Native Vegetation Clearance

Normanville to Cape Jervis Overtaking Lanes - Option 5C

Data Report - Final

Clearance under the *Native Vegetation Regulations 2017*

19/08/2025

Prepared by S. Bulling - Umwelt (Australia) Pty Ltd

Normanville to Cape Jervis Overtaking Lanes - Option 5C Native Vegetation Clearance Data Report

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

Project Number: 31960

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CITATION: Umwelt (2025) Normanville to Cape Jervis Overtaking Lanes – Option 5C Native Vegetation Clearance Data Report. Report to Department for Infrastructure and Transport. Umwelt (Australia) Pty Ltd, Adelaide.

Document Status

Rev No.	Reviewer		Approved for Issue	
	Name	Date	Name	Date
V1	J. Skewes (NVC Accredited Consultant)	04/03/2025	Dr M. Louter (NVC Accredited Consultant)	04/03/2025
V2	E. West (NVC Accredited Consultant)	21/03/2025	Dr. M Louter (NVC Accredited Consultant)	24/03/2025
V3	E. West (NVC Accredited Consultant)	23/06/2025	Dr. M. Louter (NVC Accredited Consultant)	27/06/2025
V4	E. West (NVC Accredited Consultant)	15/08/2025	Dr. M. Louter (NVC Accredited Consultant)	15/08/2025
V5	E. West (NVC Accredited Consultant)	18/08/2025	Dr. M. Louter (NVC Accredited Consultant)	18/08/2025
V6	E. West (NVC Accredited Consultant)	19/08/2025	Dr. M. Louter (NVC Accredited Consultant)	19/08/2025

Cover photograph: *Eucalyptus camaldulensis* var. *camaldulensis* (River Red Gum) adjacent to the Project Area.

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Glossary and Abbreviations

BDBSA	Biological Database of South Australia (maintained by DEW)
CAD	Computer-aided Design
CEMP	Construction Environmental Management Plan
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEW	Department for Environment and Water (State)
DIT	Department for Infrastructure and Transport (State)
EBS	EBS Ecology, now trading as Umwelt
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
IBRA	Interim Biogeographical Regionalisation of Australia
LSA Act	*Landscape South Australia Act 2019* (State)
MM	Maintenance Markers
MNES	Matters of National Environmental Significance (under the EPBC Act)
NatureMaps	An online format for accessing information on South Australia's natural resources (maintained by DEW)
NPW Act	*National Parks and Wildlife Act 1972* (State)
NV Act	*Native Vegetation Act 1991* (State)
NVC	Native Vegetation Council
PDI Act	*Planning, Development and Infrastructure Act 2016* (State)
PMST	Protected Matters Search Tool (under the EPBC Act; maintained by DCCEEW)
Project	The development of a northbound overtaking lane on Main South Road (between MM 51.7 and 53.7)
Project Area	The land under application between MM 51.7 and MM 53.7 (also referred to as Option 5C)
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

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1. APPLICATION INFORMATION

The details of the native vegetation clearance applicant are provided in **Table 1.1**, with a summary of the proposed action 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 M:		
Landowner:	Department for Infrastructure and Transport.		
Site Address:	Main South Road: Maintenance Marker (MM) 51.7 to MM 53.7.		
Local Government Area:	District Council of Yankalilla.	**Hundred:**	Yankalilla.
Title ID:	Road Reserve - DIT. Adjacent to: CT/6093/520 CT/6093/519 CT/6093/523	**Parcel ID:**	Road Reserve - DIT. Adjacent to: D89016 AL8 D89016 AL7 D89016 QP11

Table 1.2 Summary of the proposed clearance.

Purpose of Clearance:	Native vegetation clearance is required to establish one northbound overtaking lane on Main South Road, between MM 51.7 and MM 53.7.
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 30 scattered trees, which include the following: • 26 *Eucalyptus camaldulensis* var. *camaldulensis* (River Red Gum) • One *Acacia salicina* (Willow Wattle) • Two *Allocasuarina verticillata* (Drooping Sheoak) • One *Acacia pycnantha* (Golden Wattle).
Total proposed clearance - Area (ha) and/or Number of Trees:	Thirty (30) scattered trees are proposed to be removed.
Level of Clearance:	Level 4.
Overlay (Planning and Design Code):	Native Vegetation.
Map of Proposed Clearance Area:	See Figure 4.1.
Mitigation Hierarchy:	**Avoidance** Through the initial planning study and subsequent design refinement, the location and alignment of the overtaking lane has avoided native vegetation, where possible. The design for Option 5 was then further refined by having three alternative designs explored – Option 5A, 5B, and 5C (EBS 2024a, 2024b). These were ground-truth by Umwelt, and preliminary Significant Environmental Benefit (SEB) calculations provided to DIT (EBS 2024b). Option 5C was selected due to its smaller impact on vegetation

	relative to the other options (measured by lower TBS). Additionally, by electing 5C, the proposal will not require the clearance of a threatened flora species present within Option 5A: • *Eucalyptus fasciculosa* (Pink Gum) – listed as Rare under the *National Parks and Wildlife Act 1972* (NPW Act). Option 5C was further revised following the supply of ecological assessments to avoid all impacts to hollow-bearing trees (EBS 2024b). No additional access tracks are proposed, and all laydown areas are to be located within the disturbance footprint. DIT has committed to retaining several trees that are present within the Project Area, specifically at the southeastern end (see **Figure 4.1**), which included trees with high biodiversity scores (TBS > 7) **Minimization** A large portion of the construction work is proposed to take place within previously disturbed areas of the road corridor, or in areas dominated by amenity plantings or weed species, thereby minimising impacts on native vegetation. The proponent has concentrated clearance in areas of lower quality vegetation (i.e., among non-hollow-bearing trees, and trees with lower relative TBS scores). 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 to off-target vegetation, and to address fauna protection measures. Further design measures used to minimise impact include maintaining the existing alignment despite geometric deficiencies, ustilising the shoulder and wide centre line treatment for large vehicles to negotiate curves instead of widening the road, and 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 change to minimise impact: • Reducing the width of the proposed centreline treatment from 1.4 m to 1 m. • Reduce total length of the overtaking lane by approximately 65 m by removing the extension of the wide centreline marking and reducing the wide centreline transition length at the start and end of the overtaking lane. **Rehabilitation or restoration** As clearance will not be a temporary action, vegetation that is to be impacted will be permanently removed. Final landscaping works will provide the opportunity to plant locally native species, a strategy currently under investigation (*pers comms*, R. Joseph, DIT). The proponent will manage environmental weeds within the Project Area through the implementation of a CEMP. **Offset** 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).
SEB Offset Proposal	The total SEB payment for the clearance of **30** scattered trees, with a combined TBS of **22.05**, is **$26,230.17** (including an administration fee of **$1,367.45**). Please note that DIT will be investigating an on-ground SEB Offsets via an NVC Accredited Third Party Provider.

2. PURPOSE OF THE CLEARANCE

2.1. Description

The Department for Infrastructure and Transport (DIT) are undertaking a series of road upgrades along Main South Road between Normanville and Cape Jervis. This application will focus on development of a northbound overtaking lane on Main South Road between Maintenance Marker (MM) 51.7 and MM 53.7, in the lower Fleurieu Peninsula, South Australia (SA) (the Project). To facilitate these works, DIT will be required to undertake native vegetation clearance in the area under application, which is a 2-km section of the road corridor of Main South Road approximately 7.3 km southwest of Normanville (the Project Area, 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 locations of overtaking lanes. 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 Design (CAD) files issued to Umwelt by DIT on the 21 July 2025.

As per DIT's *Vegetation Impact Assessment Guideline EHTM Attachment 4B*, native vegetation can be removed under various activities (i.e., New Works, Public Safety Works, and/or Maintenance Works) that requires different levels and/or types of approval and offsetting (DIT 2021). As the construction of overtaking lane infrastructure falls under what is considered "New Works", this has required the preparation and submission of a formal Native Vegetation Clearance Data Report to the Native Vegetation Council (NVC) for approval.

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).
- To identify any 'Declared' plants under the *Landscape South Australia Act 2019* (LSA Act) or Weeds of National Significance (WoNS) that may be significant in relation to the Projects requirements.
- To calculate the SEB offset obligations based on the client supplied impact footprint.

2.2. General Location Map

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

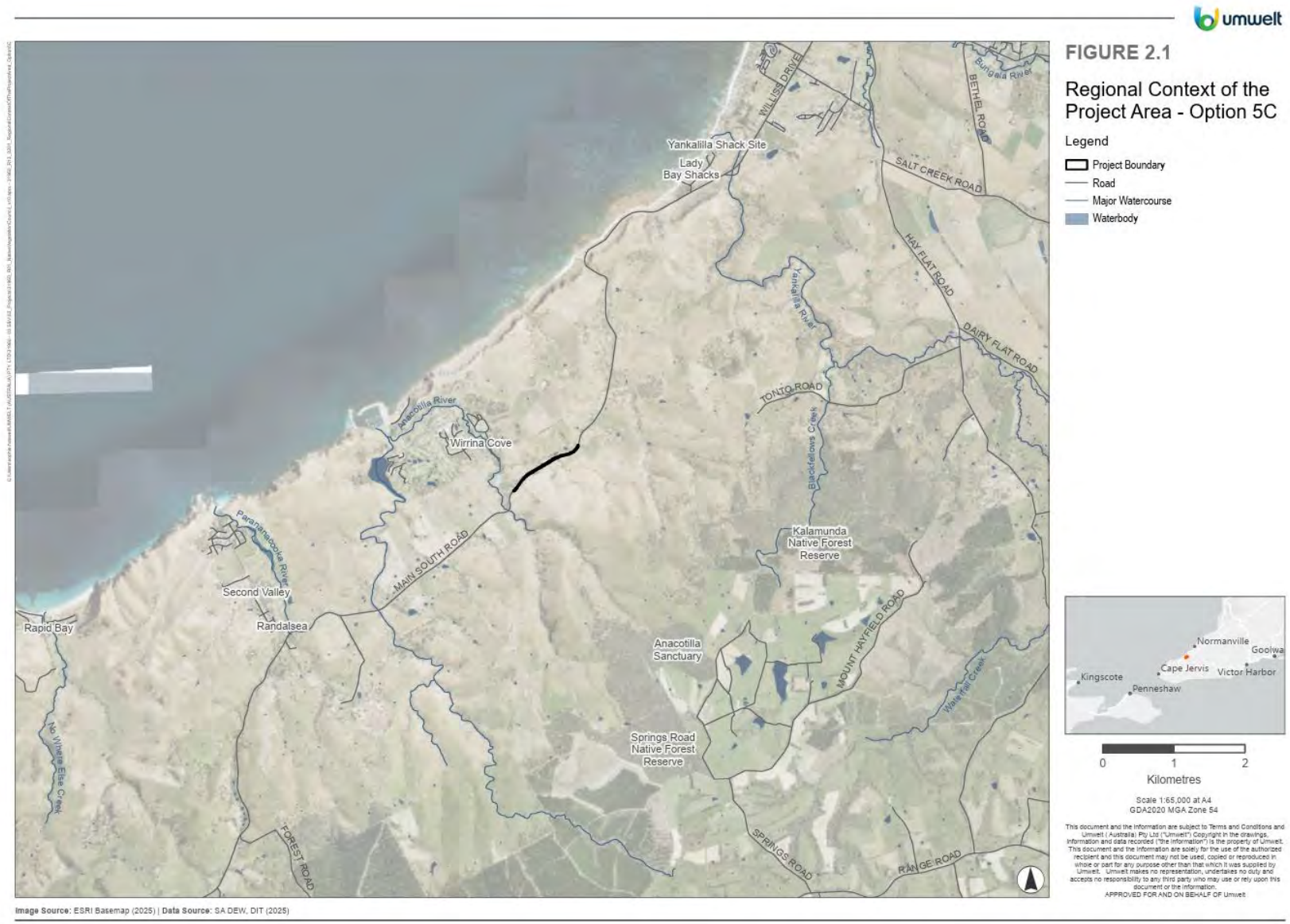

Figure 2.1 The Regional Context of the Project Area

2.3. Background

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

- Project Area - the area where works are proposed to occur (i.e., the disturbance footprint of the Project).
- Search Area - a 5 km buffer applied to 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 encompasses Roadside Significant Site 10150 (DEW 2025a). There are four Heritage Agreement areas within the Search Area, although none are in close proximity to the Project Area, and there are no conservation estates within the 5 km buffer (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 protected by conservation estates and Heritage Agreement areas. Outside of these areas, remnant vegetation is largely concentrated within riparian zones, along fence lines and road corridors, and as isolated scattered trees.

2.4. 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 concerns the amended version of Option 5 (hereafter Option 5C), a northbound overtaking lane approximately 2 km in length between MM 51.7 and MM 53.7.

The proposed scope of work will include:

- Road widening to facilitate the installation of the overtaking lane.
- The installation of sealed and unsealed shoulders.
- Upgraded drainage lines.
- Safety barriers and audio tactile line markings in required locations.
- 1 m wide centreline marking.

Options 1 and 4 are addressed in separate Data Reports (Umwelt 2025a, 2025b). As such, ‘the Project’ only refers to the Option 5C package of works.

2.5. Approvals Required or Obtained

- ***Native Vegetation Act 1991*** **(NV Act)** - The Project is subject to the NV Act, which is the subject of this Data Report, which fulfils the requirements under the Act to clear native vegetation.
- ***Planning, Development and Infrastructure Act 2016*** **(PDI Act)** - Provisions relating to Regulated or Significant Trees will not apply for this Project. No Development Application is required.
- ***Environment Protection and Biodiversity Conservation Act 1999*** **(EPBC Act)** - The preparation of a Self-assessment or a Referral under the EPBC Act is not considered necessary for this Project.
- ***National Parks and Wildlife Act 1972*** **(NPW Act)** – The flora and fauna surveys conducted as part of this native vegetation clearance application was undertaken by Umwelt staff under Scientific Research License K25613-27.
- ***Landscapes South Australia Act 2019*** **(LSA Act) –** All landowners have a responsibility to promote sustainable management of their environment, which includes minimising the occurrence, transportation, and dispersal of weeds. This includes those listed as Declared under the LSA Act and/or a WoNS. Standard procedures, such as those outlined in a Construction Environment Management Plan (CEMP), should be in place to prevent the encroachment of weeds and to mitigate the potential for other indirect environmental impacts.
- ***Aboriginal Heritage Act 1988*** – Approval will be required if any sites, objects or remains are uncovered during Project works. A 'Stop Work' procedure must be implemented if any items of this nature are located.

2.6. 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 works of a kind referred to in Part 1 Clause 2).

2.6.1. 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 2021).

3. METHODOLOGY

3.1. Flora Assessment

The flora assessment was undertaken by NVC Accredited Consultant J. Skewes and Ecologist S. Greer from 7 August to 15 August 2023. A subsequent site visit was performed on 31 May 2024 by Ecologists B. Cox and C. Panozzo. All surveys were conducted in accordance with the STAM (NVC 2024a).

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 <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 (NVC 2024a). The resource use of each species identified was considered when determining each tree's suitability for threatened fauna species (see **Section 3.2.3**).

3.1.2. Provisional List of Threatened Ecosystems

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

3.2. Fauna Assessment

A desktop assessment was undertaken to determine the potential for any threatened fauna species, listed under the EPBC Act and the NPW Act, to occur within the Project Area. The following databases were utilised to obtain records of threatened species:

- A Protected Matters Search Tool (PMST) report, generated by Department of Climate Change, Energy, the Environment and Water (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 8 January 2025 to identify flora, fauna and TECs listed under the EPBC Act as threatened or Migratory within the Search Area (DCCEEW 2025a). Only species and TECs identified by the PMST as 'Known' to occur were assessed for their likelihood of occurrence (see **Appendix 1**).

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 Surveys

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. For each opportunistic fauna observation, the species, number of individuals, GPS location, detection methodology (i.e., sight, sound, or sign) were recorded.

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., oceanic and marine species) were not assessed. Examples of threatened species excluded from assessment are provided below:

- Hooded Plover (*Thinornis cucullatus cucullatus*) - listed as Vulnerable under the EPBC Act and the NPW Act.
- Leatherback Turtle (*Dermochelys coriacea*) - listed as Endangered and Migratory (Marine) under the EPBC Act and Vulnerable under the NPW Act.
- Southern Giant-Petrel (*Macronectes giganteus*) – listed as Endangered and Migratory (Marine) under the EPBC Act and Vulnerable under the NPW Act.

As per the criterion provided in **Table 3.1**, the assessment was based on the recency of records, habitat preferences, the results of the field surveys, and whether a species is considered a 'Scattered Tree using wildlife' as per the STAM (NVC 2024a).

The complete list of all species identified by the database searches, including those excluded from assessment, is provided in **Appendix 1**. All uncommon/threatened scattered tree using fauna species identified by the desktop assessment is presented in **Appendix 2.**

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 the 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, **or** Recorded within 20–40 years, survey effort is considered adequate, habitat and feeding resources present, and species of similar habitat needs have been recorded in the area.
Unlikely	Recorded within the previous 20 years, but the area provides no habitat or feeding resources for the species, including perching, roosting or nesting opportunities, corridor for movement or shelter, **or** Recorded within 20–40 years; however, suitable habitat does not occur, and species of similar habitat requirements have not been recorded in the area, **or** No records despite adequate survey effort.

3.3. Limitations

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 imperfectly captured, and it is possible that significant species may occur in the Project Area that are not

reflected by database records. Although much of the BDBSA data has been through a variety of validation processes, the lists may contain errors and should be used with caution. DEW gives no warranty that the data is accurate or fit for any particular purpose of the user or any person to whom the user discloses the information.

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, 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

The Project Area encompasses the reserve of Main South Road between MM 51.7 and MM 53.7 that has largely been historically cleared for the development of the road network. As such, much of the site has been colonised by self-seeded exotic vegetation, particularly by *Dactylis glomerata* (Cocksfoot) and *Romulea rosea* var. *australis* (Common Onion-grass). There are numerous planted non-native amenity trees along the road reserve (i.e., *Cupressus macrocarpa*).

The Project Area is situated amongst rolling hills. Soils range from deeper clay-loams on the lower slopes to shallower clays at higher elevations. The southern areas contain areas of rock outcroppings. There are three non-perennial watercourses that cross the Project Area, which have been colonised extensively by exotic grasses (DEW 2025b). The site receives 620 mm of rainfall annually (DEW 2025b).

Native vegetation, for the purposes of consideration under the NV Act, consisted exclusively of isolated, scattered remnant trees. A total 30 scattered tree are present within the Project Area, which consisted of:

- 27 *Eucalyptus camaldulensis* var. *camaldulensis* (River Red Gum)
- One *Acacia salicina* (Willow Wattle)
- Two *Allocasuarina verticillata* (Drooping Sheoak)
- One *Acacia pycnantha* (Golden Wattle).

The Project Area also includes a *Themeda triandra* (Kangaroo Grass) restoration site managed by the Fleurieu Environment Centre, funded by the Fire Wise Grant Project. The site, at the time of the August 2023 flora assessment, was largely comprised of exotic species and failed to satisfy the requirements of the BAM to be classified as native vegetation under the NV Act (i.e., native vegetation cover was < 5 %) and has hence been omitted from this Data Report. The restoration site will be approved for removal and offset in accordance with the DIT Vegetation Impact Assessment Guideline.

The field surveys encountered 30 flora species in the vicinity of the Project Area, as listed in **Appendix 3,** which included 14 native and 16 exotic species. One threatened flora species was encountered outside of the Project Area (discussed further in **Section 4.3.1** and **Section 4.5**):

- *Eucalyptus fasciculosa* (Pink Gum) – listed as Rare under the NPW Act.

Four of the non-native species are Declared plants and two are WoNS, including:

- *Gazania* sp. (Gazania) – Declared.
- *Lycium ferocissimum* (African Boxthorn) – Declared and WoNS.
- *Rosa canina* (Dog Rose) – Declared.
- *Ulex europaeus* (Gorse) – Declared and WoNS.

The field surveys encountered 12 fauna species (all birds), as listed in **Appendix 4**, of which 11 were native and one was introduced. One threatened fauna species was encountered within the Project Area (discussed further in **Section 4.3.2**):

- 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 presented in **Table 4.1**, with their locations provided in **Figure 4.1**. Photos of the Scattered Trees are outlined in Appendix 5. The STAM scoresheet is provided as **Attachment 2**.

Table 4.1 Scattered Trees within the Project Area.

Tree #	Scientific Name	Common Name	No. in Clump	Height (m)	Diameter (cm)	Dieback (%)	Hollows (S, M, L)	Total Biodiversity Score
1	*Eucalyptus camaldulensis* var. *camaldulensis*	River Red Gum	1	7	45.6	5	0	1.15
2	*E. camaldulensis* var. *camaldulensis*	River Red Gum	2	8	37	15	0	2.14
3	*E. camaldulensis* var. *camaldulensis*	River Red Gum	2	9	36	10	0	2.2
4	*E. camaldulensis* var. *camaldulensis*	River Red Gum	2	4	6.5	19	0	0.32
5	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	9	74	10	0	2.26
6	*Acacia salicina*	Willow Wattle	1	5	18	25	0	1.28
7	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	5	17.5	0	0	0.37
8	*E. camaldulensis* var. *camaldulensis*	River Red Gum	3	1.5	1	0	0	0.18
9	*E. camaldulensis* var. *camaldulensis*	River Red Gum	2	8	37	0	0	2.14
10	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	6	24	0	0	0.46
11	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	9	69	0	0	2.15
12	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	1.7	1	0	0	0.07
13	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	1.3	0	0	0	0.06
15	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	1.8	1	0	0	0.07
16	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	2.5	5	25	0	0.05
17	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	4	10	20	0	0.18

Tree #	Scientific Name	Common Name	No. in Clump	Height (m)	Diameter (cm)	Dieback (%)	Hollows (S, M, L)	Total Biodiversity Score
18	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	6	30	15	0	0.54
19	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	9	38.2	0	0	1.15
20	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	4	10	10	0	0.28
23	*Allocasuarina verticillata*	Drooping Sheoak	1	4	28.5	0	0	0.98
32	*A. verticillata*	Drooping Sheoak	1	4	13	0	0	0.44
33	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	8.5	65	0	0	2.02
34	*E. camaldulensis* var. *camaldulensis*	River Red Gum	1	8	37	0	0	1.07
36	*Acacia pycnantha*	Golden Wattle	1	4.5	20	0	0	0.49

Hollow Code: S = Small, **M** = Medium, **L** = Large.

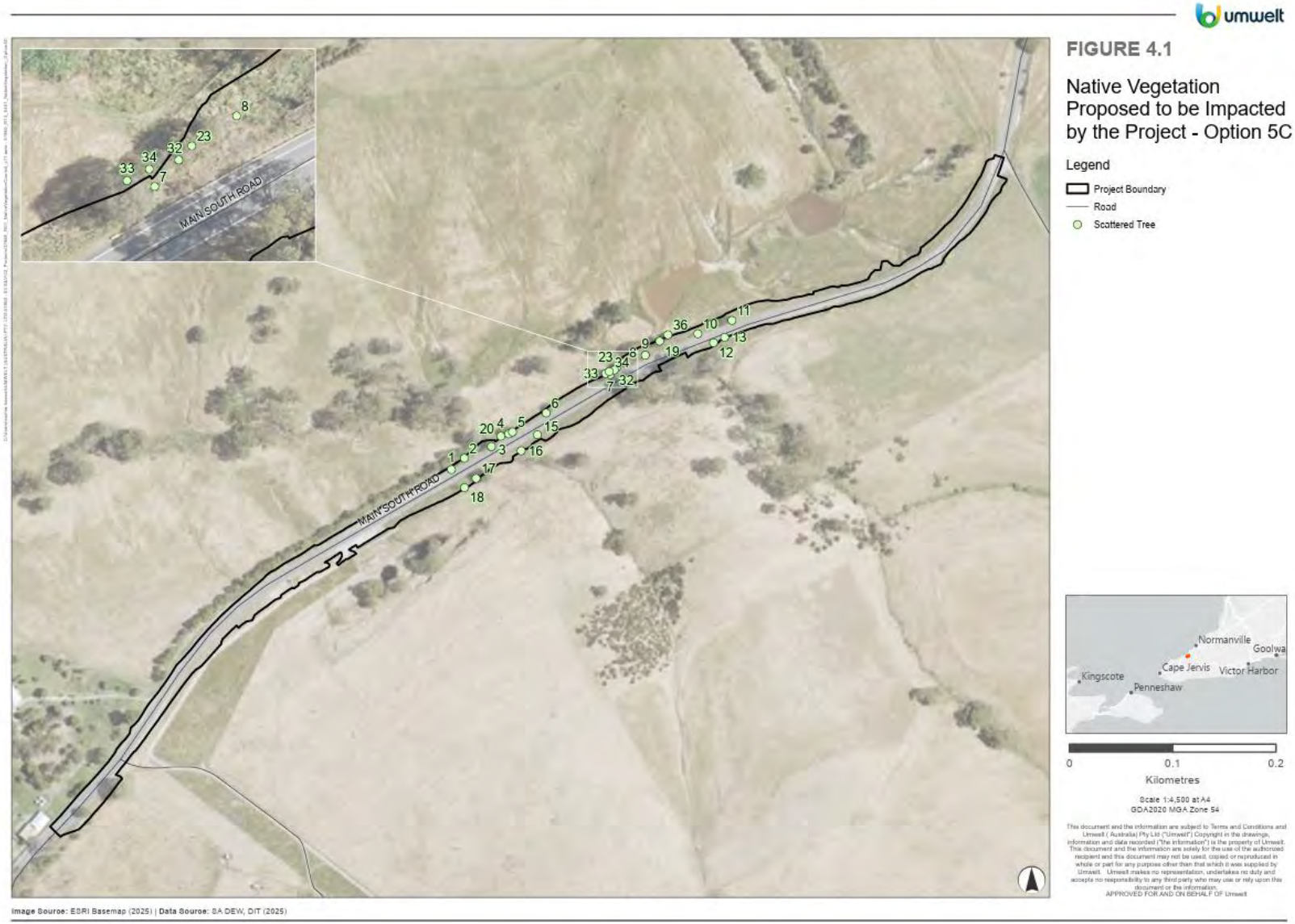

Figure 4.1 **Scattered Trees to be Impacted by the Project – Option 5C**

4.1.3. Photo Log

Notable features within the Project Area, and in the surrounding landscape, are provided below in **Photo 4.1** through to **Photo 4.5**.

Photo 4.1 **Large hollow-bearing *Eucalyptus camaldulensis* ssp. *camaldulensis* (River Red Gum) retained by alterations to the Projects design**

Photo 4.2 **Representative conditions of the Project Area - a native overstorey of scattered trees over an exotic understorey**

Photo 4.3 **Rock outcroppings at the Project Area**

Photo 4.4 **State threatened *Eucalyptus fasciculosa* (Pink Gum) retained by alterations to the Projects design.**

Photo 4.5 ***Themeda triandra*** **(Kangaroo Grass) Restoration Site, April 2025**

4.2. Threatened Ecological Communities

The PMST report identified one TEC that could potentially occur within the Search Area:

- Swamps of the Fleurieu Peninsula.

The criterion of this TEC was assessed against the results of the surveys, which found that this community was absent from the Project Area (see **Table 4.2**).

Table 4.2 Assessment as to 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) threatened flora species, including 15 listed under the EPBC Act and 12 under the NPW Act, were identified in the database searches as` potentially occurring within the Search Area. Thirteen (13) of these species had historical records since 1995 with a spatial reliability of < 1 km (see **Figure 4.2**).

The field surveys encountered one threatened flora species identified by the desktop review:

- *Eucalyptus fasciculosa* (Pink Gum) – listed as Rare under the NPW Act.

One mature individual of this species was recorded adjacent to the road corridor. Originally this plant was incorporated within the Project Area; however, as the updated design now avoids this individual, the species will no longer be impacted (for further discussion see **Section 4.5**).

Given species specific habitat requirements and the present conditions of the site, it was deemed unlikely for any threatened flora species to occur at the Project Area.

The full likelihood assessment for all threatened flora species is provided in **Appendix 1.**

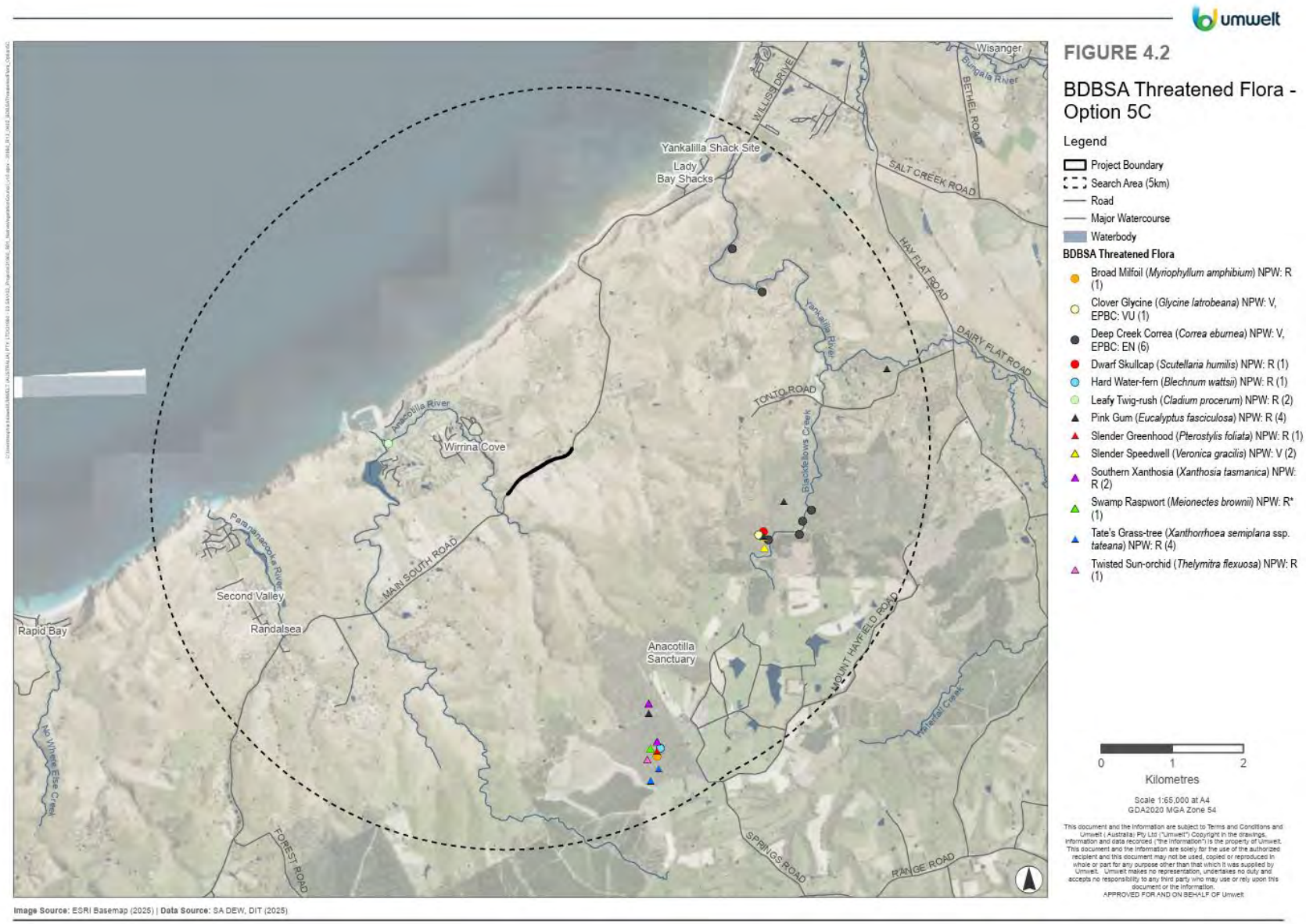

Figure 4.2 BDBSA Threatened Flora – Option 5C

4.3.2. Threatened Fauna

Forty-three (43) threatened fauna species, including 26 listed under the EPBC Act and 17 under the NPW Act, were identified in the database searches as potentially occurring within the Search Area. This excludes 23 threatened species on the basis that the land under application was wholly inappropriate for occupation (i.e., oceanic and marine species). Of the threatened species under consideration, 18 species have been recorded within the Search Area (DEW 2025b) (see Figure 4.3).

Eight threatened fauna species were assessed as having at least a 'possible' probability of occurrence at the Project Area (see **Table 4.3**), including one encountered by the field surveys:

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

During the August 2023 site visit, several Yellow-tailed Black Cockatoos were observed flying-over the Project Area. The species, which occurs from eastern Queensland to southeastern South Australia, occupies a variety of habitats including Eucalypt woodlands, temperate forests, and pine plantations. Their diet mainly consists of seeds from native trees (i.e., *Allocasuarina* sp. and *Eucalyptus* sp.) and introduced pines, with pairs nesting in large, mature, hollow-bearing trees. The species has experienced substantial population declines in Victoria and South Australia due to habitat fragmentation and the loss of suitable nesting trees (Cameron 2006). Although the Project Area provides suitable foraging resources, particularly from *Eucalyptus camaldulensis* var. *camaldulensis* (River Red Gums), the site lacked hollow-bearing trees. As such, the Project Area provides only foraging resources for the species. Further, the fragmentation of the roadside vegetation at site and the proximity of the trees to a major road, reduces this habitat value. Given these considerations, it is unlikely for the Project Area to be significant for the species.

The full likelihood of occurrence assessment for all threatened fauna species identified by the database searches is provided in **Appendix 1.**

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

Scientific Name	Common Name	Conservation Status		Data Source	PMST / Year of Last Record	Likelihood of Occurrence
		EPBC Act	NPW Act			
Aves						
Falco peregrinus macropus	Peregrine Falcon	-	R	2	2014	Likely
Falcunculus frontatus frontatus	Eastern Shriketit	-	R	2	2002	Possible
Neophema elegans elegans	Elegant Parrot	-	R	2	2023	Highly Likely
Parvipsitta pusilla	Little Lorikeet	-	E	2	2023	Highly Likely
Petroica boodang boodang	Scarlet Robin	-	R	2	2020	Highly Likely
Zanda funerea whiteae	Yellow-tailed Black Cockatoo	-	V	2, 3	2023	**Known**
Mammalia						
Pteropus poliocephalus	Grey-headed Flying-fox	VU	R	1, 2	Known / 2020	Highly Likely

Scientific Name	Common Name	Conservation Status		Data Source	PMST / Year of Last Record	Likelihood of Occurrence
		EPBC Act	NPW Act			
Trichosurus vulpecula	Common Brush-tail Possum	-	R	2	2023	Highly Likely

Conservation status
EPBC Act: (*Environment Protection and Biodiversity Conservation Act 1999*), **NPW Act** (*National Parks and Wildlife Act 1972*).
Conservation Codes:
VU/V: Vulnerable. R: Rare.
Source of Information
1. **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 surveys.**

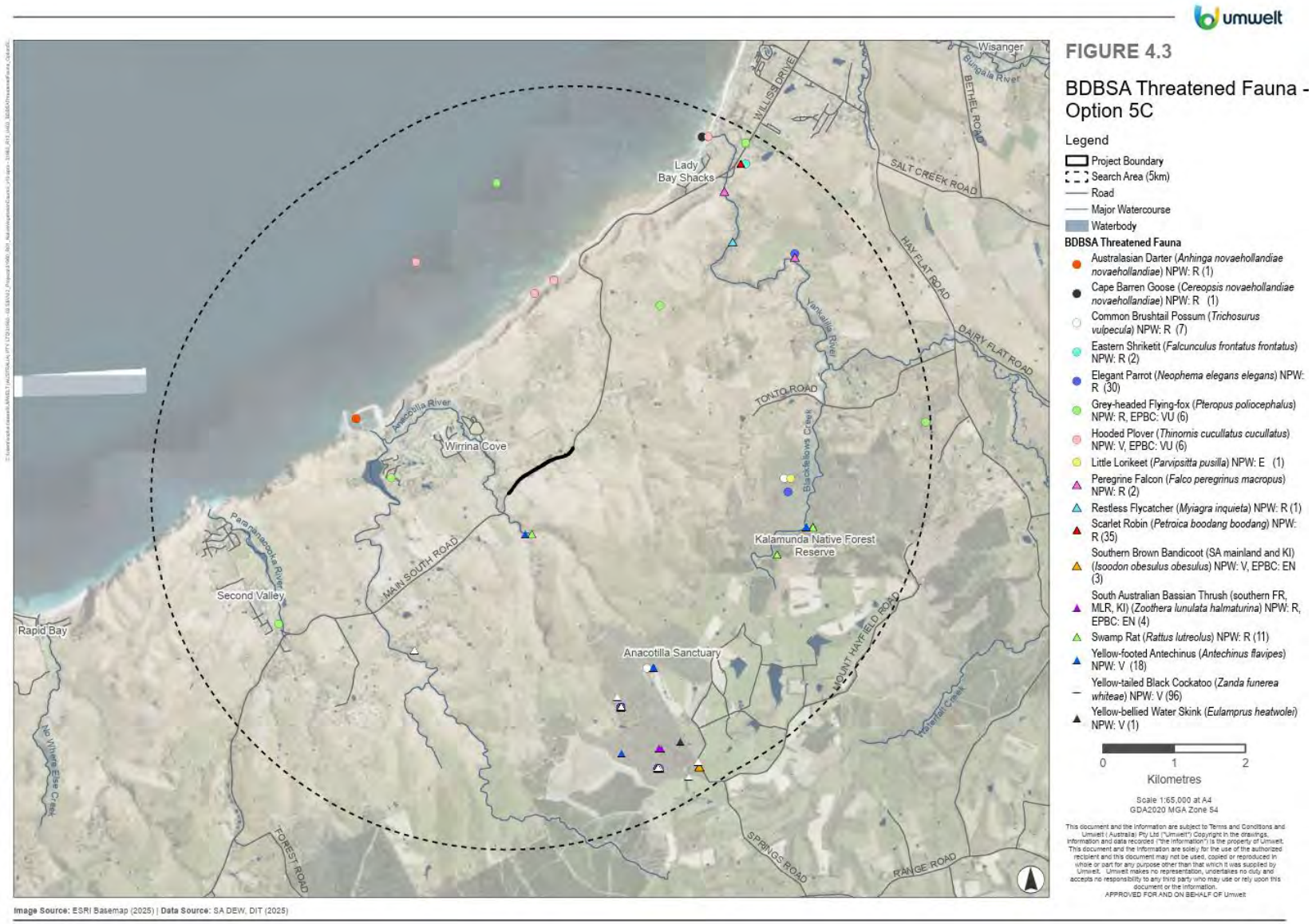

Figure 4.3 BDBSA Threatened Fauna – Option 5C

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 include:

- The clearance of 30 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 dispersal and importation of *Phytophthora cinnamomi* (Phytophthora) into the Project Area through earthworks and footwear.
- The potential for an increase in dust accumulation in the surrounding vegetation.
- Runoff from the work area into the various watercourses that cross through the Project Area.

These indirect impacts are expected to be effectively managed through the Construction Environmental Management Plan (CEMP).

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

Through the initial planning study and subsequent design refinement, the location and alignment of the overtaking lane has avoided native vegetation, where possible.

The design for Option 5 was then further refined by having three alternative designs explored – Option 5A, 5B, and 5C (EBS 2024a, 2024b). These were ground-truth by Umwelt, and preliminary Significant Environmental Benefit (SEB) calculations provided to DIT (EBS 2024b). Option 5C was selected due to its smaller impact on vegetation relative to the other options (measured by lower TBS). Additionally, by electing 5C, the proposal will not require the clearance of a threatened flora species present within Option 5A:

- *Eucalyptus fasciculosa* (Pink Gum) – listed as Rare under the *National Parks and Wildlife Act 1972* (NPW Act).

Option 5C was further revised following the supply of ecological assessments to avoid all impacts to hollow-bearing trees (EBS 2024b). No additional access tracks are proposed, and all laydown areas are to be located within the disturbance footprint. DIT has committed to retaining several trees that are present within the Project Area, specifically at the southeastern end (see **Figure 4.1**), which included individuals with high biodiversity scores (TBS > 7).

b) Minimization – 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 in areas dominated by amenity plantings or weed species, thereby minimising impacts on native vegetation. The proponent has concentrated clearance in areas of lower quality vegetation (i.e., among non-hollow-bearing trees, and trees with lower relative TBS scores).

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 CEMP to minimise any direct and indirect impacts including to off-target vegetation, and to address fauna protection measures.

Further design measures used to minimise impact include maintaining the existing alignment despite geometric deficiencies, ustilising the shoulder and wide centre line treatment for large vehicles to negotiate curves instead of widening the road, and 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 change to minimise impact:

- Reducing the width of the proposed centreline treatment from 1.4 m to 1 m.
- Reduce total length of the overtaking lane by approximately 65 m by removing the extension of the wide centreline marking and reducing the wide centreline transition length at the start and end of the overtaking lane.

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. Final landscaping works will provide the opportunity to plant locally native species, a strategy currently under investigation (*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.***

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.

As the clearance is not in associated with a Development Application the clearance is assessed against the Principles of Clearance as set out in **Table 4.4**.

Table 4.4 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	The desktop assessment identified eight threatened fauna species as having a 'possible', or greater, probability of occurrence at the Project Area. **Highly Likely/Known** • Common Brushtail Possum (*Trichosurus vulpecula*) – listed as Rare under the NPW Act. • Elegant Parrot (*Neophema elegans elegans*) – listed as Rare under the NPW Act. • Grey-headed Flying-fox (*Pteropus poliocephalus*) – listed as Vulnerable under the EPBC Act and Rare under the NPW Act. • Little Lorikeet (*Parvipsitta pusilla*) – listed as Endangered under the NPW Act. • Scarlet Robin (*Petroica boodang boodang*) – listed as Rare under the NPW Act. • Yellow-tailed Cockatoo (*Zanda funerea whiteae*) – listed as Vulnerable under the NPW Act. **Likely** • Peregrine Falcon (*Falco peregrinus macropus*) – listed as Rare under the NPW Act. **Possible** • Eastern Shriketit (*Falcunculus frontatus frontatus*) – listed as Rare under the NPW Act.	**Seriously at Variance** Trees 1, 2, 3, 4, 5, 6, 7, 9, 10, 11, 17, 18, 19, 20, 23, 32, 33 and 34 **Not at Variance** Trees 8, 12, 13, 15, 16 and 36	The clearance of 30 scattered trees, six of which had a habitat score of 0, is unlikely to have a significant impact upon threatened species assessed as potentially occurring at the Project Area.

Principle of Clearance	Relevant Information	Assessment Against the Principles	Moderating Factors that may be Considered by the NVC
	One threatened species was encountered during the field surveys, the State Rare Yellow-tailed Black Cockatoo. Native vegetation within the Project Area was represented by isolated scattered trees. This vegetation does not facilitate fauna movement without exposure in the cleared road reserve.		
Principle 1(c) – Plants of a Rare, Vulnerable or Endangered species	One threatened species identified by the desktop assessment was encountered by the field surveys: • *Eucalyptus fasciculosa* (Pink Gum) - listed as Rare under the NPW Act. One mature was identified adjacent to the road corridor. Following the delivery of constraints documents to DIT, the proponent has selected a design that has avoided this individual (EBS 2023b). As such, the Project will have no impact upon this listed species. None of the trees subject to clearance are conservation rated. Threatened Flora Score – 0.	**Not at Variance**	Not applicable.
Principle 1(d) – the Vegetation Comprises the Whole or Part of a Plant Community that is Rare, Vulnerable or Endangered	No TECs are present at the Project Area.	**Not at Variance**	Not applicable.

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 2024b) sets out how the risk level of a clearance application is assessed (see **Table 4.5**). The risk level of this clearance application is presented in **Table 4.6** which indicates that this will be a Level 3 Clearance due to escalating matters (clearance is seriously at variance with Principle 1(b)).

Table 4.5 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	0.05 ha or less	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.
	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.		
Level 2	>0.05 ha to 0.5ha	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 4.6 Summary of Risk Level Associated with the Clearance Application

Total Clearance	**Number of Trees**	30
	Area (ha)	N/A
	Total Biodiversity Score	22.05
Seriously at Variance with Principle 1(b), 1(c) or 1 (d)		1(b)
Risk Assessment Outcome		Level 4

5. CLEARANCE SUMMARY

The clearance summary table, as per **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)
1	1	1.8	0	1.15	1	1.27	$1,371.44
2	2	1.8	0	2.14	1	2.35	$2,537.71
3	2	1.8	0	2.2	1	2.42	$2,613.30
4	2	1.8	0	0.32	1	0.35	$377.96
5	1	1.8	0	2.26	1	2.49	$2,688.89
6	1	1.8	0	1.28	1	1.41	$1,522.62
7	1	1.8	0	0.37	1	0.41	$442.75
8	3	0	0	0.18	1	0.2	$215.98
9	2	1.8	0	2.14	1	2.35	$2,537.71
10	1	1.8	0	0.46	1	0.51	$550.74
11	1	1.8	0	2.15	1	2.37	$2,559.30
12	1	0	0	0.07	1	0.08	$86.39
13	1	0	0	0.06	1	0.07	$75.59
15	1	0	0	0.07	1	0.08	$86.39
16	1	0	0	0.05	1	0.06	$64.79
17	1	1.8	0	0.18	1	0.2	$215.98
18	1	1.8	0	0.54	1	0.59	$637.13
19	1	1.8	0	1.15	1	1.27	$1,371.44
20	1	1.8	0	0.28	1	0.31	$334.76
23	1	1.8	0	0.98	1	1.08	$1,166.27
32	1	1.8	0	0.44	1	0.48	$518.34
33	1	1.8	0	2.02	1	2.22	$2,397.32
34	1	1.8	0	1.07	1	1.18	$1,274.25
35	1	0	0	0.49	1	0.54	$583.13
36	1	1.8	0	1.15	1	1.27	$1,371.44
Scattered Tree SEB Total				**22.05**		**24.29**	**$26,230.18**

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	22.05	24.29	$24,862.72	$1,367.45	$26,230.17
Economies of Scale Factor			0.5		
Rainfall (mm)			620		

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

The total SEB payment for the clearance of **30** scattered trees, with a combined TBS of **22.05**, is **$26,230.17** (including an administration fee of **$1,367.45**). 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 – Likelihood of Occurrence Assessment

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Flora							
Blechnum wattsii	Hard Water-fern	-	R	2	2006	Forms large colonies in deep moist soil and occasionally on rock faces in wet sclerophyll forest and rainforest (DCCEEW 2025c).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.
Caladenia ovata	Kangaroo Island Spider-orchid	VU	E	1	May	Grows amongst dense, low shrubs in heathland and shrubby woodland in freely draining sand and laterite (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Caladenia tensa	Greencomb Spider-orchid	EN	-	1	May	Grows amongst shrubs and tussocks in woodlands in freely draining, red-brown, sandy loam. Also found among spinifex in mallee communities on poor, sandy soils (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Cladium procerum	Leafy Twig-rush	-	R	2	2009	Grows in coastal swamps and among the margins of deep-water creeks (SASCC 2025).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.
Correa calycina var. *calycina*	Hindmarsh Correa	VU	E	1	May	Grows in wet areas, including riparian zones, cliffs, hillslopes, and on dry tributaries (SASCC 2025).	**Unlikely** – There are no historical records within the Search Area.
Correa eburnea	Deep Creek Correa	EN	V	1, 2	Known/2005	Grows on the banks of damp creeks (SASCC 2025).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Dodonaea procumbens	Trailing Hop-bush	VU	V	1	May	Grows in open eucalyptus woodlands in flat, low-lying areas (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Eucalyptus fasciculosa	Pink Gum	-	R	2, 3	2001	Grows in coastal sands and on poor soils, particularly on plains, ridges and slopes (SASCC 2025).	**Unlikely** – Although the species was identified during the field surveys, the proponent has adjusted the design to avoid this individual tree. As such, the species will not occur within the Project Area.
Euphrasia collina ssp. *osbornii*	Osborn's Eyebright	EN	E	1	May	Recorded primarily from mallee woodlands, although in the Fleurieu it also occupies wet sclerophyll forests (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Glycine latrobeana	Clover Glycine	VU	V	1, 2	Known/1999	Grows in grasslands and grassy woodlands on heavy soils (SASCC 2025).	**Unlikely** – Although there are historic records within the Search Area, the habitat within the Project Area was inappropriate.
Hibbertia tenuis	-	CE	E	1	Likely	Grows in low or open vegetation in permanently wet places (SASCC 2025).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Meionectes brownii	Swamp Raspwort	-	R	2	2006	A perennial aquatic/semi-aquatic herb, the species grows in swamp margins and other perennially wet sites (VicFlora 2025).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.
Myriophyllum amphibium	Broad Milfoil	-	R	2	2006	A perennial marsh/semi-aquatic herb, the species grows around lakes, along boggy stream margins and in	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
						pools along rivers (VicFlora 2025).	
Olearia pannosa ssp. *pannosa*	Silver Daisy-bush	VU	V	1	Likely	Grows in dry open forests and on shallow rocky soils (VicFlora 2025).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Prasophyllum murfetii	Fleurieu Leek Orchid	CE	E	1	Likely	Grows primarily in swampy areas, particularly around the edges of lakes and ponds (SASCC 2025).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Prasophyllum pallidum	Pale Leek-orchid	VU	R	1	May	Grows in grassy woodlands in freely draining loam (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Pterostylis foliata	Slender Greenhood	-	R	2	2006	Occurs in sheltered, shaded locations often in association with *Eucalyptus fasciculosa* (eFlora 2025).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.
Scutellaria humilis	Dwarf Skullcap	-	R	2	1999	Grows in various habitats, often in moist sheltered areas, particularly along creeks and gullies (SASCC 2025).	**Unlikely** – Although there are historic records within the Search Area, the habitat within the Project Area was inappropriate.
Senecio macrocarpus	Large-fruit Fireweed	VU	V	1	May	Grows in low-lying areas on basalt-derived lay or clay-loam soils, in grasslands, sedgelands, and woodlands (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Thelymitra epipactoides	Metallic Sun-orchid	EN	E	1	May	Occurs in a variety of habitats including grasslands, heathlands, shrubby woodlands and	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
						open forests (DCCEEW 2025c).	
Thelymitra flexuosa	Twisted Sun-orchid	-	R	2	2006	Found among low shrubs and sedges in depressions, swamp margins, heathlands and other seasonally moist-to-wet sites in sandy and peaty soils (sometimes in shallow water) (eFlora 2025).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.
Thelymitra matthewsii	Spiral Sun-orchid	EN	E	1	May	Grows in heathlands, woodlands and open forests, often in low-lying areas around swamp margins or depressions. Soil types include well-drained sands and clay loams and heavier moist peaty soils (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Veronica derwentiana ssp. *homalodonta*	Mount Lofty Speedwell	CE	E	1	Likely	Grows besides streams and waterfalls, may also occur in moist sites in gullies or near creeks (SASCC 2025).	**Unlikely** – There are no historical records within the Search Area and the habitat within the Project Area was inappropriate.
Veronica gracilis	Slender Speedwell	-	V	2	1999	Grows in grasslands and grassy woodlands, often near streams and dams (VicFlora 2025).	**Unlikely** – Although there are historic records within the Search Area, the habitat within the Project Area was inappropriate.
Xanthorrhoea semiplana ssp. *tateana*	Tate's Grass-tree	-	R	2	2000	Grows in sandy soils (SASCC 2025).	**Unlikely** – Although there are historic records within the Search Area, the habitat within the Project Area was inappropriate. No species of the *Xanthorrhoea* genera were detected by the field surveys.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Xanthosia tasmanica	Southern Xanthosia	-	R	2	2006	Grows in shallow sand on rocky coastal heath and in woodlands (eFlora 2025).	**Unlikely** – Although there are recent records within the Search Area, the habitat within the Project Area was inappropriate.
Aves							
Actitis hypoleucos	Common Sandpiper	Mi (W)	R	1, 2	Known	Inhabits saltwater and freshwater ecosystems (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area and the Project Area lacked suitable habitat.
Anhinga novaehollandiae novaehollandiae	Australasian Darter	-	R	2	2020	Occupy a variety of freshwater ecosystems, including slow flowing rivers, swamps and reservoirs (Higgins & Davies 1996).	**Unlikely** – Although there are very recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.
Aphelocephala leucopsis	Southern Whiteface	VU	-	1	Likely	Occupies open woodland and shrubland habitats, typically dominated by the *Acacia* and *Eucalyptus* genera (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area and the Project Area lacked suitable habitat.
Apus pacificus pacificus	Fork-tailed Swift	Mi (M)	-	1	Likely	Almost entirely aerial, occurs over dry and open habitats (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area. The species is nearly entirely aerial and would not make use of the habitat provided by the Project Area.
Ardenna carneipes	Flesh-footed Shearwater	Mi (M)	-	1	Likely	Marine, occurs over continental shelves (Pizzey & Knight 2007).	**N/A** – Marine.
Ardenna grisea	Sooty Shearwater	VU, Mi (M)	-	1	May	Marine, occurs over continental shelves (Pizzey & Knight 2007).	**N/A** – Marine.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Botaurus poiciloptilus	Australasian Bittern	EN	E	1	Likely	Occurs in wetlands with tall dense fringing vegetation, where it forages in shallow water (Marchant & Higgins 1990).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Calidris acuminata	Sharp-tailed Sandpiper	VU, Mi (W)	-	1	May	Occupies freshwater and saline ecosystems (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Calidris canutus	Red Knot, Knot	VU, Mi (W)	-	1	May	Occupies coastal ecosystems, favouring estuaries, bays, inlets and lagoons (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Calidris ferruginea	Curlew Sandpiper	CE, Mi (W)	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** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Calidris melanotos	Pectoral Sandpiper	Mi (W)	R	1	May	Occupies shallow water, both freshwater and saline (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Cereopsis novaehollandiae novaehollandiae	Cape Barren Goose	-	R	2	2021	Inhabits grasslands, and low fields of *Carpobrotus* spp., and occasionally in areas of taller and denser vegetation (Higgins & Davies 1996).	**Unlikely** – Although there are very recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Charadrius leschenaultii leschenaultii	Greater Sand Plover, Large Sand Plover	VU, Mi (W)	R	1	May	In Australia the species is almost entirely coastal, inhabiting littoral and estuarine areas (Marchant & Higgins 1990).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Diomedea antipodensis	Antipodean Albatross	VU, Mi (M)	-	1	Likely	Marine, pelagic (Pizzey & Knight 2007).	**N/A** – Marine.
Diomedea epomophora	Southern Royal Albatross	VU, Mi (M)	V	1	Likely	Marine, pelagic (Pizzey & Knight 2007).	**N/A** – Marine.
Diomedea exulans	Wandering Albatross	VU, Mi (M)	V	1	Likely	Marine, pelagic (Pizzey & Knight 2007).	**N/A** – Marine.
Diomedea sanfordi	Northern Royal Albatross	EN, Mi (M)	E	1	May	Marine, pelagic (Pizzey & Knight 2007).	**N/A** – Marine.
Falco hypoleucos	Grey Falcon	VU	R	1	Likely	Occurs in the arid/semi-arid zone, frequents timbered lowland plains and riparian watercourses (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the Project Area would be insufficiently arid for the species.
Falco peregrinus macropus	Peregrine Falcon	-	R	2	2014	Occurs in most habitats, from rainforests to the arid zone (Higgins & Davies 1996).	**Likely** – There are recent records within the Search Area and the species may make use of the scattered trees within the Project Area.
Falcunculus frontatus frontatus	Eastern Shriketit	-	R	1	2002	Concentrated in *Eucalyptus* forests, with a proclivity for *E. camaldulensis* lined watercourses (Pizzey & Knight 2007).	**Possible** – There are historic records within the Search Area and the species may make use of the scattered trees within the Project Area (note not listed in the STAM as a scattered tree using species, although it has been included in the relevant scoresheet).

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Gallinago hardwickii	Latham's Snipe	VU, Mi (W)	R	1	Likely	Inhabits open, freshwater wetlands with low, dense vegetation (e.g., swamps, flooded grasslands and heathlands) (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Grantiella picta	Painted Honeyeater	VU	R	1	May	Occurs in dry open forests, usually in association with its primary food species – mistletoe of the *Amyema* genus (Pizzey & Knight 2007).	**Unlikely** – There are no historical records within the Search Area. The species primary food source (i.e., *Amyema* spp.) were not recorded by the field surveys.
Halobaena caerulea	Blue Petrel	VU	-	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Hirundapus caudacutus caudacutus	White-throated Needletail	VU, Mi (T)	V	1	Likely	Almost exclusively aerial (Marchant & Higgins 1990).	**Unlikely** – There are no historical records within the Search Area. The species is nearly entirely aerial and would not make use of the habitat provided by the Project Area.
Hylacola pyrrhopygia parkeri	Chestnut-rumped Heathwren (Mt Lofty Ranges)	EN	E	1	Likely	Occupies dense heathlands and undergrowth in *Eucalyptus* forests and woodlands and is most commonly found in rocky areas (Pizzey & Knight 2007).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Limosa lapponica baueri	Nunivak Bar-tailed Godwit	EN, Mi (W)	R	1	May	Occurs mainly in coastal habitats, such as large intertidal sandflats, banks, mudflats etc (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Macronectes giganteus	Southern Giant-Petrel	EN, Mi (M)	V	1	May	Marine, pelagic (DCCEEW 2025c).	**N/A** – Marine.

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		EPBC Act	NPW Act				
Macronectes halli	Northern Giant Petrel	VU, Mi (M)	-	1	Likely	Marine, pelagic (DCCEEW 2025c).	**N/A** – Marine.
Melanodryas cucullata cucullata	South-eastern Hooded Robin	EN	R	1	May	Occupies dry *Acacia* and *Eucalyptus* woodlands and shrublands with open understories comprised of grasses and shrubbery (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Motacilla cinerea	Grey Wagtail	Mi (T)	-	1	May	Occurs along freshwater streams (Pizzey & Knight 2007).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Motacilla flava	Yellow Wagtail	Mi (T)	-	1	May	Occurs along freshwater streams (Pizzey & Knight 2007).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Myiagra inquieta	Restless Flycatcher	-	R	2	2007	Found in open forests and woodlands, often along watercourses (Australian Museum 2025).	**Unlikely** – Although there are recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.
Neophema chrysostoma	Blue-winged Parrot	VU	V	1	Likely	Inhabit a range of habitats from coastal areas to the semi-arid zone. Tend to favour grasslands and grassy woodlands and are often found near wetlands/watercourses (Higgins & Davies 1996).	**Unlikely** – There are no historical records within the Search Area.
Neophema elegans elegans	Elegant Parrot	-	R	2	2023	Occupies open forests, woodlands, mallee, mulga	**Highly Likely** – There are very recent records within the Search Area and the species may make use of the

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
						and saltmarsh (Australian Museum 2025).	scattered trees within the Project Area.
Numenius madagascariensis	Eastern Curlew	CE, Mi (W)	E	1	May	Most often found along sheltered coasts, especially in estuaries, bays, harbours, inlets and coastal lagoons (Marchant & Higgins 1990).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Pachyptila turtur subantarctica	Fairy Prion (southern)	VU	-	1	Known	Marine (DCCEEW 2025c).	**N/A** – Marine.
Pandion haliaetus cristatus	Eastern Osprey	Mi (W)	E	1	Likely	Occurs in littoral and coastal habitats, along with terrestrial wetlands (Marchant & Higgins 1990).	**Unlikely** – There are no historical records within the Search Area.
Parvipsitta pusilla	Little Lorikeet	-	E	2	2023	Found in open forests (Higgins & Davies 1996).	**Highly Likely** – There are very recent records within the Search Area and the species may make use of the scattered trees within the Project Area.
Petroica boodang boodang	Scarlet Robin	-	R	2	2020	Occurs in Eucalypt forests and woodlands (Higgins & Davies 1996).	**Highly Likely** – There are very recent records within the Search Area and the species may make use of the scattered trees within the Project Area.
Phoebetria fusca	Sooty Albatross	VU, Mi (M)	E	1	Likely	Marine, pelagic (Pizzey & Knight 2007).	**N/A** – Marine.
Pterodroma mollis	Soft-plumaged Petrel	VU	-	1	May	Marine (Pizzey & Knight 2007).	**N/A** – Marine.
Rostratula australis	Australian Painted Snipe	EN	E	1	Likely	Inhabits shallow terrestrial freshwater wetlands, including lakes, swamps and wetlands. Typical sites are dense with fringing	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
						vegetation (Marchant & Higgins 1990).	
Stagonopleura bella samueli	Western Beautiful Firetail	EN	R	1	Likely	Inhabits shrublands and woodlands, usually in proximity to watercourses, swamps and marshlands (Pizzey & Knight 2007).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Stagonopleura guttata	Diamond Firetail	VU	V	1	Likely	Occurs in *Acacia, Eucalyptus,* and *Casuarina* woodlands, open forests, and other lightly timbered habitat (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Sternula albifrons sinensis	Little Tern	Mi (M)	E	1	May	Inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas (Birdlife Australia 2025).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Sternula nereis nereis	Australian Fairy Tern	VU	E	1	Likely	Occupies coastal habitats including embayment's, lagoons, and deltas (Birdlife Australia 2025).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Stipiturus malachurus intermedius	Fleurieu Peninsula Southern Emu-wren	EN	E	1	Known	Occupies swamps and dry heaths (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Thalassarche carteri	Indian Yellow-nosed Albatross	VU, Mi (M)	E	1	Likely	Marine (DCCEEW 2025c).	**N/A** – Marine.
Thalassarche cauta	Shy Albatross	EN, Mi (M)		1	Likely	Marine, pelagic (DCCEEW 2025c).	**N/A** – Marine.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
Thalassarche impavida	Campbell Albatross, Campbell Black-browed Albatross	VU, Mi (M)	V	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Thalassarche melanophris	Black-browed Albatross	VU, Mi (M)	-	1	Likely	Marine (DCCEEW 2025c).	**N/A** – Marine.
Thalassarche steadi	White-capped Albatross	VU, Mi (M)	-	1	Known	Marine (DCCEEW 2025c).	**N/A** – Marine.
Thinornis cucullatus cucullatus	Eastern Hooded Plover	VU	V	1, 2	Known/2018	Inhabits ocean beaches, particularly those that are wide, with large amount of seaweed, backed by dunes (DCCEEW 2025c).	**Unlikely** – Although there are very recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.
Tringa nebularia	Common Greenshank	EN, Mi (W)	-	1	Likely	Found in a variety of inland wetlands and sheltered coastal habitats, including mudflats, saltmarsh, mangroves and seagrass meadows (Higgins & Davies 1999).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Zanda funerea whiteae	Yellow-tailed Black Cockatoo	-	V	2	2023	Occurs in native temperate forests and pine (*Pinus* spp.) plantations (Pizzey & Knight 2007).	**Known** – There are very recent records from within the Search Area and individuals were recorded during the field surveys. While the species is very likely to use the scattered trees within the Project Area, only feeding sources are available (i.e., there are no hollow-bearing trees).
Zoothera lunulata halmaturina	South Australian Bassian Thrush	EN	R	1, 2, 3	Known/2023	Inhabits damp *Eucalyptus* forests and woodlands, primarily in gullies and with dense leaf-litter DCCEEW 2025c).	**Unlikely** – Although there are very recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.

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		EPBC Act	NPW Act				
Fish							
Carcharias taurus	Grey Nurse Shark	Mi (M)	-	1	May	Marine, occurs in shallow waters from the surf zone down to approximately 60 m (Australian Museum 2025).	**N/A** – Marine.
Carcharodon carcharias	Great White Shark	VU, Mi (M)	-	1	Known	Marine, coastal waters (Australian Museum 2025).	**N/A** – Marine.
Galeorhinus galeus	School Shark	CD	-	1	May	Marine, coastal temperate waters (Last & Stevens 2009).	**N/A** – Marine.
Lamna nasus	Mackerel Shark	Mi (M)	-	1	Likely	Marine, oceanic waters and around the edge of the continental shelf (Last & Stevens 2009).	**N/A** – Marine.
Seriolella brama	Blue Warehou	CD	-	1	Known	Marine, continental shelf and slope waters (Australian Museum 2025).	**N/A** – Marine.
Mammalia							
Antechinus flavipes	Yellow-footed Antechinus	-	V	2	2022	Occurs in a variety of habitats including swamps, forests and woodlands (Van Dyck & Strahan 2008).	**Unlikely** – Although there are very recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.
Balaenoptera edeni	Bryde's Whale	Mi (M)	R	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Caperea marginata	Pygmy Right Whale	Mi (M)	R	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Eubalaena australis	Southern Right Whale	EN, Mi (M)	E	1	Known	Marine (DCCEEW 2025c).	**N/A** – Marine.
Isoodon obesulus obesulus	Southern Brown Bandicoot (eastern)	EN	V	1, 2	Known/2011	Occurs in a variety of habitats including	**Unlikely** – Although there are recent records within the Search Area, the

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
						heathlands, sedgelands, open forests, and woodlands (Van Dyck & Strahan 2008).	scattered trees within the Project Area would not provide suitable habitat.
Lagenorhynchus obscurus	Dusky Dolphin	Mi (M)	-	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Megaptera novaeangliae	Humpback Whale	Mi (M)	V	1	Likely	Marine (DCCEEW 2025c).	**N/A** – Marine.
Neophoca cinerea	Australian Sea-lion	EN	V	1	Known	Occurs on sandy beaches and coastal waters off southern Australia (Australian Museum 2025).	**N/A** – Marine.
Orcinus orca	Killer Whale, Orca	Mi (M)	-	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Pteropus poliocephalus	Grey-headed Flying-fox	VU	R	1, 2	Known/2020	As a canopy-feeding frugivore, the species requires feed trees within 20 km of their roost. Associated vegetation communities include rainforests, open forests, closed and open woodlands, *Melaleuca* swamps and *Banksia* woodlands (DCCEEW 2025c).	**Highly Likely** – There are very recent records within the Search Area and the species may make use of the scattered trees within the Project Area. Although not listed in the STAM, they are known to use scattered trees for foraging purposes (note - has been included in the relevant scoresheet).
Rattus lutreolus	Swamp Rat	-	R	2	2023	Occurs primarily in wetlands harbouring tall grasses or sedges, and along the banks of streams (Van Dyck & Strahan 2008).	**Unlikely** – Although there are very recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.
Trichosurus vulpecula	Common Brushtail Possum	-	R	2	2023	Occurs in a variety of habitats including rocky ranges, timbered watercourses, and	**Highly Likely** – There are very recent records within the Search Area and the species may make use of the scattered trees within the Project Area.

Scientific Name	Common Name	Conservation Status		Source of Information	PMST/Last Record	Habitat Preferences	Likelihood of Occurrence within the Project Area
		EPBC Act	NPW Act				
						grasslands (Van Dyck & Strahan 2008).	
Reptilia							
Aprasia pseudopulchella	Flinders Ranges Worm-lizard	VU	-	1	May	Burrows in loose sand and soil, under rocks and litter. Occurs in open woodlands, native tussock grasslands, riparian habitats and rocky isolates (DCCEEW 2025c).	**Unlikely** – There are no historical records within the Search Area and the scattered trees within the Project Area would not provide suitable habitat.
Caretta caretta	Loggerhead Turtle	EN, Mi (M)	E	1	Known	Marine (DCCEEW 2025c).	**N/A** – Marine.
Chelonia mydas	Green Turtle	VU, Mi (M)	V	1	May	Marine (DCCEEW 2025c).	**N/A** – Marine.
Dermochelys coriacea	Leatherback Turtle, Leathery Turtle, Luth	EN, Mi (M)	V	1	Known	Marine (DCCEEW 2025c).	**N/A** – Marine.
Eulamprus heatwolei	Yellow-bellied Water Skink	-	V	2	2014	Occupies wet and dry forests, bogs, open woodlands and heathlands, generally in proximity to watercourses and swamps (Australian Museum 2025).	**Unlikely** – Although there are recent records within the Search Area, the scattered trees within the Project Area would not provide suitable habitat.

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 surveys**.

Appendix 2 - Uncommon/Threatened Scattered Tree Utilising Species as per the Scattered Tree Assessment Method

Scientific Name	Common Name	Conservation Status			Use	Habitat/ Status
		EPBC Act	NPW Act	MLR		
Acanthiza chrysorrhoa	Yellow-rumped Thornbill	-	-	NT	P, N	w/r
Aegotheles cristatus cristatus	Australian Owlet-nightjar	-	-	RA	H	w
Anas superciliosa	Pacific Black Duck	-	-	RA	H	s
Artamus cyanopterus	Dusky Woodswallow	-	-	RA	P	w
Chalcites basalis	Horsfield's Bronze Cuckoo	-	-	NT	P	S
Falco peregrinus macropus	Peregrine Falcon	-	R	RA	P, H	w/r
Geopelia placida	Peaceful Dove	-	-	VU	P	w
Melithreptus brevirostris	Brown-headed Honeyeater	-	-	NT	F	w
Melithreptus lunatus	White-naped Honeyeater	-	-	NT	P, F	w
Neophema elegans elegans	Elegant Parrot	-	R	VU	P, N	w
Ninox boobook	Southern Boobook	-	-	NT	P, H	w
Pachycephala rufiventris rufiventris	Royal Spoonbill	-	-	VU	P	s
Pachycephala rufiventris rufiventris	Rufous Whistler	-	-	NT	P, F	w/s
Pardalotus punctatus	Spotted Pardalote (south-eastern subspecies)	-	-	NT	P, F	w/s
Parvipsitta porphyrocephala	Purple-crowned Lorikeet	-	-	NT	F, P, H	w/s
Parvipsitta pusilla	Little Lorikeet	-	E	CR	F, H	w/s
Petrochelidon nigricans	Tree Martin	-	-	NT	P, H	w/s
Petroica boodang boodang	Scarlet Robin	-	R	VU	P	w
Phalacrocorax carbo	Great Cormorant	-	-	RA	P	s
Platalea flavipes	Yellow-billed Spoonbill	-	-	VU	P, N	s
Psephotus haematonotus	Red-rumped Parrot	-	-	NT	P, H	w/r
Rhipidura leucophrys leucophrys	Willie Wagtail	-	-	NT	P, F, N	w/r
Todiramphus sanctus sanctus	Sacred Kingfisher	-	-	NT	P, H	w
Trichosurus vulpecula	Common Brushtail Possum	-	R	-	F, N, H	-
Zanda funerea whiteae	Yellow-tailed Black Cockatoo	-	V	VU	P, H	w
Zosterops lateralis	Silvereye	-	-	NT	P, F	w/s

Conservation Status
EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*), **NPW Act**: South Australia (*National Parks and Wildlife Act 1972*).
Conservation Codes
E: Endangered, **VU/V**: Vulnerable. **R/RA**: Rare, **LC**: Least Concern, **NT**: Near threatened.
Habitat Use
H: Hollows, **P**: Perch, **N**: Nest, **F**: Feeding.
Habitat/Status
w: woodland birds that occasionally use adjacent scattered trees, **r**: species that can reside in scattered trees, **s**: seasonal.

Appendix 3 – Flora Species Recorded by the Field Surveys

Scientific Name	Common Name	Conservation Status		Declared	WoNS
		EPBC Act	NPW Act		
Native					
Acacia pycnantha	Golden Wattle	-	-	-	-
Acacia salicina	Willow Wattle	-	-	-	-
Allocasuarina verticillata	Drooping Sheoak	-	-	-	-
Callitris sp.	Cypress Pine	-	-	-	-
Dodonaea viscosa ssp.	Sticky Hop-bush	-	-	-	-
Eucalyptus baxteri	Brown Stringybark	-	-	-	-
Eucalyptus camaldulensis var. *camaldulensis*	River Red Gum	-	-	-	-
Eucalyptus fasciculosa	Pink Gum	-	R	-	-
Eucalyptus leucoxylon ssp. *leucoxylon*	South Australian Blue Gum	-	-	-	-
Exocarpos cupressiformis	Native Cherry	-	-	-	-
Melaleuca lanceolata	Dryland Tea-tree	-	-	-	-
Myoporum sp.	-	-	-	-	-
Scaevola sp.	Fanflower	-	-	-	-
Themeda triandra	Kangaroo Grass	-	-	-	-
Introduced					
Agonis flexuosa var. *flexuosa*	Willow Myrtle	-	-	No	No
Araucaria heterophylla	Norfolk Island Pine	-	-	No	No
Coleonema pulchellum	Diosma	-	-	No	No
Cupressus macrocarpa	Monterey Cypress	-	-	No	No
Dactylis glomerata	Cocksfoot	-	-	No	No
Eucalyptus sp.	-	-	-	No	No
Ficus carica	Edible Fig	-	-	No	No
Foeniculum vulgare	Fennel	-	-	No	No
Gazania sp.	Gazania	-	-	Yes	No
Lycianthes rantonnetii	Blue Potato Bush	-	-	No	No
Lycium ferocissimum	African Boxthorn	-	-	Yes	Yes
Populus sp.	Poplar	-	-	No	No
Romulea rosea var. *australis*	Common Onion-grass	-	-	No	No
Rosa canina	Dog Rose	-	-	Yes	No
Solanum nigrum	Blackberry Nightshade	-	-	No	No
Ulex europaeus	Gorse	-	-	Yes	Yes

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.

Appendix 4 – Fauna Species Recorded by the Field Surveys

Scientific Name	Common Name	Conservation Status	
		EPBC Act	NPW Act
Native			
Anthochaera carunculata	Red Wattlebird	-	-
Cacatua galerita	Sulphur-crested Cockatoo	-	-
Corvus coronoides	Australian Raven	-	-
Dicaeum hirundinaceum hirundinaceum	Mistletoebird	-	-
Eolophus roseicapilla	Galah	-	-
Gymnorhina tibicen	Australian Magpie	-	-
Malurus cyaneus	Superb Fairywren	-	-
Pardalotus striatus	Striated Pardalote	-	-
Phylidonyris novaehollandiae	New Holland Honeyeater	-	-
Ptilotula penicillata	White-plumed Honeyeater	-	-
Zanda funerea whiteae	Yellow-tailed Black Cockatoo	-	V
Introduced			
Passer domesticus domesticus	House Sparrow	-	-

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 5 – Scattered Tree Photo File

Photo 1: Tree 1 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 2: Tree 2 (*Eucalyptus camaldulensis* var. *camaldulensis*) – clump of 2

Photo 3: Tree 3 (*Eucalyptus camaldulensis* var. *camaldulensis*) – clump of 2

Photo 4: Tree 4 (*Eucalyptus camaldulensis* var. *camaldulensis*) – clump of 2

Photo 5: Tree 5 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 6: Tree 6 (*Acacia salicina*)

Photo 7: Tree 7 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 8: Tree 8 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 9: Tree 9 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 10: Tree 10 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 11: Tree 11 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 12: Tree 12 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 13: Tree 13 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 14: Tree 15 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 15: Tree 16 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 16: Tree 17 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 17: Tree 18 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 18: Tree 19 (*Eucalyptus camaldulensis* var. *camaldulensis*) – desktop assessment (*pers.comms* G. Carpenter, NVC)

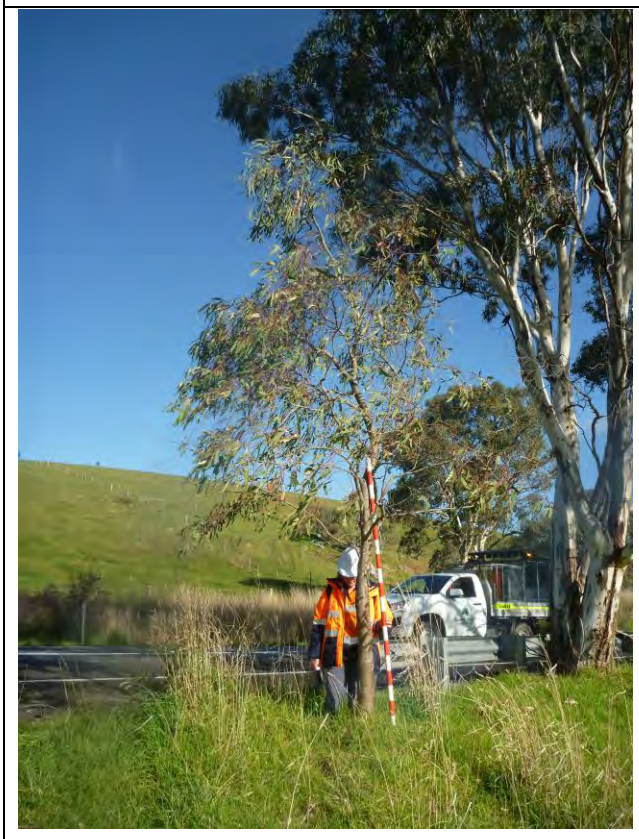

Photo 19: Tree 20 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 20: Tree 23 (*Allocasuarina verticillata*)

Photo 21: Tree 32 (*Allocasuarina verticillata*)

Photo 22: Tree 33 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 23: Tree 34 (*Eucalyptus camaldulensis* var. *camaldulensis*)

Photo 24: Tree 36 (*Acacia pycnantha*) – desktop assessment