


**This is a sub-plan to be used in conjunction with the
Environmental Management Plan**

**ElectraNet Project EnergyConnect SA to NSW
Interconnector 330kV and 275kV Transmission Lines**

Customer: ElectraNet

Contract Number: EC 14171

Document Preparation and Control	Document Review
Millie Williams – Environmental Advisor	Melanie Dixon – Environmental Consultant
Document Approval	Signature
Matthew Park – Project Director	

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1	4/06/2022	Approved	Update to Section 7.1.2 and 10.4.1 following discussions with ElectraNet.
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3	8/10/2022	Approved	Updates to clarify stockpiling of topsoil and vegetation (Section 7.1.2, 10.2 and 10.4
4	13/02/2023	Approved	Clarification of topsoil stripping locations and addition of CAZ storage diagrams.

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1 PURPOSE

The purpose of this sub-plan is to describe how biodiversity and rehabilitation, including within agricultural lands, will be managed throughout the duration of the project. Works will be implemented in accordance with the management measures and strategies contained in this sub-plan.

2 DOCUMENT SCOPE

The scope of this plan applies to all Downer workers for ElectraNet's Project EnergyConnect (PEC). This plan incorporates the requirements in ElectraNet's project relevant documents including Scope for Environmental Management Plan EC.14171 – Project EnergyConnect (May 2022); Safety and Sustainability Standards; and Engineering Contract Specifications.

This plan applies to all aspects of environmental management for the project.

Where additional management requirements are identified outside the scope of the Environmental Management Plan (EMP) and this sub-plan specific environmental controls will be identified and documentation/procedures updated.

3 ENVIRONMENTAL MANAGEMENT PLAN STRUCTURE

A series of environmental sub-plans, as referenced in the project's Environmental Management Plan, aim to identify environmental risks and opportunities, and provide mitigation controls to manage those risks with an emphasis on the critical risks and controls.

As with the Environmental Management Plan, sub-plans reference any IMS documents (including but not limited to, procedures, work instructions, and forms), customer specific requirements, and project specific documents required to execute the project.

Updates to sub-plans are subject to the document review and approval process detailed in the project's document control plan.

4 REFERENCED & ASSOCIATED DOCUMENTS

4.1 Legislation

The legislation applicable to biodiversity and rehabilitation management are listed in the following table and detailed in the following sections.

Commonwealth Legislation
<i>Environment Protection and Biodiversity Conservation Act 1999</i>
<i>Environment Protection and Biodiversity Conservation Regulations 2000</i>
State-based Legislation
<i>Landscape South Australia Act 2019</i>
<i>Native Vegetation Act 1991</i>
<i>Native Vegetation Regulations 2017</i>
<i>National Parks and Wildlife Act 1972</i>
<i>Environmental Protection Act 1993</i>

4.1.1 Environment Protection and Biodiversity Conservation Act

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) provides protection for Matters of National Environmental Significance (MNES). Any action that has, will have or is likely to have a significant impact on (MNES) requires referral to the Commonwealth Government under the EPBC Act.

Following the initial referral for the Project in June 2019, the project was deemed a “controlled action” therefore subject to assessment by the EPBC Act. The relevant matter of national environmental significance for controlled action was “Listed threatened species and communities”. The project was assessed under the provisions of the Bilateral Agreement between the South Australian and Commonwealth governments.

An **assessment bilateral agreement** allows a state or territory to conduct a single environmental assessment process. At the completion of the assessment the state provides a report to the Australian Government assessing the likely impacts of the project on matters of national environmental significance.

Following the assessment stage, the state and the Australian Government each make a decision on project approval and conditions to meet differing requirements. This may result in two approval decisions and two sets of conditions. Construction works for the Project are to be conducted in accordance with the conditions provided in the Decision Notice 2019/8468.

4.1.2 Native Vegetation Act

All native vegetation in South Australia is protected under the provisions of the *Native Vegetation Act 1991* (SA). Clearance of vegetation is prohibited unless approved by the Native Vegetation Council or the activity requiring the clearance is exempt by the regulations under the Act. The Native Vegetation Council has granted approval for the clearing of native vegetation for this project. Works are to be conducted in accordance with the conditions provided in the Decision Notification 2022/3041/010-b granted by the Native Vegetation Council.

4.1.2.1 Heritage Agreements

The Heritage Agreement Scheme is a program that encourages landowners to conserve native vegetation on their properties forming an important network of ‘off park’ areas that are managed for biodiversity conservation. When a Heritage Agreement is entered into, it formally protects the indigenous flora and fauna within the area in perpetuity, and the Agreement is listed on the Certificate of Title. The project area crosses seven Heritage Agreement areas.

4.1.3 National Parks and Wildlife Act

The *National Parks and Wildlife Act 1972* (SA) covers the protection of native plants within reserves and native animals throughout the South Australia. There are three protected species within reserves that have the potential to be impacted by construction.

4.1.4 Landscape South Australia Act

The *Landscape South Australia Act 2019* provides for the protection and management of the State’s natural resources, including provisions relating to land management, water resource management and pest plant and animal control. Regional landscape plans are in place under the Act to guide management processes. The western 20km of the project is under the Northern and Yorke Management region and the remainder of the project is under the Murraylands and Riverland Management Region.

4.2 Standards and Guidelines

The standards and guidelines applicable to biodiversity management are listed in the following table.

Australian Standards and Guidance Material
South Australian Murray-Darling Basin Natural Resources Management Plan
Northern and Yorke’s Landscape Plan 2021/2026
Murraylands and Riverland Landscape Board 2021/2026 Regional Landscape Plan

4.3 Downer Documents

DOWNER DOCUMENTS	
POLICIES	
<i>DG-ZH-PO200</i>	Environmental Sustainability Policy
PRINCIPLES	
<i>DG-ZH-PN002</i>	10 Environmental Principles
PROCEDURES	
<i>DG-DM-PR003</i>	Operational Change Management Procedure
<i>DG-QA-PR003</i>	Internal Audits Procedure
<i>DG-RM-PR003</i>	Project Risk and Opportunity Management
<i>DG-ZH-PR006</i>	Incident Management Procedure
<i>DG-ZH-PR007</i>	Zero Harm Performance Monitoring and Reporting Procedure
<i>DG-ZH-PR015</i>	Emergency Management Procedure
<i>DG-ZH-PR116.1</i>	Inspections Procedure
STANDARDS	
<i>DG-HR-ST013</i>	Training & Competency Management Standard
<i>DG-ZH-ST002</i>	Legislative and Other Requirements Standard
<i>DG-ZH-ST013</i>	Zero Harm Worker Consultation Standard
<i>DG-ZH-ST063</i>	Waste Management Standard
<i>DG-ZH-ST071.1</i>	Biosecurity Management Standard
<i>DG-ZH-ST071.2</i>	Flora and Fauna Management Standard
PROJECT SPECIFIC DOCUMENTS	
PLANS	
14171-DOW-PRM-PLN-0360	Project Management Plan
14171-DOW-PRM-PLN-0379	Environmental Management Plan
14171-DOW-PRM-PLN-0380	Waste Management Sub-Plan
14171-DOW-PRM-PLN-0381	Weed Pest and Disease Management Sub-Plan
14171-DOW-PRM-PLN-0552	Biodiversity and Rehabilitation Sub-Plan
14171-DOW-PRM-PLN-0383	Landholder Liaison Sub-Plan
14171-DOW-PRM-PLN-0384	Erosion, Sediment and Drainage Management Sub-Plan
14171-DOW-PRM-PLN-0385	Waterways Management Sub-Plan
14171-DOW-PRM-PLN-0526	RMMAC Cultural Heritage Management Sub-Plan
14171-DOW-PRM-PLN-0574	First Peoples #2 Cultural Heritage Management Sub-Plan
14171-DOW-PRM-PLN-0575	Ngadjuri Nation Cultural Heritage Management Sub-Plan

4.4 Approvals and Client Documents

PROJECT APPROVALS AND CLIENT DOCUMENTS	
DA 422/P003/19	Development Approval Decision Notification Form
EPBC 2019/8468	EPBC Approval and Decision conditions
NV 2022/3041/010-b	2022/3041/010-b Decision Notification and Native Vegetation Removal Approval.
ECs	ElectraNet Section 3 - Engineering Contract Specification (December 2020) Section 3.2a: Transmission Lines - Detailed Design Section 3.2b: Transmission Lines - Construction
SEMP	Scope for Environmental Management Plan EC.14171 – Project EnergyConnect (May 2022)
TSMP	Threatened Species Management Plan V0.2 (May 2022)
S&S	ElectraNet Safety and Sustainability Standards (October 2020)
REFERENCE PLANS AND REPORTS	
EIS	Project EnergyConnect - EIS Volume 1 Chapter 11 – Flora and Fauna (JPS&G)

5 DEFINITIONS

The following terms are used in this document.

CAZ Plans	Construction Activity Zones (CAZ) include all ground disturbing activities, access routes and work areas associated with the project including: <ul style="list-style-type: none"> ▪ New tracks, pads and facilities ▪ Maintenance of existing access tracks including grading, widening or stabilisation ▪ Areas of disturbance associated with demolition works. These designated CAZ will be available as spatial data and/or PDF maps for all workers.
Downer Worker	All individuals working for Downer as: employees, contingent labour hire, contractors, subcontractors, apprentices, trainees, and work experience students.
EMP	Environmental Management Plan for the Project
INX	The Zero Harm database used to record, investigate and follow-up events, including audits, hazards, incidents, inspections, meetings, observations, risk assessments, reviews, and suggestions.
Land Access Permit (LAP)	Permit provided by ElectraNet to Downer to authorise the commencement of work on a property.
OPGW	Optical Ground Wires

6 PROTECTED AREAS AND SPECIES

The Project area is located between Robertstown, South Australia to SA/NSW border. The Western extent of the transmission line corridor, is located on the eastern margin of the Mount Lofty Ranges, it is dominated by a gentle easterly sloping landscape which mainly consists of outwash fans, with some defined creeks and other poorly defined drainage lines. Further to the east, the landform is characterised by an expansive flat to gently undulating plain formed by tertiary sediments of the central-southern Murray Basin and incised by the modern River Murray valley.

6.1 Protected Areas

The Project encompass a number of the conservation parks / reserves that includes contiguous significant habitat for EPBC listed as Endangered Black-Eared Miner, as well as wetlands and riverine communities within proximity to the Murray River.

Through planning and design, the project transmission line has been developed to minimise impact to sensitive areas and where possible is parallel to existing tracks and roads. The table below identifies conservation areas that are within the project area.

Table 1: Conservation areas within the project area

Conservation/Heritage Agreement Area	Details	Protected Area and Species Recorded
Taylorville Station (HA1543)	Majority avoided by transmission line corridor. Project located along southern boundary (approx. 28km).	Multiple records for EPBC listed fauna (Malleefowl, Regent Parrot, Black-Eared Miner, Red-lored Whistler) Includes areas of old growth mallee habitat with a mosaic of fire scar history, which provides habitat for species including Malleefowl A portion of HA1544 is in the Riverland Ramsar Wetland
Calperum Station (HA 1544)	Majority of HA avoided, intersects the alignment for approximately 43 hectares along the southern boundary of Wentworth-Renmark Road	
Cooltong Conservation Reserve	Transmission line corridor occurs along existing track of northern boundary (Cooltong Boundary Track). Project occurs adjacent Cooltong boundary within Calperum Station	Threatened species records (e.g. Malleefowl, Regent Parrot and State listed fauna)
Chowilla Regional Reserve	Proposed alignment is within and adjacent to the southern boundary of this reserve. Generally parallels existing unsealed road – Wentworth Renmark Road	Multiple records for EPBC listed Regent Parrot and Southern Bell Frog. Includes boundary of the Riverland Ramsar Wetland. Records for Malleefowl and state listed flora and fauna
Chowilla Game Reserve	Alignment intersects approximately 5km and 0.8km of this reserve north of Wentworth Road	
Other NPW Act Reserves		
Pooginook CP	Transmission line corridor occurs along northern boundary within Taylorville Station.	Multiple records of National and state listed flora and fauna (Malleefowl, Regent Parrot, Red-lored Whistler records and habitat)
White Dam CP	Linear CP. The majority is avoided by transmission corridor, but is intersected at both ends for approximately 2.5km at each end. Alignment parallels existing 132kV transmission line through the park	Black Oak low open woodland with Bluebush. Records of State Listed fauna
Other Heritage Areas		
HA 448, 1495 and HA 1601	Majority of HA avoided by transmission line corridor. Proposed alignment abuts northern	No records for threatened fauna species, but would provide suitable habitat

	boundaries. Along the existing Hawks nest Station and Overland Corner Boundary Track.	
HA 280, 423	Majority avoided by transmission line corridor, abuts boundary with Calperum Station.	Habitat is contiguous with Calperum Station
HA 476	Connected to Taylorville station, majority avoided by transmission line corridor.	Smaller HA are more likely to contain threatened flora and provide refuge for threatened fauna, given fragmented nature of remnant vegetation in the region
HA1386, HA1337	Majority avoided by transmission line corridor, abuts corridor (west and south of)	
HA1511 (field site 8)	Majority avoided by transmission line corridor, abuts corridor (south of)	

6.2 Vegetation Communities

Approximately 412 hectares of native vegetation will be cleared during construction (based on upper estimates of 135ha permanent and 278 ha temporary disturbance. This represents a very small proportion of native vegetation in the region traversed by the project.

Broadly, the native vegetation of the transmission line corridor is comprised of various densities and compositions of Mallee and Chenopod shrubland, Black Oak (*casuarina pauper*), with a small area of grassland (with emergent saltbush).

The project can be grouped in to 7 of the major Murray Darling Basin South Australia (MDBSA) communities as shown in Figure 6-1 below:

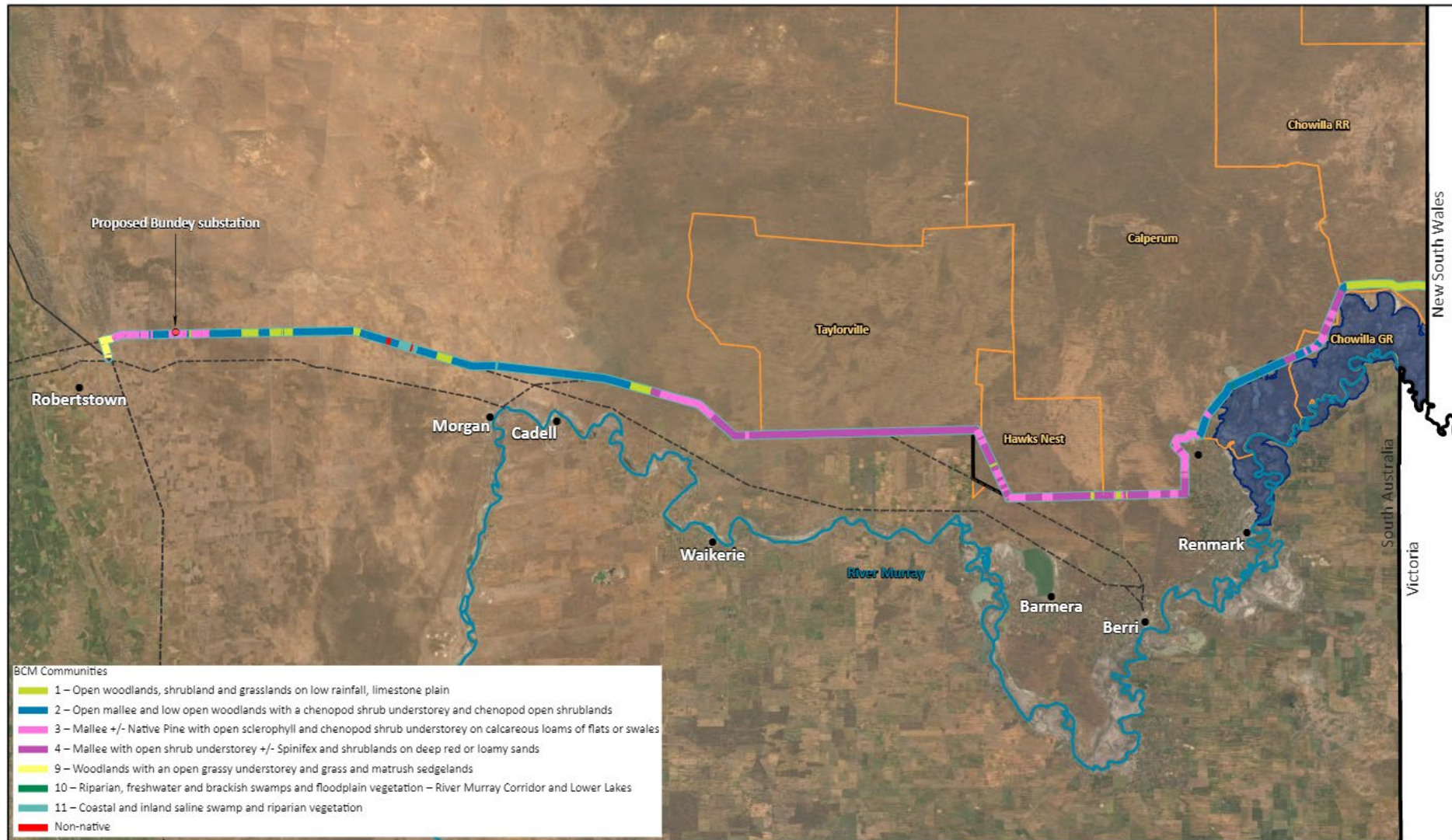


Figure 6-1 Major MDBSA Communities

6.2.1 Threatened Ecological Communities

The project is not expected to impact any listed Threatened Ecological Communities. No threatened ecological communities have been located within the transmission line corridor. Two threatened ecological communities listed under the EPBC Act (Iron Grass (*Lomandra*) National Temperate Grassland of South Australia and Peppermint Box (*Eucalyptus odorata*) Grassy woodland) were to have low potential to occur at the western end of the corridor and have not been detected despite multiple targeted field surveys.

6.3 Threatened Flora Species

There are 3 EPBC listed threatened flora species with potential to occur within the project area, with one known to be present. In addition, there is one species of state listed flora which is possibly present in the corridor.

They consist of:

Threatened Species	Conservation Status		Likelihood
	CTH	SA	
EPBC Listed Threatened Flora			
Peep Hill Hop-bush (<i>Dodonaea subglandulifera</i>)	E	E	Present
Silver Daisy Bush (<i>Olearia pannosa</i> subsp. <i>Pannose</i>)	V	V	Possible
Yellow Swainson-Pea (<i>Swainsona pyrophila</i>)	V	R	Possible
State Listed Flora			
Rohrlach's Bluebush (<i>Maireana rohrlachii</i>)		R	Possible

CTH: *Environment Protection and Biodiversity Conservation Act 1999* SA: *National Parks and Wildlife Act 1972 (SA)*
Conservation codes: E: Endangered. V: Vulnerable. R: Rare CE: Critically Endangered

6.3.1 Peep Hill Hop-bush (*Dodonaea subglandulifera*)

Peep Hill Hop-bush (*Dodonaea subglandulifera*) is an erect, perennial shrub growing 1 to 2 m high. It has short pinnate leaves approximately 1.5 cm long with 9-17 viscous leaflets with raised glands on their lower surface. The plant is dioecious and flowers between February and August. Flowers occur in groups of 2 or 3. Female plants are prominent when in fruit with capsules varying in colour from greenish-yellow to deep maroon on separate bushes.

Listed as endangered under the EPBC Act, records of the species are near, or west of the western end of the proposed transmission line. No direct impact is expected to the species. Clearance of individual plants where they occur will be minimised by ecological micro-siting surveys and preclearance surveys. Low potential for indirect impacts via weed introduction/spread or habitat degradation within the transmission line corridor.



Figure 6-2 Peep Hill Hop-Bush

6.3.2 Silver Daisy-bush (*Olearia pannosa* subsp. *Pannosa*)

Silver Daisy-Bush (*Olearia pannosa* ssp. *pannosa*) is a low spreading shrub less than 1.5 m tall with flowering from August to October. This species grows on hill slopes with hard mottled-yellow and red duplex soils. It occurs in Mallee, woodland and forest vegetation communities, often in association with sugar gum (*Eucalyptus cladocalyx*), drooping she-oak (*Allocasuarina verticillate*) and broombush (*Melaleuca uncinata*).

Listed as Vulnerable under the EPBC Act. Possible to occur within the transmission line corridor however the transmission line corridor is at the eastern margins of the species distribution, hence significant or populations are unlikely along the transmission line corridor. No direct impact to the species is anticipated, and low potential for indirect impact due to weed introduction or spread within the transmission line corridor.



Figure 6-3 Silver Daisy Bush

6.3.3 Yellow Swainson-Pea (*Swainsona pyrophila*)

The Yellow Swainson-pea *Swainsona pyrophila* is an erect, mostly glabrous, short-lived shrub growing to one metre tall. The pinnate leaves have 15–20 obovate to oblong leaflets 5–25 mm long and 4–12 mm wide. Large broadly ovate stipules up to 15 mm long and 10 mm wide are almost leaf-like. The yellow pea flowers (sometimes with reddish-brown suffusions) are about 10 mm long and 12 mm wide and held in erect racemes of 15–20 flowers. Pods are inflated, crescent-shaped to broadly ellipsoid, 20–30 mm long and 10–15 mm wide, with up to 14 small brown seeds to 2 mm long (Harden 1991; Walsh & Entwisle 1996).

Listed as Vulnerable under the EPBC Act, no known populations identified within the corridor, but suitable habitat does occur. No direct impact to the species is expected. Seeds maybe present and impacted by soil disturbance. However the area of disturbance represents a very small proportion of suitable habitat within the region. Impact to individual plants are to be avoided with micro-siting. If present, low potential for indirect impacts via weed introduction or spread within the transmission line corridor.



Figure 6-4 Yellow Swainson-Pea

6.3.4 Rohrlach's Bluebush (*Maireana rohrlachii*)

Perennial spindly shrub to 1 m high with wide spreading branches that are hairy, especially when young. Leaves alternate, roundish in cross-section and succulent, 3-8 mm long, smooth. Flowers are solitary, bisexual. Smooth fruit with a simple wing 12-16 mm in diameter, with a single radial slit and pale radial veins.

Listed as Rare under the South Australia National Parks and Wildlife Act 1972. One record within the transmission line corridor from Whites Dam and also recorded in Cooltong Conservation Park adjacent to the transmission line corridor. No direct impact anticipated. Impacts to individual plants may occur if present, infrastructure is to be micro-sited to minimise impacts. Unlikely for key populations to occur within the transmission line corridor. If present, low potential for indirect impact via weed introduction or spread within transmission line corridor.



Figure 6-5 Rohrlach's Bluebush

6.4 Threatened Fauna Species

There are three listed threatened fauna species known to occur within the project area, specifically:

- Malleefowl (*Leipoa ocellata*)
- Black-eared Miner (*Manorina melanotis*)
- Red-lored Whistler (*Pachycephala refugularis*)

In addition there are another 9 species of threatened species that are likely or possible to occur in the project area as shown in the table below:

EPBC Listed Threatened Fauna	CTH	State	Likelihood
Malleefowl (<i>Leipoa ocellata</i>)	V	V	Present
Black-eared Miner (<i>Manorina melanotis</i>)	E	E	Present
Red-lored Whistler (<i>Pachycephala refugularis</i>)	V	R	Present
Regent Parrot (<i>polytelis anthopeplus monarchoides</i>)	V	V	Likely
Australian Bittern (<i>Botaurus Poiciloptilus</i>)	E	V	Possible
Curlew Sandpiper (<i>Calidris ferruginea</i>)	CE	Not rated	Possible
Painted Honey Eater (<i>Grantiella picta</i>)	V	R	Possible
Painted Snipe (<i>Rosratula australis</i>)	E	V	Possible
Southern Bell Frog / Growling grass frog (<i>Litoria raniformis</i>)	V	V	Possible
South Eastern long eared bat (<i>Nyctophilus corbeni</i>)	V	V	Possible
Flinders Ranges worm-lizard (<i>Apraysia pseudopulchella</i>)	V	Not rated	Possible
Pygmy blue tongue Lizard (<i>Tiliqua adelaidensis</i>)	E	E	Possible

6.4.1 Malleefowl (*Leipoa ocellata*)

Malleefowl (*Leipoa ocellata*) are large ground birds, weighing up to 2.2 kg. Its wings and back are mottled and barred with grey, black, brown and white. The head and neck are grey with a distinctive black stripe down the fore-neck. It has large, strong legs and feet.

Typical Malleefowl habitat includes semi-arid to arid low woodlands, Mallee and shrublands. A sandy substrate with an abundance of leaf litter is required for construction of nest mounds.

Listed as vulnerable under the EPBC Act. The project will result in clearance of approximately 201ha of potentially suitable habitat (i.e mallee) along approximately 100 km of the alignment, this is a very small proportion of available mallee habitat in surrounding area (600,000ha). No malleefowl have been detected to date and no active nesting mounds identified within the transmission line corridor. Ecological surveys prior to vegetation clearance can be used to avoid impacts to active nesting mounds and breeding pairs if present. Long term impacts to an important population are not expected.



Figure 6-6 Malleefowl

6.4.2 Black-eared Miner (*Manorina melanotis*)

The Black-eared Miner is a large honeyeater (23 - 26 centimetres) that is dark grey above, paler below, with a prominent black facial mask and orange-yellow bill and legs. The species is most similar in appearance to the Yellow-throated Miner but can be distinguished readily in the field by its much darker rump, lack of pale terminal band on the tail and a greater contrast between the colour of the feathering on the lower jaw and throat.

Listed as Endangered under the EPBC Act. Present and likely to occur in long unburnt mallee habitats. Listed critical habitat area occurs north of the project and its southern boundary intersects the transmission line corridor. Clearance of vegetation will be small proportion of available habitat (0.04% of listed critical habitat area 60000ha). Disturbance will be localised during construction. Low potential for individuals to be impacted by vehicle collision. Low potential for increase in predators as line follows existing disturbance corridors. Long term impacts to the population and species as a whole are not expected.



Figure 6-7 Black-eared Miner

6.4.3 Red-lored Whistler (*Pachycephala refugularis*)

The Red-lored Whistler is a small (21 cm) grey-brown songbird with a rusty orange face, throat and belly (separated by a grey breast-band), and red eyes. The female is much duller, almost lacking the orange.

Listed as Vulnerable under the EPBC Act, Known to occur within the project area. Prefers long unburnt mallee habitats. Critical habitat is not limited to the transmission line corridor, but occurs 30km north of the transmission line corridor. Clearance of very small proportion of available habitat (200ha clearance of non-core / less suitable mallee habitat compared to 600,000 ha in surrounding areas). Localised disturbance during construction, affecting a very small proportion of available non-critical habitat.



Figure 6-8 Red-lored Whistler

6.4.4 Regent Parrot (*Polytelis anthopeplus monarchoides*)

The Regent Parrot is a slim medium-sized parrot (37 to 42 cm) with a long narrow tail and pointed backswept wings. It is mostly yellow with contrasting blue-black wings and tail, a prominent yellow shoulder patch and red patches in the wings and under the tail. The females plumage is duller and greener than the male. It is often first detected in flight by its distinctive call, described as a harsh rolling 'carrack-carrack'.

Listed as Vulnerable under EPBC Act, present within project due to possible foraging in mallee habitats 20km from nesting areas, less frequently north of the transmission line corridor. Clearance of very small proportion of available mallee foraging habitat (250ha clearance of mallee/woodland habitat compared to 600,000ha). Low potential for individuals to be impacted by collision with transmission line, when flying from southern nesting habitats to northern foraging habitats, particularly juveniles / males.



Figure 6-9 Regent Parrot

7 CONSTRUCTION WORKS

The potential impacts on biodiversity during construction include disturbance and clearing associated with:

- access tracks to each structure
- pads at each structure
- stringing pads and stringing corridor
- camps and laydown areas

Other construction impacts such as vehicle movements and waste. Each of these impacts are discussed in the Sections below.

7.1 Access Tracks

An access track will be required to each structure during construction. Access tracks will be routed around native vegetation, habitat, waterways, cultural heritage sites, landholders and existing infrastructure to minimise or avoid disturbance.

Unapproved access tracks are to be signed as such to ensure that only approved access tracks are used.

Details of the different types of access tracks, and maintenance or construction requirements, are provided in the Sections below.

7.1.1 Existing Access Tracks

Existing access tracks will be utilised for access to the structures, wherever possible.

The existing landholder access tracks range in width and level of maintenance. These tracks may require maintenance or upgrading works including trimming or removal of vegetation up to 5 m wide; grading and/or fixing erosion, wheel ruts and corrugations; addition of stabilisation measures; and maintenance or upgrade of waterway crossings. Landholders are to be advised prior to work being undertaken to existing tracks (including tracks both within and outside of the project easement), notifications are to be provided in accordance with the Landholder Liaison Plan.

Vehicles are to stay on existing worn areas and not cause new disturbances when travelling on existing tracks (including for turnarounds, shortcuts and overtaking), unless agreed with ElectraNet for project/task specific areas.

Where groundcover is identified preventing active erosion, dozing and blading is to be minimised.

Entrances to tracks may be upgraded and widened to allow for safe turning of vehicles, upgrade of road turnouts and potential upgrades are identified in the Traffic Management Plan and dilapidation assessment.

7.1.2 New Easement and Spur Tracks

Tracks from the existing transmission line access track or landholder access track to the new structure location will be required for construction. Tracks will take the most direct route to minimise overall length, taking into account cultural heritage, landholder and environmental constraints. These tracks will be up to 5m wide (including shoulder) and various lengths, depending on the location of each new structure relative to the existing access track. Entrance to access tracks and overtaking bays from existing tracks may be widened /curbed to allow safe turning for vehicles.

In native vegetation areas adjacent to the existing transmission line, tracks will be cleared of vegetation and stabilisation measures, such as gravel, may be added. Access tracks in native vegetation are required for ongoing maintenance and will not be rehabilitated.

In cropping and pasture land, a new easement and/or track may be required from the closest existing track. Minimal works will be undertaken on new easement or tracks to allow vehicle access. These minimal works may include grading off surface rocks or ground unevenness. Spur tracks in pasture or cropping area will be rehabilitated.

Vegetation that is cleared or removed from new easement or spur tracks will be moved to the designated buffer zone. Vegetation removed from new easement and spur tracks in Taylorville Station (STR195-175) will be stored in the Vegetation Storage buffer areas alongside the new access track, this is a nominated 2m buffer alongside the new access track. Cleared vegetation should be placed around existing vegetation and within already cleared areas within the buffer area, where practicable. Vegetation overhanging access tracks and outside of the 2m vegetation storage buffer will be hand trimmed to reduce storage area.

All access tracks will be located on ridge lines and follow the contour of the land to minimise side cutting wherever possible. All tracks will be formed to shed of water off the track surface and incorporate design and stabilisation methods to reduce susceptibility to erosion. Refer to the tracks refer to the Soil and Water sub-plan for more information on sediment and erosion design and controls. Normal design speed for maintenance tracks should be 40km/hr.

7.1.3 Passing Points

Passing points along access tracks will be cleared to allow for safe vehicle travel and passing. The passing points will be created in swale areas (width of 5m and length of 15m unless ElectraNet approved) and be at intervals of 500m. All passing points are to be located in existing cleared areas where ever possible and Call-up procedures using radios shall be used in preference to passing points where cleared areas are not available.

Post construction, passing points are to be rehabilitated in accordance with Section 11.6 Remediation Operations. Passing bays must be rehabilitated within 3 months from completion of stringing works.

Turning circles where required shall be limited to structure pads or within approved access tracks, and are not to be installed on access tracks.

7.1.4 Turnouts

At the locations where access tracks join public roads, an area for vehicles to safely turn into/out of the access track will be required. These turnouts will be up to 20m x 20m and cleared of vegetation and stabilisation measures, such as gravel, may be added. These areas will be left ongoing maintenance access and will not be rehabilitated.

In accordance with Provisional Development Authorisation provided by the Minister for Planning within Government Gazette dated 6 January 2022, Condition 8; *Council, utility or state agency-maintained infrastructure that is demolished, altered, removed, or damaged without lawful authority in the implementation of the major development must be reinstated to Council, utility, or state agency specifications as applicable. All costs associated with these works must be met by the proponent.*

Permits will be obtained for works to public roads such as turnouts, refer to Traffic Management Plan for more information regarding upgrade works to public roads.

7.1.5 Gates and Fences

Location of new gates will be negotiated with Landholders and will be installed where required, specifically where spur tracks are identified to cross an existing fence line. Restoration of fence lines as a result of gate installation will be to as good or better condition.

Gates are to be locked with standard locks provided by ElectraNet, these are to be “daisy chained” if there is existing locks to enable landholder access. Keys to the locks are only to be provided to authorised personnel to access through a gate.

All gates are to be left in the condition found, i.e open/closed & locked/unlocked. If requested by landholder all gates installed in an internal property are to be locked.

Care is to be undertaken when driving in proximity to livestock and fence lines, to reduce risk of livestock straying on roadways from confined pastures due to negligence or damage caused by contractors to gates or fence lines.

7.2 Construction Pads

7.2.1 Brake and Winch Pads (Stringing Pads), Helicopter Pads and Staging Area

Vegetation clearing for Brake and Winch Pads, Helicopter pads and staging areas will only be undertaken when absolutely required and limited to approved dimensions cited in the LAP.

Brake and Winch pads (or Stringing pads) are required to set up machinery and equipment for stringing of the conductor and OPGW. These pads are located along the transmission line based on the stringing methodology. During planning, these pads were located to avoid trees/larger vegetation and steep terrain, where possible.

If required, Brake and Winch pads will be cleared and levelled to set up equipment. Where possible, rolling to flattened vegetation and level small undulations will be implemented, such as in salt bush areas, rather than clearing or complete removal of vegetation. Brake and Winch sites are to be located on access tracks, fire breaks or previously cleared areas where possible.

Where topsoil removal is required for cut/fill, the top 100mm of topsoil is to be stockpiled on the brake and winch pad CAZ in a dedicated stockpile area for future reuse during rehabilitation. Sediment fencing or similar is to be used (if required) to ensure topsoil does not blow or wash away.

Brake and Winch pads are considered temporary clearance and rehabilitation will be completed within 3 months in accordance with this plan.

No helicopter landing pads can be located in Calperum or Taylorville Station.

7.2.2 Structure Pads

Structure Pads are the defined construction working areas. Nominated sizes of the structure pads are as per Appendix B of the SEMP – Environmental Constraints (08/08/2022). Each structure will require a cleared and levelled area to set up machinery and equipment, such as cranes and elevated work platforms (EWP), and to assemble the structures.

Table 2 Structure Pad Sizes as per SEMP Appendix B - Environmental Constraints (08/08/2022)

Clearance areas for structure type		Structure Pad Sizes by Location
Angle/Strain	Maximum - 3025m ²	Wentworth Road and Chowilla Reserve Hawks Nest Taylorville Station to Gluepot Road Gluepot road to Powerline Road Powerline Road to Bunday Substation 275kV Line Bunday to Robertstown
	Reduced - 2025m ²	
	Minimum - 980m ²	Wentworth Road and Chowilla Reserve (CH Areas) Calperum Station Taylorville Station
Suspension	Maximum - 2500m ²	Wentworth Road and Chowilla Reserve Hawks Nest Taylorville Station to Gluepot Road Gluepot Road to Powerline Road Powerline Road to Bunday Substation 275kV Line Bunday to Robertstown
	Reduced - 1600m ²	
	Minimum - 900m ²	Wentworth Road and Chowilla Reserve (CH Areas) Calperum Station Taylorville Station

temporary construction works area on the outside of the permanent clearance area within the Structure Pads will be considered temporary clearance and rehabilitation will be completed 3 months post localised stringing works.

Clearance of topsoil and vegetation shall be kept to a minimum for temporary clearance areas. As outlined in Section 10.4, Vegetation and Topsoil that has been cleared from the pads is to be stockpiled within approved areas either within the structure pad or the nominated vegetation and topsoil stockpile locations shown in Figure 7-1 and Figure 7.2. Management measures are to be installed where required to minimise erosion of stockpiles.

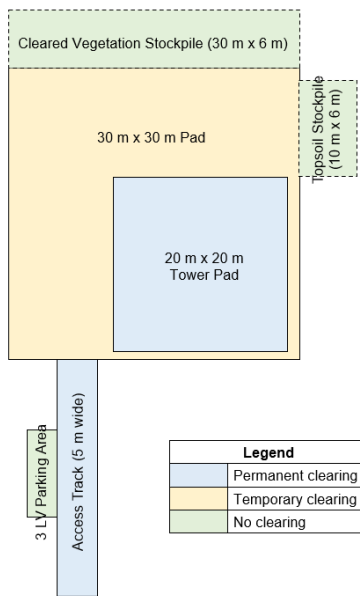


Figure 7-1 Example 30x30 Pad Layout

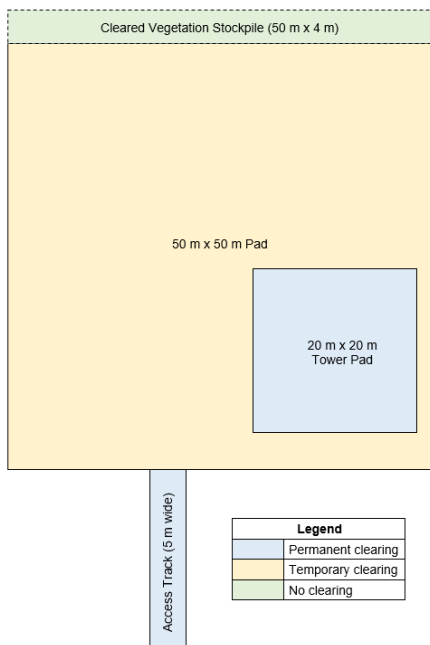


Figure 7-2 Example 50x50 Pad Layout

Spoil generated during construction of foundations may be spread on the permanent clearance areas, such as between the tower footings up to 100mm deep. Spoil is to be contoured away from the centre of the tower to avoid pooling of water. Centre height of the domed spoil should not exceed 250mm.

Concrete blocks are shown in GIS Mapping and as part of the LAP. Downer are to only install concrete blocks approved by ElectraNet.

Concrete Blocks are not to be located in Cultural Heritage Sites. Concrete Blocks are to be located to minimise disturbance to native vegetation such as being located adjacent to access tracks to mitigate the need to driving off nominated access tracks to drop the blocks.

Low impact clearing is to be undertaken to clear vegetation limbs on the boundary of the concrete block such as trimming with a blade or chainsaw.

The concrete block as well as the area between the block and the pad is counted as vegetation clearance in the vegetation clearance register. Signage is to be installed to indicate where areas are foot traffic only to further minimise impact to vegetation.

7.3 Stringing Corridor

The stringing access corridor shall be restricted to a single central track no more than 5m wide or 2 x 3m wide tracks directly under each cross arm (subject to native vegetation clearance approval).

Where an existing easement/access track is not available for towers between Gluepot Road to Powerline Road, one of the two stringing tracks will be used for access. This is to be routed to minimise impacts to Native Vegetation (where possible).

To avoid compaction, movement along the stringing corridor will be limited to stringing vehicles and the initial pass to clear vegetation. No other vehicles are permitted to use the corridor including light vehicles, delivery trucks, concrete trucks or heavy machinery.

Dozing and grading of the corridor will be limited with preference given to rolling or slashing (blades up). Design of stringing corridor has been routed around larger trees and vegetation areas where possible.

Stringing Tracks are to be located around densely vegetated areas and CH Sites, impacts are to be minimised and preferred clearing methodology would consist of rolling. Stringing tracks are to be temporary cleared corridors and are to be remediated following completion of stringing.

Note that in Calperum and Taylorville Station conventional stringing and stringing tracks are not permitted, all stringing in these areas is to be via Helicopter.

7.3.1 Low Impact Stringing/Aerial Stringing

Low impact stringing methods, including stringing by drone, use of hurdles or subject to Regulatory and ElectraNet endorsement, helicopter stringing, will be used specifically in areas of protected vegetation that cannot be cleared such as Taylorville Station and Calperum Station.

Helicopter stringing is recommended to be used for stringing throughout the transmission line to reduce ground disturbing impacts.

7.3.2 Tree Trimming for Electrical Clearance

Whilst the transmission line has been designed considering tree canopy height, there may still be some vegetation clearance infringements with the conductor. Identified trees breaching electrical clearance zones will be managed in accordance with the Electricity (Principles of Vegetation Clearance) Regulations 2021.

It is noted at the time of writing this management plan, the Regulation does not include clearances for 330kV. This section of the Biodiversity and Rehabilitation Management Plan is to be revised once the Electricity (Principles of Vegetation Clearance) Regulation 2021 has been updated to include clearances for 330kV lines, and prior to electrical clearance to ensure updated regulations are incorporated into management practices.

In locations with limited access and safety concerns to trim branches by hand from an EWP then the tree will be felled. The tree stump will be left to encourage reshooting, tree stumps will also be left on the banks of watercourses and terrain that is steep and subject to erosion for soil stabilisation.

Experienced clearing contractors will be engaged for vegetation clearance. Actual extent of tree trimming required in the field, will be identified during site inspections prior to commencement of trimming.

Upon Energisation, vegetation clearance will be achieved in accordance with Electricity (Principles of Vegetation Clearance) Regulations 2021. Opportunity will be provided to ElectraNet prior to energisation to inspect electrical clearance trimming.

7.4 Clearance in sand dunes for access / structure pads

Where sand dunes are required to be disturbed / altered to enable construction of access tracks, spur tracks, structure or brake/winch sites, an environmental risk assessment will be undertaken in consultation with the ElectraNet Environmental Advisor to determine:

1. If the impact can be avoided or minimised by an alternative access arrangement.
2. Design measures to protect against erosion during construction and long term operations
3. Volume of spoil, location to be stored or removed from site
4. Ecology value of the site
5. Rehabilitation requirements

7.4.1 Taylorville Station

The land manager of Taylorville Station has raised concerns regarding long-term damage/erosion and rehabilitation requirements to dune crests. This has been minimised by using and maintaining existing tracks, where possible. A new easement track is required to be constructed within the Taylorville Boundary as the existing easement track deviates from within the property line. This will be constructed and maintained to minimise impact on dune crests.

7.5 Supporting Infrastructure

7.5.1 Laydown Areas

Laydown areas will be used during construction for the laydown of supplies, machinery and equipment along the transmission line. These areas will be located in areas outside of native vegetation, and with good access to major roads and/or established tracks. Laydowns will be located within the easement and outside of native vegetation areas. The dimensions and layout of laydown area is shown on GIS mapping.

Laydowns will be minimised as far as possible and will be limited to approved dimensions cited within the LAP. All Laydown areas will be considered temporary clearance.

Laydown areas have been negotiated with individual landholders. Laydowns have been sited to be located in areas with previous disturbances to reduce potential for native vegetation clearing. All laydown areas are to be rehabilitated within 3 months of the completion of the stringing works.

Vegetation clearing for Laydowns, Stockpiles, Site Offices and Camps shall not be located in Native Vegetation unless otherwise approved by ElectraNet. Trees and larger vegetation are to be trimmed or avoided where possible when constructing laydowns, stockpiles, site offices and camps.

Where topsoil clearance is required, due to hardstand installation or subsoil disturbance, the top 100mm of topsoil/ sand shall be stored as a windrow on the perimeter of the Laydown area or access track for future re-use during rehabilitation.

7.5.2 Camps

A single construction camp, approximately 2 ha, will be required during construction. It will be located in areas not containing Native Vegetation, and with good access to major roads and/or established tracks. Downer will provide drawing showing extent and location of camps/offices for approval.

The camp will be located at North West Bend Laydown area and will be subject to conditions of applicable approvals. Camp area shall be considered temporary clearance and remediation of the area is to be completed within 3 months of the completion of the stringing works.

8 THREATENED SPECIES MANAGEMENT

The following sections detail the mitigation and management measures to be implemented for the protection of threatened species.

8.1 Planning and Design

During design and planning of the transmission line, the locations of threatened flora species and vegetation communities as well as threatened fauna habitat were considered to mitigate impact on these areas from construction works where practicable. This included micro-siting of disturbance areas and careful selection of clearing locations, such as pads and access tracks.

8.1.1 Landholder Special Requirements and Environmental Constraints

Appendix A and Appendix B to the SEMP provided by ElectraNet, provides information regarding Native Vegetation and Fauna management requested from Landholders impacted by the project. Minimum pad sizes have been adopted in locations where requested as reflected in Table 2.

Noted that vegetation cleared in Taylorville and Calperum Station is not to be mulched. No other special landholder requirements for clearing methodologies have been identified. If requested by a landholder, vegetation can be trimmed and stacked for landholders own use.

8.2 Protection of Flora

The transmission line has been designed so that permanent clearance areas (i.e. structures) have been selected and micro-sited to limit to minimise clearance of native vegetation.

Final decision on selected project methodology will be completed in conjunction with ElectraNet to utilise less invasive processes i.e. helicopter / drone stringing in areas of high sensitivity.

Downer shall delineate sensitive flora areas that need protection as No-Go Zones with green bunting and signage (protected area – keep out or similar). The location of these protected areas will be shown as No Go Zones on GIS mapping. GIS Mapping will be accessible offline on provided tablets that each work front will have onsite. GIS Mapping will also indicate Protected Flora Records, approved CAZ areas, watercourses and environmental contextual layers. Protected Flora species identified onsite will be flagged to mitigate potential harm to the plant.

Native Vegetation records are mapped on the GIS Mapping and will be accessible via tablets used onsite. Refer to Section 15 Threatened Flora Fact Sheet.

8.2.1 Micro-Siting Surveys

Prior to construction, suitably qualified ecologists were engaged to undertake micro-siting surveys of CAZ areas, tracks and laydowns to minimise potential impacts on native vegetation, habitat, waterways, cultural heritage sites, landholders and existing infrastructure. Surveys were completed by ALT in April 2022 of structures 356-146, and by Jacobs in May 2022 of structures 145-26A.

Recommendations were provided by the Ecologists if structure pads shall be offset or re-shaped from the standard square to minimise or avoid impacts on native vegetation, habitat, waterways and cultural heritage sites, landholders and existing infrastructure. The suitably qualified ecologist used a combination of spatial data and field inspections to minimise the impact on infrastructure on flora and fauna.

Outcomes from the micro-siting surveys from the ecologists are summarised below, Recommendations provided by the ecologists that were actioned have been reflected on the GIS.

Ecologist	STR	Constraint	Recommendation	Action
ALT	354	Habitat loss	Loss of mature Black Oak, but unavoidable without entire tower repositioning.	No action, tower position not to be altered.
ALT	353	Shift laydown	Put laydown on eastern instead of western side of tower and shift access track to east accordingly. Will reduce clearance of mature Black Oak.	CAZ on Eastern side
ALT	352	Track position	Start of new track should be reconsidered. Should use existing track as spur to tower and then start new track further to west using an existing track.	Will be implemented
ALT	331	Shift laydown	Fenceline and gate at site need moving discuss with ALT. Level site and move laydown to north side of tower to avoid mature Alectryon trees.	Will be implemented, existing track to be utilised.
ALT	324	Shift laydown	Northside of tower old dead Calitris stag (Habitat Tree), while south has young Black Oak. Preferred side is south as Black Oak more common than habitat trees.	Will be implemented
ALT	314	Shift laydown	Put laydown on western instead of eastern side of tower and shift access track to west accordingly. Will reduce clearance of mature mallee.	CAZ on Western side
ALT	309	Track position	Shift track to avoid erosion on steep slope. Use existing old track to east as access.	Will be implemented
ALT	303	Site management option	Consider spreading soil from construction on scald. Discuss with ALT.	Noted, Discussed with ALT and agreed with ElectraNet (22/06/22) that excess spoil from this site can be spread on the Scald.
ALT	160	Threatened species disturbance	Old Malleefowl mounds present 130m from tower site. Check for activity at old Malleefowl mound prior to clearance, if not active, no action required.	Noted, Malleefowl Mounds checked for activity (4/5/22) confirmed inactive with ALT (6/5/22)
Jacobs	18a	Single <i>Dodonaea subglandulifera</i> (Peep-hill Hopbush)	single shrub located adjacent to trans line, flag off and avoid disturbance within 5m radius of shrub	Identified shrub will be flagged off as a No-Go Zone. Nearby cluster of protected plants outside of works area will also be flagged as a no-go zone.
Jacobs	Goyder Laydown	Avoid vegetation	site has been cleared and cropped with very isolated patches of <i>Casuarina pauper</i> (Black Oak) avoid clearance	Laydown will be located in previously cleared areas and Black Oak will not be cleared.

Jacobs	T105	single <i>Eucalyptus oleosa</i> (Red Mallee) tree	old growth mallee tree with hollows retain if possible	If required to be cleared for construction, mallee will be handcleared to retain hollows. Clearance of old growth mallee to be avoided if possible.
Jacobs	Pigfarm Laydown	Landholder request <i>Myoporum platycarpum</i> (Sugarwood) trees retained	flag off and avoid clearance	Sugarwood Trees (false sandlewood) will be flagged onsite, Confirmation is being undertaken with the Landholder on vegetation that will be retained.

8.3 Protection of Fauna

8.3.1 Malleefowl Nests

Under no circumstances can Malleefowl mounds or nests be disturbed or impacted by any type of interference by vehicles or personnel during the works. Buffers will be established around active Mallee fowl nests to mitigate any potential impact on the nests.

Note that no active Malleefowl nests have been detected to date.

8.3.2 Access Management

To minimise potential impacts on native fauna as well as livestock, a 40km/hr speed limit will be imposed on all access tracks and within the transmission line easement:

All gates must be left in the state in which they are found: whether open, closed or locked.

8.3.3 Fauna Handling and Removal

For all animals, including hazardous animals such as snakes within work areas will be typically left to move out of the area without interference.

If animals are identified as injured during works, in accordance with National Parks and Wildlife Service, a sick, injured or orphaned native animal can be taken to either a vet or wildlife carer. Animals that are rescued will not be kept to be cared for. It is acknowledged that permits are not required when the animal is an introduced species or classed as an unprotected native species.

For any native unprotected animal or introduced species that is injured, or found injured, during the works then the local wildlife carer will be contacted as detailed in the Table below.

For any livestock that is injured, or found injured, during the works then the Downer Public Liaison Coordinator will be contacted to communicate with the landholder in regards to the appropriate action as detailed in Table 3 below.

Table 3: Fauna Handling Contacts

Type of animal	Contact Person	Phone Number
Livestock (sheep and cattle)	Downer Public Liaison Coordinator – Jess Hean	0438 898 202
Wildlife Handler/Carer	Fauna Rescue SA Local Contact (Susan George) based in Berri	(08) 8289 0896 (Hotline) 0428 141 584

Species identified onsite during construction that will require relocation will be assessed on a case by case basis. The Environmental Advisor is to be contacted in the event that fauna relocation is identified and clearing works in the immediate area are to cease.

Noted that discussions are currently being undertaken with The Department for Environment and Water and The National Parks and Wildlife Service in regards to appropriate Fauna Handling permits and approvals for potential encountered species throughout the project.

8.3.4 Hollow Trees

Vegetation to be cleared that are likely to have hollow-bearing trees will be surveyed for hollows prior to clearing. Hollow-bearing trees will be clearly marked in the field. Where the removal of a hollow-bearing tree is required, the hollows will be retained on site to provide fauna habitat, or relocated and attached to nearby trees with wire to act as fauna habitat, where practical. Bush rocks and tree barrels will also be retained where they are identified as providing valuable habitat

An ecologist or suitably qualified person, Downer Environmental Advisor, will be present during the removal of any hollow-bearing trees to remove/relocate any fauna displaced as a result.

8.3.5 Black Eared Miner Critical Habitat

Listed Critical Habitat for the Black-Eared Miner is located within Gluepot Reserve, Taylorville Station and Calperum Station. The alignment of the transmission line traverses the southern margin of this area and does not bisect or fragment critical habitat area. It is also acknowledged that majority of the population occurs further north, over 15 to 25km away from the transmission line corridor, all within core habitat of the Listed Critical Habitat area that will be avoided by the project.

A pre-clearance inspection will be undertaken by Downers Environmental Advisor within two weeks of native vegetation clearing to identify the presence of EPBC listed fauna species (Refer to Section 9.3.1).

Standard Fauna Protection protocols will be implemented during clearing such as implementing speed limits, dust suppression, fauna awareness during inductions, and prevention of unauthorised access to tracks are expected to minimise other construction impacts. Low Impact clearing methods will also be used in areas identified to be higher risk of containing protected fauna nesting and breeding sites.

If an active bird nest is identified during clearing, a suitably qualified person in the identification and handling of fauna, either the Downer Environmental Advisor or an ecologist will be engaged, for the relocation of the nest where impacts cannot be avoided.

8.3.6 Bird Diverters

As identified in the EIS, with the implementation of effective mitigation measures, the likelihood of collision with the transmission line is low. Regardless, collision remains a possibility given proximity of transmission line to the wetland habitat. The installation of bird diverters will be implemented within the dark blue sections on the line in proximity to wetland habitats, refer to Figure 8-1.

Other methods of diversion such as fitting devices to cross arms may also be installed to discourage roosting directly over insulators.

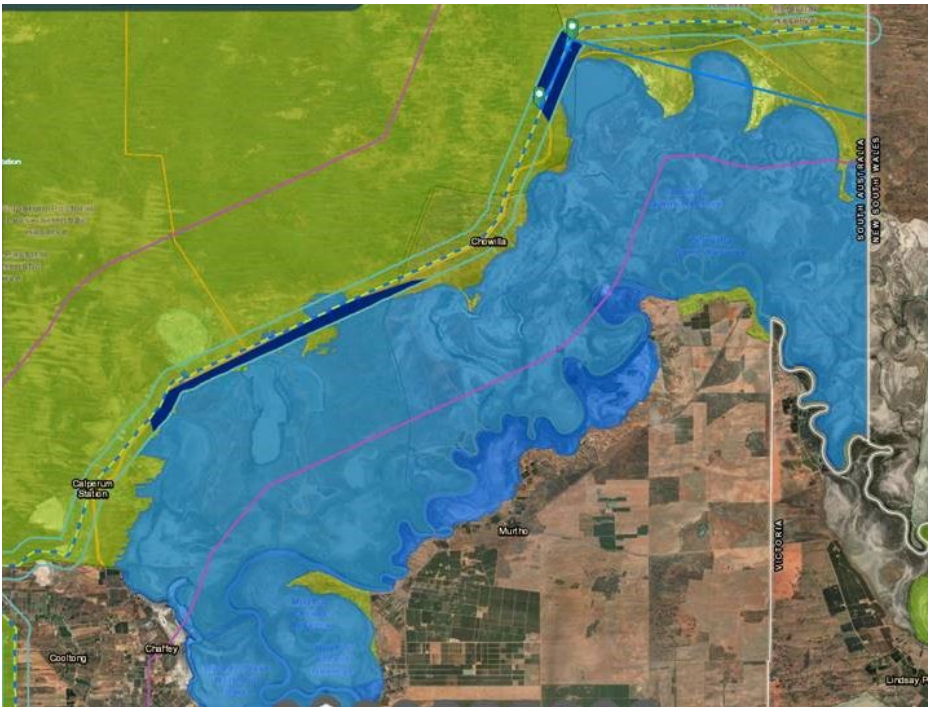


Figure 8-1 Location where Bird Diverters are to be installed (Dark Blue)

9 OTHER CONSTRUCTION IMPACTS

9.1 Weed Management

Throughout the project, weeds will be managed in accordance with the Weed, Pest and Disease Management Sub-plan to minimise potential impacts on biodiversity. This will include, but is not limited to:

- all vehicles and machinery restricted to the designated work areas, access tracks and entry/exit points as shown on CAZ plan and GIS mapping.
- implementation of weed hygiene practices through inspection and clean down of vehicles, machinery and equipment prior to entering the project area.
- minimal area required for the works will be disturbed to prevent the establishment of weeds.
- specific management measures during access and clearing, including:
 - washdown of earthmoving machinery and equipment in accordance with Weed, Pest and Disease Sub Plan
- all fill or other soil based materials imported into the project area to be verified as weed free.
- No Go Zones will be flagged or signed posted for heavy infestations of declared weeds adjacent work areas and along access routes.
- implementation of weed control such as spot spraying of declared weeds within the CAZ.
- progressive rehabilitation of works areas.

Fortnightly formal inspection of weeds on active construction sites, and adjacent areas, will be undertaken through the Environmental Inspection Checklist. Where new declared weed infestations are identified, and potentially result from project activities, ElectraNet will be notified immediately.

9.2 Waste Management

All putrescible waste, including food wrappers and food scraps, will be removed from the work sites daily and stored within lidded or covered bins at the laydown areas or camp sites to prevent attracting animals. Regular disposal of all waste to a licensed waste disposal facility and in accordance with a Waste Management Plan.

All cleared vegetation, with the exception of declared weed species, will be utilised onsite for rehabilitation including assisting with soil stabilisation and revegetation as well as providing fauna habitat.

If declared weeds are cleared/removed then they will be stored separately for disposal at licensed waste disposal facility. A permit from the Department of Primary Industries and Regions will be obtained for the transport of the declared weeds. For further information on declared weeds refer to the Weed, Pest and Disease Management Sub-plan.

Any dead fauna or livestock from the construction activities will be picked up and placed within a suitable container or bag prior to offsite disposal.

9.3 Bushfire Management

Throughout the project, measures will be implemented to mitigate the potential occurrence of a bushfire in accordance with the Bushfire Management Sub-plan to minimise potential impacts on biodiversity. This will include, but is not limited to:

- ElectraNet TAAM Section 13.5.2 (Vehicle requirements for easement access – During bushfire season).
- exhaust protection is required when driving a vehicle within two (2) meters of flammable bush or grass (such protection would consist of appropriate shielding and/or exhaust design intended to prevent very hot metal contacting combustible vegetation).
- all vehicles shall be inspected regularly and any vehicle with defects in manifolds or exhausts shall be prevented from access until repairs are completed.
- vehicles shall be checked at least daily and any grass etc. removed from exhausts, radiators, or other hot areas.
- on fire ban days or days of escalated fire start risk, all operations of vehicles or mobile plant shall be monitored for any outbreak of fire.
- it is recommended that vehicles be parked in cleared areas wherever possible. However, where this is not possible, parked vehicles shall be continually monitored whilst they remain hot.
- Hot works will only occur on Total Fire Ban days under appropriate permit in compliance with regulations. Work restrictions will be in place on days with increased bushfire risk.
- personnel will be informed of daily Fire Danger Rating at daily toolbox meetings. The Fire Danger Rating will form part of the daily task risk assessment
- any incidents of unplanned ignition will be immediately (or as soon as practicable) reported to the CFS and ElectraNet.

9.4 Sediment and Erosion Control

Throughout the project, measures will be implemented to mitigate potential impacts of erosion and sedimentation in accordance with the Erosion, Sedimentation and Drainage Management Sub-plan to minimise potential impacts on biodiversity. Erosion and Sedimentation controls will be installed where required to reduce potential runoff and to preserve topsoil.

9.5 Works During Daylight Hours

Construction activities, including vehicle travel, will occur during daylight hours wherever possible. This mitigates potential disturbance of nocturnal wildlife or roosting raptors.

9.6 Open Excavations

All open excavations will be backfilled or covered prior to leaving each work area and at the end of each work day, where possible. If this is operationally impracticable, a visual inspection will be undertaken of any open excavations to identify fauna prior to recommencing works. Any trapped fauna will be managed in accordance with Section 8.3.3. When not in use Downer will cover drill holes with solid or fine weave material (i.e not open mesh) to prevent fauna ingress.

9.7 Disturbance outside of Construction Activity Zone

All vehicle and machinery parking, laydown areas and stockpiles will be restricted to the designated construction activity zones (CAZ). No clearing, parking, laydown, stockpiles or other disturbance of native vegetation is permitted outside of approved Construction Activity Zones as approved in the Land Access Permit.

10 CLEARING REQUIREMENTS

10.1 Clearing Permitting

Areas designated for clearing, Construction Activity Zones, will be planned and approved by ElectraNet via a Land Disturbance Permit. All clearing of native vegetation, permanent and temporary will be in accordance with project environmental approvals. All clearing will be confined to these approved areas.

The following permits must be issued prior to starting access and clearing works:

- ElectraNet Land Access Permit
- DG-ZH-FM071.3 Land or Vegetation Disturbance Permit
 - A Project Specific Permit, 14171-DOW-HSE-PER-XXXX SAPEC Land or Vegetation Disturbance Permit has been developed specifically for Project EnergyConnect and is to be issued prior to starting access and clearing works.
- DG-ZH-FM043.1 Excavation permit

The areas designated for clearing, and the methodology of clearing to be used, are included within GIS mapping. Mapping will also include protected vegetation and No-Go Zones.

10.2 Types of Clearing

The types of clearing implemented for the Project are described in the Table below.

Table 4 Clearing Types

Clearing Type	Description	Example Locations
No Clearing - Low Density	These areas do not require clearing due to the lack of trees and shrubs. Rolling of Construction activity zones to compact soil and protruding stones.	Pasture or cropped paddocks and No Native Vegetation – Refer to Allocated Clearing Type – Structure Pads
Hand Clearing	Due to environmental or heritage sensitivities in these locations or isolated sections of vegetation that require clearing, clearing in these areas will be undertaken by hand using chainsaws. Vegetation will be left in situ or stored within the nominated vegetation storage buffer area. <ul style="list-style-type: none"> ▪ branches overhanging the Construction Activity Zone, such as the stringing corridor, will be trimmed by hand and left in situ. 	Waterway Crossings Cultural Heritage Areas Overhanging vegetation to CAZ including spurs and access tracks.

	<ul style="list-style-type: none"> ▪ in or around culturally and environmentally sensitive areas ▪ near watercourses ▪ isolated vegetation which does not warrant the mobilisation of machinery ▪ near residences ▪ near utility services ▪ where heavy machinery may be unsuitable for the prevailing soil/weather condition. 	
No Clearing - Low Impact Stringing	Due to environmental sensitivities, there will be no vegetation clearing for stringing tracks within these areas. Alternative stringing methods, using a drone or helicopter will be used in the areas rather than clearing a stringing corridor.	Low Impact Stringing - Chowilla, Calperum Station, Hawks Nest, Taylorville Station (TWR356-146)
Medium Density Clearing	Given that the vegetation is naturally low growing, minimal vegetation clearing is required for access. Low shrubs and grasses will be rolled or flattened using a spreader/levelling bar leaving rootstock and topsoil in situ. Larger trees or shrubs are to be hand cleared using a chainsaw. Cleared vegetation is to be stored within the nominated vegetation storage buffer areas.	Small shrubs, Saltbush pasture, Chenopods understory – Refer to Section 16 Allocated Clearing Type – Structure Pads
Heavy Density Clearing	Given the high density of the vegetation in these areas, an excavator or dozer will be used to remove trees whole, if large root balls are left exposed, these are to be removed. Once cleared of larger vegetation, a posi track and roller will be used to level any remaining vegetation. Cleared vegetation is to be broken/cut down to be stored within the nominated vegetation storage buffer area.	Mallee communities, Black Oak, Dense and larger tree communities. Refer to Section 16 Allocated Clearing Type – Structure Pads

Note: Clearing method for each tower pad will be site assessed for most suitable methodology. Lower Impact clearing is used as a preference. All overhanging limbs of vegetation to the CAZ is to be hand trimmed with a chain or polesaw. Refer to Section 16 for nominated Vegetation clearing methodology for each pad, may be subject to change.

The minimal area operationally practicable to safely undertake the works has been planned and will be cleared of vegetation. The locations of each type of clearing method is shown on GIS mapping. There will be no clearing, or other disturbance of vegetation permitted outside of the designated CAZ.

10.3 Preparation for Clearing

10.3.1 Pre-Condition Surveys

To minimise the impact of location of infrastructure and identify threatened flora onsite within Construction Activity Zones, a qualified ecologist was engaged to undertake Micro-siting surveys. Refer to Section 8.2.1 for micro-siting survey detail and outcomes.

In addition to this, the ecologists completed pre-condition surveys of all native vegetation prior to clearance. This is to determine the vegetation species composition, structure, density, habitat quality and condition for the purpose of comparing rehabilitation outcomes post-construction. Pre-Condition reports have been provided to ElectraNet and were approved in April 2022 (ALT) and June 2022 (Jacobs).

10.3.2 Pre-Clearing Inspection

The Downer Environmental Advisor will undertake a pre-clearing inspection to identify any active bird nests or other important fauna habitat including tree hollows prior to clearing. During the inspection, No-Go Zone flagging and signage will also be checked.

If an active bird nest is identified, an ecologist or suitably qualified person in the identification and handling of fauna, will be engaged for the relocation of the nest where impacts cannot be avoided.

10.3.3 Marking of Clearing Areas

Prior to commencing vegetation clearing, the area or trees approved for clearance will be identified onsite by a surveyor and delineated with pegs or flagging/ribbons. The pegs or flagging/ribbons will remain in place, in good condition and clearly visible, after clearance to ensure a visual reminder of CAZ boundaries.

Any vegetation within or adjoining the CAZ to be retained will be clearly delineated using fencing, flagging and/or signage.

No vegetation clearing can be undertaken until the vegetation to be cleared, as well as vegetation to be retained, has been clearly delineated and checked by the Downer Environmental Advisor or Zero Harm Advisor.

10.4 During Clearing

10.4.1 Topsoil Management and Vegetation Clearing

During access and clearing, the vegetation will be cleared off and stockpiled within the nominated vegetation storage buffer area of the structure pad or access track.

On the structure pads, this vegetation storage buffer is indicated on the GIS as a 6m buffer around the pad as seen in Figure 10-1. A total area of 200m² of the indicated area is allowed for vegetation storage for Maximum Size CAZs. In addition to this vegetation storage area, for Minimum Size CAZs an extra 60m² for the storage of topsoil, totalling 260m² of storage within the buffer area, has been approved by ElectraNet. The location most suitable for storage of the materials will be site assessed, and located in areas that are most clear of existing vegetation and minimise impacts.

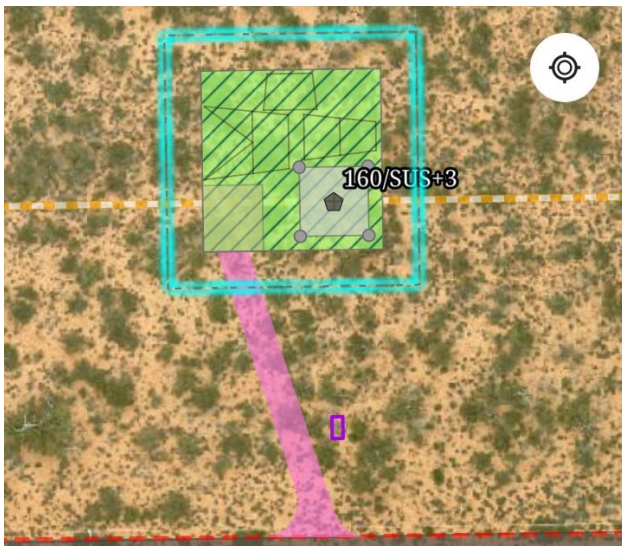


Figure 10-1 Vegetation Storage Buffer indicated on the GIS.

Topsoil stripping is to be carried out within the permanent clearance areas under each structures to an area of 20m x 20m x 100mm. Stripping of topsoil is also to be carried out in locations of subsoil disturbance, such where cut and fill is required and spoil stockpiles will be located. Topsoil stripped from these areas will be

stockpiled and used during rehabilitation of the temporary works areas. Remaining areas of the pad that do not require stripping, topsoil will be left in situ to preserve existing rootstock and seedbank.

Note that, topsoil stripping is not required in Calperum, Taylorville or Chowilla (email correspondence by ElectraNet on 29/08/22).

Further details on topsoil and vegetation stockpile management is provided in Section 11.2.

11 REHABILITATION

Following the completion of construction, disturbed areas not required for ongoing operational access will be remediated to as close as possible to pre-disturbance conditions. This will include progressive rehabilitation of completed areas, where it does not impede the progress or safety of construction. Pre-condition surveys were completed by suitably qualified ecologists in April 2022 and May 2022, and reports included photos of areas prior to construction disturbance (refer to Section 10.3.1).

Disturbed areas will be stabilised and remediated to allow rehabilitation to a state as close as practicable to their original condition. It should be noted that there are various different original conditions associated with different vegetation and habitat types across the transmission line. This includes different types of native vegetation with various compositions and cover as well as pasture and cropping land comprising of exotic plant species.

All disturbed temporary working areas used for construction of the project will be rehabilitated by Downer by restoring topsoil and cleared vegetation. Permanent areas such as the tower pad, access tracks and spurs will be left as permanently disturbed areas that will be accessed for maintenance.

11.1 During Construction

The following will be implemented during construction to assist with effective remediation and rehabilitation:

- limit vegetation clearing and ground disturbance to smallest area practicably required
- no disturbance outside of designated access and work areas
- implement low impact clearing and stringing methods
- avoid contamination of soil, surface water or ground water
- management of topsoil and vegetation as detailed in the next Section.

11.2 Stockpile Management

Stockpiles of topsoil and cleared vegetation, and the available seedbank, will be protected and utilised as a primary means for site remediation of temporary disturbed areas of structure pads. Topsoil stockpiles will be managed during construction to ensure that they are not blown or washed away. This may include spraying with a soil binder, or covering stockpiles with geofabric or similar material in sandy topsoil to prevent wind/water erosion and loss of topsoil.

In the event that topsoil is not adequately managed during construction then firstly the topsoil will be recovered where possible, such as topsoil washed downslope would be scraped back up, or alternatively suitable topsoil will be sourced to compensate for any losses of seed bank/topsoil quality. This may include sourcing topsoil from within the same property in consultation with the landholder or purchasing from an external supplier.

The stripped topsoil and cleared vegetation is to be stored within approved areas for future reuse during rehabilitation. Refer to Section 10.4.1 for approved stockpiling locations.

11.2.1 Declared Weeds

For subsoil disturbance areas where declared weed species are present the following may be implemented to control declared weeds in topsoil or vegetation stockpiles:

- spraying of declared weed species prior to removal of topsoil and vegetation

- separate clearing/physical removal of declared weed species to other vegetation for disposal at a licensed waste disposal facility
- spraying or physical removal of declared weed species within topsoil or vegetation stockpiles prior to respreading during rehabilitation

11.3 Rehabilitation Requirements

The following will be implemented for rehabilitation:

- remediate disturbed areas to blend in with the surrounding landscape or pre-work condition as far as practicable
- remediate disturbed areas to the satisfaction of landholders and stakeholders as far as practicable
- implement sediment and erosion controls to create stable landforms
- implement measures to promote vegetation growth

11.4 Timing

Temporary rehabilitation will occur at an optimal time within 3 months following completion of the use of any area.

Rehabilitation will commence as soon as practicable after the disturbed area is no longer required for construction works as well as ongoing operations or maintenance activities. This will include progressive rehabilitation of completed areas, where it does not impede the progress or safety of construction. Construction must be completed at the site to a stage where vehicle traffic is minimal, allowing the site to restabilise without further disturbance.

Following the completion of remediation these areas will become No-Go Zones and will be flagged to prevent access, excepting that required for monitoring.

11.5 Landholders

Consultation with landholders on rehabilitation requirements will be undertaken prior to access and clearing works, where practicable. General discussions on rehabilitation works will be discussed prior to construction then more specific details will be discussed prior and during rehabilitation works in consultation with ElectraNet.

ElectraNet and Downer will continue to engage with landowners during the rehabilitation process. ElectraNet have secured agreement from some landowners to leave access and spur tracks in place to facilitate ongoing maintenance and inspections of the transmission line infrastructure. Access tracks will be maintained and repaired to the satisfaction of landholders if impacted by the project activities.

Further details on landholder consultation and liaison are discussed in the landholder liaison management sub-plan.

Security of the site is to be maintained throughout and post construction of the project, ElectraNet's all gates key is to be 'daisy chained' to allow for landholder access to be maintained to the easement. Gates are to be left in condition found either open/shut or locked.

11.6 Remediation Operations

The following steps will be typically implemented during remediation of disturbed areas to allow for rehabilitation:

1. Spoil from structure foundations to be spread within permanent clearing areas (i.e. domed between the legs of the tower and compacted).
2. Compacted areas scarified to a depth of 200mm, Note that scarification is not required in sand dune environments unless compaction is apparent.
3. Stockpiled topsoil and vegetation spread back over disturbed areas.

4. Spread with seed where necessary.

The following Table summarises the different disturbance and rehabilitation requirements that may be implemented during and following construction.

Table 5 Disturbance and Rehabilitation Requirements

Infrastructure Type	Rehabilitation required	Clearing Methodology	Rehabilitation Methodology
Existing access tracks	Permanent	Grading, Widening or stabilisation as required. Overhanging Vegetation will be trimmed with polesaw and stored alongside track (refer to Vegetation Storage area (access tracks) below. Where groundcover is identified preventing active erosion, dozing will be minimised.	Permanent and do not require rehabilitation.
New Access tracks	Permanent	Vegetation that is to be cleared or removed from new access tracks is to be pushed to the side of the track. Vegetation removed from new access tracks and spurs is to be stored in nominated 2m Vegetation Storage buffer areas alongside access track. Stored vegetation is to be placed around existing vegetation and within already cleared areas within the buffer area to avoid damage to existing vegetation. Vegetation overhanging access tracks is to be hand trimmed.	Spurs and tracks within cropping and pastureland are to be rehabilitated, and compacted ground scarified as required. Access tracks are permanent and do not require rehabilitation.
Spur tracks	Permanent	Vegetation that is to be cleared or removed from new spur tracks is to be stored in the nominated 200m ² vegetation storage buffer area of the CAZ.	Permanent for maintenance no rehabilitation
Passing bays	Temporary	Rolling of vegetation, locations of passing bays are located to minimise impacts to existing vegetation.	Passing bays to be scarified, and cleared topsoil and cleared vegetation respread where applicable.
Turnouts	Permanent	Turnouts from roads to spurs or access tracks, will be rolled. Earthworks or heavy density vegetation may require dozing or excavations to allow access.	Permanent for maintenance no rehabilitation
Parking areas	Temporary	Allowance for parking has been provided for three light vehicles at 90 degree angle to the spur track at the entrance to the Structure Pad The parking area must not impact on a Cultural Heritage site or New Find and must minimise impact to native vegetation. Clearing is not required for these areas as they are to be located in areas that will minimise impact to native vegetation. Parking areas are only allowed for minimum size CAZs	Parking areas will be left to rehabilitate at the end of construction works. Scarification and respreading of topsoil will be implemented where applicable.

Structure Pad (Temporary Area)	Temporary	Methodology to clear structure pads will be relevant to the vegetation type. Low Impact clearing methods such as rolling vegetation is to be used as a preference for clearing pads to maintain topsoil and rootstock in situ. Where larger and more dense vegetation is identified, dozing or excavating stumps may be required. Refer to clearing types above.	Temporary works area within the Structure Pads will be considered temporary clearance and rehabilitation will be completed 3 months post localised stringing works. Structure Pads will be rehabilitated up to the outside edge of the of the tower footings. Scarification of compacted areas, Respreading of cleared topsoil and cleared vegetation
Tower Pad (Permanent Area)	Permanent	Methodology to clear structure pads will be relevant to the vegetation type. Where larger and more dense vegetation is identified, dozing or excavating stumps may be required.	Between the footings of the tower Permanent area will not be rehabilitated. Spoil generated from foundations holes will be piled and compacted under the tower up to 100mm deep underneath the structure, spoil should be contoured away from the centre of the tower to a maximum height of 250mm. Excess spoil that is unable to be domed under the tower will be removed from site as waste or as per landholders request.
Stringing Pads (Brake and Winch Pads)	Temporary	Low-impact clearing methods implemented where possible to maintain groundcover and leave topsoil in situ. Preference to roll/trim. Where larger and more dense vegetation is identified, excavating/dozing of stumps may be required. Cleared vegetation, and topsoil (if stripped) is to be stockpiled within the stringing pad or nominated vegetation storage buffer area of the CAZ. If levelling is required, rolling shall be used in preference to excavation/clearing. Topsoil is to be stripped if excavation is required for levelling.	Brake and Winch pads must be rehabilitated within 3 months from completion of stringing works in accordance with the approved Rehabilitation Management Plan. Pads are to be scarified, and cleared topsoil and cleared vegetation to be respread.
Conductor Clearance	Temporary	Trimming of vegetation to allow clearance for conductors during stringing. Vegetation is to be hand cut, leaving rootstock, stumps and topsoil in situ. Cleared vegetation will be left in situ.	Clearing for the conductor will be left to rehabilitate at the end of construction works. Following the stringing of the line, there will be no further disturbance or rehabilitation.
Laydowns / Camps	Temporary	Trees and larger vegetation are to be trimmed or avoided where possible when constructing laydowns. Where cut and fill is required, topsoil is to be removed, the top 100mm of topsoil shall be stored as a windrow for reuse during rehabilitation.	All camps and site office sites must be rehabilitated within 3 months from completion of stringing works in accordance with the approved Rehabilitation Management Plan. Hardstand areas will be removed, unless requested by landholder. Impacted areas are to be scarified, and cleared

			topsoil to be respread on disturbed areas.
Concrete Blocks (includes area between block and structure pad)	Temporary	Trimming of vegetation to allow clearance for cable/rope. Vegetation is to be hand cut, leaving rootstock, stumps and topsoil in situ. Cleared vegetation will be left in situ.	Clearing for concrete blocks will be left to rehabilitate at the end of the construction works.
Vegetation Storage Areas (Structure Pads)	Temporary	Vegetation storage is to be located in areas with minimal impact to existing vegetation. Topsoil and Cleared vegetation is to be placed around existing vegetation present within the nominated vegetation storage buffer area. Vegetation storage areas are a total of 200m ² within the nominated vegetation storage buffer area.	Vegetation Storage Buffer areas adjacent to CAZs will be left to rehabilitate, scarification may be required if topsoil compacted. Following rehabilitation of the structure pads, all material stored within this area will have been spread over the CAZ.
Vegetation Storage Areas (Access Tracks)	Permanent	Vegetation cleared from access tracks will be stored in areas that will have minimal impact to existing vegetation within the nominated vegetation storage buffer area, this is a 2m buffer along side access tracks that can be used to store cleared vegetation. Cleared vegetation will be stockpiled where possible.	Cleared vegetation from access tracks will be permanent clearance as the access tracks will not be rehabilitated.
Stringing Tracks	Temporary	Dozing and grading of the corridor will be limited with preference given to rolling or slashing (blades up). Design of stringing corridor is to be routed around larger trees and vegetation areas where possible.	The corridor is temporary clearance and must be rehabilitated within 3months of the localised stringing works

Further details on these steps are provided in the Sections below.

11.6.1 Reuse of Topsoil

Topsoil will be respread as soon as possible in order to maximise its fertility, seed viability and microbial activity. This will be factored into scheduling such that rehabilitation begins as soon as all works are completed on a structure by structure basis. Topsoil will be respread to a depth consistent with the existing immediate surrounding environment.

11.6.2 Landscaping and Scarification

Landscaping will leave the final landform visually compatible with the surrounding landscape, ensure that the land is stable and will not erode, and provide an adequate substrate for revegetation. Cleared cropping/ agricultural land will be levelled to a similar ground profile to surrounding land to ensure ongoing use of agricultural equipment (e.g. harvesters) after construction.

Compacted areas will be ripped or scarified to a depth of 200mm with a ripper on a grader or other similar machinery to break up the soil and provide an improved seedbed for establishment of vegetation. Ripping or scarification is not required in gibber or sand dune environments. The pads will be scarified horizontal to the slope while scarification will be along the direction of the tracks.

11.6.2.1 Access Tracks

Access tracks will not be left with deep wheel ruts, windrows, inadequate water drainage or pooling at the completion of the project. Permanent access tracks will be graded and reshaped as required at completion of the works.

Temporary access tracks to be rehabilitated in accordance with Appendix B of the SEMP

11.6.2.2 Passing Points

Passing points along access tracks will be cleared to allow for safe vehicle travel and passing. The passing points will be no more than 15m in length and 5m in width may be installed. Call up procedures using radios shall be used in preference to passing points where cleared areas are not available. Passing lanes shall be approved via an approved Land Access Permit. The passing points will be remediated in accordance with Appendix B of the SEMP

11.6.3 Sediment and Erosion Controls

Sediment and erosion control measures will be implemented in accordance with the Erosion, sedimentation and drainage management sub-plan. No slopes will be left at an angle greater than 25% (1V:4H) without permanent erosion controls.

11.6.4 Stabilisation

In disturbed areas within pasture, reseeded may be required to stabilise the ground and prevent erosion. Where seeding is required, stockpiled topsoil will be respread over the disturbed area then seed mix added. The seed will be either track-rolled in with machinery or spread onto scarified topsoil. Seed mixes will be selected in consultation with the landholder.

If reseeded is required, either broadcast seeding or hand seeding of specific seed mix will be applied.

11.6.5 Waste and Spoil

Surplus spoil will be generated during the excavation of foundations and excess subsoil may be generated from levelling of construction areas. Where possible, excess spoil or surplus subsoil will be reused on the same land parcel as it originated. Excess spoil may be spread on permanently cleared land as follows:

- Permanent Structure Pads – up to 100mm deep underneath the structure on the permanent pad. Spoil should be contoured away from the centre of the tower to avoid pooling water. Centre height should not exceed 250mm. Contractor should consider the use of geofabric as a way of stabilising the spoil under the tower to avoid the risk of erosion
- Spurs to tower locations – up to 100mm deep
- Local access tracks – depth and frequency to be determined by contractor.

The spoil shall be suitable for the task to be undertaken and must meet the physical characteristics of the waste fill criteria (i.e. consisting of clay, concrete, rock, sand, soil or other inert mineralogical matter in pieces not exceeding 100millimetres in length) and must comply with the Mining Act 1971 and Environmental Protection Act 1993.

Any excess spoil required for the ongoing upgrade of access tracks shall be stored on previously cleared areas and shall be removed once work are complete on that parcel of land. A risk assessment shall be undertaken in consultation with ElectraNet's Environmental Advisor to determine appropriate storage location. Land will be remediated, to the condition it was before the storage of spoil, as soon as possible after the removal of the spoil.

Spoil not to be transferred between different land titles without the consent of each landholder and ElectraNet. If spoil is to be transferred between different land title it must meet the waste fill criteria (as defined in Part 1 of the Environmental Protection Regulations).

Spoil generated during construction must not be spread on temporary clearance areas, including but not limited to:

- structure pad CAZ, other than permanent structure pad
- stringing tracks
- laydown areas
- staging areas

Post Construction all plant, machinery, equipment, and rubbish is to be removed from the site.

11.7 Inspections and Monitoring

Monitoring of rehabilitation works will be undertaken to ensure compliance with the rehabilitation measures outlined in this sub-plan. This will be implemented fortnightly during rehabilitation works using the Environmental Inspection Checklist. A post-construction inspection will be undertaken within four weeks of construction completion to ensure disturbed areas have been returned to a similar condition to that documented in the pre-construction inspection. If the land condition is found to be in an unsatisfactory, further rehabilitation or rectification may be required.

Post-project completion inspections will be implemented to ensure disturbed sites are progressively rehabilitating. Inspections will occur up to 5 years after the project completion. A summary of rehabilitation inspection and monitoring requirements are detailed in the Table below.

Table 6: Rehabilitation inspections and monitoring

Type of Inspection	Timing	Locations	Responsibility	Desired Outcomes
Pre-condition survey	Prior to construction	All disturbance areas	ElectraNet Downer	Suitably qualified ecologists undertook a pre-condition survey of native vegetation. Report provided to ElectraNet for approval. Refer to section 10.3.1.
Rehabilitation works	During rehabilitation	Sites being rehabilitated	Downer	Inspection of implementation of rehabilitation requirements.
Post-construction inspection	Within 4 weeks of construction completion	All disturbance areas	ElectraNet Downer	Record of post-disturbance conditions including implementation of rehabilitation requirements Closure of rehabilitation with landholders 'After' photo to be taken on completion of rehabilitation. Labelled photos are to be submitted to ElectraNet at the conclusion of rehabilitation.
Rehabilitation monitoring	5 years following project completion	Visual inspection of at least 20% of rehabilitated sites	ElectraNet	Sites are stable with no signs of erosion or sedimentation Disturbed areas have rehabilitated to 80% pre-disturbance cover

12 MITIGATION AND MANAGEMENT MEASURES

12.1 Training and Awareness

Downer recognises the importance of employee training and induction, and the critical role it plays in supporting the safe and environmentally responsible conduct of project operations. All personnel must be fully informed of their specific environmental obligations and are suitably trained and competent to undertake works in accordance with ElectraNet and Downer requirements.

The site induction for all staff, sub-contractors and visitors will include protected flora and fauna and management measures.

12.2 Mitigation and Management

The following table outlines the mitigation and management measures that will be implemented as far as practicable throughout the project to prevent potential impacts on biodiversity.

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls
Planning Phase					
	Investigate, in detail, the use of alternative construction methods to minimise the footprint of the infrastructure/long-term impact of the works.	Planning	This sub-plan	Construction Manager	Scouting of all access and disturbance sites has been undertaken prior to the commencement of works. Following gaining an understanding of the access and clearing works required, construction methods have been considered to minimise the area and type of disturbance.
SEMP	Use low-impact clearing methods, such as rolling vegetation, rather than clearing to ensure that root stock, topsoil and seeds are left in situ as far as practicable.	Planning	This sub-plan	Construction Manager	Lower impact clearing methods, such as rolling or slashing vegetation and mega-mulching, rather than dozing/grading will be used for suitable vegetation types.
SEMP	All reasonable steps must be taken to avoid impacts on plant species listed under the <i>National Parks and Wildlife Act 1972</i> or threatened under <i>Environment Protection and Biodiversity Conservation Act 1999</i> , through microsite or careful selection of clearance locations, particularly to elements that can be easily varied such as track location.	Prior to commencing onsite	This sub-plan	Environmental Advisor	During design and planning of the transmission line, the locations of threatened plant species were considered to mitigate impact on these plants from the construction works. This included micro-siting of disturbance areas and careful selection of clearing locations. A qualified ecologist will be engaged to undertake micro siting prior to final designs to minimise impacts on flora and fauna values.
S&S	All vegetation clearance requires approval.	Prior to commencing onsite	This sub-plan	Environmental Advisor	All vegetation clearing will be in accordance with relevant approvals and ElectraNet Land Access Permit (LAP). Approval from ElectraNet, and other relevant authorities, will be sought prior to any alteration or deviation from approved vegetation clearing areas.
S&S	Protect threatened flora and fauna communities from construction impacts.	Prior to commencing works within proximity of protected species	This sub-plan	Construction Manager Environmental Advisor	Threatened flora species will be protected through the following: <ul style="list-style-type: none"> Shown as No Go areas on GIS mapping Delineated with a visible "green" barrier and signing during construction
S&S	All personnel must be fully informed of their specific environmental obligations and are suitably trained and competent to undertake works in accordance with ElectraNet and Downer requirements.	Prior to commencing works onsite	Project Induction	Construction Manager Environmental Advisor	Personnel undertaking the works will be competent for their role and tasks. All personnel are required to undertake the Project Induction which includes flora and fauna awareness prior to commencement onsite.

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls
SEMP	Animal Rescue and Assistance with Injured animals	Prior to commencing onsite		Environmental advisor	Make contact with animal rescue group / veterinarian prior to construction to check they are willing and able to be involved in animal rescue and assist with injured animals. Ensure that contact details for these groups are available to the Construction Manager, displayed in site office and included in CEMP
Execution Phase					
SEMP	Reporting any injury or death of Threatened Species. All Fauna strikes to be logged in IMS	Throughout work	DG-ZH-ST071.2 Flora and Fauna Management	Environment Advisor	Requirement to report any fauna injury or death to be included in the site induction. Environmental Advisor will be responsible for managing and reporting any fauna injury or death
SEMP	Development of fact sheets identifying flora and fauna species for dissemination to staff	Induction . Throughout work	DG-ZH-ST071.2 Flora and Fauna Management	Environment Advisor	Flora and Fauna fact sheets for threatened species will be included in site induction and made available onsite
SEMP	Minimise vehicle movements and machinery disturbance within and around retained vegetation. Restrict vehicle movement to defined tracks.	Ongoing throughout works	DG-ZH-ST071.2 Flora and Fauna Management	Construction Manager	Details of designated site access and disturbance areas within GIS mapping. No vehicle or personnel access outside of designated access. Workzones shall be delineated with a visual barriers, such as a coloured rope and/or signage to prevent construction plant and equipment driving outside the cleared areas in the following areas: <ul style="list-style-type: none"> ▪ Chowilla Reserve ▪ Calperum Station ▪ Hawks Nest ▪ Taylorville Station ▪ Cultural Heritage No-Go Zones ▪ Fauna Sensitive Areas

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls
					Remaining locations will be pegged to indicate structure pad boundaries and access track locations including pull over bays.
SEMP	Avoid leaving excavations and trenches open overnight, backfill/cover to prevent fauna ingress. Undertake visual inspections of excavations prior to work recommencing	Ongoing throughout works	This sub-plan	Construction Manager	All open excavations will be backfilled or covered prior to leaving each work area and at the end of each work day. If this is operationally impracticable, a pre-start inspections will be undertaken of any open excavations to identify fauna and licensed fauna ecologist or wildlife carer contacted for safe release as required.
SEMP	Ensure that personnel do not feed any wildlife that may be encountered on construction sites (especially birds and lizards).	Ongoing throughout works	Project Induction	Environmental Advisor	Personnel will be instructed not to interact, including feed, wildlife during the Project Induction.
SEMP	Maintain contact lists for local/regional fauna rescue organisations at all times.	Ongoing throughout works	Work Pack	Environmental Advisor	A list of local fauna rescue organisations will be available onsite. The relevant authority will be notified in the event of encountering trapped or injured fauna.
SEMP	A licensed fauna ecologist or wildlife carer will be available during removal of native vegetation to undertake fauna checks and fauna relocation.	Throughout clearing works	DG-ZH-ST071.2 Flora and Fauna Management	Environmental Advisor Licensed fauna ecologist or wildlife carer	Prior to native vegetation removal, the Downer Environmental Advisor will inspect vegetation for native fauna. A licensed fauna ecologist or wildlife carer will be engaged to assist with fauna relocation as required. Fauna is only handled by appropriately licenced personnel
SEMP	Topsoil Management	Throughout clearing works		Environmental Advisor	Where subsoil disturbance is required such as cut/fill, the top 100mm of topsoil is to be removed and stockpiled within the nominated vegetation storage buffer area for re-use during rehabilitation. Topsoil is also to be stripped from high-activity zones on the structure pads as outlined in Section 10.4.1. Management measures are to be implemented to minimise erosion of stockpiles.

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls
SEMP	Revegetation of temporary clearance areas	Throughout clearing works	This sub-plan	Construction Manager	All temporary clearance areas will be revegetated as soon as possible following localised construction work. Revegetation is to be completed within 3months of work.
SEMP	Ensure vegetation that has been approved for disturbance/clearance is clearly identified to prevent unauthorised disturbance.	Throughout clearing works	DG-ZH-ST071.2 Flora and Fauna Management	Construction Manager	Approved vegetation disturbance areas will be shown on GIS mapping. Vegetation approved for disturbance will delineated with flagging or paint. Clearance areas will be marked as temporary or permanent disturbance
SEMP	A tracking sheet to be maintained on status of vegetation clearance on the project compared to the approved vegetation clearance limits.	Ongoing throughout works	This sub-plan	Environmental Advisor	A Vegetation Clearance Register will be utilised for recording the type and area of clearing including whether the clearance was temporary or permanent disturbance. The volume of clearance shall be calculated in accordance with the scale of impact outlined in the Guide for calculating a significant Environmental Benefit published by the Department for Environment and Water. <ul style="list-style-type: none"> • Complete removal of a tree – loss factor + 1 • Tree removed back to a stump but able to reshoot – loss factor = 0.8 • Major pruning of the tree with more than 50% of the tree to be removed – loss factor = 0.6; and • Major pruning of the tree with more than 25% of the tree to be removed – loss factor = 0.4; • Minor pruning of the tree with less than 25% of the tree to be removed – loss factor = 0 The clearance register shall record the number of trees removed (complete removal) with a trunk greater than 30cm in diameter when measures 1m above the ground

Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls
SEMP	Prior to undertaking clearing a 'before' photograph of all areas of disturbance will be taken	Prior to commencing works onsite	This sub-plan	Construction Manager	Prior to undertaking works, a pre-construction inspection will be undertaken including a photograph of the area.
SEMP TSMP	In areas of native vegetation, cleared trees with hollows will be left on site for fauna habitat.	Throughout clearing works	DG-ZH-ST071.2 Flora and Fauna Management	Environmental Advisor Ecologist or suitably qualified person	<p>Prior to native vegetation removal, the Downer Environmental Advisor will inspect the area for fauna habitat including tree hollows.</p> <p>Tree with hollows will be left onsite for fauna habitat.</p> <p>An ecologist or suitably qualified person in the identification and handling of fauna will be present during the removal of any hollow-bearing trees to remove/relocate any fauna displaced as a result.</p>
SEMP	Spatial data will be maintained showing the total of disturbance, methodology of disturbance.	Ongoing throughout the works	This sub-plan	Environmental Advisor	<p>Spatial data will be recorded to map the extent and methodology of clearing and disturbance throughout the project.</p> <p>Spatial data will be provided upon request to ElectraNet throughout the project and a final submission at project completion.</p>
SEMP	Spatial data will be maintained showing total rehabilitation footprint, including what method was used for the rehabilitation.	Ongoing throughout the works	This sub-plan	Environmental Advisor	<p>Spatial data will be recorded and map the total rehabilitation footprint and rehabilitation methodology throughout the project.</p> <p>Spatial data will be provided upon request to ElectraNet throughout the project and a final submission at project completion.</p>
SEMP	Any changes in project scope that may require additional vegetation disturbance must be submitted and approved by ElectraNet prior to undertaking any clearing.	Ongoing throughout works	This sub-plan	Environmental Advisor	Any changes in project scope which will require additional clearing will be submitted and approved by ElectraNet prior to undertaking any clearing.
SEMP	All environmental incidents and hazards identified during the project must be recorded, reported and managed effectively.	Ongoing throughout project	INX	Environmental Advisor	A record of all incidents involving fauna injury/death resulting from construction activities will be kept. This includes any injury or death of threatened species and any injury or death of fauna from a vehicle strike.





Ref	Mitigation Strategy	Location / Activity	Downer Procedure	Responsibility	Management Measure & Monitoring of Controls
					<p>All environmental incidents and hazards will be verbally reported to ElectraNet within 1 hour of identification outlining factual information.</p> <p>An investigation report from INX will be provided to ElectraNet within 24 hours.</p> <p>Environmental incidents and hazards will be reported through ElectraNet's online Incident Management System (IMS).</p>
Post-execution Phase					
SEMP	Following clearing an 'after' photograph of all areas of disturbance will be taken.	Following completion of clearing works	This sub-plan	Construction Manager	Following the completion of works, a post-construction inspection will be undertaken including a photograph of the area.

13 MONITORING & INSPECTION




In addition to the requirements outlined in the Environmental Management Plan, the following table outlines the monitoring and reporting to be undertaken during the pre-execution, execution, and post-execution phases of the project relating to biodiversity management.


Monitoring & Reporting Requirements	Responsibility	Source of Requirement
Pre-Execution Phase		
Pre-condition survey	Ecologist engaged by Downer	SEMP
Micrositing Surveys	Ecologist engaged by Downer	SEMP
Execution Phase		
Vegetation Clearance Register implemented to record the type and area of clearing and provided to ElectraNet monthly. Vegetation Clearance Register to include: <ul style="list-style-type: none"> type of ground disturbance (i.e. rolling vs. clearing and grubbing) clearance areas will be measured based on surveyed or GPS data area of rehabilitation for each CAZ. 	Environmental Advisor	SEMP
The following data (m ²) to be provided to ElectraNet within the agreed monthly report template: <ul style="list-style-type: none"> area cleared during the previous reporting period (permanent disturbance) total project area cleared (permanent disturbance) area cleared during the previous reporting period (temporary disturbance) total project area cleared (temporary disturbance). 	Environmental Advisor	SEMP ECS
Fortnightly environmental inspections through Environmental Inspection Checklist	Environmental Advisor	SEMP
Post Execution		
Post Construction Inspection	Environmental Advisor Construction Manager	
Short letter report on completion of tree trimming works which includes; <ul style="list-style-type: none"> Confirmation that the tree trimming has been completed to provide electrical clearance in accordance with the Electricity (Principles of Vegetation Clearance) Regulations 2010 Quantity of vegetation cleared (estimated total HA) for the purposes of Significant Environmental Benefit calculation) Location of vegetation cleared for the purposes of Significant Environmental Benefit Calculation; and Ongoing maintenance recommendations 	Contractor engaged by Downer	SEMP

14 THREATENED FAUNA FACT SHEET

Name	Photo	Description
Black-Eared Miner		<p>The Black-eared Miner is a large honeyeater (23 - 26 centimetres) that is dark grey above, paler below, with a prominent black facial mask and orange-yellow bill and legs. The species is most similar in appearance to the Yellow-throated Miner but can be distinguished readily in the field by its much darker rump, lack of pale terminal band on the tail and a greater contrast between the colour of the feathering on the lower jaw and throat.</p>
Malleefowl		<p>Malleefowl (<i>Leipoa ocellata</i>) are large ground birds, weighing up to 2.2 kg. Their wings and back are mottled and barred with grey, black, brown and white. Their head and neck are grey with a distinctive black stripe down the foreneck. They have large, strong legs and feet.</p> <p>Typical Malleefowl habitat includes semi-arid to arid low woodlands, Mallee and shrublands. A sandy substrate with an abundance of leaf litter is required for construction of nest mounds.</p>
Red Lored Whistler		<p>The Red-lored Whistler is a small (21 cm) grey-brown songbird with a rusty orange face, throat and belly (separated by a grey breast-band), and red eyes. The female is much duller, almost lacking the orange</p>
Regent parrot		<p>The Regent Parrot is a slim medium-sized parrot (37 to 42 cm) with a long narrow tail and pointed backswept wings. It is mostly yellow with contrasting blue-black wings and tail, a prominent yellow shoulder patch and red patches in the wings and under the tail. The females plumage is duller and greener than the male. It is often first detected in flight by its distinctive call, described as a harsh rolling 'carrack-carrack'.</p>

15 THREATENED FLORA FACT SHEET

Name	Photo	Description
<p>Peep Hill Hop-bush (<i>Dodonaea subglandulifera</i>)</p>		<p>Peep Hill Hop-bush (<i>Dodonaea subglandulifera</i>) is an erect, perennial shrub growing 1 to 2 m high. It has short pinnate leaves approximately 1.5 cm long with 9-17 viscous leaflets with raised glands on their lower surface. The plant is dioecious and flowers between February and August. Flowers occur in groups of 2 or 3. Female plants are prominent when in fruit with capsules varying in colour from greenish-yellow to deep maroon on separate bushes.</p>
<p>Silver daisy-bush (<i>Olearia pannosa</i> ssp. <i>pannosa</i>)</p>		<p>Silver daisy-bush (<i>Olearia pannosa</i> ssp. <i>pannosa</i>) is a low spreading shrub less than 1.5 m tall with flowering from August to October.</p> <p>This species grows on hill slopes with hard mottled-yellow and red duplex soils. It occurs in Mallee, woodland and forest vegetation communities, often in association with sugar gum (<i>Eucalyptus cladocalyx</i>), drooping she-oak (<i>Allocasuarina verticillate</i>) and broombush (<i>Melaleuca uncinata</i>).</p>
<p>Yellow Swainson-pea (<i>Swainsona pyrophila</i>)</p>		<p>The Yellow Swainson-pea <i>Swainsona pyrophila</i> is an erect, mostly glabrous, short-lived shrub growing to one metre tall. The pinnate leaves have 15–20 obovate to oblong leaflets 5–25 mm long and 4–12 mm wide. Large broadly ovate stipules up to 15 mm long and 10 mm wide are almost leaf-like. The yellow pea flowers (sometimes with reddish-brown suffusions) are about 10 mm long and 12 mm wide and held in erect racemes of 15–20 flowers. Pods are inflated, crescent-shaped to broadly ellipsoid, 20–30 mm long and 10–15 mm wide, with up to 14 small brown seeds to 2 mm long (description from Harden 1991; Walsh & Entwisle 1996).</p>

<p>Rohrlach's Bluebush (<i>Maireana rohrlachii</i>)</p>		<p>Perennial spindly shrub to 1 m high with wide spreading branches that are hairy, especially when young. Leaves alternate, roundish in cross-section and succulent, 3-8 mm long, smooth. Flowers are solitary, bisexual. Smooth fruit with a simple wing 12-16 mm in diameter, with a single radial slit and pale radial veins</p>
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16 ALLOCATED CLEARING TYPE – STRUCTURE PADS

Structure	Clearing Type	Structure	Clearing Type	Structure	Clearing Type
26A	Low Density	16	Medium Density	58	Low Density
25A	Low Density	17	Low Density	59	Medium Density
24A	Low Density	18	Low Density	60	Medium Density
23A	Low Density	19	Low Density	61	Medium Density
22A	Low Density	20	Low Density	62	Medium Density
21A	Low Density	21	Medium Density	63	Low Density
20A	Low Density	22	Medium Density	64	Low Density
19A	Low Density	23	Low Density	65	Medium Density
18A	Low Density	24	Low Density	66	Medium Density
17A	Low Density	25	Low Density	67	Medium Density
16A	Low Density	26	Low Density	68	Low Density
15A	Low Density	27	Low Density	69	Low Density
14A	Medium Density	28	Low Density	70	Low Density
13A	Heavy Density	29	Low Density	71	Low Density
12A	Low Density	30	Medium Density	72	Low Density
11A	Low Density	31	Medium Density	73	Low Density
10A	Low Density	32	Medium Density	74	Low Density
9A	Low Density	33	Medium Density	75	Low Density
8A	Low Density	34	Medium Density	76	Low Density
7A	Low Density	35	Medium Density	77	Medium Density
6A	Medium Density	36	Low Density	78	Medium Density
5A	Medium Density	37	Medium Density	79	Low Density
4A	Low Density	38	Low Density	80	Low Density
3A	Medium Density	39	Low Density	81	Low Density
2A	Medium Density	40	Low Density	82	Low Density
1A	Low Density	41	Medium Density	83	Low Density
1S	Low Density	42	Medium Density	84	Low Density
1N	Low Density	43	Medium Density	85	Low Density
2	Low Density	44	Low Density	86	Low Density
3	Medium Density	45	Low Density	87	Low Density
4	Low Density	46	Medium Density	88	Low Density
5	Medium Density	47	Medium Density	89	Low Density
6	Medium Density	48	Medium Density	90	Low Density
7	Medium Density	49	Medium Density	91	Low Density
8	Low Density	50	Medium Density	92	Low Density
9	Medium Density	51	Medium Density	93	Low Density
10	Medium Density	52	Medium Density	94	Low Density
11	Medium Density	53	Low Density	95	Low Density
12	Medium Density	54	Medium Density	96	Low Density
13	Medium Density	55	Medium Density	97	Low Density
14	Medium Density	56	Medium Density	98	Low Density
15	Medium Density	57	Medium Density	99	Low Density

Structure	Clearing Type	Structure	Clearing Type	Structure	Clearing Type
100	Low Density	144	Heavy Density	188	Heavy Density
101	Low Density	145	Heavy Density	189	Heavy Density
102	Low Density	146	Heavy Density	190	Heavy Density
103	Low Density	147	Heavy Density	191	Heavy Density
104	Low Density	148	Heavy Density	192	Heavy Density
105	Low Density	149	Heavy Density	193	Heavy Density
106	Low Density	150	Heavy Density	194	Heavy Density
107	Medium Density	151	Heavy Density	195	Heavy Density
108	Heavy Density	152	Heavy Density	196	Heavy Density
109	Low Density	153	Heavy Density	197	Heavy Density
110	Medium Density	154	Heavy Density	198	Heavy Density
111	Low Density	155	Heavy Density	199	Heavy Density
112	Heavy Density	156	Heavy Density	199A	Heavy Density
113	Heavy Density	157	Heavy Density	200	Heavy Density
114	Heavy Density	158	Heavy Density	201	Heavy Density
115	Heavy Density	159	Heavy Density	202	Heavy Density
116	Medium Density	160	Heavy Density	203	Heavy Density
117	Heavy Density	161	Heavy Density	204	Heavy Density
118	Heavy Density	162	Heavy Density	205	Heavy Density
119	Heavy Density	163	Heavy Density	206	Heavy Density
120	Heavy Density	164	Heavy Density	207	Heavy Density
121	Medium Density	165	Heavy Density	208	Heavy Density
122	Heavy Density	166	Heavy Density	209	Heavy Density
123	Medium Density	167	Heavy Density	210	Heavy Density
124	Low Density	168	Heavy Density	211	Heavy Density
125	Low Density	169	Heavy Density	212	Heavy Density
126	Medium Density	170	Heavy Density	213	Heavy Density
127	Medium Density	171	Heavy Density	214	Heavy Density
128	Medium Density	172	Heavy Density	215	Heavy Density
129	Heavy Density	173	Heavy Density	216	Heavy Density
130	Heavy Density	174	Heavy Density	217	Heavy Density
131	Heavy Density	175	Heavy Density	218	Heavy Density
132	Heavy Density	176	Heavy Density	219	Heavy Density
133	Heavy Density	177	Heavy Density	220	Heavy Density
134	Heavy Density	178	Heavy Density	221	Heavy Density
135	Heavy Density	179	Heavy Density	222	Heavy Density
136	Heavy Density	180	Heavy Density	223	Heavy Density
137	Heavy Density	181	Heavy Density	224	Heavy Density
138	Heavy Density	182	Heavy Density	225	Heavy Density
139	Heavy Density	183	Heavy Density	226	Heavy Density
140	Heavy Density	184	Heavy Density	227	Heavy Density
141	Heavy Density	185	Heavy Density	228	Heavy Density
142	Heavy Density	186	Heavy Density	229	Heavy Density
143	Heavy Density	187	Heavy Density	230	Heavy Density

Structure	Clearing Type	Structure	Clearing Type	Structure	Clearing Type
231	Heavy Density	275	Heavy Density	319	Medium Density
232	Heavy Density	276	Heavy Density	320	Heavy Density
233	Heavy Density	277	Heavy Density	321	Heavy Density
234	Heavy Density	278	Heavy Density	322	Heavy Density
235	Heavy Density	279	Heavy Density	323	Heavy Density
236	Heavy Density	280	Heavy Density	324	Heavy Density
237	Heavy Density	281	Medium Density	325	Heavy Density
238	Heavy Density	282	Medium Density	326	Heavy Density
239	Heavy Density	283	Medium Density	327	Heavy Density
240	Heavy Density	284	Medium Density	328	Heavy Density
241	Heavy Density	285	Medium Density	329	Medium Density
242	Heavy Density	286	Heavy Density	330	Medium Density
243	Heavy Density	287	Heavy Density	331	Heavy Density
244	Heavy Density	288	Heavy Density	332	Heavy Density
245	Heavy Density	289	Medium Density	333	Heavy Density
246	Heavy Density	290	Medium Density	334	Low Density
247	Heavy Density	291	Medium Density	335	Low Density
248	Heavy Density	292	Medium Density	336	Low Density
249	Heavy Density	293	Medium Density	337	Heavy Density
250	Heavy Density	294	Medium Density	338	Low Density
251	Heavy Density	295	Medium Density	339	Low Density
252	Heavy Density	296	Medium Density	340	Heavy Density
253	Heavy Density	297	Medium Density	341	Low Density
254	Heavy Density	298	Medium Density	342	Low Density
255	Heavy Density	299	Medium Density	343	Low Density
256	Heavy Density	300	Medium Density	344	Low Density
257	Heavy Density	301	Medium Density	345	Heavy Density
258	Heavy Density	302	Medium Density	346	Heavy Density
259	Heavy Density	303	Medium Density	347	Low Density
260	Heavy Density	304	Medium Density	348	Heavy Density
261	Heavy Density	305	Medium Density	349	Low Density
262	Heavy Density	306	Medium Density	350	Heavy Density
263	Heavy Density	307	Medium Density	351	Heavy Density
264	Heavy Density	308	Medium Density	352	Low Density
265	Heavy Density	309	Medium Density	353	Heavy Density
266	Heavy Density	310	Medium Density	354	Heavy Density
267	Heavy Density	311	Medium Density	355	Heavy Density
268	Heavy Density	312	Heavy Density	356	Heavy Density
269	Heavy Density	313	Heavy Density		
270	Heavy Density	314	Medium Density		
271	Heavy Density	315	Medium Density		
272	Heavy Density	316	Medium Density		
273	Heavy Density	317	Medium Density		
274	Heavy Density	318	Medium Density		

