's Water Affecting Activities Control Policy*.	This does not seem consistent with directions on website for WAP Application process	Updated to desktop assessments only.
Industry	5.2.3 Flora, fauna and biodiversity Impact events, *aircraft*	Aircraft are typically not used in met mast construction/operation, this provides confusion. REMOVE	Removed.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Control measures, *Naturally clear areas or areas with few long-lived species will be selected where possible*.	Replace naturally with previously as per previous explanation	Updated.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Control measures, *Trees, large shrubs and flora of conservation significance will be avoided*.	Add footnote i.e. listed under SA or Cth Act as threatened, etc.	Impacts to MNES are excluded from the EIR.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Control measures, *Locations of vegetation associations or plant species of conservation significance will be identified by a suitably qualified ecologist and will not be disturbed, removed or traversed by vehicles*.	If present	Updated to: A suitably qualified ecologist will assess the disturbance area for Locations of vegetation associations or plant species of conservation significance will be identified by a suitably qualified ecologist and that will not be disturbed, removed or traversed by vehicles.

Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Control measures, *Areas of vegetation sensitive to disturbance and unlikely to recover readily from vehicle traverses will be identified and will not be traversed by vehicles*.	If present within the operational area	Updated to: Identified Areas of vegetation sensitive to disturbance and unlikely to recover readily from vehicle traverses will be identified and will not be traversed by vehicles.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Control measures, *Water quality, including salinity levels, is determined prior to use for water spraying (e.g. as dust control measure)*.	Water determined to be suitable (i.e. no water testing)	Updated.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Control measures, *Any areas of clearance will be rehabilitated where necessary (e.g. by respreading vegetation or reseeding with local seed sources where appropriate) and in accordance with an approved Native Vegetation Council management plan* .	This point seems to be included over and above the conditions set as part of the Native Veg Council Native Veg Removal approval. Suggest the Native Vegetation Council will provide adequate conditions of consent for removal and, if required, rehabilitation to not require additional mitigation measures that may be at odds with NVC approval. REMOVE	Rehabilitation where native vegetation clearance has occurred in accordance with a NVC management plan is considered a relevant control measure. This control measure doesn't add any conditions to those set by the NVC but instead reflects that a proponent will have the relevant approval and comply with a management plan. Relevant control measures to demonstrate that a potential impact is appropriately controlled include compliance with other relevant legislation/management plans etc.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO01, Environmental significance assessment, *Overall magnitude is low-moderate (refer Table 6*	What is the basis for moderate? Is this referring to potential for species which take longer to re-establish (although noted this would be infrequent and so could still come under low criteria)	Updated to low.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO02, Environmental significance assessment outcome, *Expected impact: Low (refer to Table 7)*.	Negligible-low	Updated.

Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO02, Environmental significance assessment, *Overall magnitude is low-moderate (refer Table 6)*	The impact on drainage patterns is covered under #SWR02 with a low overall magnitude. Would not expect changed in vegetation community structure and composition from this to have a higher impact.	Updated to low.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO02, Environmental significance assessment, *Overall magnitude is low-moderate (refer Table 6)*	What is the basis for Moderate? The factors in the table are low, short-term, localised, low	Removed.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO02, Leading performance indicator, *Desktop and field assessments undertaken to ensure meteorological mast installation sites are located and constructed to maintain pre-existing water flows* *Desktop and field assessments undertaken to identify if a Water affecting activity permit is required under the SAAL Water Affecting Activities Control Policy*.	Where required? Over and above standard PDI Act requirements	Proponents are required to do an assessment against the SEO to demonstrate that they are within scope of the EIR/SEO and provide a description as to how they will achieve the relevant objectives. Where an objective is not relevant to a project the proponent can simply state this with justification as to why the objective is not applicable, e.g. the relevant element of the environment doesn't occur within the project area.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO03, Control measures, *Environmental assessment undertaken during the planning stage to identify specific weed, pathogens and/or pests at the site or within transport routes to the site*. *Weed/pest data shared with relevant landscape board* .	Current controls include weed and seed clearance prior to accessing property, this is a requirement of proponent, contractors have ownership of protocols to ensure compliance nationally. This control measure is onerous, and not in line with current standards. Assessment of transportation route from the east coast (where met mast installers are located) is not a practical measure when existing controls are in place	Note that under the permit, the proponent is the responsible party for activities undertaken pursuant to the permit. This control has been updated to recognise that controls for on-site hygiene, e.g. washdown at site is sufficient. However, assessment of the site is required for weeds and pests (standard control) and a desktop assessment is sufficient to establish the risk of pathogens at the site.

Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO03, Control measures, *Environmental assessment undertaken during the planning stage to identify specific weed, pathogens and/or pests at the site or within transport routes to the site. Weed/pest data shared with relevant landscape board* .	Known pathogens. Cannot be identified during eco assessment. Veg assessment picks up weeds and if evidence of pests	Pathogen risk can be established through a desktop assessment. Text updated to: Pathogen desktop assessment undertaken to determine potential threat of pathogens at the site. Phytophthora assessments undertaken in line with the risk assessment process outlined in the Phytophthora (Dieback) Control Environmental Instruction (DIT, 2022).
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO03, Assessment criteria, *Declared plants and animals occurring within/adjacent to operational areas are reported and managed in accordance with relevant legislation…*	identified	Updated.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO04, Assessment criteria, *Records of audits/inspections carried out in accordance with the OMP demonstrate that fauna disturbance is reduced to as low as reasonably practicable*.	Suggest clarifying this point. What is this expecting an audit to show? I.e. that any management and monitoring measures where required in the CEMP (dot pt 4) are implemented.	Updated to suggested wording.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO04, Assessment criteria, *Records of audits/inspections carried out in accordance with the OMP assessments and clearance data) demonstrate significant habitat for listed threatened or migratory species has been avoided*.	Where significant habitat for listed threatened or migratory species is identified within vicinity of activities. This could be covered by 'Clearance data shows no clearance outside of approved areas' (for multiple receptors/impacts). This could avoid reference to multiple audits/inspections which either have high duplication or lack relevance.	Updated to suggested wording.

Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO06, Control measures, *Driver awareness training for all personnel.*	REMOVE. Implementation of traffic and journey management procedures should be sufficient.	Removed.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO06, Control measures, *The top third of the meteorological masts will be painted in alternating contrasting bands of colour* .	Ensure this doesn't conflict with CASA. These controls are primarily a aviation concern for human safety (and which requires specific colours) not fauna impact.	Removed.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO06, Control measures, *Use of markers or lights to increase meteorological mast visibility where required by CASA (e.g. visibility flags, flashing strobe light).*	This is typically for human safety rather than fauna safety. I don't think CASA base their assessment on risk of fauna impacts.. Remove or amend to 'where required by CASA based on fauna impact assessments'.	Removed.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO06, Environmental significance assessment, Frequency, *Ecological survey assessments identifying habitat for or occurrence of native species, including native birds, that may be impacted will be avoided.*	This sentence is a bit unclear. 'Ecological survey assessments identifying habitat for native species that may be impacted will be avoided' ? Habitat for native species may not always be avoided. This is because all veg types may provide potential habitat for some type of fauna (including in some cases paddocks of introduced grasses).	Removed.
Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO06, Environmental significance assessment, Duration, *Long lasting*	Duration refers to the duration of the impact based on table 4, not the duration of the activity. This is difficult to apply to impact event 'mortality of fauna' as mortality is not reversible, but would expect impact at species level would be minimal.	Updated to reflect this.

Industry	5.2.3 Flora, fauna and biodiversity Impact ID BIO06, Assessment criteria, *Records (e.g. ecological assessments) demonstrate no listed threatened flora species will be significantly impacted (unless appropriate approval has been obtained).*	Does this section include all assessment criteria for the objective across multiple receptors/impact IDs? As this wouldn't apply to fauna impact.	Removed.
Industry	5.2.4 Air quality Impact ID AIR01, Sensitivity, *Moderate*	Should be low. Do met masts have the ability to create sufficient dust to impact well beyond the immediate area to reach area where sensitivity would be considered moderate? There would likely be no detectable response in the air quality due to met mast at receptors with controls in place	Updated.
Industry	5.2.5 Noise and vibration Impact ID NOI01, Sensitivity, Moderate	Consider Low. Noise and vibration is not inconsistent with noise expected during other short term agricultural construction type activities for example.	Updated.
Industry	5.2.6 Landscape and visual amenity Applicable legislation, *Landscape South Australia Act 2019*	Application of this Act with regard to construction of a met mast is tenuous at best. Suggest removal	Removed.
Industry	5.2.6 Landscape and visual amenity Applicable non-legislated standards, *Planning and Design Code*	No standards in the Planning and Design Code relating to met masts. REMOVE	Planning and Design Code has been listed due to zones identified that require additional visual assessment through this EIR (e.g. Neighbourhood type zones etc).
Industry	5.2.6 Landscape and visual amenity Impact assessment outcomes, *The meteorological masts will change the outlook of the landscape but will be preferentially installed away from public viewpoints and residents in accordance*	Met masts are low visibility infrastructure even at short distances. Met mast do not change the outlook of the landscape as they are barely visible. Installation away from public viewpoints is not typically a large concern. Setbacks do not apply to masts.	Updated.

	with defined setback distances and control measures		
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Control measures, *Meteorological masts located in areas which are unlikely to be seen from public viewpoints.*	Met mast to be located in areas that are able to best capture information required. Effort is made to locate as remotely as possible however not always viable, and should not form part of approval process as there are no legislated setback distances for met masts	Updated.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Control measures, *Setback distances for siting meteorological masts, defined in section 4.1, are adhered to .*	No setback distances advised in section 4.1. Met mast are not subject to wind turbine related setback distances identified by the PDI Act. Unwarranted and misleading to include. REMOVE	Removed.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment outcome, *Expected impact: Moderate (refer to Table 7*)	At a high level this doesn't seem accurate. Visual impact of a met mast is extremely low.	Low where appropriately sited, moderate gives consideration to where potential visual impacts may occur, e.g. nearby a dwelling.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment outcome, *adhering to setback distances defined in section 4.1 and appropriately consulting with affected stakeholders as required)*	Incorrect, met mast do not have set back distances	Removed.

Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment, Frequency, *Moderate*	Practical considerations of existing met mast do not seem to have been considered, when appropriately located, met masts are LOW impact visually. They are positioned to best gather data that represents the meteorological conditions expected to influence wind turbine output. There is excessive reliance on arbitrary set back distances and visual impact assessment. Imposition of arbitrary setback distances and VIA will severely impact met mast development through the REFP process as the proposed is far more onerous that that of the preceding PDI Act. It should be considered in development of provisions for met mast approval under the HRE Act, that non-renewable energy met masts will be required to undergo approval through the PDI Act, the HRE Act should not account for these types of development in this EIR	*"When appropriately located, met masts are LOW impact visually"*. Where met masts are appropriately sited and the impact is low, demonstration of this point will not be an onerous task. The level of detail required to demonstrate this should be commensurate to the level of impact, a more detailed assessment is only required where visual amenity of a receptor may be adversely affected, in which proponents may demonstrate how siting has been selected to minimise impacts, e.g. if a met mast has been sited nearby and in line of sight of a non-involved dwelling. This may be unlikely, however, as the EIR has been developed based on any proposed met mast project on non-designated land, it must consider all scenarios. Visual impacts may occur and therefore proponents are required to provide information such that DEM can make an informed decision as to whether these impacts are acceptable. As stated above, this is not an onerous task where they are appropriately located.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment, Extent, *Moderate*	Low	Updated.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment, Severity, *Moderate*	This should be low. Met masts are often imperceptible at a reasonable distance. They are so imperceptible control measures to increase their visibility are installed so that people in close proximity to the mast do not collide with it.	At a reasonable distance they are imperceptible, which may not occur in all instances, the moderate ranking considers where they are not.

Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment, Cumulative, *Possible*	Unlikely - Mets mast will not lead to a cumulative impact visually, met masts are required to be sufficiently spaced to gather a broad range of data for the proposed wind farm site, they will not be grouped in proximity to each other. It is highly unlikely that other structure will be constructed around a met mast on property of an involved land owner as that will impact development potential of the site	The options for assessment of cumulative impacts are Yes, No, or Possible. Therefore, Possible has been selected to reflect that receptors could be impacted by similar activities depending on the site. The ranking has not been assigned based on a single project, this has been considered where proposed project areas of different projects are nearby - this has been clarified in the EIR.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment, Sensitivity, *Moderate*	Low	No updated required. Sensitivity relates to the sensitivity of the receiving environment, inclusive of receptors. Moderate ranking has been assigned taking into consideration where a met mast may result in a reduction of visual amenity.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Environmental significance assessment, Sensitivity, *However, through control measures, meteorological masts will be preferentially located away from public view points and must not be located within the setback distances defined in section 4.1, which will minimise impacts. to reduce these impacts where possible*.	Remove reliance on this control measure. Met masts are not visually intrusive. (also set backs do not apply to masts)	Removed.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Assessment criteria, *Records (visual impact assessments) demonstrate that meteorological mast locations have been sited to minimise visual impacts*.	As per comment above. Visual Impact Assessment are not required for met masts. This should be limited to proponent showing consideration to minimise visual impact of met mast.	Wording updated, not removed. Visual impact assessments are required so that proponents demonstrate that there are no adverse impacts to visual amenity, the level of detail required is commensurate to the level of impact, i.e. a detailed visual impact assessment would be required where a met mast is proposed within 1km of a dwelling with a direct line of sight. DEM recognises that in general met masts are not visually obtrusive, however, tall structures that are in close proximity to a sensitive receiver will need some description of the impact and why the impacts to visual amenity are acceptable.

Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Assessment criteria, *Meteorological masts located in areas which are unlikely to be seen or have limited visual impact from public viewpoints* .	Met masts by construction and placement are unlikely to be seen and have limited impact from public viewpoints. PDI Act requirements were sufficient in ensuring this. Direction in this EIR is appears to place additional burden on proponent to demonstrate this. Suggest revision of this section to more closely align with PDI Act	Wording updated, not removed. Visual impact assessments are required so that proponents demonstrate that there are no adverse impacts to visual amenity, the level of detail required is commensurate to the level of impact, i.e. a detailed visual impact assessment would be required where a met mast is proposed within 1km of a dwelling with a direct line of sight. DEM recognises that in general met masts are not visually obtrusive, however, tall structures that are in close proximity to a sensitive receiver will need some description of the impact and why the impacts to visual amenity are acceptable.
Industry	5.2.6 Landscape and visual amenity Impact ID VIS01, Leading performance criteria, *Assessment is undertaken to place meteorological masts in places where they are unlikely to be seen or have limited visual impact from public viewpoints*.	What level of assessment is assumed? Visual Impact Assessment was not employed in PDI Act assessment. REMOVE	Wording updated, not removed. Visual impact assessments are required so that proponents demonstrate that there are no adverse impacts to visual amenity, the level of detail required is commensurate to the level of impact, i.e. a detailed visual impact assessment would be required where a met mast is proposed within 1km of a dwelling with a direct line of sight. DEM recognises that in general met masts are not visually obtrusive, however, tall structures that are in close proximity to a sensitive receiver will need some description of the impact and why the impacts to visual amenity are acceptable.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER01, Environmental significance assessment, Severity, *High*	As per comment below	As noted in the assessment, this considers where appropriate authorisations have not been obtained (worst case scenario).
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER01, Proposed environmental objective, *No damage, disturbance or interference to Aboriginal heritage and non-Aboriginal heritage*.	Unless authorisations have been obtained	Updated.

Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER01, Assessment criteria, *Records demonstrate that works have stopped in the vicinity of a discovery of Aboriginal heritage*.	If one has occurred	Yes, only relevant where it occurs.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER02, Control measures, *SEB sites are identified (e.g. through search on NatureMaps) and avoided*.	Wrong section?	Removed.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER02, Environmental significance assessment, Severity, *High*	How is severity of this impact considered? This impact is slightly different from the others as this seems to be assessing a binary incident (either no impact or high severity impact). In the same way that other aspects are protected and impacts require authorisation (e.g. clearance of vegetation without approval is breach of NV Act). Is this potentially inconsistent in terms of potential impact to heritage vs other impacts? (what would be considered a low or medium severity impact to this receptor?)	The loss of native vegetation can be recovered over time, the loss of heritage cannot be replaced/recovered.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER02, Environmental significance assessment, Sensitivity, *Moderate*	Aboriginal Heritage and non-aboriginal heritage are both protected. What is the basis for different sensitivity?	Updated to high.
Industry	5.2.7 Aboriginal and non-Aboriginal heritage Impact ID HER02, Environmental significance assessment, Sensitivity, *Implemented setback distances will also help minimise impacts*.	Which setback distances apply here? Should these be mentioned in controls.	Removed.

Industry	5.2.8 Public health and safety Applicable non-legislated standards, *AS1940 - The storage and handling of flammable and combustible liquids*	Suggest including in description that this relates to construction and decommissioning. No storage required for operation and therefore no fire danger relating to operation, may be misleading and imply that operational met mast has fire risk	Relevant controls updated to state during decommissioning and construction. Control measures include lightning rods to control fire risk of tall structures.
Industry	5.2.8 Public health and safety Impact events, *Fires caused by the regulated activities results in injuries or fatalities to members of the public .*	Suggest including in description that this relates to construction and decommissioning. No storage required for operation and therefore no fire danger relating to operation, may be misleading and imply that operational met mast has fire risk	Updated.
Industry	5.2.8 Public health and safety Impact ID SAF01, Confirmation of SPR	Also potential for agricultural flying , are helicopters also considered?	Updated.
Industry	5.2.8 Public health and safety Impact ID SAF01, Control measures, *Aeronautical risk assessment will be undertaken for meteorological masts taller than 150 m.*	Reference guidance this comes from. Would compliance with guidance be more appropriate to pick up any changes over time? Consider also within x proximity of aerodrome where OLS may be <150m AGL.	Included reference to relevant document, however note that the document reference (version) would likely require updating if amendments were made.
Industry	5.2.8 Public health and safety Impact ID SAF01, Environmental significance assessment, Sensitivity, *moderate*	How is safety applied into criteria for sensitivity?	Has been ranked moderate with consideration of aircraft safety (flying) is exposed to threatening processes (i.e. a potential reduction in safety) where tall structures (or other obstacles) are added to the landscape, while also recognising that met masts are installed with visual markings such that safety is not considered being of 'poor condition'.
Industry	5.2.8 Public health and safety Impact ID SAF02, Control measures, *Firefighting equipment available as appropriate for location and use.*	Amend to include “during construction”	Updated.

Industry	5.2.8 Public health and safety Impact ID SAF02, Control measures, *Hazard identification plan for immediate implementation on days of high temperatures and winds*.	Is this for works (construction, maintenance or decommissioning) only. Operational sites are unmanned.	Yes.
Industry	5.2.8 Public health and safety Impact ID SAF02, Control measures, *Meteorological masts are installed with lightning rods to direct lightning to a grounding system in the earth away from the structure and ignitable materials*.	Include codes for electrical components. Designed and maintained to applicable standards.	Updated to include Designed and maintained to applicable standards as a relevant control.
Industry	5.2.8 Public health and safety Impact ID SAF02, Control measures, *Crews are trained in use of firefighting equipment* .	Further explanation of this required. Met mast is unmanned. Construction and contractor teams will not be trained firefighters. REMOVE	Not expected that construction workers or contractors will be trained firefighters nor that crews undertaking activities would be on-site after met mast construction. Basic understanding of use of a fire extinguisher is sufficient while crews are on-site (during construction and decommissioning).
Industry	5.2.8 Public health and safety Impact ID SAF02, Leading performance criteria, *Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards*	“During construction”. An operation met mast will not be equipped with firefighting equipment.	During construction and decommissioning.

Industry	5.2.8 Public health and safety Impact ID SAF02, *No clearance of native vegetation or disturbance to native fauna unless prior approval under the relevant legislation is obtained. § No uncontrolled fires as a result of authorised activities.* *§ OMP includes an emergency response plan (or similar) that clearly outlines the response to a fire related incident, both caused by authorized activities and/or threatening authorized activities from offsite.* *§ Fire and Emergency Services Act 2005 requirements are complied with.* *§ Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards.*	As above 2 comments	Updated.
Industry	5.2.8 Public health and safety Impact ID SAF03, Control measures, *Driver awareness training for all personnel* .	Remove. Implementation of traffic and journey management procedures should be sufficient. Agree with sentiment, however undue burden to place on contractors and not DEM site to place this restriction on i.e. mine operator requirement for all staff and contractors, this is an expectation that can be built into acceptance of employment/contract	Noted, removed as suggested.
Industry	5.2.8 Public health and safety Impact ID SAF03, Leading performance criteria, *Driver awareness training for all personnel* .	Remove as per above comment	Removed.

Industry	5.2.8 Public health and safety Impact ID SAF04, Control measures	Located on private land, low accessibility to public.	Noted.
Industry	5.2.8 Public health and safety Impact ID SAF04, Control measures, *Restriction of public access (e.g. fencing where appropriate, anti-climb design)*	Note fencing is often to prevent disturbance from cattle (rather than people). i.e. It may not be required on sheep stations.	Noted.
Industry	5.2.8 Public health and safety Impact ID SAF04, Control measures, *Undertake fitness for purpose assessments and audits of management systems to ensure operational and*	Management systems for operation of a met mast would be minimal.. This is more appropriate for full project	These are required by the Act and Regs, minimal is ok as commensurate to activity being undertaken.
Industry	5.2.8 Public health and safety Impact ID SAF04, Environmental significance assessment, Sensitivity, *Management systems in place and fitness for purpose assessments*	Confirm expectations here. Should this refer out to OMP	Updated to state *(as specified in the OMP)*.
Industry	5.2.8 Public health and safety Impact ID SAF04, Assessment criteria, *Undertake fitness for purpose assessments and audits of management systems to*	As per previous comments	These are required by the Act and Regs, minimal is ok as commensurate to activity being undertaken.
Industry	5.2.8 Public health and safety Impact IDSOC02, SPR uncertainties and assumptions, *SPR confirmation is based on desktop assessment using high-level mapping and socio-economic data across the Nominated Area*.	What is expectation of desktop assessment	Level of detail required should be commensurate to the level of impact of the project, for met masts, this is expected to be low and as such high-level mapping and assessment is likely sufficient.

Industry	5.2.8 Public health and safety Impact IDSOC02, Control measures, *Induction for all employees and contractors covers underlying land use requirements* .	Confirm level of induction required, generally covered in pre-start or similar	Pre-start or similar is sufficient.
Industry	5.2.8 Public health and safety Impact IDSOC02, Control measures, *Restoration of land disturbances to be undertaken through consultation with, and to the reasonable satisfaction of the landowner* .	Consider reasonableness clause	Updated wording to state that restoration is undertaken in consultation and agreement with the landowner.
Industry	5.2.8 Public health and safety Impact IDSOC02, Environmental significance assessment, Sensitivity, *Landowners are a sensitive receiver*	On what basis in Table 5 is this determined?	Updated to state, may be a sensitive receiver.
Industry	5.2.8 Public health and safety Impact IDSOC02, Assessment criteria, *any affected Government agencies and any potentially affected stakeholders*	In accordance with Consultation Plan	Updated.
Industry	5.2.8 Public health and safety Impact IDSOC02, Leading performance criteria, *A consultation plan is submitted and approved by DEM prior to commencement of consultation, in accordance with Regulation 33 (3) (Hydrogen and Renewable Energy Regulations 2024).*	Note these refer to consultation on EIR and SEO which have been prepared and consulted on by DEM	Removal of reference to reg 33. Proponents required to consult specifically on their project and potential impacts. EIR and SEO consultation has been limited, has not included all stakeholders and does not describe the specific impacts of a particular project e.g. not landowners/neighbours of a specific met mast.

Industry	5.2.8 Public health and safety Impact IDSOC03, Control measures, *identify specific weeds, pests and or pathogens*	As per comment in F&F section	Pathogen risk can be established through a desktop assessment. Text updated to include: Pathogen desktop assessment undertaken to determine potential threat areas. Phytophthora assessments undertaken in line with the Phytophthora (Dieback) Control Environmental Instruction (DIT, 2022).
Industry	5.2.8 Public health and safety Impact IDSOC03, Control measures, *or within transport corridors to the site* .	Remove as per flora and fauna comment	Removed.
Industry	5.2.9 Social environment, land use and infrastructure Impact IDSOC03, Assessment criteria, *Baseline weed, pest animal and/or pathogen assessment*	Known pathogens may be considered. This would be separate from the weed/pest assessment.	Requirements separated to clarify. § *Baseline weed and, pest animal and/or pathogen assessment undertaken by appropriately trained and experienced personnel prior to commencing operations.* *§ Pathogen desktop assessment undertaken to determine the potential of presence or spread of pathogens and the commensurate level of control required.*

Industry	7.2 Consultation *It is therefore a requirement that the proponent must consult with landowners, the council, any affected government agencies and reasonably affected stakeholders* .	Will government agencies have power to request additional information if proponent has met the criteria required in EIR and SEO? It is our understanding that the HRE Act was introduced to provide a more streamlined process, and this DRAFT EIR to more align a met mast REFP with the previous PDI Act. It is noted that 15 assessments are now required, this is a far more onerous on the proponent than the PDI Act process. This process feels as though the proponent is now required to undertake a more cumbersome process, with less certainty when referred to referral agencies due to the raft of regulations quoted in the EIR, and the obvious misunderstanding of met mast construction and operations as detailed by the comments provided in Attachment A	Noted.
Industry	7.2 Consultation *It is therefore a requirement that the proponent must consult with landowners, the council, any affected government agencies and reasonably affected stakeholders* .	Definition of "reasonably affected stakeholders" should not allow scope for the Minister to seek broader community consultation through newspaper advertisement etc.	Public consultation is not requirement. Stakeholders has been rephrased to receptors to limit extent.
Industry	7.2 Consultation *Licence holders are expected*	Permit (throughout SEO/EIR)	Updated.

Industry comments (SEO)

Respondent	Doc ref	Comment	DEM Response
Industry	Objective 5, leading performance criteria *Assessment is undertaken to place meteorological masts in places where they are unlikely to be seen or have limited visual impact from public viewpoints*.	As per comment in the EIR. This will be difficult to achieve. Can "unlikely to be seen" be removed from the wording? Met masts have to go in the most appropriate location to measure the wind resource - and this is often in visually prominent areas. By nature though; met masts are often difficult to discern from public viewpoints so I'm happy with the second part of the statement.	Updated to *that minimise visibility from residential, tourist development, or otherwise visually sensitive areas*.
Industry	*Objective 6, Leading performance criteria: Records demonstrate that activities are confined to areas subject to cultural heritage survey or work area clearance and undertaken in accordance with conditions of the survey or work area clearance*.	As per my comments for the EIR - this requirement could have significant impacts on the timing of met mast installation. For lower risk areas, could a Cultural Heritage Risk Assessment be undertaken instead? Particularly on Freehold land? I think engagement with Aboriginal Heritage Groups should encompass the whole project rather than individual low-risk elements with tiny footprints?	Text updated to include the requirement to *Cultural heritage risk assessment undertaken in consultation with Traditional Owners and/or by an anthropologist/archaeologist and a cultural heritage survey or 'work area clearance' undertaken prior to land disturbing activities and other activities as required in accordance with relevant Native Title Agreement (if applicable)*. Cultural heritage risk assessments are required to be informed by a suitably qualified person (inclusive of Traditional Owners).

Industry	Section 3.2 Reporting requirements	Suggest adding cultural heritage reporting (which AAR recently requested we add to a BESS SEO): Any unexpected discovery of an Aboriginal heritage sites, object or remains would be managed and reported in line with the Attorney-General's Department, Aboriginal Affairs and Reconciliation's (AAR's) Aboriginal heritage discovery protocols (2025). The following reporting requirements are established under Section 20 of the Aboriginal Heritage Act 1988 and as set out in AAR's Aboriginal heritage discovery protocols (2025): • Potential Aboriginal ancestral remains discoveries must be immediately reported to the SA Police, and must be reported to the Minister for Aboriginal Affairs (through AAR) as soon as possible • Potential Aboriginal sites, objects or remains discoveries must be reported to the Minister for Aboriginal Affairs (through AAR) as soon as possible.	Included.
Industry	Figure 1 Freehold land constituting the REFP Study Area	Unclear why the Aboriginal Land parcels are highlighted so prominently on this map - suggest making it more clear if they are part of the study area or not.	Section 1.2.1 outlines that these aboriginal land parcels are excluded from the coverage of the EIR. This has now also been made clear in the SEO.
Industry	Section 2.1	Update reference to *REFL* to *REFP*	Updated.
Industry	Section 2.1, dot point 4	Please reword/clarify what is meant by associated infrastructure. Associated with what exactly?	Associated removed.
Industry	Section 2.4 Operational Management Plan	Suggest referring to these as sub-plans given they are not stand alone plans	No update required.
Industry	Section 2.5 Consultation Requirements	For clarity, suggest referring to this as a consultation report rather than just a report	Updated.

Industry	Objective 1, leading performance criteria, dot point 1	All soil is prone to erosion so suggest clarifying here *location avoids both sensitive land systems that are particularly prone to erosion*	Soils considered prone to erosion are those that are easily washed or blown away, land systems and soils that aren't considered prone to erosion may include high clay content soils, stabilised soils, areas with abundant native vegetation/ground cover.
Industry	Objective 1, leading performance criteria, dot point 3	Note given the relatively small/temporary nature of met mast impacts it is not typical to install dedicated erosion and sediment controls (e.g. sediment fences) *Integrity of any sediment and erosion controls installed are inspected following significant rainfall events and any necessary maintenance implemented.*	No update required, the leading performance criteria is only relevant where sediment and erosion controls have been installed.
Industry	Objective 1, assessment criteria, dot point 1	Important to clarify this is known contamination as undertaking site studies of the presence of this is well beyond what is typically conducted for a met mast *Management and monitoring measures for any known or potential existing contaminated soil or acid sulphate soils will be documented in the Construction Environmental Management Plan, where required.*	Updated.
Industry	Objective 1, leading performance criteria, dot point 2	Please clarify the level of risk required for this measure. *Field screening undertaken for presence of acid sulphate soil existing contamination if excavating in a high risk area.*	If desktop assessment indicates that ASS may be present, then it is considered to have a high potential of occurring.
Industry	Objective 1, leading performance criteria, dot point 7	Added to clarify the personnel this is referring to. *Construction Personnel trained in correct procedures for use of materials, including refuelling and clean- up*	Updated to Construction and decommissioning personnel…

Industry	Objective 1, leading performance criteria, dot point 8	Clarifying this is appropriate to the construction phase only. For a met mast, spill response equipment would not typically be kept on site for the operations phase. *Appropriate spill response equipment is available on site <u>during construction activities .</u>*	Updated to during on-site operations,
Industry	Objective 2, leading performance criteria, dot point 1	Wording adjusted given that for a met mast there would be very limited storage and handling of fuels and chemicals on site. *<u>Any fuel</u> and chemicals <u>on site</u> are stored and handled in accordance with relevant standards and guidelines, including AS 1940, EPA guideline 080/16 Bunding and Spill Management and the Australian Dangerous Goods Code (ADG).*	Updated to include *onsite* to clarify, however, noting that fuels and chemicals should always be stored appropriately.
Industry	Objective 2, leading performance criteria, dot point 3	*<u>Construction Ppersonnel</u> trained in correct procedures for use of*	Updated to: Personnel ~~trained in correct procedures for~~ required to use ~~of~~ materials, including for refuelling and clean- up, are trained in correct .procedures.
Industry	Objective 2, leading performance criteria, dot point 5	*Appropriate spill response equipment is available on site <u>during construction.</u>* Clarified phase as not appropriate for operations phase of a met mast	Updated to during on-site operations.
Industry	Objective 2, leading performance criteria, dot point 8	Measure clarified as not appropriate to inspect a met mast during operations after each rainfall event *<u>Prior to stabilization of any disturbed soil from construction activities ,</u> integrity of <u>any</u> sediment and erosion controls <u>installed</u> inspected following significant rainfall events and any necessary maintenance implemented.*	DEM deem it appropriate to inspect any sediment and erosion controls installed at the site following a significant rainfall event. Should sedimentation and/or erosion control be implemented at a site to manage surface water run-off as a control, it is required that the control is maintained and monitored. It is expected that most met mast installations will net require specific sediment and erosion controls, therefore demonstration of this will not be required.

Industry	Objective 3, leading performance criteria, dot point 7	Note reference to on site fire prevention and fire fighting equipment is not appropriate for a met mast. ~~*Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards.*~~*A copy of the emergency management plan is available on site* .	Text updated to: Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards during on-site works and in line with the Emergency Management Plan or similar.
Industry	Objective 4, leading performance criteria, dot point 1	Due to the limited disturbance area of met mast construction areas, and limited duration of construction activities, water spraying equipment is not typically kept on site. Water spraying would only be conducted if there was a particularly sensitive area nearby (e.g. residence) and dust became an issue. ~~*Equipment to perform water-spraying is available onsite during construction, and*~~*Water spraying implemented if dust generation becomes a problem (e.g. near sensitive sites).*	Updated.
Industry	Objective 4, assessment criteria, dot point 6	*The applicant must provide a consultation report that details the result of the consultation, setting out the persons consulted, any issues of concerns raised and the steps if any proposed to be taken to address those concerns.*	Updated.

Industry	Objective 8, leading performance criteria, dot point 4	See above comment on this issue. Due to the minimal fire risk of met mast activities, and short duration of construction activities (within a few weeks), it is not reasonable to expect such equipment to be kept on site. ~~*Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards*~~*.Copy of emergency response plan kept on site .*	Text updated: Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards during on-site works where required, e.g. during fire danger season, high fire risk areas.
Industry	Objective 9, assessment criteria, dot point 10	Added this as not usual for any wastes from met mast construction to require disposal in an EPA licenced facility. *Records of audits/inspections carried out in accordance with the OMP demonstrate wastes have been segregated and, <u>where required</u> , transported to an EPA licensed waste disposal facility for recycling or disposal.*	Updated.
Industry	Table 2, Incident definitions for REFL regulated activities *Detection of a declared weed, animal / plant pathogen or plant pest species that has been introduced or spread as a direct result of activities*	It is strongly suggested that this is moved to the right-hand column of 'Reportable incidents' given it is not appropriate for such sitings to be reported 'to the Minister within 24hrs' as is required for immediately reportable incidents. Also suggest reference to pathogen is updated to 'notifiable disease' for consistency with the Plant Health Act and Livestock Act.	Section 6 of the Plant Health Act, A person who knows or has reason to suspect that a plant or plant related product is affected by a pest must— (a) immediately report the matter to an inspector by the quickest practicable means; Immediate reporting is consistent with the requirements of the Plant Health Act. Immediate reporting is via DEM, with initial report within 24 hours of detection deemed appropriate and not un-reasonable. In addition, under the Landscape SA Act 2019, section 190 requires that notification must be given to the regional landscape board in which the land is situated within 24 hours in particular cases (i.e. Category 1 animal or plant within a declared area).

Industry	Section 3.2.1 Reporting under the HRE Act	Please add something like this to clarify how incidents are to be reported to DEM. *Incidents would be reported in writing to DEM via email to DEM.EnergyRegulation@sa.gov.au* .	Updated to include contact information for immediately reportable incidents.
Industry	Section 3.2.2 Reporting to the EPA	83A does not specifically refer to serious or material environmental harm. *Where applicable, incidents causing or threatening serious or material environmental harm <u>from pollution</u> under the Environment Protection Act 1993 (EP Act) must be reported to the South Australian Environment Protection Authority (EPA) in accordance with section 83 ~~or 83A~~ of the EP Act.*	Updated.
Industry	Section 4 Abbreviations	Suggest move to start of doc	Updated.
Industry	1.1 Background *REFP*	It's in the front page but might be good for the reader to write it here in total and put the acronym in brackets: Renewable Energy Feasibility Permit (REFP)	Updated.

Industry	Objective 2, leading performance criteria, dot point 8 *Desktop and field assessments undertaken to ensure meteorological mast installation sites are located and constructed to maintain pre-existing water flows*	Does this need to be "and"? I would imagine that there would be several locations where a desktop assessment would be adequate and if necessary, a desktop model would give more confidence than a field assessment (which could really only be one snippet of time vs a model can account different rain and drought events & extremes). It's not particularly typical to do field assessment for flood waters, water quality etc because in general in this field (desktop) modelling is so well understood and used that, so I'm not sure what the extra value of field assessment would be? Unless there is an assessment required for groundwater / surface water dependent ecosystems at the proximity when that would make sense?	Updated to (where required).
Industry	Objective 3, assessment criteria, dot point 3 *Where vegetation and habitats may be sensitive to disturbance, consultation with relevant government departments and agencies carried out and location specific environmental management plan developed and implemented.*	If an example could be provided of who these would most typically be, it would give more context to a reader who is perhaps new to SA specific agencies (as every state is different). Later in this document there is a footer to explain if there is an incident, a footer of the typical permits / authorities might work here too?	DEM are developing a guideline and template in which this level of information can be provided.
Industry	Objective 3, assessment criteria, dot point 14 *Fire and Emergency Services Act 2005 requirements are complied with*	Is the intention that the proponents would always consult with CFS? Or is it enough that the contractor can manage with their own procedures and equipment?	CFS should be consulted where relevant. This assessment criteria relates to the requirements of the Fire and Emergency Services Act for preventing and suppressing fires, with breaches including failing to prevent fires on private land.

Industry	Objective 5, assessment criteria, dot point 2 *Meteorological masts located in areas which are unlikely to be seen or have limited visual impact from public viewpoints* .	Where possible?	Wording updated to *Meteorological masts located in areas that minimise visibility from residential, tourist development, or otherwise visually sensitive areas*
Industry	Objective 8, assessment criteria, dot points 2,3,4	Just noting that this is twice in this table, under the vegetation as well. Assuming on purpose?	Yes, relevant to both objectives.
Industry	Objective 8, assessment criteria dot point 1 and 6	This is twice under the same topic?	Duplication removed.
Industry	Objective 10, assessment criteria, dot point 1	This is somewhat repetative as well, would it make sense to combine this dot point to the next cell?	Duplication removed, this level of detail moved to template/guideline.
Industry	Objective 10, assessment criteria, dot points 4,5,6 (plus leading performance criteria).	For me it would make sense to combine these two cells as well. It would make more sense just to have the two performance criteria for the totality of this point instead trying to divide it in half	Duplication removed.
Industry	Section 3 Reporting	Just to make clear, there is no other reporting than about incidents? Or should this headline rather be Incident Reporting?	Updated.
Industry	Section 1.1 Background	Non-designated land requires clear definition of land included i.e. all but pastoral leaseholds identified as designated land and applied consistently throughout the document	Updated.
Industry	Section 1.1 Background	Only feasibility activities must be authorised under a REFP. *Exploring for a renewable energy resource is a regulated activity under the HRE Act. On non-designated land (e.g. freehold land), ~~it~~ feasibility activities must be authorised under a REFP* .	Updated.

Industry	Section 1.2 Purpose	Remove remaining references to REFL in the SEO/EIR.	Updated.
Industry	Section 1.3 Scope *This SEO does not apply to activities that are not considered regulated activities under a REFP. Activities excluded from the scope of the EIR and SEO includes, but is not limited to :*	Suggest amendment to clarify these activities are not feasibility activities: This SEO only applies to activities that are considered feasibility activities under the HRE Act. Therefore, activities excluded from the scope of the EIR and SEO includes, but is not limited to ... These activities are not feasibility activities under the HRE Act and therefore do not require authorisation under the HRE Act to be conducted on non-designated land. These activities may instead be undertaken in agreement with the landowner.	Updated.
Industry	Section 1.3 Scope *that are not considered regulated activities*	Feasibility activities are identified in the Act, suggest amending to reflect defined phrases rather than introduction of new phrase. Suggest rewording this section in line with the definition of feasibility activities rather than introducing activities that do not require a REFP.	Updated.
Industry	Figure 1 Freehold land constituting the REFP study area	Nominated Area / Study area should include perpetual lease Suggest Study Area explicitly shown on map (especially if expanded to other non-designated land types)	Map updated.
Industry	Section 2.1 Objectives *The environmental objectives for REFL regulated activities are:*	Change to *REFP*, change to *feasibility activities*	Updated.

Industry	Section 2.1 Objectives	No significant *adverse* changes in soil stability, structure, quality or composition resulting from regulated activities	Updated.
Industry	Section 2.1 Objectives	No significant disturbance to surface drainage patterns and no adverse impacts to surface water and groundwater quality or quantity *resulting from activities*	Updated.
Industry	Section 2.1 Objectives	No damage, disturbance or interference to Aboriginal heritage and non-Aboriginal heritage sites, objects, remains and places *unless it is authorised under the relevant legislation*	Updated.
Industry	Section 2.2 Assessment Criteria	The assessment criteria for each objective are set out in *Table 1*~~Table 2 1.~~	Updated.
Industry	Section 2.3 Leading Performance Criteria	Relevant leading performance criteria for each objective are set out in *Table 1*~~Table 2 1.~~	Updated.
Industry	Section 2.4 Operational Management Plan	achievement of relevant assessment criteria~~'s,~~	Updated.
Industry	Section 2.5 Consultation requirements *To fulfill Regulation 33(2) and 33(3) of the HRE Regulations 2024, it will be conditioned through the SEO, that consultation must be undertaken prior to the grant of a licence under the HRE Act.*	Regulation 33(2) and 33(3) refer to consultation on a proposed EIR and SEO and therefore do not apply where a proponent is not proposing an SEO for approval under section 63 of the Act (and an associated EIR). 63(3) only applies to applicants seeking approval for an SEO under section 63 of the act.	Correct, this section has been reworded to better describe the intention. Proponents must undertake consultation as a requirement of this SEO specifically (the requirements are similar to those set out in reg 33).

Industry	Section 2.5 Consultation requirements *the council, any affected Government agencies and any potentially affected*	Suggest that expectations regarding consultation with any affected Government agencies be limited as consultation has already been undertaken by DEM in the preparation of this SEO/EIR.	While consultation has been undertaken with government agencies by DEM on this EIR and SEO, the documents are statewide/broad scoping. It is therefore still a requirement that relevant government agencies are consulted on project specifics and the potential impacts that are specific to each project.
Industry	Section 2.5 Consultation requirements *The consultation must be focused on potential impacts and management measures identified in this SEOEIR (and accompanying EIRSEO) and how the licensee proposes to manage those impacts through their Operational Management Plan*.	Consultation on this EIR has circulated through affected Government agencies, given the level of scrutiny which has been applied to the EIR it seems excessive that consultation is required to be undertaken again. The intent of the "off the shelf" EIR should be that confirming development meets the requirements of the EIR approval should be granted, consultation will hold up process and provide agencies a second chance to add further comment to a proposal. Under Reg 33 consultation is required on a proposed SEO/EIR. Suggest this is reworded to clarify the level of detail on which consultation is expected to remain consistent with the level of detail in an SEO/EIR.	While consultation has been undertaken with government agencies by DEM on this EIR and SEO, the documents are statewide/broad scoping. It is therefore still a requirement that relevant government agencies are consulted on project specifics and the potential impacts that are specific to each project.
Industry	Objective 1, assessment criteria, dot point 1	This appears to be additional requirement to consult with Landscape Board. Draft EIR and Native Vegetation Removal application should cover this requirement, consultation with landowner appropriate. Suggest consultation with landscape board (where appropriate) be moved to leading performance criteria or as a control. The landholder is typically knowledgeable on what is required management on their land.	Text retained as this is only required where appropriate, i.e. advice needs to be sought to address information gaps.

Industry	Objective 1, leading performance criteria, dot point 1	Please confirm desktop assessment does not necessarily necessitate a third party consultant report. This is a general point across many items. The proponent will typically undertake a 'desktop assessment' to address many of these points with a consultant referred to only where required.	Correct, desktop assessments can be undertaken by the proponent. Assessments should be undertaken commensurate to the level of impact, i.e. third party assessment or more detailed assessments would be relevant where projects may have a significant impact on a receptor.
Industry	Objective 1, leading performance criteria, dot point 4	Level of desktop? PSI or review of ASS mapping?	Review of ASS mapping is suitable, as stated above, the level of assessment required should be commensurate to the level of impact, i.e. proponents that identify ASS within the project area may be required to undertake additional assessment to demonstrate that relevant controls or avoidance will occur.
Industry	Objective 1, assessment criteria, dot point 7	*Records of audits/inspections carried out in accordance with the OMP demonstrate that any escape of chemical, fuel or oil to land is immediately contained and removed .* Or incident reports (if any) Or remediated	Text simplified to: *Records of audits/inspections carried out in accordance with the OMP demonstrate that any escape of chemical, fuel or oil to land or waters are immediately contained, and removed and/or remediated in accordance with an incident management plan or similar.*
Industry	Objective 1, leading performance criteria, dot point 6	*Inspections demonstrate* Or IMS	Inspection would be of IMS.
Industry	Objective 1, leading performance criteria, dot point 8	Spill response equipment is not typically required permanently on site. It may be on-site where required during construction or maintenance activities (as detailed in OMP).	Wording updated to reflect only required during on-site operations.
Industry	Objective 2, assessment criteria, dot point 1	Add '…that results in adverse impact to surface or groundwater quality'. Alternatively this could be replaced with 'Compliance with Environment Protection (Water Quality) Policy 2015'	No update required, *adverse impact to surface or groundwater quality* is more ambiguous than no unauthorised discharge.

Industry	Objective 2, assessment criteria, dot point 3	I note this is in accordance with the OMP but how/when is this expected to occur in practice? Suggest this is removed or amended to clarify water quality only needs to be 'demonstrated' where relevant (or where sedimentation into surface water as a result of regulated activities has been identified)'	Text updated to clarify, *where sedimentation into surface water as a result of regulated activities has been identified, an appropriate management and/or monitoring plan is implemented to demonstrate no deterioration of surface water quality within or near the activity location when compared with adjacent areas.*
Industry	Objective 2, leading performance criteria, dot point 5	Seems onerous unless proposed site meets activities identified on DEW WAAP website Field assessments may not be required to determine if a WAAP is required. Suggest this is amended to 'Desktop and field assessments (where required) undertaken …' or simply Assessment to determine if WAAP is required,	Updated.
Industry	Objective 2, leading performance criteria, dot point 8	Onerous Specific field assessments to ensure pre-existing water flows are maintained are not always required. Suggest this is amended to 'Desktop and field assessments (where required) undertaken…'	Updated.
Industry	Objective 2, leading performance criteria, dot point 9	As above comment	Updated above (duplication removed).
Industry	Objective 2, leading performance criteria, dot points 10 and 11	Remove, double up	Updated.
Industry	Objective 3, assessment criteria, dot point 10	Suggest also include 'either spatially or temporally' under assessment criteria.	Updated.
Industry	Objective 3, leading performance criteria, dot point 7	Suggest this point is removed. Fire prevention and firefighting equipment is not typically required to be present at an operational met mast site.	Updated to state only during on-site operations.

Industry	Objective 4, assessment criteria, dot point 5	Is this the appropriate scope for the SEO to add conditions prior to grant? Permitted activities are conducted in accordance with the SEO. Prior to ~~licence~~ *permit* grant ,	This is to stipulate the timing of consultation. The SEO will not be met where consultation hasn't been undertaken and therefore permit will not be granted. Licence has been updated to permit in all instances.
Industry	Objective 4, assessment criteria, dot point 5	See comments in EIR regarding consultation	Updated.
Industry	Objective 4, leading performance criteria, dot point 3 and 4	*Landowners and relevant stakeholders are consulted prior to survey activities, ~~and relevant control and management measures consistent with those identified in the EIR are implemented.~~* *New dot point: relevant control and management measures consistent with those identified in the EIR are implemented ~~No~~ to avoid adverse impact (outside agreed disturbance areas) on land use as a result of activities.*	Retained *No adverse impact (on agreed disturbance areas) on land use…*as a separate leading performance criteria. Updated to create new LPC for *Relevant control and management measures…*
Industry	Objective 5, assessment criteria, dot point 1	Suggest remove point. Visual impact assessments are not required for met masts. Met masts do not have high visibility.	Updated requirement to undertake visual impact assessment within 500km of identified list of receptors.
Industry	Objective 5, assessment criteria, dot point 2	Suggest these two points could be removed. Visual impact is already covered predominantly through exclusions of the study area. Retain 'Records demonstrate no reasonable complaints received about visual amenity are left unresolved'.	No update required, the two criteria highlighted are preventative measures, rather than reactive measures.

Industry	Objective 5, assessment criteria, dot point 1	Visual Impact Assessment not required under PDI Act, REMOVE to align with previous approval pathway	This would be in breach of the requirements of the HRE Act (EIAC), wherein, the potential impacts of a project must be assessed. Proponents must demonstrate that their proposed projects will not result in unacceptable impacts to identified receptors. Where met mast projects are appropriately sited, visual impacts can generally be considered none or low, the level of assessment required should be commensurate to the level of expected impact, i.e. can easily demonstrate that visual amenity for nearby receptors is not diminished. However, this requirement is considered appropriate to capture where unacceptable impacts may occur and proponents are required to demonstrate that impacts to nearby receptors are acceptable (e.g. met mast is within 1km of a non-involved dwelling).
Industry	Objective 5, assessment criteria, dot point 2	As per comment in EIR. Met mast to be located in areas that are able to best capture information required. However met masts are not visually obtrusive structures.	Text updated to state *Meteorological masts located in areas that minimise visibility from residential, tourist development, or otherwise visually sensitive areas*.
Industry	Objective 5, leading performance criteria, dot point 1	Define the level of assessment. Visual impact assessment is considered excessive and was not a requirement under the PDI Act	The level of assessment required is commensurate to the level of impact expected, see above comment.
Industry	Objective 6, leading performance criteria, dot point 2 *Native Title Agreement*	Is this defined?	Native Title Agreement relevant where Native Title applies.
Industry	General	General note across assessment criteria that there is heavy reliance on audits/inspections carried out in accordance with OMP to demonstrate something has not occurred (no evidence of..). This may be fine.	Noted.

Industry	Objective 7, assessment criteria, dot point 4	Remove - baseline pathogen assessments are not conducted or clarify intent of this point please. Known pathogen risks of an area are considered but testing for pathogens on site is not done.	Retained, pathogens are required to be assessed e.g. Phytophthora. The requirement for this isn't to undertake testing, but to undertake an initial assessment to determine pathogen risk within an area.
Industry	Objective 8, leading performance criteria, dot point 1	See comment in EIR. Firefighting equipment is not generally required at a met mast site.	Fire prevention and firefighting equipment is present, certified and maintained in accordance with applicable standards during on-site works where required, e.g. during fire danger season, high fire risk areas.
Industry	Objective 8, leading performance criteria, dot point 1	Remove. Please see comment in EIR.	Removed.
Industry	Objective 8, assessment criteria, dot point 1	Are WHS investigations set up so show this? Investigations are often based around preventing reoccurrence i.e. identifying corrective actions, which may not necessarily be the same thing as 'that could have been reasonably prevented by the operator'. Would this be clearer as '...and the results of the investigation do not result in enforcement action'.	Updated to: any incidents involving the public investigated by a suitably qualified independent third party.
Industry	Objective 10, leading performance criteria, dot point 1 *Plan to be ~~and~~ approved by DEM*	Missing or extra word	Updated.
Industry	Objective 10, assessment criteria, dot point 4	Amend to clarify that re-contouring of the ground surface is also 'where required'.	Updated.
Industry	Objective 10, assessment criteria, dot point 4	Would some of this detail be better suited to the rehabilitation plan? Consider amending to '..and rehabilitating the surface to be consistent with previous land-use (unless...'	Retained in SEO as a specific requirement to be met by proponents.

Industry	Objective 10, assessment criteria, dot point 4	Amend to '..consistent with pre-existing land use..	Updated.
Industry	Table 2, immediately reportable *or onto land that affects the health of native flora and fauna species*.	Amend to '..that negatively affects...'	Updated.
Industry	Objective 1, assessment criteria, dot point 7, *Records of audits/inspections carried out in accordance with the OMP demonstrate that any escape of chemical, fuel or oil to land is immediately contained and removed*.	If this is to cover impacts to soil, surface water and ground waters, then consider if this should be "escape of chemical, fuel or oil to land and/or waters...."	Updated.
Industry	Objective 2, leading performance criteria, 3rd dot point	Same as above?	Removed.
Industry	Objective 2, Controls identified in EIR, final row	Covered in cell above?	Removed.
Industry	Objective 6, assessment criteria, dot point 2	Should this requirement be added to Section 3.2?	Included.
Industry	Objective 7, assessment criteria, dot point 3	Should this requirement be added to Section 3.2?	Included.
Industry	Table 2 Incident definitions	5 is missing from footnotes	Updated.

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