

Native Vegetation Clearance

Normanville to Cape Jervis Overtaking Lanes – Option 4

Data Report - Final

Clearance under the *Native Vegetation Regulations 2017*

15/08/2025

Prepared by E. West (NVC Accredited Consultant)



Normanville to Cape Jervis Overtaking Lanes – Option 4 Native Vegetation Clearance Data Report

Prepared by Umwelt (Australia) Pty Ltd for Department for Infrastructure and Transport

Project Number: 31960

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Glossary and Abbreviations

BAM	Bushland Assessment Method
BDBSA	Biological Database of South Australia (maintained by DEW)
CAD	Computer-aided Design
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEW	Department for Environment and Water (South Australia)
DIT	Department for Infrastructure and Transport (South Australia)
EBS	EBS Ecology, now trading as Umwelt
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
FCA	Fleurieu Connections Alliance
ha	Hectare(s)
IBRA	Interim Biogeographical Regionalisation of Australia
km	Kilometre(s)
LSA Act	<i>Landscape South Australia Act 2019</i> (South Australia)
m	Metre(s)
MM	Maintenance Marker(s)
mm	Millimetre(s)
MNES	Matters of National Environmental Significance
NatureMaps	An online format for accessing information on South Australia's natural resources (maintained by DEW)
NPW Act	<i>National Parks and Wildlife Act 1972</i> (South Australia)
NPWSSA	National Parks and Wildlife Service (South Australia)
NV Act	<i>Native Vegetation Act 1991</i> (South Australia)
NVC	Native Vegetation Council
Pers. comms	Personal Communications
PDI Act	<i>Planning, Development and Infrastructure Act 2016</i> (South Australia)
PMST	Protected Matters Search Tool (under the EPBC Act; maintained by DCCEEW)
Project	The development of overtaking lanes on Main South Road.
Project Area	Area of land under application, between MM 59 and MM 61
SA	South Australia(n)
Search Area	5 km buffer of the Project Area considered in the desktop assessment database searches
SEB	Significant Environmental Benefit
sp.	Species
spp.	Species (plural)
ssp.	Sub-species
STAM	Scattered Tree Assessment Method
TBS	Total Biodiversity Score
UBS	Unit Biodiversity Score
TEC	Threatened Ecological Community
Umwelt	Umwelt (Australia) Pty Ltd
var.	Variety (a taxonomic rank below that of species and subspecies, but above that of form)
WoNS	Weeds of National Significance
%	Percent
<	Less than

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Attachments

- Attachment 1 - Vegetation Removal Drawings (Main South Road Between Forest Road and Finnis Vale Drive, Delamere) (PDFs)
- Attachment 2 - Scattered Tree Assessment Scoresheet (excel format)
- Attachment 3 - Spatial Data Package (shapefiles)

1. APPLICATION INFORMATION

Details of the native vegetation clearance applicant are summarised in **Table 1.1**. A summary of the proposed clearance is available in **Table 1.2**.

Table 1.1 Applicant Details

Applicant:	Department for Infrastructure and Transport (DIT).		
Key contact:	– Structures & Fleurieu Connections Department for Infrastructure and Transport E: u M:		
Landowner:	Department for Infrastructure and Transport.		
Site Address:	Main South Road: Maintenance Marker (MM) 59 to MM 61.		
Local Government Area:	District Council of Yankalilla	Hundred:	Yankalilla
Title ID:	Road Reserve: DIT CT6135/82 CT5153/233	Parcel ID	Road Reserve: DIT D54057AL62 D29714AL1

Table 1.2 Summary of the Proposed Clearance

Purpose of Clearance:	Native vegetation clearance is required to establish an overtaking lane on Main South Road approximately between MM 59 and MM 61.
Native Vegetation Regulation:	Regulation 12, Schedule 1, clause 32, Works on Behalf of the Commissioner of Highways.
Description of the Vegetation under Application:	A total of 72 scattered trees consisting of five species. This includes: <ul style="list-style-type: none"> • 43 <i>Allocasuarina verticillata</i> (Drooping Sheoak) • 15 <i>Acacia pycnantha</i> (Golden Wattle) • 10 <i>Eucalyptus leucoxylon</i> ssp. <i>leucoxylon</i> (Blue Gum) • 3 <i>Eucalyptus cosmophylla</i> (Cup Gum) • 1 <i>Eucalyptus camaldulensis</i> (River Red Gum).
Total Proposed Clearance – Area (ha) and/or Number of Trees:	72 Scattered trees.
Level of Clearance:	Level 4.
Overlay (Planning and Design Code):	Native Vegetation.
Map of Proposed Clearance Area:	Please refer to Figure 4.1

Mitigation Hierarchy:	<p>Avoidance</p> <p>Not all native vegetation can be avoided; through the initial planning study and subsequent design refinement, the location and alignment of the overtaking lane has avoided native vegetation, where possible.</p> <p>The initial assessment undertaken in 2023, identified a total of 183 scattered trees proposed to be impacted, including impact to four State Rare <i>Eucalyptus fasciculosa</i> (Pink Gum) trees. The redesign of Option 4 has resulted in a reduced impact of 72 trees, with no impact to <i>Eucalyptus fasciculosa</i> (Pink Gum).</p> <p>Minimisation</p> <p>A large portion of the construction work is proposed to take place within previously disturbed areas of the road corridor or areas dominated by amenity plantings or weed species, thereby minimising impacts on native vegetation. DIT and its contractors will adhere to guidelines and policies for assessing and removing native vegetation and the construction contractor will be required to implement a Construction Environmental Management Plan (CEMP) to minimise any direct and indirect impacts including off-target vegetation and fauna protection measures.</p> <p>Further design measures used to minimise impact include replacing features like benches in the cut face, which facilitate maintenance, with other engineering measures that reduce the need for future maintenance access. More specifically, redesign at the post IFC level includes the following changes to minimise impact:</p> <ul style="list-style-type: none"> • Removing the extension of the wide centerline marking and reducing its transition lengths has reduced the total length of the overtaking lane by approximately 240 m. • Reducing the width of the wide centerline treatment from 1.4 m to 1 m. <p>DIT and its contractors will adhere to guidelines and policies for assessing and removing native vegetation, as outlined in the DIT Environment and Heritage Technical Manual (DIT 2021).</p> <p>Rehabilitation or Restoration</p> <p>As clearance will not be a temporary action, vegetation that is to be impacted will be permanently removed. The opportunity to incorporate final landscaping works utilising locally native species is currently being investigated (<i>pers. comms</i>, R. Joseph, DIT).</p> <p>Offset</p> <p>At the time of application, DIT will be meeting the SEB Offset requirement via payment to the NV Fund. However, in accordance with the DIT Vegetation Impact Assessment Guideline, and based on the package of works (including 3 overtaking lanes) requiring an offset obligation greater than 150 SEB Points, opportunities to provide on-ground SEB Offsets via an NVC Accredited Third Party Provider are currently being investigated (<i>pers. comms</i>, H. Keynes DIT).</p>
SEB Offset Proposal	<p>The total SEB payment for the clearance of 72 scattered trees, with a combined TBS of 79.95, is \$97,787.94 (including an administration fee of \$5,097.94).</p>

2. PURPOSE OF THE CLEARANCE

2.1. Description

The Department for Infrastructure and Transport (DIT) are proposing to deliver a series of overtaking lanes on Main South Road between Normanville and Cape Jervis, in the lower Fleurieu Peninsula, South Australia (SA) (the Project). This application will focus on the development of an overtaking lane on Main South Road between Maintenance Marker (MM) 59 and MM 61, in the lower Fleurieu Peninsula, South Australia (SA) (the Project). In order to facilitate these works, DIT will be required to undertake native vegetation clearance in the area under application, which is located approximately 2 km south of Second Valley, SA (see **Figure 2.1**).

At the 30 percent (%) design stage, EBS Ecology (now Umwelt) was engaged by Fleurieu Connections Alliance (FCA), on behalf of DIT, to undertake an ecological field assessment for potential site options for the overtaking lanes (EBS 2024a, EBS 2024b). Following selection of the three proposed overtaking lane locations, Umwelt was directly engaged by DIT to conduct an additional field assessment to assist in design refinement.

This report is based on the Computer-aided Designs (CAD) issued to Umwelt by DIT on 21 July 2025.

This report pertains to the assessment conducted for Option 4. For this assessment, all impacts to native vegetation have been assessed in accordance with DIT's *Vegetation Impact Assessment Guideline EHTM Attachment 4B* (DIT 2021a) and the *Native Vegetation Act 1991* (NV Act). As per these guidelines, native vegetation can be removed under various activities (i.e., New Works, Public Safety Works, and/or Maintenance Works) that require different levels and/or types of approval and offsetting. As the construction of overtaking lane infrastructure falls under what is considered New Works, this has required the preparation and submission of a formal Data Report to the Native Vegetation Council (NVC) for approval.

2.2. Objectives

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

- To undertake a desktop assessment for the likelihood of occurrence of Threatened Ecological Communities (TECs), flora and fauna protected under the Commonwealth's Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and the State's National Parks and Wildlife Act 1972 (NPW Act).
- To assess native vegetation within the Project Area by applying the NVC endorsed Scattered Tree Assessment Method (STAM) and / or Bushland Assessment Method (BAM), as required.
- To identify any 'Declared' plants under the Landscape South Australia Act 2019 or Weeds of National Significance (WoNS) that may be significant in relation to the Projects requirements.
- To calculate the SEB offset requirements for the Project based on the client supplied impact footprint.

2.3. General Location Map

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

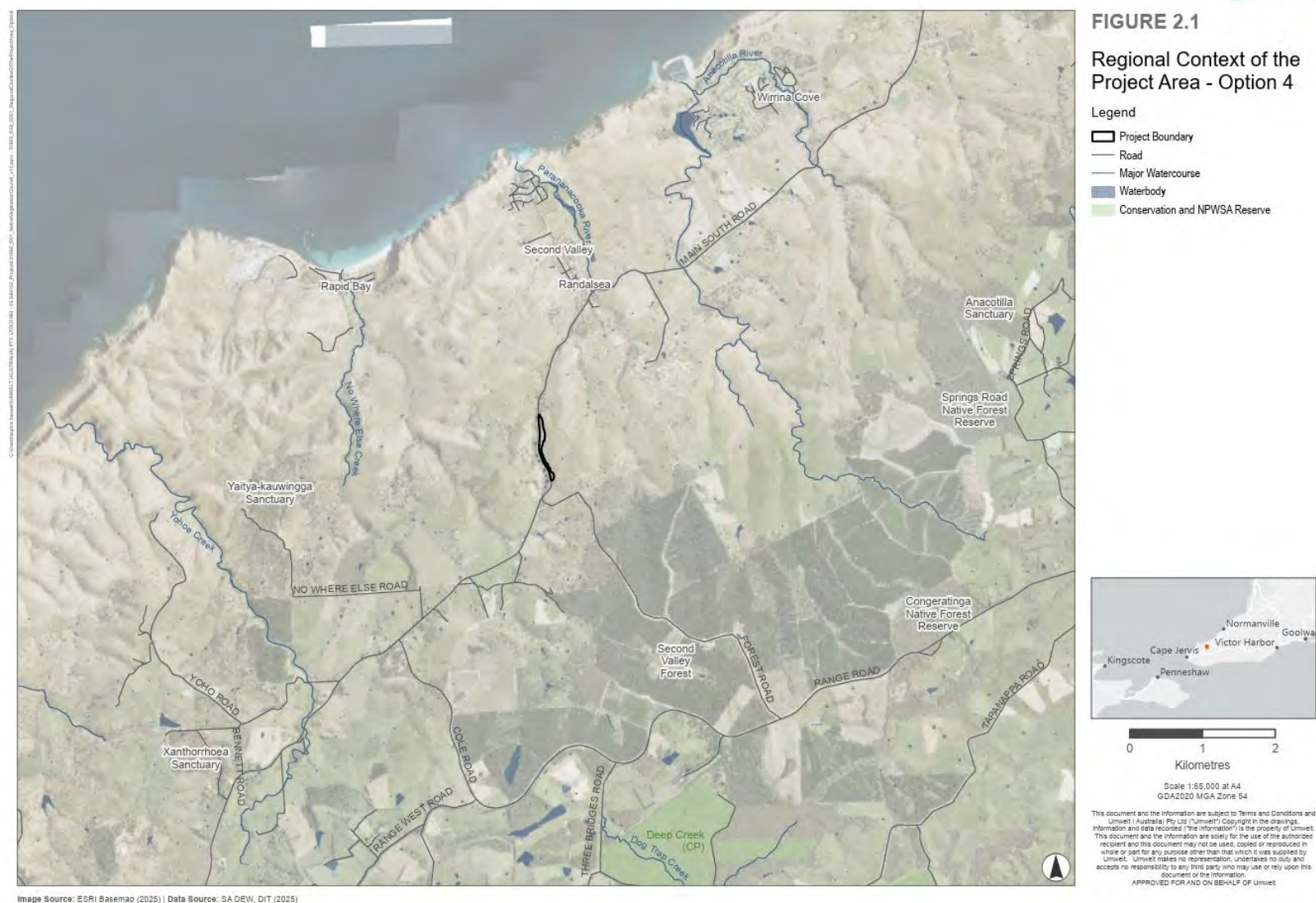


Figure 2.1 Regional Context of the Project Area – Option 4

2.4. Background

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

- Project Area – the area where works are to occur (i.e., the footprint of the Project). As outlined in **Figure 2.1**.
- Search Area – a 5-kilometer (km) buffer surrounding the Project Area, used for the desktop component of this Data Report.

Administrative Boundaries

Works are proposed in the District Council of Yankalilla, within the Hills and Fleurieu Landscape Management Region, and the Hundred of Yankalilla (DEW 2025a). The length of the Project Area does not encompass any Roadside Significant Sites (DEW 2025a). There are two Heritage Agreement areas and one National Parks and Wildlife Service SA (NPWSA) property within the Search Area, although none are in close proximity to the Project Area (DEW 2025a).

Interim Biogeographic Regionalisation of Australia

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

The Project Area is represented by the Mt Rapid association of the Fleurieu subregion, encompassed by the wider Kanmantoo bioregion. Approximately 1,103 ha (9%) of this IBRA association is mapped as containing remnant vegetation, of which 81 ha (7%) is formally conserved.

2.5. Details of the Proposal

The South Australian Government, in partnership with the Commonwealth, are intending to deliver a series of overtaking lanes on Main South Road between Normanville and Cape Jervis to improve road safety for commuters. This specific Project and application concerns the development of Option 4.

The proposed scope of work will include:

- Road widening to facilitate the installation of the overtaking lane on the eastern side of the road.
- The installation of sealed and unsealed shoulders.
- Upgraded culverts.
- Safety barriers and audio tactile line markings in required locations.
- 1 m wide centreline treatment.

Options 1 and 5 will be addressed in separate Data Reports submitted to the NVC (Umwelt 2025a, 2025b).

2.6. Approvals Required or Obtained

- **Native Vegetation Act 1991 (NV Act)** – The Project is subject to the NV Act, which is the focus of this Data Report, and fulfils the requirements of the NV Act to clear native vegetation.
- **Planning, Development and Infrastructure Act 2016 (PDI Act)** – Provisions relating to Regulated or Significant Trees do not apply for this Project.
- **Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)** – An assessment of Matters of National Environmental Significance (MNES) protected under the EPBC Act found it unlikely for there to be any significant impact to an MNES-listed entity from these specific Project works. Therefore, the preparation of a Self-assessment or a Referral under the EPBC Act is not considered necessary.
- **National Parks and Wildlife Act 1972 (NPW Act)** – The flora and fauna surveys conducted as part of this native vegetation clearance application were undertaken by Umwelt under Scientific Research License K25613-27.
- **Landscapes South Australia Act 2019 (LSA Act)** – All landowners have a responsibility to promote sustainable management of the State's landscape, which includes minimising occurrence, transport, and dispersal of weeds, including those listed as Declared under the LSA Act or a WoNS under Biosecurity Act 2015. Standard procedures, such as those outlined in a Construction Environmental Management Plan, should be in place to prevent the encroachment of weeds and other indirect environmental impacts.
- **Aboriginal Heritage Act 1988** – Approval will be required if any sites, objects or remains are uncovered during the works. A 'Stop Work' procedure should be implemented if any items of this nature are located.

2.7. Native Vegetation Regulation

The Project is permitted under the following regulation:

- **Regulation 12 (32) – Works on behalf of Commissioner of Highways**
Clearance of vegetation incidental to work being undertaken by, or on behalf, of the Commissioner of Highways (other than repair or maintenance work of a kind referred to in Part 1 clause 2).

2.7.1. Approval and Offset Details for Impacts to Native Vegetation

As per DIT's *Vegetation Impact Assessment Guideline EHTM Attachment 4B*, the establishment of an overtaking lane constitutes what is considered 'New Works' (DIT 2021a). As the Project has been escalated to a Level 4 Clearance (see **Section 4.6**), approval for the Project will be sought from the Native Vegetation Assessment Panel and endorsed by the Department's Director of Planning and Technical Services (DIT 2021).

3. METHODOLOGY

3.1. Flora Assessment

An initial flora assessment was undertaken at the 30% design phase by NVC Accredited Consultant J. Skewes and Ecologist S. Greer from 19 July to 24 July 2023 and from 7 August to 15 August 2023. An additional flora assessment was undertaken by NVC Accredited Consultant E. West and Ecologist I. Marshall from 21 January to 24 January 2025. All surveys were conducted in accordance with the STAM, detailed further in the following sections. No native understorey or patches of native vegetation which met the requirements of BAM were observed in the Project Area.

3.1.1. Scattered Tree Assessment Method

The STAM is derived from the *Scattered Tree Clearance Assessment in South Australia: Streamlining, Guidelines for Assessment and Rural Industry Extension report* (Cutten and Hodder 2002). As outlined in the Scattered Tree Assessment Manual (NVC 2024a), scattered trees may be assessed in the following instances:

- Where there are individual scattered trees (i.e., the canopy does not overlap). The spatial distribution of trees may vary from approaching what would be considered their original distribution (pre-European) through to single isolated trees in the middle of a paddock.
- Dead trees (when a dead tree is considered native vegetation).
- Clumps of trees (contiguous overlapping canopies) if the clump is small (approximately less than (<) 0.1 ha).

For both scattered trees and clumps:

- The ground layer comprises wholly or largely of introduced species.
- Some scattered colonising native species may be present but represent <5 % of the ground cover.
- The area around the trees consists of introduced pasture or crops.

The number of uncommon and threatened scattered tree using fauna species were entered into the Scattered Tree Scoresheet by cross referencing the Biological Database of South Australia (BDBSA) data extract and the lists of scattered trees using fauna in the *Scattered Tree Assessment Manual* (NVC 2024a). The resource use of each species identified was considered when determining each tree's suitability for threatened fauna species (e.g., species that only use hollows in scattered trees were only assigned to scattered trees containing hollows).

3.1.2. Provisional List of Threatened Ecosystems

The *Provisional List of Threatened Ecosystems* (Department for Environment and Heritage 2005) was reviewed to determine whether any vegetation associations impacted meet the criteria for listing as a threatened ecosystem at the state level.

3.2. Fauna Assessment

A desktop assessment was undertaken to determine the potential for any threatened fauna species to occur within the Project Area.

This included species listed under the EPBC Act and the NPW Act. The search was undertaken through the Search Area. The following databases were utilised to obtain records of threatened species:

- A Protected Matters Search Tool (PMST) report, generated by DCCEEW, to identify any MNES that are known to occur from within the Search Area.
- A BDBSA data extract obtained from the Department for Environment and Water (DEW) that identifies the location of historical records of flora and fauna from within the Search Area.

3.2.1. Protected Matters Search Tool report

A PMST report was generated on 15 January 2025 to identify flora, fauna and TECs listed under the EPBC Act as threatened or Migratory (DCCEEW 2025a). Only species and TECs identified in the PMST report as 'Known' to occur within the Search Area were assessed for their likelihood of occurrence within the Project Area. A complete assessment of all species identified by the PMST is provided in **Appendix 4**.

3.2.2. Biological Database of South Australia data extract

A BDBSA data extract was obtained from the DEW to identify flora and fauna species that have been recorded within the Search Area (data extracted 13/01/2025; DEW 2025b Recordset number: 250110-3).

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

All threatened fauna identified by the BDBSA extract were entered into the scoresheets for the purposes of calculating the threatened fauna score, conservation significance score and SEB obligations of the clearance. Species assessed as unlikely to occur in the Project Area may be removed by the NVC during the approvals process.

3.2.3. Field Survey

Opportunistic observations of fauna were recorded throughout the Project Area for the duration of the vegetation assessment. All native and exotic fauna species opportunistically encountered directly observed, or from tracks, scats, burrows, nests, or other signs of presence were recorded.

Potential fauna refuge sites (i.e., surface rock deposits) were noted as an indication of the availability of suitable habitat. Particular attention was given to identifying habitat for the threatened species identified in the desktop assessment.

3.2.4. Likelihood of Occurrence

Threatened species and TECs identified from the PMST and BDBSA data extract were assessed for their likelihood of occurrence within the Project Area. All species with historical records since 1995 with a spatial reliability of < 1 km, and species listed as 'Known' to occur by the PMST, were assessed. Species with habitat requirements wholly inappropriate for the land under application (i.e., marine species) were not assessed.

The assessment was based on the recency of records, habitat preferences, and the results of the field survey. The criterion for this assessment is described in **Table 3.1**.

Species that have recent records but do not have suitable habitat within the Project Area have been excluded from the scoresheets, this includes coastal species that have specific habitat and foraging habitats. Species that have been excluded include:

- Australasian Darter (*Anhinga novaehollandiae novaehollandiae*) – State Rare (BDBSA record 2020)
- Australian Sea lion (*Neophoca cinerea*) – nationally Endangered and State Vulnerable (PMST Known)
- Southern Right Whale (*Eubalaena australis*) – nationally Endangered (PMST Known)
- White-capped Albatross (*Thalassarche steadi*) – nationally Vulnerable (PMST Known).

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.
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.

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

3.2.5. Limitations

Flora and fauna records were retrieved from the PMST and BDBSA data extract. The BDBSA only includes verified flora and fauna records submitted to DEW or partner organisations. It is recognised that information is captured imperfectly, and it is possible that significant species may occur in the Project Area that are not reflected by the 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 warranty that the data is accurate or fit for any particular purpose.

As the database search was limited to a buffer around the Project Area, the reliability of records is challenged by the ability of fauna species (particularly birds) traversing distances greater than that of the search buffer. It is also acknowledged that the presence of species may not be adequately represented by database records. Hence, the results may not highlight all potential threatened species that may occur in the area.

Limitations associated with the field work component of this assessment are as follows:

- Due to the timing of the surveys certain species may not have been present, visible, or identifiable. Therefore, species lists should not be considered wholly comprehensive.
- Targeted fauna survey methods such as fauna trapping, dedicated bird surveys, microbat ultrasonic call capture and analysis, and nocturnal spotlighting were not undertaken for the current assessment.
- Spatial data recorded during the field survey was collected by hand-held GPS and has a spatial reliability of approximately +/- 3-5 m.
- 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.

4. ASSESSMENT OUTCOMES

4.1. Vegetation Assessment

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

Option 4 is located approximately 2.5 km south of Second Valley. The site contains steep-sided rocky batter slopes on the southbound lane, which were largely inaccessible. The northbound lane is narrow with a steep down-slope protected by a barricade, and with minimal vegetation occurring between the road edge and property boundary. A planted patch of native species, predominantly eucalypts, occurs at the northbound point on both sides of the road, which if left to mature, may provide habitat for birds, possums and Grey-headed flying-fox. Remnant and emerging native species are dominated by *Allocasuarina verticillata* (Drooping Sheoak). The surrounding landscape has also been heavily modified, principally for the development of agriculture and forestry land (Second Valley Forest) (DEW 2025a).

The Project Area is located amidst non-arable hills and rises with shallow stony soil. Soils are typically acidic loam over clay on rock. The certificate titles are comprised of cleared land which contains scattered trees over exotic understorey. The mid storey is mainly dominated by *Rosa canina* (Dog Rose) and exotic grasses. Small patches of native grasses such as *Rytidosperma* sp. exist, but not enough to warrant a Bushland Assessment (i.e. comprising less than 5% of any understorey component).

While no watercourses are found within the Project Area itself, several farm dams and an unnamed non-perennial watercourse are located on the western side of Main South Road. The site receives an average annual rainfall of 704 millimeters (mm).

The field survey encountered 25 flora species in the vicinity of the Project Area, as listed in **Appendix 1**, which included 10 native and 15 exotic species. Three of the exotic species are Declared plants under the LSA Act, with two are also WoNS:

- *Asparagus asparagoides* (Bridal Creeper) – listed as Declared and WoNS.
- *Rosa canina* (Dog Rose) – listed as Declared.
- *Solanum linnaeanum* (Apple of Sodom) – listed as Declared.

Vegetation included planted amenity trees, self-seeded vegetation and remnant native vegetation. The Project Area was located mainly within the road reserve and consisted of remnant scattered Eucalypts (*Eucalyptus leucoxylon*, *Eucalyptus camaldulensis* and *Eucalyptus cosmophylla*), *Acacia pycnantha* (Golden Wattle) and *Allocasuarina verticillata* (Drooping Sheoak). A total of 72 scattered trees were recorded within the impact footprint (**Table 4.1**).

The State Rare *Eucalyptus fasciculosa* (Pink Gum) is present within the Project Area, however, this species will be avoided based on the current designs (**Attachment 1**).

The field survey encountered 10 fauna species, as listed in **Appendix 2**, of which nine were native and one was introduced. One threatened fauna species was encountered within the Project Area (discussed further in **Section 4.3**):

- Yellow-tailed Black-Cockatoo (*Zanda funerea whiteae*) – listed as Vulnerable under the NPW Act.

4.1.2. Details of the Scattered Trees Proposed to be Impacted

A summary of the scattered trees to be impacted by the Project is provided in **Table 4.1**.

Table 4.1 Scattered Trees within the Project Area

Tree #	Scientific Name	No.	Height (m)	Diameter (cm)	Dieback (%)	Hollows (S, M, L)	Total Biodiversity Score
8	<i>Allocasuarina verticillata</i>	16	5.0	15	15		7.68
9	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	10.0	55	10		2.06
10	<i>Allocasuarina verticillata</i>	10	8.0	30	15		20.00
11	<i>Allocasuarina verticillata</i>	1	2.0	1	0		0.16
12	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	10.0	67	10		2.32
13	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	7.5	93	5	5 S, 1 M, and 1 L	4.02
14	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	10.0	69	0		2.36
15	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	2	10.0	46	5		2.84
16	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	10.0	40	5		1.33
17	<i>Eucalyptus cosmophylla</i>	1	3.0	23	10		0.54
18	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	1.0	1	50		0.06
19	<i>Eucalyptus camaldulensis var. camaldulensis</i>	1	9.0	61.5	0		2.00
20	<i>Eucalyptus cosmophylla</i>	1	3.5	18	2		0.52
21	<i>Eucalyptus leucoxylon ssp. leucoxylon (see map)</i>	1	7.0	40	0		1.13
22	<i>Eucalyptus cosmophylla</i>	1	4.0	36.5	0		1.29
23	<i>Allocasuarina verticillata</i>	1	5.0	37	10		1.20
24	<i>Acacia pycnantha</i>	1	4.5	12	0		0.61
25	<i>Acacia pycnantha</i>	1	2.5	9	0		0.30
26	<i>Allocasuarina verticillata</i>	1	4.0	18	40		0.32
27	<i>Allocasuarina verticillata</i>	1	6.0	38	30		1.06
28	<i>Allocasuarina verticillata</i>	1	5.0	18	50		0.37
29	<i>Allocasuarina verticillata</i>	1	4.0	40	30		0.57

Tree #	Scientific Name	No.	Height (m)	Diameter (cm)	Dieback (%)	Hollows (S, M, L)	Total Biodiversity Score
30	<i>Allocasuarina verticillata</i>	1	2.5	11	0		0.28
31	<i>Allocasuarina verticillata</i>	1	7.0	28	35		0.97
32	<i>Allocasuarina verticillata</i>	1	4.0	6.5	0		0.28
33	<i>Allocasuarina verticillata</i>	2	5.5	14	5		1.00
34	<i>Allocasuarina verticillata</i>	3	4.0	15	0		1.23
35	<i>Allocasuarina verticillata</i>	1	4.5	36	0		1.10
37	<i>Eucalyptus leucoxylon ssp. leucoxylon</i>	1	8.5	70	15		2.21
38	<i>Allocasuarina verticillata</i>	2	6.0	30	60		0.86
39	<i>Acacia pycnantha</i>	2	1.0	1	0		0.28
40	<i>Acacia pycnantha</i>	2	3.5	5	0		0.70
41	<i>Acacia pycnantha</i>	1	5.0	30	5		2.00
42	<i>Acacia pycnantha</i>	1	6.0	18	5		1.42
43	<i>Acacia pycnantha</i>	1	7.0	30	15		3.36
44	<i>Acacia pycnantha</i>	2	4.5	15	10		1.96
45	<i>Acacia pycnantha</i>	3	4.5	17	30		1.53
46	<i>Acacia pycnantha</i>	1	4.0	13	10		0.56

No. = Number in clump, Hollow Code: S = Small, M = Medium, L = Large.



Figure 4.1 Native Vegetation Proposed to be Impacted by the Project – Option 4

4.2. Threatened Ecological Communities

The PMST search identified one TEC that could potentially occur within the Project Area. The criterion of this TEC was assessed against the results of the field survey, which found that this community was absent from the Project Area (see Table 4.2).

Table 4.2 Assessment of the presence of Threatened Ecological Communities in the Project Area

Threatened Ecological Community	Conservation Status	Definition	Assessment
Swamps of the Fleurieu Peninsula	Critically Endangered	Localised wetlands occurring in high rainfall areas in the local catchment areas of Tookayerta, Hindmarsh, Parawa, Myponga, Yankalilla, Onkaparinga, Currency Creek and Finniss. They are densely vegetated and occur adjacent to waterlogged soils around low-lying creeks and flats. The swamps are typified by their reedy/heathy vegetation growing on peat, silt, peat silt, or black clay soils (DCCEEW 2025b).	Unlikely – The Project Area lacked appropriate swamp depressions and associated vegetation communities (i.e., rushland/sedgeland).

4.3. Threatened Species Assessment

4.3.1. Threatened Flora

Twenty-six (26) flora species of conservation significance were identified in the database searches as potentially occurring within the Search Area. Fourteen of these flora species were listed under the EPBC Act and were identified in the PMST report (DCCEEW 2025a), no species were identified as 'Known' to occur within the Search Area. However, one EPBC-listed species (Maroon Leek Orchid) had one record within the Search Area, southwest of the Project Area.

An additional 12 flora species listed under the NPW Act, with historical records since greater than (>) 1995 and a spatial reliability of <1 km, were identified in the BDBSA dataset (DEW 2024b, Figure 4.2).

The field surveys encountered one species of conservation significance:

- *Eucalyptus fasciculosa* (Pink Gum) – NPW Act Rare.

The Project Area is situated along Main South Road, with a large portion of the works confined to the existing road corridor, which has been previously cleared and maintained. The surrounding land has also been historically cleared for agricultural purposes and forestry plantations, further fragmenting the vegetation. As a result, the Project Area is highly modified, containing fragmented roadside vegetation with limited leaf litter. No riparian or wetland habitats were identified. Given the habitat requirements of the threatened flora identified in the database searches and the adequacy of the survey effort, it is unlikely that any additional species of conservation significance are present within the Project Area.

Threatened flora species listed as Known to occur in the PMST or with historical records since 1995 and spatial reliability of <1 km are listed in Table 4.3. The locations of historical records for threatened flora species occurring within the Search Area are presented in Figure 4.2. The full likelihood assessment for all threatened flora species identified in the desktop assessment is provided in Appendix 4.

Table 4.3 Likelihood of Occurrence for Threatened Flora Species Identified in the Desktop Assessment

Scientific Name	Common Name	Conservation Status		Data Source	PMST / Year of Last Record	Likelihood of Occurrence in the Project Area
		EPBC Act	NPW Act			
<i>Cladium procerum</i>	Leafy Twig-rush		R	2	2009	Unlikely
<i>Dipodium pardalinum</i>	Leopard Hyacinth-orchid		V	2	1997	Unlikely
<i>Diuris brevifolia</i>	Short-leaf Donkey-orchid		E	2	2009	Unlikely
<i>Eucalyptus fasciculosa</i>	Pink Gum		R	2, 3	2009	Known
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum		R	2	2001	Unlikely
<i>Myriophyllum amphibium</i>	Broad Milfoil		R	2	2006	Unlikely
<i>Prasophyllum murfetii</i>	Maroon Leek-orchid	CR	E	1, 2	Likely / 2009	Unlikely
<i>Pterostylis curta</i>	Blunt Greenhood		R	2	1997	Unlikely
<i>Pterostylis foliata</i>	Slender Greenhood		R	2	2009	Unlikely
<i>Ranunculus papulentus</i>	Large River Buttercup		V	2	1997	Unlikely
<i>Thelymitra flexuosa</i>	Twisted Sun-orchid		R	2	2009	Unlikely
<i>Xanthorrhoea semiplana</i> ssp. <i>tateana</i>	Tate's Grass-tree		R	2	1999	Unlikely
<i>Xanthosia tasmanica</i>	Southern Xanthosia		R	2	1998	Unlikely

Conservation status

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

Conservation Codes: CR: Critically Endangered, EN/E: Endangered. V: Vulnerable. R: Rare.

Source of Information

1. EPBC Act Protected Matters Report (DCCEEW 2025a) - 5 km buffer applied to Project Area.
2. Biological Database of South Australia data extract (DEW 2025b) - 5 km buffer applied to Project Area.
3. Recorded during the field survey.

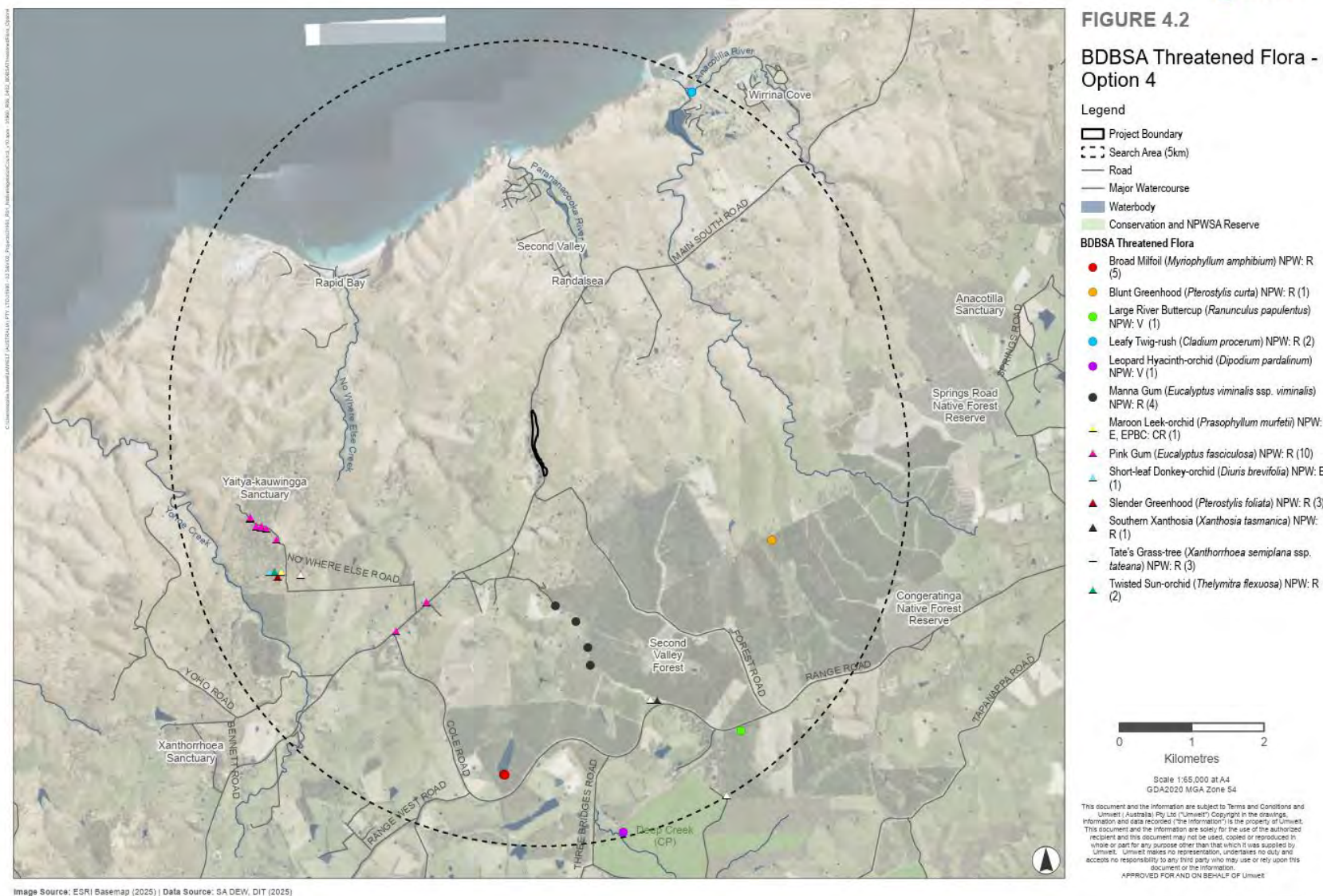


Figure 4.2 BDBSA Threatened Flora – Option 4

4.3.2. Threatened Fauna

Fifty-nine (59) fauna species of conservation significance were identified in the database searches as potentially occurring within the Search Area. Fifty (50) of these fauna species were identified by the PMST report. Of the 50 fauna species, 25 were deemed wholly unsuitable for the land under assessment (e.g. marine mammals, marine fish and pelagic birds). An additional eight fauna species listed under the NPW Act were identified in the BDBSA dataset. This consisted of five avian, two mammalian and one reptilian species (**Table 4.4**).

One threatened fauna species was recorded during the field survey, with individuals observed flying over the Project Area the survey:

- Yellow-tailed Black Cockatoo (*Zanda funerea whiteae*): NPW Act Vulnerable.

The Yellow-tailed Black-Cockatoo inhabits eucalypt woodlands, pine plantations, and temperate forests across south and central eastern Queensland to southeastern South Australia, with a small population in the Eyre Peninsula. Their diet mainly consists of seeds from native trees including she-oaks, eucalypts, acacias, banksias, and hakeas. They also forage on introduced plants such as pines and will eat wood-boring grubs. Yellow-tailed Black-Cockatoos nest in large, old-growth trees, primarily Eucalypts. Despite being common in much of their range, population decline in Victoria and South Australia has occurred due to habitat fragmentation and the loss of suitable nesting trees (Cameron 2006; Forshaw 2002).

Trees within the Project Area, particularly eucalypts with hollows and Sheoaks provide suitable foraging and nesting habitat for the Yellow-tailed Black-Cockatoo. However, the fragmentation of roadside vegetation, combined with the proximity of the trees proposed for removal to a major road, reduces their habitat value. Yellow-tailed Black Cockatoo are therefore more likely to regularly inhabit areas with more intact vegetation, particularly those offering a higher diversity of foraging options and located farther from busy roads.

An additional four species of conservation significance are deemed likely to occur within the impact footprint and an additional seven are deemed as possibly occurring. Given the modified nature of the area, with vegetation near a major road and the absence of riparian or wetland habitats, it is unlikely that any other species of conservation significance highlighted in the database searches would occur within the Project Area.

The PMST report also identified 42 EPBC-listed migratory species as potentially occurring within the Search Area. Twenty-six (26) of these were included in the 50 species listed as threatened under the EPBC Act as discussed previously. One EPBC-listed migratory species had records within the Search Area. However, given the ecological characteristics of the listed migratory species, primarily comprising migratory shorebirds, beach-nesting birds and marine species, none were considered likely to utilise habitats within the Project Area.

Fauna species of conservation significance with records within the Search Area or identified as 'Known' to occur by the PMST are detailed in **Table 4.4**.

The locations of historical records for listed threatened species occurring within the Search Area are presented in **Figure 4.3**. The full likelihood of occurrence assessment for all threatened and migratory fauna species identified by the database searches is provided in **Appendix 4**.

Table 4.4 Likelihood of Occurrence for Threatened Fauna Species Identified in the Desktop Assessment

Scientific Name	Common Name	Conservation Status		Data Source	Scattered Tree Utilising Species	PMST / Year of Last Record	Likelihood of Occurrence in the Project Area
		EPBC Act	NPW Act				
Aves							
<i>Neophema elegans elegans</i>	Elegant Parrot		R	2	P, H, w	2011	Likely
<i>Pachycephala inornata</i>	Gilbert's Whistler		R	2	-	2016	Possible
<i>Petroica boodang boodang</i>	Scarlet Robin		R	2	P, w	2023	Likely
<i>Stagonopleura bella samueli</i>	Western Beautiful Firetail	EN	V	1	-	Known	Possible
<i>Stipiturus malachurus intermedius</i>	Fleurieu Peninsula Southern Emu-wren	EN	E	1	-	Known	Possible
<i>Zanda funerea whiteae</i>	Yellow-tailed Black Cockatoo		V	2,3	P, H, w	2021	Known
<i>Zoothera lunulata halmaturina</i>	South Australian Bassian Thrush (southern FR, MLR, KI)	EN	R	1, 2	-	Known / 2005	Possible
Mammalia							
<i>Antechinus flavipes</i>	Yellow-footed Antechinus		V	2	-	2023	Possible
<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot (south-eastern)	EN	V	1	-	Known	Possible
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	VU	R	1, 2	F	May / 2020	Likely
<i>Rattus lutreolus</i>	Swamp Rat		R	2	-	2022	Likely
Reptilia							
<i>Eulamprus heatwolei</i>	Yellow-bellied Water Skink		V	2	-	2010	Possible

Conservation status

EPBC Act: (Environment Protection and Biodiversity Conservation Act 1999). **NPW Act** (National Parks and Wildlife Act 1972). **Conservation Codes:** EN/E: Endangered. VU/V: Vulnerable. R: Rare. Mi: Migratory.

Source of Information

1. EPBC Act Protected Matters Report (DCCEEW 2025a) - 5 km buffer applied to Project Area.
2. Biological Database of South Australia data extract (DEW 2025b) - 5 km buffer applied to Project Area.
3. Recorded during the field survey.

Scattered Tree Using Species

Resource use: P = perching / roosting, N = nesting, H = hollow using for nesting / roosting, F = feeding

Habitat /status: s = seasonal (includes waterbirds using trees near seasonal wetlands, seasonal and nomadic species), w = woodland birds that occasionally use adjacent scattered trees, r = species that can reside in scattered trees.

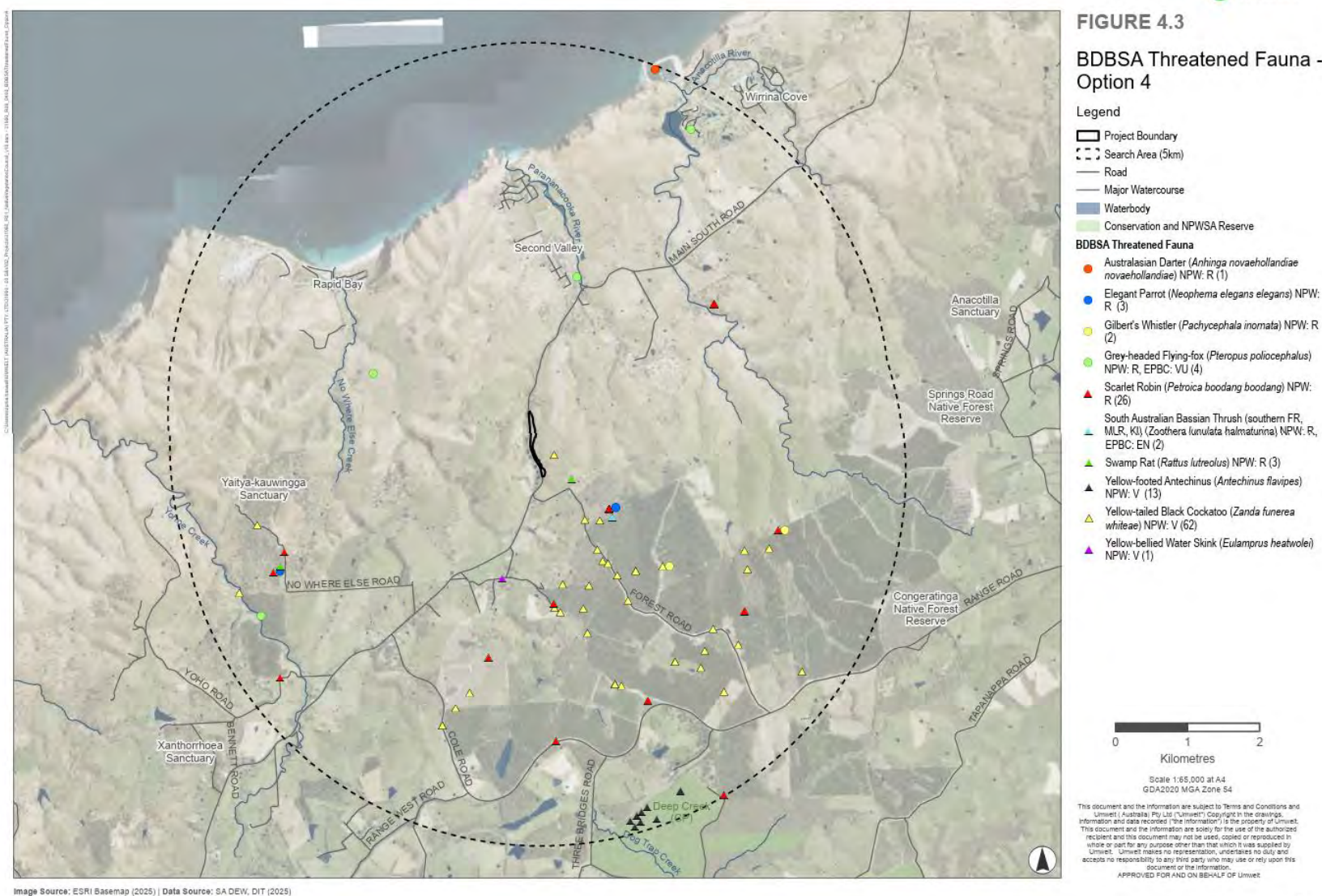


Figure 4.3 BDBSA Threatened Fauna – Option 4

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 impacts associated with the Project includes:

- The clearance of 72 scattered trees.

Indirect impacts may also include:

- Disturbance to nesting species during the construction period.
- The dispersal and importation of weed species through earthworks and the attachments of seeds and other propagules to machinery and vehicles.
- The spread of Phytophthora through earthworks and transfer of soil via machinery and vehicles.
- The potential for an increase in dust accumulation in the surrounding vegetation during construction.
- Runoff from the work area into the various watercourses in close proximity to the Project Area.

The Project must not be considered in isolation, but in association with the wider Main South Road overtaking lane scope of works (Umwelt 2025a and Umwelt 2025b).

4.5. Addressing the Mitigation 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 minimize, 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

Not all native vegetation can be avoided; through the initial planning study and subsequent design refinement, the location and alignment of the overtaking lane has avoided native vegetation, where possible.

The initial assessment undertaken in 2023, identified a total of 183 scattered trees proposed to be impacted, including impact to four State Rare *Eucalyptus fasciculosa* (Pink Gum) trees. The redesign of Option 4 has resulted in a reduced impact of 72 trees, with no impact to *Eucalyptus fasciculosa* (Pink Gum).

b) Minimisation – if clearance cannot be avoided, outline measures taken to minimize 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).

A large portion of the construction work is proposed to take place within previously disturbed areas of the road corridor or areas dominated by amenity plantings or weed species, thereby minimising impacts on native vegetation. DIT and its contractors will adhere to guidelines and policies for assessing and removing native vegetation and the construction contractor will be required to implement a Construction Environmental Management Plan (CEMP) to minimise any direct and indirect impacts including off-target vegetation and fauna protection measures.

Further design measures used to minimise impact include replacing features like benches in the cut face, which facilitate maintenance, with other engineering measures that reduce the need for future maintenance access. More specifically, redesign at the post IFC level includes the following changes to minimise impact:

- Removing the extension of the wide centerline marking and reducing its transition lengths has reduced the total length of the overtaking lane by approximately 240 m.
- Reducing the width of the wide centerline treatment from 1.4 m to 1 m.

DIT and its contractors will adhere to guidelines and policies for assessing and removing native vegetation, as outlined in the DIT *Environment and Heritage Technical Manual* (DIT 2021).

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 minimized, such as allowing for the re-establishment of the vegetation.

As clearance will not be a temporary action, vegetation that is to be impacted will be permanently removed. Amenity vegetation will be offset in accordance with the DIT Vegetation Impact Assessment Guidelines which includes a preference for amenity offsets to be delivered via on-ground works within or adjacent the project area where possible. Where not possible, a monetary offset will be paid to the DIT Amenity Planting Fund which provides funding for local re-vegetation projects. The opportunity to incorporate final landscaping works utilising locally native species is currently being investigated (*pers. comms*, R. Joseph, DIT). The proponent will manage environmental weeds within the Project Area through the implementation of a CEMP.

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

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

At the time of application, DIT will be meeting the SEB Offset requirement via payment to the NV Fund. However, in accordance with the DIT Vegetation Impact Assessment Guideline, and based on the package of works (including 3 overtaking lanes) requiring an offset obligation greater than 150 SEB Points, opportunities

to provide on-ground SEB Offsets via an NVC Accredited Third Party Provider are currently being investigated (*pers.comms*, H. Keynes DIT).

4.6. Principles of Clearance (Schedule 1, *Native Vegetation Act 1991*)

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 clearance is assessed against the Principles of Clearance as set out in **Table 4.5**.

Table 4.5 Assessment against the Principles of Clearance

Principle of Clearance	Relevant Information	Assessment against the Principles	Moderating Factors that may be considered by the NVC
Principle 1(b) – significance as a habitat for wildlife	<p>The desktop assessment identified five threatened fauna species as having 'likely', or greater, probability of occurrence within the Project Area (listed below). An additional seven threatened fauna species were identified as having 'possible' probability of occurrence within the Project Area.</p> <p>Known:</p> <ul style="list-style-type: none"> Yellow-tailed Black Cockatoo (<i>Zanda funerea whiteae</i>) – NPW Act Vulnerable <p>Likely:</p> <ul style="list-style-type: none"> Elegant Parrot (<i>Neophema elegans elegans</i>) – NPW Act Rare Grey-headed Flying-fox (<i>Pteropus poliocephalus</i>) – EPBC Act Vulnerable, NPW Act Rare Scarlet Robin (<i>Petroica boodang boodang</i>) – NPW Act Rare Swamp Rat (<i>Rattus lutreolus</i>) – NPW Act Rare. Total Biodiversity Score for all trees proposed for removal is 72.48 	<p><u>Seriously at Variance</u></p> <p>Trees – 8, 9,10, 12,13,14,15,16,17, 19,20,21,22,23,24, 26,27,28,29,30,31, 33,34,35, 37,38,41,42,43,44,45,46</p> <p><u>At Variance <1.2</u></p> <p>Trees – 11,18, 39, 40</p>	<p><i>Impact significance</i></p> <p>It is considered unlikely that the Project will:</p> <ul style="list-style-type: none"> lead to a long-term decrease in the size of a population, or reduce the area of occupancy of the species, or fragment an existing population into two or more populations, or adversely affect habitat critical to the survival of a species, or modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline, or result in invasive species that are harmful to a threatened species becoming established in the threatened species habitat, or interfere with the recovery of the species. <p>Eucalypt trees with hollows are preferred breeding habitat for Elegant Parrots. Only one tree with hollows (Tree 13) was recorded within the impact footprint and is likely to provide suitable nesting habitat for the Elegant Parrot.</p> <p>This species was not observed within the Project Area. Therefore, it is unlikely that the removal of one tree will impact the Elegant Parrot. Foraging habitat for this species is limited due to the lack of native understorey.</p> <p>Grey-headed Flying Fox may utilise the Project Area for foraging seasonally, however the Project Area is more than 20 km from the nearest bat camp (Adelaide Botanic Gardens), nor does it contain vegetation species listed in the National Recovery Plan (DAWE 2021).</p> <p>Some foraging habitats for Yellow-tailed Black Cockatoo are likely to be impacted (<i>Allocasuarina verticillata</i> and <i>E. leucoxylon</i>), however given the location of trees adjacent to a busy road, and volume of forestry pine plantations in the surrounding landscape, the Project Area is unlikely to be an important foraging habitat. Fauna Habitat</p>

Principle of Clearance	Relevant Information	Assessment against the Principles	Moderating Factors that may be considered by the NVC
			<p>Scores for scattered trees proposed for removal ranged from 1.0 to 1.8.</p> <p>As areas of suitable nesting and foraging habitat are available outside of the Project Area the clearance is unlikely to result in a significant impact for Known and Likely listed species.</p> <p>Two records of the Scarlet Robin were located 4-4.5 km southwest of the Project Area. Habitat is predominantly Eucalypt woodlands and forests with good leaf litter.</p> <p>This species has also been seen in grassland, farmland and urban parks. It is likely that the scattered trees both native and planted provide nesting habitat for this species (Birds in Backyards, ND).</p> <p>The Swamp Rat record was located < 1 km from the Project Area and occurs in thick vegetation along watercourses and swamps. Although the species' favoured habitat is not present within the Project Area, the species may utilise vegetation within the Project Area while dispersing between patches of more favourable habitat. A number of small water bodies are located adjacent to the Project Area, which may provide suitable habitat for the Swamp Rat.</p> <p><i>Common species</i></p> <p>The vegetation provides perching, nesting and foraging habitat for native species that are relatively common, and the area of clearance is not considered essential habitat to maintain the local population.</p> <p><i>Non-essential habitat</i></p> <p>The clearance is of non-essential habitat for threatened species listed as potentially occurring, and the clearance is likely to have a negligible impact on those species populations over the long term.</p>
Principle 1(c) – plants of a rare, vulnerable or endangered species	No threatened flora species are proposed for removal.	<u>Not at Variance</u>	N/A
Principle 1(d) – the vegetation comprises the whole or part of a	No Threatened Ecological Communities were recorded within the Project Area.	<u>Not at Variance</u>	N/A

Principle of Clearance	Relevant Information	Assessment against the Principles	Moderating Factors that may be considered by the NVC
plant community that is Rare, Vulnerable or endangered			

Principles of Clearance (h-m) will be considered by comments provided by the local NRM Board or relevant Minister. The Data Report should contain information on these principles where relevant and where sufficient information or expertise is available.

4.7. Risk Assessment

The *Guide for Applications to Clear Native Vegetation* (NVC 2024) sets out how the risk level of a clearance application is assessed (**Table 4.6**). The risk level of this clearance application is presented in **Table 4.7**, which indicates that this will be a **Level 4** Clearance due to escalating matters (clearance is seriously at variance with Principle 1(b)).

Table 4.6 Risk Assessment for an NVC Clearance Application

	Patches - clearance	Trees - clearance	Escalating matters Clearance assessment will be raised to the next level if;
Level 1	0.05ha or less And clearance does not involve any trees with a trunk circumference measured at 1m above the ground of (for multi stemmed trees, measure the largest trunk/stem): 50cm or more.	5 trees or less	The site contains a listed species or contains a threatened community under either the NP&W Act or EPBC Act Or Clearance of any trees of the specified circumference.
Level 2	>0.05 ha to 0.5 ha	6–20 trees	Clearance is seriously at variance with Principle of Clearance 1(b), 1(c) or 1(d).
Level 3	Total Biodiversity Score of less than or equal to 250		Clearance is seriously at variance with Principle of Clearance 1(b), 1(c) or 1(d).
Level 4	Total Biodiversity Score of greater than 250		

Table 4.7 Summary of Risk Level Associated with the Clearance Application

Total Clearance	Number of Trees	72
	Area (ha)	NA
	Total Biodiversity Score	72.48
Seriously at Variance with Principle 1(b), 1(c) or 1 (d)		1b
Risk Assessment Outcome		Level 4

5. CLEARANCE SUMMARY

The clearance summary table (Table 5.1) indicates the SEB points accrued from the proposed clearance. The total SEB obligations are summarised in Table 5.2.

Table 5.1 Clearance Summary and total SEB Obligations for Scattered Trees Impacted by the Project.

Tree Number	Number of Trees	Fauna Habitat Score	Threatened Flora Score	Total Biodiversity Score	Loss Factor	SEB Points Required	SEB Payment (includes Admin Fee)
8	16	1.40	0.00	7.68	1	8.45	\$10,361.23
9	1	1.80	0.00	2.06	1	2.27	\$2,783.43
10	10	1.40	0.00	20.00	1	22.00	\$26,975.99
11	1	1.00	0.00	0.16	1	0.18	\$220.71
12	1	1.80	0.00	2.32	1	2.55	\$3,126.76
13	1	1.80	0.00	4.02	1	4.42	\$5,419.72
14	1	1.80	0.00	2.36	1	2.60	\$3,188.07
15	2	1.80	0.00	2.84	1	3.12	\$3,825.69
16	1	1.80	0.00	1.33	1	1.46	\$1,790.22
17	1	1.80	0.00	0.54	1	0.59	\$723.45
18	1	1.00	0.00	0.06	1	0.07	\$85.83
19	1	1.80	0.00	2.00	1	2.20	\$2,697.60
20	1	1.80	0.00	0.52	1	0.57	\$698.92
21	1	1.80	0.00	1.13	1	1.24	\$1,520.46
22	1	1.80	0.00	1.29	1	1.42	\$1,741.18
23	1	1.40	0.00	1.20	1	1.32	\$1,618.56
24	1	1.40	0.00	0.61	1	0.67	\$821.54
25	1	1.00	0.00	0.30	1	0.33	\$404.64
26	1	1.40	0.00	0.32	1	0.35	\$429.16
27	1	1.40	0.00	1.06	1	1.17	\$1,434.63
28	1	1.40	0.00	0.37	1	0.41	\$502.73
29	1	1.40	0.00	0.57	1	0.63	\$772.49
30	1	1.40	0.00	0.28	1	0.31	\$380.12
31	1	1.40	0.00	0.97	1	1.07	\$1,312.01
32	1	1.00	0.00	0.28	1	0.31	\$380.12
33	2	1.40	0.00	1.00	1	1.10	\$1,348.80
34	3	1.40	0.00	1.23	1	1.35	\$1,655.34

Tree Number	Number of Trees	Fauna Habitat Score	Threatened Flora Score	Total Biodiversity Score	Loss Factor	SEB Points Required	SEB Payment (includes Admin Fee)
35	1	1.40	0.00	1.10	1	1.21	\$1,483.68
37	1	1.80	0.00	2.21	1	2.43	\$2,979.62
38	2	1.40	0.00	0.86	1	0.95	\$1,164.87
39	2	1.00	0.00	0.28	1	0.31	\$380.12
40	2	1.00	0.00	0.70	1	0.77	\$944.16
41	1	1.40	0.00	2.00	1	2.20	\$2,697.60
42	1	1.40	0.00	1.42	1	1.56	\$1,912.84
43	1	1.40	0.00	3.36	1	3.70	\$4,536.87
44	2	1.40	0.00	1.96	1	2.16	\$2,648.55
45	3	1.40	0.00	1.53	1	1.68	\$2,059.98
46	1	1.40	0.00	0.56	1	0.62	\$760.23
Scattered Tree SEB Total				72.48		79.75	\$97,787.94

Table 5.2 Summary of the total SEB Obligations of the Clearance

	Total Biodiversity Score	Total SEB Points Required	SEB Payment	Admin Fee	Total Payment
Application	72.48	79.75	\$92,690.00	\$5,097.94	\$97,787.94

Economies of Scale Factor	0.5
Rainfall (mm)	704

6. SIGNIFICANT ENVIRONMENTAL BENEFIT

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

At the time of application, DIT will be meeting the SEB Offset requirement via payment to the NV Fund. The total SEB payment for the clearance of **72** scattered trees, with a TBS of **72.48**, is **\$97,787.94** (including an administration fee of **\$5,097.94**). Please note that DIT will be investigating an on-ground SEB Offsets via an NVC Accredited Third Party Provider.

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8. APPENDICES

Appendix 1 – Flora Species Recorded by the Field Survey

Scientific Name	Common Name	Conservation Status		Declared	WoNS
		EPBC Act	NPW Act		
Native					
<i>Acacia iteaphylla</i>	Flinders Ranges Wattle				
<i>Acacia melanoxylon</i>	Blackwood				
<i>Acacia pycnantha</i>	Golden Wattle				
<i>Allocasuarina verticillata</i>	Drooping She-oak				
<i>Callistemon</i> sp.					
<i>Eucalyptus camaldulensis</i>	River Red Gum				
<i>Eucalyptus fasciculosa</i>	Pink Gum		R		
<i>Eucalyptus leucoxylon</i> ssp. <i>leucoxylon</i>	South Australian Blue Gum				
<i>Rytidosperma</i> sp.	Wallaby-grass				
Introduced					
<i>Acacia saligna</i>	Golden Wreath Wattle				
<i>Aira</i> sp.					
<i>Asparagus asparagoides</i>	Bridal Creeper			✓	✓
<i>Avena barbata</i>	Bearded Oat				
<i>Briza maxima</i>	Large Quaking-grass				
<i>Centaurea</i> sp.					
<i>Eucalyptus conferruminata</i>	Bald Island Marlock				
<i>Ficus carica</i>	Edible Fig				
<i>Gomphocarpus cancellatus</i>	Broad-leaf Cotton-bush				
<i>Pittosporum undulatum</i>	Sweet Pittosporum				
<i>Plantago</i> sp.	Plantain				
<i>Rosa canina</i>	Dog Rose			✓	
<i>Sixalix atropurpurea</i>	Pincushion				
<i>Solanum linnaeanum</i>	Apple of Sodom			✓	
<i>Trifolium arvense</i>	Hare's-foot Clover				
<i>Vulpia</i> sp.	Fescue				

Conservation Status: EPBC Act (Environment Protection and Biodiversity Conservation Act 1999). NPW Act: South Australia (National Parks and Wildlife Act 1972). **Conservation codes:** R: Rare. **Declared:** Declared plant under the Landscape South Australia Act 2019. **WoNS:** Weed of National Significance, under the EPBC Act.

Appendix 2 – Fauna Species recorded by the Field Survey

Scientific Name	Common Name	Conservation Status	
		EPBC Act	NPW Act
Native			
<i>Acanthiza sp.</i>	Thornbill sp.		
<i>Corvus coronoides</i>	Australian Raven		
<i>Elanus axillaris</i>	Black-shouldered Kite		
<i>Grallina cyanoleuca cyanoleuca</i>	Magpie Lark		
<i>Gymnorhina tibicen</i>	Australian Magpie		
<i>Malurus cyaneus leggei</i>	Superb Fairy-wren		
<i>Rhipidura albiscapa</i>	Grey Fantail		
<i>Rhipidura leucophrys leucophrys</i>	Willie Wagtail		
<i>Zanda funerea whiteae</i>	Yellow-tailed Black Cockatoo		V
Introduced			
<i>Vulpes vulpes</i>	Fox (Red Fox)		

Conservation Status: **EPBC Act** (*Environment Protection and Biodiversity Conservation Act 1999*). **NPW Act:** South Australia (*National Parks and Wildlife Act 1972*). **Conservation codes:** V: Vulnerable.

Appendix 3 – Scattered Tree Photo File



Photo 1: Tree 8 (*Allocasuarina verticillata* – 16 in clump)



Photo 2: Tree 9 (*Eucalyptus leucoxylon* ssp.)



Photo 3: Tree 10 (*Allocasuarina verticillata* – 10 in clump)



Photo 4: Tree 11 (*Allocasuarina verticillata*)



Photo 5: Tree 12 (*Eucalyptus leucoxylon* ssp. *leucoxylon*)



Photo 6: Tree 13 (*Eucalyptus leucoxylon* ssp. *leucoxylon*)



Photo 7: Tree 14 (*Eucalyptus leucoxylon* ssp. *leucoxylon*)



Photo 8: Tree 15 (*Eucalyptus leucoxylon* ssp. *leucoxylon* – two in clump)



Photo 9: Tree 16 (*Eucalyptus leucoxylon* ssp. *leucoxylon*)



Photo 10: Tree 17 (*Eucalyptus cosmophylla*)



Photo 11: Tree 18 (*Eucalyptus leucoxylon* ssp. *leucoxylon*)



Photo 12: Tree 19 (*Eucalypts camaldulensis*)



Photo 13: Tree 20 (*Eucalyptus cosmophylla*)



Photo 14: Tree 21 (*Eucalyptus leucoxylon*)



Photo 15: Tree 22 (*Eucalyptus cosmophylla*)



Photo 16: Tree 23: *Allocasuarina verticillata*



Photo 17: Tree 24 (*Acacia pycnantha*)



Photo 18: Tree 25 (*Acacia pycnantha*)



Photo 19: Tree 26 (*Allocasuarina verticillata*)



Photo 20: Tree 27 (*Allocasuarina verticillata*)



Photo 21: Tree 28 (*Allocasuarina verticillata*)



Photo 22: Tree 29 (*Allocasuarina verticillata*)



Photo 23: Tree 30 (*Allocasuarina verticillata*)



Photo 24: Tree 31 (*Allocasuarina verticillata*)



Photo 25: Tree 32 (*Allocasuarina verticillata*)



Photo 26: Tree 33 (*Allocasuarina verticillata*)



Photo 27: Tree 34 (*Allocasuarina verticillata*)



Photo 28: Tree 35: (*Allocasuarina verticillata*)



Photo 29: Tree 37: (*Eucalyptus leucoxylon* ssp. *leucoxylon*)



Photo 30: Tree 38 (*Allocasuarina verticillata* – clump of 2)



Photo 31: Tree 39 (*Acacia pycnantha* – clump of 2)



Photo 32: Tree 40 (*Acacia pycnantha* – clump of 2)



Photo 33: Tree 41 (*Acacia pycnantha*)



Photo 34: Tree 42 (*Acacia pycnantha*)



Photo 35: Tree 43 (*Acacia pycnantha*)



Photo 36: Tree 44 (*Acacia pycnantha* – clump of 2)



Photo 37: Tree 45 (*Acacia pycnantha* – clump of 3)



Photo 38: Tree 46 (*Acacia pycnantha*)

Appendix 4 – Likelihood of Occurrence Assessment

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
Flora									
<i>Caladenia ovata</i>	Kangaroo Island Spider-orchid	VU	E	1	Likely	-	-	Occurs in South Australia (near Deep Creek on southern Fleurieu Peninsula, Kangaroo Island). Highly localised and rare, growing among dense, low shrubs in heathland and shrubby woodland in freely draining sand and laterite (DEH 2008).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Caladenia tensa</i>	Greencomb Spider-orchid	EN	E	1	May	-	-	Occurs in South Australia (eastern mallee area), Victoria (Little Desert, Big Desert). Locally common, growing among shrubs and tussocks in woodland dominated by yellow gum and Rottneest Island Pine	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								(<i>Callitris preissii</i>) in freely draining, red-brown, sandy loam. Also among spinifex in mallee communities on poor, sandy soil, less commonly in Black Box woodland and Buloke woodland in heavy soil (DCCEEW 2025c).	
<i>Cladium procerum</i>	Leafy Twig-rush		R	2	2009	-	-	Found in northern and southern Flinders Ranges, southern Mount Lofty Ranges and lower South-east in SA growing in coastal swamps and margins of deep-water creeks (SASCC 2025).	Unlikely to occur within the impact footprint. Although records occur within the Search Area in the previous 20 years, and no suitable habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Correa calycina</i>	Hindmarsh Correa	VU	V	1	May	-	-	Occurs in a few isolated localities in southern Fleurieu Peninsula, and on Kangaroo Island, SA. Growing on or near banks of streams (SASCC 2025).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Correa eburnea</i>	Deep Creek Correa	EN	E	1	Likely	-	-	Endemic to South Australia and found on the southern Fleurieu Peninsula. Occurs along the banks and sides of creeks including in black damp loams, near waterfalls and pools, on the steep slopes and ledges of rocky gorges including in skeletal soils amongst Kanmantoo schist, and on coastal cliff tops near to the mouths of major creeks (DEH 2008).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Dipodium pardalinum</i>	Leopard Hyacinth-orchid		V	2	1997	-	-	South Australia (Yorke Peninsula, Mt Lofty Ranges). Locally common, usually growing in wetter forests with an open understorey dominated by bracken. Also, in heathy forest in freely draining sand, sandy clay loam and stony loam (DEH 2008).	Unlikely to occur within the impact footprint. Although records occur within the Search Area in the previous 20–40 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Diuris brevifolia</i>	Short-leaf Donkey-orchid		E	2	2009	-	-	Endemic to SA and found on Kangaroo Island and southern Mount Lofty Ranges growing on the edges of ephemeral swamps, river flats and valley and ridge slopes which are prone to waterlogging, in dense shrubland on moist to wet soils (DEH 2008).	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Dodonaea procumbens</i>	Trailing Hop-bush	VU	V	1	May	-	-	Recorded on the tip of Eyre Peninsula and near Burra in the Mount Lofty Range, SA, from southeastern SA across south-central Vic. and in southeastern NSW in the Cooma region. Occurs in low-lying, often winter-wet areas in woodland, low open forests, heathland and grasslands, on sands and clays (DCCEEW 2025c).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Eucalyptus fasciculosa</i>	Pink Gum		R	2	2009	-	-	Occurs on Kangaroo Island. and from near Adelaide, SA., east to west of Dergholm, Vic. Grows in coastal sand and poor soils on plains, ridges and slopes, in woodland and open forest DCCEEW 2025c).	Known to occur within the Project Area, and recorded during the field surveys, however this impacts to this species have been avoided during design process.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Eucalyptus viminalis</i> ssp. <i>viminalis</i>	Manna Gum		R	2	2001	-	-	Occurs widely in the wetter parts of southeastern Australia from the Adelaide area, SA., through Vic. and NSW to south-eastern Qld, and throughout Tas. including King and Flinders Islands. Grows in varied situations from the coastal flats in Tas., valleys of mountainous and hilly country to tablelands, usually in tall open forest (SASCC 2025).	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20-40 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Euphrasia collina</i> subsp. <i>osbornii</i>	Osborn's Eyebright	EN	E	1	May	-	-	Confined to South Australia in the Upper South-East, Kangaroo Island (Dudley Peninsula), Fleurieu, Yorke and Eyre Peninsulas, and in the Flinders Ranges apparently as far north as	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								Burra in the Mid North. Recorded mainly from the mallee (<i>Eucalyptus</i>) woodlands common throughout most of its range. In higher parts of the Mount Lofty Ranges it occurs in heathy openings in wet sclerophyll forest (DCCEEW 2025c).	
<i>Glycine latrobeana</i>	Clover Glycine	VU	V	1	Likely	-	-	Found in the southern Flinders Ranges, southern Mount Lofty Ranges and the South-east in South Australia. Grows in grasslands and grassy woodlands on heavy soils. (SASCC 2025).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Hibbertia tenuis</i>	null	CR	E	1	Likely	-	-	Endemic to South Australia and found in the vicinity of Mt Compass, growing in low or	Unlikely to occur within the impact footprint. No recent records occur within the

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
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								open vegetation in permanent wet places (DCCEEW 2025c).	Search Area and no suitable habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Myriophyllum amphibium</i>	Broad Milfoil		R	2	2006	-	-	Occurs on Kangaroo Island and the Fleurieu Peninsula, SA, throughout southern Vic., on the Bass Strait islands, and around the coast of Tas. Reports from WA are erroneous (SASCC 2025).	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
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<i>Olearia pannosa subsp. pannosa</i>	Silver-leaved Daisy	VU	V	1	Likely	-	-	Endemic to South Australia where the species is scattered throughout agricultural areas. Occurs in sandy, flat areas and in hilly, rocky areas in woodland or mallee (SASCC 2025).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Prasophyllum murfetii</i>	Maroon Leek-orchid	CR	E	1, 2	Likely / 2009	-	-	SA (Fleurieu Peninsula); 100–300 m altitude. Highly localised and restricted to the margins of permanent swamps and bogs; found growing among sedges and rushes in wet, brown to blackish, peaty loam DEH 2008)	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Prasophyllum pallidum</i>	Pale Leek-orchid	VU	R	1	May	-	-	Relatively widespread, but disjunct distribution. Found growing in grassy forest and heathy forest in freely draining loam from the Flinders Ranges to the Northern and Southern Lofty regions of South Australia (DCCEEW 2025c).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Pterostylis curta</i>	Blunt Greenhood		R	2	1997	-	-	SA (SE, Fleurieu Peninsula, Mt Lofty Ranges). Very widely distributed and often locally abundant, extending from coastal lowlands to ranges and tablelands and inland areas west of the dividing range. Found growing in wide range of moist, sheltered habitats, including coastal scrub, heath, heathy forest, littoral	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20-40 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.

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		EPBC Act	NPW Act						
								forest, grassy forest, tea tree thickets, wet sclerophyll forest, tall forest, open forest and woodland in freely draining to moisture-retentive sand, loam, clay and peat, less commonly in shallow soil on rock shelves and rock plates (DEH 2008).	
<i>Pterostylis foliata</i>	Slender Greenhood		R	2	2009	-	-	Occurs in small groups in sheltered, shaded spots in open forest often with <i>Eucalyptus fasciculosa</i> and colonising <i>Pinus radiata</i> plantations. Widespread but uncommon in the Adelaide hills. SA.: S Lofty, Kangaroo Island, SE (SASCC 2025).	Possibly occurs within the impact footprint. Although potentially suitable habitat is present (<i>Eucalyptus fasciculosa</i> recorded onsite), the Project Area consists highly modified habitat previously cleared for agriculture and road maintenance, and no native understorey was observed. Not observed onsite.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Ranunculus papulentus</i>	Large River Buttercup		V	2	1997	-	-	Found in a few sites in the southern Mount Lofty ranges and the South-east, growing in freshwater wetland (SASCC 2025).	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20-40 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Senecio macrocarpus</i>	Large-fruit Fireweed	VU	V	1	May	-	-	Occurs from Ardrossan in southeast SA southeast to Yan Yean in south-central Vic., with an outlier recently collected at Gundaroo in NSW. There are a few old records from Tas., but it is now presumed extinct in that state. Grows in low-lying areas on basalt-derived clay or clay-loam soils, in	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area. Not recorded in the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
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								grassland, sedgeland and woodland (DCCEEW 2025c).	
<i>Thelymitra flexuosa</i>	Twisted Sun-orchid		R	2	2009	-	-	SA (S areas W to Eyre Peninsula). Widespread and common; found growing among low shrubs and sedges in depressions, swamp margins, heathland and other seasonally moist to wet sites in sandy and peaty soil, sometimes in shallow water (SASCC 2025).	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area in the previous 20 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Thelymitra matthewsii</i>	Spiral Sun-orchid	EN	E	1	May	-	-	SA (S Lofty Region, SE, Kangaroo Island), Vic. (very sporadic; near-coastal areas in S from Genoa to Anglesea, inland at Ararat, Grampians). Widespread, but rare, found growing on slopes and ridges in light open forest, heath and	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area. Not recorded in the field surveys.

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								heathy woodland in freely draining sand and clay loam (DCCEEW 2025c).	
<i>Veronica derwentiana subsp. homalodonta</i>	Mount Lofty Speedwell	CR	E	1	Likely	-	-	Endemic to South Australia. Found in the wetter parts of the Mount Lofty Ranges. Very rare in South Australia. (Seeds of South Australia 2018).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area. Not recorded in the field surveys.
<i>Xanthorrhoea semiplana ssp. tateana</i>	Tate's Grass-tree		R	2	1999	-	-	Endemic to South Australia and found on the southern Eyre Peninsula, York Peninsula, Kangaroo Island and the southern Mount Lofty Ranges; growing on sandy soil (SASCC 2025).	Unlikely to occur within the impact footprint. Although the species occurs within the wider area and suitable habitat was observed in the Project Area, no individuals of the species were observed within the impact footprint.
<i>Xanthosia tasmanica</i>	Southern Xanthosia		R	2	1998	-	-	Found on Kangaroo Island and the southern Mount Lofty Ranges in SA, growing in	Unlikely to occur within the impact footprint. Although recent records occur within

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								shallow sand on rocky coastal heath and in woodland (SASCC 2025)	the Search Area in the previous 20-40 years, no suitable, intact habitat was observed in the Project Area. Not recorded in the field surveys.
Aves									
<i>Actitis hypoleucos</i>	Common Sandpiper	Mi	R	1, 2	Known / 2001	-	-	Inhabits saltwater and freshwater ecosystems (Higgins & Davies 1996).	Unlikely to occur within the impact footprint. Although records occur within the Search Area in the previous 20-40 years, no suitable habitat was observed in the Project Area.
<i>Anhinga novaehollandiae</i> <i>Anhinga novaehollandiae</i>	Australasian Darter		R	2	2020	-	-	Darters are moderately common in the north-east and especially along the River Murray, they are rare elsewhere. They are mainly to be found in still, shallow inland waters but also in slow	Unlikely to occur within the impact footprint. Although recent records are present within the Search Area, no habitat suitable for the

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								flowing rivers, swamps and reservoirs (Higgins & Davies 1996).	species is present within the Project Area.
<i>Aphelocephala leucopsis</i>	Southern Whiteface	VU		1	Likely	P, H	w	Occupy a variety of freshwater ecosystems, including slow flowing rivers, swamps and reservoirs (Higgins & Davies 1996).	Unlikely to occur within the impact footprint. No recent records are present within the Search Area and no habitat suitable for the species is present within the Project Area.
<i>Apus pacificus</i>	Fork-tailed Swift	Mi		1	Likely	-	-	Almost entirely aerial, occurs over dry and open habitats (Higgins & Davies 1993).	Unlikely to occur within the impact footprint. No recent records within the Search Area and no suitable habitat was observed in the Project Area.
<i>Ardenna carneipes</i>	Flesh-footed Shearwater	Mi	R	1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Ardenna grisea</i>	Sooty Shearwater	VU, Mi		1	May	-	-	N/A - Marine	N/A - Marine

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Botaurus poeciloptilus</i>	Australasian Bittern	EN	E	1	Likely	-	-	Occurs in wetlands with tall dense fringing vegetation, where it forages in shallow water (Marchant & Higgins 1993).	Unlikely to occur within the impact footprint. No recent records within the Search Area and no suitable habitat was observed in the Project Area.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	VU, Mi		1	May	-	-	Occupies freshwater and saline ecosystems (Higgins & Davies 1996).	Unlikely to occur within the impact footprint. No recent records within the Search Area and no suitable habitat was observed in the Project Area.
<i>Calidris canutus</i>	Red Knot	VU, Mi		1	May	-	-	Mainly inhabits intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs (Lane	Unlikely to occur within the impact footprint. No recent records within the Search Area and no suitable habitat was observed in the Project Area.

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		EPBC Act	NPW Act						
								1987, Barrett et al. 2002; Watkins 1993).	
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR, Mi	E	1	May	-	-	Occurs in freshwater and saline ecosystems, favouring intertidal mudflats, lakes and lagoons. Recorded less frequently inland, primarily around saltworks and sewerage farms (Higgins & Davies 1996).	Unlikely to occur within the impact footprint. No recent records within the Search Area and no suitable habitat was observed in the Project Area.
<i>Calidris melanotos</i>	Pectoral Sandpiper	Mi	R	1	May	-	-	In SA the species is found mostly in the south-east, from north to the Murray River and west to Yorke Peninsula (Higgins & Davies 1996). In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands (Higgins & Davies 1996).	Unlikely to occur within the impact footprint. No recent records within the Search Area and no suitable habitat was observed in the Project Area.

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<i>Diomedea antipodensis</i>	Antipodean Albatross	VU, Mi		1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Diomedea epomophora</i>	Southern Royal Albatross	VU, Mi	V	1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Diomedea exulans</i>	Wandering Albatross	VU, Mi	V	1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Diomedea sanfordi</i>	Northern Royal Albatross	EN, Mi	E	1	May	-	-	N/A - Marine	N/A - Marine
<i>Falco hypoleucos</i>	Grey Falcon	VU	R	1	Likely	-	-	Occurs in arid and semi-arid Australia, including the Murray-Darling Basin, Eyre Basin, central Australia and Western Australia (Marchant and Higgins 1993). Frequents timbered lowland plains, particularly acacia shrublands that are crossed	Unlikely to occur within the impact footprint. Although recent records occur within the Search Area, no suitable habitat was observed in the Project Area.

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		EPBC Act	NPW Act						
								by tree-lined water courses (Garnett et al. 2011).	
<i>Gallinago hardwickii</i>	Latham's Snipe	VU, Mi	R	1	Likely	-	-	Inhabits open, freshwater wetlands with low, dense vegetation (e.g., swamps, flooded grasslands and heathlands) (DCCEEW 2025c).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.
<i>Grantiella picta</i>	Painted Honeyeater	VU	R	1	May	-	-	Occurs in dry open forests, usually in association with its primary food species – mistletoe of the <i>Amyema</i> genus (Pizzey & Knight 2007).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.
<i>Halobaena caerulea</i>	Blue Petrel	VU		1	May	-	-	N/A - Marine	N/A - Marine

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		EPBC Act	NPW Act						
<i>Hirundapus caudacutus</i>	White-throated Needletail	VU, Mi		1	Likely	-	-	The species occurs in south-eastern South Australia, where it extends west to the Yorke Peninsula and the Mount Lofty Ranges. It is widespread in Tasmania (Barrett et al. 2003; Blakers et al. 1984; Higgins 1999). In Australia, the White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground.	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and the species is predominantly aerial so may occasionally occur as a fly-over but is unlikely to utilise habitat within the Project Area.
<i>Hylacola pyrrhopygia parkeri</i>	Chestnut-rumped Heathwren (Mt Lofty Ranges)	EN	E	1	Likely	-	-	Confined to the Fleurieu Peninsula and the southern Mount Lofty Ranges, SA (Barrett et al. 2003; Blakers et al. 1984; Schodde & Mason 1999). Occurs in dense heathland and	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

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								undergrowth in Eucalypt forests and woodlands and is most commonly found in rocky areas (such as those that occur on hillsides) (Garnett & Crowley 2000; Paton & Paton 1980; Possingham et al. 2004).	
<i>Limosa lapponica baueri</i>	Nunivak Bar-tailed Godwit	EN, Mi		1	May	-	-	Mainly occur along the north and east coasts (Garnett et al. 2011). In SA, most records occur around coasts from Lake Alexandrina to Denial Bay (Higgins & Davies 1996). Occurs mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It has also been recorded in coastal	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

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								sewage farms and saltworks, saltlakes and brackish wetlands near coasts, sandy ocean beaches, rock platforms, and coral reef-flats (Higgins & Davies 1996).	
<i>Macronectes giganteus</i>	Southern Giant-Petrel	EN, Mi	V	1	May	-	-	N/A - Marine	N/A - Marine
<i>Macronectes halli</i>	Northern Giant Petrel	VU, Mi		1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded Robin	EN	R	1	May	-	-	Occur in south-eastern Australia from far south-east Qld to Yorke Peninsula, SA, intergrading with <i>M. c. picata</i> in the southern Murray Darling Basin (Schodde & Mason 1999). The subspecies is now absent from many formerly occupied sites, particularly in the wetter areas of the south and	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

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		EPBC Act	NPW Act						
								east (Barrett et al. 1994; Ford et al. 2009). Prefer dry eucalypt and acacia woodlands and shrublands with an open understorey, some grassy areas and a complex ground layer. They avoid woodlands with tall trees or dense tree cover but sometimes occur in tall, dense heaths with scattered open areas.	
<i>Motacilla cinerea</i>	Grey Wagtail	Mi		1	May	-	-	European and Asian species. Migrates south in winter, usually to Indonesia and NG. Rarely reaches Australia, but when it does, favours habitat near freshwater streams, also mown grass, ploughed land or near sewage ponds (Carter 1993).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

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<i>Motacilla flava</i>	Yellow Wagtail	Mi		1	May	-	-	Considered a regular visitor to marshes of northern Australia between August and April, overflying normal wintering grounds (Johnstone 1982).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	1	Likely	P, H	w	Breed on mainland Australia south of the Great Dividing Range in southern Victoria from Port Albert in Gippsland west to Nelson, and sometimes in the far south-east of South Australia, and the north-western, central and eastern parts of Tasmania (Emison et al. 1987; Higgins 1999). Inhabit a range of habitats from coastal, sub-coastal and inland areas, through to semi-arid zones. They tend	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and limited suitable habitat was observed in the Project Area. No trees with hollows are proposed to be impacted and no native understorey present for foraging.

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		EPBC Act	NPW Act						
								to favour grasslands and grassy woodlands and are often found near wetlands both near the coast and in semi-arid zones (Higgins 1999; Holdsworth et al. 2021). The species can also be seen in altered environments such as airfields, golf-courses and paddocks.	
<i>Neophema elegans elegans</i>	Elegant Parrot		R	2	2011	P, H	w	Occurs 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. Inhabits open forests, woodlands, mallee, mulga and salt marsh=. This	Likely occurs within the impact footprint. Records occur in the Search Area in the previous 20 years and suitable habitat is present within the Project Area. One tree with hollows (Tree 13) are proposed to be impacted and so impact from Project would be limited to removal

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								species build nest in hollows in tree limbs, often in a Eucalypt (Higgins 1999) .	of perching / sheltering habitat. No native understorey occurs and so foraging resources limited.
<i>Numenius madagascariensis</i>	Far Eastern Curlew	CR, Mi	E	1	May	-	-	In South Australia, the species is scarce between the Victorian border and Cape Jaffa and patchily distributed from the Coorong north-west to the Streaky Bay area, and has previously been recorded in Lake Alexandrina and Lake Albert, South Australia. During the non-breeding season in Australia, the eastern curlew is most commonly associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

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		EPBC Act	NPW Act						
								mudflats or sandflats, often with beds of seagrass (Zosteraceae). Occasionally, the species occurs on ocean beaches (often near estuaries), and coral reefs, rock platforms, or rocky islets. Also found in coastal saltworks and sewage farms (Marchant & Higgins, 1993).	

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		EPBC Act	NPW Act						
<i>Pachycephala inornata</i>	Gilbert's Whistler		R	2	2016	-	-	Scattered in the semi-arid parts of southern Western Australia and South Australia, northwest Victoria and central west New South Wales (Higgins & Peter 2002; Menkhorst, et al. 2017). The Gilbert's whistler inhabits semi-arid tall mallee with sparse shrubby understorey or prickly Acacia thickets and Casuarina woodlands, and is also found in thickets of Melaleuca and, occasionally, in taller eucalypt woodlands or forests (Higgins & Peter 2002).	Possibly occurs within the impact footprint. Although the species' favoured habitat is not present within the Project Area, the species may utilise vegetation within the Project Area while dispersing between patches of more favourable habitat. Recent records for the species were present within the Search Area.
<i>Pachyptila turtur subantarctica</i>	Fairy Prion (southern)	VU		1	Likely	-	-	N/A - Marine	N/A - Marine

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<i>Pandion haliaetus</i>	Osprey	Mi	E	1	Likely	-	-	The breeding range of the Eastern Osprey extends around the northern coast of Australia (including many offshore islands) from Albany in Western Australia to Lake Macquarie in NSW; with a second isolated breeding population on the coast of South Australia, extending from Head of Bight east to Cape Spencer and Kangaroo Island (Barrett et al. 2003; Bischoff 2001; Blakers et al. 1984; Clancy 1991; Marchant & Higgins 1993). Eastern Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands.	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

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<i>Petroica boodang boodang</i>	Scarlet Robin		R	2	2023	P	w	Occurs in Australia and a number of islands of the south Pacific (Higgins & Peter 2002). Occurs predominantly in Eucalypt woodlands and forests. Good leaf litter, perches in the height range 1-2 m, and fallen logs are important components of habitat (Hedde 1999). Breeds in Eucalypt forest, but not in adjacent grasslands even though individuals occupy this habitat during the non-breeding season.	Likely to occur within the impact footprint. Habitat suitable for the species is present within the Project Area. Although the close proximity to a major road may reduce habitat suitability for the species. Recent records for the species were present within the Search Area.
<i>Phoebastria fusca</i>	Sooty Albatross	VU, Mi	E	1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Pterodroma mollis</i>	Soft-plumaged Petrel	VU		1	May	-	-	N/A - Marine	N/A - Marine

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Rostratula australis</i>	Australian Painted Snipe	EN	E	1	Likely	-	-	Recorded at wetlands in all states of Australia (Barrett et al. 2003; Blakers et al. 1984). Most common in eastern Australia, where it has been recorded at scattered locations throughout much of Queensland, NSW, Victoria and south-eastern South Australia. Generally, inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. Also use inundated or waterlogged grassland or saltmarsh. Sometimes utilises areas that are lined with trees, or that have some scattered fallen or washed-	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								up timber (Marchant & Higgins 1993).	
<i>Stagonopleura bella samueli</i>	Western Beautiful Firetail	EN	V	1	Known	-	-	Occur on Kangaroo Island and the Fleurieu Peninsula, and previously occurred within the Mt Lofty Ranges, SA. The subspecies inhabits shrubland and woodland, especially those containing casuarinas, paperbarks, and tea-trees. The subspecies is also likely to inhabit eucalypt woodlands and forests with a shrubby/heathy understory. Areas near watercourses, swamps, and marshes tend to support the highest density of individuals. Low shrubby habitats such as grasslands, heathlands and sedgeland also provide possible habitat	Possible to occur within the impact footprint. Although suitable Eucalypt and Sheoak woodland is present within the Project Area, no recent records occur within the Search Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								for the subspecies. Mainland birds are largely restricted to the Deep Creek Conservation Park and an adjacent property. There are also very small numbers in the Cox Scrub Conservation Park area; possibly fewer than three pairs (Allan et. al. 2020).	
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	V	1	Likely	P, N	w	Diamond firetails occur on the south-east mainland of Australia from south-east Queensland to Eyre Peninsula, South Australia, and about 300 km inland from the sea (Higgins et al. 2007). Birds in South Australia appear to have been separated into three isolated subpopulations	Unlikely to occur within the impact footprint. Although potentially suitable habitat occurs within the Project Area, no recent records occur within the Search Area.

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		EPBC Act	NPW Act						
								(Eyre Peninsula, Mt Lofty to Southern Flinders Ranges, and the south-east) (Higgins et al. 2007), with few records from a fourth (Yorke Peninsula) in the last decade (Hodder et al. 2021). Occur in eucalypt, acacia or casuarina woodlands, open forests and other lightly timbered habitats, including farmland and grassland with scattered trees (Higgins et al. 2007).	
<i>Sternula albifrons</i>	Little Tern	Mi		1	May	-	-	The south-eastern population is migratory, breeding in eastern Australia from South Australia, through Tasmania, Victoria, NSW, and into Queensland. They breed in spring-summer (DCCEW	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								2025). In Australia, Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed sandbanks or sand-spits, and also on exposed ocean beaches.	
<i>Sternula nereis nereis</i>	Australian Fairy Tern	VU	E	1	Likely	-	-	Occurs along the coasts of Victoria, Tasmania, South Australia and Western Australia; occurring as far north as the Dampier Archipelago near Karratha. The subspecies has been known from New South Wales (NSW) in the past, but it is unknown if it persists there (Birdlife International	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								2010; Garnett & Crowley 2000). The species nests on sheltered sandy beaches, spits and banks above the high tide line and below vegetation. The subspecies has been found in embayments of a variety of habitats including offshore, estuarine or lacustrine (lake) islands, wetlands and mainland coastline (Higgins & Davies 1996).	
<i>Stipiturus malachurus intermedius</i>	Mount Lofty Southern Emu-wren	EN	E	1	Known	-	-	Restricted to south-eastern South Australia, where it is found only on the Fleurieu Peninsula and in the southern Mount Lofty Ranges (Schodde & Mason 1999). Its range extends from Cox Scrub Conservation	Possible to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								Park south to Deep Creek Conservation Park (Conservation Council of South Australia 2005). The southern emu-wren (Fleurieu Peninsula) generally occurs in two habitat types - swamp and dry-heath.	
<i>Thalassarche carteri</i>	Indian Yellow-nosed Albatross	VU, Mi	E	1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Thalassarche cauta</i>	Shy Albatross	EN, Mi		1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Thalassarche impavida</i>	Campbell Black-browed Albatross	VU, Mi	V	1	May	-	-	N/A - Marine	N/A - Marine
<i>Thalassarche melanophris</i>	Black-browed Albatross	VU, Mi		1	Likely	-	-	N/A - Marine	N/A - Marine

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
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<i>Thalassarche steadi</i>	White-capped Albatross	VU, Mi		1	Known	-	-	N/A - Marine	N/A - Marine
<i>Thinornis cucullatus cucullatus</i>	Eastern Hooded Plover	VU	V	1	Likely	-	-	Widely dispersed on or near sandy beaches in south-eastern Australia. Its range extends from Jervis Bay in NSW to Fowlers Bay in SA and includes Tas. and various offshore islands such as Kangaroo Island, King Island and Flinders Island (Marchant & Higgins, 1993; Garnett et al., 2011). Inhabits ocean beaches, particularly wide beaches backed by dunes with large amounts of seaweed, creek mouths and inlet entrances. It may also occur on near-coastal saline and freshwater lakes and lagoons, tidal bays and	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								estuaries, on rock platforms, or on rocky or sandy reefs close to shore (Marchant & Higgins, 1993; Garnett et al., 2011).	
<i>Tringa nebularia</i>	Common Greenshank	EN, Mi		1	Likely	-	-	Occurs in all coastal regions west to, at least, Streaky Bay, with scattered records elsewhere along the coast (Higgins & Davies 1996). Inhabits a wide variety of inland wetlands and sheltered coastal habitats of varying salinity. The species will also utilise artificial wetlands, including sewage farms and saltworks dams, inundated rice crops and bores (Higgins & Davies 1996).	Unlikely to occur within the impact footprint. No recent records occur within the Search Area and no suitable habitat was observed in the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Zanda funerea whiteae</i>	Yellow-tailed Black Cockatoo		V	2	2021	P, H	w	Species prefers native temperate forests, while also being ubiquitous in pine plantations, and occasionally in urban areas, as long as there is a plentiful food supply (Cameron 2006; Forshaw 2002).	Known to occur within the Project Area. Recent records occur within the Search Area and the species was observed flying over during the field surveys.
<i>Zoothera lunulata halmaturina</i>	South Australian Bassian Thrush (southern FR, MLR, KI)	EN	R	1, 2	Known / 2005	-	-	Occurs on Kangaroo Island, the Mt Lofty Ranges as far north as Tanunda (Schodde & Mason 1999), and in the southern Flinders Ranges from Wirrabara Forest Reserve and Telowie Gorge Conservation Park to Mt Remarkable National Park (Garnett et al. 2011). Movements of other subspecies suggest that the mainland and Kangaroo	Possibly occurs within the impact footprint. Records occur within the Search Area in the previous 20 years, however habitat is not considered preferred as it does not contain any understorey and is within a narrow road corridor. Additionally, proximity to a major road may reduce habitat suitability for the species.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
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								Island birds are likely to constitute a single subpopulation (Garnett, 1992). The subspecies is confined to remnant habitats on the mainland but is widespread on Kangaroo Island (Garnett et al. 2011). The subspecies mostly inhabits damp eucalypt forest or woodland (Garnett et al. 2011). Densely forested areas and gullies are favoured, usually with a thick canopy overhead, a thick understorey of small trees and tall shrubs, and leaf-litter below (DEH 2008).	
Fish									
<i>Serirolella brama</i>	Blue Warehou	CD		1	Known	-	-	N/A - Marine	N/ A - Marine

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		EPBC Act	NPW Act						
Mammalia									
<i>Antechinus flavipes</i>	Yellow-footed Antechinus		V	2	2023	-	-	In SA, a small population occurs in the southern Mt Lofty Ranges, on the Fleurieu Peninsula (Mackenzie 2001). The species is known to occur in a wide range of habitats, from tropical vine forests, swamps, stringybark forests and dry mulga country (Strahan 1988).	Possibly occurs within the impact footprint. Although recent records for the species were present within the Search Area, habitat within the Project Area is highly modified with fragmentation of native vegetation and high levels of disturbance due to the proximity to a major road. However, the species may utilise vegetation within the Project Area while dispersing between patches of more favourable habitat.
<i>Balaenoptera edeni</i>	Bryde's Whale	Mi		1	May	-	-	N/A - Marine	N/A - Marine

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		EPBC Act	NPW Act						
<i>Balaenoptera musculus</i>	Blue Whale	EN, Mi		1	May	-	-	N/A - Marine	N/A - Marine
<i>Caperea marginata</i>	Pygmy Right Whale	Mi		1	May	-	-	N/A - Marine	N/A - Marine
<i>Eubalaena australis</i>	Southern Right Whale	EN, Mi		1	Known	-	-	N/A - Marine	N/A - Marine
<i>Isodon obesulus obesulus</i>	Southern Brown Bandicoot (south-eastern)	EN	V	1	Known	-	-	Known from four separate regions of South Australia: the Mount Lofty Ranges, the south-east, Kangaroo Island and Eyre Peninsula. Inhabit a variety of habitats including heathland, shrubland, sedgeland, heathy open forest and woodland and are usually associated with infertile, sandy and well drained soils, but can be found in a range of soil types (Coates et al. 2008;	Possibly occurs within the impact footprint. No records occur within the Search Area and limited suitable dense understorey or heathy habitat is present within the Project Footprint.

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		EPBC Act	NPW Act						
								Menkhorst and Seebeck 1990; NSW DEC 2006; Paull 1993). Within these vegetation communities they typically inhabit areas of dense ground cover.	
<i>Lagenorhynchus obscurus</i>	Dusky Dolphin	Mi		1	May	-	-	N/A - Marine	N/A - Marine
<i>Megaptera novaeangliae</i>	Humpback Whale	Mi		1	Likely	-	-	N/A - Marine	N/A - Marine
<i>Neophoca cinerea</i>	Australian Sea Lion	EN		1	Known	-	-	N/A - Marine	N/A - Marine
<i>Orcinus orca</i>	Orca	Mi		1	May	-	-	N/A - Marine	N/A - Marine
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	VU	R	1, 2	May / 2020	r	P, H	Historically occupied forests and woodlands in the coastal lowlands, tablelands and slopes of eastern Australia, from Qld to Vic., with some isolated camps and rare sightings outside this range.	Likely to occur within the Project Area periodically. The species is likely to move through the Project Area when moving between foraging sites and roosting grounds and may utilise

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		EPBC Act	NPW Act						
								<p>More recently, camps have established in SA, the ACT and inland areas of central and southern NSW and Vic. and sightings have increased in Tasmania (DAWE, 2021). In 2010 the species established a permanent camp in Botanic Park in Adelaide. Smaller camps also exist in southeast SA near Millicent, Naracoorte and Mount Gambier. Sightings and small camps have also been recorded across the Eyre Peninsula, including Port Augusta and Port Pirie suggesting they are now travelling further west.</p>	<p>Eucalypts within the Project Area when flowering. However, habitat within the Project Area is not critical for the species. Recent records for the species were present within the Search Area.</p>

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								<p>Grey-headed flying foxes are herbivores and feed on nectar and pollen from native trees such as eucalypts and banksias, as well as fruit from native and introduced species.</p> <p>They typically travel about 20 km from their camp each night in search of food, although they have been observed travelling >20 km from their camp in search of other food sources and it is not unusual for them to sleep away from the camp when making longer exploratory trips.</p>	
<i>Rattus lutreolus</i>	Swamp Rat		R	2	2022	-	-	The westernmost extension of the range is on Kangaroo Island and nearby mainland	Likely occurs within the impact footprint. Although the species' favoured habitat is

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								of South Australia; it extends eastward and northward to southeastern Queensland at Imbil. Farther north, the species occurs on the highlands of north coastal Queensland at Mt. Spec, Kirrama, and Lake Barrine (Taylor, 1975). This species occurs primarily in wetlands harbouring tall grasses or sedges, along the banks of streams, in costal sand dunes, peaty ridges, heaths, and wet shelves of hillsides (Calaby, 1966; Keith and Calaby 1968).	not present within the Project Area, the species may utilise vegetation within the Project Area while dispersing between patches of more favourable habitat. Recent records for the species were present within the Search Area. The species is not known to utilise scattered trees.
Reptilia									
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU		1	May	-	-	Known from the Flinders Ranges of SA, extending south to the western slopes	Unlikely to occur within the impact footprint. No recent records occur within the

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
								and northern and central Mount Lofty Ranges. The species is known to occur within the Adelaide and Mount Lofty Ranges and the South Australian Arid Lands Natural Resource Management Region (DEH 2008). The Flinders Ranges Worm-lizard burrows freely in loose sand and soil, under rocks and litter. The species occurs in open woodland, native tussock grassland, riparian habitats and rocky isolates.	impact footprint and no suitable habitat occurs within the Project Area. The Project Area also lies outside of the species known distribution.
<i>Caretta caretta</i>	Loggerhead Turtle	EN, Mi		1	Known	-	-	N/A - Marine	N/A - Marine
<i>Chelonia mydas</i>	Green Turtle	VU, Mi		1	May	-	-	N/A - Marine	N/A - Marine

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		EPBC Act	NPW Act						
<i>Dermochelys coriacea</i>	Leatherback Turtle	EN, Mi	V	1	Known	-	-	N/A - Marine	N/A - Marine
<i>Eulamprus heatwolei</i>	Yellow-bellied Water Skink		V	2	2010	-	-	South-eastern mainland Australia from New England in New South Wales to the Goulbourn River in Victoria. There is a separate population in SA. Wet and dry forests, bogs, open woodlands and heathlands, creek, river and swamp margins (DEH 2008).	Possibly occurs within the impact footprint. Although the species' favoured habitat is not present within the Project Area, the species may utilise vegetation within the Project Area while dispersing between patches of more favourable habitat. Recent records for the species were present within the Search Area.
Sharks									
<i>Carcharias taurus</i>	Grey Nurse Shark	Mi		1	May	-	-	N/A - Marine	N/A - Marine
<i>Carcharodon carcharias</i>	Great White Shark	VU, Mi		1	Known	-	-	N/A - Marine	N/A - Marine

Scientific Name	Common Name	Conservation Status		Source of Information	PMST / Year of Last Record	Habitat / Status	Scattered Tree Use	Habitat Preferences	Likelihood of Occurrence within Project Area
		EPBC Act	NPW Act						
<i>Galeorhinus galeus</i>	Eastern School Shark	CD		1	May	-	-	N/A - Marine	N/A - Marine
<i>Lamna nasus</i>	Mackerel Shark	Mi		1	Likely	-	-	N/A - Marine	N/A - MarineL

Conservation status

EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*). **NPW Act** (*National Parks and Wildlife Act 1972*).

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

Source of Information

1. **EPBC Act Protected Matters Report** (DCCEEW 2025a) - 5 km buffer applied to Project Area.
2. **Biological Database of South Australia data extract** (DEW 2025b) - 5 km buffer applied to Project Area.
3. **Observed during the field survey.**

Scattered Tree Using Species

Scattered Tree Use: P = perching / roosting, N = nesting, H = hollow using for nesting / roosting, F = feeding

Habitat / Status: s = seasonal (includes waterbirds using trees near seasonal wetlands, seasonal and nomadic species), w = woodland birds that occasionally use adjacent scattered trees, r = species that can reside in scattered trees.