



Barn Hill Wind Farm – Meteorological Monitoring Masts

Native Vegetation Clearance Data Report

Final

September 2026

Barn Hill Wind Farm – Meteorological Monitoring Masts

Native Vegetation Clearance Data Report under
the *Native Vegetation Regulations 2017*

Final

Prepared by
Umwelt (Australia) Pty Limited



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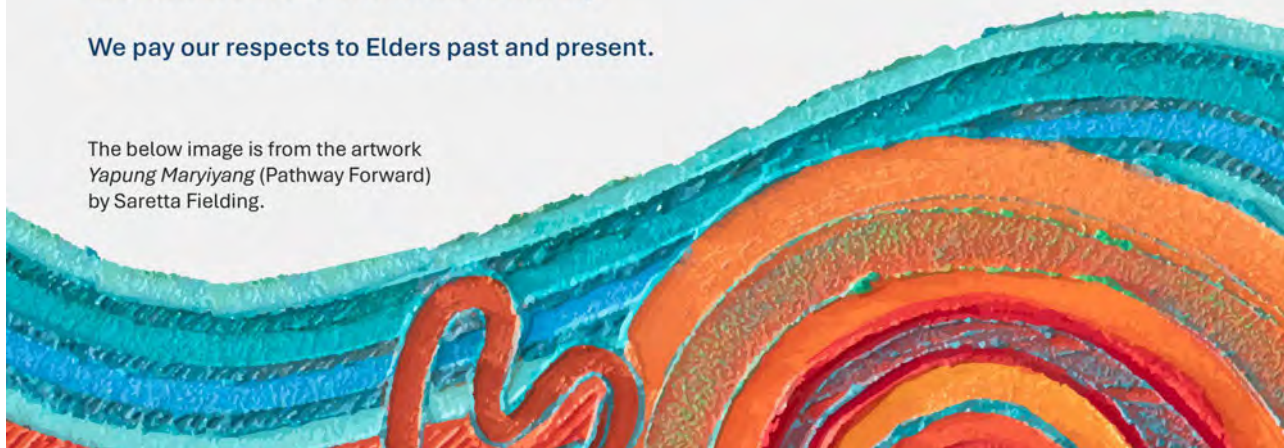
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Acknowledgement of Country

Umwelt acknowledges the Traditional Owners of Country throughout Australia and their continuing values, culture and connection to the land, waters and sky.

We pay our respects to Elders past and present.

The below image is from the artwork *Yapung Maryiyang* (Pathway Forward) by Saretta Fielding.



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Abbreviations

Abbreviation	Description
AGL	AGL Energy Limited
BAM	Bushland Assessment Method
BBUS	Bird and Bat Utilisation Surveys
BDBSA	Biological Database of South Australia (managed by DEW)
BHWF	Barn Hill Wind Farm
CEMP	Construction Environmental Management Plan
Clearance Area	The area to be cleared to facilitate Project works
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEH	Department for Environment and Heritage (now DEW) (South Australia)
DEW	Department for Environment and Water (South Australia)
Declared Weed	A plant that is regulated under the <i>Landscape South Australia Act 2019</i>
EBS	EBS Ecology (now Umwelt)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
FRWL	Flinders Ranges Worm-lizard
HRE Act	<i>Hydrogen and Renewable Energy Act 2023</i> (South Australia)
IBRA	Interim Biogeographical Regionalisation of Australia
LSA Act	<i>Landscape South Australia Act 2019</i> (South Australia)
Met Mast	Meteorological monitoring masts, utilised to measure wind speed, direction, temperature, and pressure at various heights
NatureMaps	An online format for accessing information on SA's natural resources (maintained by DEW)
NPW Act	<i>National Parks and Wildlife Act 1972</i> (South Australia)
NV Act	<i>Native Vegetation Act 1991</i> (South Australia)
NVB	Native Vegetation Branch (NVB)
NVC	Native Vegetation Council (South Australia)
OEH	Office of Environment and Heritage (New South Wales)
PBTL	Pygmy Blue-tongue Lizard
PDI Act	<i>Planning, Development and Infrastructure Act 2016</i> (South Australia)
PMM	Permanent Met Mast(s)
PMST	Protected Matters Search Tool
Project	The development of six meteorological monitoring masts at Barn Hill
Project Area	The area under application for Project works
Proponent	Barn Hill Wind Farm Pty Ltd (a subsidiary of AGL Energy Limited)
SA	South Australia(n)
SASCC	South Australian Seed Conservation Centre
Search Area	5 km buffer of the Project Area considered in the desktop assessment database searches
SEB	Significant Environmental Benefit
sp.	Species (singular)
spp.	Species (plural)
ssp.	Subspecies
TEC	Threatened Ecological Community
TMM	Temporary Met Mast(s)
Umwelt	Umwelt (Australia) Pty Ltd
var.	Variety (a taxonomic rank below that of species and subspecies, but above that of form)
Vestas	Vestas Australia Wind Technology Pty Ltd
WoNS	Weed of National Significance

Contents

Abbreviations	i
1.0 Application Information	1
2.0 Purpose of the Clearance	3
2.1 Description	3
2.1.1 Objectives	3
2.1.2 General Location Map	3
2.2 Background	5
2.2.1 Administrative Boundaries	5
2.2.2 Interim Biogeographic Regionalisation of Australia	5
2.3 Details of the Proposal	5
2.4 Approvals Required or Obtained	6
2.5 Native Vegetation Regulation	7
2.6 Renewable Energy Feasibility Permit Application Information	7
3.0 Methodology	8
3.1 Flora Assessment	8
3.1.1 Bushland Assessment Method	8
3.1.2 Threatened Ecological Communities	8
3.2 Fauna Assessment	9
3.2.1 Protected Matters Search Tool Report	9
3.2.2 Biological Database of South Australia	9
3.2.3 Field Surveys	9
3.2.4 Likelihood of Occurrence Assessment	10
3.3 Limitations	11
3.3.1 Desktop Assessment	11
3.3.2 Spatial Data	11
4.0 Assessment Outcomes	12
4.1 Vegetation Assessment	12
4.1.1 General Description of the Vegetation, the Site and Matters of Significance	12
4.1.2 Details of the Vegetation Associations Proposed to be Impacted	13
4.1.3 Photo Log	18

4.2	Threatened Matters Assessment	19
4.2.1	Threatened Ecological Communities	19
4.2.2	Rare and Threatened Vegetation Communities	19
4.2.3	Threatened Species Assessment	20
4.3	Cumulative Impacts	24
4.4	Addressing the Mitigation Hierarchy	24
4.5	Principles of Clearance (Schedule 1, Native Vegetation Act 1991)	26
4.6	Risk Assessment	28
5.0	Clearance Summary	30
6.0	Significant Environmental Benefit	33
7.0	References	34

Figures

Figure 2.1	The Regional Context of the Project Area	4
Figure 4.1	Records of Threatened Species from within the Search Area (EBS 2024, DEW 2026)	23

Tables

Table 1.1	Applicant Details	1
Table 1.2	Summary of the Proposed Clearance	1
Table 2.1	HRE Act Application Information	7
Table 3.1	Criteria for the Likelihood of Occurrence Assessment	10
Table 4.1	Summary of Vegetation Association A1	14
Table 4.2	Summary of Vegetation Association A2	15
Table 4.3	Summary of Vegetation Association A4	16
Table 4.4	Summary of Vegetation Association B9	17
Table 4.5	Likelihood of Occurrence Assessment for Threatened Ecological Communities	19
Table 4.6	State Rare and Threatened Vegetation Communities Recorded in the Project Area	20
Table 4.7	Threatened Flora Species Considered to have at least a 'Possible' Probability of Occurrence as per the Likelihood Assessment	20

Table 4.8	Threatened Fauna Species Considered to have at least a ‘Possible’ Probability of Occurrence as per the Likelihood Assessment	22
Table 4.9	Assessment Against the Principles of Clearance	26
Table 4.10	Risk Assessment Matrix for NVC Clearance Applications	29
Table 4.11	Summary of the Risk Level Associated with this Clearance Application	29
Table 5.1	Clearance Summary of the Vegetation Associations to be Impacted by the Project (Permanent Clearance)	31
Table 5.2	Clearance Summary of the Vegetation Associations to be Impacted by the Project (Temporary Clearance)	32
Table 5.3	Summary of the Total SEB Obligations for the Clearance	32

Photos

Photo 4.1	An example of the spider burrows that were subject to targeted surveys for PBTs	18
Photo 4.2	Wurmbea latifolia ssp. latifolia (Broad-leaf Nancy) (State threatened) recorded by the field surveys	18
Photo 4.3	Representative conditions for much of the Project Area (i.e., native grasslands, with large quantities of surface rock, that transitions to cropped farmland)	18

Appendices

Appendix A	Native Vegetation Under Application
Appendix B	Likelihood of Occurrence Assessment
Appendix C	Flora Species Recorded by the Field Surveys
Appendix D	Fauna Species Recorded by the Field Surveys

Attachments

Attachment 1	Bushland Assessment Method Scoresheets
Attachment 2	Spatial Data Package
Attachment 3	SEB Offset Investigation Report

1.0 Application Information

The details of the native vegetation clearance applicant are provided in **Table 1.1**, with a summary of the proposed action supplied in **Table 1.2**.

Table 1.1 Applicant Details

Applicant	[REDACTED]		
Key Contact	[REDACTED]		
Landowner	[REDACTED]		
Site Address	Barn Hill in the Barunga Ranges, the Mid-North region of South Australia (SA)		
Local Government Area	Port Pirie Regional Council Wakefield Regional Council	Hundred	Red Hill Barunga
Title ID	CT 5155/783 CT 5363/297 CT5475/186	Parcel ID	H210800 SE547 H210100 SE56 H210800 SE120

Table 1.2 Summary of the Proposed Clearance

Purpose of Clearance	Native vegetation clearance is required for the installation of six meteorological monitoring masts (met masts, three permanent and three temporary) and associated access tracks at Barn Hill, SA.
Native Vegetation Regulation	Regulation 12, Schedule 1, Clause 34 – Infrastructure
Description of the Vegetation under Application	Native vegetation was assigned to four vegetation associations: • A1 - <i>Themeda triandra</i> +/- <i>Lomandra</i> spp. Grassland • A2 - <i>Bursaria spinosa</i> +/- emergent <i>Allocasuarina verticillata</i> over <i>Themeda triandra</i> and <i>Lomandra</i> spp. • A4 - <i>Austrostipa</i> spp. Grassland • B9 - Mixed chenopod shrubland +/- <i>Acacia victoriae</i> ssp.
Total Proposed Clearance – Area (ha) and Number of Trees	The Project would entail the clearance of 14.43 ha of native vegetation. Clearance has been categorised into what will be permanent and what may be subsumed into the proposed Barn Hill Wind Farm (BHWF), and what will be temporary with rehabilitation to occur. Permanent Clearance • A1 - 0.13 ha • A2 - 0.34 ha • A4 - 7.77 ha • B9 - 0.06 ha Temporary Clearance • A2 - 0.35 ha • A4 - 5.78 ha
Level of Clearance	Level 4
Overlay (Planning and Design Code)	Native Vegetation

Map of the Proposed Clearance	See Appendix A
Mitigation Hierarchy	Avoidance The location of the met masts has been determined to provide a dataset that best represents the wind resources available for the proposed Barn Hill Wind Farm (BHWF). The design is therefore limited to what is deemed suitable from a wind engineering perspective. The proponent has, however, endeavoured to concentrate the proposed infrastructure away from the more structurally diverse vegetation associations known to occur in the broader area (EBS Ecology (EBS) 2024). Further, clearance areas are to be clearly demarcated by the proponent to ensure that contractors confine all works within approved zones. Minimisation Where impacts to native vegetation are unavoidable, the design has elected to minimise the clearance of structurally intact, more floristically diverse vegetation (A2) by encompassing additional areas of more degraded vegetation in its place (A1, A4, B9). Access roads, wherever possible, have incorporated existing farm tracks. Although these areas are already disturbed and largely degraded with intermittent vegetation coverage, they have nonetheless been assigned to the surrounding native vegetation associations – excluding in instances, where confirmed, that the existing track incorporates non-native vegetation and/or is already capped with road building material. Rehabilitation or Restoration Clearance areas have been categorised as either ‘permanent’ or ‘temporary’. Permanent clearance areas correspond to the access tracks, the concrete fixtures of the permanent met masts, and the entirety of the temporary met mast footprint under the presumption that, if the BHWF is approved, when the temporary met masts are decommissioned, the area will be subsumed fully into the wind farm footprint. Temporary clearance areas relate to the permanent met mast footprint (minus the permanent concrete fixtures and access tracks) as the infrastructure will be left in situ and therefore the surrounding area will be rehabilitated. Rehabilitation works, to be undertaken in accordance with the proponents Construction Environmental Management Plan (CEMP) within three years of construction, will consist of respreading stockpiled topsoil and ripping compacted areas, and thereafter allowing for natural regeneration. This shall be supported through the management of Declared weeds within these rehabilitation areas. Offset Offsetting will be made by way of payment into the Native Vegetation Fund. Investigations into on-ground offsets were undertaken in 2025, which included field assessments and discussions with landholders and the Native Vegetation Branch. A suitable on-ground offset could not be found (see Attachment 3 SEB Offset Investigation Report, Umwelt 2026).
SEB Offset Proposal	The total Significant Environmental Benefit (SEB) obligations for the clearance of 14.43 ha of native vegetation, with a Total Biodiversity Score of 632.61, will be a payment of \$501,019.79 (including an administration fee of \$26,119.52) into the Native Vegetation Fund. The areas applied for within this application will be omitted from the broader BHWF NVC application (in preparation), to avoid the duplication of clearance areas under application.

2.0 Purpose of the Clearance

2.1 Description

Barn Hill Wind Farm Pty Ltd are proposing to construct six meteorological monitoring masts (met masts) southwest of Red Hill, South Australia (SA, the Project). The data collated by these met masts will inform the wind resources necessary for the feasibility, and eventual operation, of the Barn Hill Wind Farm (BHWF). The final mast locations have been selected to ensure coverage of the full wind regime across the Barn Hill ridgeline system, with each position informed by engineering modelling, landform constraints, and the need to obtain representative, spatially distributed data of the proposed BHWF.

Barn Hill Wind Farm Pty Ltd have engaged Umwelt (Australia) Pty Ltd (Umwelt) to undertake the relevant vegetation assessments within the area under application (the Project Area, see **Figure 2.1**).

2.1.1 Objectives

This assessment, in accordance with the *Native Vegetation Act 1991* (NV Act) and the *Native Vegetation Regulations 2017*, has the following objectives:

- To undertake a desktop assessment for the likelihood of occurrence of conservation-rated ecological communities, flora, and fauna, listed under the Commonwealth's *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and the State's *National Parks and Wildlife Act 1972* (NPW Act).
- To assess native vegetation within the Project Area by applying the NVC-endorsed Bushland Assessment Method (BAM) (NVC 2024a).
- To identify any 'Declared' plants under the *Landscape South Australia Act 2019* (LSA Act) and/or Weeds of National Significance (WoNS) that may be significant in relation to the Projects requirements.
- To calculate the Significant Environmental Benefit (SEB) offset obligations based on the latest design provided by Vestas on 25 June 2026, which included temporary and permanent met mast impact areas and access tracks associated with the met mast application.

2.1.2 General Location Map

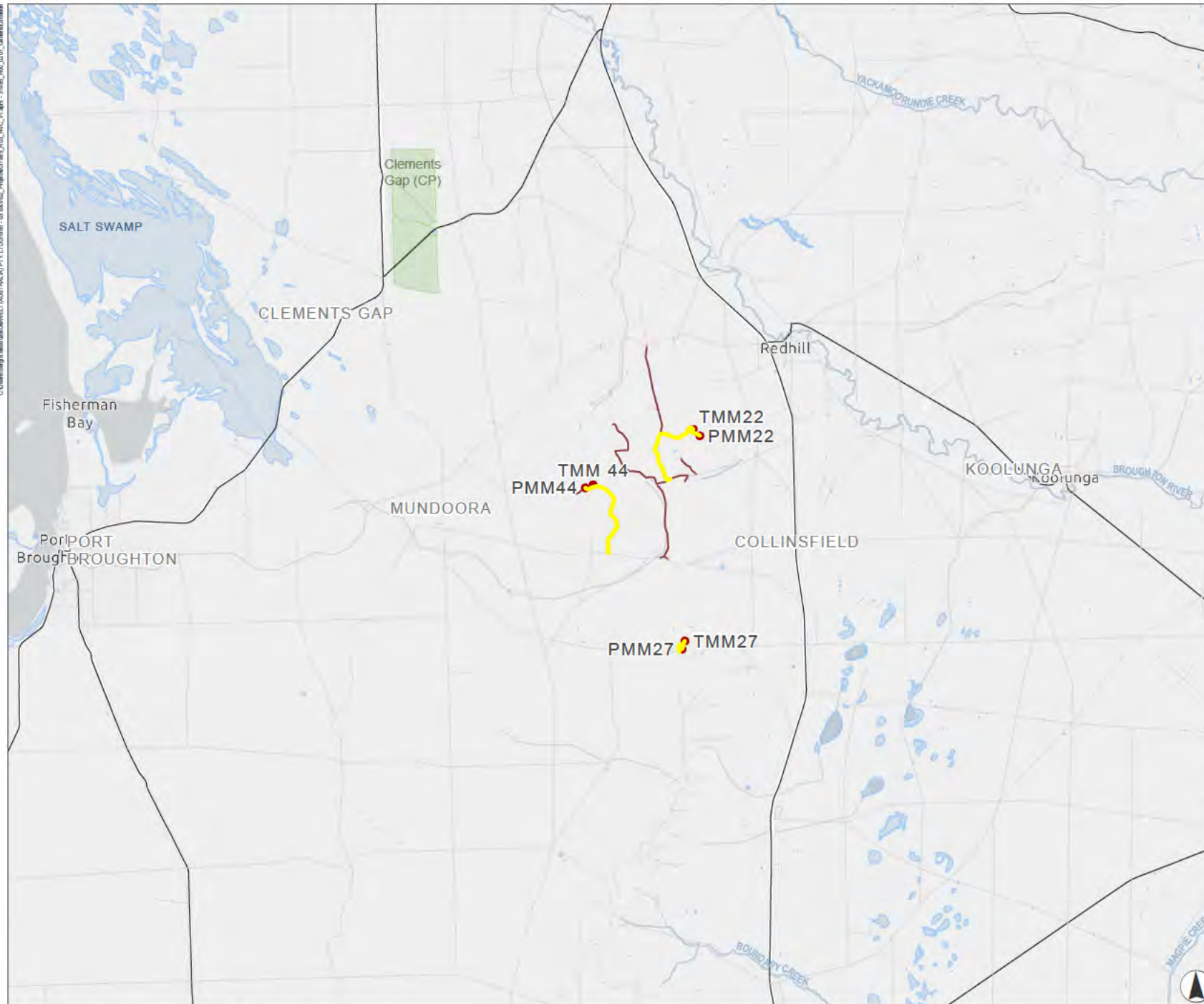
The regional context of the Project Area is provided in **Figure 2.1**.

FIGURE 2.1

The Regional Context of the Project Area

Legend

- Project Area
- Access Tracks
- Main Road
- Local Road
- Local Track
- Watercourse
- Conservation Reserve
- Waterbody



0 5 10
Kilometres

Scale 1:200,000 at A4
GDA2020 MGA Zone 54

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2.2 Background

Two terms are used to describe the location of the Project:

- **Project Area** – the area where Project works are to occur (i.e., the disturbance footprint).
- **Search Area** – a 5 km buffer applied to the Project Area used for the desktop component of this Data Report.

2.2.1 Administrative Boundaries

Works are proposed in the Port Pirie Regional Council and the Wakefield Regional Council, within the Hundreds of Barunga and Redhill, and the Northern and Yorke Landscape Management Region (DEW 2026a). There are no Heritage Agreement areas, conservation estates, or on-ground SEB sites within the Search Area (DEW 2026a).

2.2.2 Interim Biogeographic Regionalisation of Australia

The Interim Biogeographic Regionalisation of Australia (IBRA) was designed to provide a framework for reporting on geographically distinct landscapes. IBRA entities broadly describe areas of similar topography, geology, soil, and vegetation composition.

The Project Area is represented by the Barung association of the St Vincent subregion, represented by the larger Eyre Yorke Block bioregion (DEW 2026a). Approximately 4 % of the Barung association is mapped as containing remnant vegetation, of which none is formally protected (DEW 2026a). As such, native vegetation is largely concentrated on private land along fencelines, disused paddocks, and as isolated scattered trees.

2.3 Details of the Proposal

The Project will entail the construction of six met masts on agricultural land southwest of Redhill, in support of the proposed Barn Hill Wind Farm (BHWF). Three of these met masts are to be temporary and will inform the resource assessment and technical design of the BHWF, while the remaining three are intended to remain in situ and be utilised during its operational phase.

These structures will be constructed out of a three-faced guyed lattice masts with a maximum height of 119 m. The foundation of the mast will consist of a single concrete base with a buried anchor system, with guy wires in support of the structure at three 120-degree angles. At each angle there will be two guy wires fixed to inner and outer anchor footings, each individually secured by a concrete foundation. Each of the concrete foundations (n = seven per met mast) will require 100 m² of ground works (700 m² per met mast) and will support permanent infrastructure.

A circular area surrounding each met mast has been included in the application to provide flexibility for placement of the met mast and positioning of laydown areas and the driving of heavy machinery. Although the full circle will not be cleared for construction of the met masts, as an unknown quantity of soil surface is likely to be disrupted within the met mast radius, precautionarily the full area has been applied for as part of this clearance application.

Several of the met mast areas are on cropping land and several are irregularly shaped as they are constrained by cultural heritage areas or access constraints.

Further, the proponent is intending to develop access roads necessary to facilitate the transportation of equipment by heavy vehicle onto site. These are intended to be permanent and incorporated into the BHWF design (in turn reducing the necessary clearance for that development's advancement). The access tracks are proposed at 8 m width with no specific clearing required for the met mast construction, however they have been included in the met mast clearance application in case of tracked equipment disrupting the soil surface.

All other disturbance required for the Project (i.e., material laydown areas) will be temporary; however, for the purpose of this report, it has been incorporated under the presumption of a 'worst-case' scenario for the maximum possible extent of impacts.

2.4 Approvals Required or Obtained

- **Native Vegetation Act 1991 (NV Act)** – The clearance of native vegetation is necessary to facilitate Project works. This action requires approval under the NV Act, which is the subject of this Data Report.
- **Planning, Development and Infrastructure Act 2016 (PDI Act)** – The BHWF received Development Approval (DA) under the *Planning, Development and Infrastructure Act 2016* (PDI Act). However, the met masts were not part of the DA and the PDI Act will not be the approval pathway for the Project (see below).
- **Hydrogen and Renewable Energy Act 2023 (HRE Act)** – The HRE Act is the relevant approval pathway for all renewable energy projects in SA as of 11 July 2024. As such, a Renewable Energy Feasibility Permit will be required prior to the commencement of operations (see **Section 2.6**).
- **Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)** – The preparation of a Self-assessment or Referral under the Act is not considered necessary for the Project.
- **National Parks and Wildlife Act 1972 (NPW Act)** – The flora and fauna surveys conducted as part of this native vegetation clearance application were undertaken by Umwelt staff under Scientific Research License K25613-28.
- **Wildlife Ethics Approval** – Umwelt have ethics approval to conduct observational searches for fauna across South Australia under How_18/25.
- **Landscapes South Australia Act 2019 (LSA Act)** – All landowners have a responsibility to promote sustainable management of their environment, which includes minimising the occurrence, transportation, and dispersal of weeds. This includes those listed as Declared plants under the LSA Act.
 - Standard procedures, such as those outlined in a Construction Environment Management Plan (CEMP), should be in place to prevent the encroachment of weeds and to mitigate the potential for other indirect environmental impacts.
- **Aboriginal Heritage Act 1988** – Approval will be required if any sites, objects, or remains are uncovered during Project works. A 'Stop Work' procedure must be implemented if any items of this nature are located.

2.5 Native Vegetation Regulation

Clearance is sought under **Regulation 12, Schedule 1, Clause 34 – Infrastructure**, which allows:

1. Clearance of vegetation –
 - a. Incidental to the construction or expansion of a building or infrastructure where the Minister has, by instrument in writing, declared that the Minister is satisfied that the clearance is in the public interest; **or**
 - b. Required in connection with the provision of infrastructure of services to a building or proposed building, or to any place, provided that any development authorisation required by or under the PDI Act has been obtained*.
2. Infrastructure refers to –
 - a. The infrastructure, equipment, structures, works and other facilities used in or in connection with the supply of water or electricity, gas or other forms of energy, the provision of telecommunications, or the drainage, removal or treatment of wastewater or sewage; **or**
 - b. Roads and their supporting structure or work; **or**
 - c. Ports, wharfs, jetties, railways, trams and busway.

* Please note that the PDI Act has been supplanted by the HRE Act for the purposes of advancing renewable energy developments

2.6 Renewable Energy Feasibility Permit Application Information

As the approvals process for renewable energy projects in SA has now shifted to the HRE Act (as of 11 July 2024), the proponent is in the process of applying for a Renewable Energy Feasibility Permit which is required to be obtained prior to commencement of works. Relevant information concerning this application is listed below in **Table 2.1**.

Table 2.1 HRE Act Application Information

Local Government Area	Port Pirie Regional Council Wakefield Regional Council
Hundred	Barunga Redhill
Zone	Rural
Renewable Energy Feasibility Permit	Pending

3.0 Methodology

3.1 Flora Assessment

Flora assessments were initially performed by Accredited Consultants A. Carpenter and J. Skewes, along with Ecologist M. Greer from 5 to 8 September 2023. All surveys were conducted in accordance with the BAM. The flora assessments were performed over a broad area to inform the associated BHWF design. Data from these surveys has been extrapolated and applied to the met mast application.

3.1.1 Bushland Assessment Method

The BAM is derived from the Nature Conservation Society of South Australia's Bushland Condition Monitoring methodology (Croft *et al.* 2007). The BAM is used to access areas of native vegetation requiring clearance to calculate SEB obligations.

Details of site selection/stratification and assessment protocols, and the biodiversity value components assessed and the factors that influence these components are outlined in the *Bushland Assessment Manual* (NVC 2024a). The Conservation Significance Scores were calculated from direct observations of flora and fauna, and historical observations of conservation rated fauna species. Two threatened species identified in the desktop assessment have been excluded from inclusion on the scoresheets on the basis of inappropriate habitat requirements (see **Section 4.2.3.2**):

- Australian Painted Snipe (*Rostratula australis*) - listed as Endangered under the EPBC Act and Endangered under the NPW Act.
- Common Brushtail Possum (*Trichosurus vulpecula*) - listed as Rare under the NPW Act.

Please note that these assessments were conducted as part of the surveys for the separate BHWF application, with the relevant scoresheets adapted based on the proximity to the proposed Project Area (EBS Ecology (EBS), now Umwelt) (2024). These scoresheets remain fit-for-purpose given the similarity in vegetation composition between the dedicated BAM sites and that at the Project Area.

3.1.2 Threatened Ecological Communities

Two TECs were identified in the desktop assessment as potentially occurring: Iron-grass Natural Temperate Grassland of South Australia (INTG) and Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia (PBGW). However, no *Eucalyptus odorata* woodlands were identified in the broadscale vegetation mapping.

Grasslands that contain *Lomandra* spp., which have potential to be considered INTG, were surveyed for in the vegetation surveys in 2023, and followed the criteria as outlined in the EPBC Act Policy Statement 3.7: Iron-grass Natural Temperate Grassland of South Australia (DEWR 2007). INTG condition classes for each patch of *Lomandra* Grassland surveyed were determined by searching for and recording all species found within a 50 m x 50 m (or equivalent 2,500m²) quadrat within a representative area of each patch. All species observed within the quadrats were then categorised (i.e. broad-leaved herbaceous plant, perennial grass / tussock, disturbance resistant species) and

compared against the benchmark criteria for Classes A to C, as outlined in the EPBC Act Policy Statement (DEWR 2007).

Survey conditions for INTG were ideal in 2023.

The *List of Rare and Threatened Vegetation Communities in South Australia's agricultural regions* was reviewed to determine whether any vegetation associations impacted met the criteria for listing as a threatened ecosystem at the State level (NVB 2026).

3.2 Fauna Assessment

A desktop assessment was undertaken to determine the potential for any threatened fauna species, as listed under the EPBC Act and the NPW Act, to occur within the Project Area. Databases utilised to obtain records of threatened species are detailed in the following sections.

3.2.1 Protected Matters Search Tool Report

The PMST report was generated on 9 February 2026 to identify flora, fauna, and ecological communities listed under the EPBC Act as threatened within the Search Area (DCCEEW 2026a). For the purposes of this assessment, only species identified by the PMST as 'Known to occur' were considered for entry into the relevant scoresheets.

3.2.2 Biological Database of South Australia

A BDBSA data extract was obtained from DEW to identify flora and fauna species that have relevant historical records (DEW 2026, Recordset Number: DEWNRBDBSA260216-2).

The BDBSA is comprised of an integrated collection of species records from the South Australian Museum, conservation organisations, private consultancies, Birds SA, Birdlife Australia and the Australasian Wader Study Group, which meet DEW's standards for data quality, integrity and maintenance. Only species with records since 1995 and with a spatial reliability of less than 1 km were assessed for their likelihood of occurrence.

3.2.3 Field Surveys

Opportunistic observations of fauna were recorded throughout the Project Area for the duration of the vegetation assessments. All native and exotic fauna species encountered—directly observed, or from tracks, scats, burrows, nests, or other signs of presence—were documented. Potential fauna refuge sites were noted as an indication of the availability of suitable habitat. For each opportunistic fauna observation, the species, number of individuals, and GPS coordinates were recorded.

3.2.3.1 Bird and Bat Utilisation Surveys

Bird and Bat Utilisation Surveys (BBUS) were undertaken within the proposed BHWF development area four times (one survey per season), commencing in spring 2024 and concluding in winter 2025 (Umwelt 2026).

Nine dedicated bird monitoring sites were established in 2023 as part of ongoing ecological assessments, which sampled a range of habitats across the broader area (EBS 2024). This was

supplemented in spring 2024 by the establishment of two additional monitoring points, bringing the total number of bird sites to 11. All surveys were performed in accordance with the *2-ha 20-minute survey methodology*, with each site visited once in the morning and once in the afternoon per survey season (Birdlife Australia 2026). Overall, 88 surveys amounting to 29.3 hours of dedicated effort was performed by Umwelt staff over the four BBUS (Umwelt 2026).

All birds observed directly or indirectly (i.e., heard) while traversing a dedicated monitoring site were recorded, up to a distance where positive identification could be reasonably obtained.

3.2.3.2 Targeted Fauna Surveys

Targeted surveys, performed between 17 and 19 June 2024, have been conducted by Umwelt for the following threatened species:

- Flinders Ranges Worm-lizard (FRWL) (*Aprasia pseudopulchella*) – listed as Vulnerable under the EPBC Act.
- Pygmy Blue-tongue Lizard (PBTl) (*Tiliqua adelaidensis*) – listed as Endangered under the EPBC Act and Endangered under the NPW Act.

Survey methods for both species have been consistent with the *Survey guidelines for Australia's threatened reptiles: Guidelines for detecting reptiles listed as threatened under the EPBC Act* (Department of Sustainability, Environment, Water, Populations and Communities 2011).

3.2.4 Likelihood of Occurrence Assessment

Threatened species and TECs identified by the PMST and the BDBSA data extract were assessed for their likelihood of occurrence within the Project Area. All species with historical records since 1995 with a spatial reliability of < 1 km, and those that were identified as 'Known to occur' by the PMST, were assessed. As per the criteria provided in **Table 3.1**, the assessment was based on the recency of records, habitat preferences, and the results of the field survey.

The complete list of all species identified by the database searches, including those excluded from assessment, is provided in **Appendix B**.

Table 3.1 Criteria for the Likelihood of Occurrence Assessment

Likelihood	Criteria
Known	The species was recorded within the Project Area by the field surveys.
Highly Likely	Recorded in the last 10 years, the species does not have highly specific niche requirements, the habitat is present and falls within the known range of the species distribution.
Likely	Recorded within the previous 20 years, the area falls within the known distribution of the species and the area provides habitat or feeding resources for the species.
Possible	Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provides limited habitat or feeding resources for the species, or Recorded within 20–40 years, survey effort is considered adequate, habitat and feeding resources present, and species of similar habitat needs have been recorded in the area.
Unlikely	Recorded within the previous 20 years, but the area provides no habitat or feeding resources for the species, including perching, roosting or nesting opportunities, corridor for movement or shelter, or Recorded within 20–40 years; however, suitable habitat does not occur, and species of similar habitat requirements have not been recorded in the area, or No records despite adequate survey effort.

3.3 Limitations

3.3.1 Desktop Assessment

Flora and fauna records were retrieved from the PMST and BDBSA data extracts.

The BDBSA only includes verified flora and fauna records submitted to DEW or partner organisations. It is recognised that information is imperfectly captured, and it is known that significant species (such as Flinders Ranges Worm-Lizard and Broad-leaf Nancy) occur in the Project Area that are currently not reflected by database records, due to a lag time from submission of data to inclusion into the records. Although much of the BDBSA data has been through a variety of validation processes, the lists may contain errors and should be used with caution. DEW gives no warranty that the data is accurate or fit for any particular purpose of the user or any person to whom the user discloses the information.

3.3.2 Spatial Data

All spatial data has been captured or converted to the following coordinate reference system.

Datum: Geocentric Datum of Australia 2020.

Projection: Map Grid of Australia 2020, Zone 54.

Accuracy may be reduced when converted from different coordinate systems.

4.0 Assessment Outcomes

4.1 Vegetation Assessment

4.1.1 General Description of the Vegetation, the Site and Matters of Significance

The Project Area is situated on a steeply undulating range, consisting of steep hills and gullies with a shallow soil layer and large quantities of surface rock in areas that have not been cropped. The site largely encompasses native pasture that supports livestock grazing, with a transition to cropping land devoid of native vegetation cover. Several eroded drainage lines cross through the area under application, and the site receives between 441 and 525 mm of rainfall per annum (DEW 2026a).

Native vegetation, for the purposes of consideration under the NV Act, was assigned to four vegetation associations:

- **A1** – *Themeda triandra* +/- *Lomandra* spp. Grassland.
- **A2** – *Bursaria spinosa* Shrubland +/- emergent *Allocasuarina verticillata* over *Themeda triandra* and *Lomandra* spp.
- **A4** – *Austrostipa* spp. Grassland.
- **B9** – Mixed chenopod shrubland +/- *Acacia victoriae* ssp.

The field surveys encountered 79 flora species, which include 52 native and 27 introduced species (see **Appendix C**). This included three conservation-rated flora species which may occur at the met mast locations (for further discussion see **Section 4.2.3.1**):

- *Cryptandra campanulata* (Long-flower Cryptandra – listed as Rare under the NPW Act.
- *Maireana excavata* (Bottle Fissure-plant) – listed as Vulnerable under the NPW Act.
- *Wurmbea latifolia* ssp. *latifolia* (Broad-leaf Nancy) – listed as Vulnerable under the NPW Act.

Of the introduced species, three are listed as Declared plants under the LSA Act (of which one is also a WoNS) as follows:

- *Echium plantagineum* (Salvation Jane) – Declared.
- *Lycium ferocissimum* (African Boxthorn) – Declared and WoNS.
- *Marrubium vulgare* (Horehound) – Declared.

The field surveys (inclusive of BBUS and targeted surveys) encountered 37 fauna species (**Appendix D**). This included two conservation-rated fauna species (for further discussion see **Section 4.2.3.2**):

- Blue-winged Parrot (*Neophema chrysostoma*) – listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act.
- Flinders Ranges Worm-lizard (*Aprasia pseudopulchella*) – listed as Vulnerable under the EPBC Act.

4.1.2 Details of the Vegetation Associations Proposed to be Impacted

The native vegetation associations under application are described in **Table 4.1** to **Table 4.4**. Mapping of the proposed impacts are available in **Appendix A**, with the relevant BAM scoresheets provided as [Attachment 1](#).

Table 4.1 Summary of Vegetation Association A1

Vegetation Association	A1 – <i>Themeda triandra</i> +/- <i>Lomandra</i> spp. grassland
Benchmark Community	NA 3.2 – Grassland
BAM Site(s)	A1



Coordinates: Easting 237794, Northing 6274984. Photograph Direction: North.

General Description

A1 was identified as a dense grassland dominated by *Themeda triandra* (Kangaroo Grass), with *Lomandra* spp. co-dominant along the margins of the vegetation association. Scattered individuals of *Bursaria spinosa* (Bursaria) were also present. The understorey was relatively sparse, comprising primarily *Vittadinia gracilis* and heavily grazed *Enchylaena tomentosa* (Ruby Saltbush). The association occurs on clay loam to loamy soils across high undulating plains and rocky outcrops. Condition was moderate, with exotic species comprising approximately 30% of the understorey biomass, including *Hypochoeris glabra* (Smooth Catsear), *Sonchus oleraceus* (Common Sow-thistle), *Hordeum vulgare* (Barley Grass), *Salvia verbenaca* (Wild Sage), *Sisymbrium officinale* (Hedge Mustard), *Avena barbata* (Wild Oat), *Moraea setifolia* (One-leaf Cape Tulip), *Carthamus lanatus* (Saffron Thistle), *Arctotheca calendula* (Cape Weed) and *Erodium botrys* (Long-storks-bill).

Overstorey	Midstorey	Understorey
N/A	<i>Bursaria spinosa</i>	<i>Austrostipa scabra</i> <i>Austrostipa</i> sp. <i>Enchylaena tomentosa</i> <i>Lomandra effusa</i> <i>Lomandra multiflora</i> <i>Themeda triandra</i> <i>Vittadinia gracilis</i>

Threatened Species or Community

This vegetation association did not meet the requirements of an EPBC-listed TEC. However, it is considered representative of the state-listed Endangered Threatened Vegetation Community, Kangaroo Grass *Themeda triandra* grassland which is typically found on red-brown loams with or without emergent trees.

The field surveys found two threatened fauna species within the Project Area which may utilise this vegetation association:

- Blue-winged Parrot (*Neophema chrysostoma*) – listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act.
- Flinders Ranges Worm-lizard (*Aprasia pseudopulchella*) – listed as Vulnerable under the EPBC Act.

Landscape Context Score	1.15	Vegetation Condition Score	21.29	Conservation Significance Score	1.40
Unit Biodiversity Score	34.28	Area (ha)	0.13	Total Biodiversity Score	4.46

Table 4.2 Summary of Vegetation Association A2

Vegetation Association	A2 – <i>Bursaria spinosa</i> Shrubland +/- emergent <i>Allocasuarina verticillata</i> over <i>Themeda triandra</i> and <i>Lomandra</i> spp.
Benchmark Community	NA 6 – Inland Tall Shrublands
BAM Site(s)	A2c



Coordinates: Easting 238932, Northing 6282372. Photograph Direction: Northwest.

General Description

A2 was identified as an open shrubland dominated by *Bursaria spinosa* (Bursaria), with emergent *Allocasuarina verticillata* (Drooping Sheoak). The understorey is highly diverse, containing an extensive assemblage of native grasses, forbs, and climbers. The community is in excellent condition, demonstrating substantial regeneration of numerous species, with only minimal exotic incursions largely represented by *Avena barbata* (Wild Oat).

Overstorey	Midstorey	Understorey
<i>Allocasuarina verticillata</i>	<i>Acacia nyssophylla</i> <i>Bursaria spinosa</i> ssp. <i>Cryptandra campanulata</i>	* <i>Avena barbata</i> <i>Austrostipa</i> sp. <i>Lomandra multiflora</i> ssp. <i>Rytidosperma</i> sp. <i>Themeda triandra</i>

* Denotes an introduced species

Threatened Species or Community

This vegetation association did not meet the requirements of an EPBC-listed TEC.

The field surveys encountered two threatened flora species within the association:

- *Cryptandra campanulata* (Long-flower Cryptandra) – listed as Rare under the NPW Act.
- *Wurmbea latifolia* ssp. *latifolia* (Broad-leaf Nancy) – listed as Vulnerable under the NPW Act.

The field surveys found two threatened fauna species within the vegetation association:

- Blue-winged Parrot (*Neophema chrysostoma*) – listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act.
- Flinders Ranges Worm-lizard (*Aprasia pseudopulchella*) – listed as Vulnerable under the EPBC Act.

Landscape Context Score	1.15	Vegetation Condition Score	58.70	Conservation Significance Score	1.18
Unit Biodiversity Score	79.66	Area (ha)	0.69	Total Biodiversity Score	54.96

Table 4.3 Summary of Vegetation Association A4

Vegetation Association	A4 – <i>Austrostipa</i> spp. Grassland
Benchmark Community	NA 3.2 – Grasslands
BAM Site(s)	A4a, A4f



Coordinates: Easting 235494, Northing 6280464. Photograph Direction: Northwest.

General Description

A4 was identified as grassland dominated by *Austrostipa* spp., with emergent *Acacia victoriae* ssp. (Elegant Wattle) and *Allocasuarina verticillata* (Drooping Sheoak) in A4a. The community is in good condition, with only minimal exotic incursions largely represented by *Avena barbata* (Wild Oat).

Overstorey	Midstorey	Understorey
<i>Allocasuarina verticillata</i>	<i>Acacia victoriae</i> ssp.	* <i>Avena barbata</i> <i>Austrostipa</i> sp. <i>Lomandra multiflora</i> ssp. <i>Rytidosperma</i> sp. <i>Themeda triandra</i>

* Denotes an introduced species

Threatened Species or Community

This vegetation association did not meet the requirements of an EPBC-listed TEC. However, it is considered representative of the state-listed Vulnerable Threatened Vegetation Community, Spear Grass *Austrostipa* spp. Grassland, which occurs as temperate grassland on low hills and flats.

The field surveys encountered one threatened flora species within the association:

- *Wurmbea latifolia* ssp. *latifolia* (Broad-leaf Nancy) - listed as Vulnerable under the NPW Act.

The field surveys found two threatened fauna species within the vegetation association:

- Blue-winged Parrot (*Neophema chrysostoma*) – listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act.
- Flinders Ranges Worm-lizard (*Aprasia pseudopulchella*) – listed as Vulnerable under the EPBC Act.

Landscape Context Score	1.15	Vegetation Condition Score	26.92	Conservation Significance Score	1.35
Unit Biodiversity Score	42.25	Area (ha)	13.55	Total Biodiversity Score	572.45

Table 4.4 Summary of Vegetation Association B9

Vegetation Association	B9 – Chenopod shrubland +/- <i>Acacia victoriae</i>
Benchmark Community	NA 6 – Inland Tall Shrublands
BAM Site(s)	B9b



Coordinates: Easting 245343.83, Northing 6281981. Photograph Direction: West.

General Description

B9 was identified as a chenopod shrubland occurring along linear roadside corridors on clay loam soils. The association was characterised by a midstorey dominated by chenopod species, with planted *Eucalyptus* spp. forming an overstorey within sub-association B9b. The community was subject to varying levels of disturbance, with the presence of exotic species throughout the association. Declared pest plants *Lycium ferocissimum* (African Boxthorn) and *Marrubium vulgare* (Horehound) were recorded, in addition to *Arctotheca calendula* (Cape Weed), *Avena barbata* (Wild Oat), *Bromus diandrus* (Great Brome), *Medicago polymorpha* (Burr Medic), *Salvia verbenaca* (Wild Sage), and *Sonchus oleraceus* (Common Sow-thistle).

Overstorey	Midstorey	Understorey
<i>Acacia victoriae</i>	<i>Duma florulenta</i> <i>Enchylaena tomentosa</i> <i>Maireana aphylla</i> <i>Maireana brevifolia</i>	<i>Atriplex semibaccata</i> <i>Austrostipa</i> sp. <i>Chloris truncata</i>

Threatened Species or Community

This vegetation association did not meet the requirements of a TEC.

The field surveys found one threatened fauna species within the Project Area which may utilise this vegetation association:

- Blue-winged Parrot (*Neophema chrysostoma*) – listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act.

Landscape Context Score	1.14	Vegetation Condition Score	9.90	Conservation Significance Score	1.10
Unit Biodiversity Score	12.41	Area (ha)	0.06	Total Biodiversity Score	0.74

4.1.3 Photo Log

Features associated with the Project Area are presented below, in **Photo 4.1** through **Photo 4.3**.



Photo 4.1 An example of the spider burrows that were subject to targeted surveys for PBTs



Photo 4.2 *Wurmbea latifolia* ssp. *latifolia* (Broad-leaf Nancy) (State threatened) recorded by the field surveys



Photo 4.3 Representative conditions for much of the Project Area (i.e., native grasslands, with large quantities of surface rock, that transitions to cropland farmland)

4.2 Threatened Matters Assessment

4.2.1 Threatened Ecological Communities

The PMST report identified two EPBC-listed TECs that had the potential to occur within the Search Area (DCCEE 2026a):

- Iron-grass Natural Temperate Grassland of South Australia.
- Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia.

The criteria for these TECs were assessed against the results of the field survey. Of these, Iron-grass Natural Temperate Grassland of South Australia occurs within the broader BHWF areas but does not occur within the proposed impact areas (see **Table 4.5**).

Table 4.5 Likelihood of Occurrence Assessment for Threatened Ecological Communities

Threatened Ecological Community	Conservation Status	Definition	Assessment
Iron-grass Natural Temperate Grassland of South Australia	Critically Endangered	Consists of grasslands of tussock-forming perennial Iron-grasses (<i>Lomandra effusa</i> and/or <i>L. multiflora</i> ssp. <i>dura</i>) with a low presence (< 10 %) of trees and tall shrubs (Department of the Environment and Water Resources 2007).	Unlikely – The diagnostic species, <i>Lomandra effusa</i> and <i>L. multiflora</i> ssp. <i>dura</i> , were recorded within the Project Area. However, these failed to attain the necessary dominance within their communities (10 to 70 % coverage) to satisfy the criteria for listing as part of the TEC. This TEC is known to occur in the broader BHWF area.
Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia	Critically Endangered	Consists of open to dense woodlands dominated by <i>Eucalyptus odorata</i> , often in association with <i>E. leucoxylon</i> , <i>E. microcarpa</i> , and <i>E. porosa</i> . Categorised into condition classes A, B, and C – based on the remnant patch size and native species diversity (Department of the Environment and Water Resources 2007).	Unlikely – The Project Area lacked the diagnostic species, <i>Eucalyptus odorata</i> .

4.2.2 Rare and Threatened Vegetation Communities

Two state-listed Rare and Threatened Vegetation Communities were recorded in the Project Area (NVB 2026):

- Spear Grass *Austrostipa* spp. – Wallaby Grass *Rytidosperma* spp. – Brush Wiregrass *Aristida behriana* grassland.
- Kangaroo Grass *Themeda triandra* grassland.

Further information regarding these communities in detailed in **Table 4.6**.

Table 4.6 State Rare and Threatened Vegetation Communities Recorded in the Project Area

Threatened Ecological Community	Conservation Status	Definition	Assessment
Spear Grass <i>Austrostipa</i> spp. – Wallaby Grass <i>Rytidosperma</i> spp. – Brush Wiregrass <i>Aristida behriana</i> grassland	Vulnerable	Occurs as temperate grassland on low hills and flats. Formerly widespread in Mid North, Adelaide Plains with limited occurrence on Eyre Peninsula and Mount Lofty Ranges. Mostly degraded by grazing, clearance and weeds (NVB 2026).	Known – A4
Kangaroo Grass <i>Themeda triandra</i> grassland	Endangered	According to early accounts it was widespread on red-brown loams with or without emergent trees (e.g., Red Gums) on Adelaide Plains, Mount Lofty Ranges, southern Eyre Peninsula, Mid North and Southeast. Very little now remains (NVB 2026).	Known – A1

4.2.3 Threatened Species Assessment

4.2.3.1 Threatened Flora

No EPBC Act-listed flora species were identified by the PMST as ‘Known to occur’ (DCCEEW 2026a).

One conservation rated flora species has historical records from within the Search Area (DEW 2026b):

- *Wurmbea latifolia* ssp. *latifolia* (Broad-leaf Nancy) – listed as Vulnerable under the NPW Act.

This species was encountered by Umwelt over a broad area, along with two other species not identified by the desktop assessment but recorded within a relevant BAM site:

- *Cryptandra campanulata* (Long-flower Cryptandra) – listed as Rare under the NPW Act.
- *Maireana excavata* (Bottle Fissure-plant) – listed as Vulnerable under the NPW Act.

Although not observed at the BAM sites incorporated within this Data Report, as part of the broader surveys within the proposed BHWF, the following threatened species were also recorded (also without prior records from within the Search Area) (EBS 2024):

- *Eucalyptus fasciculosa* (Pink Gum) – listed as Rare under the NPW Act.
- *Maireana rohrlachii* (Rohrlach’s Bluebush) – listed as Rare under the NPW Act.

A summary of all threatened flora species assessed as being at least ‘possible’ to occur is provided in **Table 4.7**. Mapping of all threatened species with historical records from within the Search Area is presented in **Figure 4.1**. The full likelihood of occurrence assessment for all species identified by the desktop assessment is available in **Appendix B**.

Table 4.7 Threatened Flora Species Considered to have at least a ‘Possible’ Probability of Occurrence as per the Likelihood Assessment

Scientific Name	Common Name	Conservation Status		Source	PMST / Year of Last Sighting	Umwelt Likelihood of Occurrence Assessment
		EPBC Act	NPW Act			
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R	3	2024	Known
<i>Eucalyptus fasciculosa</i>	Pink Gum	-	R	3	2024	Possible
<i>Maireana excavata</i>	Bottle Fissure-plant	-	V	3	2024	Known

Scientific Name	Common Name	Conservation Status		Source	PMST / Year of Last Sighting	Umwelt Likelihood of Occurrence Assessment
		EPBC Act	NPW Act			
<i>Maireana rohrlachii</i>	Rohrlach's Blue-bush	-	R	3	2024	Highly Likely
<i>Wurmbea latifolia</i> ssp. <i>latifolia</i>	Broad-leaf Nancy	-	V	2, 3	2024	Known

Conservation Codes

EPBC Act: Environment Protection and Biodiversity Conservation Act 1999, **NPW Act:** National Parks and Wildlife Act 1972.

Conservation Status

V: Vulnerable, R: Rare.

Source

1. PMST Report (DCCEEW 2026a) - 5 km buffer applied to the Project Area
2. BDBSA Data Extract (DEW 2026b) - 5 km buffer applied to the Project Area.
3. Recorded during a field survey.

4.2.3.2 Threatened Fauna

One EPBC Act-listed species was identified by the PMST as 'Known to occur' within the Search Area (DCCEEW 2026a):

- Australian Painted Snipe (*Rostratula australis*) - listed as Endangered under the EPBC Act and Endangered under the NPW Act.

Although this species also has historical records from within the Search Area, given its habitat requirements and the conditions of the Project Area (i.e., lacking suitable wetlands with dense fringing vegetation), it has been assessed as Unlikely to occur (DEW 2026b).

One State threatened fauna species also has historical records from within the Search Area (DEW 2026b):

- Common Brushtail Possum (*Trichosurus vulpecula*) – listed as Rare under the NPW Act.
- Given the absence of suitable habitat features from within, or adjacent to, the Project Area (i.e., hollow-bearing trees or fallen timber), the species has also been assessed as Unlikely to occur (DEW 2026b).

Although no conservation-rated species were encountered during the BBUS (see **Section 3.2.3.1**), the Blue-winged Parrot was opportunistically encountered during the vegetation surveys within the broader BHOW development area (EBS 2024, Umwelt 2026).

The targeted surveys identified 15 individual FRWLs, although all were outside the current disturbance footprint (see **Section 3.2.3.2, Figure 4.1**). Although these surveys did not detect PBTs, the species has nevertheless precautionarily been assessed as 'possible' (see **Section 4.4**).

A summary of all threatened fauna species assessed as being at least 'possible' to occur is provided in **Table 4.8**. Mapping of all threatened species with historical records from within the Search Area is presented in **Figure 4.1**.

The full likelihood of occurrence assessment for all species identified by the desktop assessment is available in **Appendix B**.

Table 4.8 Threatened Fauna Species Considered to have at least a ‘Possible’ Probability of Occurrence as per the Likelihood Assessment

Scientific Name	Common Name	Conservation Status		Source	PMST / Year of Last Sighting	Umwelt Likelihood of Occurrence Assessment
		EPBC Act	NPW Act			
Aves						
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	1, 3	Likely, 2024	Known
Reptilia						
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU	-	1, 3	Likely, 2024	Known
<i>Tiliqua adelaidensis</i>	Pygmy Blue-tongue Lizard	EN	E	1	Likely	Possible

Conservation Codes

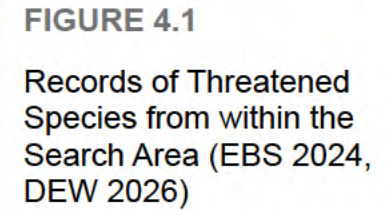
EPBC Act: Environment Protection and Biodiversity Conservation Act 1999, **NPW Act:** National Parks and Wildlife Act 1972.

Conservation Status

EN/E: Endangered, VU/V: Vulnerable, R: Rare.

Source

1. PMST Report (DCCEEW 2026a) - 5 km buffer applied to the Project Area
2. BDBSA Data Extract (DEW 2026b) - 5 km buffer applied to the Project Area.
3. Recorded during a field survey.



 Project Area
 Access Tracks
 Main road
 Watercourse
 Conservation Reserve
 Waterbody

BDBSA Threatened Fauna

- Australian Painted-snipe
 (*Rostratula australis*) EPBC: EN,
 NPW: E
- Common Brushtail Possum
 (*Trichosurus vulpecula*) NPW: R

BDBSA Threatened Flora

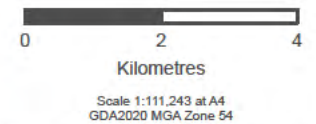
- Broad-leaf Nancy (*Wurmbea latifolia* ssp. *latifolia*) NPW: V

- Rohrlach's Bluebush (*Maireana rohrlachii*) R

Threatened Species - EBS

Records

- Flinders Ranges Worm-Lizard
 (*Aprasia pseudopulchella*)
 EPBC: VU



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4.3 Cumulative Impacts

When exercising a power or making a decision under Division 5 of the Regulations, the NVC must consider the potential cumulative impact, both direct and indirect, that is reasonably likely to result from a proposed clearance activity.

Direct impacts associated with the Project include:

- The clearance of 14.43 ha of native vegetation. Clearance has been categorised into what will be permanent and may be subsumed into the proposed Barn Hill Wind Farm (BHWF), and what will be temporary with rehabilitation to occur.
 - **Permanent clearance (8.30 ha)**
 - **A1** – 0.13 ha
 - **A2** – 0.34 ha
 - **A4** – 7.77 ha
 - **B9** – 0.06 ha.
 - **Temporary clearance (6.13 ha)**
 - **A2** – 0.35 ha
 - **A4** – 5.78 ha.

Indirect impacts associated with the Project may also include:

- The dispersal and importation of weed species through earthworks and the attachment of seeds and other propagules to machinery and vehicles.
- Dust generation during construction that may smother adjacent vegetation.
- Altered hydrological processes that may inundate or dry vegetation.

4.4 Addressing the Mitigation Hierarchy

When exercising a power or making a decision under Division 5 of the Regulations, the NVC must have regard to the mitigation hierarchy. The NVC will also consider, with the aim to minimise, impacts on biological diversity, soil, water and other natural resources, threatened species or ecological communities under the EPBC Act or listed species under the NPW Act.

a) Avoidance – outline measures taken to avoid clearance of native vegetation.

The location of the met masts has been determined to provide a dataset that best represents the wind resources available for the proposed BHWF. The design is therefore limited to what is deemed suitable from a wind engineering perspective. The proponent has, however, endeavoured to concentrate the proposed infrastructure away from the more structurally diverse vegetation associations known to occur in the broader area (EBS 2024). Further, clearance areas are to be clearly demarcated by the proponent to ensure that contractors confine all works within approved zones.

Moreover, to mitigate the potential for direct impacts to FRWL (which are known to occur) within the Project Area, a suitably qualified and experienced ecologist will perform supplementary targeted surveys within and surrounding the application area prior to the commencement of works, with the

option to microsite away from any detected individual(s) or relocate the individual to an appropriate habitat area nearby, if micro siting is not possible. All relocation would be conducted under appropriate permits.

Surveys for FRWL will be in accordance with the Survey Guidelines for Australia's Threatened Reptiles, as amended as per recommendations by the Department of Climate Change, Energy, the Environment and Water and the Department for Environment and Water (pers. comm. H. Kent 2024, 2026). The surveys will entail turning up to 200 suitable rocks per site, with site selection undertaken by a suitably qualified ecologist stratified on the basis of suitable habitat features within the disturbance footprint (e.g., abundant surface rock deposits, rock outcroppings, and decaying timber).

Appropriate avoidance and mitigation measures will be used for any other threatened species which may be found during pre-construction surveys.

b) Minimisation – if clearance cannot be avoided, outline measures taken to minimise the extent, duration and intensity of impacts of the clearance on biodiversity to the fullest possible extent (whether the impact is direct, indirect or cumulative).

Where impacts to native vegetation are unavoidable, the design has elected to minimise the clearance of structurally intact, more floristically diverse vegetation (A2) by encompassing areas of more degraded vegetation in its place (A1, A4, B9).

Access roads, wherever possible, have incorporated existing farm tracks. Although these areas are already disturbed and largely degraded with intermittent vegetation coverage, they have nonetheless been assigned to the surrounding native vegetation associations – excluding in instances, where confirmed, that the existing track incorporates non-native vegetation and/or is already capped with road building material

c) Rehabilitation or restoration – outline measures taken to rehabilitate ecosystems that have been degraded, and to restore ecosystems that have been degraded, or destroyed by the impact of clearance that cannot be avoided or further minimised, such as allowing for the re-establishment of the vegetation.

Clearance areas have been categorised as either 'permanent' or 'temporary'. Permanent clearance areas correspond to the access tracks, the concrete fixtures of the permanent met masts, and the entirety of the temporary met mast footprint under the presumption that, if the BHWF is approved, when the temporary met masts are decommissioned, the area will be subsumed fully into the wind farm footprint. Temporary clearance areas relate to the permanent met mast footprint (minus the permanent concrete fixtures and access tracks) as the infrastructure will be left in situ and therefore the surrounding area will be rehabilitated. Rehabilitation works, to be undertaken in accordance with the proponents Construction Environmental Management Plan (CEMP) within three years of construction, will consist of resspreading stockpiled topsoil and ripping compacted areas, and thereafter allowing for natural regeneration. This shall be supported through the management of declared weeds within these rehabilitation areas.

d) Offset – any adverse impact on native vegetation that cannot be avoided or further minimised should be offset by the achievement of a significant environmental benefit that outweighs that impact.

Offsetting will be made by way of payment into the Native Vegetation Fund. Investigations have been conducted into on-ground offsets, however no suitable offset was found.

4.5 Principles of Clearance (Schedule 1, Native Vegetation Act 1991)

The NVC will consider Principles 1(b), 1(c) and 1(d) when assigning a level of Risk under Regulation 16 of the Native Vegetation Regulations. The NVC will consider all the Principles of Clearance of the Act as relevant, when considering an application referred under the Planning, Development and Infrastructure Act 2016, and the Hydrogen and Renewable Energy Act 2023.

The Project has been assessed against the Principles of Clearance, as below in **Table 4.9**.

Table 4.9 Assessment Against the Principles of Clearance

Principles of Clearance	Considerations
Principle 1(a) – It Comprises a High Level of Diversity of Plant Species	Relevant Information The field surveys recorded 79 plant species, which included 52 native and 27 exotic species across the wider Project Area. Three Declared plant listed under the LSA Act were detected: • <i>Echium plantagineum</i> (Salvation Jane) • <i>Lycium ferocissimum</i> (African Boxthorn) • <i>Marrubium vulgare</i> (Horehound). As much of the Project Area has historically been utilised for livestock grazing, pasture grasses (i.e., <i>Avena barbata</i> (Wild Oat) and <i>Hordeum leporinum</i> (Wall Barley-grass)) were ubiquitous. Native Plant Species Diversity Score(s): A1 – 12 A2 – 26 A4 (mean) – 12 B9 – 6 Assessment against the Principles Seriously at Variance A2 At Variance A1, A4 Not at Variance B9 Moderating factors that may be considered by the NVC The spatial layer 'Native Vegetation Areas' on NatureMaps indicates that, from a central point, there is 0 % coverage of native vegetation within a 5 km radius (DEW 2026a). This appears to be erroneous, given that vegetation surveys across the proposed BHWF development area mapped approximately 2,160.94 ha of native vegetation (EBS 2024). Within a 5 km radius of the Project Area, there is approximately 1,784.52 ha of native vegetation mapped. As such, the clearance of 14.43 ha represents approximately 0.81 % of this remnant vegetation. Of this, 0.34 % is proposed to be temporarily cleared and 0.46% is proposed to be permanently cleared.
Principle 1(b) – Significance as a Habitat for Wildlife	Relevant Information Two threatened fauna species have been recorded by surveys relevant to the Project Area: • Blue-winged Parrot (<i>Neophema chrysostoma</i>) – listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act. • Flinders Ranges Worm-lizard (<i>Aprasia pseudopulchella</i>) – listed as Vulnerable under the EPBC Act. One additional threatened fauna species has been assessed as having a 'possible' probability of occurrence: • Pygmy Blue-tongue Lizard (<i>Tiliqua adelaidensis</i>) – listed as Endangered under the EPBC Act and Endangered under the NPW Act. All vegetation associations (A1, A2, A4 and B9) have Threatened Fauna Scores of 0.1. Assessment against the Principles Seriously at Variance A1, A2, A4 and B1

Principles of Clearance	Considerations
	<u>Moderating factors that may be considered by the NVC</u> Clearance will be concentrated in areas that are currently utilised for livestock grazing, with vegetation of this nature widespread in the region. The Blue-winged Parrot is a highly mobile migrant, with breeding restricted to the south-eastern corner of Australia (including Tasmania). While the vegetation within the Project Area may provide suitable transient foraging habitat during the non-breeding period, there is a substantial extent of comparable habitat within the surrounding landscape that will be retained. Accordingly, the proposed action is unlikely to result in a significant impact on this species. The proponent has endeavoured to minimise vegetation clearance as far as practicable and is committed to mitigating potential impacts to the FRWL and PBTL. Clearance has been restricted to the immediate footprints of the met masts and associated access tracks, ensuring fragmentation of populations does not occur and that connectivity across the broader landscape is maintained. Given the extent of similar habitat that will remain available in the surrounding landscape, the action is unlikely to affect the long-term viability of local populations.
Principle 1(c) – Plants of a Rare, Vulnerable or Endangered Species	<u>Relevant Information</u> Three threatened flora species have been recorded within BAM sites: • <i>Cryptandra campanulata</i> (Long-flower Cryptandra) – listed as Rare under the NPW Act. • <i>Maireana excavata</i> (Bottle Fissure-plant) – listed as Vulnerable under the NPW Act. • <i>Wurmbea latifolia</i> ssp. <i>latifolia</i> (Broad-leaf Nancy) – listed as Vulnerable under the NPW Act. An additional three threatened species were recorded by Umwelt within the broader BHOW development area (EBS 2024): • <i>Eucalyptus fasciculosa</i> (Pink Gum) – listed as Rare under the NPW Act. • <i>Maireana rohrlachii</i> (Rohrlach's Bluebush) – listed as Rare under the NPW Act. <u>Threatened Flora Score(s)</u> A1 – 0.0 A2 – 0.08 A4 (mean) – 0.05 B9 – 0.0 <u>Assessment against the Principles</u> <u>At Variance</u> A2, A4 <u>Not at Variance</u> A1, B9 <u>Moderating factors that may be considered by the NVC</u> As <i>Cryptandra campanulata</i>, <i>Maireana excavata</i>, and <i>Wurmbea latifolia</i> ssp. <i>latifolia</i> were recorded widely across the landscape, no count or precise location data for either species was taken. However, given their relative abundance, any proposed clearance—which has been restricted to the minimum necessary to facilitate Project works—would not significantly threaten either species. The proponent has sought to minimise clearance as far as practicable, with impacts restricted to the immediate footprints of the proposed infrastructure. As a result, vegetation fragmentation will be minimal and connectivity with surrounding native vegetation will be maintained.
Principle 1(d) – the Vegetation Comprises the Whole or Part of a Plant Community that is Rare, Vulnerable and Endangered	<u>Relevant Information</u> No EPBC-listed TECs were recorded within the Project Area. However, two state-listed Rare and Threatened Vegetation Communities were recorded in the Project Area (NVB 2026): • Spear Grass <i>Austrostipa</i> spp. – Wallaby Grass <i>Rytidosperma</i> spp. – Brush Wiregrass • <i>Aristida behriana</i> grassland (Vulnerable) • Kangaroo Grass <i>Themeda triandra</i> grassland (Endangered). <u>Threatened Community Score(s)</u> A1 – 1.3 A2 – 1 A4 – 1.2 B9 – 1

Principles of Clearance	Considerations								
	Assessment against the Principles <u>Seriously at Variance</u> A1, A4 <u>Not at Variance</u> A2, B9 Moderating factors that may be considered by the NVC The proposed clearance represents only a small proportion of these communities within the locality. Given the limited extent of disturbance and the retention of extensive surrounding areas of comparable vegetation, the proposed action is unlikely to significantly affect the long-term persistence or conservation status of these communities in the region.								
Principle 1(e) – it is Significant as a Remnant of Vegetation in an Area which has been Extensively Cleared	Relevant information The Project Area contains one IBRA subregion (and association) – St Vincent (Barung). The St Vincent subregion, which is within the agricultural zone of SA, has been widely modified for livestock grazing, with much of the original vegetation cover altered into derived communities. <table><tr><th>Subregion</th><th>Remnancy</th><th>Association</th><th>Remnancy</th></tr><tr><td>St Vincent</td><td>8 %, or 87,402 ha</td><td>Barung</td><td>4 %, or 3,196 ha</td></tr></table> Total Biodiversity Score(s) – 632.61 Assessment against the Principles <u>Seriously at Variance</u> A1, A2, A4, B9 Moderating factors that may be considered by the NVC The Project has endeavoured to reduce clearance to the smallest amount practicable. All other impacts associated with the Project (i.e., temporary disturbance for vehicle access) will be supported through the proponent’s implementation of their CEMP. The vegetation communities proposed to be impacted –grasslands and open shrublands – are well represented in the surrounding landscape. The Project will reduce remnant vegetation within the Barung IBRA association by 14.43 ha, or by 0.45 % (DEW 2026a) of which 8.3 ha (0.26 %) is proposed as permanent clearance.	Subregion	Remnancy	Association	Remnancy	St Vincent	8 %, or 87,402 ha	Barung	4 %, or 3,196 ha
Subregion	Remnancy	Association	Remnancy						
St Vincent	8 %, or 87,402 ha	Barung	4 %, or 3,196 ha						
Principle 1(f) – It is Growing in, or in Association with, a Wetland Environment	Relevant information No wetlands are present within the Project Area. Although three minor ephemeral drainage lines are present, these were eroded and did not contain any associated wetland vegetation (e.g., <i>Phragmites/Typha</i> spp.) Assessment Against the Principles <u>Not at Variance</u> A1, A2, A4, B9 Moderating factors that may be considered by the NVC Not applicable.								
Principle 1(g) – It Contributes Significantly to the Amenity of the Area in which it is Growing or is Situated	Relevant information As the met masts are to be located on private property, the vegetation on site is not in an area frequented by the public. Although there will be minor clearance associated with Project works, this is not anticipated to significantly degrade the amenity value of the site given that grasslands and open shrublands are common in the local landscape. Assessment Against the Principles <u>Not at Variance</u> A1, A2, A4, B9 Moderating factors that may be considered by the NVC Not applicable.								

4.6 Risk Assessment

The *Guide for Applications to Clear Native Vegetation* outlines how the risk level of an application is assessed (NVC 2024b, see **Table 4.10**). The risk level of the Project, presented in **Table 4.11**, indicates that this will be a Level 4 Clearance due to escalating matters (Principle 1(b) and 1(c)).

Table 4.10 Risk Assessment Matrix for NVC Clearance Applications

	Patches – Clearance	Trees – Clearance	Escalating Matters Clearance Assessment will be raised to the Next Level if –
Level 1	0.05 ha or less	5 trees or less	Clearance involves any tree with a trunk circumference measured at 1 m above the ground (for multi-stemmed trees, measure the largest trunk) 50 cm or more in the agricultural zone, 30 cm or more in the pastoral zone; or The site contains a listed species or contains a threatened community under either the NPW Act or the EPBC Act.
Level 2	> 0.05 ha to 0.5 ha	6 – 20 trees	Clearance is seriously at variance with Principle of Clearance 1(b), 1(c), or 1(d).
Level 3	Total Biodiversity Score of less than or equal to 250		Clearance is seriously at variance with Principle of Clearance 1(b), 1(c), or 1(d).
Level 4	Total Biodiversity Score of greater than 250		

Table 4.11 Summary of the Risk Level Associated with this Clearance Application

Total Clearance	No. of Trees	Not applicable.
	Area (ha)	14.43
	Total Biodiversity Score	632.61
Seriously at Variance with Principle 1(b), 1(c) or 1 (d)		1(b), 1(c), 1(d)
Risk Assessment Outcome		Level 4

5.0 Clearance Summary

The clearance summary tables, **Table 5.1** and **Table 5.2**, supply the SEB points accrued from the proposed action. The total SEB obligations of the Project are summarised in **Table 5.3**.

Table 5.1 Clearance Summary of the Vegetation Associations to be Impacted by the Project (Permanent Clearance)

Block	Site	Species Diversity Score	Threatened Ecological Community Score	Threatened Plant Score	Threatened Fauna Score	Unit Biodiversity Score	Area (ha)	Total Biodiversity Score	Loss Factor	Loadings	Reductions	SEB Points Required	(\$ SEB Payment	(\$ Admin Fee
A	A1	12	1.3	0	0.1	34.28	0.13	4.46	1	-	-	4.91	\$4,286.17	\$235.74
	A2	26	1	0.08	0.1	79.66	0.34	27.08	1	-	-	29.79	\$23,842.49	\$1,311.34
	A4a	8	1.2	0.08	0.1	36.85	7.77	286.32	1	-	-	314.95	\$266,360.59	\$14,649.83
	A4b	12	1.2	0.08	0.1	44.21	7.77	343.51	1	-	-	377.86	\$309,278.63	\$17,010.32
	A4c	12	1.2	0	0.1	37.66	7.77	292.62	1	-	-	321.88	\$291,498.94	\$16,032.44
	A4d	4	1.2	0	0.1	17.64	7.77	137.06	1	-	-	150.77	\$136,539.38	\$7,509.67
	A4e	20	1.2	0.12	0.1	62.35	7.77	484.46	1	-	-	532.91	\$439,088.61	\$24,149.87
	A4f	22	1.2	0.08	0.1	70.02	7.77	544.06	1	-	-	598.47	\$570,222.22	\$31,362.22
	A4g	8	1.2	0	0.1	27.00	7.77	209.79	1	-	-	230.77	\$201,031.00	\$11,056.71
	A4 (mean)	12	1.2	0.05	0.1	42.25	7.77	328.26	1	-	-	361.09	\$316,288.48	\$17,395.87
B	B9		1	0	0.1	12.41	0.06	0.74	1	-	-	0.81	\$573.20	\$31.53
Total(s)							8.30	360.54				396.60	\$344,990.34	\$18,974.48

For A4, the SEB obligation has been calculated using the mean Unit Biodiversity Score for A4a–A4g. The individual A4 scores are shown for transparency and are not additive.

Table 5.2 Clearance Summary of the Vegetation Associations to be Impacted by the Project (Temporary Clearance)

Block	Site	Species Diversity Score	Threatened Ecological Community Score	Threatened Plant Score	Threatened Fauna Score	Unit Biodiversity Score	Area (ha)	Total Biodiversity Score	Loss Factor	Loadings	Reductions	SEB Points Required	(\$ SEB Payment	(\$ Admin Fee
A	A2	26	1	0.08	0.1	79.66	0.35	27.88	1	-	0.5	15.33	\$12,269.40	\$674.82
	A4a	8	1.2	0.08	0.1	36.85	5.78	212.99	1	-	0.5	117.14	\$99,068.04	\$5,448.74
	A4b	12	1.2	0.08	0.1	44.21	5.78	255.53	1	-	0.5	140.54	\$115,032.07	\$6,326.76
	A4c	12	1.2	0	0.1	37.66	5.78	217.67	1	-	0.5	119.72	\$108,420.07	\$5,963.10
	A4d	4	1.2	0	0.1	17.64	5.78	101.96	1	-	0.5	56.08	\$50,786.82	\$2,793.28
	A4e	20	1.2	0.12	0.1	62.35	5.78	360.38	1	-	0.5	198.21	\$163,314.17	\$8,982.28
	A4f	22	1.2	0.08	0.1	70.02	5.78	404.72	1	-	0.5	222.60	\$212,093.28	\$11,665.13
	A4g	8	1.2	0	0.1	27.00	5.78	156.06	1	-	0.5	85.83	\$74,769.21	\$4,112.31
	A4 (mean)	12	1.2	0.05	0.1	42.25	5.78	244.19	1	-	0.5	134.30	\$117,640.52	\$6,470.23
Total(s)							6.13	272.07				149.63	\$129,909.92	\$7,145.05

For A4, the SEB obligation has been calculated using the mean Unit Biodiversity Score for A4a–A4g. The individual A4 scores are shown for transparency and are not additive.

Table 5.3 Summary of the Total SEB Obligations for the Clearance

	Total Biodiversity Score	Total SEB Points Required	(\$ SEB Payment	(\$ Admin Fee	(\$ Total Payment
Application	632.61	546.23	\$474,900.26	\$26,119.52	\$501,019.79
Economies of Scale Factor		0.5			
Average Annual Rainfall (mm)		441 - 525			

6.0 Significant Environmental Benefit

A SEB is required for approval to clear under Division 5 of the Regulations. The NVC must be satisfied that as a result of the loss of vegetation from the clearance that a SEB will result in a positive impact on the environment that is over and above the negative impact of the clearance.

ACHIEVING A SEB

Indicate how the SEB will be achieved by ticking the appropriate box and providing the associated information:

- ☐ Establish a new SEB Area on land owned by the proponent.
- ☐ Use SEB Credit that the proponent has established. Provide the SEB Credit Ref. No. _____
- ☐ Apply to have SEB Credit assigned from another person or body. The [application form](#) needs to be submitted with this Data Report.
- ☐ Apply to have a SEB to be delivered by a Third Party. The [application form](#) needs to be submitted with this Data Report.
- ☒ Pay into the Native Vegetation Fund.

PAYMENT SEB

The total SEB obligation for the clearance of 14.43 ha of native vegetation, with a combined TBS of 632.61, will be a payment of \$501,019.79, including an administration fee of \$26,119.52, into the Native Vegetation Fund.

Investigations into on-ground offsets were undertaken in 2025, including field assessments and discussions with landholders and the Native Vegetation Branch; however, a suitable on-ground offset could not be identified (see Attachment 3 SEB Offset Investigation Report; Umwelt 2026).

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Appendix A

Native Vegetation Under Application

Appendix A

Page 1 of 13

Legend

Disturbance Envelope - Met Mast

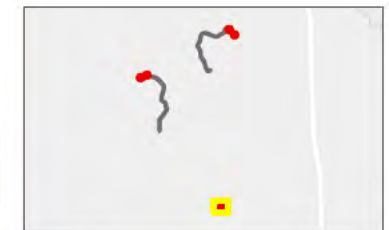
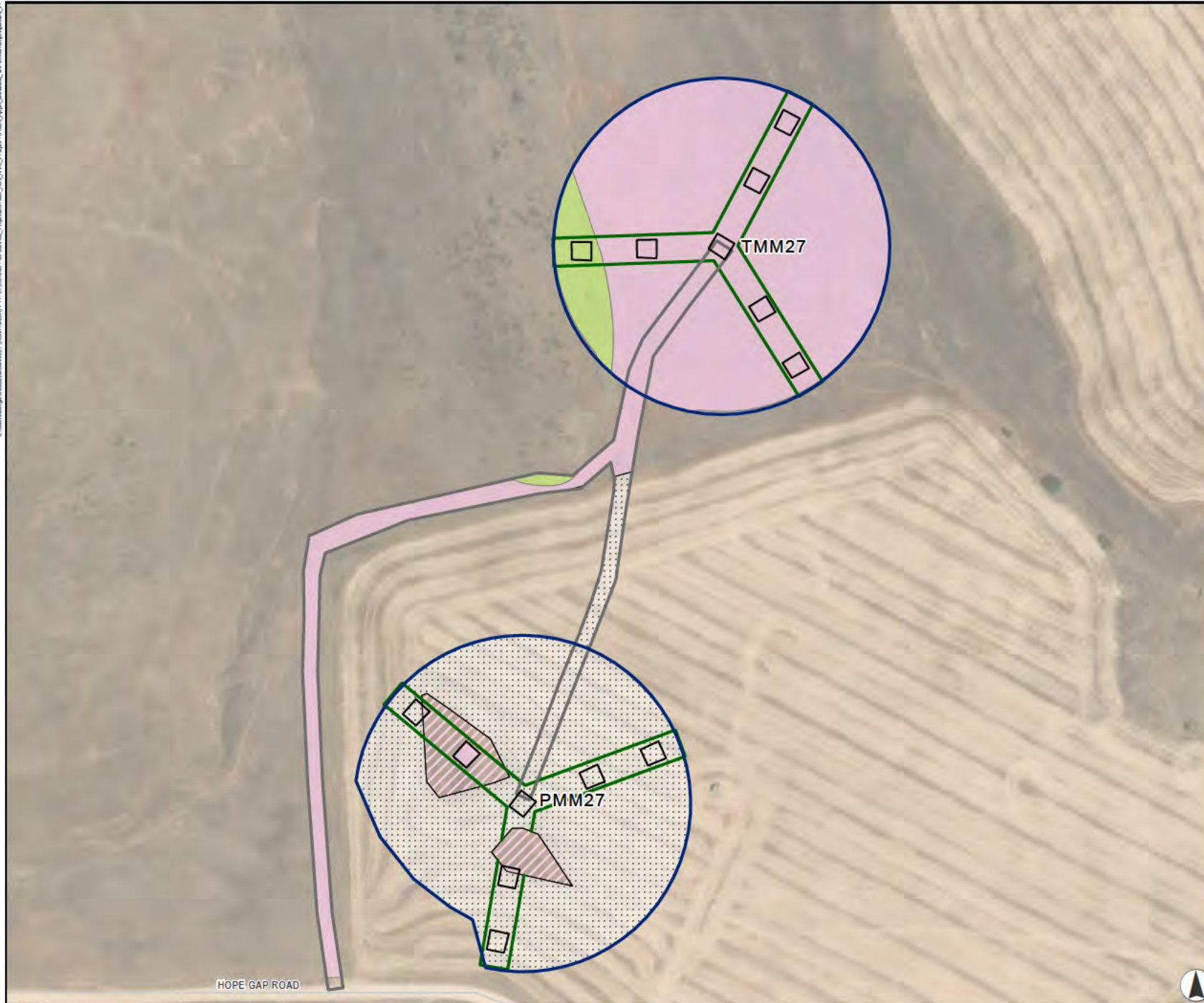
- Access Tracks
- Anchor Areas
- Met Mast Buffer Area
- Guywire Route - Buffer 30m

Permanent Clearance

- A2: *Bursaria spinosa* shrubland +/- emergent *Allocasuarina verticillata* over *Themeda* and *Lomandra* spp.
- A4: *Austrostipa* spp. grassland
- Cropping

Temporary Clearance

- A4: *Austrostipa* spp. grassland
- Cropping



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 2 of 13

Legend

Disturbance Envelope - Met Mast

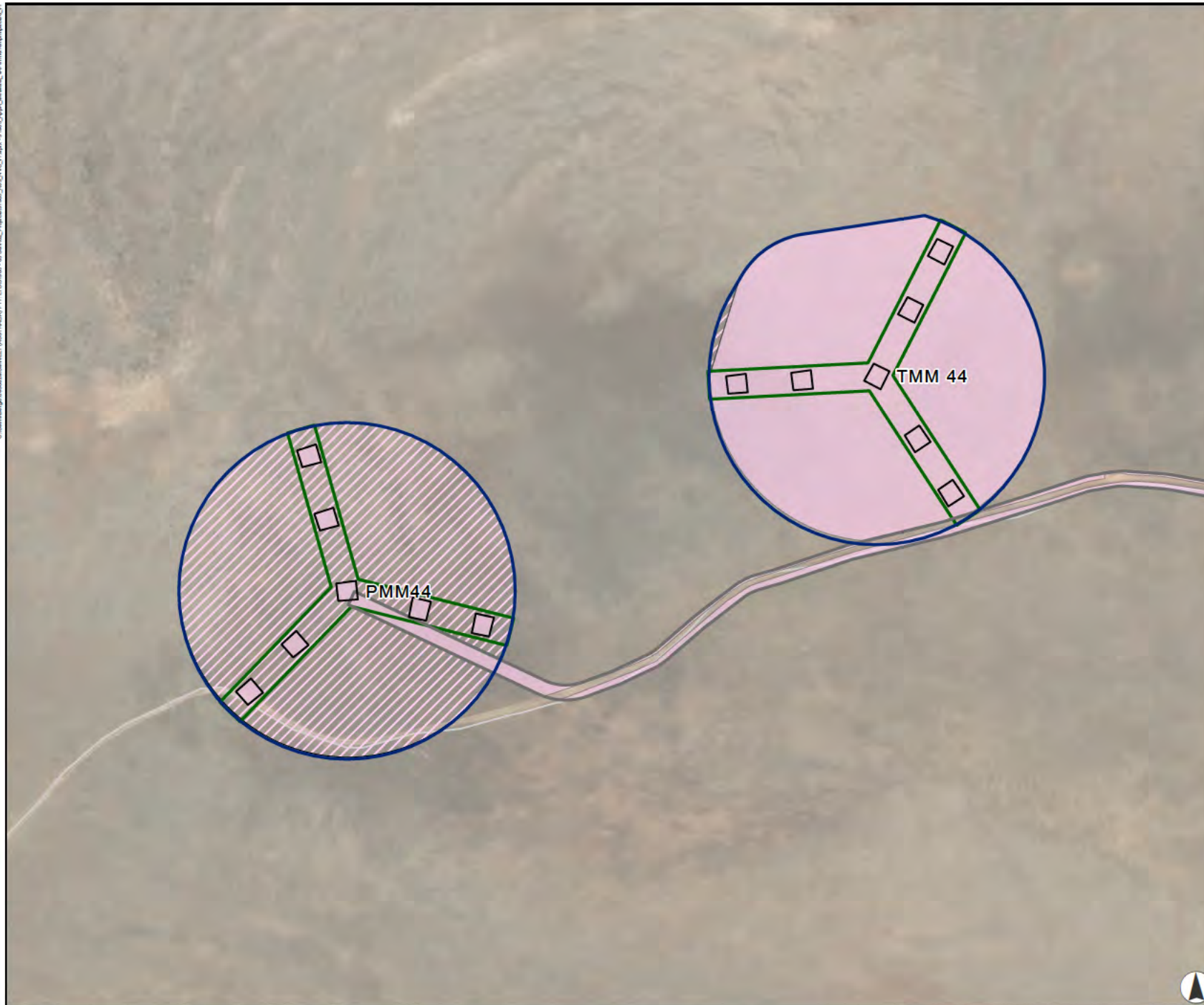
-  Access Tracks
-  Anchor Areas
-  Met Mast Buffer Area
-  Guywire Route - Buffer 30m

Permanent Clearance

-  A4: *Austrostipa* spp. grassland

Temporary Clearance

-  A4: *Austrostipa* spp. grassland



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 3 of 13

Legend

Disturbance Envelope - Met Mast

-  Access Tracks
-  Met Mast Buffer Area

Permanent Clearance

-  A4: *Austrostipa* spp. grassland
-  Exotic vegetation

Temporary Clearance

-  Exotic vegetation



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 4 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

 A4: *Austrostipa* spp. grassland

 Exotic vegetation

Temporary Clearance

 Exotic vegetation



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 5 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

 A4: *Austrostipa* spp. grassland

 Cropping

Temporary Clearance

 Cropping



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 6 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

 Cropping

Temporary Clearance

 Cropping



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 7 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 8 of 13

Legend

Disturbance Envelope - Met Mast

- Access Tracks
- Anchor Areas
- Met Mast Buffer Area
- Guywire Route - Buffer 30m

Permanent Clearance

- A1: *Themeda triandra* +/- *Lomandra* spp. grassland
- A2: *Bursaria spinosa* shrubland +/- emergent *Allocasuarina verticillata* over *Themeda* and *Lomandra* spp.
- A4: *Austrostipa* spp. grassland
- Cropping

Temporary Clearance

- A2: *Bursaria spinosa* shrubland +/- emergent *Allocasuarina verticillata* over *Themeda* and *Lomandra* spp.
- A4: *Austrostipa* spp. grassland
- Cropping



0 40 80
Metres

Scale 1:2,900 at A4
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Appendix A

Page 9 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

 A1: *Themeda triandra* +/- *Lomandra* spp. grassland

 A4: *Austrostipa* spp. grassland

 Cropping

Temporary Clearance

 Cropping



0 40 80
Metres

Scale 1:2,900 at A4
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Appendix A

Page 10 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

 A4: *Austrostipa* spp. grassland

 Cropping

 Exotic vegetation

Temporary Clearance

 Cropping

 Exotic vegetation



0 40 80
Metres

Scale 1:2,900 at A4
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Page 11 of 13

Legend

Disturbance Envelope - Met Mast

Access Tracks

Permanent Clearance

Cropping

Exotic vegetation

Temporary Clearance

Cropping

Exotic vegetation



A horizontal number line with tick marks at 0, 40, and 80. A shaded bar starts at 0 and ends at 40.

Scale 1:2,900 at A4
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Appendix A

Page 12 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

 A4: *Austrostipa* spp. grassland

 Exotic vegetation

Temporary Clearance

 Exotic vegetation



0 40 80
Metres

Scale 1:2,900 at A4
GDA2020 MGA Zone 54

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Appendix A

Page 13 of 13

Legend

Disturbance Envelope - Met Mast

 Access Tracks

Permanent Clearance

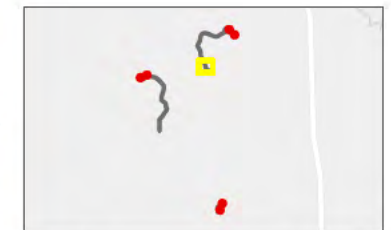
 A4: *Austrostipa* spp. grassland

 B9: *Chenopod* shrubland +/-
Acacia victoreae

 Cropping

Temporary Clearance

 Cropping



0 40 80
Metres

Scale 1:2,900 at A4
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Appendix B

Likelihood of Occurrence Assessment

Likelihood of Occurrence Assessment for Threatened Ecological Communities and Threatened/Migratory Species Identified by the Desktop Assessment (DCCEEW 2026a, DEW 2026b)

Scientific Name	Common Name	Conservation Status		PMST / Last Record	Source	Habitat Preference(s)	Likelihood of Occurrence Assessment – Umwelt
		EPBC Act	NPW Act				
Threatened Ecological Communities							
Iron-grass Natural Temperate Grassland of South Australia		CE	-	May occur	1	Consists of grasslands of tussock-forming perennial Iron-grasses (<i>Lomandra effusa</i> and/or <i>L. multiflora</i> ssp. <i>dura</i>) with a low presence (< 10 %) of trees and tall shrubs (Department of the Environment and Water Resources 2007).	Unlikely – The diagnostic species, <i>Lomandra effusa</i> and <i>L. multiflora</i> ssp. <i>dura</i> , were recorded within the Project Area. However, these failed to attain the necessary dominance within their communities (10 to 70 % coverage) to satisfy the criteria for listing as part of the TEC. INTG has been mapped by Umwelt as occurring in the BHWF, but it does not occur at the proposed met mast or access track locations.
Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia		CE	-	May occur	1	Consists of open to dense woodlands dominated by <i>Eucalyptus odorata</i> , often in association with <i>E. leucoxylon</i> , <i>E. microcarpa</i> and <i>E. porosa</i> (Department of the Environment and Water Resources 2007).	Unlikely – The diagnostic species, <i>Eucalyptus odorata</i> (Peppermint Box), was not recorded during the field surveys.
Flora							
<i>Caladenia tensa</i>	Greencomb Spider-orchid	EN	-	Likely to occur	1	Grows in dry woodland and mallee on red-brown sandy loam rises (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R	2024	3	Grows in shallow soils over rocks, mostly in grassland, in the southern Flinders Ranges and the Northern Mount Lofty Ranges.	Known – The species was recorded as part of the field surveys within a relevant BAM site.
<i>Dodonaea subglandulifera</i>	Peep Hill Hop-bush	EN	E	May occur	1	Occurs primarily on low hills on loamy soils associated with rocky (limestone, slate, shale) outcrops (DEH 2010).	Unlikely – There are no historical records within the Search Area.
<i>Eucalyptus fasciculosa</i>	Pink Gum	-	R	2024	3	Occurs on well-drained sandy soils of low fertility (SASCC 2026).	Possible – Recorded by the field surveys, although not within a relevant BAM site. As a tree capable of attaining 10 m in height, mature individuals are unlikely to have been

Scientific Name	Common Name	Conservation Status		PMST / Last Record	Source	Habitat Preference(s)	Likelihood of Occurrence Assessment – Umwelt
		EPBC Act	NPW Act				
							overlooked by surveyors. It is, however, possible that recruitment was occurring within the Project Area.
<i>Maireana excavata</i>	Bottle Fissure-plant	-	V	2024	3	Grows in grasslands (PlantNET 2026).	Known – Recorded by the field surveys within a relevant BAM site.
<i>Maireana rohrlachii</i>	Rohrlach's Blue-bush	-	R	2024	3	Grows in a variety of habitats on sandy loam soils (PlantNET 2026).	Highly Likely – Recorded by the field surveys, although not within a relevant BAM site. As a small (80 cm tall) shrub, it may not have been observed at the Project Area.
<i>Olearia pannosa</i> ssp. <i>pannosa</i>	Silver Daisy-bush	VU	V	May occur	1	Grows in a variety of habitats, typically with sandy soils and rocky outcrops (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Prasophyllum validum</i>	Sturdy Leek-orchid	VU	V	May occur	1	Grows in dry woodland habitats (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Pterostylis xerophila</i>	Desert Greenhood	VU	V	May occur	1	In South Australia, the species occurs in dry woodland on fertile red loamy soils on or around granite or quartzite rock outcrops (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Senecio macrocarpus</i>	Large-fruit Fireweed	VU	V	May occur	1	Grows in low-lying areas on basalt-derived clay or clay-loam soils, in grassland, sedgeland and woodland (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Swainsona pyrophila</i>	Yellow Swainson-pea	VU	R	May occur	1	Grows in mallee scrub on sandy or loamy soils (OEH 2022).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Tecticornia flabelliformis</i>	Bead Glasswort	VU	V	May occur	1	Grows on the margins of salt lakes and coastal salt marshes over gypsum deposits, and is often associated with other <i>Tecticornia</i> species (Department of Sustainability and Environment 2010).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Wurmbea latifolia</i> ssp. <i>latifolia</i>	Broad-leaf Nancy	-	V	2024	2, 3	Grows on heavy soils (PlantNET 2026).	Known – The species was recorded as part of the field surveys.
Fauna							
Aves							

Scientific Name	Common Name	Conservation Status		PMST / Last Record	Source	Habitat Preference(s)	Likelihood of Occurrence Assessment – Umwelt
		EPBC Act	NPW Act				
<i>Actitis hypoleucos</i>	Common Sandpiper	Mi (W)	R	May occur	1	Found along all coastlines of Australia and in inland areas, widespread in small numbers. The Australian population is concentrated in the north and west of the continent. Inhabits in saltwater and freshwater ecosystems (Higgins & Davies 1996).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Aphelocephala leucopsis</i>	Southern Whiteface	VU	-	Likely to occur	1	Southern Whiteface occupies a range of habitats, primarily open woodlands and shrublands with a grassy/shrubby understorey (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Apus pacificus pacificus</i>	Fork-tailed Swift	Mi (M)	-	Likely to occur	1	Almost entirely aerial, Fork-tailed Swifts occur mostly occurring over open habitats, including riparian woodland and tea-tree swamps, low scrub, heathland or saltmarsh (Higgins & Davies 1996).	Unlikely – There are no historical records within the Search Area. As the species is nearly entirely aerial while in Australia, it would not utilise the habitat at the Project Area.
<i>Botaurus poiciloptilus</i>	Australian Bittern	EN	E	May occur	1	Favours permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes (<i>Typha</i> spp.) and rushes (<i>Eleocharis</i> spp.) (OEH 2017b).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	VU, Mi (W)	-	May occur	1	Inhabits tidal mudflats, salt marshes and shallow fresh, brackish or saline wetlands and flood waters (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Calidris ferruginea</i>	Curlew Sandpiper	CE, Mi (W)	E	Likely to occur	1	Mainly occur on intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and around non-tidal swamps. They are also recorded inland, though less often, including around ephemeral and permanent lakes, dams, waterholes and bore drains (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Calidris melanotos</i>	Pectoral Sandpiper	Mi (W)	R	May occur	1	In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands (Higgins & Davies 1996).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Falco hypoleucos</i>	Grey Falcon	VU	R	Likely to occur	1	Found where annual rainfall is less than 500 mm and is essentially confined to the	Unlikely – There are no historical records within the Search Area, and

Scientific Name	Common Name	Conservation Status		PMST / Last Record	Source	Habitat Preference(s)	Likelihood of Occurrence Assessment – Umwelt
		EPBC Act	NPW Act				
						arid and semi-arid zones. The species frequents timbered lowland plains, particularly that are crossed by tree-lined water courses (DCCEEW 2026b).	the Project Area is likely insufficiently arid for the species.
<i>Gallinago hardwickii</i>	Latham's Snipe	VU, Mi (W)	R	May occur	1	Latham's Snipe is a non-breeding visitor to south-eastern Australia, including the Adelaide Plains, Mount Lofty Ranges, and the Eyre Peninsula. Usually inhabits open, freshwater wetlands with low, dense vegetation (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Grantiella picta</i>	Painted Honeyeater	VU	R	May occur	1	Occurs in dry open forests, usually in association with its primary food species – mistletoe of the <i>Amyema</i> genus (Pizzey & Knight 1999).	Unlikely – There are no historical records within the Search Area.
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	EN	R	Likely to occur	1	Occupies dry eucalypt and acacia woodlands and shrublands remnants with an open understorey, some grassy areas and a complex ground layer, often in or near clearings or open areas (DCCEEW 2026b).	Unlikely – There are no historical records within the Search Area.
<i>Motacilla cinerea</i>	Grey Wagtail	Mi (T)	-	May occur	1	The Grey Wagtail is considered a regular visitor to marshes of northern Australia between August and April, overflying normal wintering grounds (Pizzey & Knight 1999).	Unlikely – There are no historical records within the Search Area.
<i>Motacilla flava</i>	Yellow Wagtail	Mi (T)	-	May occur	1	The Yellow Wagtail is considered a regular visitor to marshes of northern Australia between August and April, overflying normal wintering grounds (Pizzey & Knight 1999).	Unlikely – There are no historical records within the Search Area.
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	Likely to occur, 2024	1, 3	This species mainly occurs in Tasmania and Victoria, particularly in southern Victoria and the midlands and eastern areas of Tasmania. Sparser populations are also found in western New South Wales and eastern South Australia, extending to south-west Queensland. Prefers grasslands and grassy woodlands but will inhabit a range of habitats from	Known – Recorded during the field surveys.

Scientific Name	Common Name	Conservation Status		PMST / Last Record	Source	Habitat Preference(s)	Likelihood of Occurrence Assessment – Umwelt
		EPBC Act	NPW Act				
						coastal, sub-coastal and inland areas, right through to semi-arid zones (DCCEEW 2026b).	
<i>Numenius madagascariensis</i>	Eastern Curlew	CE, Mi (W)	E	May occur	1	The Eastern Curlew is found on intertidal mudflats and sandflats, often with beds of seagrass, on sheltered coasts, especially estuaries, mangrove swamps, bays, harbours and lagoons (Birds in Backyards 2026).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Pandion haliaetus cristatus</i>	Eastern Osprey	Mi (W)	E	May occur	1	The Eastern Osprey requires large-bodies of water for hunting purposes. Largely coastal, much rarer further inland (OEH 2020).	Unlikely – There are no historical records within the Search Area, and the habitat was unsuitable for the species.
<i>Pedionomus torquatus</i>	Plains-wanderer	CE	E	May occur	1	Occurs at scattered sites in NSW and Victoria and more marginal habitat in QLD and SA. Inhabits sparse, treeless, lowland native grasslands and/or low shrubland (Pizzey & Knight 1999).	Unlikely – There are no historical records within the Search Area.
<i>Rostratula australis</i>	Australian Painted Snipe	EN	E	Known to occur, 2006	1, 2	The species is primarily concentrated in the south-east of Australia, strongly associated with the Murray-Darling Basin. The Australian Painted Snipe occupies the fringes of swamps, dams, and nearby marshy areas where there is dense fringing vegetation (OEH 2017c).	Unlikely – Although there are recent records within the Search Area (< 20 years old), the Project Area does not contain the appropriate habitat features or vegetation to support a population of this species.
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	V	Likely to occur	1	Diamond Firetails occur in eucalypt, acacia and casuarina woodlands, open forests and other lightly timbered habitats, including farmland and grassland with scattered trees (DCCEEW 2023).	Unlikely – There are no historical records within the Search Area.
<i>Tringa nebularia</i>	Common Greenshank	EN, Mi (W)	-	May occur	1	Found on both the coast and inland, in estuaries and mudflats, mangrove swamps, lagoons, billabongs, swamps, sewage farms and flooded crops (Birds in Backyards 2026).	Unlikely – There are no historical records within the Search Area.
Mammalia							

Scientific Name	Common Name	Conservation Status		PMST / Last Record	Source	Habitat Preference(s)	Likelihood of Occurrence Assessment – Umwelt
		EPBC Act	NPW Act				
<i>Trichosurus vulpecula</i>	Common Brushtail Possum	-	R	2020	2	Occupies urban areas, forests, woodlands and heath (Australian Museum 2026).	Unlikely – Although there are very recent records from within the Search Area (< 10 years old), the habitat within the Project Area would not be suitable for the species (i.e., lacking suitable shelter sites such as hollow-bearing trees and fallen timber).
<i>Petrogale xanthopus xanthopus</i>	Yellow-footed Rock-wallaby (SA and NSW)	VU	V	May occur	1	Inhabits semi-arid country, occurring on rock outcrops in association with woodlands, shrublands, and grasslands (OEH 2025)	Unlikely – There are no historical records within the Search Area.
Reptilia							
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU	-	Likely to occur, 2024	1, 3	Known from the Flinders Ranges, extending south to the western slopes and northern and central MLR. The species inhabits open woodland, native tussock grassland, riparian habitats, and rocky isolates, preferring stony or clay soils with a stony / rocky surface, but has also been found sheltering in soil beneath stones and rotting stumps (DCCEEW 2026b).	Known – Recorded during the field surveys.
<i>Tiliqua adelaidensis</i>	Pygmy Blue-tongue Lizard	EN	-	Likely to occur	1	The species uses empty spider burrows (trapdoor, wolf spider) as refuges and basking sites and requires these to occur in moderate abundance in the landscape (DCCEEW 2026b).	Possible – Although there are no historical records from within the Search Area, precautionarily the species has been assessed as potentially occurring at the Project Area.

Conservation Codes

EPBC Act: Environment Protection and Biodiversity Conservation Act 1999, **NPW Act:** National Parks and Wildlife Act 1972.

Conservation Status

CE: Critically Endangered, **EN/E:** Endangered, **VU/V:** Vulnerable, **R:** Rare, **Mi:** Migratory (Migratory Status: **M:** Marine, **T:** Terrestrial, **W:** Wetland).

Source

1. **PMST Report** (DCCEEW 2026a) - 5 km buffer applied to the Project Area
2. **BDBSA Data Extract** (DEW 2026b) - 5 km buffer applied to the Project Area.
3. **Recorded during the Field Surveys.**

Appendix C

Flora Species Recorded by the Field Surveys

Flora Species Recorded by the Field Surveys

Scientific Name	Common Name	Conservation Status		Declared	WoNS
		EPBC Act	NPW Act		
Native					
<i>Acacia nyssophylla</i>	Spine Bush	-	-	-	-
<i>Acacia victoriae</i> ssp.	Elegant Wattle	-	-	-	-
<i>Asperula conferta</i>	Common Woodruff	-	-	-	-
<i>Allocasuarina verticillata</i>	Drooping Sheoak	-	-	-	-
<i>Amphipogon</i> sp.	Grey-beard Grass	-	-	-	-
<i>Amyema</i> sp.	Mistletoe	-	-	-	-
<i>Aristida behriana</i>	Brush Wire-grass	-	-	-	-
<i>Arthropodium</i> sp.	Vanilla-lily	-	-	-	-
<i>Austrostipa blackii</i>	Crested Spear-grass	-	-	-	-
<i>Austrostipa nodosa</i>	Tall Spear-grass	-	-	-	-
<i>Austrostipa scabra</i>	Rough Spear-grass	-	-	-	-
<i>Austrostipa</i> sp.	Spear-grass	-	-	-	-
<i>Atriplex semibaccata</i>	Berry Saltbush	-	-	-	-
<i>Bulbine bulbosa</i>	Bulbine-lily	-	-	-	-
<i>Bursaria spinosa</i> ssp.	Bursaria	-	-	-	-
<i>Chloris truncata</i>	Windmill Grass	-	-	-	-
<i>Chrysocephalum apiculatum</i>	Common Everlasting	-	-	-	-
<i>Convolvulus remotus</i>	Grassy Bindweed	-	-	-	-
<i>Crassula</i> sp.	Stone Crop	-	-	-	-
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R	-	-
<i>Dichanthium sericeum</i> ssp.	Silky Blue-grass	-	-	-	-
<i>Duma florulenta</i>	Lignum	-	-	-	-
<i>Enchylaena tomentosa</i> var.	Ruby Saltbush	-	-	-	-
<i>Enneapogon nigricans</i>	Black-head Grass	-	-	-	-
<i>Euphorbia drummondii</i>	-	-	-	-	-
<i>Glycine rubiginosa</i>	Twining Glycine	-	-	-	-
<i>Gonocarpus mezianus</i>	Broad-leaf Raspwort	-	-	-	-
<i>Goodenia pusilliflora</i>	Small-flower Goodenia	-	-	-	-
<i>Lactuca serriola</i> f.	Prickly Lettuce	-	-	-	-
<i>Lomandra effusa</i>	Scented Mat-rush	-	-	-	-
<i>Lomandra multiflora</i> ssp.	Many-flower Mat-rush	-	-	-	-
<i>Maireana aphylla</i>	Cotton-bush	-	-	-	-
<i>Maireana brevifolia</i>	Short-leaf Bluebush	-	-	-	-
<i>Maireana enchylaenoides</i>	Wingless Fissure-plant	-	-	-	-
<i>Maireana excavata</i>	Bottle Fissure-plant	-	V	-	-
<i>Minuria</i> sp.	Minuria	-	-	-	-
<i>Neurachne</i> sp.	Mulga-grass	-	-	-	-
<i>Oxalis perennans</i>	Native Sorrel	-	-	-	-
<i>Ptilotus nobilis</i>	Yellow-tails	-	-	-	-
<i>Ptilotus spathulatus</i>	Pussy-tails	-	-	-	-
<i>Rytidosperma</i> sp.	Wallaby-grass	-	-	-	-
<i>Setaria jubiflora</i>	Warrego Summer-grass	-	-	-	-
<i>Stackhousia monogyna</i>	Creamy Candles	-	-	-	-
<i>Themeda triandra</i>	Kangaroo Grass	-	-	-	-
<i>Thysanotus patersonii</i>	Twining Fringe-lily	-	-	-	-
<i>Velleia</i> sp.	Velleia	-	-	-	-
<i>Vittadinia australasica</i> var.	Sticky New Holland Daisy	-	-	-	-
<i>Vittadinia cuneata</i> var.	Fuzzy New Holland Daisy	-	-	-	-
<i>Vittadinia gracilis</i>	Woolly New Holland Daisy	-	-	-	-

Scientific Name	Common Name	Conservation Status		Declared	WoNS
		EPBC Act	NPW Act		
<i>Vittadinia megacephala</i>	Giant New Holland Daisy	-	-	-	-
<i>Wahlenbergia stricta</i> ssp. <i>stricta</i>	Tall Bluebell	-	-	-	-
<i>Wurmbea latifolia</i> ssp. <i>latifolia</i>	Broad-leaf Nancy	-	V	-	-
Introduced					
<i>Anagallis</i> sp.		-	-	-	-
<i>Arctotheca calendula</i>	Cape Weed	-	-	-	-
<i>Avena barbata</i>	Bearded Oat	-	-	-	-
<i>Bromus diandrus</i>	Great Brome	-	-	-	-
<i>Carthamus lanatus</i>	Saffron Thistle	-	-	-	-
<i>Convolvulus arvensis</i>	Field Bindweed	-	-	-	-
<i>Echium plantagineum</i>	Salvation Jane	-	-	✓	-
<i>Erodium aureum</i>	-	-	-	-	-
<i>Erodium botrys</i>	Long Heron's-bill	-	-	-	-
<i>Hordeum vulgare</i>	Barley	-	-	-	-
<i>Hypochaeris glabra</i>	Smooth Cat's Ear	-	-	-	-
<i>Lycium ferocissimum</i>	African Boxthorn	-	-	✓	✓
<i>Marrubium vulgare</i>	Horehound	-	-	✓	-
<i>Medicago polymorpha</i>	Burr-medic	-	-	-	-
<i>Moraea setifolia</i>	Thread Iris	-	-	-	-
<i>Papaver</i> sp.	Poppy	-	-	-	-
<i>Plantago drummondii</i>	Dark Plantain	-	-	-	-
<i>Podotrochea angustifolia</i>	Sticky Long-heads	-	-	-	-
<i>Romulea rosea</i> var. <i>australis</i>	Common Onion-grass	-	-	-	-
<i>Romulea</i> sp.	Onion-grass	-	-	-	-
<i>Salvia verbenaca</i> var.	Wild Sage	-	-	-	-
<i>Sisymbrium officinale</i>	Hedge Mustard	-	-	-	-
<i>Sisymbrium orientale</i>	Indian Hedge Mustard	-	-	-	-
<i>Sonchus oleraceus</i>	Common Sow-thistle	-	-	-	-
<i>Solanum nigrum</i>	Black Nightshade	-	-	-	-
<i>Trifolium</i> sp.	Clover	-	-	-	-
<i>Vicia</i> sp.	Vetch	-	-	-	-

Conservation Codes

EPBC Act: Environment Protection and Biodiversity Conservation Act 1999, **NPW Act:** National Parks and Wildlife Act 1972.

Conservation Status

V: Vulnerable, R: Rare.

Declared

Declared plant under the *Landscape South Australia Act 2019*.

WoNS

Weed of National Significance.

Appendix D

Fauna Species Recorded by the Field Surveys

Fauna Species Recorded by the Field Surveys

Scientific Name	Common Name	Conservation Status	
		EPBC Act	NPW Act
Aves			
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater	-	-
<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	-	-
<i>*Alauda arvensis arvensis</i>	Eurasian Skylark	-	-
<i>Anthus australis</i>	Australasian Pipit	-	-
<i>Aquila audax audax</i>	Wedge-tailed Eagle	-	-
<i>Chalcites basal</i>	Horsfield’s Bronze Cuckoo	-	-
<i>Cheramoeca leucosterna</i>	White-backed Swallow	-	-
<i>Cincloramphus cruralis</i>	Brown Songlark	-	-
<i>Circus assimilis</i>	Spotted Harrier	-	-
<i>Coracina novaehollandiae</i>	Black-faced Cuckooshrike	-	-
<i>*Columba livia</i>	Rock Dove	-	-
<i>Corvus coronoides</i>	Australian Raven	-	-
<i>Corvus mellori</i>	Little Raven	-	-
<i>Eolophus roseicapilla</i>	Galah	-	-
<i>Epthianura albifrons</i>	White-fronted Chat	-	-
<i>Falco berigora berigora</i>	Brown Falcon	-	-
<i>Falco cenchroides cenchroides</i>	Nankeen Kestrel	-	-
<i>Gavicalis virescens</i>	Singing Honeyeater	-	-
<i>Grallina cyanoleuca cyanoleuca</i>	Magpielark	-	-
<i>Gymnorhina tibicen</i>	Australian Magpie	-	-
<i>Hirundo neoxena neoxena</i>	Welcome Swallow	-	-
<i>Manorina flavigula</i>	Yellow-throated Miner	-	-
<i>Mirafra javanica</i>	Horsfield's Bush Lark	-	-
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V
<i>Ocyphaps lophotes lophotes</i>	Crested Pigeon	-	-
<i>*Passer domesticus domesticus</i>	House Sparrow	-	-
<i>Petroica goodenovii</i>	Red-capped Robin	-	-
<i>Rhipidura leucophrys leucophrys</i>	Willie Wagtail	-	-
<i>*Sturnus vulgaris vulgaris</i>	Common Starling	-	-
<i>Vanellus tricolor</i>	Banded Lapwing	-	-
Mammalia			
<i>Austronomus australis</i>	White-striped Freetail Bat	-	-
<i>Chalinolobus gouldii</i>	Gould’s Wattled Bat	-	-
<i>Mormopterus planiceps</i> sp. 4	Southern Freetail Bat	-	-
<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	-	-
<i>Scotorepens balstoni</i>	Inland Broad-nosed Bat	-	-
<i>Vespadelus regulus</i>	Southern Forest Bat	-	-
Reptilia			
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU	-

Conservation Codes

EPBC Act: Environment Protection and Biodiversity Conservation Act 1999, NPW Act: National Parks and Wildlife Act 1972.

Conservation Status

VU/V: Vulnerable.

* Denotes an introduced species



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