



Whyte Yarcowie Wind Farm Geotech Investigations

Native Vegetation Clearance Data Report

Final

July 2026



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Prepared by
Umwelt (Australia) Pty Limited

On behalf of
Whyte Yarcowie Wind Farm Pty Ltd

Project Director: Alison Derry
Project Manager: Angela Carpenter
Report No.: 31653/R11
Date: July 2026



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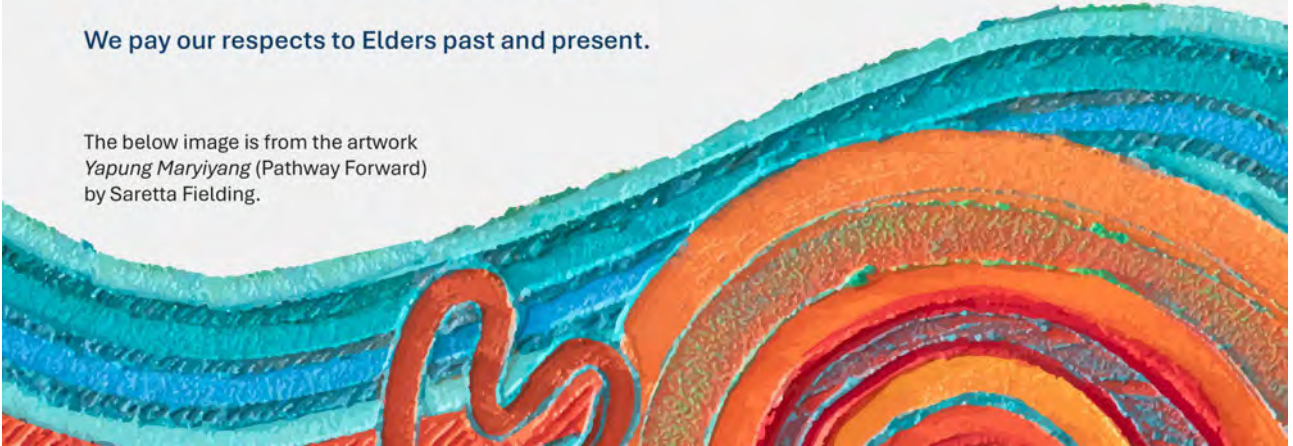
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Acknowledgement of Country

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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Document Status

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Abbreviations

Abbreviation	Description
%	Percent
BAM	Bushland Assessment Method
BDBSA	Biological Databases of South Australia (maintained by DEW)
BESS	Battery Energy Storage System
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEW	Department for Environment and Water (SA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (Commonwealth, now DCCEEW)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
HRE Act	<i>Hydrogen and Renewable Energy Act 2023</i> (SA)
IBRA	Interim Biogeographical Regionalisation of Australia
INTG	Iron-grass Natural Temperate Grassland of South Australia
LSA Act	<i>Landscape South Australia Act 2019</i> (SA)
MNES	Matters of National Environmental Significance
NatureMaps	Initiative of DEW that provides a common access point to maps and geographic information about South Australia's natural resources in an interactive online mapping format.
NPW Act	<i>National Parks and Wildlife Act 1972</i> (SA)
NV Act	<i>Native Vegetation Act 1991</i> (SA)
NVB	Native Vegetation Branch
NVC	Native Vegetation Council
OHL	Overhead Line
PBGW	Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia
PBTL	Pygmy Blue-tongue Lizard (<i>Tiliqua adelaidensis</i>)
PDI Act	<i>Planning, Development and Infrastructure Act 2016</i> (SA)
PMST	Protected Matters Search Tool (under the EPBC Act; maintained by DCCEEW)
SA	South Australia(n)
Search Area	5 km buffer of the Project Area considered in the desktop assessment database searches.
sp.	Species
ssp.	Species (plural)
ssp.	subspecies
SEB	Significant Environmental Benefit
TEC	Threatened Ecological Community
Umwelt	Umwelt (Australia) Pty Ltd
VA(s)	Vegetation Association(s)
var.	Variety (a taxonomic rank below that of species and subspecies, but above that of form)
WYWF	Whyte Yarcowie Wind Farm

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1.0 Application Information

Details of the native vegetation clearance application are summarised in **Table 1.1**, with a summary of the proposed clearance provided in **Table 1.2**.

Table 1.1 Application Details

Applicant	Whyte Yarcowie Wind Farm Pty Ltd		
Key Contact	[REDACTED]		
Landowner	See Attachment 1 for landowner details and landowner consent for the project. The geotechnical investigations, access tracks, test pits and borehole locations fall across private properties.		
Site Address	Whyte Yarcowie Wind Farm Project Area, Whyte Yarcowie, South Australia 5420 215 Sheoak Road, Whyte Yarcowie South Australia, 5420.		
Local Government Area	Regional Council of Goyder Northern Areas Council	Hundred	Belalie, Hallet, Terowie (majority of project), Whyte, Anne.
Title ID	Title IDs are provided in Attachment 1	Parcel ID	Parcel IDs are provided in Attachment 1

Table 1.2 Summary of Proposed Clearance

Purpose of Clearance	Whyte Yarcowie Wind Farm Pty Ltd is proposing to develop, construct and operate up to 47 wind turbine generators in the Mid-North of South Australia (SA) – the Whyte Yarcowie Wind Farm (WYWF). This application is for clearance associated with geotechnical investigations required to inform the development of the Project. The proposed geotechnical investigations include access tracks, test pits and borehole locations.																								
Native Vegetation Regulation	Regulation 12 (34) – Infrastructure																								
Description of the Vegetation under Application	Vegetation Associations (VAs) proposed to be impacted include: <table><tr><th>VA #</th><th>Vegetation Association</th><th>Proposed hectares impacted</th></tr><tr><td>A1</td><td>Lomandra Grassland</td><td>0.44</td></tr><tr><td>A2</td><td><i>Maireana aphylla</i> shrubland</td><td>0.71</td></tr><tr><td>A3</td><td><i>Eucalyptus porosa</i> Mallee Woodland</td><td>2.42</td></tr><tr><td>A5</td><td><i>Eucalyptus leucoxylon</i> ssp. <i>pruinosa</i> Woodland</td><td>0.22</td></tr><tr><td>A6</td><td><i>Eucalyptus oleosa</i> ssp. <i>oleosa</i> / <i>Eucalyptus socialis</i> ssp. <i>socialis</i> Mixed Mallee</td><td>0.36</td></tr><tr><td>A7</td><td><i>Austrostipa</i> spp. / <i>Rytidosperma</i> spp. Very Open Grassland</td><td>13.87</td></tr><tr><td colspan="2">Total native vegetation (ha)</td><td>18.02</td></tr></table>	VA #	Vegetation Association	Proposed hectares impacted	A1	Lomandra Grassland	0.44	A2	<i>Maireana aphylla</i> shrubland	0.71	A3	<i>Eucalyptus porosa</i> Mallee Woodland	2.42	A5	<i>Eucalyptus leucoxylon</i> ssp. <i>pruinosa</i> Woodland	0.22	A6	<i>Eucalyptus oleosa</i> ssp. <i>oleosa</i> / <i>Eucalyptus socialis</i> ssp. <i>socialis</i> Mixed Mallee	0.36	A7	<i>Austrostipa</i> spp. / <i>Rytidosperma</i> spp. Very Open Grassland	13.87	Total native vegetation (ha)		18.02
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The geotechnical disturbance footprint includes proposed access tracks, test pit locations and borehole locations. Access is categorised as existing road/track, cropped land tracks, new tracks and rocky access areas.																									

Total Proposed Clearance - Area (ha)	18.02 ha of native vegetation is proposed to be temporarily cleared for geotechnical investigations. The current geotechnical design includes 53 boreholes and 115 test pits. Access track lengths comprise 48.49 km of existing road/track, 14.72 km of cropped land tracks, 34.67 km of new track and 7.18 km of rocky road, with a total access length of 105.06 km. Existing roads and farm tracks have not been included in the Native Vegetation Footprint layer.
Level of Clearance	Level 4
Overlay (Planning and Design Code)	Native Vegetation Overlay
Map of Proposed Clearance Area	Maps of the proposed linear clearance are provided in Figure 4.1 to Figure 4.19 .
Mitigation Hierarchy	Avoidance It is not possible to completely avoid impact to native vegetation in the geotechnical campaign as a sample is required to be taken from all proposed wind turbine areas. Existing roads, farm tracks and public roads have been used where practicable to avoid impacts to native vegetation. Where access is using existing roads or farm tracks, these areas have not been included in the Native Vegetation Footprint layer. Where proposed test locations are located on public roads, the footprint is to be kept within the public road to avoid vegetation impacts, subject to separate council approval where required. Minimisation New access tracks have generally been limited to a 3 m wide footprint, being 1.5 m either side of the centreline. In some rocky areas, a 10 m wide footprint has been applied where access is likely to be more difficult, and additional manoeuvring may be required for the excavator or drill rig. Impacts to native vegetation for the geotechnical campaign have been minimised through selection of access routes which use existing station tracks and roads as much as possible and minimising the creation of new access tracks as much as possible. Rehabilitation or Restoration Areas temporarily disturbed by the geotechnical investigations will be rehabilitated as soon as practicable following completion of works. Rehabilitation may include backfilling test pits and boreholes, reinstating disturbed ground surfaces, respreading topsoil where appropriate, and allowing natural regeneration of vegetation. The proponent has committed to rehabilitating the geotechnical impact areas within three years of works, however it is possible to be as soon as the work is completed. Rehabilitation will be simplified to respreading any stockpiled topsoil and ripping compacted areas. Natural regeneration will then occur. Offset The proponent is investigating on-ground offsets. If a suitable offset cannot be secured, the Project will be offset by payment directly into the Native Vegetation Fund.
SEB Offset Proposal	The total Significant Environmental Benefit (SEB) offset obligations required for the clearance of 18.02 ha of native vegetation is a payment of \$103,433.35 (including administration fee of \$5,392.26).

2.0 Purpose of Clearance

2.1 Description

Whyte Yarcowie Wind Farm Pty Ltd is proposing to develop, construct and operate the Whyte Yarcowie Wind Farm (WYWF), consisting of up to 47 wind turbine generators in the Mid-North of South Australia (SA). The WYWF is located east, south-east and south of the small township of Whyte Yarcowie, approximately 190 km north of Adelaide.

Umwelt has been engaged by Whyte Yarcowie Wind Farm Pty Ltd to undertake a native vegetation clearance assessment for proposed geotechnical investigations associated with the WYWF. The geotechnical investigations are required to inform the detailed design and development of the Project.

This native vegetation clearance application is for temporary disturbance associated with geotechnical investigation works, including access tracks, test pits and borehole locations across the Project Area. The proposed clearance under this application relates only to the geotechnical investigation works and does not include clearance associated with the broader wind farm, Battery Energy Storage System (BESS), Overhead Line (OHL) or substation expansion, which have been or are being assessed separately.

The current geotechnical design includes 53 boreholes and 115 test pits. Access track lengths comprise 48.49 km of existing road/track, 14.72 km of cropped land tracks, 34.67 km of new track and 7.18 km of rocky road, with a total access length of 105.06 km. Existing roads and farm tracks have not been included in the Native Vegetation Footprint layer.

The proposed native vegetation clearance comprises 18.02 ha of native vegetation associated with six vegetation associations under application. The Significant Environmental Benefit (SEB) requirements for the proposed clearance are detailed in **Section 6.0**.

2.2 Background

2.2.1 Current and Surrounding Land Use

The current land use is predominantly sheep grazing and cropping. Grazing impact by feral goats and a range of macropod species (Red Kangaroo (*Macropus rufus*), Euro (*Macropus robustus*) and Western Grey Kangaroo (*Macropus fuliginosus*)) occurs. There are no proposed changes to land use (sheep grazing or cropping) following construction of the WYWF.

2.2.2 Rainfall

The mean annual rainfall is 346.3 mm (BOM 2024). Rainfall data was sourced from Whyte Yarcowie (station number 21055), located approximately 2 km northwest of the Project Area. However, for the bushland assessment scoresheets, mean rainfall was obtained for each bushland assessment method site from NatureMaps (DEW 2024). Rainfall varies from 340 mm to 444 mm per year across the Project Area.

2.2.3 Wetlands and Watercourses

There are no major watercourses or water bodies within the Project Area. While Ulooloo Creek passes through the eastern side of the Project Area and Pigeon Box Creek passes through the western side of the Project Area, these creeks have no permanent flowing or standing water bodies.

Hiles Lagoon is approximately 3 km north of the Project Area. The lagoon is dry for a portion of the year, including when EPBC listed Migratory shorebirds may be present within Australia for summer. However, water is often still present, within an inlet on the west side of the lagoon.

Targeted surveys for migratory bird species were undertaken twice at the inlet to Hiles Lagoon (summer 2023 and summer 2024), within the period when migratory birds may be present foraging at inlets such as Hiles Lagoon.

2.2.4 Administrative Boundaries

The majority of the proposed Project falls within the Regional Council of Goyder Local Government Area, with the remainder falling within the Northern Areas Council. The Project falls within the Northern and Yorke Landscape Management Region.

2.2.5 Bioregions

The Interim Biogeographical Regionalisation of Australia (IBRA) identifies geographically distinct regions based on common climate, geology, landform, native vegetation, and species information. The Project Area is in the Flinders Lofty Block IBRA bioregion and the Olary Spur and Broughton subregions. IBRA environmental associations over the Project Area are Terowie, Hansen, Bald Hill, Clare, and Yongala. The Terowie environmental association falls over the majority of the wind farm with only small portions covered by Broughton/Bald Hill/Hansen.

A summary of the IBRA bioregion, subregion and associations of the Project Area is provided in **Table 2.1**.

Table 2.1 Summary of the IBRA Bioregion, Subregion and Associations of the Project Area

Flinders Lofty Block IBRA bioregion
Temperate to arid Proterozoic ranges, alluvial fans and plains, and some outcropping volcanics, with the semi-arid to arid north supporting native cypress, black oak (belah) and mallee open woodlands, Eremophila and Acacia shrublands, and bluebush/saltbush chenopod shrublands on shallow, well-drained loams and moderately deep, well-drained red duplex soils. The increase in rainfall to the south corresponds with an increase in low open woodlands of <i>Eucalyptus obliqua</i> and <i>E. baxteri</i> on deep lateritic soils, and <i>E. fasciculosa</i> and <i>E. cosmophylla</i> on shallower or sandy soils.
Olary Spur subregion
Approximately 97 % (973,645) of the subregion is mapped as remnant native vegetation
Terowie IBRA environmental association
Approximately 86 % (282,060 ha) of the association is mapped as remnant native vegetation, of which 1 % (2, 053 ha) is formally conserved.
Broughton IBRA subregion
Approximately 10 % (106,330 ha) of the subregion is mapped as remnant native vegetation, of which 3 % (3,064 ha) is formally conserved.
Hansen IBRA environmental association
Approximately 3 % (3,738 ha) of the association is mapped as remnant native vegetation, of which 1 % (28 ha) is formally conserved.
Bald Hill IBRA environmental association
Approximately 30 % (4,431 ha) of the association is mapped as remnant native vegetation

Clare IBRA environmental association

Approximately 8 % (12,361 ha) of the association is mapped as remnant native vegetation, of which 3 % (424 ha) is formally conserved.

Yongala IBRA environmental association

Approximately 10 % (14,577 ha) of the association is mapped as remnant native vegetation, of which 0 % (0 ha) is formally conserved.

2.3 General Location Map

The general location of the Project Area is provided in **Figure 2.1**.

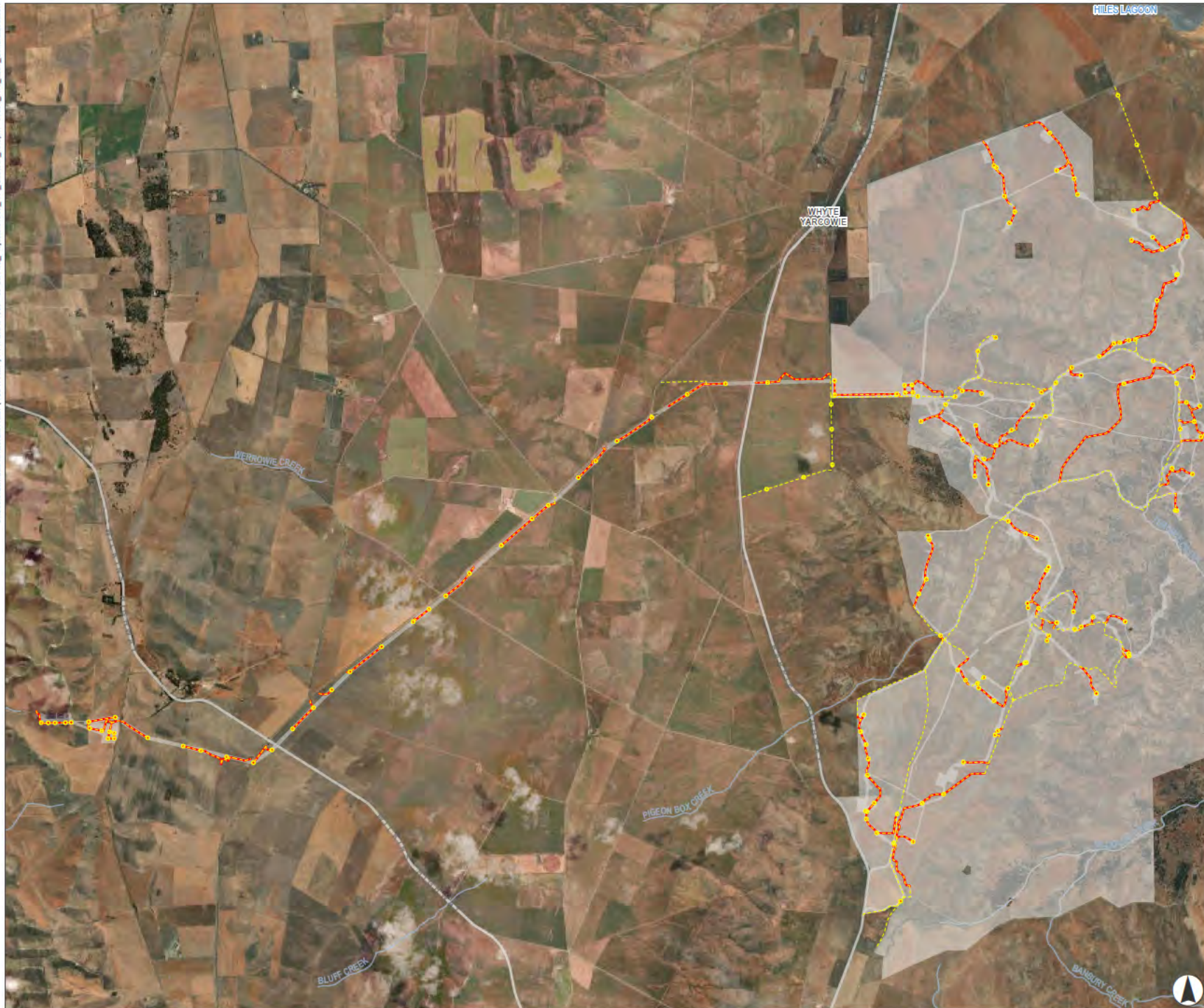
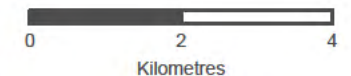


FIGURE 2.1
General Location of the Project Area

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm, BESS, OHL and Substation Expansion
- Wind Farm
- Watercourses
- Waterbodies
- Main road



Scale 1:100,000 at A4
GDA2020 MGA Zone 54



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APPROVED FOR AND ON BEHALF OF Umwelt

2.4 Details of the Proposal

The Project encompasses the following activities for the geotechnical investigations:

- Access to proposed geotechnical investigation locations.
- Excavation of test pits.
- Drilling of boreholes.
- Temporary disturbance associated with access tracks, test pits and borehole locations.
- Rehabilitation of temporarily disturbed areas following completion of the investigations, where practicable.

The current geotechnical design includes 53 boreholes and 115 test pits. Access tracks are categorised as:

- Existing road/track.
- Cropped land tracks.
- New access tracks.
- Rocky access areas.

Existing roads and farm tracks have not been included in the Native Vegetation Footprint layer. New access tracks have generally been assigned a 3 m wide footprint, while rocky access areas have been assigned a 10 m wide footprint where additional manoeuvring may be required.

2.5 Approvals Required

- **Native Vegetation Act 1991 (NV Act)** – This data report is supplied to fulfil the requirement to impact native vegetation under the NV Act.
- **Planning, Development and Infrastructure Act 2016 (PDI Act)** – The relevant approval pathway for the Project is the HRE Act, and as such, the Project does not require approval under the PDI Act. The Project still seeks to comply with the relevant policies under the Planning and Design Code (established under the PDI Act).
- **Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)** – On 27 June 2025 the WYWF Project was determined to be a Controlled Action (EPBC 2024-09961). The Geotech investigations and Wind Farm are all part of the EPBC Act Controlled Action Project Area. The approval pathway is through Preliminary Documentation.
- **National Parks and Wildlife Act 1972 (NPW Act)** – Umwelt has the required flora collection permit (K25613-28).
- **Landscape South Australia Act 2019 (LSA Act)** – A water affecting activity permit is unlikely to be required for the proposed Project. Plants listed as Declared under the LSA Act were observed in the Project Area. All land managers have a duty to manage environmental weeds and Declared plants on their property. A permit to transport Declared plants on a public road may be required for the proposed Project (i.e., for contaminated topsoil which may be removed from site).

- **Aboriginal Heritage Act 1988** – A Heritage Desktop Assessment has been undertaken for the Project and recommended that the Project presents a low risk encountering previously unknown Aboriginal sites, objects or remains. However, approval will be required if any unexpected discoveries occur during works and where impacts cannot be avoided.

2.6 Native Vegetation Regulation

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

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.
- b. Required in connection with the provision of infrastructure or 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.

Infrastructure refers to:

- 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
- Roads and their supporting structures or works; or
- Ports, wharfs, jetties, railways, trams and busways.

3.0 Methodology

3.1 Flora Assessment

The flora assessment was undertaken over multiple field surveys in accordance with the Bushland Assessment Method (BAM) (NVC 2024a). A broad field survey was undertaken across the Project Area between 25–29 September 2023 by NVC Accredited Consultants H. Merigot, Dr T. How and E. West and accompanied by ecologist D. Hoadley. The initial broad field survey was conducted under suitable conditions. Follow up flora assessments were performed by NVC Accredited Consultant J. Skewes and Ecologist S. Bulling from 9 to 11 September 2024. The fourth and fifth flora assessments were undertaken on 28 October 2024 and 25 February 2025 by NVC Accredited Consultant E. West and Ecologist C. Panozzo.

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 assess areas of native vegetation requiring clearance and calculate the Significant Environmental Benefit (SEB) requirements.

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 direct and historical observations of fauna species of conservation significance. All fauna identified as known or likely to occur in the Protected Matters Search Tool (PMST), and fauna with Biological Databases of South Australia (BDBSA) records since 1995 and with a spatial reliability of less than 1 km, within 5 km of the Project Area, were included in the BAM scoresheets.

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 *E. odorata* woodland was identified in the initial broadscale vegetation mapping in 2019.

Surveys in areas of Lomandra Grassland (which have potential to be INTG) followed the criteria 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).

A conservative approach was taken to mapping as per guidance from Turner (2012). For example, where a patch assessed as Class C joined a patch that was assessed as Class B, the whole area was assessed as Class B. Where an area missed out on being Class B by a marginal number of species, it

was upgraded to Class B. To account for seasonal inaccuracies, survey results from seasons that were ideal, overrode later results in less-than-ideal conditions.

Surveys for INTG were undertaken over multiple field surveys under a variety of seasonal conditions:

- 2019 (initial broadscale mapping, not ideal conditions).
- 2021-2022 (opportunistic surveys of small areas).
- **7-11 November 2022 (targeted survey conducted under ideal conditions whereby the majority of the INTG mapping within the wind farm project boundary was undertaken).**
- 25-29 September 2023 (less suitable conditions than 2022, results did not override 2022 results and took a precautionary approach).
- 3 September 2024 – (small pockets).
- 28 Oct – 1 November 2024 (potential offset areas within and outside of the Project Area).

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). This finalised list was issued by the Native Vegetation Branch (NVB) in March 2026, which was reviewed for relevant State-listed TEC's.

3.2 Fauna Assessment

A desktop assessment was undertaken to determine the potential for any threatened fauna species and TECs to occur within the Project Area. This included species listed under both the EPBC Act and the NPW Act. The search was undertaken by applying a 5 km buffer around the Project Area (the Search Area). The following databases were searched to obtain records of threatened species:

- Protected Matters Search Tool (PMST). Report generated by the Department of Climate Change, Energy, Environment and Water (DCCEEW) to identify any Matters of National Ecological Significance (MNES) that are 'known to occur' in the Search Area.
- Biological Databases of South Australia (BDBSA). Data extract obtained from the Department for Environment and Water (DEW) that identifies the location of historical records of flora and fauna in the Search Area.

3.2.1 Protected Matters Search Tool Report

A PMST report was generated on 24 June 2026 to identify flora, fauna and TECs listed under the EPBC Act as threatened or migratory (DCCEEW 2026). Species identified as 'known to occur' were entered into the scoresheets for the purposes of calculating the threatened fauna score, conservation significance score and SEB obligations of the clearance.

Threatened fauna species that are 'known to occur' within the Project Area, based on field data collected since 2019 from the WYWF, were entered into scoresheets if habitat for that particular species was present. This included:

- Pygmy Blue-tongue Lizard (*Tiliqua adelaidensis*) - listed as Endangered under the EPBC Act and Endangered under the NPW Act.
- Southern Whiteface (*Aphelocephala leucopsis*) - listed as Vulnerable under the EPBC Act.

3.2.2 Biological Databases of South Australia Data Extract

A data extract from the BDBSA was obtained from DEW to identify flora and fauna species that have been recorded within 5 km of the Project Area (data extracted 14 January 2026; DEW 2026a Recordset number: DEWNRBDBSA260114-1).

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 standards for data quality, integrity and maintenance. Only species with records since 1995 and a spatial reliability of less than 1 km were assessed for their likelihood of occurrence.

Nationally threatened fauna listed in **Section 3.2.1** above were entered into the bushland assessment scoresheets where habitat was suitable. Entering PBTL (EPBC Endangered) causes the scoresheets to reach the maximum Threatened Fauna Score of 0.1. Alternatively entering two Vulnerable species (the Southern Whiteface and Blue-winged Parrot) also reaches the maximum Threatened Fauna Score of 0.1. No other threatened species were entered into the fauna tab in most cases, as the maximum Threatened Fauna Score had already been reached. All data from the targeted Pygmy Blue-tongue Lizard surveys and bird utilisation surveys has been sent to DEW for entry into the BDBSA separately.

Additional data was extracted from NatureMaps to obtain information such as fire history, rainfall and heritage agreements and other inputs for the BAM scoresheets (DEW 2025).

3.2.3 Targeted Fauna Surveys

3.2.3.1 Pygmy Blue-tongue Lizard (*Tiliqua adelaidensis*)

Targeted searches for the Nationally Endangered Pygmy Blue-tongue Lizard (PBTL) were undertaken over the following survey periods, with over 8,900 burrows searched:

- 2–6 December 2019 and 20–24 April 2020.
- 26 May 2022.
- 6–7 September 2022.
- 7–11 November 2022.
- 21 November 2022.
- 25–29 September 2023.
- 10 September 2024.
- 2 October 2024.
- 28 October – 1 November 2024.
- 25–26 February 2025.

Survey methods were consistent with the *Survey guidelines for Australia's threatened reptiles: Guidelines for detecting reptiles listed as threatened under the EPBC Act* (DSEWPC 2011). Each spider burrow was recorded using a Garmin GPS with an accuracy of ± 4 m and inspected using a videoscope, which has an illuminated articulating insertion probe approximately 8 mm in diameter, and a digital video display screen (Yateks M-Series).

Areas with spider burrows were checked, however areas under crop or existing infrastructure such as roads were not checked as they do not support PBTL or provide potential habitat.

3.2.3.2 Flinders Ranges Worm-lizard (*Aprasia pseudopulchella*)

Targeted searches for Flinders Ranges Worm-lizard (FRWL) were undertaken in autumn 2020, spring 2025 and winter 2026. Methods were consistent with those endorsed by DCCEEW and DEW in 2025 (Umwelt Ref), with approximately 8,000 rocks flipped.

The survey was commissioned in response to recommendations from DCCEEW and DEW.

In November 2025 Umwelt conducted a targeted FRWL survey within the proposed Disturbance Footprint of the Project Area based on the survey guidelines present at the time. Following the November 2025 survey, new internal data from DEW suggested that surveys for FRWL may be more successful after rain in the winter months than during spring. Based on these new data and consultation with DEW and DCCEEW, Umwelt conducted a second targeted FRWL survey in the Disturbance Footprint, during winter 2026.

FRWL surveys were conducted by turning rocks and logs at survey sites with habitat suitable to FRWL and recording any FRWL which were found. At each survey site 150-200 rocks were turned providing that enough rocks were available.

During the surveys, active searches for FRWL were conducted at 15 sites during the spring 2025 survey and 59 sites during winter 2026 survey, with a total 9,500 and 12,400 rocks being turned over during the three surveys.

3.2.3.3 Bird and Bat Utilisation Surveys

Bird surveys were initially undertaken at the Project Area between 20 – 24 April 2020 and are described in the baseline flora and fauna assessment (EBS Ecology 2021). The point count survey sites, selected during the previous surveys, provided the basis for establishing bird survey sites for the BBUS monitoring program (of two years), which began in spring 2022 and was completed in late July-early August 2024.

Sixteen (16) BBUS sites were initially surveyed for birds in April 2020. In spring 2022, many of these sites were resurveyed, however some were inaccessible and were moved. A total of 18 sites were surveyed in spring 2022. Several of the sites were further adjusted or replaced (Sites 10, 11), due to accessibility issues. Bird surveys have been conducted across a range of different vegetation associations in the project area.

Bat Surveys (Anabat)

Bat surveys were undertaken within the baseline survey in spring 2019. AnaBat detection units (Titley Electronics, Ballina, New South Wales) were used to record and analyse the echolocation calls of bats to gain an understanding of species using the project area.

The detection units were set up in spring 2019 at four of the BBUS sites for two nights and were placed in areas thought to be of suitable habitat for bats or that bats may frequent when feeding. Woodland areas observed as containing hollows, for roosting and ‘flyway’ tunnels through the canopy, were targeted for bat call activity surveys.

Recorded bat echolocation calls were viewed as sonograms and analysed using AnalookW software. The unique pulse rates and frequency characteristics of bat calls were viewed and compared with

known reference calls of bat species to identify the calls to species level where possible. Species identification was only made if certain of the call identification.

Anabat recorders were not recommended for further assessment based on the findings of the spring 2019 survey, however with policy uncertainty about the assessment and control of wind farm impacts on bats, Wind Prospect requested their use in the remaining BBUS surveys from autumn 2023. As such, Anabat recorders were setup at five of the BBUS sites, from autumn 2023 to winter 2024. The data was analysed and reported on in a separate final bird and bat monitoring report (Umwelt 2024b).

3.2.3.4 Plains Wanderer (*Pedionomus torquatus*) Targeted Surveys

Umwelt undertook a targeted survey for the Plains Wanderer (*Pedionomus torquatus*) within the proposed WYWF Project Area in the mid-north of South Australia. The survey was commissioned in response to recommendations from DCCEEW and DEW, with the objective to:

- Determine whether the species utilises habitat within the Project Area.
- Assess potential impacts from the proposed wind farm and identify whether avoidance or mitigation measures are required.

The Plains-wanderer is listed as Critically Endangered under the *EPBC Act* and Endangered under the *NPW Act*. Targeted surveys were conducted within habitat mapped as suitable for the Plains-wanderer within the Whyte Yarcowie Project Area, using a combination of night-time spotlighting and bio-acoustic monitoring, consistent with current best-practice guidance (Rowe et al. 2024).

Under favourable weather and lunar conditions, spotlighting surveys were undertaken on foot across four sites in November 2025, covering approximately 80 km of transects. Bio-acoustic recorders were deployed at 18 locations over a three-month period between November 2025 and February 2026, resulting in a total survey effort of approximately 1,491 recording nights and over 8,465 hours of recordings.

3.2.4 Likelihood of Occurrence

Threatened species and TECs that were identified by the desktop assessment were assessed for their likelihood of occurrence in the Project Area. All species with historical records since 1995 with a spatial reliability of < 1 km, which fell within 5 km of the project area, and species identified by the PMST report as known or likely to occur, were assessed. This assessment follows the methodology set out by the NVC.

The assessment was based on recency of records, habitat preferences and the results of the field survey, with criteria for the likelihood of occurrence described in **Table 3.1**. Marine, wetland and aquatic species were not assessed, as the clearance does not impact these or associated habitats.

Table 3.1 Criteria for the Likelihood of Occurrence of Threatened Species within the Project Area

Likelihood	Criteria
Highly Likely / Known	- 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 species distribution or; - The species was recorded as part of field surveys.
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.

Likelihood	Criteria
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. - 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. - Recorded within 20 - 40 years; however, suitable habitat does not occur, and species of similar habitat requirements have not been recorded in the area. - No records despite adequate survey effort.

3.3 Limitations

Two of the three vegetation surveys were completed in the optimal spring survey window; however preceding conditions were drier than average. The third survey was undertaken in summer when spring annuals were unlikely to be present or identifiable.

Flora and fauna records were retrieved from the PMST and BDBSA extract. 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 possible that significant species may occur in the Project Area that are not reflected by database 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 guarantee that the data is accurate or fit for any particular purpose of the user or any person to whom the user discloses the information.

3.4 Spatial Data

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

- Datum: Geocentric Datum of Australia 2020 (GDA2020).
- Projection: Map Grid of Australia 2020 (MGA2020), Zone 54.

All location coordinates listed in this report are expressed using this system. Spatial data converted from other coordinate reference systems may have accuracy limitations.

4.0 Assessment Outcomes

4.1 Vegetation Assessment

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

Six native vegetation associations (VAs) were recorded in the field surveys for the geotechnical investigations report, including native shrublands, grasslands and woodlands. These VAs were in very poor to moderate condition with vegetation condition scores ranging from 4.55 for a degraded grassland to 45.02 out of a maximum of 80 for a *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland. In addition, the following non-native vegetation, including areas under crop and exotic vegetation, was also mapped. The description and impact area of the VAs is shown in **Table 4.1**.

Table 4.1 VAs Mapped Within the Project Area

VA	Vegetation Description	Geotechnical Temporary Impact (ha)
A1	Lomandra Grassland (includes INTG TEC and Class C which is not the TEC)	0.44
A2	<i>Maireana aphylla</i> shrubland	0.71
A3	<i>Eucalyptus porosa</i> Mallee Woodland	2.42
A5	<i>Eucalyptus leucoxylon</i> ssp. <i>pruinosa</i> Woodland	0.22
A6	<i>Eucalyptus oleosa</i> ssp. <i>oleosa</i> / <i>Eucalyptus socialis</i> ssp. <i>socialis</i> Mixed Mallee	0.36
A7	<i>Austrostipa</i> spp. / <i>Rytidosperma</i> spp. Very Open Grassland	13.87
	Subtotal native vegetation (ha)	18.02
	Cropping	5.70
	Exotic	1.90
	Existing Infrastructure (e.g. roads)	0.20
	Total	25.82

Note that figures have been rounded to two decimal places for display which results in minor discrepancies in the totals when added together.

4.1.2 Details of the Vegetation Associations Proposed to be Impacted

The vegetation associations that are relevant to the Project are described in **Table 4.2** to **Table 4.7**, with the extent of each VA indicated on the mapping in **Section 4.1.3**. Where multiple BAM sites were surveyed within the same broad vegetation association, they have been combined into a single vegetation table, with resulting scores for each site indicated.

Table 4.2 Details of A1: Lomandra Grassland

Vegetation Association	A1: Lomandra Grassland				
Benchmark Community	NA 3.2 Grasslands				
					
Photo of A1: Lomandra Grassland BAM site A1_EW1, facing south (Coordinates: 54, 308419 E, 6318026 N).					
General Description	Lomandra mulitflora ssp. dura grassland. It is unknown if this area once had a woodland overstorey, however there is little evidence in the form of tree stumps or any regeneration.				
	Overstorey	Midstorey		Understorey	
	Absent	Absent		Lomandra multiflora ssp dura or Lomandra effusa dominant	
Threatened Species or Community	The EPBC Act threatened ecological community <i>Iron-grass Natural Temperate Grasslands of South Australia</i> (Critically Endangered) is present. Class A/B INTG TEC was recorded at the following 13 BAM sites: A1_AC4, A1_EW1, A1_EW13, A1_HM1, A1_HM2, A1_HM3, A1_HM4, A1_HM7, A1_HM8, A1_HM9, A1x, A1y, A1z. Class C (non INTG TEC) was recorded at the following two BAM sites: A1_AC2, A1_HM6. One threatened flora species (NPW Act listed Rare) was recorded within the community: <i>Maireana rohrlachii</i> (Rohrlach’s Bluebush), recorded at sites: A1_EW13, A1_HM3, A1_HM4, A1_HM9, A1x, A1y. The following threatened fauna species have been recorded within A1 during field surveys: - Pygmy Blue-tongue Lizard (<i>Tiliqua adelaidensis</i>) - listed as Endangered under the EPBC Act and Endangered the NPW Act. - Southern Whiteface (<i>Aphelocephala leucopsis leucopsis</i>) – listed as Vulnerable under the EPBC Act. This species has been recorded utilising the declared weed African Boxthorn (<i>Lycium ferocissimum</i>) within A1 or where suitable perching shrubs or trees are available.				
Landscape Context Score	1.11	Vegetation Condition Score	34.84	Conservation Significance Score	1.46
Unit Biodiversity Score	57.33	Area (ha)	0.44	Total Biodiversity Score	25.23

Table 4.3 Details of A2: *Maireana aphylla* Shrubland

Vegetation Association	A2: <i>Maireana aphylla</i> Shrubland				
Benchmark Community	NA 3.2 Grasslands				
					
Photo of A2: <i>Maireana aphylla</i> Shrubland facing north, (coordinates: 54 304310.425 E6310667.294 N).					
General Description	Similar species composition to A1 <i>Lomandra</i> Grassland, however A2 is dominated by <i>M. aphylla</i> .				
	Overstorey		Midstorey		Understorey
	-		<i>Maireana aphylla</i>		<i>Lomandra</i> spp. and <i>Dianella</i> are common in the understorey
Threatened Species or Community	No threatened ecological communities occur. Two threatened flora species were recorded in A2 during field surveys: <i>Maireana rohrlachii</i> (NPW Act Rare) was recorded at A2_JS1 and <i>Maireana excavata</i> (NPW Act Vulnerable) was recorded at A2_EW17. Three threatened fauna species are known to occur or possibly occur based on field surveys and the available habitat: - Blue-winged Parrot - listed as Vulnerable under the EPBC Act and Vulnerable under the NPW Act. A single pair was recorded foraging on the ground in A2 during bird utilisation surveys in 2023. - Southern Whiteface - Limited occurrence in A2 as critical habitat features, such as larger shrubs and trees for perching, are lacking, apart from scattered individuals of the declared weed African Boxthorn. - Pygmy Blue-tongue Lizard - potentially occur in A2, however none have been recorded in A2 during targeted surveys.				
Landscape Context Score	1.14	Vegetation Condition Score	31.24	Conservation Significance Score	1.13
Unit Biodiversity Score	40.03	Area (ha)	0.71	Total Biodiversity Score	28.43

Table 4.4 Details of A3: *Eucalyptus porosa* Mallee Woodland

Vegetation Association	A3: <i>Eucalyptus porosa</i> Mallee Woodland				
Benchmark Community	NA 3.1 Woodlands with an Open Grassy Understorey				
					
Photo of A3: <i>Eucalyptus porosa</i> Mallee Woodland BAM site A3_EW11 facing northwest. Coordinates: 54 308797.319 E, 6313335.556 N.					
General Description	Open mallee woodland which has a grassy understorey with few shrubs above 0.5 m height.				
	Overstorey		Midstorey		Understorey
	<i>Eucalyptus porosa</i> (dominant) <i>Eucalyptus socialis</i> <i>Eucalyptus leucoxylon</i> ssp. <i>pruinosa</i>		<i>Enchylaena tomentosa</i> <i>Maireana brevifolia</i>		Mixed grasses and forbs such as <i>Vittadinia cuneata</i> , <i>Austrostipa nitida</i> .
Threatened Species or Community	The community is considered representative of State provisionally listed TEC, Mallee Box <i>E. porosa</i> woodland (Vulnerable). Two threatened flora species were recorded in A3 during field surveys: <i>Maireana rohrlichii</i> (NPW Act Rare) was recorded at A3_EW5, A3_EW8, A3_EW9 and <i>Maireana excavata</i> (NPW Act Vulnerable) was also recorded at A3_EW5. Two threatened fauna species are known to occur or possibly occur based on field surveys and the available habitat: • Southern Whiteface - species regularly recorded in A3 during bird utilisation surveys. • Blue-winged Parrot - may occasionally use the habitat in the non-breeding season for foraging.				
Landscape Context Score	1.08	Vegetation Condition Score	37.41	Conservation Significance Score	1.32
Unit Biodiversity Score	53.25	Area (ha)	2.42	Total Biodiversity Score	128.87

Table 4.5 Details of A5: *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland

Vegetation Association

A5: *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland

Benchmark Community

NA 3.1 Woodlands with an Open Grassy Understorey

Photo of A5: *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland BAM site A5_EW12A facing south.
Photograph taken September 2023. Coordinate 54 306498.914 E 6315976.42 N.

General Description

This VA has relatively tall trees on the eastern side of the Project Area. Lacking in midstorey shrubs. Heavily grazed.

Overstorey

Midstorey

Understorey

Eucalyptus leucoxylon ssp. *pruinosa*

Absent

Avena sp.*

Hordeum sp.*

Threatened Species or Community

This association meets the description of the South Australian provisionally listed Vulnerable threatened ecological community SA Blue Gum *E. leucoxylon* woodland.

Two threatened flora species (NPW Act Rare) were recorded within the community, *Maireana rohrlichii* and *Rumex dumosus* (Wiry Dock).

Two threatened fauna species are known to occur or possibly occur based on field surveys and the available habitat:

Southern Whiteface - species regularly recorded in A5 during bird utilisation surveys.

Blue-winged Parrot- may occasionally use the habitat in the non-breeding season for foraging.

Landscape Context Score

1.08

Vegetation Condition Score

39.89

Conservation Significance Score

1.33

Unit Biodiversity Score

57.14

Area (ha)

0.22

Total Biodiversity Score

12.57

Table 4.6 Details of A6: *Eucalyptus oleosa* ssp. *oleosa* / *Eucalyptus socialis* ssp. *socialis* Mixed Mallee

Vegetation Association	A6: <i>Eucalyptus oleosa</i> ssp. <i>oleosa</i> / <i>Eucalyptus socialis</i> ssp. <i>socialis</i> Mixed Mallee				
Benchmark Community	NA 3.1 Woodlands with an Open Grassy Understorey				
					
Photo of A6: <i>Eucalyptus oleosa</i> ssp. <i>oleosa</i> / <i>Eucalyptus socialis</i> ssp. <i>socialis</i> Mixed Mallee BAM site A6_TH7. Photograph taken September 2023. Coordinate 54 309299.031 E, 6320015.473 N.					
General Description	Mixed mallee community with co-dominant species.				
	Overstorey	Midstorey		Understorey	
	<i>Eucalyptus socialis</i> ssp. <i>socialis</i>	<i>Maireana enchylaenoides</i> <i>Maireana brevifolia</i>		<i>Austrostipa</i> sp. <i>Rytidosperma caespitosum</i>	
	<i>Eucalyptus oleosa</i> ssp. <i>oleosa</i>	<i>Sclerolaena diacantha</i>			
Threatened Species or Community	The community is generally not considered representative of a State-listed TEC, however one site (A6x), included <i>E. leucoxylon</i> and <i>E. porosa</i> in the species mix, which were not dominant, however were included as the TEC for A6x in the absence of condition classes. No threatened flora species were recorded in A6. Three threatened fauna are known to occur or are likely to occur based on the available habitat: • Southern Whiteface - species regularly recorded in A5 during bird utilisation surveys. • Blue-winged Parrot - may occasionally use the habitat in the non-breeding season for foraging. • White-winged Chough (<i>Corcorax melanorhamphos</i>) (NPW Act Rare), was regularly recorded in A6 during bird utilisation surveys.				
Landscape Context Score	1.09	Vegetation Condition Score	31.23	Conservation Significance Score	1.17
Unit Biodiversity Score	39.48	Area (ha)	0.36	Total Biodiversity Score	14.21

Table 4.7 Details of A7: *Austrostipa* spp./ *Rytidosperma* spp. Very Open Grassland

Vegetation Association

A7: *Austrostipa* spp./ *Rytidosperma* spp. Very Open Grassland

Benchmark Community

NA 3.2 Grasslands

Photo of A7: *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland BAM site A7_TH2.

Coordinates: 306255.961 E, 6319282.608 N.

General Description	Unknown if natural grassland or overstorey was removed a long time ago. No evidence of previous woodland in the form of tree stumps or regeneration, however some areas show evidence of previous cropping which has regenerated to native grassland. Varying condition across the Project Area.				
	Overstorey	Midstorey		Understorey	
	Absent	<i>Maireana rohrlachii</i>		<i>Austrostipa</i> spp. <i>Aristida behriana</i> <i>Lomandra effusa</i>	
Threatened Species or Community	The community is considered representative of a State-listed TEC, Spear Grass <i>Austrostipa</i> spp. – Wallaby Grass <i>Rytidosperma</i> spp. – Brush Wiregrass <i>Aristida behriana</i> grassland (Vulnerable). One threatened flora species (NPW Act listed Rare) was recorded within the community: <i>Maireana rohrlachii</i> (Rohrlach’s Bluebush) was recorded at A7_TH2 and A7_TH5. The following threatened fauna are relevant to A7: - Pygmy Blue-tongue Lizard have been recorded in A7. - Southern Whiteface have been recorded within A7 where suitable scattered shrubs or trees are available.				
Landscape Context Score	1.09	Vegetation Condition Score	16.52	Conservation Significance Score	1.31
Unit Biodiversity Score	23.49	Area (ha)	13.87	Total Biodiversity Score	325.85

4.1.3 Site Maps Showing Areas of Proposed Impact

Maps showing the native vegetation under application and the proposed impact of the Project are shown in **Figure 4.1** to **Figure 4.19**.

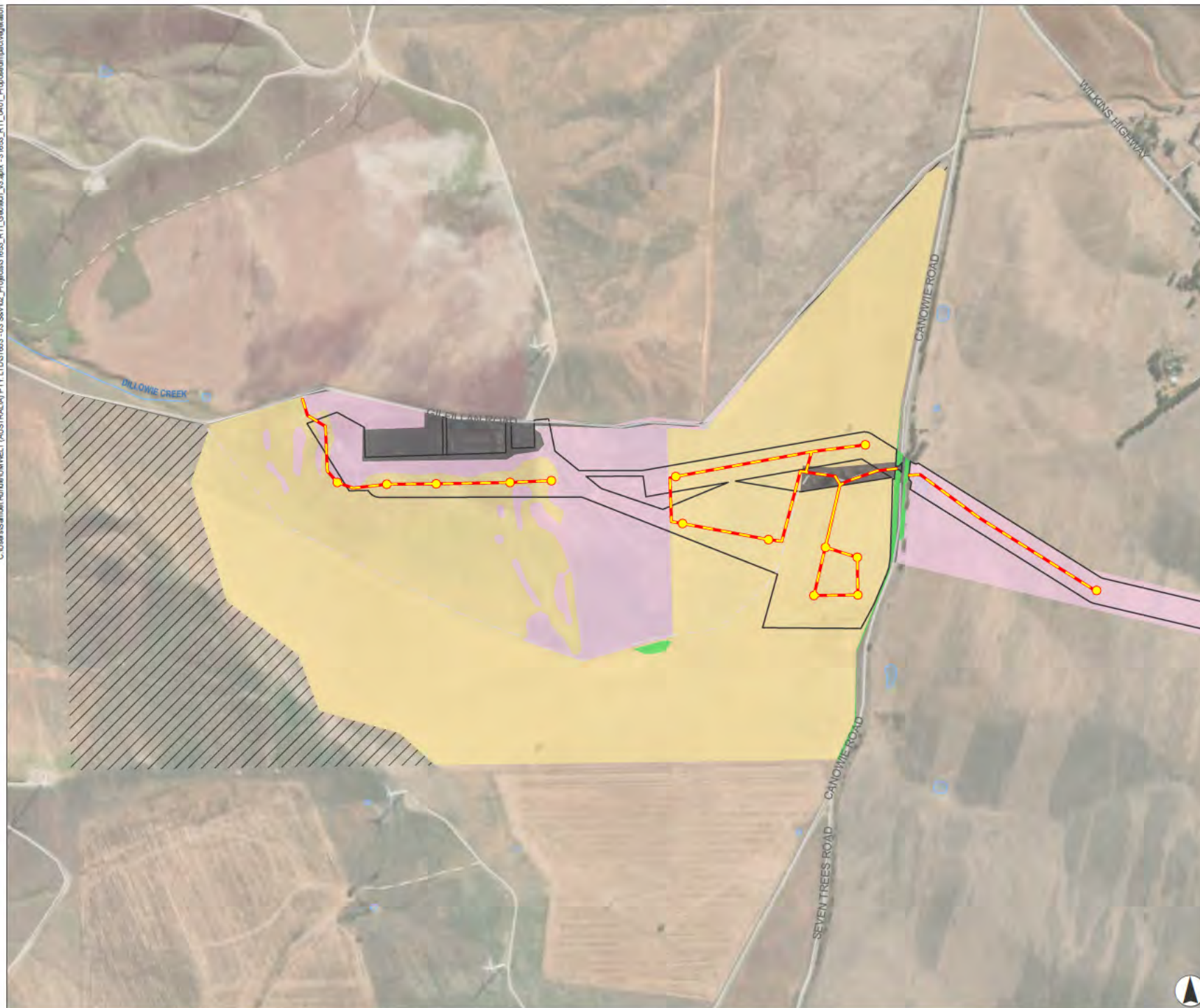


FIGURE 4.1

Map showing Proposed Impact to Vegetation
(map 1 of 19)

Legend

- Geotech Test Locations
- - - Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion
- Waterbodies
- Watercourses
- Main road
- Local Road
- Track

Vegetation Association

- /// Area Not Surveyed
- B7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- Cropping
- Exotic
- Roads/infrastructure



0 0.2 0.4
Kilometres

Scale 1:14,000 at A4
GDA2020 MGA Zone 54



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FIGURE 4.2

Map showing Proposed Impact to Vegetation
(map 2 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion
- Waterbodies
- Main road
- Local Road
- Track

Vegetation Association

- /// Area Not Surveyed
- B7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- Cropping
- Exotic
- Roads/infrastructure



0 0.2 0.4
Kilometres

Scale 1:14,000 at A4
GDA2020 MGA Zone 54



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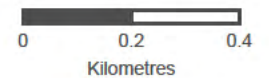
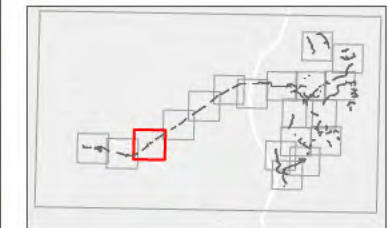
FIGURE 4.3
Map showing Proposed
Impact to Vegetation
(map 3 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion
- Waterbodies
- Main road
- Local Road
- Track

Vegetation Association

- Exotic
- Roads/infrastructure



Scale 1:14,000 at A4
GDA2020 MGA Zone 54



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FIGURE 4.4
Map showing Proposed Impact to Vegetation
(map 4 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion
- Waterbodies
- Local Road
- Track

Vegetation Association

- B14 *Enneapogon nigricans* grassland
- Cropping
- Exotic
- Roads/infrastructure



0 0.2 0.4
Kilometres

Scale 1:14,000 at A4
GDA2020 MGA Zone 54



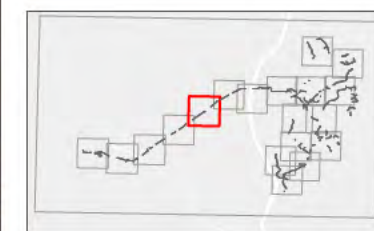
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Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion
- Local Road
- Track

Vegetation Association

- B2 *Maireana aphylla* shrubland
- B14 *Enneapogon nigricans* grassland
- Cropping
- Exotic
- Roads/infrastructure



Group	Proportion (Yes)
No partner	0.2
Partner	0.4

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FIGURE 4.6
Map showing Proposed
Impact to Vegetation
(map 6 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion
- Waterbodies
- Main road
- Local Road
- Track

Vegetation Association

- B2 *Maireana aphylla* shrubland
- B14 *Enneapogon nigricans* grassland
- Cropping
- Roads/infrastructure



0 0.2 0.4
Kilometres

Scale 1:14,000 at A4
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FIGURE 4.7
Map showing Proposed Impact to Vegetation
 (map 7 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Project Area: BESS, OHL and Substation Expansion

Wind Farm

- Wind Farm Infrastructure
- Waterbodies
- Main road
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A2 *Maireana aphylla* shrubland
- B7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- B15 *Maireana rohrbachii* Shrubland
- Cropping
- Exotic
- Roads/infrastructure



0 0.2 0.4
 Kilometres

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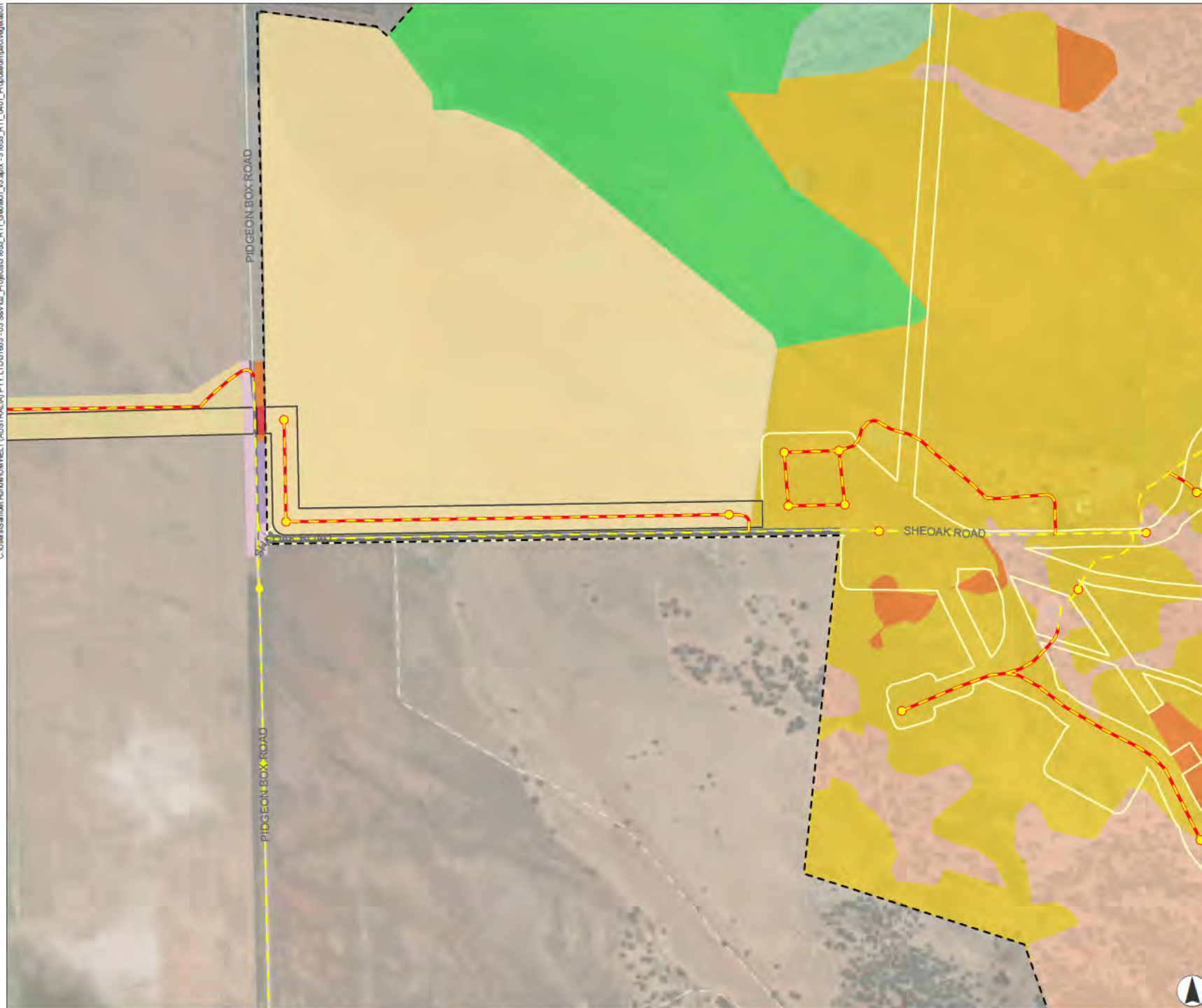


FIGURE 4.8
Map showing Proposed
Impact to Vegetation
(map 8 of 19)

Legend

- Geotech Test Locations
 - Geotech Access Tracks
 - Project Area: Geotech
 - Project Area: BESS, OHL and Substation Expansion
 - Wind Farm
 - Wind Farm Infrastructure
 - Waterbodies
 - Local Road
 - Track
- Vegetation Association**
- A1 Lomandra Grassland
 - A2 *Maireana aphylla* shrubland
 - A3 *Eucalyptus porosa* Mallee Woodland
 - A6 *Eucalyptus oleosa* ssp. *oleosa* / *Eucalyptus socialis* ssp. *socialis* Mixed Mallee
 - A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
 - B7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
 - B15 *Maireana rohrlichii* Shrubland
 - Cropping
 - Exotic
 - Roads/infrastructure



0 0.2 0.4
 Kilometres

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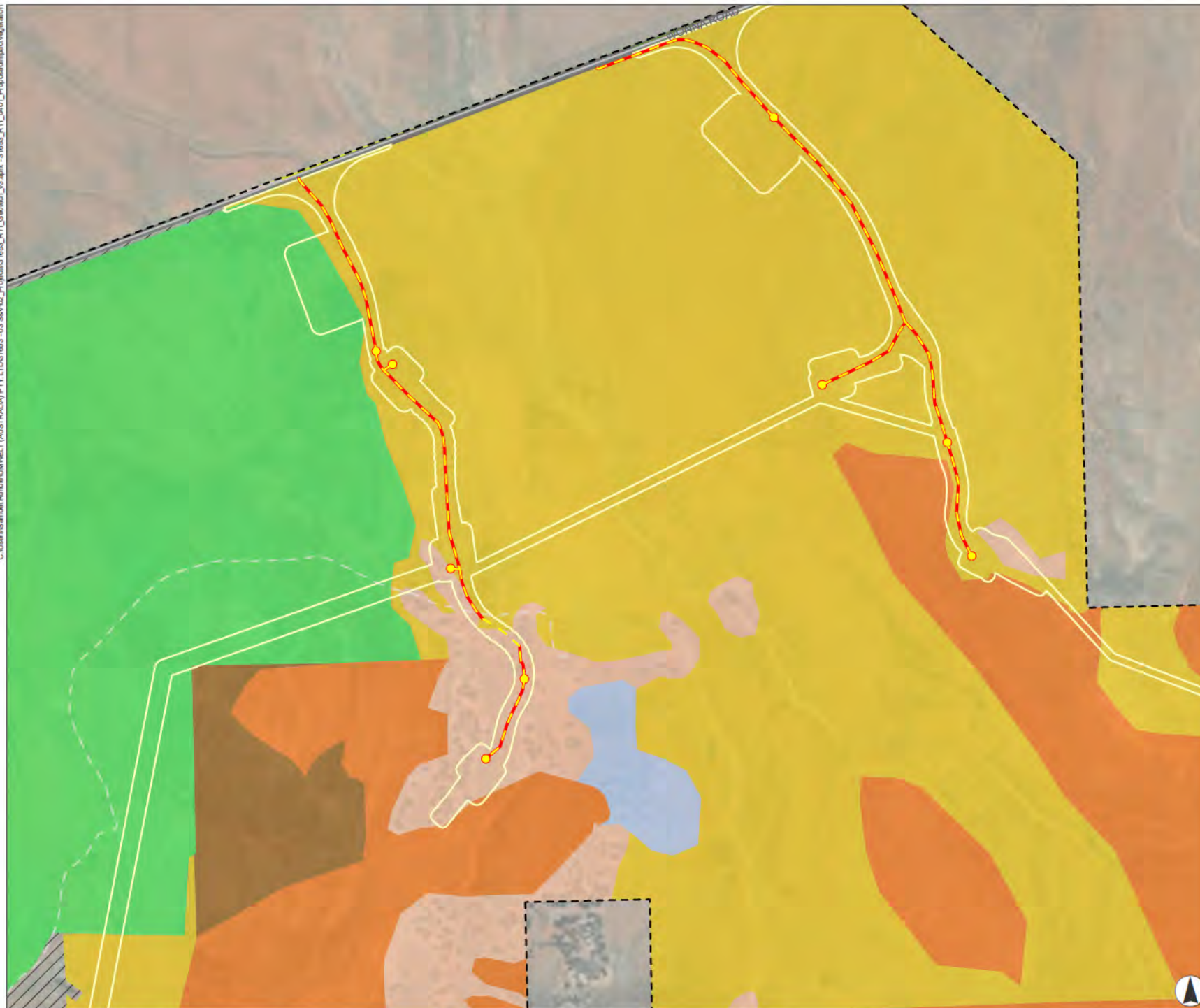


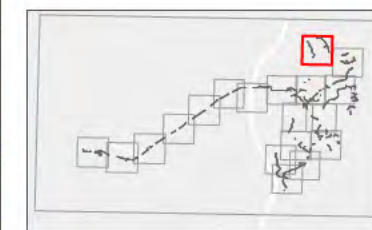
FIGURE 4.9
Map showing Proposed
Impact to Vegetation
(map 9 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A3 *Eucalyptus porosa* Mallee Woodland
- A4 *Callitris gracilis* Woodland
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- A11 *Maireana brevifolia* Shrubland
- A15 *Maireana rohrbachii* Shrubland
- / / Area Not Surveyed
- B7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- B21 Scattered mixed native shrubs with exotic grasses
- Exotic
- Roads/infrastructure



0 0.2 0.4
Kilometres

Scale 1:14,000 at A4
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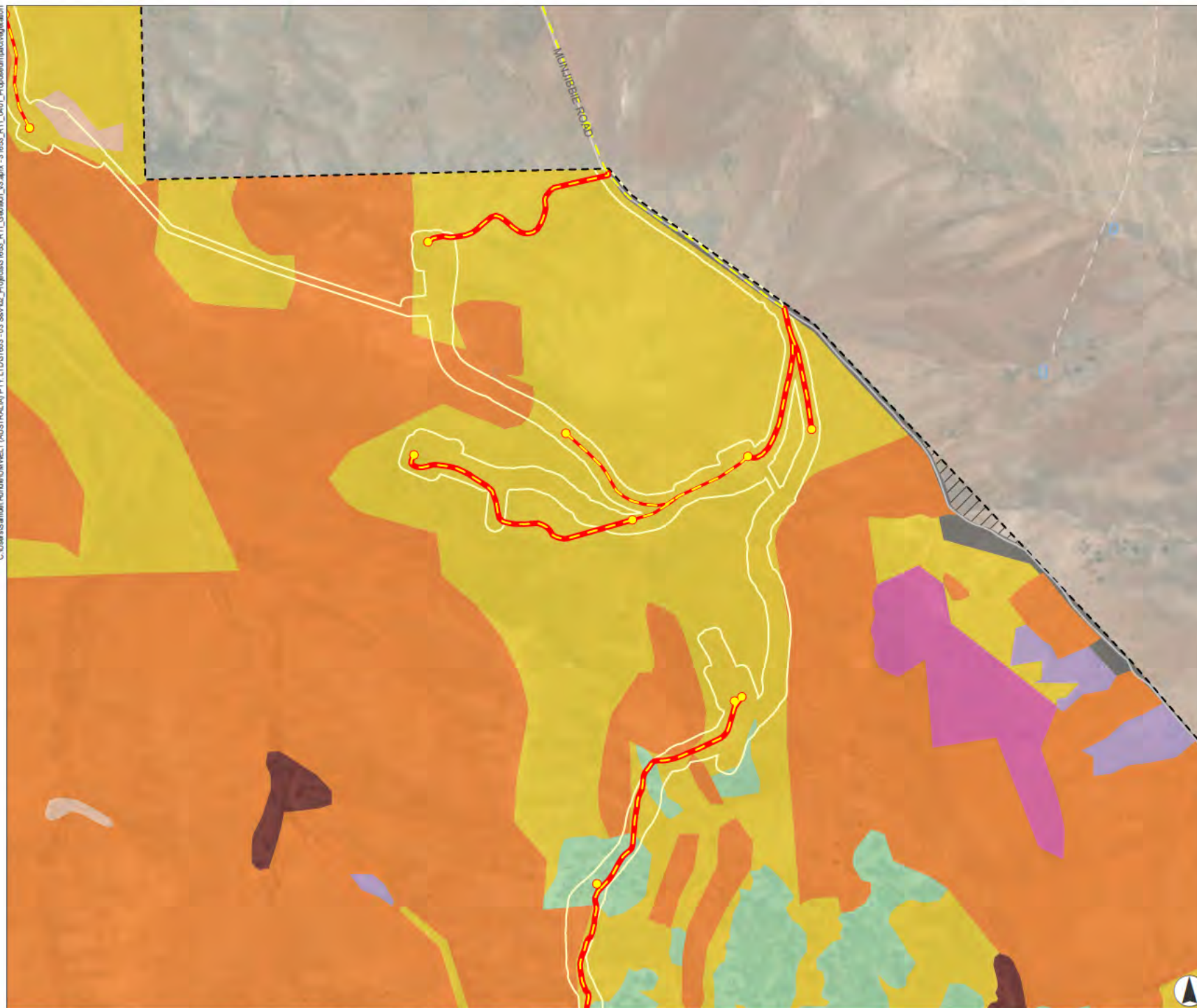


FIGURE 4.10
Map showing Proposed
Impact to Vegetation
(map 10 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A2 Maireana aphylla shrubland
- A3 Eucalyptus porosa Mallee Woodland
- A5 Eucalyptus leucoxylon ssp. pruinosa Woodland
- A6 Eucalyptus oleosa ssp. oleosa / Eucalyptus socialis ssp. socialis Mixed Mallee
- A7 Austrostipa spp. / Rytidosperma spp. Very Open Grassland
- A8 Ptilotus obovatus and Sclerolaena obliquicuspis Shrubland
- Area Not Surveyed
- Roads/infrastructure



0 0.2 0.4
Kilometres

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FIGURE 4.11

Map showing Proposed Impact to Vegetation (map 11 of 19)

Legend

- Geotech Test Locations
- - - Geotech Access Tracks
- Project Area: Geotech

Wind Farm

- Wind Farm Infrastructure
- Waterbodies
- Track

Vegetation Association

- A1 Lomandra Grassland
- A3 *Eucalyptus porosa* Mallee Woodland
- A5 *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
- A6 *Eucalyptus oleosa* ssp. *oleosa* / *Eucalyptus socialis* ssp. *socialis* Mixed Mallee
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- B7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland



0 0.2 0.4
Kilometres

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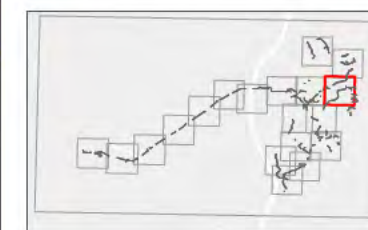
FIGURE 4.12
Map showing Proposed
Impact to Vegetation
(map 12 of 19)

Legend

- Geotech Test Locations
- - - Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Watercourses
- Track

Vegetation Association

- A1 *Lomandra* Grassland
- A3 *Eucalyptus porosa* Mallee Woodland
- A5 *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
- A6 *Eucalyptus oleosa* ssp. *oleosa* / *Eucalyptus socialis* ssp. *socialis* Mixed Mallee
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland



0 0.2 0.4
Kilometres

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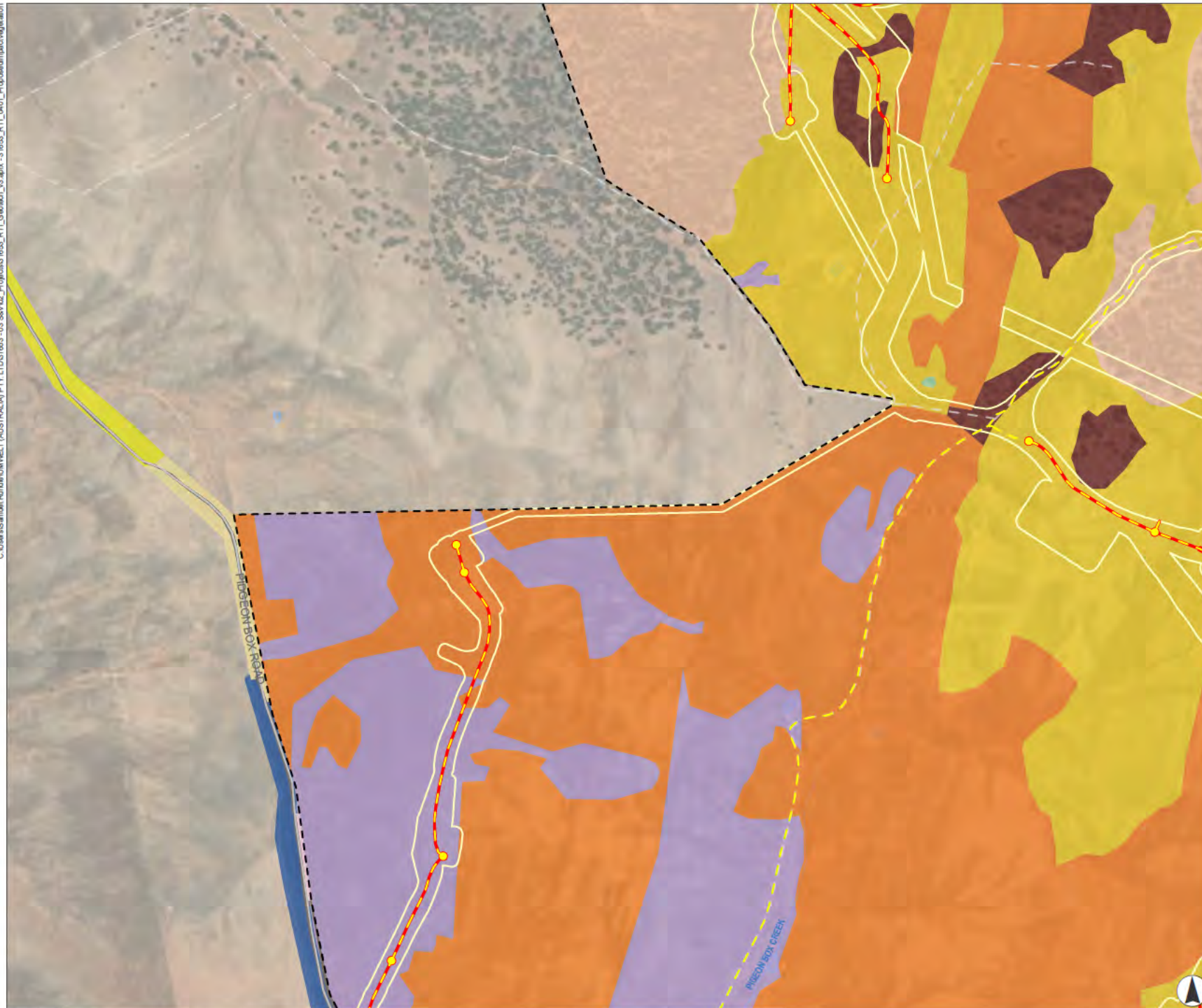


FIGURE 4.13
Map showing Proposed
Impact to Vegetation
(map 13 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Watercourses
- Local Road
- Track
- Vegetation Association**
- A1 Lomandra Grassland
- A2 Maireana aphylla shrubland
- A3 Eucalyptus porosa Mallee Woodland
- A5 Eucalyptus leucoxylon ssp. pruinosa Woodland
- A6 Eucalyptus oleosa ssp. oleosa / Eucalyptus socialis ssp. socialis Mixed Mallee
- A7 Austrostipa spp. / Rytidosperra spp. Very Open Grassland
- B2 Maireana aphylla shrubland
- B15 Maireana rohrbachii Shrubland
- B21 Scattered mixed native shrubs with exotic grasses
- Cropping
- Exotic
- Roads/Infrastructure



0 0.2 0.4
 Kilometres

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FIGURE 4.14
Map showing Proposed
Impact to Vegetation
(map 14 of 19)

Legend

- Geotech Test Locations
 - Geotech Access Tracks
 - Project Area: Geotech
 - Wind Farm
 - Wind Farm Infrastructure
 - Waterbodies
 - Watercourses
 - Track
- Vegetation Association**
- A1 Lomandra Grassland
 - A2 *Maireana aphylla* shrubland
 - A3 *Eucalyptus porosa* Mallee Woodland
 - A4 *Callitris gracilis* Woodland
 - A5 *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
 - A6 *Eucalyptus oleosa* ssp. *oleosa* / *Eucalyptus socialis* ssp. *socialis* Mixed Mallee
 - A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
 - Roads/infrastructure



0 0.2 0.4
Kilometres

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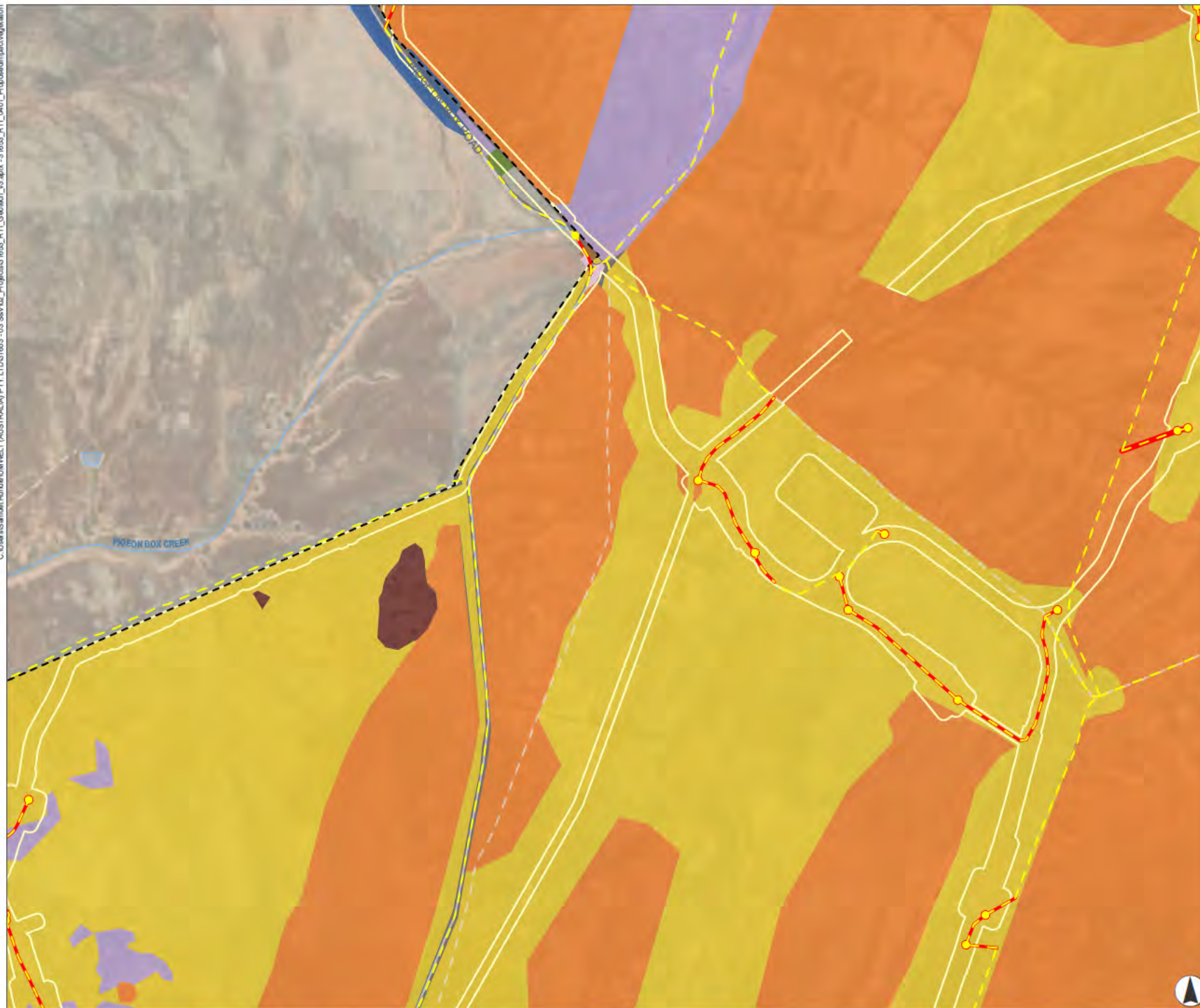


FIGURE 4.15
Map showing Proposed
Impact to Vegetation
(map 15 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Watercourses
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A2 *Maireana aphylla* shrubland
- A5 *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- A11 *Maireana brevifolia* Shrubland
- A15 *Maireana rohrbachii* Shrubland
- B2 *Maireana aphylla* shrubland
- Exotic
- Roads/infrastructure



0 0.2 0.4
Kilometres

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FIGURE 4.16
Map showing Proposed
Impact to Vegetation
(map 16 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Track
- Environmental Stewardship Area
- Vegetation Association**
- A1 Lomandra Grassland
- A3 *Eucalyptus porosa* Mallee Woodland
- A5 *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
- A6 *Eucalyptus oleosa* ssp. *oleosa* / *Eucalyptus socialis* ssp. *socialis* Mixed Mallee
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- /// Area Not Surveyed



0 0.2 0.4
Kilometres

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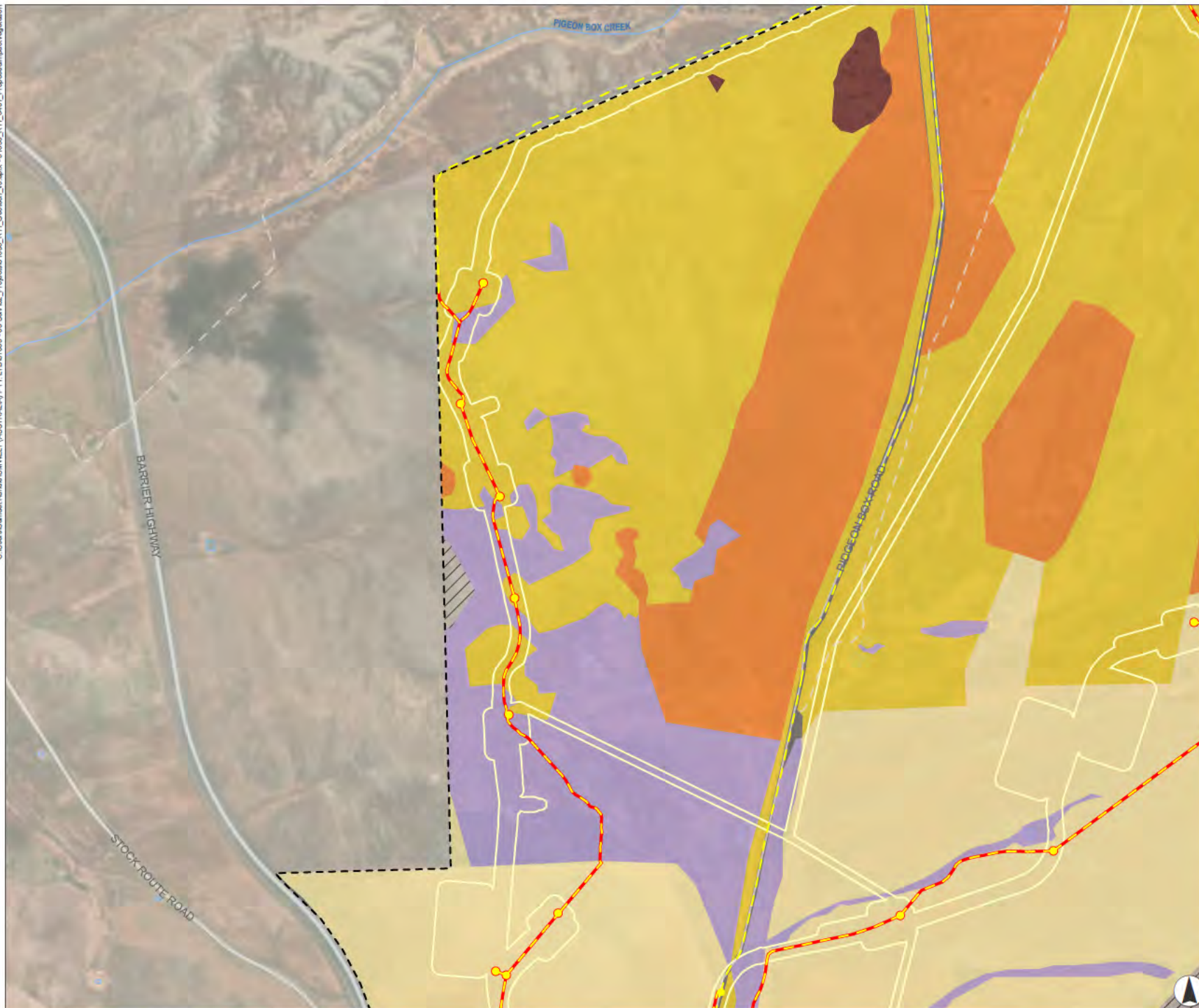


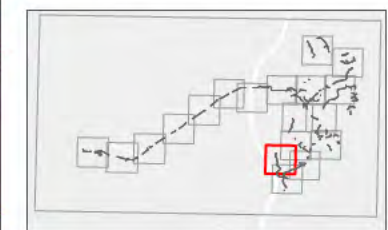
FIGURE 4.17
Map showing Proposed
Impact to Vegetation
(map 17 of 19)

Legend

- Geotech Test Locations
- Geotech Access Tracks
- Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Watercourses
- Main road
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A2 *Maireana aphylla* shrubland
- A5 *Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- /// Area Not Surveyed
- Cropping
- Roads/infrastructure



0 0.2 0.4
Kilometres

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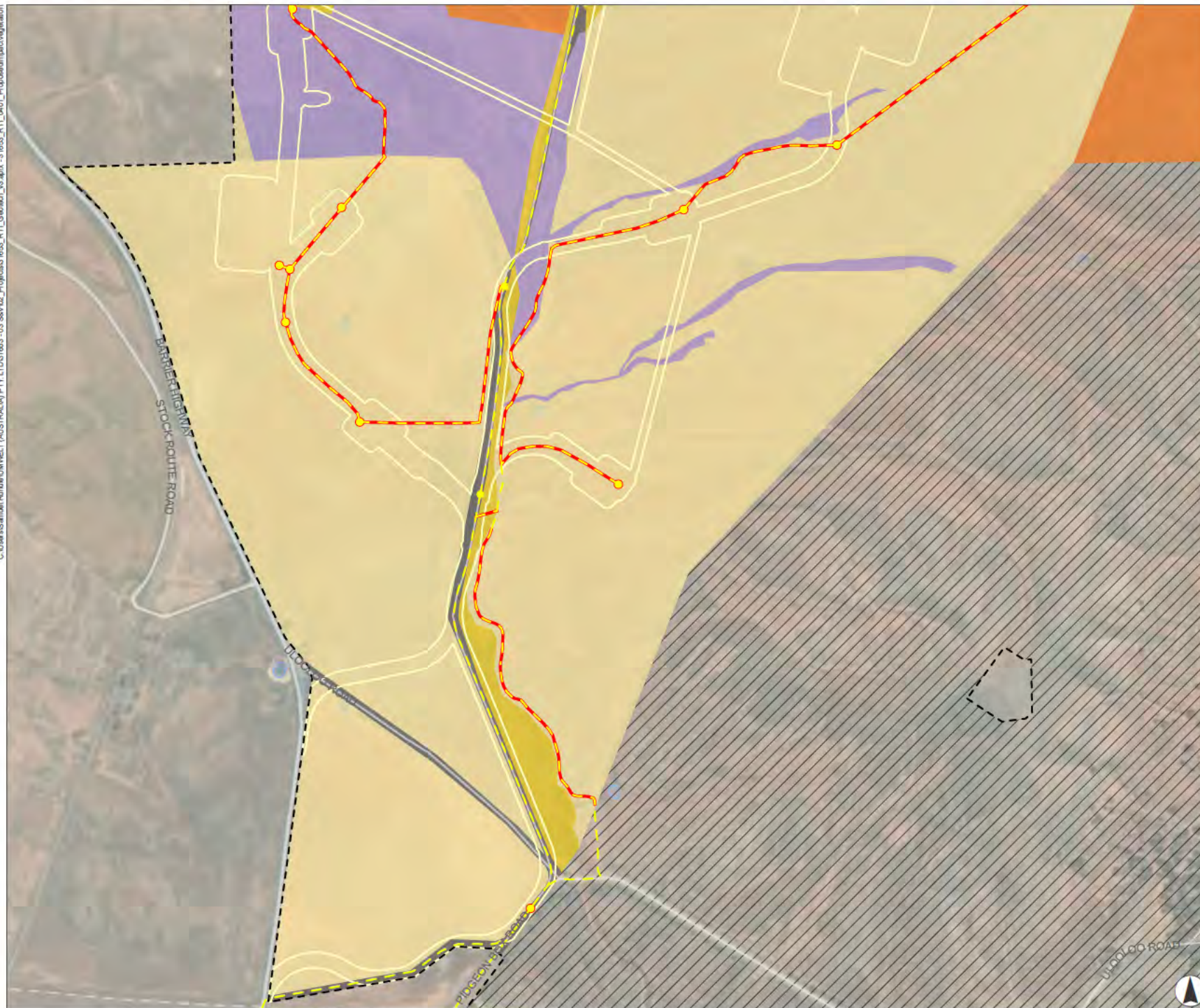


FIGURE 4.18
Map showing Proposed
Impact to Vegetation
(map 18 of 19)

Legend

- Geotech Test Locations
- - - Geotech Access Tracks
- - - Project Area: Geotech
- - - Wind Farm
- - - Wind Farm Infrastructure
- Waterbodies
- Watercourses
- Main road
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A2 *Maireana aphylla* shrubland
- A7 *Austrostipa* spp. / *Rytidosperma* spp. Very Open Grassland
- Area Not Surveyed
- Cropping
- Roads/infrastructure



0 0.2 0.4
Kilometres

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FIGURE 4.19
Map showing Proposed
Impact to Vegetation
(map 19 of 19)

Legend

- Geotech Test Locations
- - - Geotech Access Tracks
- - - Project Area: Geotech
- Wind Farm
- Wind Farm Infrastructure
- Waterbodies
- Local Road
- Track

Vegetation Association

- A1 Lomandra Grassland
- A2 Maireana aphylla shrubland
- A5 Eucalyptus leucoxylon ssp. pruinosa Woodland
- A7 Austrostipa spp. / Rytidosperma spp. Very Open Grassland
- /// Area Not Surveyed
- Cropping
- Roads/infrastructure



0 0.2 0.4
Kilometres

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4.2 Threatened Ecological Communities

The PMST report identified two EPBC Act listed TECs as having the potential to occur within the Search Area (DCCEEW 2026):

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

The criteria for these TECs was assessed against the results of the field survey. Of these, INTG is present (see **Table 4.8**).

As per the March 2026 *List of rare and threatened vegetation communities in South Australia's agricultural regions*, the following three VAs correspond with State threatened ecosystems (NVB 2026):

- **A3:** Mallee Box *E. porosa* woodland – Vulnerable.
- **A5:** SA Blue Gum *E. leucoxylon* woodland - Vulnerable
- **A7:** Spear Grass *Austrostipa* spp. – Wallaby Grass *Rytidosperma* spp. – Brush Wiregrass *Aristida behriana* grassland - Vulnerable.

At the time of writing, there are no condition thresholds for a community to satisfactorily attain recognition as a State-listed TEC beyond the presence of diagnostic species and location in the correct region. As both attributes were met by these VAs, the associations are therefore considered to be representative of their respective communities.

Table 4.8 Likelihood of Occurrence Assessment for Threatened Ecological Communities

Threatened Ecological Community	Conservation Status	Definition	Assessment
Iron-grass Natural Temperate Grassland of South Australia (INTG)	Critically Endangered	INTG is endemic to SA and consists of tussock-forming perennial grasses, Iron-grasses (<i>Lomandra effusa</i> and/or <i>L. multiflora</i> ssp. <i>dura</i>) and a low presence (<10%) of trees and tall shrubs (EPBC Act policy statement 3.7 - Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia 2007; Turner 2012). This TEC can be categorised under three different condition classes (A, B and C), based on patch size, native species diversity and composition, and tussock density. Class A and Class B, make up this TEC, while Class C does not make up the TEC but is of sufficient biodiversity value to target for (EPBC Act policy statement 3.7 - Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South	Present – has been mapped within the Project Area

Threatened Ecological Community	Conservation Status	Definition	Assessment
		<i>Australia 2007; Approved Conservation Advice for Iron-grass Natural Temperate Grassland of South Australia 2008; Turner 2012).</i>	
Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia (PBGW)	Critically Endangered	PBGW is restricted to SA and consists of an open to dense woodland dominated by <i>Eucalyptus odorata</i> and typically occurs with other tree species including <i>E. leucoxylon</i> , <i>E. microcarpa</i> or <i>E. porosa</i> . Canopy height comprises low trees, generally 5-10m tall with an understorey comprised of diverse grasses and herbs including <i>Austrostipa</i> sp., <i>Lomandra</i> sp. and <i>Acacia pycnantha</i> (EPBC Act policy statement 3.7 - Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia 2007). PBGW can be categorised under three different condition classes (A, B and C), based on remnant patch size and native species diversity and composition. Class C does not make up the TEC but is of sufficient biodiversity value to target for restoration(EPBC Act policy statement 3.7 - Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia and Iron-grass Natural Temperate Grassland of South Australia 2007).	Not Present – Whilst the keystone species (<i>Eucalyptus odorata</i>) is known to occur in the southeast of the Project Area, it does not meet the diagnostic criteria for the EPBC TEC. It is not proposed to be impacted for the Project.
Mallee Box <i>E. porosa</i> woodland	Vulnerable (SA)	Occurs over grassy understorey on red-brown loams. Formerly widespread on western MM, western EP, central YP & MN but has been largely cleared (NVB 2026).	Present – Association A3 is considered representative of this community.
SA Blue Gum <i>E. leucoxylon</i> woodland	Vulnerable (SA)	Formerly widespread in MLR, MN, upper SE. Mostly cleared and reduced to scattered trees, with small areas conserved (NVB 2026).	Present – Association A5 is considered representative of this community.
Spear Grass <i>Austrostipa</i> spp. – Wallaby Grass <i>Rytidosperma</i> spp. – Brush Wiregrass <i>Aristida behriana</i> grassland	Vulnerable (SA)	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).	Present – Association A7 is considered representative of this community.

4.3 Threatened Species Assessment

4.3.1 Threatened Flora

A total of up to 215 flora species have been identified during the field surveys between 2019 and 2026 within and surrounding the Project Area. Of these, 153 are native species and 62 are introduced / exotic species (**Appendix 1**). While no EPBC Act listed flora species were recorded during the field surveys, five NPW Act listed species were recorded during field surveys, as listed in **Table 4.9**.

Table 4.9 List of Threatened Flora Recorded During Field Surveys (2019 – 2026)

Scientific Name	Common Name	EPBC Act	NPW Act	Location
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R	Recorded opportunistically in two small populations on rocky hills in 2022 and 2023.
<i>Maireana excavata</i>	Bottle Fissure-plant	-	V	Recorded at four BAM sites in four different vegetation associations in 2023/2024 on lower slopes and flats (BAM sites A2_EW17 and A3_EW5, A4_EW4, A7_JS2).
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush	-	R	Recorded at 18 BAM sites, including along the northern half of the OHL alignment and along roadsides near the Project Area.
<i>Rumex dumosus</i>	Wiry Dock	-	R	was recorded at one BAM site in 2023/2024 (A5_EW12A) and has been recorded opportunistically in several locations including 6 individuals at latitude 138.9006638 longitude 33.28235141
<i>Sclerolaena muricata</i> var. <i>villosa</i>	Five-spine Bindyi	-	R	Recorded at one roadside BAM site in 2026.

In addition to the five species recorded during the field survey, the BDBSA search identified an additional four species that are likely to occur and one species that possibly occurs. While the PMST identified three additional EPBC Act listed flora species as **likely** to occur within the Search Area, these have been assessed by Umwelt as unlikely to occur, based on the field surveys and availability of suitable habitat (DCCEE 2026) (**Table 4.10**).

A detailed likelihood assessment of all threatened flora species identified in database searches including distribution and preferred habitat information for the Project Area is provided in **Appendix 2**. A map of all records of threatened flora species within the Search Area is provided in **Appendix 3**.

Table 4.10 Threatened Flora Likelihood of Occurrence Summary

Scientific Name	Common Name	EPBC Act	NPW Act	Source	Last Sighting (Year) / PMST Likelihood	Likelihood of Occurrence in Project Area
<i>Austrostipa gibbosa</i>	Swollen Spear-grass	-	R	2	2020	Likely
<i>Caladenia tensa</i>	Greencomb Spider-orchid	EN	-	1	Likely	Unlikely
<i>Codonocarpus pyramidalis</i>	Slender Bell-fruit, Camel Poison	VU	E	1	Likely	Unlikely

Scientific Name	Common Name	EPBC Act	NPW Act	Source	Last Sighting (Year) / PMST Likelihood	Likelihood of Occurrence in Project Area
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R	2,3	2023	Known - recorded during field surveys
<i>Maireana excavata</i>	Bottle Fissure-plant	-	V	2,3	2023	Known - recorded during field surveys
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush	-	R	2,3	2026	Known - recorded during field surveys
<i>Olearia pannosa</i> ssp. <i>pannosa</i>	Silver Daisy-bush	VU	V	1	Likely	Unlikely
<i>Pterostylis despectans</i>	Mt Bryan Greenhood	EN	E	1,2	2007	Unlikely
<i>Ptilotus angustifolius</i>	Narrow-leaf Yellow-tails	-	E	2	2022	Likely
<i>Ptilotus erubescens</i>	Hairy-tails	-	R	2	2024	Likely
<i>Rumex dumosus</i>	Wiry Dock	-	R	2,3	2018	Known - recorded during field surveys
<i>Rytidosperma tenuius</i>	Short-awn Wallaby-grass	-	R	2	2018	Likely
<i>Sclerolaena muricata</i> var. <i>villosa</i>	Five-spine Bindyi	-	R	3	2026	Known - recorded during field surveys
<i>Swainsona behriana</i>	Behr's Swainson-pea	-	V	2	2019	Possible

Conservation Codes: EN/E = Endangered; VU/V = Vulnerable, R = Rare.

Source; 1- PMST – 5km buffer applied to the Project Area, 2;- BDBSA - 5 km buffer applied to the Project Area; 3 – Recorded during field surveys.

4.3.2 Threatened Fauna

Three EPBC Act listed fauna species were recorded during the field surveys, including the EPBC Act Endangered PBTL, the EPBC Act Vulnerable Southern Whiteface and the EPBC Act Vulnerable Blue-winged Parrot. Five NPW Act listed fauna species were recorded during the field surveys.

The PMST and BDBSA searches identified several more species, of which two are considered possible to occur and the remaining unlikely to occur (**Table 4.11**) (DCCEEW 2026).

A detailed likelihood assessment of all threatened fauna species identified in database searches including distribution and preferred habitat information for the Project Area is provided in **Appendix 5**. A map of all BDBSA records of threatened fauna species within the Search Area is provided in **Appendix 6**.

Table 4.11 Threatened Fauna Likelihood of Occurrence Summary

Scientific Name	Common Name	Conservation Status		Data Source	PMST/Year of Last Record	Likelihood of Occurrence in Project Area
		EPBC Act	NPW Act			
<i>Aphelocephala leucopsis</i>	Southern Whiteface	VU	-	1,2,3	2024	Known
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU	-	1	Likely	Unlikely
<i>Corcorax melanorhamphos</i>	White-winged Cough	-	R	2,3	2024	Known
<i>Falco hypoleucos</i>	Grey Falcon	VU	R	1	Likely	Unlikely
<i>Falco peregrinus macropus</i>	Peregrine Falcon	-	R	2,3	2019	Known
<i>Falco subniger</i>	Black Falcon	-	R	2,3	2024	Known

Scientific Name	Common Name	Conservation Status		Data Source	PMST/Year of Last Record	Likelihood of Occurrence in Project Area
		EPBC Act	NPW Act			
<i>Hieraaetus morphnoides</i>	Little Eagle	-	V	2,3	2024	Known
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	EN	R	1	Likely	Possible
<i>Myiagra inquieta</i>	Restless Flycatcher	-	R	2	2005	Possible
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	1,2,3	2023	Known
<i>Neophema elegans elegans</i>	Elegant Parrot	-	R	3	2023	Known
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	V	1	Likely	Unlikely
<i>Tiliqua adelaidensis</i>	Pygmy Bluetongue	EN	E	1,2,3	2023	Known
<i>Turnix varius varius</i>	Painted Buttonquail	-	R	3	2025	Known

Conservation Codes: EN/E = Endangered; VU/V = Vulnerable, R = Rare.

Source; 1- PMST – 5km buffer applied to the Project Area; 2 – BDBSA – 5 km buffer applied to the Project Area; 3 – Recorded during field surveys.

4.3.2.1 Targeted PBTL Surveys

PBTL are known to occur within the Project Area. A map of PBTL habitat is provided in **Figure 4.20**. Habitat suitability for PBTL has been conservatively mapped and will be included in the Preliminary Documentation submitted to DCCEEW for review as part of the EPBC approval process.

4.3.2.2 Targeted Flinders Ranges Worm-Lizard Survey Results

No FRWL or FRWL skins were recorded during the three combined targeted surveys conducted in 2025 or 2026, despite an increased survey effort.

4.3.2.3 Bird and Bat Survey Results

The EPBC Act Vulnerable Southern Whiteface was commonly recorded during BBUS surveys and occurs widely across the Project Area in suitable habitat with perching trees or shrubs. A single pair of Blue-winged Parrots (EPBC Act Vulnerable) were recorded foraging in *Maireana aphylla* shrubland in 2023.

Five state threatened (NPW Act) bird species were recorded during baseline surveys and BBUS surveys, as listed in **Table 4.11**, with the Painted Button Quail being observed in a baseline survey and then detected by song meters in a similar location in 2025/2026.

No threatened bats were recorded during bat surveys.

4.3.2.4 Plains Wanderer Targeted Surveys

No Plains Wanderers were detected during targeted spotlighting surveys in 2025 or bioacoustics surveys over 2025/2026.

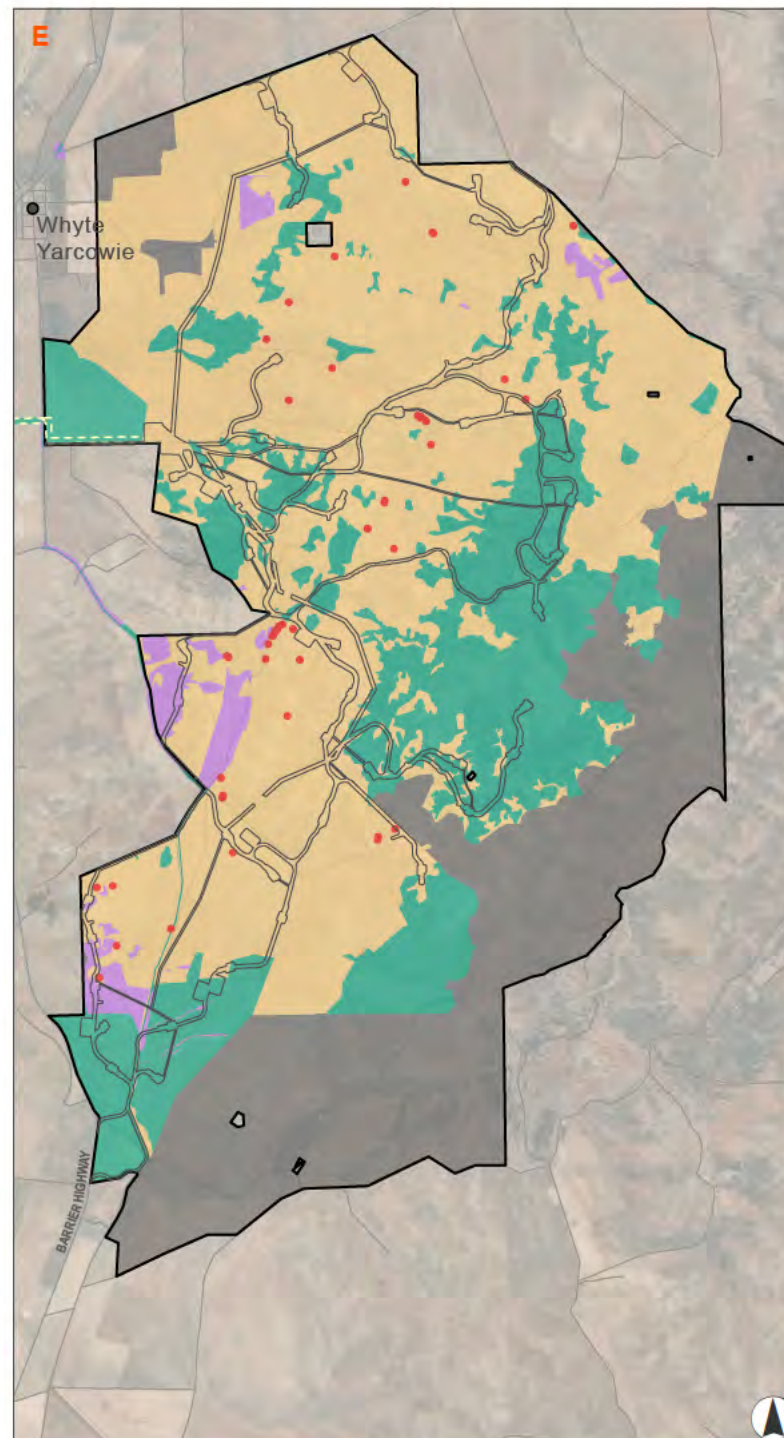
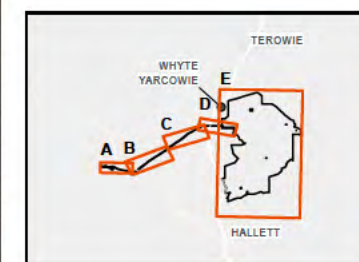


FIGURE 4.20
Disturbance impacts on
PBTL Population Current
Project Design (May 2026)

- Legend**
- Project Area
 - Roads
 - Township
- Current Design**
- OHL, BESS and SUB Disturbance Footprint
 - Wind Farm Disturbance Footprint
- PBTL Habitat**
- Area Not Surveyed
 - Likely
 - Potential
 - Unlikely
 - Known



0 1 2 3
Kilometres

Scale 1:100,000 at A4
GDA2020 MGA Zone 54



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4.4 Cumulative Impacts

When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations 2017, the NVC must consider the potential cumulative impact, both direct and indirect, that is reasonably likely to result from a proposed clearance activity.

Direct cumulative impacts entail the following:

- Clearance of **18.02** ha of native vegetation for the geotechnical investigations.
- Temporary disturbance associated with access tracks, test pits and borehole locations.

Associated components of the broader WYWF will also contribute to direct clearance and will be assessed separately.

Potential indirect cumulative impacts may entail the following:

- Dust generation smothering vegetation (however, this will only be short term during the geotechnical works).
- Spread of weeds through machinery movement (however, weed control management measures will be put in place during the geotechnical works).
- Increased vehicle movements potentially causing fauna collision and/or disturbance of fauna.
- Temporary disturbance to fauna habitat during geotechnical investigation works.

Temporarily disturbed areas will be rehabilitated following completion of the geotechnical investigations, where practicable.

4.5 Addressing the Mitigations Hierarchy

When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations 2017, 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

It is not possible to completely avoid impact to native vegetation in the geotechnical campaign as a sample is required to be taken from all proposed wind turbine areas.

Existing roads, farm tracks and public roads have been used where practicable to avoid impacts to native vegetation. Where access is using existing roads or farm tracks, these areas have not been included in the Native Vegetation Footprint layer. Where proposed test locations are located on public roads, the footprint is to be kept within the public road to avoid vegetation impacts, subject to separate council approval where required.

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).

New access tracks have generally been limited to a 3 m wide footprint, being 1.5 m either side of the centreline. In some rocky areas, a 10 m wide footprint has been applied where access is likely to be more difficult, and additional manoeuvring may be required for the excavator or drill rig.

Impacts to native vegetation for the geotechnical campaign have been minimised through selection of access routes which use existing station tracks and roads as much as possible and minimising the creation of new access tracks as much as possible.

- 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.**

Areas temporarily disturbed by the geotechnical investigations will be rehabilitated as soon as practicable following completion of works. Rehabilitation may include backfilling test pits and boreholes, reinstating disturbed ground surfaces, respreading topsoil where appropriate, and allowing natural regeneration of vegetation.

The proponent has committed to rehabilitating the geotechnical impact areas within three years of works, however it is possible to be as soon as the work is completed. Rehabilitation will be simplified to respreading any stockpiled topsoil and ripping compacted areas. Natural regeneration will then occur.

- 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. The NVC will only consider an offset once avoidance, minimisation and restoration have been documented and fulfilled. The SEB Policy explains the biodiversity offsetting principles that must be met.**

The proponent is investigating on-ground offsets. If a suitable offset cannot be secured, the Project will be offset by payment directly into the Native Vegetation Fund.

4.6 Principles of Clearance (Schedule 1, Native Vegetation Act)

The Native Vegetation Council 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 Native Vegetation Council will consider all Principles of clearance of the Act as relevant, when considering an application referred under the HRE Act.

The clearance is assessed against the Principles of Clearance as set out in **Table 4.12**.

Table 4.12 Assessment Against the Principles of Clearance

Principle of Clearance	Considerations
Principle 1(a) – it Comprises a High Level of Diversity of Plant Species	Relevant Information The field surveys recorded 215 flora species (153 native and 62 introduced species). Patches with a Plant Species Diversity Score of <10 are not at Variance, 10-20 are At Variance and >20 are Seriously at Variance. Bushland Plant Diversity Score(s) A1: 15.87

Principle of Clearance	Considerations
	A2: 13.00 A3: 16.57 A5: 16.67 A6: 14.00 A7: 10.27 Assessment against the Principles Seriously at Variance – Two sites in A1 and one site in A3 At Variance – 36 sites across the project area (all veg types). Not at Variance – 8 sites across A1, A2 and A7.
Principle 1(b) – Significance as a Habitat for Wildlife	Relevant Information As per the guidance: Threatened Fauna Score of 0: Not at Variance. Threatened Fauna Score of <0.05: At Variance. Threatened Fauna Score of ≥ 0.05: Seriously at Variance. Or A vegetation association with a Unit Biodiversity Score of >50 is Seriously at Variance. Threatened Fauna Score All VAs – 0.1 Unit Biodiversity Score – 18 sites across A1, A2 and A3 had a unit biodiversity score of over 50. All sites have a Threatened Fauna Score which is Seriously at Variance due to the following EPBC Act threatened species combinations being entered into scoresheets: PBTL, Southern Whiteface and Blue-winged Parrot, which cause the maximum score to be reached. Assessment against the Principles Seriously at Variance - All VAs Moderating Factors that may be Considered by the NVC An EPBC Self-Assessment is being prepared specifically for the geotechnical work. Pre-clearance PBTL surveys will be undertaken to avoid direct impact. The proposed geotechnical work is temporary in nature, with micro-siting of test pits and boreholes possible, with existing roads and tracks used wherever possible and minimal access track construction proposed. Therefore, a significant impact will not occur (Umwelt, in preparation). Common species The native vegetation proposed to be impacted is not considered essential for maintenance of local populations of common species.
Principle 1(c) – Plants of a Rare, Vulnerable or Endangered Species	Relevant Information As per the guidance, Threatened Flora Scores: 0 = not at Variance <0.1 = At Variance ≥0.1 = Seriously at Variance. No EPBC Act listed flora species were recorded during the field surveys. Five NPW Act listed species were recorded in field surveys: • <i>Cryptandra campanulata</i> (NPW Act Rare). • <i>Maireana excavata</i> (NPW Act Vulnerable). • <i>Maireana rohrlichii</i> (NPW Act Rare). • <i>Rumex dumosus</i> (NPW Act Rare). • <i>Sclerolaena muricata</i> var. <i>villosa</i> (NPW Act Rare). Threatened Flora Score(s) 0 - 0.08 (13 sites have a score of 0.04 and two sites have a score of 0.08, scattered across all vegetation associations apart from A6). Assessment against the Principles At Variance – A1, A2, A3, A5 and A7. Moderating Factors that may be Considered by the NVC

Principle of Clearance	Considerations
	The impact areas are small and micro-siting is possible, therefore particular threatened flora individuals can be avoided during the campaign. Searches will be conducted during pre-construction PBT surveys, with threatened flora species marked to ensure avoidance.
Principle 1(d) – the Vegetation Comprises the Whole or Part of a Plant Community that is Rare, Vulnerable or Endangered	Relevant Information One EPBC Act threatened ecological community occurs within the project area: INTG TEC (EPBC Act Critically Endangered) within VA A1 Lomandra Grassland. 0.44 ha of A1 is proposed to be impacted, however this has been minimised as far as practicable by utilising existing access tracks. In addition, three State listed TECs were identified within the Project Area, and based on limited information available, have been conservatively included as present (NVB 2026): - A3: Mallee Box <i>E. porosa</i> woodland – Vulnerable. - A5: SA Blue Gum <i>E. leucoxylon</i> woodland – Vulnerable. - A7: Spear Grass <i>Austrostipa</i> spp. – Wallaby Grass <i>Rytidosperma</i> spp. – Brush Wiregrass <i>Aristida behriana</i> grassland - Vulnerable. Assessment against the Principles Seriously at Variance: A1, A3, A5 and A7 Moderating Factors that may be Considered by the NVC An EPBC Self-Assessment is being prepared specifically for the geotechnical work. Pre-clearance surveys will be undertaken to avoid direct impact, where possible. The proposed geotechnical work is temporary in nature, with micro-siting of test pits and boreholes possible, with existing roads and tracks used wherever possible and minimal access track construction proposed. Therefore, a significant impact will not occur (Umwelt, in preparation). At the time of writing, there are no condition thresholds for a community to satisfactorily attain recognition as the state provisionally listed TEC beyond the presence of diagnostic species and the location in a correct region. As both attributes were met by A3, A5 and A7, the association is therefore considered to be representative of the community.
Principle 1(e) – it is Significant as a Remnant of Vegetation in an Area which has been Extensively Cleared	Relevant Information Remnant native vegetation cover in the Olary Spur IBRA subregion and Terowie environmental association is high, being 86 -97 %, which covers the majority of the impact area. The Broughton subregion (10 %) and Bald Hill (30%) and Hansen 3 % environmental association occur on the western fringes and the OHL, where impact to native vegetation is minimal. Total Biodiversity Score: 535.16 Assessment against the Principles The majority of the Project is At Variance. Small areas along the OHL are Seriously at Variance, due to the low native vegetation remnancy in those areas. Moderating Factors that may be Considered by the NVC <i>Quality of remnant</i> Native vegetation proposed to be impacted in the Bald Hill and Hansen environmental associations is generally roadside vegetation which is already disturbed and not intact. Test pits and test bores will be rehabilitated.
Principle 1(f) – it is Growing in, or in Association with, a Wetland Environment	Relevant information No vegetation in the Project Area is associated with a permanent natural wetland, river or creek. Assessment against the principles Not at Variance
Principle 1(g) – it Contributes Significantly to the Amenity of the area in which it is Growing or is Situated	Relevant information The majority of the project is on public land that is not visible to the public. The easement routes are beside rural roads and have minimal amenity value. The section of native vegetation where the Barrier Highway intersects the proposed easement is likely to have a higher amenity value as it has planted shrubs and is along a busy road. The impact to public amenity is not considered high. Assessment against the principles Not at Variance

4.7 Risk Assessment

The *Guide for Applications to Clear Native Vegetation* sets out how the risk level of a clearance application is assessed (NVC 2024b). This is summarised in **Table 4.13**.

The risk level of this clearance application is presented in **Table 4.14**. The table indicates that this is a Level 4 clearance, due to the application having a total biodiversity score of 535.16 (which is > 250) and being Seriously at Variance with Principles 1(b) and 1(d).

Table 4.13 Risk Assessment for Native Vegetation Clearance Applications in Agricultural Regions of South Australia

Level	Patches – Clearance	Trees – Clearance	Escalating Matters
Level 1	0.05 ha or less	5 trees or less	The site contains a listed species or a threatened community under the NP&W Act or EPBC Act OR clearance involves any trees of the specified circumference AND clearance does not involve any trees with a trunk circumference (measured at 1 m above ground; for multi-stemmed trees use largest stem) of 50 cm or more .
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 ≤ 250	—	Clearance is seriously at variance with Principle of Clearance 1(b), 1(c) or 1(d).
Level 4	Total Biodiversity Score > 250	—	—

Table 4.14 Summary of the Level of Risk Associated with the Application

Parameter	Value
Total clearance – No. of trees	0
Total clearance – Area (ha)	18.02
Total Biodiversity Score	535.16
Seriously at variance with Principles 1(b), 1(c) or 1(d)	1(b), 1(d)
Risk Assessment Outcome	Level 4

5.0 Clearance Summary

A clearance summary, including the SEB points and SEB payment for the clearance, is shown in **Table 5.1**.

A reduction of 0.5 has been applied to the clearance as areas temporarily disturbed by the geotechnical investigations will be rehabilitated as soon as practicable following completion of works. Rehabilitation may include backfilling test pits and boreholes, reinstating disturbed ground surfaces, respreading topsoil where appropriate, and allowing natural regeneration of vegetation. The proponent has committed to rehabilitating the geotechnical impact areas within three years of works, however it is possible to be as soon as the work is completed. Rehabilitation will be simplified to respreading any stockpiled topsoil and ripping compacted areas. Natural regeneration will then occur.

The total SEB obligations of the clearance are summarised in **Table 5.2**.

Table 5.1 Clearance Summary and Total SEB Obligations

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	Total Payment
A	A1	15.87	1.35	0.02	0.10	57.33	0.44	25.23	1		0.5	13.87	\$5,622.36	\$309.23	\$5,931.59
A	A2	13.00	1.00	0.03	0.10	40.03	0.71	28.43	1		0.5	15.64	\$6,230.56	\$342.68	\$6,573.24
A	A3	16.57	1.20	0.02	0.10	53.25	2.42	128.87	1		0.5	70.88	\$24,200.89	\$1,331.05	\$25,531.94
A	A5	16.67	1.20	0.03	0.10	57.14	0.22	12.57	1		0.5	6.92	\$2,336.40	\$128.50	\$2,464.90
A	A6	14.00	1.07	0.00	0.10	39.48	0.36	14.21	1		0.5	7.82	\$2,502.65	\$137.64	\$2,640.30
A	A7	10.27	1.20	0.01	0.10	23.49	13.87	325.85	1		0.5	176.56	\$57,148.23	\$3,143.15	\$60,291.38
Total							18.02	535.16				291.69	\$98,041.09	\$5,392.26	\$103,433.35

Table 5.2 Summary of Total SEB Obligations

	Total Biodiversity Score	Total SEB Points Required	SEB Payment	Admin Fee	Total Payment
Application	535.16	529.56	\$98,041.09	\$5,392.26	\$103,433.35
Economies of Scale Factor:	0.23 majority (0.5 for small portion)				
Rainfall (mm):	400 (mean)				

6.0 Significant Environmental Benefit

A SEB is required for approval to clear under Division 5 of the Native Vegetation Regulations 2017. The NVC must be satisfied that as a result of the loss of vegetation from the clearance that an SEB will result in a positive impact on the environment that is over and above the negative impact of the clearance.

ACHIEVING AN 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.
- ☐ Apply to have SEB Credit assigned from another person or body.
- ☐ Apply to have an SEB to be delivered by a Third Party.
- ☒ Pay into the Native Vegetation Fund.

PAYMENT SEB

If a proponent proposes to achieve the SEB by paying into the Native Vegetation Fund, summary information must be provided on the amount required to be paid and the manner of payment:

The proponent is investigating on-ground offsets. If a suitable offset cannot be secured, the Project will be offset by payment directly into the Native Vegetation Fund.

The total SEB offset required for the clearance of **18.02** ha of native vegetation is a payment of **\$103,433.35** (including administration fee of **\$5,392.26**).

7.0 References

- BOM. (2024). Climate Data Online – Whyte Yarcowie BOM Weather Station # 21055. Available at: <https://reg.bom.gov.au/climate/data/?ref=fttr> [Accessed 1 July 2024].
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Appendix 1

Flora Species Recorded During the Field Surveys 2019 - 2026



Appendix Table A1.1 Native Flora Species Recorded During the Field Surveys (2019 – 2026)

Species	Common Name	EPBC Act	NPW Act
<i>Acacia brachybotrya</i>	Grey Mulga-bush	-	-
<i>Acacia oswaldii</i>	Umbrella Wattle	-	-
<i>Acacia salicina</i>	Willow Wattle	-	-
<i>Acacia</i> sp.	Wattle	-	-
<i>Actinobole uliginosum</i>	Flannel Cudweed	-	-
<i>Alectryon oleifolius</i> ssp. <i>canescens</i>	Bullock Bush	-	-
<i>Allocasuarina verticillata</i>	Drooping Sheoak	-	-
<i>Amyema miquelii</i>	Box Mistletoe	-	-
<i>Amyema</i> sp.	Mistletoe	-	-
<i>Aristida behriana</i>	Brush Wire-grass	-	-
<i>Arthropodium</i> sp.	Vanilla-lily	-	-
<i>Arthropodium strictum</i>	Common Vanilla-lily	-	-
<i>Asperula conferta</i>	Common Woodruff	-	-
<i>Atriplex cinerea</i>	Coast Saltbush	-	-
<i>Atriplex semibaccata</i>	Berry Saltbush	-	-
<i>Atriplex stipitata</i>		-	-
<i>Austrostipa drummondii</i>	Cottony Spear-grass	-	-
<i>Austrostipa elegantissima</i>	Feather Spear-grass	-	-
<i>Austrostipa eremophila</i>	Rusty Spear-grass	-	-
<i>Austrostipa nitida</i>	Balcarra Spear-grass	-	-
<i>Austrostipa nodosa</i>	Tall Spear-grass	-	-
<i>Austrostipa scabra</i> ssp.	Rough Spear-grass	-	-
<i>Austrostipa</i> sp.	Spear-grass	-	-
<i>Boerhavia coccinea</i>	Tar-vine	-	-
<i>Boerhavia</i> sp.	Tar-vine	-	-
<i>Brachyscome ciliaris</i> var.	Variable Daisy	-	-
<i>Brachyscome lineariloba</i>	Hard-head Daisy	-	-
<i>Bromus</i> sp.	Brome	-	-
<i>Burchardia umbellata</i>	Milkmaids	-	-
<i>Bursaria spinosa</i> ssp.	Bursaria	-	-
<i>Callitris gracilis</i>	Southern Cypress Pine	-	-
<i>Casuarinaceae</i> sp.	Sheoak Family	-	-
<i>Cheilanthes austrotenuifolia</i>	Annual Rock-fern	-	-
<i>Chrysocephalum apiculatum</i>	Common Everlasting	-	-
<i>Convolvulaceae</i> sp.	Bindweed Family	-	-
<i>Convolvulus angustissimus</i>	Narrow-leaf Bindweed	-	-
<i>Convolvulus angustissimus</i> ssp.	Narrow-leaf Bindweed	-	-
<i>Convolvulus erubescens</i> complex		-	-
<i>Convolvulus remotus</i>	Grassy Bindweed	-	-
<i>Convolvulus</i> sp.	Bindweed	-	-
<i>Crassula</i> sp.	Crassula/Stonecrop	-	-
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R
<i>Cymbopogon ambiguus</i>	Lemon-grass	-	-
<i>Dianella brevicaulis</i>	Short-stem Flax-lily	-	-
<i>Dianella revoluta</i> var.		-	-
<i>Dianella</i> sp.	Flax-lily	-	-
<i>Drosera</i> sp.	Sundew	-	-
<i>Einadia nutans</i> ssp.	Climbing Saltbush	-	-

Species	Common Name	EPBC Act	NPW Act
<i>Enchylaena tomentosa</i> var.	Ruby Saltbush	-	-
<i>Enneapogon nigricans</i>	Black-head Grass	-	-
<i>Enneapogon</i> sp.	Bottle-washers/Nineawn	-	-
<i>Eragrostis</i> sp.	Love-grass	-	-
<i>Erodium</i> sp.	Heron's-bill/Crowfoot	-	-
<i>Eucalyptus camaldulensis</i> ssp.	River Red Gum	-	-
<i>Eucalyptus cladocalyx</i> ssp.	Sugar Gum	-	-
<i>Eucalyptus gracilis</i>	Yorrell	-	-
<i>Eucalyptus leucoxylon</i> ssp.	South Australian Blue Gum	-	-
<i>Eucalyptus leucoxylon</i> ssp. <i>pruinosa</i>	Inland South Australian Blue Gum	-	-
<i>Eucalyptus leucoxylon</i> ssp. <i>pruinosa</i> X <i>Eucalyptus porosa</i>		-	-
<i>Eucalyptus oleosa</i> ssp.		-	-
<i>Eucalyptus porosa</i>	Mallee Box	-	-
<i>Eucalyptus socialis</i> -- <i>Eucalyptus yumbarrana</i>		-	-
<i>Eucalyptus socialis</i> ssp.	Beaked Red Mallee	-	-
<i>Eucalyptus socialis</i> ssp. <i>socialis</i>	Beaked Red Mallee	-	-
<i>Eucalyptus</i> sp.		-	-
<i>Euphorbia drummondii</i>		-	-
<i>Euphorbia drummondii</i> group		-	-
<i>Exocarpos aphyllus</i>	Leafless Cherry	-	-
<i>Geranium potentilloides</i> var. <i>potentilloides</i>	Downy Geranium	-	-
<i>Geranium retrorsum</i>	Grassland Geranium	-	-
<i>Geranium</i> sp.	Geranium	-	-
<i>Glycine rubiginosa</i>	Twining Glycine	-	-
<i>Goodenia geniculata</i>	Bent Goodenia	-	-
<i>Goodenia pinnatifida</i>	Cut-leaf Goodenia	-	-
<i>Goodenia pusilliflora</i>	Small-flower Goodenia	-	-
<i>Goodenia</i> sp.	Goodenia	-	-
<i>Heliotropium europaeum</i>	Common Heliotrope	-	-
<i>Hyalosperma demissum</i>	Dwarf Sunray	-	-
<i>Hyalosperma semisterile</i>	Orange Sunray	-	-
<i>Hypoxis</i> sp.	Yellow Star-lily	-	-
<i>Isoetopsis graminifolia</i>	Grass Cushion	-	-
<i>Leptorhynchus squamatus</i> ssp. <i>squamatus</i>	Scaly Buttons	-	-
<i>Linum marginale</i>	Native Flax	-	-
<i>Lomandra effusa</i>	Scented Mat-rush	-	-
<i>Lomandra multiflora</i> ssp.	Many-flower Mat-rush	-	-
<i>Lomandra multiflora</i> ssp. <i>dura</i>	Hard Mat-rush	-	-
<i>Lycium australe</i>	Australian Boxthorn	-	-
<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>Maireana lobiflora</i>	Lobed Bluebush	-	-
<i>Maireana pyramidata</i>	Black Bluebush	-	-
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush	-	R
<i>Maireana</i> sp.	Bluebush/Fissure-plant	-	-
<i>Maireana turbinata</i>	Top-fruit Bluebush	-	-
<i>Melaleuca lanceolata</i>	Dryland Tea-tree	-	-

Species	Common Name	EPBC Act	NPW Act
<i>Melaleuca</i> sp.	Tea-tree	-	-
<i>Minuria leptophylla</i>	Minnie Daisy	-	-
<i>Minuria</i> sp.	Minuria	-	-
<i>Myoporum platycarpum</i> ssp.	False Sandalwood	-	-
<i>Nicotiana glauca</i>	Tree Tobacco	-	-
<i>Olearia pimeleoides</i>	Pimelea Daisy-bush	-	-
<i>Olearia</i> sp.	Daisy-bush	-	-
<i>Opercularia</i> sp.	Stinkweed	-	-
<i>Oxalis perennans</i>	Native Sorrel	-	-
<i>Pimelea micrantha</i>	Silky Riceflower	-	-
<i>Pittosporum angustifolium</i>	Native Apricot	-	-
<i>Pittosporum</i> sp.	Pittosporum	-	-
<i>Portulaca</i> sp.	Purslane	-	-
<i>Ptilotus</i> sp.	Mulla Mulla	-	-
<i>Ptilotus spathulatus</i>	Pussy-tails	-	-
<i>Rhagodia parabolica</i>	Mealy Saltbush	-	-
<i>Rhagodia</i> sp.	Saltbush	-	-
<i>Rhodanthe pygmaea</i>	Pigmy Daisy	-	-
<i>Rhodanthe</i> sp.	Everlasting	-	-
<i>Roepera apiculata</i>	Pointed Twinleaf	-	-
<i>Roepera aurantiaca</i> ssp.	Shrubby Twinleaf	-	-
<i>Roepera crenata</i>	Notched Twinleaf	-	-
<i>Rumex</i> sp.	Dock	-	-
<i>Rytidosperma caespitosum</i>	Common Wallaby-grass	-	-
<i>Rytidosperma geniculatum</i>	Knead Wallaby-grass	-	-
<i>Rytidosperma</i> sp.	Wallaby-grass	-	-
<i>Salsola australis</i>	Buckbush	-	-
<i>Santalum acuminatum</i>	Quandong	-	-
<i>Scleranthus pungens</i>	Prickly Knawel	-	-
<i>Scleranthus</i> sp.	Knawel	-	-
<i>Sclerolaena diacantha</i>	Grey Bindyi	-	-
<i>Sclerolaena muricata</i> var. <i>villosa</i>	Five-spine Bindyi	-	R
<i>Sclerolaena obliquicuspis</i>	Oblique-spined Bindyi	-	-
<i>Sclerolaena</i> sp.	Bindyi	-	-
<i>Senna artemisioides</i> ssp. <i>X coriacea</i>	Broad-leaf Desert Senna	-	-
<i>Sida corrugata</i> var.	Corrugated Sida	-	-
<i>Sida corrugata</i> var. <i>corrugata</i>	Corrugated Sida	-	-
<i>Sida</i> sp.	Sida	-	-
<i>Sonchus</i> sp.	Sow-thistle	-	-
<i>Spergularia brevifolia</i>	Salt Sand-spurrey	-	-
<i>Spergularia marina</i>	Salt Sand-spurrey	-	-
<i>Themeda triandra</i>	Kangaroo Grass	-	-
<i>Triptilodiscus pygmaeus</i>	Small Yellow-heads	-	-
<i>Urtica</i> sp.	Nettle	-	-
<i>Velleia</i> sp.	Velleia	-	-
<i>Vittadinia blackii</i>	Narrow-leaf New Holland Daisy	-	-
<i>Vittadinia cuneata</i> var.	Fuzzy New Holland Daisy	-	-
<i>Vittadinia gracilis</i>	Woolly New Holland Daisy	-	-
<i>Vittadinia megacephala</i>	Giant New Holland Daisy	-	-

Species	Common Name	EPBC Act	NPW Act
<i>Vittadinia</i> sp.	New Holland Daisy	-	-
<i>Wahlenbergia gracilis</i>	Sprawling Bluebell	-	-
<i>Wahlenbergia luteola</i>	Yellow-wash Bluebell	-	-
<i>Wahlenbergia</i> sp.	Native Bluebell	-	-
<i>Wahlenbergia stricta</i> ssp. <i>stricta</i>	Tall Bluebell	-	-
<i>Wurmbea dioica</i> ssp.	Early Nancy	-	-

Conservation Codes: VU/V = Vulnerable, R = Rare

Source: Recorded during field surveys (2019 – 2026).

Appendix Table A1.2 **Introduced Flora Recorded During the Field Surveys (2019 – 2026)**

Species	Common Name	Declared Weed under the LSA Act
<i>Abies pinsapo</i>	Spanish Fir	-
<i>Aira</i> sp.	Hair-grass	-
<i>Arctotheca</i> sp.		-
<i>Asphodelus fistulosus</i>	Onion Weed	-
<i>Avena barbata</i>	Bearded Oat	-
<i>Avena</i> sp.	Oat	-
<i>Brachypodium distachyon</i>	False Brome	-
<i>Brassica</i> sp.		-
<i>Bromus diandrus</i>	Great Brome	-
<i>Bromus rubens</i>	Red Brome	-
<i>Cactaceae</i> sp.		-
<i>Carrichtera annua</i>	Ward's Weed	-
<i>Carthamus lanatus</i>	Saffron Thistle	-
<i>Carthamus</i> sp.		-
<i>Centaurea calcitrapa</i>	Star Thistle	-
<i>Centaurea</i> sp.	Centaury	-
<i>Centaureum</i> sp.	Centaury	-
<i>Chondrilla juncea</i>	Skeleton Weed	Y
<i>Cynara cardunculus</i> ssp. <i>flavescens</i>	Artichoke Thistle	Y
<i>Echium plantagineum</i>	Salvation Jane	Y
<i>Erodium botrys</i>	Long Heron's-bill	-
<i>Erodium cicutarium</i>	Cut-leaf Heron's-bill	-
<i>Erodium</i> sp.	Heron's-bill/Crowfoot	-
<i>Euphorbia terracina</i>	False Caper	Y
<i>Heliotropium europaeum</i>	Common Heliotrope	-
<i>Holcus lanatus</i>	Yorkshire Fog	-
<i>Hordeum</i> sp.		-
<i>Hordeum vulgare</i>	Barley	-
<i>Hypochaeris glabra</i>	Smooth Cat's Ear	-
<i>Hypochaeris radicata</i>	Rough Cat's Ear	-
<i>Hypochaeris</i> sp.	Cat's Ear	-
<i>Lycium ferocissimum</i>	African Boxthorn	Y
<i>Malva parviflora</i>	Small-flower Marshmallow	-
<i>Marrubium vulgare</i>	Horehound	Y
<i>Medicago minima</i>	Little Medic	-
<i>Medicago polymorpha</i>	Burr-medic	-
<i>Medicago sativa</i>	Lucerne	-
<i>Medicago</i> sp.	Medic	-
<i>Medicago truncatula</i>	Barrel Medic	-
<i>Moraea setifolia</i>	Thread Iris	-
<i>Moraea</i> sp.		-
<i>Neatostema apulum</i>	Hairy Sheepweed	-
<i>Onopordum acaulon</i>	Horse Thistle	-
<i>Opuntia robusta</i>	Wheel Pear	Y
<i>Oxalis pes-caprae</i>	Soursob	-
<i>Petrorhagia dubia</i>	Velvet Pink	-
<i>Reseda luteola</i>	Wild Mignonette	-
<i>Romulea</i> sp.	Onion-grass	-
<i>Rostraria</i> sp.		-

Species	Common Name	Declared Weed under the LSA Act
<i>Rumex</i> sp.	Dock	-
<i>Salvia</i> sp.	Sage	-
<i>Salvia verbenaca</i> var.	Wild Sage	-
<i>Sisymbrium</i> sp.	Wild Mustard	-
<i>Solanum elaeagnifolium</i>	Silver-leaf Nightshade	Y
<i>Spergularia rubra</i>	Red Sand-spurrey	-
<i>Spergularia</i> sp.	Sand-spurrey	-
<i>Taraxacum</i> sp.	Dandelion	-
<i>Tribulus terrestris</i>	Caltrop	Y
<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover	-
<i>Trifolium</i> sp.	Clover	-
<i>Vulpia myuros</i>	Fescue	-

Source: Recorded during field surveys (2019 – 2026), inside and surrounding the Project Area.

Appendix 2

Threatened Flora Likelihood of Occurrence Assessment



Appendix Table A2.1 **Threatened Flora Likelihood of Occurrence Assessment**

Scientific Name	Common Name	EPBC Act	NPW Act	Source	PMST Suggested Occurrence / Year of Most Recent Sighting Within 5 km	Description	Likelihood of Occurrence
<i>Austrostipa gibbosa</i>	Swollen Spear-grass	-	R	2	2020	Occurs in south-eastern S.A., western and north-central Vic., and just extending into far south-central N.S.W. Grows in open woodland or grassland.	Likely - Recorded recently within 5 km of the Project Area. Suitable habitat may be present.
<i>Caladenia tensa</i>	Greencomb Spider-orchid	EN	-	1	Likely	<i>Caladenia tensa</i> is found in aeolian sand deposits in <i>Callitris</i> , <i>E. leucoxylon</i> woodland and <i>Melaleuca uncinata</i> mallee in the Murray-Darling Depression bioregion. Flowering in <i>Caladenia tensa</i> occurs in September and October and is followed by summer dormancy.	Unlikely – No records within the last 40 years, the project is not within the correct bioregion.
<i>Codonocarpus pyramidalis</i>	Slender Bell-fruit	VU	E	1	Likely	Found scattered across the east central part of South Australia in the Flinders and Olary Ranges, growing on sandy soil. Slender Bell-fruit is very rare in South Australia. It is more common post fire. Whilst Slender Bell-fruit is not a cryptic plant, it may come and go from the landscape in response to disturbance and environmental conditions.	Unlikely - No records within the last 40 years, suitable sandy habitat does not occur.
<i>Cryptandra campanulata</i>	Long-flower Cryptandra	-	R	2,3	2023	This cryptandra grows in shallow soil over rocks, mostly in grassland but also heath and shrubland, and occurs in the southern Flinders Ranges and the northern Mount Lofty Ranges.	Known - recorded during field surveys
<i>Maireana excavata</i>	Bottle Fissure-plant	-	V	2,3	2023	Found in south-eastern S.A. Grows in heavy soil.	Known - recorded during field surveys
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush	-	R	2,3	2026	Found from northern Eyre Peninsula, S.A. Usually growing in loamy soils.	Known - recorded during field surveys
<i>Olearia pannosa</i> ssp. <i>pannosa</i>	Silver Daisy-bush	VU	V	1	Likely	Endemic to SA, scattered throughout agricultural areas. Occurring in sandy flat areas and in hilly rocky areas in woodland or mallee, including overlapping with Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of SA. The main identified threats to <i>Olearia pannosa</i> ssp. <i>pannosa</i> are livestock grazing, small population sizes and poor recruitment, weed invasion, particularly Bridal creeper and to a lesser extent Perennial Veldt Grass, fragmentation, lack of fire and/or disturbance, road/rail maintenance.	Unlikely - No records within the last 40 years, Project Area is not suitable habitat as it is heavily grazed. Surveys considered adequate.
<i>Pterostylis despectans</i>	Mt Bryan Greenhood	EN	E	1,2	2007	The Mt Bryan Greenhood (also known as the lowly greenhood) is likely to be pollinated by a <i>Mycetophilidae</i> spp. fly or fungus gnat. The	Unlikely - Whilst records occur within

Scientific Name	Common Name	EPBC Act	NPW Act	Source	PMST Suggested Occurrence / Year of Most Recent Sighting Within 5 km	Description	Likelihood of Occurrence
						lowly greenhood seed requires inoculation by a symbiotic fungus (<i>Ceratobasidium cornigerum</i>) to ensure successful germination. In SA, the lowly greenhood occurs on gently sloping land north of Mount Bryan in grassy <i>E. odorata</i> (Peppermint Box), <i>E. pruinosa</i> (Silver-leaved Box), and <i>E. microcarpa</i> (grey box) woodland. The understorey is sparse and typically includes <i>Austrostipa</i> spp. (Spear-grasses), <i>Rytidosperma</i> spp. (Wallaby-grasses), <i>Lomandra effusa</i> (Scented mat-rush) and <i>Plantago gaudichaudii</i> (Narrow-leaved plantain). The species usually grows in hard, clay loam over rock outcrops, covered with microphytic crust. In SA, records of this species have been from Hallet, Yacka and an area of less than 1 ha near Mount Bryan. These three sites all occur in the Northern Lofty Flora Region. The extent of occurrence of SA populations is approximately 60 km ² with an area of occupancy of less than 32 km ² owing to uncolonised habitat between populations.	5 km, it is a discreet population that relies on particular soil fungus and pollinator species, which is unlikely to occur within the project area.
<i>Ptilotus angustifolius</i>	Narrow-leaf Yellow-tails	-	E	2	2022	Endemic to South Australia and found near Quorn, north-east of Port Augusta, south to Victor Harbor, growing on rocky slopes or hills, occurring in <i>Eucalyptus microcarpa</i> association.	Likely - Recorded recently within 5 km of the Project Area. Suitable habitat may be present.
<i>Ptilotus erubescens</i>	Hairy-tails	-	R	2	2024	Project Area is within species' distribution and contains suitable habitat in grassy woodlands.	Likely - Recorded recently within 5 km of the Project Area. Suitable habitat may be present.
<i>Rumex dumosus</i>	Wiry Dock	-	R	2,3	2018	Project Area is within species' distribution and contains suitable habitat in grasslands and disturbed grassy areas with heavy soil.	Known - recorded in field surveys
<i>Rytidosperma tenuius</i>	Short-awn Wallaby-grass	-	R	2	2018	Species can be found in Adelaide and Mount Lofty Ranges, South Australian Arid Lands and Southeast. Perennial. Well drained soils.	Likely - Recorded recently within 5 km of the Project Area. Suitable habitat may be present.
<i>Sclerolaena muricata</i> var. <i>villosa</i>	Five-spine Bindyi	-	R	3	2026	South-eastern S.A. Common on overgrazed or overstocked areas on heavier soils and occasionally naturalized in coastal and Tableland districts.	Known - recorded during field surveys

Scientific Name	Common Name	EPBC Act	NPW Act	Source	PMST Suggested Occurrence / Year of Most Recent Sighting Within 5 km	Description	Likelihood of Occurrence
<i>Swainsona behriana</i>	Behr's Swainson-pea	-	V	2	2019	Once found in the Mount Lofty Ranges and the lower South-east, growing on light or occasionally heavy soil in moist grassland and woodland. Now only found in the northern and eastern side of Mount Lofty Ranges.	Possible - recent records within 5 km, however suitable habitat is lacking.

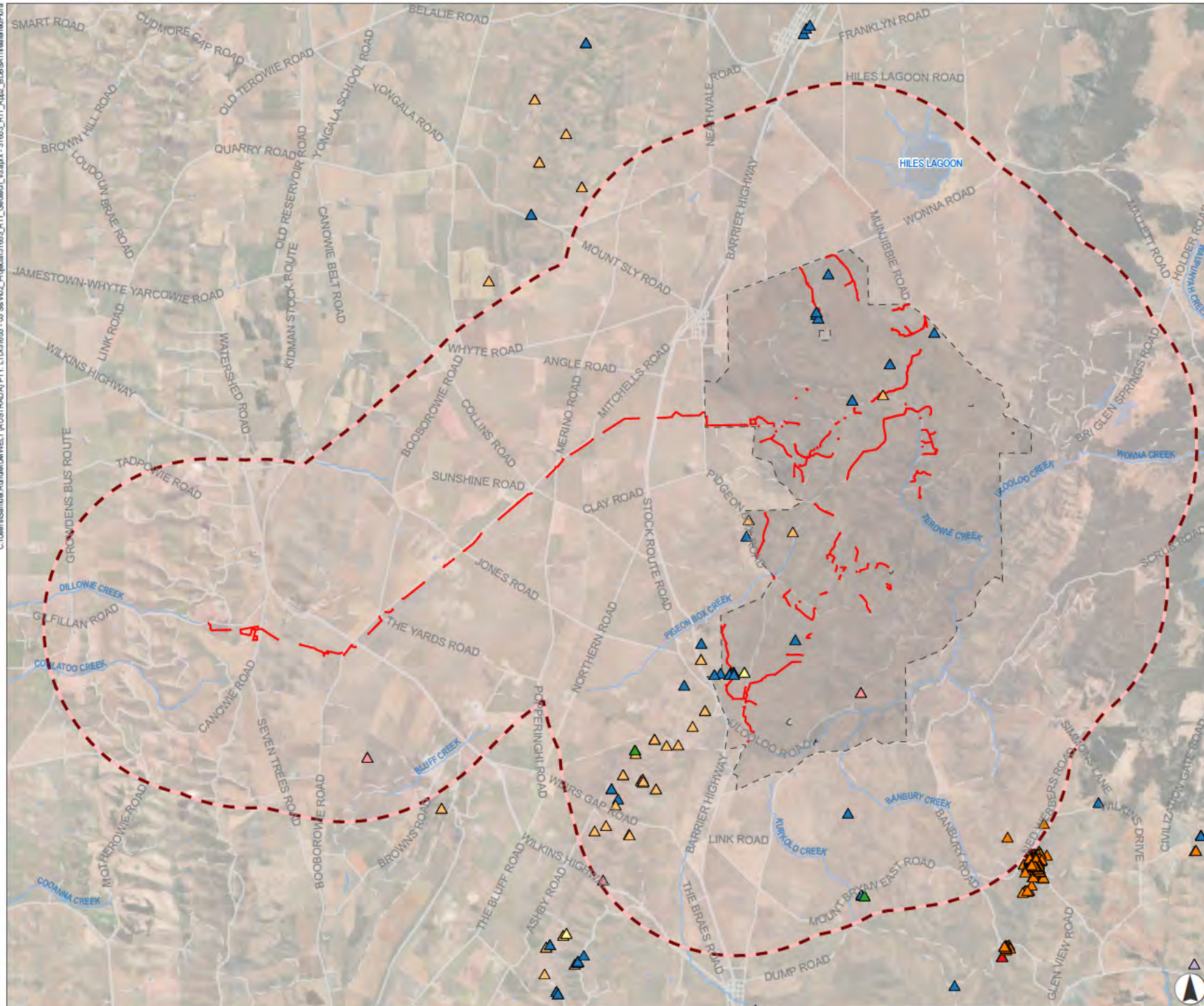
Conservation Codes: EN/E = Endangered; VU/V = Vulnerable, R = Rare.

Source: 1- PMST – 5km buffer applied to the Project Area; 2 - BDBSA - 5 km buffer applied to the Project Area; 3 – Recorded during field surveys.

Appendix 3

Map of Threatened BDBSA Flora Records





Appendix 2

BDBSA Threatened Flora

Legend

- Project Area: Geotech
- Wind Farm
- Search Area (5km)
- Watercourses
- Waterbodies
- Main road
- Local Road
- Track
- ▲ Behr's Swainson-pea (*Swainsona behriana*)
- ▲ Bottle Fissure-plant (*Maireana excavata*)
- ▲ Hairy-tails (*Ptilotus erubescens*)
- ▲ Knotted Poa (*Poa drummondiana*)
- ▲ Long-flower Cryptandra (*Cryptandra campanulata*)
- ▲ Mt Bryan Greenhood (*Pterostylis despectans*)
- ▲ Narrow-leaf Wax-flower (*Philothea angustifolia* ssp. *angustifolia*)
- ▲ Narrow-leaf Yellow-tails (*Ptilotus angustifolius*)
- ▲ Prostrate Blue Devil (*Eryngium vesiculosum*)
- ▲ Rohrlach's Bluebush (*Maireana rohrlachii*)
- ▲ Shade Peppercross (*Lepidium pseudotasmanicum*)
- ▲ Short-awn Wallaby-grass (*Rytidosperma tenuis*)
- ▲ Small Scurf-pea (*Cullen parvum*)
- ▲ Swollen Spear-grass (*Austrostipa gibbosa*)
- ▲ Wiry Dock (*Rumex dumosus*)



Scale 1:160,000 at A4
GDA2020 MGA Zone 54



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Appendix 4

Fauna Species Recorded During Field Surveys

Appendix Table A4.1

Native Fauna Species Recorded During the Field Surveys (2019 – 2026)

Species	Common Name	EPBC Act	NPW Act
Birds			
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater	-	-
<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	-	-
<i>Acanthiza lineata</i>	Striated Thornbill	-	-
<i>Acanthiza reguloides</i>	Buff-rumped Thornbill	-	-
<i>Acanthiza uropygialis</i>	Chestnut-rumped Thornbill	-	-
<i>Acanthorhynchus tenuirostris halmaturinus</i>	Eastern Spinebill	-	-
<i>Accipiter cirrocephalus cirrocephalus</i>	Collared Sparrowhawk	-	-
<i>Accipiter fasciatus fasciatus</i>	Brown Goshawk	-	-
<i>Alauda arvensis arvensis</i>	Eurasian Skylark	-	-
<i>Anas gracilis gracilis</i>	Grey Teal	-	-
<i>Anthochaera carunculata</i>	Red Wattlebird	-	-
<i>Anthus australis australis</i>	Australian Pipit	-	-
<i>Aphelocephala leucopsis leucopsis</i>	Southern Whiteface	VU	-
<i>Aquila audax audax</i>	Wedge-tailed Eagle	-	-
<i>Artamus cinereus</i>	Black-faced Woodswallow	-	-
<i>Artamus cyanopterus</i>	Dusky Woodswallow	-	-
<i>Artamus personatus</i>	Masked Woodswallow	-	-
<i>Artamus superciliosus</i>	White-browed Woodswallow	-	-
<i>Barnardius zonarius</i>	Australian Ringneck	-	-
<i>Barnardius zonarius barnardi</i>	Mallee Ringneck	-	-
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	-	-
<i>Cacomantis flabelliformis flabelliformis</i>	Fan-tailed Cuckoo	-	-
<i>Cacomantis pallidus</i>	Pallid Cuckoo	-	-
<i>Calidris ruficollis</i>	Red-necked Stint	Mi	-
<i>Chalcites basalis</i>	Horsfield's Bronze Cuckoo	-	-
<i>Charadrius ruficapillus</i>	Red-capped Plover	-	-
<i>Chenonetta jubata</i>	Maned Duck	-	-
<i>Chrysococcyx osculans</i>	Black-eared Cuckoo	-	-
<i>Cincloramphus cruralis</i>	Brown Songlark	-	-
<i>Cincloramphus mathewsi</i>	Rufous Songlark	-	-
<i>Circus approximans</i>	Swamp Harrier	-	-
<i>Circus assimilis</i>	Spotted harrier	-	-
<i>Climacteris picumnus picumnus</i>	Brown Treecreeper	-	-
<i>Colluricincla harmonica</i>	Grey Shrikethrush	-	-
<i>Columba livia</i>	Rock Dove	-	-
<i>Coracina novaehollandiae</i>	Black-faced Cuckooshrike	-	-
<i>Corcorax melanorhamphos</i>	White-winged Chough	-	-
<i>Corvus bennetti</i>	Little Crow	-	-
<i>Corvus coronoides</i>	Australian Raven	-	-
<i>Corvus mellori</i>	Little Raven	-	-
<i>Corvus sp.</i>	Crows	-	-

Species	Common Name	EPBC Act	NPW Act
<i>Coturnix pectoralis</i>	Stubble Quail	-	-
<i>Cracticus torquatus leucopterus</i>	Grey Butcherbird	-	-
<i>Dacelo novaeguineae</i>	Laughing Kookaburra	-	-
<i>Daphoenositta chrysoptera pileata</i>	Black-capped Sittella	-	-
<i>Dicaeum hirundinaceum hirundinaceum</i>	Mistletoebird	-	-
<i>Dromaius novaehollandiae</i>	Emu	-	-
<i>Elanus axillaris</i>	Black-shouldered kite	-	-
<i>Eolophus roseicapilla</i>	Galah	-	-
<i>Epthianura albifrons</i>	White-fronted Chat	-	-
<i>Epthianura aurifrons</i>	Orange Chat	-	-
<i>Epthianura tricolor</i>	Crimson Chat	-	-
<i>Falco berigora</i>	Brown Falcon	-	-
<i>Falco cenchroides</i>	Nankeen Kestrel	-	-
<i>Falco subniger</i>	Black Falcon	-	R
<i>Gavialis virens</i>	Singing Honeyeater	-	-
<i>Grallina cyanoleuca</i>	Magpielark	-	-
<i>Gymnorhina tibicen</i>	Australian Magpie	-	-
<i>Hieraaetus morphnoides</i>	Little eagle	-	V
<i>Hirundo neoxena neoxena</i>	Welcome Swallow	-	-
<i>Lalage tricolor</i>	White-winged Triller	-	-
<i>Malurus cyaneus leggei</i>	Superb fairywren	-	-
<i>Malurus leucopterus leuconotus</i>	White-winged Fairywren	-	-
<i>Malurus sp.</i>	Fairy Wren	-	-
<i>Manorina flavigula</i>	Yellow-throated Miner	-	-
<i>Manorina melanocephala</i>	Noisy miner	-	-
<i>Melithreptus brevirostris pallidiceps</i>	Brown-headed Honeyeater (MLR, MM)	-	-
<i>Melopsittacus undulatus</i>	Budgerigar	-	-
<i>Merops ornatus</i>	Rainbow Bee-eater	-	-
<i>Microeca fascians assimilis</i>	Jacky Winter	-	-
<i>Milvus migrans migrans</i>	Black Kite	-	-
<i>Mirafrja javanica</i>	Horsfield's Bushlark	-	-
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V
<i>Neophema elegans elegans</i>	Elegant Parrot	-	R
<i>Ninox boobook</i>	Australian Boobook	-	-
<i>Northiella haematogaster haematogaster</i>	Eastern Bluebonnet (eastern and central SA)	-	-
<i>Nymphicus hollandicus</i>	Cockatiel	-	-
<i>Ocyphaps lophotes</i>	Crested Pigeon	-	-
<i>Pachycephala rufiventris rufiventris</i>	Rufous Whistler	-	-
<i>Pardalotus punctatus</i>	Spotted Pardalote	-	-
<i>Pardalotus striatus</i>	Striated Pardalote	-	-
<i>Passer domesticus domesticus</i>	House Sparrow	-	-
<i>Petrochelidon ariel</i>	Fairy Martin	-	-
<i>Petrochelidon nigricans</i>	Tree Martin	-	-
<i>Petroica goodenovii</i>	Red-capped Robin	-	-

Species	Common Name	EPBC Act	NPW Act
<i>Phaps chalcoptera</i>	Common Bronzewing	-	-
<i>Phylidonyris novaehollandiae novaehollandiae</i>	New Holland Honeyeater	-	-
<i>Platycercus elegans</i>	Crimson Rosella	-	-
<i>Podargus strigoides brachypterus</i>	Tawny Frogmouth	-	-
<i>Pomatostomus superciliosus</i>	White-browed Babbler	-	-
<i>Psephotellus varius</i>	Mulga Parrot	-	-
<i>Psephotus haematonotus</i>	Red-rumped Parrot	-	-
<i>Psophodes cristatus</i>	Chirruping Wedgebill	-	-
<i>Ptilotula ornata</i>	Yellow-plumed Honeyeater	-	-
<i>Ptilotula penicillata</i>	White-plumed Honeyeater	-	-
<i>Purnella albifrons</i>	White-fronted Honeyeater	-	-
<i>Rhipidura albiscapa</i>	Grey Fantail	-	-
<i>Rhipidura leucophrys leucophrys</i>	Willie Wagtail	-	-
<i>Smicrornis brevirostris</i>	Weebill	-	-
<i>Strepera versicolor</i>	Grey Currawong	-	-
<i>Struthidea cinerea cinerea</i>	Apostlebird	-	-
<i>Taeniopygia guttata castanotis</i>	Zebra Finch	-	-
<i>Threskiornis moluccus</i>	Australian White Ibis	-	-
<i>Todiramphus pyrrhopygius</i>	Red-backed Kingfisher	-	-
<i>Tribonyx ventralis</i>	Black-tailed Nativehen	-	-
<i>Turdus merula</i>	Common Blackbird	-	-
<i>Turnix varius varius</i>	Painted Buttonquail	-	R
<i>Vanellus miles</i>	Masked lapwing	-	-
<i>Vanellus tricolor</i>	Banded Lapwing	-	-
Mammals			
<i>Austronomus australis</i>	White-striped Free-tailed Bat	-	-
<i>Chalinolobus gouldii</i>	Gould's Wattled Bat	-	-
<i>Chalinolobus morio</i>	Chocolate Wattled Bat	-	-
<i>Lasiornis latifrons</i>	Southern Hairy-nosed Wombat	-	-
<i>Macropus fuliginosus</i>	Western Grey Kangaroo	-	-
<i>Macropus robustus</i>	Euro	-	-
<i>Macropus rufus</i>	Red Kangaroo	-	-
<i>Mormopterus petersi</i>	Inland Free-tailed Bat	-	-
<i>Mormopterus planiceps</i>	Southern Free-tailed Bat	-	-
<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	-	-
<i>Ozimops planiceps</i> sp. 4	Southern Free-tailed Bat	-	-
<i>Ozimops planiceps</i> sp. 3	Free-tailed Bat	-	-
<i>Ozimops</i> sp. 2	Free-tailed Bat	-	-
<i>Scotorepens balstoni</i>	Inland Broad-nosed Bat	-	-
<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	-	-
<i>Vespadelus baverstocki</i>	Inland Forest Bat	-	-
<i>Vespadelus regulus</i>	Southern Forest Bat	-	-
<i>Vespadelus vulturnus</i>	Little Forest Bat	-	-
Reptiles			
<i>Pogona vitticeps</i>	Central Bearded Dragon	-	-
<i>Tiliqua adelaidensis</i>	Pygmy Blue-tongue Lizard	EN	E
<i>Tiliqua rugosus</i>	Sleepy Lizard	-	-

Conservation Codes: Mi = Migratory, VU/V = Vulnerable, R = Rare, EN/E = Endangered
Source: Recorded during field surveys (2019 – 2026).

Appendix Table A4.2 Introduced Fauna Recorded During the Field Surveys (2019 – 2026)

Species	Common Name	EPBC Act	NPW Act
<i>Bos taurus</i> *	Cattle	-	-
<i>Capra hircus</i> *	Goat (Feral Goat)	-	-
<i>Felis catus</i> *	Domestic Cat	-	-
<i>Oryctolagus cuniculus</i> *	Rabbit (European Rabbit)	-	-
<i>Ovis aries</i> *	Sheep	-	-
<i>Struthio camelus</i> *	Ostrich	-	-
<i>Sturnus vulgaris vulgaris</i> *	Common Starling	-	-
<i>Vulpes vulpes</i> *	Fox (Red Fox)	-	-

Source: Recorded during field surveys (2019 – 2026).

Appendix 5

Threatened Fauna Likelihood of Occurrence Assessment



Appendix Table A5.1 Threatened Fauna Likelihood of Occurrence Assessment

Scientific Name	Common Name	EPBC Act	NPW Act	Source	PMST Suggested Occurrence / Year of most recent sighting within 5 km	Description	Likelihood of Occurrence
<i>Aphelocephala leucopsis</i>	Southern Whiteface	VU	-	1,2,3	2024	The Southern Whiteface are a small stocky thornbill-like bird that occurs across most of mainland Australia south of the tropics, from the north-eastern edge of the Western Australian wheatbelt, east to the Great Dividing Range. The Southern Whiteface forage almost exclusively on the ground, favouring habitats with low tree densities and an herbaceous understorey. They require perching habitat.	Known - recorded during field surveys.
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU	-	1	Likely	The Flinders Ranges Worm-lizard has the following habitat requirements: Open woodland, native tussock grassland, riparian habitats and rocky isolates, stony or clay soils with a stony surface, shelters in the soil beneath stones and rotting stumps.	Unlikely - No records within 40 years, targeted surveys are considered adequate to say that the species does not occur.
<i>Corcorax melanorhamphos</i>	White-winged Chough	-	R	2,3	2024	Found throughout most of eastern and south-eastern mainland Australia but are absent from northern QLD. Mostly a sedentary and colonial species that inhabits woodlands and taller mallee, where it feeds on the ground amongst the leaf-litter. Tend to prefer wetter areas with leaf-litter, for feeding, and available mud for nest building.	Known - recorded during field surveys.
<i>Falco hypoleucos</i>	Grey Falcon	VU	R	1	Likely	The Grey Falcon lives within the arid and semi-arid parts of Australia and within that, breeds within the hottest parts. It breeds where it is unlikely to get winter rainfall.	Unlikely - No records within 40 years, the Project Area is not within the usual range of the species.
<i>Falco peregrinus macropus</i>	Peregrine Falcon	-	R	2,3	2019	Found across Australia, but not common anywhere within its distribution. Also found in Europe, Asia, Africa and the Americas. Found in most habitats, from rainforests to the arid zone, and at most altitudes, from the coast to alpine areas. Sparsely distributed in SA, with most records in Red Gum woodlands (especially near water), in gorges with rock faces and along coastal cliffs.	Known - recorded during field surveys.
<i>Falco subniger</i>	Black Falcon	-	R	2,3	2024	The Black Falcon is endemic (only found in Australia) and is sparsely spread in the inland and across northern, eastern, southern and central Australia. It is not found in Tasmania. The Black Falcon is found along tree-lined watercourses and in isolated woodlands,	Known - recorded during field surveys.

Scientific Name	Common Name	EPBC Act	NPW Act	Source	PMST Suggested Occurrence / Year of most recent sighting within 5 km	Description	Likelihood of Occurrence
						mainly in arid and semi-arid areas. It roosts in trees at night and often on power poles by day.	
<i>Hieraaetus morphnoides</i>	Little Eagle	-	V	2,3	2024	The Little Eagle is endemic to Australia and is distributed throughout the mainland. Typical habitat for the Little Eagle includes woodland or open forest. Higher abundance of the species is associated with hillsides where there is a mosaic of wooded and open areas such as riparian woodlands, forest margins and wooded farmland. Little Eagles usually avoid large areas of dense forest, preferring to hunt in open woodland, where the birds use trees for lookouts.	Known - recorded during field surveys.
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	EN	R	1	Likely	The Hooded Robin prefers dry eucalypt and acacia woodlands and shrublands with an open or grassy understorey. They generally avoid woodlands with tall trees or dense tree cover and prefer patches greater than 10 ha in agricultural landscapes.	Possible - No records within 40 years, however suitable habitat may occur.
<i>Myiagra inquieta</i>	Restless Flycatcher	-	R	2	2005	Found throughout northern and eastern mainland Australia, south-western Australia and Papua New Guinea. <i>Eucalyptus camaldulensis</i> , <i>E. leucoxylon</i> and box woodlands in the Mount Lofty Ranges. Also occurs in open mallee (<i>E. oleosa</i> , <i>E. gracilis</i>) low woodland to low open forest at the margins of the region.	Possible - Records within the last 20 years, however limited suitable habitat occurs.
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	1,2,3	2023	Blue-winged parrots breed in Tasmania, coastal south-eastern South Australia and southern Victoria. Blue-winged parrots inhabit a range of habitats from coastal, sub-coastal and inland areas, through to semi-arid zones. They tend to favour grasslands and grassy woodlands and are often found near wetlands both near the coast and in semi-arid zones.	Known - recorded during field surveys.
<i>Neophema elegans elegans</i>	Elegant Parrot	-	R	3	2023	The Elegant Parrot lives in two separate areas. One is in the southwest corner of WA and the other in southern Australia from the Flinders Ranges to just over the NSW and Victorian borders. This parrot lives in open forests, woodlands, mallee, mulga and salt marsh.	Known - recorded during field surveys.
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	V	1	Likely	Diamond Firetail prefer open grassy woodland, farmland and grassland with scattered trees consisting of <i>Eucalyptus</i> spp., <i>Acacia</i> spp. and <i>Casuarina</i> spp. They usually occur in flocks of between five to 40 and feed predominantly at ground level on grass and herb seeds, green leaves and insects. In the Mount Lofty Ranges,	Unlikely - No records within 40 years, sufficient survey has been conducted.

Scientific Name	Common Name	EPBC Act	NPW Act	Source	PMST Suggested Occurrence / Year of most recent sighting within 5 km	Description	Likelihood of Occurrence
						individuals also rely on <i>Allocasuarina verticillata</i> (Drooping She-oak) in winter where exotic grasses and annuals have replaced native understorey.	
<i>Tiliqua adelaidensis</i>	Pygmy Bluetongue	EN	E	1,2,3	2023	The current distribution of the Pygmy Blue-tongue Lizard extends from Peterborough in the north, to Bagot Well and Kapunda in the south and to the South Hummocks in the west (north of Port Wakefield). Pygmy Blue-tongue Lizards are known to occupy native grassland habitats. Even highly degraded grasslands (dominated by exotic species) are potential habitat, providing that the area is unploughed, and the soil structure remains intact. Pygmy Blue-tongue Lizards use unoccupied burrows of trapdoor (Mygalomorphae) and wolf (Lycosidae) spiders as refuges, basking sites and ambush points.	Known - recorded during field surveys.
<i>Turnix varius varius</i>	Painted Buttonquail	-	R	3	2025	Distributed throughout south-east QLD, NSW, VIC, TAS, south-west WA and southern SA. Sparsely distributed mobile species that occupy a range of Eucalypt associations wherever leaf litter is prominent.	Known - recorded during field surveys.

Conservation Codes: EN/E = Endangered; VU/V = Vulnerable, R = Rare.

Source: 1 - PMST – 5km buffer applied to the Project Area; 2 - BDBSA - 5 km buffer applied to the Project Area; 3 – Recorded during field surveys.

Appendix 6

Map of Threatened BDBSA Fauna Records

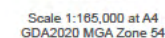


Legend

- Project Area: Geotech
- Search Area (5km)
- Wind Farm
- Watercourses
- Waterbodies

BDBSA threatened fauna

- *Aphelocephala leucopsis leucopsis* (Southern Whiteface)
- *Corcorax melanorhamphos* (White-winged Chough)
- *Falco peregrinus macropus* (Peregrine Falcon)
- *Falco subniger* (Black Falcon)
- *Hieraaetus morphnoides* (Little Eagle)
- *Melanodryas cucullata* (Hooded Robin)
- *Myiagra inquieta* (Restless Flycatcher)
- *Neophema chrysostoma* (Blue-winged Parrot)
- *Pachycephala inornata* (Gilbert's Whistler)
- *Pedionomus torquatus* (Plains-wanderer)
- *Pteropus poliocephalus* (Grey-headed Flying-fox)
- *Stagonopleura guttata* (Diamond Firetail)
- *Tiliqua adelaidensis* (Pygmy Bluetongue)



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