synergyRED

# Windfarm in Scott River

## Preliminary Construction Environmental Management Plan

September 2025

| Document title |
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| Wind Farm in Scott River – Preliminary Construction Environmental Management Plan |

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SynergyRED acknowledges the Traditional Owners of the Land on which we operate and their continuing connection to the land, water and community. We pay our respects to all Aboriginal and Torres Strait Islander communities, their cultures and to Elders past, present and emerging.

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## Acronyms

| | |
|---|---|
| AEP | Annual Exceedance Probability |
| ADLS | Aircraft Detection Lighting Systems |
| AH Act | *Aboriginal Heritage Act 1972* |
| ASS | Acid Sulphate Soil |
| ASSDMP | Acid Sulfate Soil and Dewatering Management Plan |
| BAM Act | *Biodiversity and Agriculture Management Act 2007* |
| BBAMP | Bird and Bat Adaptive Management Plan |
| BBUS | Bird and Bat Utilisations Surveys |
| BC Act | *Biodiversity Conservation Act 2016* |
| BMP | Bushfire Management Plan |
| BoM | Bureau of Meteorology |
| CASA | Civil Aviation Safety Authority |
| CEMP | Construction Environmental Management Plan |
| CR | Critically Endangered |
| DBCA | Department of Biodiversity, Conservation and Attractions |
| DCCEEW | Department of Climate Change, Energy, the Environment and Water |
| DFES | Department of Fire and Emergency Services |
| DPLH | Department of Planning, Lands and Heritage |
| DWER | Department of Water and Environmental Regulation |
| EMI | Electromagnetic Interference |

| | |
|---|---|
| EN | Endangered |
| EP Act | *Environmental Protection Act 1986* |
| EPA | Environmental Protection Authority |
| EPBC Act | *Environment Protection and Biodiversity conservation Act 1999* |
| ERGA | Environmental Research Group Augusta |
| GDE | Groundwater Dependent Ecosystem |
| KKAC | Karri Karrak Aboriginal Corporation |
| LCU | Landscape Character Unit |
| MI | Migratory |
| MW | Megawatt |
| NCR | Non-conformance Report |
| NVCP | Native Vegetation Clearing Permit |
| O&M Area | Operations and Maintenance Area |
| OS | Other Specially Protected Fauna |
| P | Priority |
| PASS | Potential Acid Sulfate Soils |
| PD Act | *Planning and Development Act 2005* |
| PFAS | Per- and Polyfluoroalkyl Substances |
| RiWI Act | *Rights in Water and Irrigation Act 1914* |
| RSA | Rotor Swept Area |
| RSD | Referral Supporting Document |
| SCADA | Supervisory Control and Data Acquisition |
| SDS | Safety Data Sheet |
| SRE | Short Range Endemic |
| STATCOMS | Static Synchronous Compensators |
| SWIS | South West Interconnected System |
| SynergyRED | Synergy Renewable Energy Developments Pty Ltd |
| TEC | Threatened Ecological Community |
| TKN | Total Kjeldahl Nitrogen |
| UBC | Urban Bushland Council |
| VU | Vulnerable |
| WA | Western Australia |

| | |
|---|---|
| WoNS | Weeds of National Significance |
| WSWA | Wildflower Society of Western Australia |

# 1 Introduction

## 1.1 Overview

Synergy Renewable Energy Developments Pty Ltd (SynergyRED; the Proponent) is proposing to develop an onshore wind farm generating up to 100 Megawatt (MW) in the Scott River region, approximately 15 km north-east of Augusta, in the South West of Western Australia (WA) (the Proposal; Figure 1-1). The Proposal will include the construction and operation of up to 20 wind turbines and associated infrastructure within a 3,597 ha Development Envelope, with an Indicative Disturbance Footprint of 107 ha (Figure 1-2). The Proposal is part of an initiative by SynergyRED to explore, scope and develop a range of renewable energy assets across WA, to meet the State Government's 2030 decarbonisation targets.

The Proposal is in the Scott River region of WA, within the Warren bioregion, approximately 250 km south of Perth. The Proposal is located within the Shire of Augusta-Margaret River and the South West Boojarah Indigenous Land Use Agreement (ILUA). Karrak Aboriginal Corporation (KKAC) is the regional corporation for the South West Boojarah region that was established under the ILUA.

The land surrounding the Proposal is zoned as general agricultural and the Development Envelope is situated almost entirely on Freehold land, with some extents on public land comprised of reserves managed by state and local government. These lots are zoned "General Agriculture" and "Local Roads" within the Shire of August-Margaret River Local Planning Scheme No. 1 (DPLH 2024a).

The Proposal intersects eleven privately owned agricultural properties, used primarily for dairy and beef farming as well as Blue Gum plantation. A total of 2,476.41 ha within the Development Envelope has been cleared of vegetation, primarily for these agricultural operations.

## 1.2 Purpose

The purpose of this Preliminary Construction Environmental Management Plan (CEMP) is to ensure the Proposal:

- Establishes systems to minimise environmental risks to as low as reasonably practicable
- Sets management actions and monitoring requirements to meet Proposal specific environmental performance objectives
- Complies with legislative requirements, relevant guidelines, and Proposal approvals
- Guides all project personnel and contractors on what they need to address in their specific CEMP.

This Preliminary CEMP will support Proposal approvals and be used as a foundation for the detailed CEMPs. Detailed CEMPs will be developed later as the Proposal progresses to the detailed design phase and will be prepared by each contractor according to their specific scope of work.

This Preliminary CEMP has been prepared in accordance with the *Instructions on how to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans* (EPA 2023) to support the referral of the Proposal to the Environmental Protection Authority (EPA) under Part IV (s 38) of the *Environmental Protection Act 1986* (EP Act).

## 1.3 Scope

The scope of this Preliminary CEMP primarily relates to the design and construction of the Proposal. Where commissioning and operational risks are known they will be addressed; however, a review of this CEMP will be undertaken at the transition of construction to operations to ensure operational risks are identified and suitable mitigation measures developed.

This Preliminary CEMP will be used to support approvals, guide detailed design, provide evidence that environmental impacts are being considered and will be appropriately managed, and guide contractors on what they need to address in their specific CEMPs.

In addition, this Preliminary CEMP seeks to:

- Summarise the existing environment of the Proposal including factor specific environmental outcomes referred to in the s 38 Referral Supporting Document (RSD)
- Provide an overview of the construction methodology and the Proponent's Environmental Management Framework
- Identify the environmental impacts associated with relevant environmental factors and document the rationale and approach to the management of these factors during the construction of the Proposal
- Provide guidance on the management measures to be implemented to minimise adverse impacts
- Detail the roles and responsibilities of personnel, the monitoring and reporting requirements as well as contingency actions if objectives and outcomes are not met.

The EPA Environmental Factors relevant to this CEMP are:

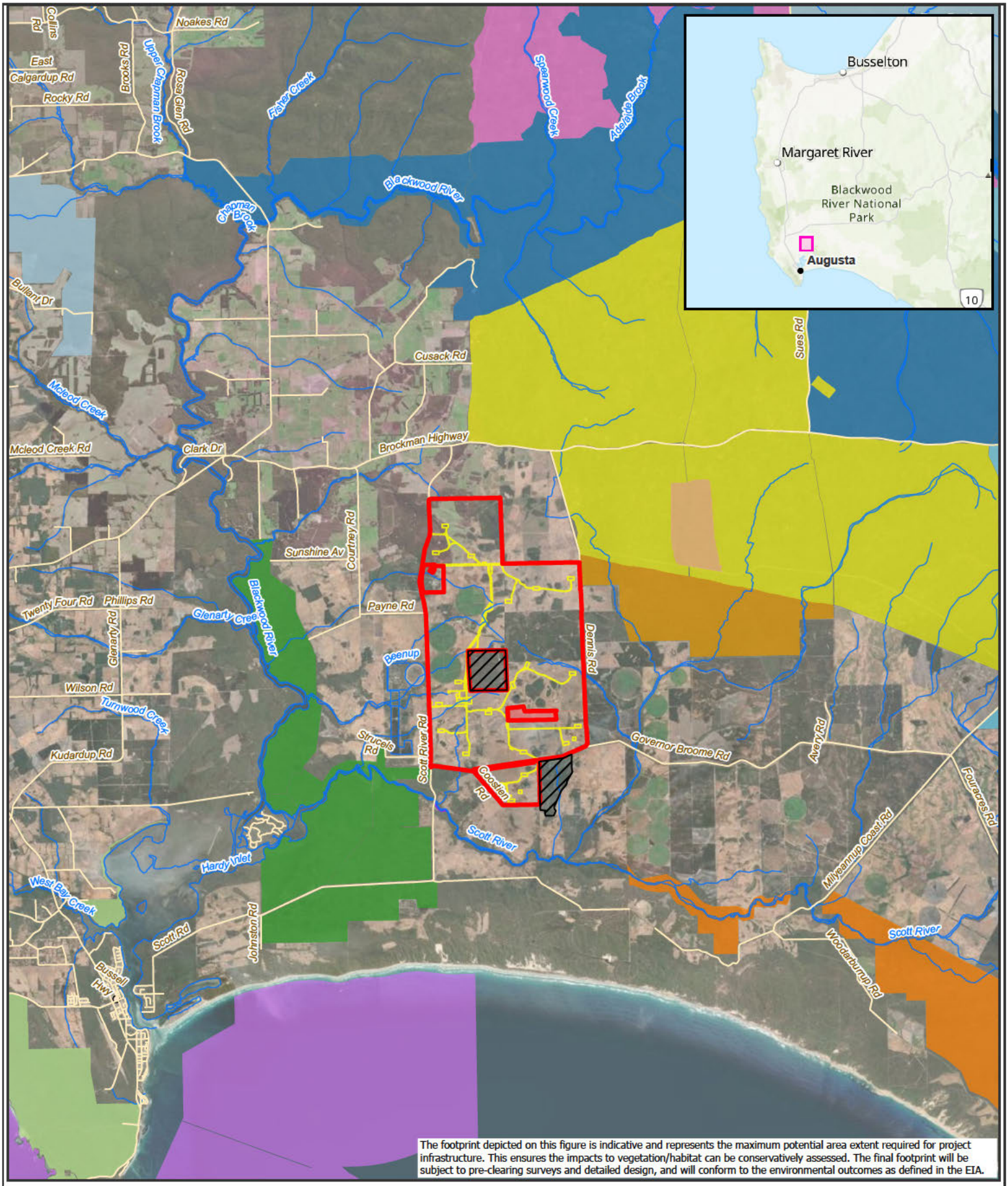
- Terrestrial Environmental Quality
- Inland Waters
- Flora and Vegetation
- Terrestrial Fauna
- Social Surroundings.

A number of other management plans will be prepared and implemented to manage the impacts to these Environmental Factors:

- An Acid Sulfate Soil and Dewatering Management Plan (ASSDMP) will be developed and implemented in accordance with relevant guidance to manage the potential acid sulfate soils (PASS) and dewatering requirements associated with the Proposal. A Preliminary ASSDMP (PTG 2025) has been prepared to support s 38 referral and assessment, which details the proposed management framework, controls and monitoring measures to be included in the detailed ASSDMP, to be developed following the completion of detailed design and site investigations and further modelling prior to construction of the Proposal.
- A preliminary Bird and Bat Adaptive Management Plan (BBAMP, ELA 2025a) has been prepared to support s 38 referral and assessment, to monitor and manage potential impacts to bird and bat species arising from the commissioning and operation of the Proposal.
- A Dieback Management Plan will be developed and implemented to assess and mitigate the risks related to the introduction and/or spread of dieback during the design and construction phase of the Proposal, where required, and will be informed by a Phytophthora dieback survey completed prior to construction.
- A Bushfire Management Plan (BMP; Linfire 2025a) and Bushfire Risk Management Plan (BRMP; Linfire 2025b) have been developed in accordance with the *Bushfire Management Plan Manual* (DPLH 2024b) to manage bushfire risks during the construction and operational phase of the Proposal.
- A Traffic Management Plan will be developed and implemented to manage impacts associated with traffic safety and disruptions to local road users.

- An Operational Noise Management Plan will be developed and implemented to manage impacts during the operation phase of the Proposal and will include noise monitoring.
- A Preliminary Decommissioning Plan has been prepared to provide preliminary strategy for managing the decommissioning phase of the Proposal.

As such, this Preliminary CEMP does not include management measures for dewatering, PASS, operational impacts to birds and bats, dieback, bushfire risk, traffic or operational noise.




## Figure 1-1: Regional Context of the Proposal

- Development Envelope
- Indicative Disturbance Footprint
- DBCA Lands of Interest (Crown Freehold Land)
- Watercourses
- Roads

**DBCA managed lands**

- Blackwood State Forest
- Milyeannup State Forest
- Ngari Capes Marine Park
- South Blackwood State Forest
- Forest Grove National Park
- Blackwood River National Park
- Leeuwin-Naturaliste National Park
- Scott National Park
- Pagett Nature Reserve
- Chester Nature Reserve
- Gingilup Swamps Nature Reserve
- Wiltshire-Butler National Park
- Unnamed WA42377 Nature Reserve
- Unnamed WA42942 Nature Reserve

0 1.5 3 6
Kilometers

Datum/Projection: GDA2020 MGA Zone 50

Project: 24PER7886-DH Date: 9/24/2025

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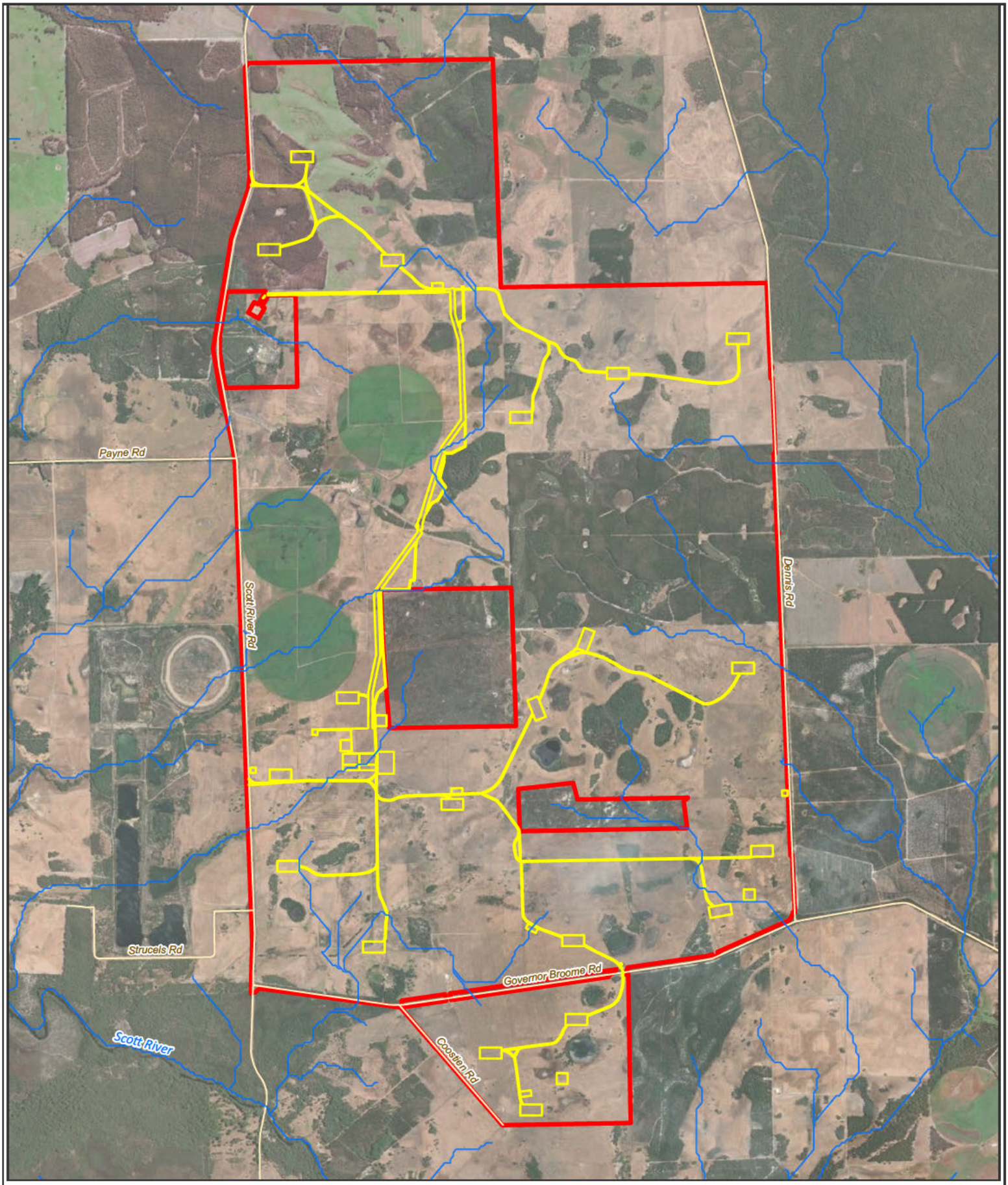


**Figure 1-2: Development Envelope and Indicative Disturbance Footprint**

- Roads
- Rivers and Tributaries
- Development Envelope
- Indicative Disturbance Footprint

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Kilometers

Datum/Projection:
GDA2020 MGA Zone 50

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# 2 Proposal elements

Table 2-1 defines the key elements of the Proposal.

*Table 2-1: Proposal Elements*

| Proposal Element | Location / Description | Maximum Extent, Capacity or Range |
|---|---|---|
| **Physical elements** | | |
| Wind turbines including associated foundations and hardstands | Figure 1-2 | 107 ha of disturbance, including clearing of no more than 1 ha of remnant native vegetation, within a 3,597 ha Development Envelope. |
| Meteorological masts and communication towers | | |
| Substation and transmission infrastructure | | |
| Operations and maintenance area | | |
| Site entrances, internal access roads and public viewing area | | |
| Other supporting infrastructure and utilities (e.g. concrete batching plants, borrow pits, site office, water storage and construction laydown areas) | | |
| **Construction element** | | |
| Construction water supply | Within the Development Envelope (Figure 1-2) | Water tanks and/or storage dams will be installed to support construction and operational water requirements. Water will be sourced elsewhere, purchased and ported in. There is a possibility that any dewater collected during construction, if treated appropriately to a suitable quality, may also be able to be used during construction. |
| Concrete batching plants | Within the Development Envelope (Figure 1-2) | Concrete for the foundations will be mixed at the concrete batching plants. Concrete batching materials may be sourced offsite. |
| Dewatering for construction of underground infrastructure, including turbine, meteorological mast and communication tower foundations | Within the Development Envelope (Figure 1-2) | Groundwater drawdown will not exceed 2 mbgl, measured from the natural land surface at the perimeter of each foundation. |
| **Operational elements** | | |
| Wind energy production | Within the Development Envelope (Figure 1-2) | A maximum of 20 turbines, with a maximum total energy production of 100 MW. |

| Proposal Element | Location / Description | Maximum Extent, Capacity or Range |
|---|---|---|
| **Rehabilitation** | | |
| The Proposal utilises existing cleared areas (i.e. agricultural and tree plantation land devoid of native vegetation) wherever possible. Minor areas of native vegetation necessary for construction and operation of the Proposal will be cleared. Following construction, and where practicable, the Proponent will conduct progressive rehabilitation in areas no longer required, to meet the original land use or to an agreed post closure land use with the landowners. The rehabilitation of sites used for temporary infrastructure can inform the broader post-decommissioning rehabilitation strategy by identifying the most effective rehabilitation techniques. | | |
| **Commissioning** | | |
| The Proposal's commissioning stage has no additional effects on the environment. | | |
| **Decommissioning** | | |
| Once the initial operational life of the Proposal comes to an end, the wind farm can be repowered by replacing the wind turbines, or wind turbine components to extend Proposal life. If repowering the wind farm is not viable, the Proponent will decommission and rehabilitate the Proposal site to an agreed post-closure land use with landowners. This will involve the dismantling and removal of all turbines and above ground infrastructure, unless otherwise agreed with the relevant landowners, noting it is likely that the landowner may want to retain some infrastructure (e.g. access roads). Below ground infrastructure will also be removed if environmentally acceptable and agreed upon with landowners, in accordance with the Decommissioning Plan. The removal and disposal of materials and components will be conducted in a manner that minimises impacts to the environment and the infrastructure itself, to allow for the reuse of components, if viable. | | |
| **Other elements which affect extent of effects on the environment** | | |
| Proposal time | Maximum project life | 64 years* |
| | Construction phase | 18 to 24 months |
| | Operations phase | 30 to 60 years |
| | Decommissioning and rehabilitation phase | 24 months |

* This accounts for potential repower after 30 years of operation.

# 3 Preliminary construction methodology

## 3.1 Proposal delivery timeframes

The maximum project life for the Proposal is 64 years. This includes a construction phase of 18 to 24 months, an operations phase of 30 to 60 years and a decommissioning and rehabilitation phase of 24 months.

## 3.2 Equipment and machinery

The physical elements of the Proposal include (Figure 3-1):

- Wind turbines including associated foundations and hardstands
- Meteorological masts and communication towers
- Substation and transmission infrastructure
- Operations and maintenance areas
- Site entrances, internal access roads and a public viewing area
- Other supporting infrastructure and utilities (e.g. concrete batching plants, borrow pits, site office, water storage and construction laydown areas).

### Wind turbines including associated foundations and hardstands

The Proposal will have a maximum of 20 wind turbines, generating up to 100 MW. The wind turbines will have a maximum blade length of 90 m, a maximum tower height of 164 m, and a maximum overall turbine tip height of 250 m. A rotor swept area (RSA; the physical areas swept by the rotating blades during operation) of 40 m above ground and 250 m above ground level has been considered to account for varied turbine models.

Three turbine foundation designs are proposed including two primary options (above ground and partially above ground) and one secondary option (traditional below ground). Traditional below ground turbine foundations will only be used where it is confirmed, prior to construction through detailed site investigation and further modelling, that no dewatering would be required.

### Meteorological masts and communication towers

Two permanent meteorological masts (met masts) will be erected to measure wind speed and direction. The met masts will be up to 164 m tall, depending on the height of the selected wind turbine, and will be a suitable distance from the nearest turbines to ensure that accurate and unimpeded wind measurements can be obtained throughout the life of the Proposal, in accordance with international standards. In addition, up to four temporary met masts will be erected during construction to calibrate permanent met mats from proposed turbine locations. Visual bird diverters will be installed during construction on guy wires of permanent met masts.

Two microwave communications towers may also be required each up to 100 m tall. Met masts and communication towers will utilise similar foundation solutions to turbines.

### Substation and transmission infrastructure

A 132 kV substation is required for the Proposal adjacent to the Operation and Maintenance Area to connect the Proposal to the South West Interconnected System (SWIS) via the existing Beenup to Manjimup 132 kV

transmission line. This Proposal will also involve minor upgrade of the existing Beenup substation, with minimal new ground disturbance required (0.02 ha).

The Proposal substation infrastructure will include the following:

- Cabling between the wind turbines and the substation
- Electrical protection infrastructure
- A transmission line connecting the wind farm substation to the existing Beenup to Manjimup 132 kV (MJP–BNP 81) transmission line via a local tee connection
- Communication infrastructure such as Supervisory Control and Data Acquisition (SCADA)
- Metering
- Transformers
- Static Synchronous Compensators (STATCOMS).

The cabling between the wind turbines and the substation that connects the Proposal with the 132 kV transmission line will be underground and follow existing and proposed internal access roads where possible to minimise disturbance. Visual bird diverters will also be installed during construction along the new connecting transmission line.

## Operations and maintenance areas

The Operations and Maintenance Area (O&M Area) will be located near the Proposal substation and is anticipated to utilise an onsite septic system. The buildings are expected to include the following:

- Office
- Warehouse
- Workshop
- Kitchen/staff room
- Amenities
- Carpark and laydown.

## Site entrances, internal access roads and a public viewing area

There will be two main access points to the Proposal situated along Scott River Road. A new site entrance will also be installed across Governor Broome Road to facilitate transport of turbine components to south of Governor Broome Road.

Internal access roads will generally have a construction footprint of 10 m and be designed to utilise existing tracks and other cleared areas as much as practicable, with the aim of minimising disturbance to native vegetation and agricultural activities. The construction footprint for internal access roads in sensitive areas will be limited to maximum width of 6 m to avoid clearing impacts along existing tracks as necessary, supported by the provision of passing bays. Roads will be unsealed and gravel-capped with locally sourced material where available and will be designed and constructed to minimise impacts to natural surface water flows.

A public viewing area will also be developed along Scott River Road to ensure a safe pull over area where tourists can stop and observe the wind farm. The viewing area will include informative signage about wind as a renewable energy source and be capable of accommodating four to six vehicles.

### Other supporting infrastructure and utilities

Other supporting plant and equipment to facilitate Proposal construction will include, but are not limited to:

- Concrete batching plants
- Construction site offices
- Construction laydown areas
- Generator(s) for emergency and construction power supply
- Borrow pits, for local sourcing of gravel, including mobile crushing and screening plant if required
- Water storage infrastructure for construction and operational water requirements.

## 3.3 Construction workforce

The Proposal is expected to require a workforce of up to 150 personnel at peak construction periods. It is anticipated that workers throughout the construction period will be accommodated in local accommodation in surrounding towns and localities with no construction camp or temporary onsite accommodation proposed. Once operational, it is anticipated that five full-time operations staff who reside locally will be required throughout the life of the Proposal.

## 3.4 Construction water supply

Permanent and temporary water tanks and/or storage dams will be installed to support construction and operational water requirements (Figure 3-1). Water will be sourced elsewhere, purchased and ported in. There is a possibility that any dewater collected during construction, if treated appropriately to a suitable quality, may also be able to be used during construction.

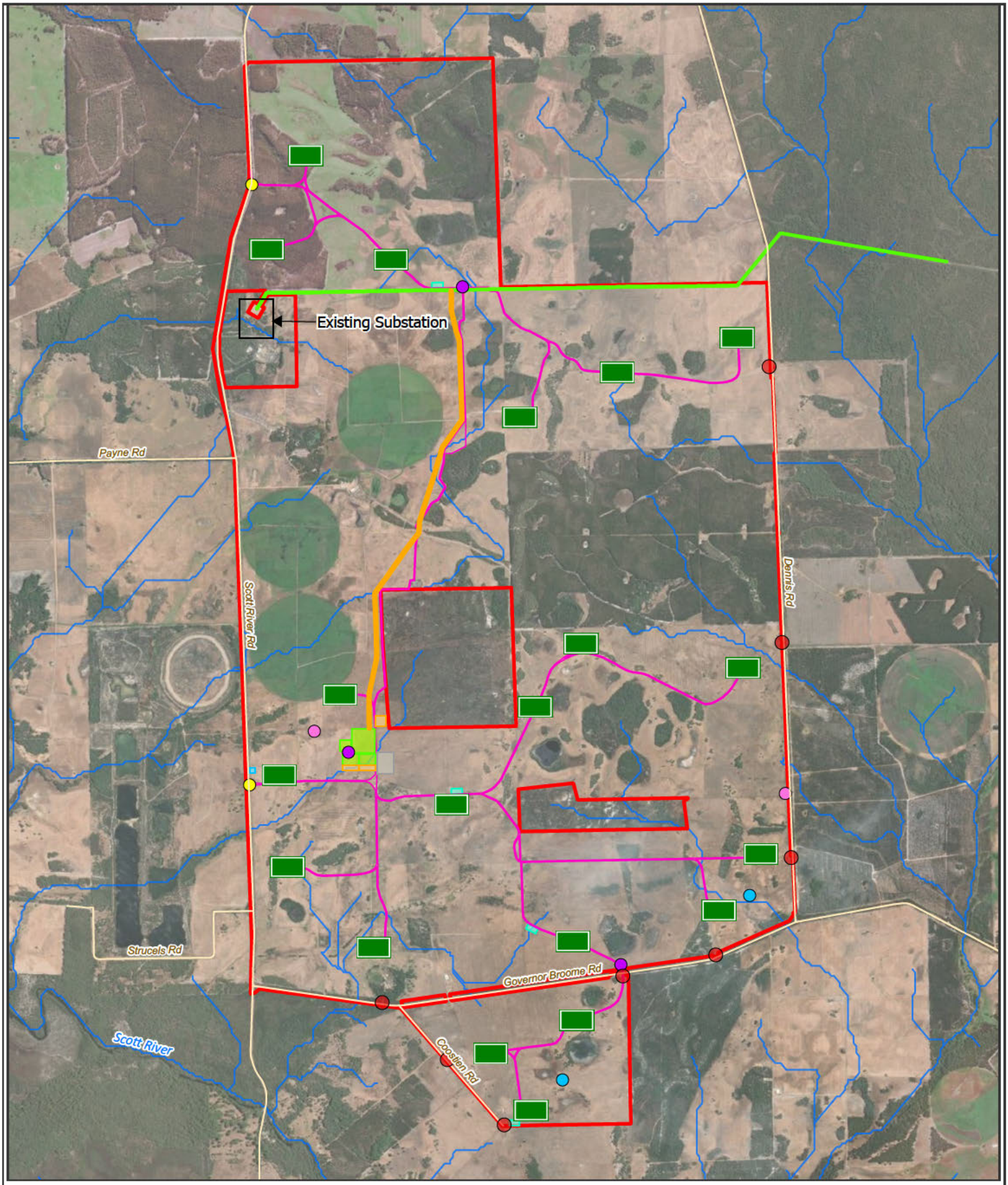
## 3.5 Concrete batching plant

Concrete for the infrastructure foundations will be mixed at concrete batching plants (Figure 3-1). Concrete batching materials may be sourced offsite.

## 3.6 Dewatering for construction

Dewatering may be required for construction of underground infrastructure, including turbine and meteorological mast and communication tower foundations. Groundwater drawdown will not exceed 2 mbgl, measured from the natural land surface at the perimeter of each foundation.

Dewatering during construction will be managed by the ASSDMP and is therefore not included in this CEMP.




## Figure 3-1: Proposal Elements

- Existing Farm Entrance/Emergency Access
- Existing 132 kV Beenup to Manjimup
- Roads
- Rivers and Tributaries
- Development Envelope

**Proposal Physical Elements**

- Wind Turbine
- Communication Tower
- Main Site Entrance
- Water Tank
- Meteorological Mast
- Transmission Line
- Borrow Pit
- Public Viewing Area
- Internal Access Road
- Concrete Batching Plants
- Construction Laydown Areas
- O&M Area, Project Substation, Construction Site Offices

0 0.5 1 2
Kilometers

Datum/Projection:
GDA2020 MGA Zone 50

Project: 24PER7886-DH Date: 9/10/2025

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# 4 Receiving environment

This section provides a summary of the results of desktop analyses and surveys that have been conducted to understand the baseline conditions of the key environmental factors relevant to the Proposal (Section 1.3). Further detail on the results of these desktop analyses and surveys can be found in the RSD and appendices.

## 4.1 Terrestrial Environmental Quality

The terrestrial environmental quality study undertaken relevant to this CEMP is a Geotechnical and Baseline Contamination Assessment (Stantec 2024). This assessment was undertaken for the Proposal and comprised testing via geotechnical boreholes and test pits. The assessment provided preliminary information on the geology of the site, including soil profile, contamination and presence of acid sulfate soils (ASS).

A summary of the key findings of this study include:

- Soils fall mostly within the Scott River Plain Land System, with a small northern portion intersecting the Nillup Plain System (DPIRD 2022). Both systems are described as “poorly drained coastal plains in the southern Donnybrook Sunkland”.
- The shallow soil profile (<3 m) was generally found to comprise a thin layer of topsoil and dune sand overlying ferricrete, or alternating bands of clayey and sandy soils with pockets of organic and peaty material. These units are generally underlain by clayey and sandy soils to a depth of approximately 25 m. Outcrops of ferricrete also occur throughout.
- ASS risk mapping identifies the top 3 m of soils as having moderate to high risk of ASS occurring (DWER 2017). PASS was found to be present within all soil types, except for shallow pale grey/white sands that occur less than 1 mbgl. The dark grey/brown sands and sandy clay which occur more than 2 mbgl are considered the highest risk soils within the Development Envelope due to the presence of elevated concentrations of inorganic sulfur.
- No asbestos has been identified, and all elements of potential concern (including Benzene, Toluene, Ethylbenzene, Xylenes, Naphthalene, Total Recoverable Hydrocarbons, metals [arsenic, beryllium, boron, cadmium, cobalt, copper, lead, manganese, mercury, nickel, selenium and zinc], Organochlorine, Organophosphate, pesticides, and Per- and polyfluoroalkyl substances [PFAS]) were recorded below the laboratory limit of reporting or adopted assessment criteria, where relevant. Concentrations of nutrients, including potassium, nitrogen and total kjeldahl nitrogen (TKN), nitrate, nitrite, nitrogen and phosphorus were recorded above the laboratory limit of reporting; noting that there are no assessment criteria for nutrients in soil (Stantec 2024).

## 4.2 Inland Waters

The hydrological and hydrogeological study undertaken relevant to this CEMP is a Surface Water and Hydrogeological Assessment (Stantec 2025) undertaken to investigate the hydrological and hydrogeological regimes and to assess the potential impacts to inland waters associated with the construction and implementation of the Proposal.

A summary of the key findings of this study include:

- The Development Envelope intersects the Blackwood River catchment and Scott River catchment and several ephemeral waterways. A poorly defined ridgeline occurs through the middle of the Development Envelope, which segregates the eleven Blackwood River and Scott River headwater catchments which discharge from the Development Envelope.
- There is existing drainage infrastructure within the Development Envelope to facilitate plantation and agricultural activities. This drainage has not been established to coordinate with roads and natural drainage lines, which has resulted in catchment modification and several areas of localised ponding (Stantec 2025).
- In both frequent (approximately 50% Annual Exceedance Probability [AEP]) and rare events (1% and 2% AEP), inundated areas with depths greater than 0.5 m typically occur upstream of roads that act as hydraulic barriers, with some ponding occurring in areas of wetlands and perched ponds (Stantec 2025). Inundation is widespread during rare flow regimes (1% and 2% AEP), with a maximum ponding depth of approximately 2.8 m occurring towards the north of the Development Envelope (Stantec 2025).
- During frequent (50% AEP) and rare flow regimes (1% AEP), peak flow rates vary from 0.5 $m^3/s$ to approximately 20 $m^3/s$, respectively, with the maximum discharge rate occurring south to the Scott River.
- Surface water quality is characterised by elevated nutrients, salinity, turbidity, and metals, influenced mainly by agricultural land use and associated runoff, with some parameters tested exceeding health and ecological guideline thresholds.
- The Development Envelope intersects three Surface Water Management Areas: Lower Blackwood, Beenup and Scott Surface.
- The groundwater system comprises two main aquifers:
    - Superficial Aquifer: within the Development Envelope, the Superficial Aquifer is generally less than 3 m deep. This discontinuous, perched aquifer is present across the Development Envelope and likely to be seasonal (Stantec 2025). This aquifer is comprised of sand and ferricrete of variable thickness, with the presence of ferricrete potentially representing the accumulation and precipitation of dissolved iron in the watertable. Groundwater standing levels in the Superficial Aquifer ranged from 0.11 mbgl to 3.15 mbgl.
    - Leederville Aquifer: a confined aquifer that lies beneath the superficial formations of the coastal plains. The Leederville Aquifer was identified in groundwater monitoring bores across the Development Envelope at depths ranging from 0.07 mbgl to 2.25 mbgl.
- A total of 24 registered groundwater bores occur within 500 m of the Development Envelope.
- The Development Envelope occurs within the Beenup and Blackwood Groundwater Management Areas and Beenup Subarea of the South-West Groundwater Allocation Plan. It also intersects Groundwater Management Zone 7, which is classified as ‘a buffer zone area defined by acid sulfate soil plume from Beenup mine site’ (DoW 2009).

## 4.3 Flora and Vegetation

The flora and vegetation studies undertaken relevant to this CEMP include:

- A Detailed and Targeted flora and vegetation survey undertaken in spring 2023 (Phoenix 2025a). The survey covered 99.95% of the Development Envelope and was conducted across three phases to target certain flora flowering periods.
- A reconnaissance flora and vegetation assessment undertaken in 2025 to fill the gap in the Development Envelope (ELA 2025b).

A summary of key findings of the flora and vegetation study include:

- Occurrence of a total of 18 native vegetation types and four non-native vegetation types.
- The majority (approximately 80%) of remnant vegetation is considered to be in Completely Degraded condition.
- 83.58 ha of the Scott River Ironstone Association Threatened Ecological Community (TEC) intersects the Development Envelope. This TEC is listed as Endangered (EN) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and *Biodiversity Conservation Act 2016* (BC Act). Vegetation types XpMdLm, EmmTpAs, Mj and AmBsHc are considered representative of this TEC, and as such are considered regionally significant. In accordance with the *Approved conservation advice for Scott River Ironstone Association* (DSEWPaC 2013) occurrences of XpMdLm, EmmTpAs, Mj and AmBsHc mapped as Degraded were not defined as TEC.
- Vegetation types AmBsHc, ClcVi and MpXpHfSs were identified as restricted communities, and as such, are considered locally significant.
- Vegetation types AmBsHc, AsLs, ClcVj, EmmAffMtAsDb, EmmTpAs, EmmXpMtDb, TiLs, XpAs and XpMdLm support populations of Threatened or Priority flora species, and as such, are considered locally significant.
- Vegetation types associated with the Scott River Ironstone TEC are considered obligate groundwater dependent ecosystems (GDEs). Vegetation types MpXpHfSs, MrCh, and MrTjLs are considered facultative GDEs.
- A total of 423 flora taxa (353 native and 70 introduced), representing 65 families and 209 genera were identified during the survey.
- Four flora species listed as Threatened under the EPBC Act and/or the BC Act occur within the Development Envelope (including unconfirmed records):
  - *Conospermum quadripetalum* (listed as Critically Endangered [CR] under the BC Act)
  - *Darwinia ferricola* (listed as EN under the EPBC Act and BC Act)
  - *Lambertia orbifolia* subsp. *vespera* (listed as EN under the EPBC Act and BC Act)
  - *Grevillea brachystylis* subsp. *australis* (listed as Vulnerable [VU] under the EPBC Act and BC Act).
- A total of 15 Priority species occur within the Development Envelope.
- A total of 70 introduced flora species were recorded during the survey. None of these species are listed as a Declared Pest or Weed of National Significance (WoNS) under the *Biosecurity and Agricultural Management Act 2007* (BAM Act).

## 4.4 Terrestrial Fauna

The terrestrial fauna studies undertaken relevant to this CEMP include:

- A Basic and Targeted fauna survey covering 99.95% Development Envelope and undertaken across three phases between from 2023 to 2025 (Phoenix 2025b).
- A Basic fauna and Targeted black cockatoo and Western Ringtail Possum habitat assessment was undertaken in 2025 to fill the gap in the Development Envelope (ELA 2025b).
- A Bird and Bat Risk Assessment Survey conducted within the Development Envelope which included a level two investigation comprising a regional overview of the area, bird and bat utilisation surveys (BBUS) and a preliminary risk assessment (Phoenix 2025c). BBUS were conducted across two years.
- A Short Range Endemic (SRE) Invertebrate Desktop Assessment covering an area of approximately 100,000 ha, including the Development Envelope (Invertebrate Solutions 2024).

A summary of the key findings of the terrestrial fauna studies include:

- Ten broad fauna habitat types occur within the Development Envelope, including three wetland habitats, two woodlands and five highly modified habitats which provide limited value for fauna (Phoenix 2025b).
- Field surveys recorded a total of 137 vertebrate fauna species, comprising nine amphibians, 105 birds, 17 mammals and six reptiles.
- Seven introduced fauna species were recorded, including three feral predators, namely Cat, Dog and Red Fox (Phoenix 2025b).
- Seven fauna species listed under the EPBC Act, BC Act or as Priority fauna by Department of Biodiversity, Conservation and Attractions (DBCA) were recorded within the Development Envelope (Phoenix 2025b):
  - Baudin's Cockatoo (*Zanda baudinii*; EN)
  - Carnaby's Cockatoo (*Zanda latirostris*; EN)
  - Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*; VU)
  - Wood Sandpiper (*Tringa glareola*; Migratory [MI])
  - Osprey (Pandion haliaetus; MI)
  - Western False Pipistrelle (*Falsistrellus mackenziei;* listed as P4 by DBCA)
  - Western Ringtail Possum (*Pseudocheirus occidentalis*; CR).
- Another seven conservation significant fauna species are considered likely to occur within the Development Envelope, based on the currency and proximity of desktop records and the suitability of habitat present. This includes the Peregrine Falcon (*Falco peregrinus*; listed as Other Specially Protected Fauna [OS] under the BC Act), Quenda (*Isoodon fusciventer*; listed as P4 by DBCA) and Masked Owl (southwest) (*Tyto novaehollandiae novaehollandiae*; listed as P3 by DBCA) which were recorded from outside the Development Envelope.
- The Development Envelope contains five potential SRE habitats of Low suitability (Invertebrate Solutions 2024).

## 4.5 Social Surroundings

The social surroundings studies undertaken relevant to this CEMP include:

- Proposed Wind Farm – Archaeological and Ethnographic Heritage Survey (AHA Logic 2024).
- SynergyRED Scott River Wind Farm Feasibility: Social Values Assessment (Place.ID 2025).

A summary of the key findings of the social surroundings consultation and studies as they relate to the CEMP include:

- One Registered Aboriginal site and one Lodged Aboriginal place intersect the Development Envelope (DPLH 2025; AHA Logic 2024):
  - Blackwood River (Registered site ID: 20434).
  - Scott River (Lodged place ID: 22928).
- The Blackwood River/Goorbilyup Buerle and the Scott River are important and significant cultural heritage sites (AHA Logic 2024).
- Key social values for the local community include (Place.ID 2025):
  - Water values (rivers, wetlands and swamps)
  - Unique bird life
  - Forest and National Parks
  - Environmental conservation and restoration of cleared land
  - Peace and quiet
  - Visual amenity of the clouds, horizon and sky
  - Agriculture production and history
  - Aboriginal history and culture
  - Access to remote areas, community and networks
  - Local employment opportunities
  - Tourism and visitor enjoyment.

# 5 Environmental management framework

## 5.1 Environmental policy

The Proponent's environmental policy details its commitment to conducting its activities and services in a manner that respects and protects the environment and heritage, meets compliance obligations, and manages the impacts of climate change. The Proponent is committed to net zero emissions by 2050 in alignment with the State Government's commitment.

Contractors must comply with the Proponent's environmental policy. The policy must be communicated to all members of the project team, contractors and subcontractors.

## 5.2 Environmental risk

An assessment of the risk of potential impacts to key environmental factors has been undertaken as part of the RSD. The Proponent has adopted the mitigation sequence for environmental management, which involves avoiding, minimising, controlling, mitigating, and offsetting the significant residual impacts of Proposal activities on the environment. This CEMP is an outcome of this risk assessment. Contractors will also be required to develop their own risk register specific to their scope using the RSD and this CEMP as a guide.

## 5.3 Other regulatory processes

The other environmental approvals and regulations that may be relevant to the Proposal are outlined in Table 5-1. This table also presents the relevant Environmental Factor which can be managed by each process.

*Table 5-1: Other Regulatory Processes Relevant to the Proposal*

| Legislative framework | Environmental Factor and relevance | Timing |
|---|---|---|
| EP Act, Part V: Native Vegetation Clearing Permit (NVCP) | Regulations specific to the clearing of native vegetation.<br>**Relevant Environmental Factors**: Flora and Vegetation and Terrestrial Fauna | Prior to clearing |
| BC Act Section 40 Authorisation | Authorisation to take and disturb threatened fauna in accordance with the definition as per s 5 of the BC Act.<br>**Relevant Environmental Factor:** Terrestrial Fauna | Prior to clearing |
| BC Act Section 45 Authorisation | Authorisation to modify a threatened ecological community listed as CR, EN or VU under s 27 of the BC Act.<br>**Relevant Environmental Factor:** Flora and Vegetation | Prior to clearing |
| *Rights in Water and Irrigation Act 1914* (RiWI Act): Section 5C licence, Section 26D licence and bed and banks permit | Authorisation to take a specified amount of water from a proclaimed surface water resource and authorisation for the construction or alteration of wells (bores).<br>**Relevant Environmental Factor:** Inland Waters | Prior to construction |

| Legislative framework | Environmental Factor and relevance | Timing |
|---|---|---|
| EP Act Part V Environmental Protection Regulations 1987: Works Approval, Operating Licence, Registration for prescribed activities. | Authorisation to construct or commission a prescribed premises (Works Approval), authorisation to operate that premises under enforceable environmental conditions (Operating Licence), and authorisation for low-risk prescribed activities via streamlined registration under standard conditions (Registration for prescribed activities).<br>**Relevant Environmental Factor:** Terrestrial Environmental Quality and Inland Waters | Prior to construction |
| *Aboriginal Heritage Act 1972* (AH Act): Section 16, Section 18, Regulation 10, Regulation 7. | Authorisation to enter, excavate, examine or remove items from an Aboriginal site (Section 16), consent to impact an Aboriginal site (Section 18), authorisation for minor activities and impacts on Aboriginal sites (Regulation 10), and authorisation to bring plant and equipment onto an Aboriginal site (Regulation 7).<br>**Relevant Environmental Factor:** Social Surroundings | Prior to construction |
| *Planning and Development Act 2005* (PD Act): Development Application | A regulatory approval that grants permission to proponents to develop on a defined piece of land.<br>**Relevant Environmental Factors:** Flora and Vegetation, Terrestrial Fauna, Inland Waters, Social Surroundings and Terrestrial Environmental Quality | Prior to construction |
| Environmental Protection (Noise) Regulations 1997 | Controls in relation to construction noise levels at environmental receptors. Includes management of activities that could breach levels including timing of activity, duration, notification to stakeholders and noise monitoring.<br>**Relevant Environmental Factor:** Social Surroundings | Prior to construction |
| EPBC Act | An Act that provides the legal framework to protecting and managing unique environmental values within Australia.<br>**Relevant Environmental Factors:**<br>Flora and Vegetation and Terrestrial Fauna | Prior to clearing |
| *Health Act 1911*: Health (Treatment of sewage and disposal of effluent and liquid waste) Regulations 1974 | These Regulations provides provisions for the treatment of sewage and the disposal of effluent and liquid waste.<br>**Relevant Environmental Factors:**<br>Inland Waters, Terrestrial Environmental Quality | Prior to construction |

## 5.4 Environmental reporting

The Proponent will ensure all statutory environmental performance and compliance reporting required by this CEMP are undertaken in accordance with relevant requirements. Other and general reporting responsibilities and requirements are outlined in Sections 5.5, 5.8 and 6.

## 5.5 Roles and responsibilities

All staff and contractors are responsible for the environmental performance of their activities and for reporting any environmental hazards and incidents. Environmental responsibilities for staff and contractors are contained within position descriptions, company procedures and work instructions.

Key roles and responsibilities for the Proposal are detailed in Table 5-2.

*Table 5-2: Roles and Responsibilities*

| Role | Key Responsibilities |
|---|---|
| **Project Manager** | • Holds accountability for all elements of the Proposal.<br>• Providing all necessary resources including personnel, materials and equipment to ensure works can be conducted in accordance with this CEMP.<br>• Assigning responsibilities and providing resources and training to ensure compliance with the environmental measures outlined within this CEMP.<br>• Review and investigate all environmental hazard and incident reports. |
| **Contractor / Construction Managers** | • Oversee relevant construction activities and maintain overall responsibility on site within the Construction Team to meet the environmental conditions provided in environmental approvals.<br>• Managing environmental issues and risks that may arise, in accordance with regulatory requirements, site procedures and non-conformance reporting.<br>• Communicating the environmental management requirements to all contractors and working closely and cooperatively with all contractors as to ensure environmental management measures are implemented and maintained by each contractor.<br>• Reporting all environmental hazards and incidents. |
| **Environmental Advisor** | • Management of complaints that may be lodged regarding noise, vibrations, dust and other environmental impacts.<br>• Conducting regular site inspections to verify the effectiveness, and compliance to the requirements, of this CEMP.<br>• Ensuring all personnel have been instructed on the requirements of this CEMP and their responsibilities.<br>• Review and investigate all environmental hazard and incident reports. |
| **All personnel** | • Receive an induction prior to commencement of work on site.<br>• Conduct works in compliance with this CEMP.<br>• Following directions given by the Construction Manager and/or other senior staff with regard to onsite environmental management.<br>• Report all observed environmental non-conformances, incidents and hazards to a supervisor.<br>• Continually seek to identify areas for improvement of environmental management and report these to the Environment Advisor. |

## 5.6 Environmental training and awareness

All staff and contractors will be required to undertake an environmental and heritage induction program prior to commencement of works on the Proposal. The environmental and heritage induction and training will be relevant to the site and Proposal activities, targeted to educating staff and contractors on environmental and heritage considerations related to their individual work.

All workers and visitors to the site will also be required to undergo an induction that incorporates environmental and heritage matters relevant to the site and Proposal activities.

An induction and qualification matrix (including licences and competency verification) will be maintained for all contractor personnel.

## 5.7 Stakeholder consultation

The Proponent is committed to comprehensive and ongoing stakeholder engagement throughout all stages of the Proposal and is committed to building sustainable partnerships with stakeholders to achieve mutually beneficial outcomes. The purpose of stakeholder consultation to date has been to:

- Obtain appropriate input into the ongoing improvement of the Proposal
- Keep key stakeholders up to date with the Proponent's activities
- Ensure timely response to landholder issues
- Maintain dialogue with regulatory authorities.

Further detail of the environmental issues raised during this consultation, and the Proponent's response to these comments/issues, is provided in the RSD.

## 5.8 Adaptive management and review

### Inspections and audits

Contractors must prepare and undertake regular environmental inspections and audits of their site and Proposal activities. Site inspection reports, audit reports and corrective actions must be maintained as Proposal records and made available for review on the Proponent's request. Any deviations to the specified requirements will be documented and evaluated by the Project and Construction Managers, or delegate, and be raised in a Non-conformance Report (NCR) if required.

The Proponent's assurance program includes inspections, audits and other monitoring programs at Proposal sites to monitor contractor activity and review Proposal documentation. Field audits, inspections and testing will assess the implementation of the Contractor's environmental management plans. Works compliance will also be carried out and will include audits of the Contractor's environmental management performance. Contractors must make work sites accessible to the Proponent's personnel. Contractor representatives may be invited to participate in scheduled inspections or audits and will be responsible for undertaking any corrective actions.

### Non-conformances and corrective actions

The Contractor must report any non-conformances with management targets and outcomes immediately to the Project Manager. The Contractor will receive formal notification in relation to acceptance, assessments or rejection of proposed remedies and mitigation strategies. An NCR submission will include:

- Contractor details
- Type and nature of the non-conformance
- The origin or cause of the non-conformance

- The Contractor's proposed remedy or resolution
- The Contractor's mitigation strategies to avoid reoccurrences of the non-conformance
- Where the non-conformance has triggered a Hold Point, how the Hold Point is to be released
- Impact of the non-conformance on the progress of the Contractor's activities.

An NCR register will be maintained by the Site Contract Administrators.

Outstanding corrective actions resulting from incident investigations, audits and inspections must be included in monthly progress meetings to ensure they are closed out in a timely manner. The Contractor will be assigned to monitor the proper resolution and close-out of NCRs.

## Document control

The Contractor must ensure all personnel have access to Proposal documentation relevant to the scope of works. Any change to environment and heritage documentation will be communicated to Proposal personnel to ensure change to responsibilities, process and controls are understood.

On a monthly basis, the Contractor will be responsible for collating the relevant information and producing the environmental portion of the Monthly Progress Report for issue to the Project Manager. The Monthly Progress Report will include reporting on Environmental and Sustainability matters.

Supporting Proposal documentation and records, which can include but not limited to training documentation, inspection and audit reports, risk assessments, communications, laboratory reports and waste records, must be provided to the Proponent upon request.

## Document review

This CEMP will be reviewed every six months and may also be revised due to changes in good industry practices and technology, legislation and statutory requirements, and due to any findings identified in lessons learned from significant incidents. The Proponent will review and update any subsequent procedures affecting the management of environmental risk to align with this CEMP, in consultation with the relevant stakeholders and regulatory authorities.

# 6 Environmental management

This section of the CEMP identifies the provisions that the Proponent proposes to implement, to reduce residual impacts on environmental factors associated with the construction of the Proposal. This section identifies management actions that will be implemented to mitigate and manage potential impacts to the following environmental factors:

- Flora and Vegetation
- Terrestrial Fauna
- Inland Waters
- Social Surroundings
- Terrestrial Environmental Quality.

As discussed in Section 1.3, this Preliminary CEMP does not include management measures for dewatering, PASS, operational impacts to birds and bats, dieback, bushfire risk, traffic or operational noise which are addressed under separate management plans.

## 6.1 Key assumptions

The information provided in this CEMP relies on the accuracy and adequacy of the information and methods provided in the investigations and studies undertaken for the Proposal. Several assumptions were made during the development of the mitigation measures to address impacts to environmental factors. These include:

- Environmental values within and surrounding the Proposal have been adequately and accurately identified
- Name, distribution and status of conservation significant fauna and flora have been adequately and accurately reported
- Surveys have been undertaken when conditions were ideal for recording conservation significant fauna and flora species, unless otherwise specified
- Local and regional surroundings have been described to enable accurate determination of potential direct and indirect impacts
- The occurrences of sensitive receptors in the surrounding landscape have been captured
- Surveys have been completed as per relevant technical guidance survey methods, unless otherwise specified
- Investigations and studies have provided suitable descriptions of the findings
- The likelihood and severity of predicted impacts is accurate and complete
- Even targeted surveys may not record every individual of a conservation significant species and therefore the known records are considered to represent the lower limits of actual populations present.
- The adaptive management processes adopted by this CEMP allows for management actions and monitoring to be revised as new information becomes available.

## 6.2 Clearing Exclusion Area

For the purpose of this CEMP, the Proponent has developed a Clearing Exclusion Area and associated Clearing Exclusion Area Buffer within the Development Envelope to manage potential impacts of the Proposal and ensure the environmental commitments of the RSD are achieved. No clearing of native vegetation will occur within the Clearing Exclusion Area, and no clearing of contiguous native vegetation will occur within the Clearing Exclusion Area Buffer (Figure 6-1).

These areas have been spatially-delineated to avoid and minimise impacts to native vegetation, flora, fauna habitat and heritage sites within the Development Envelope (Section 6.6, Section 6.7 and Section 6.8).

Requirements prior to clearing activities will include either spatially or physically (depending on whether clearing technology is spatially guided or not) demarcating the clearing area and determining that these do not interact with Clearing Exclusion Areas or Buffers.

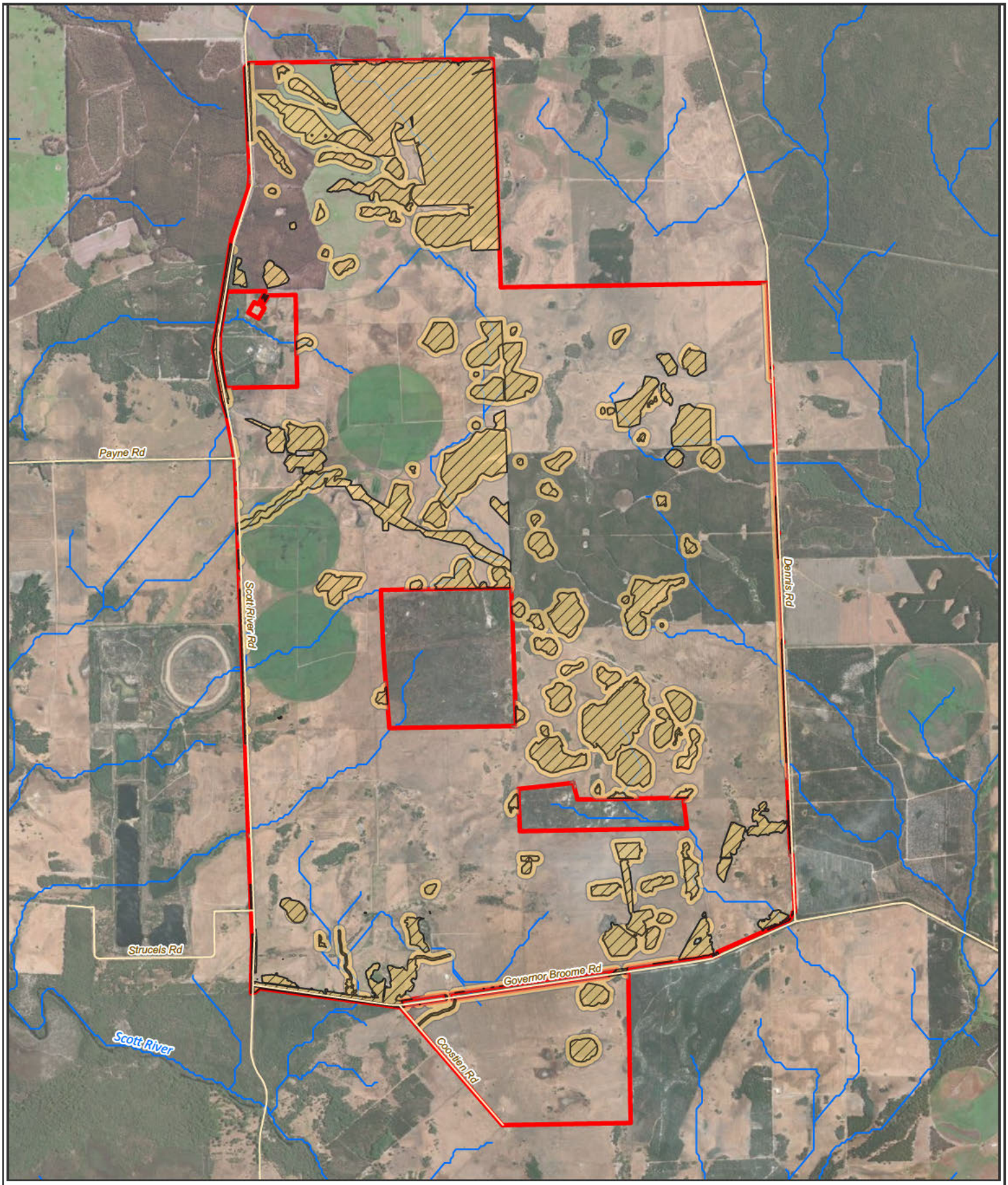


**Figure 6-1: Clearing Exclusion Area and Clearing Exclusion Area Buffer**

- Roads
- Rivers and Tributaries
- Development Envelope
- Clearing Exclusion Area
- Clearing Exclusion Area Buffer

0 0.5 1 2
Kilometers

Datum/Projection:
GDA2020 MGA Zone 50

Project: 24PER7886-DH Date:
9/10/2025

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## 6.3 Rationale and approach

Management and monitoring provisions for the construction of the proposal have been split into:

- Outcome-based, where a specific measurable outcome incorporating threshold and trigger criteria are proposed
- Objective-based, relating to the achievement of desired management targets/objectives.

Table 6-1 summarises the potential direct and indirect impacts to Terrestrial Environmental Quality, Inland Waters, Flora and Vegetation, Terrestrial Fauna and Social Surroundings from the construction of the Proposal, the management approach, and rationale for the approach to ensure the environmental outcomes detailed in this section are achieved.

As detailed in Section 1.3, impacts associated with the commissioning and operation of the Proposal, bushfire, dieback, dewatering and PASS will be managed through the implementation of separate management plans and are; therefore, not addressed in this CEMP.

*Table 6-1: Rationale for management provisions*

| EPA Factor | Potential Impact | Management Provision | Rationale for provision |
|---|---|---|---|
| Terrestrial Environmental Quality | Soil erosion due to ground disturbing activities | Objective-based management | Clearing of vegetation and excavation required for the Proposal has the potential to impact soil quality due to erosion.<br>Objective-based management provisions have been adopted to minimise the impact of erosion on soil quality. While good industry practice design and industry standards will be followed to minimise the impacts associated with erosion to as low as reasonably practicable, they cannot be entirely avoided. |
| | Soil contamination from the accidental loss or spills of hydrocarbons and other hazardous materials | Objective-based management | Storage and use of hydrocarbons and hazardous materials on site poses a risk for soil contamination from accidental loss or spills.<br>Objective-based management provisions have been adopted to minimise the risk of accidental loss or spills of hazardous materials. While good industry practice design and industry standards will be followed to minimise the risks associated with the storage of hazardous materials on site to as low as reasonably practicable, they cannot be entirely avoided. |
| Inland Waters | Changes to surface hydrological regimes due to Proposal infrastructure | Objective-based management | Objective-based provisions have been adopted for impacts to surface water flow patterns within the Development Envelope. The key management for surface water regimes within the Development Envelope is the design of Proposal infrastructure.<br>Objective-based provisions are considered appropriate as while impacts to surface water flows can be minimised as far as practicable, they cannot be entirely avoided. |
| | Reduced water quality due to erosion, sedimentation and/or mobilisation of nutrients from ground disturbing activities | Objective-based management | Objective-based provisions have been adopted for water quality. Robust management practices will reduce the risk of the erosion, sedimentation, mobilisation of nutrients or the accidental loss or spill of hazardous materials, and the subsequent risks of contamination and changes to water quality.<br>Objective-based provisions are considered appropriate as while impacts to surface water and groundwater quality can be minimised as far as practicable, they cannot be entirely avoided. |
| | Contamination of surface water and/or groundwater from accidental loss or spills of hydrocarbons and other hazardous materials | | |
| Flora and Vegetation | Loss of native vegetation and conservation significant flora and communities due to clearing | Outcome-based management | Clearing of vegetation beyond the defined limits may lead to unacceptable outcomes to flora and vegetation values. Effective management of clearing is a commitment by the Proponent and the responsibility of all personnel and contractors.<br>Outcome-based management conditions will be implemented as clearing limits are a measurable target. |

| | | | |
|---|---|---|---|
| | | | These provisions will ensure that all personnel are inducted on land disturbance and clearing management, as well as to ensure an active ground and vegetation disturbance permit is in place for all land clearing activities. |
| | Degradation of vegetation from introduction and/or spread of weeds | Objective-based management | Objective-based management provisions have been adopted to ensure correct hygiene management measures are in place to minimise the introduction and spread of weeds. As part of this, contractors will be required to report opportunistic sightings of the occurrence of weed species and observe if there are any increases in weed species or abundance.<br>Objective-based provisions are considered appropriate as while the impacts from the introduction and spread of weeds can be minimised as far as practicable, it cannot be entirely avoided. |
| | Degradation of vegetation from dust deposition | Objective-based management | Objective-based provisions have been adopted to minimise the impact of dust deposition on native vegetation. Management actions include the implementation of dust suppression techniques during construction activities.<br>Objective-based provisions are considered appropriate as while impacts from dust can be minimised as far as practicable, it cannot be entirely avoided. |
| | Degradation or alteration of vegetation as a result of altered hydrological regimes | Objective-based management | Objective-based provisions have been adopted for impacts to surface water flow patterns and subsequent effects on native vegetation within the Development Envelope as described in Section 6.5 and Table 6-3.<br>Objective-based provisions are considered appropriate as while impacts to surface water flows can minimised as far as practicable, it cannot be entirely avoided. |
| Terrestrial Fauna | Loss and fragmentation of vertebrate fauna habitat | Outcome-based management | Clearing beyond the defined areas may lead to unacceptable outcomes to fauna values. Effective management of clearing is a commitment by the Proponent and the responsibility of the Environmental Advisor, site operators and contractors.<br>Outcome-based management conditions will be implemented as clearing limits and widths are a measurable target.<br>These provisions will ensure that all personnel are inducted on land disturbance and clearing management, as well as to ensure an active ground and vegetation disturbance permit is in place for all land clearing activities. |
| | Loss or injury to fauna individuals through vehicle/machinery movements and entrapment in excavations, dams, basins and borrow pits during construction | Objective-based management | Objective-based provisions have been adopted, as whilst the risk of fauna mortality from construction activities is low and can be minimised through robust management practices and opportunistic monitoring, it cannot be completely avoided. |

| | | | |
|---|---|---|---|
| | Increased competition or predation by feral fauna | Objective-based management | Objective-based provisions have been adopted to minimise the potential for an increase in the abundance of feral fauna species, as whilst hygiene management measures can be in place to minimise the risk of introducing or increasing the abundance of feral species, it cannot be entirely avoided. |
| | Disturbance to fauna movement patterns and behaviour from vibration, light and noise | Objective-based management | Objective-based provisions have been adopted to minimise the impact of dust, vibration, light and noise emissions on fauna. While good industry practice design and industry standards will be followed to minimise the impacts associated with dust, noise, vibration or light to as low as reasonably practicable, they cannot be entirely avoided. |
| | Degradation of fauna habitat from introduction and/or spread of weeds | Objective-based management | Objective-based management provisions have been adopted to ensure correct hygiene management measures are in place to minimise the introduction and spread of weeds. As part of this, contractors will be required to report opportunistic sightings of the occurrence of weed species and observe if there are any increases in weed species or abundance.<br>Objective-based provisions are considered appropriate as while impacts from the introduction and/or spread of weeds can be minimised as far as practicable, they cannot be entirely avoided. |
| | Degradation of fauna habitat as a result of altered hydrological regimes | Objective-based management | Objective-based provisions have been adopted for impacts to surface water flow patterns and subsequent effects on fauna habitat within the Development Envelope as described in Section 6.5 and Table 6-3.<br>Objective-based provisions are considered appropriate as while impacts to surface water flows, and subsequent effect on fauna habitat, can be minimised as far as practicable, they cannot be entirely avoided. |
| Social Surroundings | Impacts to known Aboriginal heritage sites or cultural values through ground disturbance associated with the construction of the Proposal | Outcome-based management<br>Objective-based management | Outcome-based conditions have been implemented to ensure all personnel are inducted on existing Aboriginal cultural heritage surroundings the Development Envelope.<br>Objective-based provisions are also proposed to ensure the appropriate management of the Blackwood and Scott rivers, as well as any new Aboriginal Heritage sites/artefacts uncovered or identified in accordance with the requirements of the *Aboriginal Heritage Act 1972*. |
| | Impacts to any unknown (e.g., subsurface artefacts) Aboriginal heritage artefacts/sites | Objective-based management | Discovery of any potential sub-surface Aboriginal cultural heritage will lead to ceasing work immediately until further arrangements for recommencement of work is determined. Objective-based provisions are considered appropriate to ensure the appropriate management is placed to minimise potential impact to unknown Aboriginal heritage artefacts/sies can be minimised as far as practicable, they cannot be entirely avoided. |
| | Reduced amenity as a result of light, noise or dust emissions | Objective-based management | Objective-based provisions have been adopted to minimise the impact of light, noise and dust emissions on landscape and visual amenity. While good industry practice design and industry standards will be followed to minimise the impacts associated with light, noise or dust emissions to as low as reasonably practicable, they cannot be entirely avoided. |

## 6.4 Terrestrial Environmental Quality management

Table 6-2 outlines the rationale for the proposed objective-based management targets, actions and monitoring for Terrestrial Environmental Quality.

*Table 6-2: Terrestrial Environmental Quality objective-based management*

| EPA Factor | Terrestrial Environmental Quality |
|---|---|
| EPA Objectives | *To maintain the quality of land and soils so that environmental values are protected* |
| Key Impacts and Risks | • Soil erosion due to ground disturbing activities.<br>• Soil contamination from the accidental loss or spills of hydrocarbons and other hazardous materials. |

| Management Target | Management Actions | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Impacts to soil quality due to erosion from ground disturbing activities is minimised. | The following controls will be implemented to minimise potential impacts associated with soil erosion:<br>• Limit clearing of native vegetation within the Development Envelope to a maximum of 1.00 ha, as outlined in Table 6-4<br>• Capture and direct runoff from infrastructure (such as the substation, O&M and concrete batching areas) to on-site retention basin(s) for settlement and infiltration and/or controlled discharge through the stormwater overflow designed to manage sediment removal and reduce stormwater velocity<br>• Locate, design, construct and maintain drainage controls (e.g. drains and culverts) to maintain surface water flow regimes and minimise erosion<br>• Paddock dump topsoil stockpiles to a maximum height of 2 m<br>• Site topsoil stockpiles to avoid areas likely to experience substantial surface water flows, where practicable<br>• Install windrows of sufficient height around topsoil stockpiles to prevent surface water erosion<br>• Stabilise and water all access tracks to minimise the generation of airborne dust and soil<br>• Install erosion protection in line with relevant guidelines. | • Weekly inspections of stockpiles and drainage management infrastructure.<br>• Pre and post severe wet weather inspections of all drainage management infrastructure. | • Inspections and audit reports.<br>• Incident and hazard reporting.<br>• Monthly reports. |

| Management Target | Management Actions | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Soil contamination resulting from the accidental loss or spills of hydrocarbons and other hazardous materials is minimised. | The following controls will be implemented to minimise potential impacts associated with the storage and handling of hazardous materials:<br>• Store and handle potentially contaminating substances such as solid and liquid wastes and bulk hydrocarbons as per the requirements of the *Dangerous Goods Safety Act 2004*<br>• Bund all liquid chemicals. Bunds will be impermeable, have a capacity of 110% of the largest container stored or 2% of the total volume stored and be covered/protected from rainfall and stormwater ingress. Keep bunds free of residue, litter and stormwater.<br>• Label storage containers as per the relevant Safety Data Sheet (SDS)<br>• Ensure appropriate spill equipment is available during the transportation and handling of hazardous materials<br>• Treat any potentially contaminated water on site before discharging into stormwater drainage or contain and remove as contaminated waste. | • Testing of all potentially contaminated water prior to disposal.<br>• Regular inspections of all chemical and fuel containing bunds and facilities. | • Inspection and audit reports.<br>• Incident and hazard reporting.<br>• Water testing reports.<br>• Monthly reports.<br>• DWER reporting (as required). |

## 6.5 Inland Waters management

Table 6-2 outlines the proposed objective-based management targets, actions and monitoring for Inland Waters.

*Table 6-3: Inland Waters objective-based management*

| EPA Factor | Inland Waters |
|---|---|
| **EPA Objectives** | *To maintain hydrological regimes and quality of groundwater and surface water so that environmental values are protected.* |
| **Key Impacts and Risks** | • Changes to surface hydrological regimes and flow patterns due to Proposal infrastructure.<br>• Changes to surface and groundwater quality. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Changes to surface hydrological regimes and flow patterns from Proposal infrastructure will be minimised. | • Locate and design civil infrastructure to ensure specific risk-based flood vulnerability requirements have been addressed and will be located outside of the 1% AEP flood extent, where practicable.<br>• Avoid modification of existing drainage infrastructure, where practicable, unless the proposed modification will improve drainage and not lead to any detrimental impacts to downstream receptors.<br>• Locate, design, construct and maintain drainage controls (e.g. drains and culverts) to maintain surface water flow regimes and minimise erosion.<br>• Maintain flow velocities below 2 m/s upstream and downstream of disturbance areas, including at culvert inlet and outlets.<br>• Ensure design and construction works are such that local grading and excavation areas do not create areas of pooled water.<br>• Vegetate or cover (e.g. with rock or synthetic liners) exposed soils in disturbed areas where surface water velocities are predicted to exceed 1 m/s and remain below 2 m/s.<br>• A bed and banks permit will be obtained for any works likely to interfere with bed and banks. Works will be undertaken in accordance with commitments and conditions of the bed and banks permits issued. | • Weekly inspections of drainage management infrastructure.<br>• Pre and post severe wet weather inspections of all drainage management infrastructure. | • Inspections and audit reports.<br>• Incident and hazard reporting.<br>• Monthly reports. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Changes to surface and groundwater quality will be minimised. | • Delay ground disturbance adjacent to waterbodies as long as possible to minimise potential for sedimentation.<br>• Capture and direct runoff from infrastructure (such as the substation, O&M and concrete batching area) to an on-site retention basin for settlement and infiltration and/or controlled discharge through the stormwater overflow designed to manage sediment removal and reduce stormwater velocity.<br>• Install erosion protection in line with relevant guidelines.<br>• Locate, design, construct and maintain drainage controls (e.g. drains and culverts) to maintain surface water flow regimes and minimise erosion.<br>• Schedule civil construction activities to occur in the dry season where practicable.<br>• Maintain flow velocities below 2 m/s upstream and downstream of disturbance areas, including at culvert inlets and outlets.<br>• Vegetate or cover (e.g. with rock or synthetic liners) exposed soils in disturbed areas where velocities exceed 1 m/s and remain below 2 m/s.<br>• Store and handle potentially contaminated substances such as solid and liquid wastes and bulk hydrocarbons as per the requirements of the *Dangerous Goods Safety Act 2004*.<br>• Locate infrastructure that may be a source of contamination (e.g. substation and switchyard, operations and maintenance building and workshop, concrete batching area, refuelling locations) at least 100 m from any wetland.<br>• Bund all liquid chemicals. Bunds will be impermeable, have a capacity of 110% of the largest container stored or 25% of the total volume stored and be covered/protected from rainfall and stormwater ingress.<br>• Inspect bunds regularly and keep free of residue, litter and stormwater.<br>• Inspect all chemical and fuel containing facilities regularly for leaks and spills.<br>• Label storage containers as per the relevant SDS.<br>• Ensure appropriate spill response equipment is available during the transportation and handling of hazardous materials.<br>• Treat any potentially contaminated water on site before discharging into stormwater drainage or contain and remove as contaminated waste.<br>• Implementation of sediment barriers to prevent runoff into wetlands and waterways during construction, where required. | • Weekly inspections of drainage management infrastructure.<br>• Pre and post severe wet weather inspections of all drainage management infrastructure.<br>• Testing of all potentially contaminated water prior to disposal.<br>• Regular inspections of all chemical and fuel containing bunds and facilities. | • Inspection and audit reports.<br>• Incident and hazard reporting.<br>• Water testing reports.<br>• Monthly reports.<br>• DWER reporting (as required). |

## 6.6 Flora and Vegetation management

Table 6-4 outlines the proposed outcomes-based management indicators, actions and monitoring for Flora and Vegetation. Table 6-5 outlines the proposed objective-based management targets, actions and monitoring for Flora and Vegetation.

Specifically for Flora and Vegetation the implementation of the Clearing Exclusion Area and Buffer (Section 6.2) will ensure that the following environmental commitments are achieved within the Development Envelope (Figure 6-2; Figure 6-3):

- No clearing of native vegetation within conservation covenant areas
- No clearing of native vegetation growing in association with wetland habitats, including any contiguous native vegetation within 50 m
- No clearing of vegetation considered to represent the Scott River Ironstone TEC
- No clearing of known Threatened and Priority flora records, including any contiguous native vegetation within 50 m of known Threatened and P1 species, or within 20 m of P2, P3 and P4 species
- No clearing of locally restricted vegetation types (AmBsHc, ClcVj and MpXpHfSs)
- Clearing of no more than 0.01 ha of contiguous native vegetation within 50 m of the Scott River Ironstone TEC
- Clearing of no more than 1.00 ha of native vegetation, including a maximum of 0.02 ha of native vegetation in Very Good or better condition.

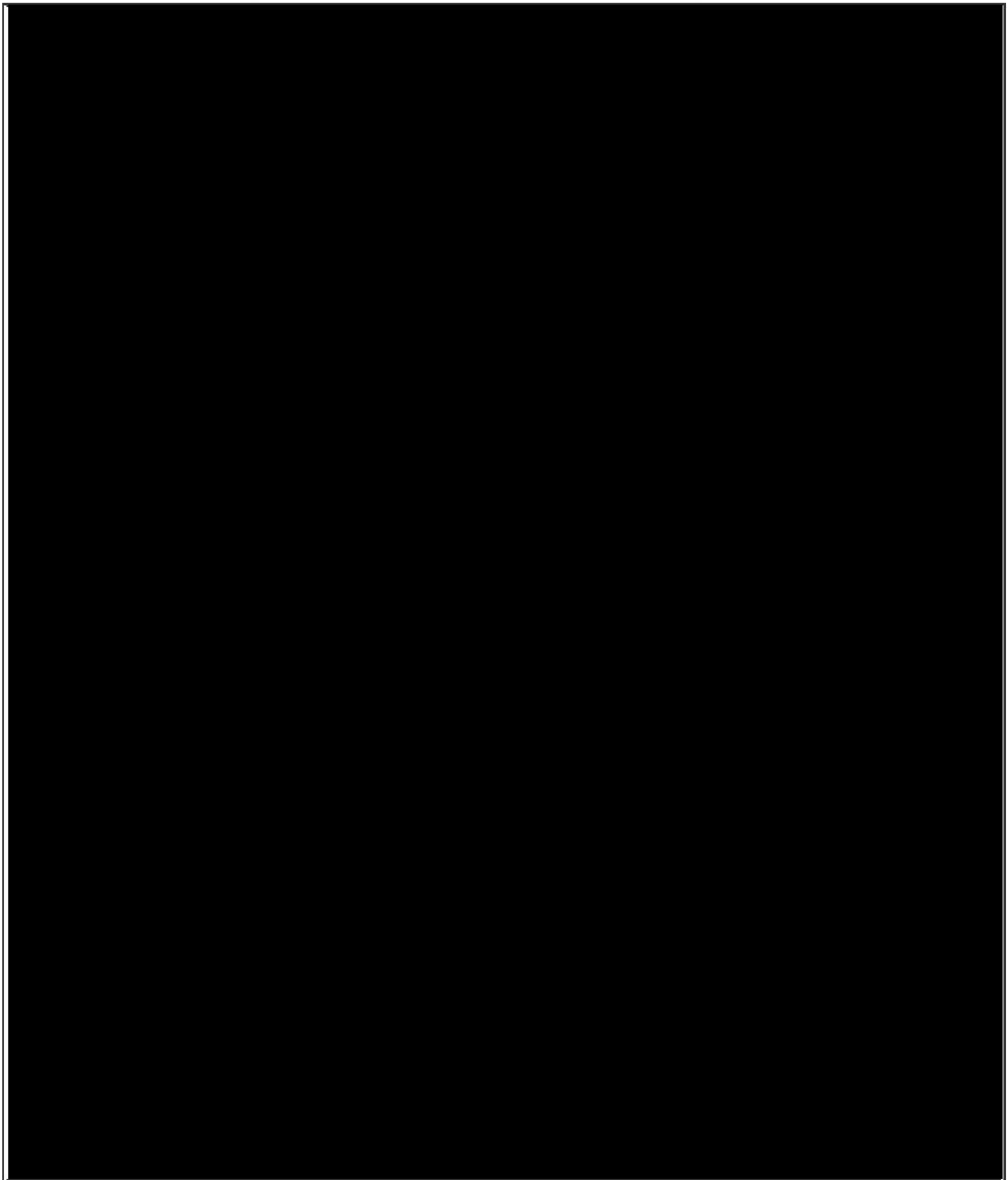

**Figure 6-2: Flora and Vegetation Values within the Clearing Exclusion Area and Buffer**

- Roads
- Clearing Exclusion Area
- Clearing Exclusion Area Buffer
- Development Envelope

**Flora and Vegetation Values**

- Threatened
- Priority
- Scott River Ironstone Association (Phoenix 2025a)
- Locally Restricted Vegetation Types

**Native Vegetation**

- Pristine
- Excellent
- Very Good

0 0.5 1 2

Kilometers

Datum/Projection:
GDA2020 MGA Zone 50

Project: 24PER7886-DH Date: 9/19/2025

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## Flora and Vegetation outcome-based management

*Table 6-4: Flora and Vegetation outcome-based management*

| EPA Factor | Flora and Vegetation | | | |
|---|---|---|---|---|
| **EPA Objectives** | *To protect flora and vegetation so that biological diversity and ecological integrity are maintained.* | | | |
| **Key Impacts and Risks** | • Unauthorised clearing of native vegetation. | | | |
| **Outcome** | **Indicators (Trigger Criteria / Threshold Criteria)** | **Response Actions (Trigger level actions / Threshold contingency actions)** | **Monitoring/ Timing/ Frequency of Monitoring** | **Reporting** |
| No clearing within the Clearing Exclusion Area and no clearing of contiguous* native vegetation within the Clearing Exclusion Area Buffer | **Trigger criterion:**<br>• Clearing within 50 m of the Clearing Exclusion Area Buffer.<br>**Threshold criterion:**<br>• Clearing of native vegetation within the Clearing Exclusion Area OR<br>• Clearing of contiguous* native vegetation within the Clearing Exclusion Area Buffer. | **Trigger actions:**<br>• Ensure sufficient area remains to complete the planned clearing within defined limits.<br>• Ensure active ground and vegetation disturbance permit is in place and clearing boundaries and avoidance areas are both clearly demarcated prior to disturbance.<br>**Threshold contingency actions**<br>• Immediately cease all clearing activities.<br>• Report the incident immediately to the Project Manager & Environmental Advisor, who will investigate the incident further.<br>• Review and revise current ground and vegetation disturbance procedures and permits, induction and training records and this CEMP to identify and address the cause of the incident.<br>• Re-establish the approved boundary.<br>• Advise relevant government agencies if non-conformance confirmed, in accordance with relevant approval conditions.<br>• Undertake rehabilitation of the unauthorised clearing in consultation with relevant government agencies. | • Regular routine inspections of clearing and ground disturbing activities.<br>• Ground and vegetation disturbance permit close-out inspections. | • Inspection and audit reports.<br>• Incident and hazard reporting.<br>• Ground and vegetation disturbance permits including close-out inspection reporting. |
| Clearing of native vegetation will not exceed 1.00 ha | **Trigger criterion:**<br>• Clearing of native vegetation within 10% of threshold criterion (0.90 ha or above).<br>• Clearing within 20 m of the Development Envelope boundary.<br>**Threshold criterion:**<br>• Clearing of native vegetation exceeds 1.00 ha.<br>• Clearing occurs outside of the Development Envelope. | | | |

*Contiguous native vegetation is defined as remnant native vegetation not separated by more than 5 m of cleared land.

## Flora and Vegetation objective-based management

*Table 6-5: Flora and Vegetation objective-based management*

| EPA Factor | Flora and Vegetation |
|---|---|
| EPA Objectives | *To protect flora and vegetation so that biological diversity and ecological integrity are maintained.* |
| Key Impacts and Risks | • Degradation of vegetation from the introduction and/or spread of weeds.<br>• Degradation of vegetation from dust deposition.<br>• Degradation or alteration of vegetation as a result of altered hydrological regimes. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Degradation of vegetation from the introduction and/or spread of weeds is minimised | Implement the following weed management controls to manage the spread of weeds within the Development Envelope and surrounding environment:<br>• Undertake a risk assessment to identify potential spread of weeds associated with planned activities<br>• Limit site entry points to only those necessary<br>• Carry out a pre and post construction weed survey to validate controls and provide baseline<br>• Vehicles and machinery arriving to site will be required to arrive clean and free of weeds and debris and will be inspected on arrival prior to working on site<br>• Manage all imported basic raw materials to minimise the risk of introducing weeds, seeds and pathogens<br>• Handle, store and dispose of any vegetation or soil that is infested with weeds or pathogens as pest contaminated material (e.g. covered during transport, contained)<br>• Confirm any cleared material to be mulched and reused onsite is free of weed material prior to use. | • Pre and post construction weed survey.<br>• On arrival inspections of vehicles and machinery.<br>• Opportunistic sightings of WoNs or Declared Weed species.<br>• Routine inspections/audits, including weekly inspections of topsoil stockpiles. | • Risk assessment.<br>• Vehicle-machinery hygiene inspection forms.<br>• Records of imported material and disposal or reuse of cleared material.<br>• Inspection and audit reports.<br>• Monthly reporting. |
| Degradation of vegetation from dust deposition is minimised | Implement the following controls to reduce the impacts of dust deposition including:<br>• Paddock dump topsoil stockpiles to a maximum height of 2 m<br>• Implement dust suppression techniques, such as water tanks<br>• Implement speed limits on unsealed roads/tracks<br>• Undertake progressive rehabilitation of temporary construction areas. | • Routine inspections/audits. | • Inspection and audit reports.<br>• Incident and hazard reporting.<br>• Monthly reporting. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Degradation or alteration of vegetation as a result of altered hydrological regimes is minimised | • Implementation of measures as per Table 6-3. | | |

## 6.7 Terrestrial Fauna management

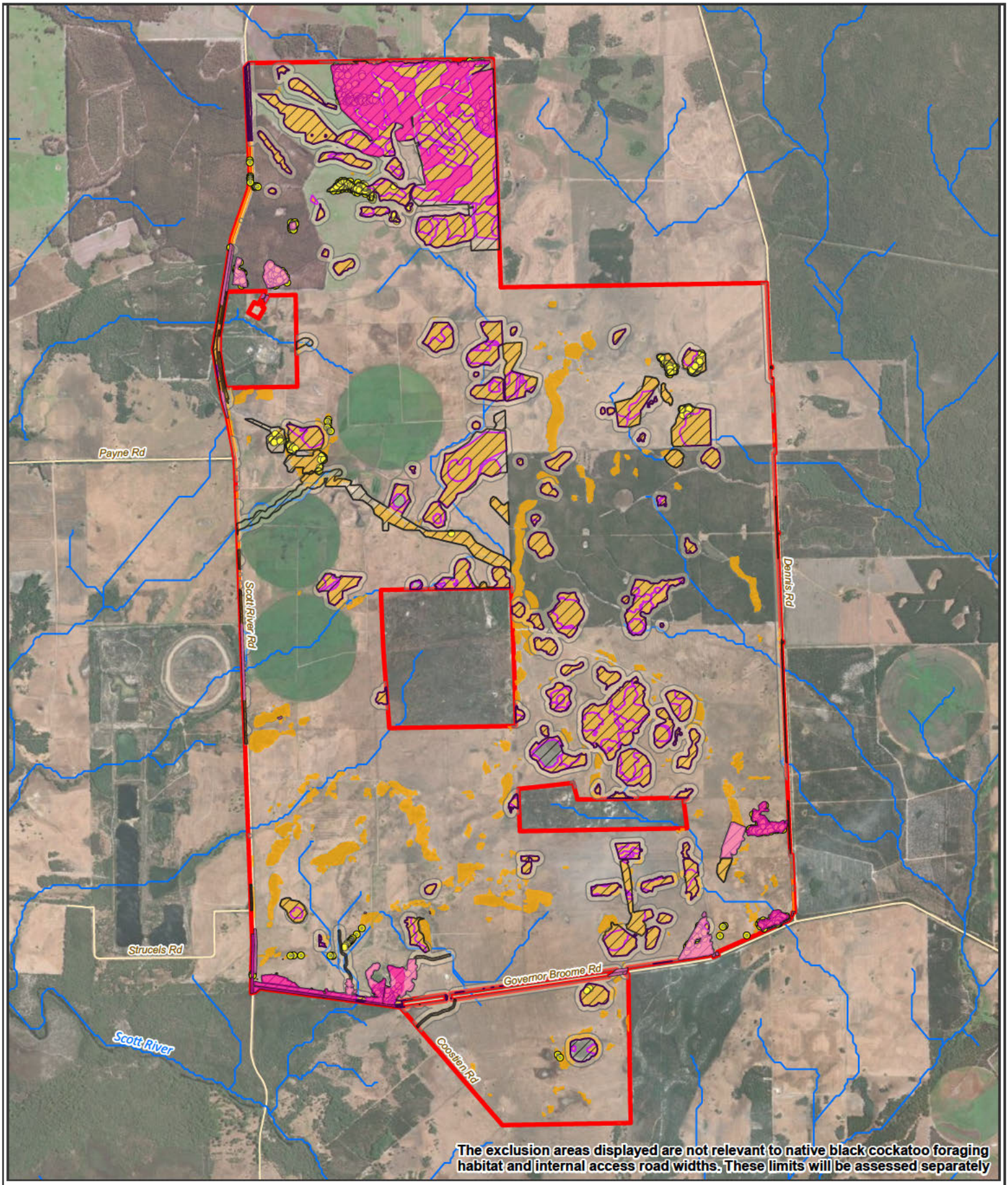
Table 6-6 outlines the proposed outcomes-based management indicators, actions and monitoring for Terrestrial Fauna. Table 6-7 outlines the proposed objective-based management targets, actions and monitoring for Terrestrial Fauna.

Implementation of the Clearing Exclusion Area and Buffer (Section 6.2will ensure that the following environmental commitments are achieved for terrestrial fauna within the Development Envelope (Figure 6-3):

- No clearing of wetland habitats, including any contiguous native vegetation within 50 m
- No clearing of potential breeding trees for black cockatoos or any contiguous native vegetation within 10 m
- No clearing of High-quality Western Ringtail Possum habitat
- Clearing no more than 0.03 ha of Moderate-quality Western Ringtail Possum habitat.

Other clearing limits (not addressed/captured by the clearing and exclusion area) that will also need to be assessed as part of every ground and vegetation disturbance permit:

- Clearing no more than 1.00 ha of native black cockatoo foraging habitat, including maximum of 0.5 ha of Moderate to High quality native foraging habitat.
- Width of clearing for all internal access roads will be limited to 6 m (and 5 m at Governor Broome Road crossing/entrance), where they pass through a Western Ringtail Possum habitat patch
- Clearing of no more than 0.5 ha of native Western Ringtail Possum habitat (including maximum of 0.03 ha of Moderate-quality and excluding High-quality, as above).




## Figure 6-3: Terrestrial Fauna Values within the Clearing Exclusion Area and Buffer

- Roads
- Rivers and Tributaries
- Development Envelope
- Clearing Exclusion Area
- Clearing Exclusion Area Buffer

**Terrestrial Fauna Values**

- Potential Nesting Trees
- Wetland habitats
- Native Vegetation

**Western Ringtail Possum Habitat Quality Score (Phoenix 2025b)**

- Moderate
- High

0 0.5 1 2
Kilometers

Datum/Projection:
GDA2020 MGA Zone 50

Project: 24PER7886-DH Date: 9/19/2025

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## Terrestrial Fauna outcome-based management

*Table 6-6: Terrestrial Fauna outcome-based management*

| EPA Factor | Terrestrial Fauna | | | |
|---|---|---|---|---|
| **EPA Objectives** | *To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.* | | | |
| **Key Impacts and Risks** | • Unauthorised clearing of fauna habitat represented by native vegetation, including Western Ringtail Possum habitat and black cockatoo foraging habitat.<br>• Loss and fragmentation of fauna habitat. | | | |
| **Outcome** | **Indicators (Trigger Criteria / Threshold Criteria)** | **Response Actions (Trigger level actions / Threshold contingency actions)** | **Monitoring/ Timing/ Frequency of Monitoring** | **Reporting** |
| No clearing within the Clearing Exclusion Area and no clearing of contiguous* native vegetation within the Clearing Exclusion Area Buffer | **Trigger criterion:**<br>• Clearing within 50 m of the Clearing Exclusion Area Buffer.<br>**Threshold criterion:**<br>• Clearing of native vegetation within the Clearing Exclusion Area OR<br>• Clearing of contiguous* native vegetation within the Clearing Exclusion Area Buffer. | **Trigger actions:**<br>• Ensure sufficient area remains to complete the planned clearing within defined limits.<br>• Ensure active ground and vegetation disturbance permit is in place and clearing boundaries and avoidance areas are both clearly demarcated prior to disturbance.<br>**Threshold contingency actions**<br>• Immediately cease all clearing activities.<br>• Report the incident immediately to the Project Manager & Environmental Advisor, who will investigate the incident further.<br>• Review and revise current ground and vegetation disturbance procedures and permits, induction and training records and this CEMP to identify and address the cause of the incident.<br>• Re-establish the approved boundary.<br>• Advise relevant government agencies if non-conformance confirmed, in accordance with relevant approval conditions.<br>• Undertake rehabilitation of the unauthorised clearing in consultation with relevant government agencies. | • Regular routine inspections of clearing and ground disturbing activities.<br>• Ground and vegetation disturbance permit close-out inspections. | • Inspection and audit reports.<br>• Incident and hazard reporting.<br>• Ground and vegetation disturbance permits, including close-out inspection reporting. |
| Clearing of black cockatoo foraging habitat represented by native vegetation will not exceed 1.00 ha, including a maximum of 0.50 ha of Moderate to High quality foraging habitat | **Trigger criterion:**<br>• Clearing of Moderate to High quality black cockatoo foraging habitat represented by native vegetation within 20% of threshold criterion (0.40 ha or above) OR<br>• Clearing of black cockatoo foraging habitat represented by native vegetation within 10% of threshold criterion (0.90ha or above).<br>**Threshold criterion:**<br>• Clearing of Moderate to High quality black cockatoo foraging habitat represented by native vegetation exceeds 0.50 ha OR<br>• Clearing of black cockatoo foraging habitat represented by native vegetation exceeds 1.00 ha. | | | |

| | | | | |
|---|---|---|---|---|
| Clearing of Western Ringtail Possum habitat will not exceed 0.50 ha* | **Trigger criterion:**<br>• Clearing of Western Ringtail Possum habitat represented by native vegetation within 20% of threshold criterion (0.4 ha or above).<br>**Threshold criterion:**<br>• Clearing of Western Ringtail Possum habitat exceeds 0.5 ha. | | | |
| Internal access road widths will be limited to 6 m (and 5 m at Governor Broome Road crossing/ entrance) where they pass through a Western Ringtail Possum patch to limit fragmentation impacts | **Trigger criterion:**<br>• Where any native vegetation clearing in support of internal access road widths of 5 m or more are proposed.<br>**Threshold criterion:**<br>• Where clearing occurs through Western Ringtail Possum habitat patch in support of internal access road width over 6 m (or 5 m at Governor Broome Road crossing/entrance). | | | |

*This includes a maximum of 0.03 ha of Moderate quality habitat and no clearing of High quality habitat, which are captured within the Exclusion Area

## Terrestrial Fauna objective-based management

*Table 6-7: Terrestrial Fauna objective-based management*

| EPA Factor | Terrestrial Fauna |
|---|---|
| **EPA Objectives** | *To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.* |
| **Key Impacts and Risks** | • Loss or injury to fauna individuals through vehicle/machinery movements and entrapment in excavations, dams, basins and borrow pits during construction.<br>• Disturbance to fauna movement patterns and behaviour from vibration, light and noise.<br>• Increased competition or predation by feral fauna.<br>• Degradation of fauna habitat as a result of the introduction and/or spread of weeds.<br>• Degradation of fauna habitat as a result of changes to hydrological regimes. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Loss or injury to fauna individuals through vehicle/machinery movements and entrapment in excavations, dams, basins and borrow pits during construction is minimised | Implementation of the following controls to minimise the occurrence of injury, mortality, entrapment or displacement of conservation significant fauna:<br>• During clearing of the 0.03 ha of Moderate quality Western Ringtail Possum habitat, a fauna spotter will be available on-site to spot and respond to any Western Ringtail Possum individuals encountered within the clearing area.<br>• Clearing to occur in a slow, progressive manner, towards native vegetation to allow fauna to move into adjacent habitat.<br>• If fauna is found on site, works in the immediate vicinity will cease until the individual moves or can be safely relocated by a fauna handler.<br>• Restrict vehicle movement to existing/authorised access tracks.<br>• Limit speed limits on access tracks to 50 km/hr.<br>• Nighttime construction activities will be avoided where practicable.<br>• If any native fauna is injured during works, contact the Wildcare Helpline (9474 9955) for advice and rehabilitation.<br>• Excavations will be kept open for the minimum time required to enable construction activities. Inspect excavations deeper than 500 mm and open for more than 24 hours, twice daily.<br>• Design and construct borrow pits to permit egress of fauna. | • Twice daily inspection of any excavation/trench deeper than 500 mm (in the early morning and late afternoon) left open for more than 24 hours.<br>• Routine inspections/audits<br>• Recording of all fauna interactions and sighting of conservation significant fauna. | • Inspection and audit reports.<br>• Hazard and incident reporting.<br>• Monthly reporting.<br>• Ground and vegetation disturbance permits, including close-out inspection reporting. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| | - Water storage dams and dewater treatment and settlement basins will be fenced and constructed to ensure point of fauna egress<br>• Ensure infiltration basins are shallow and low profile.<br>• Visual bird diverters will be installed on the Proposal transmission line and guy wires of permanent met masts. | | |
| Disturbance to fauna movement patterns and behaviour from vibration, light and noise is minimised | Implementation of the following controls to minimise disturbance to fauna species associated with noise, light and dust including:<br>• Implement of dust management measures as per Table 6-5.<br>• Keep lighting to a minimum to avoid attracting birds, bats and insects to Proposal infrastructure. Specific measures include: the use of directional lighting, hoods, sensor lighting and red lights as opposed to white or yellow lights, where practicable.<br>• Avoid nighttime works where practicable.<br>• Assessments to date do not indicate that lighting on the wind turbines will be required. Aviation lighting will only be installed on wind turbines where required by CASA/emergency services. In this instance, if lighting is required by the approving authorities, the Proponent will work with aviation and emergency services to assess lighting solutions.<br>• Ensure vehicles and machinery are serviced and maintained to minimise machinery noise.<br>• Turbines will be regularly maintained to ensure noise emissions are not adversely impacted by turbine wear.<br>• Locate wind turbine infrastructure to prevent blade overhang over remnant native vegetation/habitat. | • Routine inspections/audits. | • Inspection and audit reports.<br>• Hazard and incident reporting.<br>• Monthly reporting. |
| Increased competition or predation by feral fauna is minimised | Implementation of the following controls to minimise increased competition by feral fauna:<br>• Store food wastes in sealed bins.<br>• Water storage dams and dewater treatment and settlement basins will be fenced to limit access from feral fauna. | • Opportunistic recording of all feral animal sightings. | • Hazard and incident reporting.<br>• Inspection and audit reports.<br>• Monthly reporting. |
| Degradation of fauna habitat as a result of the introduction and/or spread of weeds Is minimised | • Implementation of weed control measures as per Table 6-5. | | |

| Management Target | Management Action | Monitoring/ Timing/ Frequency | Reporting |
|---|---|---|---|
| Degradation of fauna habitat as a result of changes to hydrological regimes is minimised | • Implementation of measures as per Table 6-3. | | |

## 6.8 Social Surroundings management

Table 6-8 outlines the proposed outcomes-based management indicators, actions and monitoring for Social Surroundings. Table 6-9 outlines the proposed objective-based management targets, actions and monitoring for Social Surroundings.

Impacts to other Wardandi and Bibulum/Pibleman environmental values were considered a key concern for the South West Boojarah group. Objective-based management measures for these values are described in Sections 6.2 Flora and Vegetation, 6.3 Terrestrial Fauna and 6.4 Inland Waters.

Implementation of the Clearing Exclusion Area and Buffer will ensure that the following environmental commitment is achieved for heritage values within the Development Envelope:

- No clearing of native vegetation within 50 m of a Registered heritage site and/or Lodged heritage place.

Potential impacts to Aboriginal heritage sites or cultural values through changes to surface water flows, groundwater levels and water quality which may impact the Blackwood River / Goorbilyup Buerle or Scott River are addressed through measures proposed in Section 6.5.

## Social Surroundings outcome-based management measures

*Table 6-8: Social Surroundings outcome-based management*

| EPA Factor | Social Surroundings | | | |
|---|---|---|---|---|
| **EPA Objectives** | *To protect social surroundings from significant harm* | | | |
| **Key Impacts and Risks** | • Unauthorised clearing of native vegetation/ damage to Registered heritage site and/or Lodged heritage place. | | | |
| **Outcome** | **Indicators (Trigger Criteria / Threshold Criteria)** | **Response Actions (Trigger level actions / Threshold contingency actions)** | **Monitoring/ Timing/ Frequency of Monitoring** | **Reporting** |
| No clearing within the Clearing Exclusion Area and no clearing of contiguous* native vegetation within the Clearing Exclusion Area Buffer | **Trigger criterion:**<br>• Clearing within 50 m of the Clearing Exclusion Area Buffer.<br>**Threshold criterion:**<br>• Clearing of native vegetation within the Clearing Exclusion Area OR<br>• Clearing of contiguous* native vegetation within the Clearing Exclusion Area Buffer. | **Trigger actions:**<br>• Ensure sufficient area remains to complete the planned clearing within defined limits.<br>• Ensure active ground and vegetation disturbance permit is in place and clearing boundaries and avoidance areas are both clearly demarcated prior to disturbance.<br>**Threshold contingency actions**<br>• Immediately cease all clearing activities.<br>• Report the incident immediately to the Project Manager & Environmental Advisor, who will investigate the incident further.<br>• Review and revise current ground and vegetation disturbance procedures and permits, induction and training records and this CEMP to identify and address the cause of the incident.<br>• Re-establish the approved boundary.<br>• Advise KKAC and relevant government agencies if unauthorised clearing occurs within Registered heritage site or Lodged heritage place.<br>• Undertake rehabilitation of the unauthorised clearing in consultation with KKAC and relevant government agencies. | • Regular routine inspections of clearing and ground disturbing activities.<br>• Ground and vegetation disturbance permit close-out inspections | • Inspection and audit reports.<br>• Incident and hazard reporting.<br>• Ground and vegetation disturbance permits, including close-out inspection reporting. |

*Contiguous native vegetation is defined as remnant native vegetation not separated by more than 5 m of cleared land.

## Social Surroundings objective-based management measures

*Table 6-9: Social Surroundings objective-based management*

| EPA Factor | Social Surroundings |
|---|---|
| EPA Objectives | *To protect social surroundings from significant harm* |
| Key Impacts and Risks | • Unauthorised damage to Registered heritage site and/ or Lodged heritage place as a result of construction activities.<br>• Damage to previously unidentified Aboriginal heritage sites as a result of construction activities.<br>• Impacts to landscape and visual amenity from light, noise and dust. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency of Monitoring | Reporting |
|---|---|---|---|
| No unapproved loss or damage of Registered site/ Lodged heritage place as a result of construction activities. | • All site personnel and contractors will undertake site-specific induction and training program, including communication of Registered site and Lodged heritage place to the workforce and implementation of protective controls (e.g., ground and vegetation disturbance permits).<br>• Impacts to the Blackwood River (Goorbilyup Buerle) registered Aboriginal heritage site and the Scott River lodged place will be managed through the implementation of water management measures as described in Table 6-3.<br>• Any proposed impact to tributaries of the Scott River will require consultation with KKAC and relevant authorisation under the AH Act. | • Routine inspections, including of clearing and ground disturbing activities.<br>• Ground and vegetation disturbance permit close-out inspections. | • Induction and training records.<br>• Inspection and audit reports.<br>• Hazard and incident reporting.<br>• Ground and vegetation disturbance permits, including close out inspection reporting.<br>• Consultation register.<br>• Survey reports.<br>• Heritage due diligence assessments.<br>• AH Act authorisation. |

| Management Target | Management Action | Monitoring/ Timing/ Frequency of Monitoring | Reporting |
|---|---|---|---|
| Minimise damage to previously unidentified Aboriginal heritage sites as a result of construction activities | • Ensure heritage due diligence and survey (where required) has been completed over proposed work area prior to issue of ground and vegetation disturbance permit/s.<br>• If while conducting works on-site, potential artefacts or remains are uncovered, all works must cease immediately and a 'no work zone' established until it can be assessed by the appropriate specialists. The project manager and Environmental Advisor must be notified immediately. | • Routine inspections of clearing and ground disturbing activities. | • Induction and training records.<br>• Inspection and audit reports.<br>• Hazard and incident reporting.<br>• Ground and vegetation disturbance permits, including close-out inspection reporting.<br>• Survey report/s.<br>• Heritage due diligence assessments |
| Impacts to landscape and visual amenity from light, noise and dust are minimised | • Implement dust management measures as per Table 6-5.<br>• Implement noise and light management measures as per Table 6-7. | • Routine inspections. | • Inspection and audit reports.<br>• Hazard and incident reporting.<br>• Monthly reports. |

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synergyRED