

Native Vegetation Clearance

Bratten Way Road Upgrade (Stage 7)

Data Report

Clearance under the *Native Vegetation Regulations 2017*

30 April 2025

Prepared by Matt Launer from BlackOak Environmental Pty Ltd



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1. Application information

Application Details

Applicant:	[REDACTED]		
Key contact:	[REDACTED]		
Landowner:	Road easement		
Site Address:	Bratten Way road easement		
Local Government Area:	The Lower Eyre Council	Hundred:	Cummins (510100)
Title ID:	Bratten Way road easement	Parcel ID	Not applicable

Summary of proposed clearance

Purpose of clearance	<p>The clearance of vegetation is required to upgrade a 2.10 km section of Bratten Way. Bratten Way is a sealed road that connects the Lincoln Highway to Flinders Highway linking the three important regional towns of Tumby Bay, Cummins and Elliston. The current Bratten Way Rehabilitation/Upgrade project was brought about by a rapid deteriorating condition of Bratten Way during the 2016/2017 harvest season. In addition to the strength upgrade there are requirements to construct the road geometry to the current minimum design standards for safety. Installing current minimum road width and batter slope standards mean that the constructed road footprint needs to be increased to accommodate these standards.</p> <p>The flattening of the batters is required due to the steep 1:3 slopes on the existing road. This is required for both safety (minimum design standards) and in order to be able to have enough room to construct the widened pavement. The batters adopted in the design are at a grade of 1:4 which is the minimum allowed under that Aust Roads design standards. The preferred batter grade in the design standards is 1:6 which would see the area of impact increased by up to 50%. The applicant has made the decision that as the project is a road upgrade, and the increased impact implementing the preferred standards would have on the adjacent native vegetation that the bare minimum standards would be adopted for the project.</p>
Native Vegetation Regulation	It is considered that native vegetation clearance required for this project falls under the provisions of Division 5 of the <i>Native Vegetation Regulations 2017</i> which provide for the clearance of native vegetation under Part 6 - Other activities (regulation 12), Clause 32 - Works on behalf of Commissioner of Highways or Part 6 - Other activities (regulation 12), Clause 34 – Infrastructure.
Description of the vegetation under application	0.77 ha of <i>*Scabiosa atropurpurea</i> , <i>*Asphodelus fistulosus</i> Herbland +/- <i>Dampiera rosmarinifolia</i> , <i>Austrostipa</i> sp., <i>Lasiopetalum behrii</i> (Very poor condition) and 0.77 ha of <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i> , <i>Eucalyptus odorata</i> , <i>Eucalyptus peninsularis</i> , <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i> , <i>Templetonia retusa</i> , <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i> (Very good condition).
Total proposed clearance - area (ha) and number of trees	A total of 1.55 ha of vegetation will require permanent clearance for the upgrade to Bratten Way (Stage 7). This includes: 0.77 ha of <i>*Scabiosa atropurpurea</i> , <i>*Asphodelus fistulosus</i> Herbland +/- <i>Dampiera rosmarinifolia</i> , <i>Austrostipa</i> sp., <i>Lasiopetalum behrii</i> (Very poor condition) and 0.77 ha of <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i> , <i>Eucalyptus odorata</i> , <i>Eucalyptus peninsularis</i> , <i>Eucalyptus incrassata</i>

	Mallee to Open Mallee over <i>Melaleuca uncinata</i> , <i>Templetonia retusa</i> , <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i> (Very good condition).
Level of clearance	Level 4.
Overlay (Planning and Design Code)	The Project area is within the Native Vegetation Overlay.
<p>Map of proposed clearance area</p> <p>Refer to Figure 2 to Figure 9.</p>	
Mitigation hierarchy	<p>The Lower Eyre Council is implementing the minimum batter grades of 4.0% instead of the preferred grade of 6.0% in order to avoid and minimise the amount of vegetation impacted by the project.</p> <p>The Lower Eyre Council will engage a contractor for the road upgrade works. The contractor will be required to work to an Integrated Management Plan (Project Integrated Management System- PIMS) which encompasses all aspects of Project Delivery, Safety, Quality and Environment systems. As a minimum, the following actions will be undertaken during construction to prevent direct and indirect impacts to vegetation:</p> <ul style="list-style-type: none"> • Placing and storing equipment, vehicles and machinery away from vegetated areas; • Placing soil and rock stockpiles away from vegetated areas; and • Suppressing dust to prevent indirect impacts. <p>The clearance required for the Bratten Way road upgrade will be permanent and rehabilitation or restoration will not be possible.</p>
SEB Offset proposal	The proponent is proposing to pay into the Native Vegetation Fund. The total payment required is \$55,499.68 which includes an SEB payment of \$52,606.33 and an administration fee of \$2,893.35.

2. Purpose of clearance

2.1 Description

The clearance of vegetation is required to upgrade a 2.10 km section of Bratten Way (Stage 7). Bratten Way is a sealed road that connects the Lincoln Highway to Flinders Highway linking the three important regional towns of Tumby Bay, Cummins and Elliston. The current Bratten Way Rehabilitation/Upgrade project was brought about by a rapid deteriorating condition of Bratten Way during the 2016/2017 harvest season. In addition to the strength upgrade there are requirements to construct the road geometry to the current minimum design standards for safety. Installing current minimum road width and batter slope standards mean that the constructed road footprint needs to be increased to accommodate these standards.

The flattening of the batters is required due to the steep 1:3 slopes on the existing road. This is required for both safety (minimum design standards) and in order to be able to have enough room to construct the widened pavement. The batters adopted in the design are at a grade of 1:4 which is the minimum allowed under that Aust Roads design standards. The preferred batter grade in the design standards is 1:6 which would see the area of impact increased by up to 50%. The applicant has made the decision that as the project is a road upgrade, and the considerable impact implementing the preferred standards would have on the adjacent native vegetation; that the bare minimum standards would be adopted for the project.

The road functions as both Freight and Community Access. This is demonstrated by the listing of the road as a Level 1 Freight Route in the 2020 Eyre Peninsula Local Government Association (EPLGA) Regional Transport Strategy. This is based on the strategic location of the road within the sub-regional road network by connecting the Tod and Flinders Highway plus the DIT controlled section of the Bratten Way thereby connecting to the Lincoln Highway.

Prior to the early 2000's Bratten Way was an open surface (unsealed road). In the early 2000's due to the traffic volumes increasing to the point that it was unviable to maintain the unsealed road in a serviceable condition, funding was sought to have the road upgraded and sealed. The section that is proposed to be upgraded was originally constructed in 2004. At that time the formation material (i.e. fill material, not pavement) was harvested from the road reserve with borrow pits being scattered throughout the length of the road.

Council engaged a pavement engineer to undertake an investigation into the cause of the failures and it was found that the material the pavement was constructed from did not meet the strength requirements needed to withstand the current day freight task; noting that there has been a 235% increase in heavy vehicles and a 1,400% increase in large heavy vehicles since 1999.

The failed section of the road presented a major hazard to the road users which resulted in the speed limits being reduced on the road to manage the risks until the condition of the road could be remediated in the failed sections.

The remediation works required on Bratten Way, given the extents of works required is in excess of 37 km; is beyond the financial capacity for Lower Eyre Council to fund. The sections that have been completed so far have been externally funded in part through the state governments Special Local Road Program.

A total of 1.55 ha of vegetation will require permanent clearance for the upgrade to Bratten Way. The total 1.55 ha of vegetation will attract a loss factor of '1' (Complete removal of vegetation under assessment).

2.2 Background

The vegetation clearance proposal for the upgrade to Bratten Way (Stage 6) was approved (decision date) 24 December 2024 (Application number: 2024/3296/932).

The Project area is situated within the Eyre Yorke Block IBRA bioregion of SA, the Eyre Hill subregion and the Cummins IBRA association. The Cummins IBRA association covers 37,086 ha, of which 1,374 ha or 4% contains vegetation. None of the vegetation within the Cummins IBRA association is protected (NatureMaps 2025). The southern boundary of the NPWSA Shannon Conservation Park is located approximately 25 km north of the Project area. The Shannon Conservation Park covers an area of 792 ha (Figure1).

The Project area occurs in the Hundred of Cummins, the Local Government Area of the Lower Eyre Council and the Eyre Peninsula Landscape Management Region.

The current and historical use of the land adjoining the Project area is dryland agriculture such as cropping (mainly wheat and barley).

2.3 General location map

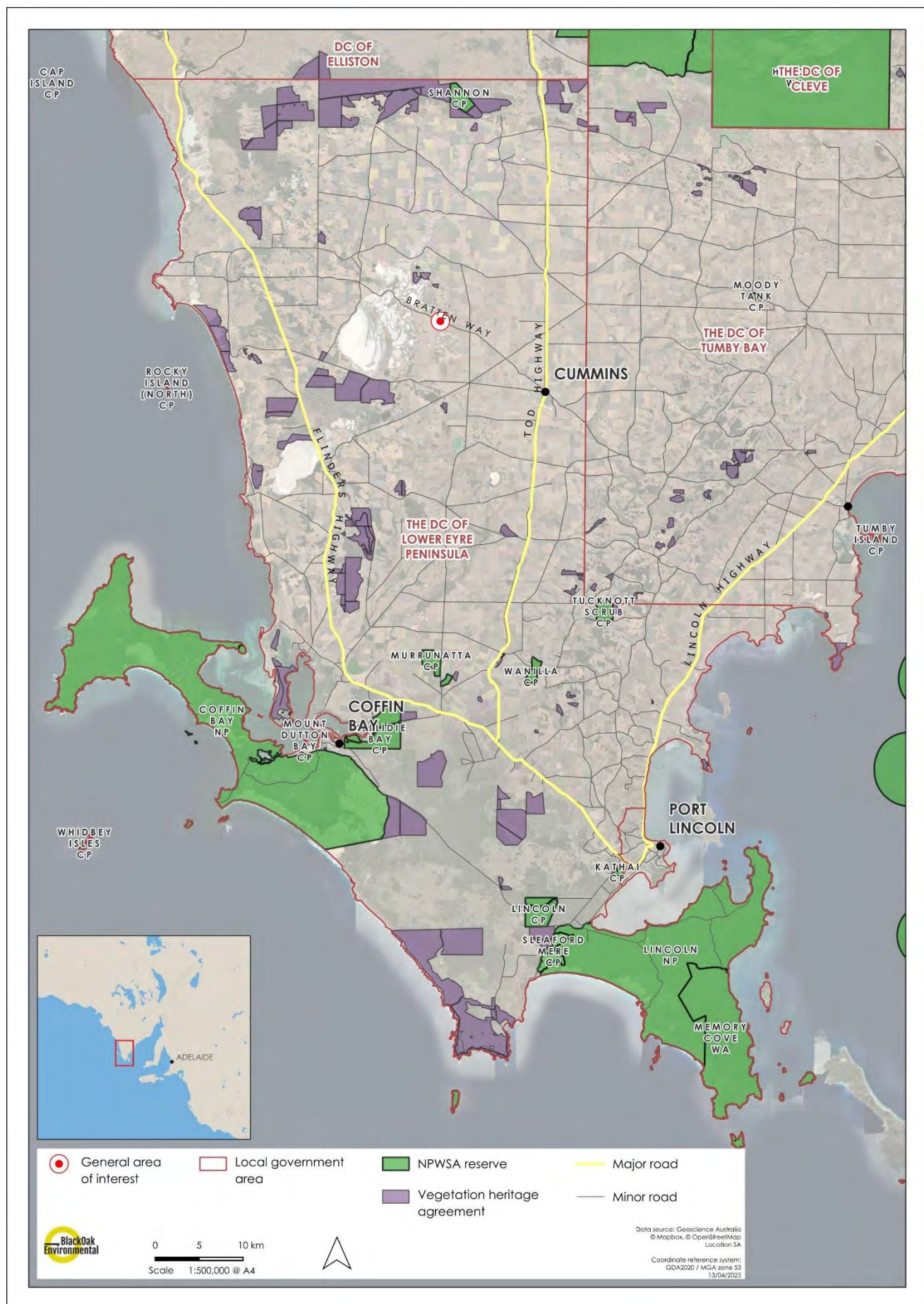


Figure 1. General location of the project area.

2.4 Details of the proposal

A total of 1.55 ha of vegetation will require permanent clearance for the upgrade to Bratten Way (Stage 7). This includes: 0.77 ha of **Scabiosa atropurpurea*, **Asphodelus fistulosus* Herbland +/- *Dampiera rosmarinifolia*, *Austrostipa* sp., *Lasiopetalum behrii* (Very poor condition) and 0.77 ha of *Eucalyptus diversifolia* ssp. *diversifolia*, *Eucalyptus odorata*, *Eucalyptus peninsularis*, *Eucalyptus incrassata* Mallee to Open Mallee over *Melaleuca uncinata*, *Templetonia retusa*, *Lasiopetalum behrii* and *Dampiera rosmarinifolia* (Very good condition). The total 1.55 ha of vegetation will attract a loss factor of '1' (Complete removal of vegetation under assessment).

The design plan overlaid on a series of aerial images is provided in Figure 1 to 9. The GIS shapefiles for the proposed project will be provided on submission of the Native Vegetation Clearance Proposal.

2.5 Approvals required or obtained

Native Vegetation Act 1991

Native vegetation in SA is protected under the NV Act and *Native Vegetation Regulations 2017*. Any proposed clearance of native vegetation in SA (unless exempt under the *Native Vegetation Regulations 2017*) is to be assessed against the NV Act Principles of Clearance and requires approval from the Native Vegetation Council (NVC). The NVC will assess the clearance against whether there are any other alternatives that involve no clearance, less clearance or clearance of vegetation that is less significant (or has been degraded to a greater extent than the vegetation proposed to be cleared).

Clearance can occur if development consent is granted under the *Planning, Development and Infrastructure Act 2016* and the provision of a Significant Environmental Benefit (SEB) (on-ground or payment) is approved by the NVC; and SEB: Required as per SEB approval (or payment into the Native Vegetation Fund). Clearance under the NV Act is the subject of this assessment and proposal. There have not been any past clearance applications or approvals for the subject land.

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protects Matters of National Environmental Significance (MNES) which includes Ramsar Wetlands, threatened species, threatened ecological communities (TEC) and migratory species. Any significant impacts on MNES require the approval of the Commonwealth Minister for the Environment. A Protected Matters Report (PMR) was generated on 14 April 2025 to identify MNES under the EPBC Act. The PMR is maintained by *Department of Climate Change, Energy, the Environment and Water* (DCCEEW) and was used to identify flora and or ecological communities of national environmental significance that may occur or have suitable habitat within the 5 km of the project area.

All MNES applicable to the project area have been considered in this assessment and proposal.

National Parks and Wildlife Act 1972

The *National Parks and Wildlife Act 1972* (NPW Act) provides for the establishment and management of reserves for public benefit and enjoyment; to provide for the conservation of wildlife in a natural environment; and for other purposes. Impacts to flora and fauna species listed under National Parks Schedules have been considered in this assessment and proposal.

The southern boundary of the NPWSA Shannon Conservation Park is located approximately 25 km north of the project area. The Shannon Conservation Park covers an area of 792 ha (Figure 1).

Planning, Development and Infrastructure Act 2016

The *Planning, Development Infrastructure Act 2016* (PDI Act) provides for planning and regulates development in the State, to regulate the use and management of land and buildings and the design and construction of buildings. Subject to this Act, no development may be undertaken unless the development is an approved development. A development is an approved development if, and only if, a relevant authority has assessed the development against, and granted consent in respect of the provisions of an appropriate Development Plan. The PDI Act establishes a new planning and development scheme to replace the previous scheme operating under the *Development Act 1993*.

2.6 Native Vegetation Regulation

It is considered that native vegetation clearance required for this project falls under the provisions of Division 5 of the *Native Vegetation Regulations 2017* which provide for the clearance of native vegetation under Part 6 - Other activities (regulation 12), Clause 32 - Works on behalf of Commissioner of Highways or Part 6 - Other activities (regulation 12), Clause 34 – Infrastructure.

2.7 Development Application information (if applicable)

The Project area is within the Native Vegetation (O4202) Overlay.

3. Method

3.1 Flora assessment

A desktop assessment was conducted to assess the potential for any threatened flora species (both Commonwealth and State listed) to occur within the Project area. This was achieved by undertaking database searches of a 5 km buffer of the Project area, as specified in the Bushland Assessment Method (BAM) manual (NVC 2020).

A Protected Matters Report (PMR) was generated on 14 April 2025 to identify MNES (Matters of National Environmental Significance) under the EPBC Act (DCCEEW 2019). The PMR is maintained by DCCEEW and was used to identify flora and or ecological communities of national environmental significance that may occur or have suitable habitat within the Project area.

Flora species listed under South Australia's NPW Act were assessed using the NatureMaps Supertable, obtained through the general query tool on NatureMaps. The dataset was obtained on 14 April 2025. Only records from and after the year 1995, with a spatial reliability <1 km were used as specified in the Bushland Assessment Method (BAM) manual (NVC 2020). Known records of threatened species listed under the EPBC Act were also identified within this search.

The flora survey was conducted 3-4 April 2025 by NVC accredited consultant Matt Launer. The flora assessment was performed in accordance with the BAM (NVC 2017). The Native Vegetation Council (NVC) BAM is suitable for assessing vegetation that is located within the agricultural region of South Australia. The BAM uses biodiversity 'surrogates' or 'indicators' to measure biodiversity value against benchmark communities. Each area to be assessed is termed an application area ('block'), within which different vegetation associations ('sites') are identified and compared to the Nature Conservation Society of South Australia's 'benchmark' vegetation communities.

The project area was traversed on foot. A representative 1 ha quadrat was surveyed for each vegetation and condition type within the Project area. Three components of the biodiversity value of the site were measured and scored. These are: vegetation condition, conservation value and landscape context. The three component scores were combined to provide the Unit Biodiversity Score (per ha) and then multiplied by the size (ha) of the site to provide a 'Total Biodiversity Score' for the site. This was used to calculate a Significant Environmental Benefit (SEB) area and value for payment in to the Native Vegetation Fund derived from the clearance of native vegetation (NVC 2017).

The survey also included targeted searches for species listed under the NPW Act 1972 and the EPBC Act 1999.

3.2 Fauna assessment

A desktop assessment was conducted to assess the potential for any threatened fauna species (both Commonwealth and State listed) to occur within the Project area. This was achieved by undertaking database searches of a 5 km buffer of the project area, as specified in the Bushland Assessment Method (BAM) manual (NVC 2017).

A PMR was generated on 14 April 2024 to identify MNES (Matters of National Environmental Significance) under the EPBC Act (DCCEEW 2019). The PMR is maintained by DCCEEW and was used to identify fauna species of national environmental significance that may occur or have suitable habitat within the project area.

Fauna species listed under South Australia's NPW Act were assessed using the NatureMaps Supertable, obtained through the general query tool on NatureMaps. The dataset was obtained on 14 April 2025 and was used to identify threatened species that have been recorded within the 5 km buffer of the Project area. Only records from and after the year 1995, with a spatial reliability <1 km were used as specified in the Bushland Assessment Method (BAM) manual (NVC 2020). Known records of threatened species listed under the EPBC Act were also identified within this search. The Project area was traversed on foot. All birds that could be positively identified by sight or call were recorded. All vertebrate fauna species, signs of species (scats, tracks etc.) and potential habitat for fauna was recorded. The value of habitat for the threatened fauna species identified in the desktop assessment was also determined when surveying the project area.

4. Assessment Outcomes

4.1 Vegetation Assessment

General description of the vegetation, the site and matters of significance

The Project area contains two vegetation associations, these were: *Eucalyptus diversifolia* ssp. *diversifolia*, *Eucalyptus odorata*, *Eucalyptus peninsularis*, *Eucalyptus incrassata* Mallee to Open Mallee over *Melaleuca uncinata*, *Templetonia retusa*, *Lasiopetalum behrii* and *Dampiera rosmarinifolia* and *Dampiera rosmarinifolia* and **Scabiosa atropurpurea*, **Asphodelus fistulosus* Herbland +/- *Dampiera rosmarinifolia*, *Austrostipa* sp., *Lasiopetalum behrii*. The project area is restricted to the Bratten Way embankment and road reserve. The project area contained sand over clay and calcareous loam and ironstone gravelly sandy loam soils.

The 2.10 km section that is proposed to be upgraded was originally constructed in 2004. Previous disturbance from the initial construction of Bratten Way in 2004 includes borrow pits and vehicle tracks.

A total of 71 flora species were recorded within the project area which included 55 native species and 16 introduced species (Appendix 3). Three of the weed species recorded, *Asparagus asparagoides* f. *asparagoides* (Bridal Creeper), *Pinus halepensis* (Aleppo Pine) and *Diplotaxis tenuifolia* (Lincoln Weed) are listed as declared species under the *Landscape South Australia Act 2019*.


There were no threatened ecological communities or conservation rated flora or fauna species recorded within the project area during the survey.

The current and historical use of the land adjoining the project area is dryland agriculture such as cropping (mainly wheat and barley).

The southern boundary of the NPWSA Shannon Conservation Park is located approximately 25 km north of the Project area. The Shannon Conservation Park covers an area of 792 ha (Figure 1). The Project area is situated within the Eyre Yorke Block IBRA bioregion of SA, the Eyre Hill subregion and the Cummins IBRA association. The Cummins IBRA association covers 37,086 ha, of which 1,374 ha or 4% contains vegetation. None of the vegetation within the Cummins IBRA association is protected (NatureMaps 2025).

The Project area occurs in the Hundred of Cummins, the Local Government Area of the Lower Eyre Council and the Eyre Peninsula Landscape Management Region.

Details of the vegetation associates/scattered trees proposed to be impacted

Vegetation Association	<i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i> , <i>Eucalyptus odorata</i> , <i>Eucalyptus peninsularis</i> , <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i> , <i>Templetonia retusa</i> , <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i>		
DIRECTION E (T)		53H 554636 6216990	ACCURACY 2 m DATUM GDA2020
			
3/4/2025			

DIRECTION
NW (T)

53H 554636
6216990

ACCURACY 2 m
DATUM GDA2020



3/4/2025

General description

A total of 65 flora species were recorded within the *Eucalyptus diversifolia* ssp. *diversifolia*, *Eucalyptus odorata*, *Eucalyptus peninsularis*, *Eucalyptus incrassata* Mallee to Open Mallee over *Melaleuca uncinata*, *Templetonia retusa*, *Lasiopetalum behrii* and *Dampiera rosmarinifolia* vegetation association which includes: 55 native species and 10 introduced species (Appendix 3). Two of the weed species recorded, *Asparagus asparagoides* f. *asparagoides* (Bridal Creeper) and *Pinus halepensis* (Aleppo Pine) are listed as declared species under the *Landscape South Australia Act 2019*.

The vegetation association occurs on an undulating plain within the Bratten Way Road Reserve. The vegetation association contained six mallee species: *Eucalyptus peninsularis* (Merri), *Eucalyptus odorata* (Peppermint Box), *Eucalyptus diversifolia* ssp. *diversifolia* (Coastal White Mallee), *E. incrassata* (Ridge-fruited Mallee), *E. gracilis* (Yorrell) and *E. petiolaris* (Eyre Peninsula Blue Gum) which recorded an average height of 3.5 m.

Tall shrub and tree species sparsely distributed within the vegetation association included: *Allocasuarina verticillata* (Drooping Sheoak), *Callitris gracilis* (Southern Cypress Pine) and *Melaleuca lanceolata* (Dryland Tea-tree).

Common midstorey species were: *Melaleuca uncinata* (Broombush), *Templetonia retusa* (Cockies Tongue), *Acacia microcarpa* (Manna Wattle), *Lasiopetalum baueri* (Slender Velvet-bush) and *Dodonaea hexandra* (Horned Hop-bush).

Dampiera rosmarinifolia (Rosemary Dampiera) formed large clumps within the understorey layer. Other common understorey species included: *Austrostipa elegantissima* (Feather Spear-grass), *Gahnia deusta* (Limestone Saw-sedge), *Rytidosperma* sp. (Wallaby-grass),

	<p><i>Lomandra collina</i> (Sand Mat-rush), <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (Ruby Saltbush) and <i>Rhagodia crassifolia</i> (Fleshy Saltbush).</p> <p>The area has been exposed to previous disturbance, likely to be from the construction of the existing road. There are some open patches that are more disturbed, with higher weed cover and lower native plant species richness.</p> <p>The vegetation was considered to be in very good condition (Vegetation condition score = 66.14).</p>				
Threatened species or community	<p>There were no threatened ecological communities or conservation rated fauna species recorded within the project area during the survey.</p> <p><i>Haloragis eyreana</i> (Prickly Raspswort) (EPBC Act: Endangered, NPW Act: Endangered) could possibly occur as suitable habitat exists. <i>Haloragis eyreana</i> was not recorded during the survey despite extensive searching. The Diamond Firetail (<i>Stagonopleura guttata</i>) (EPBC Act: Vulnerable, NPW Act: Vulnerable) could possibly occur as there is suitable habitat within sections of the BAM A1. There are several Diamond Firetail records within a 25 km radius of the project area (NatureMaps 2025).</p>				
Landscape context score	1.15	Vegetation Condition Score	66.14	Conservation significance score	1.08
Unit biodiversity Score	82.15	Area (ha)	0.78	Total biodiversity Score	64.08

Vegetation Association	*Scabiosa atropurpurea, *Asphodelus fistulosus Herbland +/- Dampiera rosmarinifolia, Austrostipa sp., Lasiopetalum behrii		
			
DIRECTION NW (T)		53H 555179 6216761	ACCURACY 3 m DATUM GDA2020
3/4/2025			



General description

A total of 17 flora species were recorded within the *Scabiosa atropurpurea* Herbland +/- *Dampiera rosmarinifolia*, *Austrostipa* sp., *Lasiopetalum behrii* vegetation association which includes: Four native species and 13 introduced species (Appendix 3). One of the weed species recorded, *Diplotaxis tenuifolia* (Lincoln Weed) is listed as a declared species under the *Landscape South Australia Act 2019*.

The vegetation association occurs on the embankment and road reserve of Bratten Way in a section between the road shoulder and the *Eucalyptus diversifolia* ssp. *diversifolia*, *Eucalyptus odorata*, *Eucalyptus peninsularis*, *Eucalyptus incrassata* Mallee to Open Mallee over *Melaleuca uncinata*, *Templetonia retusa*, *Lasiopetalum behrii* and *Dampiera rosmarinifolia* vegetation association. The area has been subject to previous clearance from the construction of the existing road in 2004 and ongoing disturbance from herbicide spraying and slashing.

Approximately 5% of the understorey biomass is native species. Common introduced species were: *Scabiosa atropurpurea* (Pincushion), *Dittrichia graveolens* (Stinkweed), *Salvia verbenaca* var. (Wild Sage), *Asphodelus fistulosus* (Onion Weed) and *Trifolium arvense* var. *arvense* (Hare's-foot Clover).

The distance into the road reserve from the road shoulder was the main factor for increased native species diversity. Low growing herbaceous and grassy species included: *Lasiopetalum baueri* (Slender Velvet-bush), *Enneapogon nigricans* (Black-head Grass), *Dampiera rosmarinifolia* (Rosemary Dampiera), *Austrostipa* sp. (Spear-grass) and *Rytidosperma* sp. (Wallaby-grass).

	The vegetation was considered to be in very poor condition (Vegetation condition score = 4.06).				
Threatened species or community	There were no threatened ecological communities or conservation rated flora or fauna species recorded within the <i>*Scabiosa atropurpurea</i> , <i>*Asphodelus fistulosus</i> Herbland +/- <i>Dampiera rosmarinifolia</i> , <i>Austrostipa sp.</i> , <i>Lasiopetalum behrii</i> Bushland Assessment Quadrat.				
Landscape context score	1.15	Vegetation Condition Score	4.06	Conservation significance score	1.00
Unit biodiversity Score	4.67	Area (ha)	0.78	Total biodiversity Score	3.64

Site map showing areas of proposed impact



Figure 1. Vegetation clearance footprint with project design (map 1 of 8).



Figure 3. Vegetation clearance footprint with project design (map 2 of 8).



Figure 4. Vegetation clearance footprint with project design (map 3 of 8).



Figure 5. Vegetation clearance footprint with project design (map 4 of 8).



Figure 6. Vegetation clearance footprint with project design (map 5 of 8).



Figure 7. Vegetation clearance footprint with project design (map 6 of 8).



Figure 8. Vegetation clearance footprint with project design (map 7 of 8).

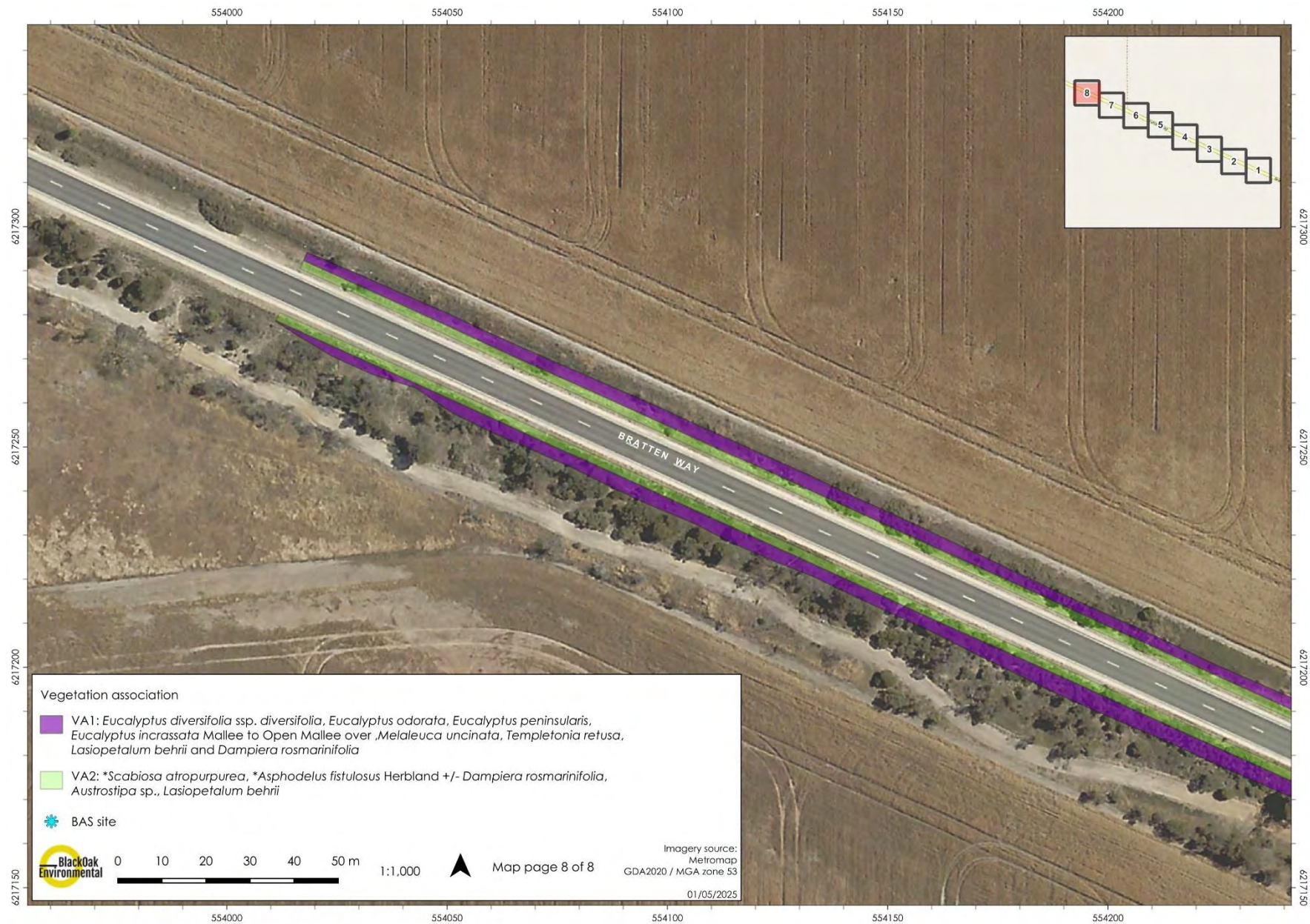


Figure 9. Vegetation clearance footprint with project design (map 8 of 8).

4.2 Threatened Species assessment

Threatened Ecological Communities

One threatened ecological community (TEC) was identified in the PMR as potentially occurring within 5 km of the Project area. This was the Eyre Peninsula Blue Gum (*Eucalyptus petiolaris*) Woodland (EPBC Act: Endangered). No TEC's were recorded within the project area during the field survey.

Provisional List of Threatened Ecosystems of SA

The two vegetation associations recorded within the project area are not listed under the Provisional List of Threatened Ecosystems of SA (NVC 2020). These are:

- *Eucalyptus diversifolia* ssp. *diversifolia*, *Eucalyptus odorata*, *Eucalyptus peninsularis*, *Eucalyptus incrassata* Mallee to Open Mallee over *Melaleuca uncinata*, *Templetonia retusa*, *Lasiopetalum behrii* and *Dampiera rosmarinifolia*.
- **Scabiosa atropurpurea*, **Asphodelus fistulosus* Herbland +/- *Dampiera rosmarinifolia*, *Austrostipa* sp., *Lasiopetalum behrii*.

Nationally threatened flora

Eleven nationally threatened flora species were identified in the PMR as potentially occurring within 5 km of the Project area. Three of these species were listed as 'Species or species habitat known to occur in the area'. These were: *Haloragis eyreana* (Prickly Raspwort) (EPBC Act: Endangered, NPW Act: Endangered), *Bossiaea peninsularis* (Sword Bossiaea) (EPBC Act: Endangered, NPW Act: Endangered) and *Angianthus phyllocalymmeus* (Silver Candles) (EPBC Act: Vulnerable, NPW Act: Vulnerable).

Haloragis eyreana and *Bossiaea peninsularis* were identified in the database search as being previously recorded within 5 km of the project area since 1995.

Acacia pinguifolia (Fat-leaved Wattle, Fat-leaf Wattle) (EPBC Act: Endangered, NPW Act: Endangered) was recorded during the field survey for Stage 6 (Figure 11). Three clusters containing a total of 90 shrubs were recorded. No threatened flora species listed under the EPBC Act were recorded during the current field survey.

State threatened flora

No threatened flora species listed under the NPW Act were identified in the NatureMaps database search as being previously recorded within 5 km of the project area since 1995. No threatened flora species listed under the NPW Act were recorded during the field survey.

Nationally threatened fauna

Fourteen fauna species protected under the EPBC Act were identified by the PMST as potentially occurring or having suitable habitat within 5 km of the Project area. This includes 13 bird species and one mammal species. Two of these species were listed as 'Species or species habitat known to occur in the area'. These were: Diamond Firetail (*Stagonopleura guttata*) (EPBC Act: Vulnerable, NPW Act: Vulnerable) and Sharp-tailed Sandpiper (*Calidris acuminata*) (EPBC Act: Vulnerable).

The Diamond Firetail was identified in the database search as being previously recorded within 5 km of the project area since 1995 (Figure 10). No threatened fauna species listed under EPBC Act were recorded during the field survey.

State threatened fauna

No threatened fauna species listed under the NPW Act were identified in the NatureMaps database search as being previously recorded within 5 km of the project area since 1995. No threatened fauna species were recorded during the field survey.

Species observed on site, or recorded within 5 km of the application area since 1995, or the vegetation is considered to provide suitable habitat

Species (common name)	NP&W Act	EPBC Act	Data source	Date of last record	Species known habitat preferences	Likelihood of use for habitat – Comments
Flora						
<i>Acacia pinguifolia</i> (Fat-leaved Wattle, Fat-leaf Wattle)	E	EN	Recorded during Stage 6	2024	The Fat-leaved Wattle is endemic to South Australia and has a widely separated distribution with disjunct populations located on Eyre Peninsula and Fleurieu Peninsula. It is an understorey shrub occurring in mallee, open woodland, open scrub, shrubland or heath. The species is more abundant in open and disturbed vegetation.	Unlikely: Three clusters containing a total of 90 shrubs were recorded during the 2024 survey for Stage 6. Not recorded during the 2025 survey despite extensive searching.
<i>Angianthus phyllocalymmeus</i> (Silver Candles)	V	VU	3, 5	2001	Occurs on Eyre Peninsula and Yorke Peninsula. Silver candles occur on sandy loams to clay loams or light clays. Sites are sometimes gypseous. The species occurs on the margins of coastal saline lakes and depressions, and low-lying stream channels and watercourses. On Eyre Peninsula the species predominantly occurs in shrubland and grassland.	Unlikely: No suitable habitat occurs within the project area.
<i>Bossiaea peninsularis</i> (Sword Bossiaea)	E	EN	3, 5	2008	The sword bossiaea is endemic to the Eyre Peninsula in South Australia. The sword Bossiaea occurs on sandy soils surrounding salt marshes and lakes near Lake Brimpton	Unlikely: No suitable habitat occurs within the project area. The project area is located approximately 1 km from salt marsh

					and Karkoo on Eyre Peninsula.	vegetation associated with Lake Malata.
<i>Haloragis eyreana</i> (Prickly Raspwort)	E	EN	3, 5	1997	The Prickly Raspwort is endemic to South Australia and is confined to the southern part of Eyre Peninsula. Occurs in low-lying areas on poorly drained clay loam soils that tend to be waterlogged in winter. Most collections have been made in disturbed open grassland, and the species has only occasionally been found in more intact habitat where it is associated with <i>Eucalyptus incrassata</i> (Ridge-fruited Mallee), <i>E. dumosa</i> (Dumosa Mallee) or <i>Melaleuca decussata</i> (Totem-poles).	Possible: Suitable habitat occurs within sections of the BAM A1. Not recorded during the survey despite extensive searching.
Birds						
<i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		VU	5	No records	Prefers the grassy edges of shallow inland freshwater wetlands. It is also found around swage farms, flooded fields, mudflats, mangroves, rocky shores and beaches. Its breeding habitat in Siberia is the peat-hummock and lichen tundra of the high Arctic.	Unlikely: No suitable habitat occurs within the project area.
<i>Stagonopleura guttata</i> (Diamond Firetail)	V	VU	3, 5	2010	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. Diamond firetails occur in	Possible: Suitable habitat occurs within sections of the project area. There are several records within a 25 km radius of the project area

					Eucalypt, acacia or casuarina woodlands, open forests and other lightly timbered habitats, including farmland and grassland with scattered trees. They prefer areas with relatively low tree density, few large logs, and little litter cover but high grass cover.	(NatureMaps 2025)
Source; 1- BDBSA, 2 - AoLA, 3 – NatureMaps, 4 – Observed/recorded in the field, 5 - Protected matters search tool, 6 – others NP&W Act; E= Endangered, V = Vulnerable, R= Rare EPBC Act; Ex = Extinct, CR = Critically endangered, EN = Endangered; VU = Vulnerable						

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

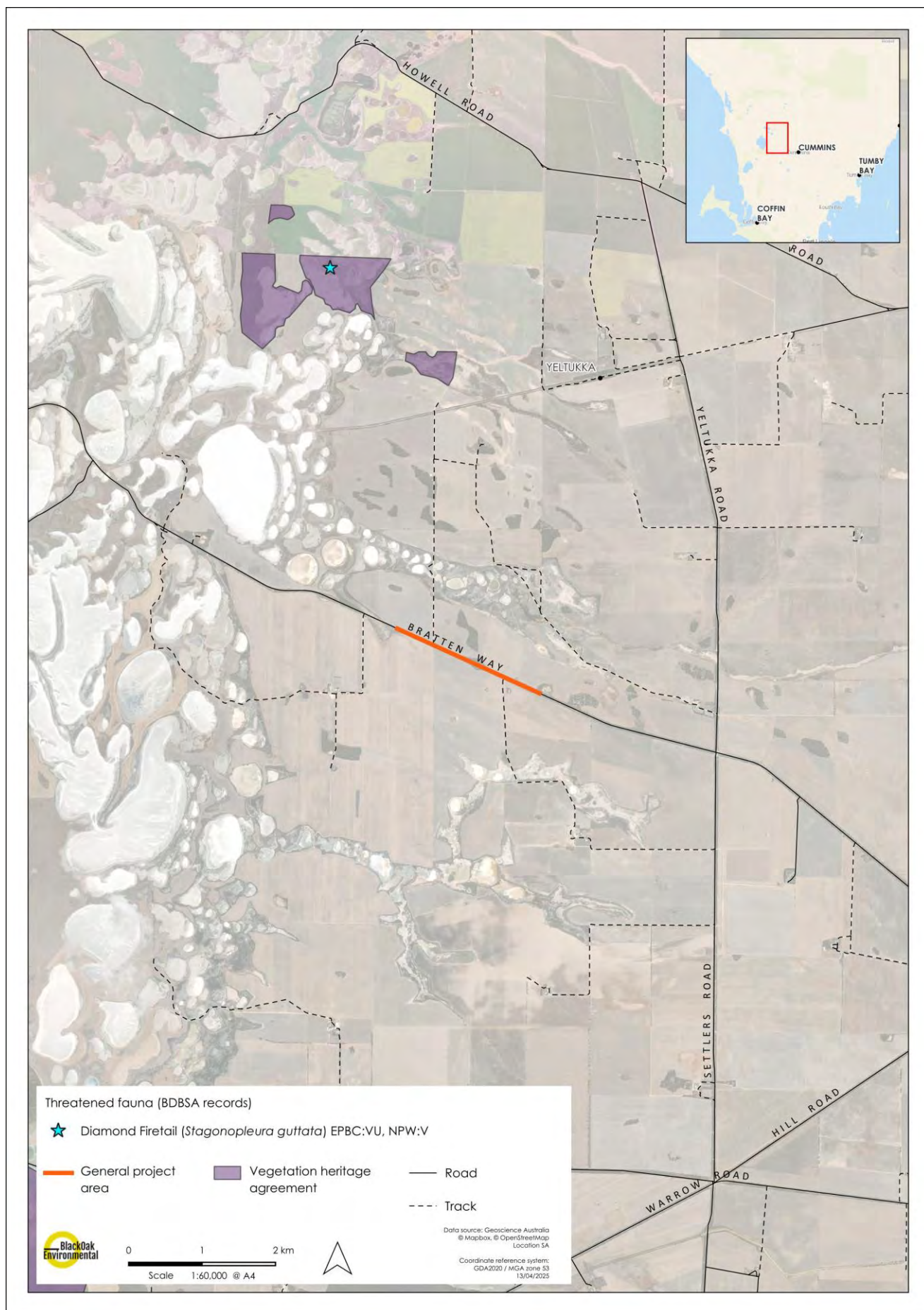


Figure 10. Threatened fauna species identified within 5 km of the project area since 1995 with a spatial reliability <1 km.

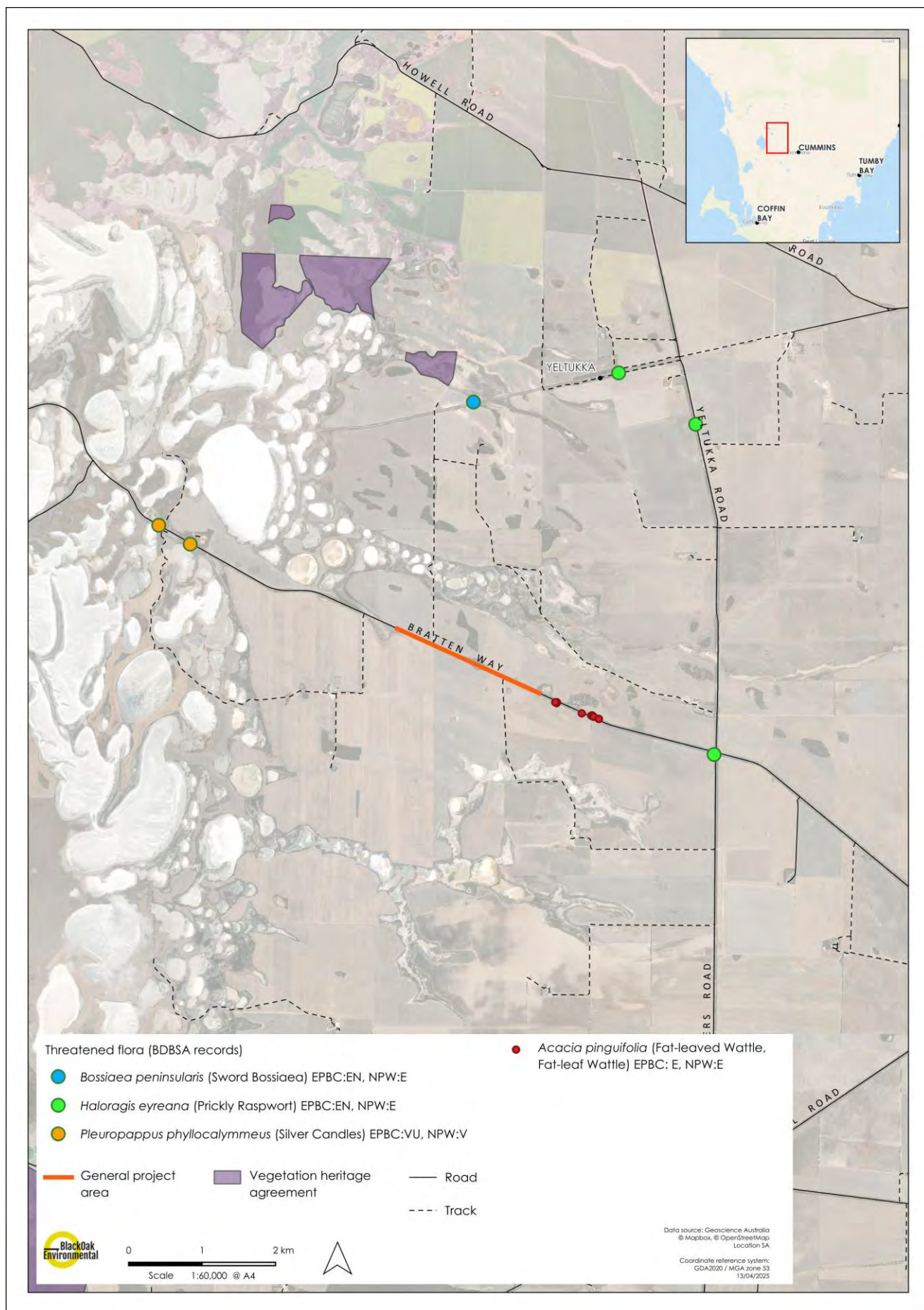


Figure 11. Threatened fauna species identified within 5 km of the project area since 1995 with a spatial reliability <1 km.

4.3 Cumulative impact

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

A total of 1.55 ha of vegetation will require permanent clearance for the upgrade to Bratten Way (Stage 7). Impacts that may occur as a result of the development have been identified and controls will be implemented in accordance with Lower Eyre Council procedures and guidelines.

The Lower Eyre Council will engage a contractor for the road upgrade works. The contractor will be required to work to an Integrated Management Plan (Project Integrated Management System- PIMS) which encompasses all aspects of Project Delivery, Safety, Quality and Environment systems. As a minimum, the following actions will be undertaken during construction to prevent direct and indirect impacts to vegetation:

- Placing and storing equipment, vehicles and machinery away from vegetated areas;
- Placing soil and rock stockpiles away from vegetated areas; and
- Suppressing dust to prevent indirect impacts.

All matters listed in the 'Guide for clearance applications' have been considered. Clearance may be further refined during the detailed design and engagement of the construction contractor.

4.4 Address the Mitigation Hierarchy

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

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

The Lower Eyre Council will engage a contractor for the road upgrade works. The contractor will be required to work to an Integrated Management Plan (Project Integrated Management System- PIMS) which encompasses all aspects of Project Delivery, Safety, Quality and Environment systems. As a minimum, the following actions will be undertaken during construction to prevent direct and indirect impacts to vegetation:

- Placing and storing equipment, vehicles and machinery away from vegetated areas;
- Placing soil and rock stockpiles away from vegetated areas;
- Clearly marking on ground or fencing (barrier mesh) areas (i.e. *Acacia pinguifolia* clusters) that are to be avoided at all times to prevent unintended impacts or accidental clearance; and
- Suppressing dust to prevent indirect impacts.

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

The project footprint utilises areas which have been previously cleared, or partially cleared of vegetation (where possible, i.e., engineering constraints). The Council is implementing the minimum batter grades of 4.0% instead of the preferred grade of 6.0% in order to avoid and minimise the amount of vegetation impacted by the project.

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

The clearance required for the Bratten Way road upgrade will be permanent and rehabilitation or restoration will not be possible.

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

The proponent is proposing to pay into the Native Vegetation Fund. The total payment required is \$55,499.68 which includes an SEB payment of \$52,606.33 and an administration fee of \$2,893.35.

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

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

Principle of clearance	Considerations																	
Principle 1a - it comprises a high level of diversity of plant species	<p><u>Relevant information</u></p> <p>Block A: (A1) <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i>, <i>Eucalyptus odorata</i>, <i>Eucalyptus peninsularis</i>, <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i>, <i>Templetonia retusa</i>, <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i></p> <p>A total of 65 flora species were recorded within the <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i>, <i>Eucalyptus odorata</i>, <i>Eucalyptus peninsularis</i>, <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i>, <i>Templetonia retusa</i>, <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i> vegetation association which includes: 55 native species and 10 introduced species (Appendix 3). Two of the weed species recorded, <i>Asparagus asparagoides</i> f. <i>asparagoides</i> (Bridal Creeper) and <i>Pinus halepensis</i> (Aleppo Pine) are listed as declared species under the <i>Landscape South Australia Act 2019</i>.</p> <p>Patches;</p> <p>Bushland Plant Diversity Score – A1 = 30.</p>																	
	<p><u>Assessment against the principles</u></p> <p><u>Seriously at Variance</u></p> <p>Block A: (A1) <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i>, <i>Eucalyptus odorata</i>, <i>Eucalyptus peninsularis</i>, <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i>, <i>Templetonia retusa</i>, <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i></p> <p><u>At Variance</u> –</p> <p><i>Not applicable</i>.</p>																	
	<p><u>Moderating factors that may be considered by the NVC</u></p> <p>Variance with the principles will be considered in accordance with the table below This information is derived from the Bushland assessment method and is an indication of the species diversity of a site relative to what would be expected in a site of good condition of the same vegetation community.</p> <table><tr><th>Native plant species diversity score</th><th>Remnant area</th></tr><tr><td><10</td><td>Not at variance</td></tr><tr><td>10 - 20</td><td>At variance</td></tr><tr><td>>20</td><td>Seriously at variance</td></tr></table> <p>Less than 0.25% of the native vegetation within a 5 km radius is to be impacted at site A1 (refer to the Table below). Principle 1a may be reduced from or ‘Seriously at variance’ to ‘At variance’.</p> <table><tr><th>Site name</th><th>Remnant vegetation within 5 km radius of the site (%)</th><th>Remnant vegetation within 5 km radius of the site (ha)</th><th>0.25% ha of remnant vegetation within 5 km radius of the site</th><th>Total vegetation clearance proposed per site (ha)</th></tr><tr><td>A1</td><td>14</td><td>1099.56</td><td>2.74</td><td>0.78</td></tr></table>	Native plant species diversity score	Remnant area	<10	Not at variance	10 - 20	At variance	>20	Seriously at variance	Site name	Remnant vegetation within 5 km radius of the site (%)	Remnant vegetation within 5 km radius of the site (ha)	0.25% ha of remnant vegetation within 5 km radius of the site	Total vegetation clearance proposed per site (ha)	A1	14	1099.56	2.74
Native plant species diversity score	Remnant area																	
<10	Not at variance																	
10 - 20	At variance																	
>20	Seriously at variance																	
Site name	Remnant vegetation within 5 km radius of the site (%)	Remnant vegetation within 5 km radius of the site (ha)	0.25% ha of remnant vegetation within 5 km radius of the site	Total vegetation clearance proposed per site (ha)														
A1	14	1099.56	2.74	0.78														

	Vegetation remnancy data: NatureMaps 2025.
Principle 1b - significance as a habitat for wildlife	<p><u>Relevant information</u> <u>Nationally threatened fauna</u></p> <p>Fourteen fauna species protected under the EPBC Act were identified by the PMST as potentially occurring or having suitable habitat within 5 km of the project area. This includes 13 bird species and one mammal species. Two of these species were listed as 'Species or species habitat known to occur in the area'. These were: Diamond Firetail (<i>Stagonopleura guttata</i>) (EPBC Act: Vulnerable, NPW Act: Vulnerable) and Sharp-tailed Sandpiper (<i>Calidris acuminata</i>) (EPBC Act: Vulnerable).</p> <p>The Diamond Firetail was identified in the database search as being previously recorded within 5 km of the project area since 1995. The Diamond Firetail could possibly occur as there is suitable habitat within sections of the BAM A1. There are several Diamond Firetail records within a 25 km radius of the project area (NatureMaps 2025).</p> <p>No threatened fauna species listed under the NPW Act were identified in the NatureMaps database search as being previously recorded within 5 km of the project area since 1995. No threatened fauna species were recorded during the field survey</p> <p>Eight bird species, three mammal species and two reptile species were detected within the project area during the survey (Refer to table below). Two of the mammal species are introduced, these were: Rabbit (European Rabbit) (<i>Oryctolagus cuniculus</i>) and Fox (Red Fox) (<i>Vulpes vulpes</i>).</p> <p>None of the fauna species recorded are listed as threatened under the EPBC Act or NPW Act.</p> <p>Patches; Threatened Fauna Score - <u>Block A: (A1)</u> = 0.08. Unit biodiversity Score - <u>Block A: (A1)</u> = 82.15.</p> <p><u>Assessment against the principles</u> <u>Seriously at Variance</u> <u>Block A: (A1)</u> <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i>, <i>Eucalyptus odorata</i>, <i>Eucalyptus peninsularis</i>, <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i>, <i>Templetonia retusa</i>, <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i>.</p> <p><u>At Variance</u> – <u>Not Applicable.</u></p> <p><u>Moderating factors that may be considered by the NVC</u> <u>Impact Significance</u></p> <p>The following criteria are used to determine whether an action will have a significant impact on listed threatened fauna species and therefore clearance will be raised to 'Seriously at variance'. A clearance action will have or is likely to have a significant impact on a threatened species if it may:</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>If the NVC are of the opinion that the clearance will not have a significant impact on fauna habitat, the clearance may be reduced to 'At variance'.</p> <p><u>Significant benefit</u></p>

	<p>If the SEB provides a benefit to the threatened species that is well over and above what is required in the SEB Policy and Guide, it may be reduced to 'At variance'.</p> <p><u>Common species</u> If the vegetation provides habitat for native species that are relatively common, and the area of clearance is not considered essential habitat to maintain the local population, it may be reduced to 'At variance'.</p> <p><u>Non-essential habitat</u> If the clearance is of non-essential habitat for threatened species and the clearance will have a negligible impact on that species local population over the long term (i.e., next 20 to 50 years), it may be reduced to 'At variance'.</p> <p>The proposed clearance of vegetation within Block A: (1A) is unlikely to have a significant impact on any EPBC Act or NPW Act listed threatened fauna species. This is based on the results of the desktop assessment and field survey. Principle 1b may be reduced from 'Seriously at variance' to 'At variance' if the NVC are of the opinion that the clearance will not have a significant impact on fauna habitat.</p>
Principle 1c - plants of a rare, vulnerable or endangered species	<p><u>Relevant information</u> Not applicable.</p>
	<p><u>Assessment against the principles</u> <u>Seriously at Variance</u> Not applicable.</p> <p><u>At Variance</u> – Not applicable.</p>
	<p><u>Moderating factors that may be considered by the NVC</u> Not applicable.</p>
Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered:	<p><u>Relevant information</u> Not applicable.</p>
	<p><u>Assessment against the principles</u> <u>Seriously at Variance</u> Not applicable.</p>
	<p><u>Moderating factors that may be considered by the NVC</u> Not applicable.</p>
Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.	<p><u>Relevant information</u> The Project area is situated within the Eyre Yorke Block IBRA bioregion of SA, the Eyre Hill subregion and the Cummins IBRA association. The Cummins IBRA association covers 37,086 ha, of which 1,374 ha or 4% contains vegetation. None of the vegetation within the Cummins IBRA association is protected (NatureMaps 2025). Total Biodiversity Score – 67.68.</p>
	<p><u>Assessment against the principles</u> <u>Seriously at Variance</u></p>

	<p><u>Block A: (A1) <i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i>, <i>Eucalyptus odorata</i>, <i>Eucalyptus peninsularis</i>, <i>Eucalyptus incrassata</i> Mallee to Open Mallee over <i>Melaleuca uncinata</i>, <i>Templetonia retusa</i>, <i>Lasiopetalum behrii</i> and <i>Dampiera rosmarinifolia</i>.</u></p> <p><u>Block A: (A2) *<i>Scabiosa atropurpurea</i> Herbland +/- <i>Dampiera rosmarinifolia</i>, <i>Austrostipa</i> sp., <i>Lasiopetalum behrii</i></u></p> <p><u>At Variance</u> <i>Not applicable.</i></p>									
	<p><u>Moderating factors that may be considered by the NVC</u> When considering this principle, remnancy is considered at two levels as listed in the Table below.</p> <table><tr><td></td><td>Hierarchy Level</td><td>Appropriateness</td></tr><tr><td>1</td><td>IBRA Association</td><td>Local</td></tr><tr><td>2</td><td>IBRA Sub-region</td><td>Sub-regional</td></tr></table> <p>The following criteria are used to determine whether a clearance proposal will have a significant impact on a remnant in a highly landscape and therefore clearance will be raised to ‘Seriously at variance’ with this principle. An action has, will have, or is likely to have a significant impact on a remnant in a highly cleared landscape if it does, will, or is likely to:</p> <ul style="list-style-type: none">• Impact on a tree species or vegetation community that has been selectively removed within the IBRA Association or IBRA Subregion and are therefore underrepresented in the vegetation that remains.• Impact on a remnant in relatively good condition, particularly if the vegetation within the IBRA Association or IBRA Subregion where vegetation has largely been degraded. <p><i>Quality of remnant</i></p> <p>If the vegetation is in poor to very poor condition, is continuing to degrade and its long term (next 20 to 50 years) persistence is unlikely, then it may be reduced to ‘At variance’.</p> <p>Neither of the two vegetation associations requiring clearance are listed as Threatened Ecological Communities under the EBPC Act, or under the Provisional List of Threatened Ecosystems of SA.</p>		Hierarchy Level	Appropriateness	1	IBRA Association	Local	2	IBRA Sub-region	Sub-regional
	Hierarchy Level	Appropriateness								
1	IBRA Association	Local								
2	IBRA Sub-region	Sub-regional								
Principle 1f - it is growing in, or in association with, a wetland environment.	<p><u>Relevant information</u> <i>Not applicable.</i></p> <p><u>Assessment against the principles</u> <u>Seriously at Variance</u> <i>Not applicable.</i></p> <p><u>At Variance –</u> <i>Not applicable.</i></p> <p><u>Moderating factors that may be considered by the NVC</u></p>									
Principle 1g - it contributes significantly to the amenity of the area in which it is	<p><u>Relevant information</u> <i>Not applicable.</i></p> <p>N/A</p> <p><u>Moderating factors that may be considered by the NVC</u> <i>Not applicable.</i></p>									

growing or is situated.	
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4.6 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	N/A
	Area (ha)	1.55
	Total biodiversity Score	67.68
Seriously at variance with principle 1(b), 1(c) or 1 (d)		<p>A1 is seriously at variance with <u>principle 1(a), 1(b) and 1(e).</u></p> <p>A2 is seriously at variance with <u>principle 1(e).</u></p>
Risk assessment outcome		Level 4.

5. Clearance summary

Clearance Area(s) Summary table

Block	Site	Native species diversity score	Threatened Ecological community Score	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
A	A1	30	1	0	0.08	82.15	0.78	64.08	1.0			70.49	\$49,808.20	\$2,739.45
A	A2	4	1	0	0	4.67	0.77	3.60	1.0			3.96	\$2,798.13	\$153.90
						Total	1.55	67.68				74.45	\$52,606.33	\$2,893.35

Totals summary table

IBRA Association percent vegetation remnancy (%)	4.0
IBRA Subregion percent vegetation remnancy (%)	29.0
Is the vegetation associated with a Wetland	No
Economies of Scale Factor	0.50
Rainfall Factor (mm)	428
SEB Points of Gain/ha Factor	7.5

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	67.68	74.45	\$52,606.33	\$2,893.35	\$55,499.68

6. Significant Environmental Benefit

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

ACHIEVING A SEB

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

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

PAYMENT SEB

The SEB Policy states that if a SEB is required as a result of an approved activity undertaken under the Regulations, the applicant has a choice of either providing an on-ground SEB or a Payment SEB. However, if a proposed clearance will have an offset obligation of greater than 150 SEB Points Required, the NVC will first request that a reasonable attempt be made to identify an on-ground SEB before a payment will be accepted.

The proponent is proposing to pay into the Native Vegetation Fund. The total payment required is **\$55,499.68** which includes an SEB payment of **\$52,606.33** and an administration fee of **\$2,893.35**.

7. Appendices

Appendix 1. Fauna Species List.

Fauna assessment

Eight bird species, three mammal species and two reptile species were detected within the project area during the survey (Refer to table below). Two of the mammal species are introduced, these were: Rabbit (European Rabbit) (*Oryctolagus cuniculus*) and Fox (Red Fox) (*Vulpes vulpes*).

None of the fauna species recorded are listed as threatened under the EPBC Act or NPW Act.

Family name	Scientific name	Common name
AVES	<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater
AVES	<i>Barnardius zonarius</i>	Australian Ringneck
AVES	<i>Corvus bennetti</i>	Little Crow
AVES	<i>Cracticus torquatus leucopterus</i>	Grey Butcherbird
AVES	<i>Eolophus roseicapilla</i>	Galah
AVES	<i>Falco cenchroides cenchroides</i>	Nankeen Kestrel
AVES	<i>Malurus leucopterus leuconotus</i>	White-winged Fairywren
AVES	<i>Ocyphaps lophotes lophotes</i>	Crested Pigeon
MAMMALIA	<i>Macropus fuliginosus</i>	Western Grey Kangaroo
MAMMALIA	* <i>Oryctolagus cuniculus</i>	Rabbit (European Rabbit)
MAMMALIA	* <i>Vulpes vulpes</i>	Fox (Red Fox)
REPTILIA	<i>Cryptoblepharus sp.</i>	
REPTILIA	<i>Tiliqua rugosa</i>	Sleepy Lizard

* = Introduced species.


Appendix 2. Bushland Scoresheets associated with the proposed clearance.

Bushland Assessment Scoresheet A1.

Bushland Assessment Scoresheet		(SEB Policy 1 Sept 2024; Scoresheet updated 17 Dec 2024)	
Block	A	ASSESSOR(S) (Insert Full Name/s)	Matt Launer
Size of Block (Ha)	10.9	DATE OF ASSESSMENT	3/04/2025
Landscapes Region	Eyre Peninsula		
BCM Region	Eyre Peninsula		
IBRA Association	Cummins		
IBRA Subregion	Eyre Hills		
Map of the Block (Including the Sites)			
Insert Map			
Landscape Context Scores		% native veg. remaining in IBRA Assoc.	4
		% native veg. remaining in IBRA subregion	29
		0 - 10% = 0.05 pts; >10-20% = 0.04 pts; >20-30% = 0.03 pts;	
		>30-60% = 0.02 pts; > 60 = 0 pts	Score 0.08
		Score received for both IBRA assoc. and subregion then summed	
Percent Vegetation Cover (5km radius) (%)	14	% native veg. protected IBRA Assoc.	0
0-5% = 0 pts; >5-10% = 0.02 pts; >10-25% = 0.04 pts;		0-10% = 0.03 pts; >10-20% = 0.02 pts; >20-40% = 0.01 pt;	
>25-50% = 0.06 pts; >50-75% = 0.03 pt; >75-100% = 0 pts		>40% = 0	Score 0.03
Score	0.04		
Block Shape Cleared perimeter:Area (km/km2)		Wetland or Riparian Habitat present	
Cleared Perimeter (m) =	4016	Riparian zone present (Yes/No) = 0.02 pt	No
Cleared Perimeter to area ratio	36.84	Swamp/wetland present (Yes/No) = 0.03 pts	No
<6 = 0.03 pts; 6 to <12 = 0.02 pts; 12 to <18 = 0.01 pt		(Swamp/wetland may be +/- riparian zone)	
Score	0	Score	0
Note; Blocks will score a minimum Landscape Context Score of 1		LANDSCAPE CONTEXT SCORE (max 1.25)	1.15

Plant Species Recorded (Native and Introduced)		Listed Species			Natives only	
Species	Common Name	EPBC	SA	Not in quadrat	Regen	Annual Herbs Spring survey
<i>Allocasuarina verticillata</i>	Drooping Sheoak					
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Ruby Saltbush				Yes	
<i>Senecio pterophorus</i>	African Daisy					
<i>Callitris gracilis</i>	Southern Cypress Pine				Yes	
<i>Gahnia deusta</i>	Limestone Saw-sedge					
<i>Lepidosperma carphoides</i>	Black Rapier-sedge					
<i>Lepidosperma viscidum</i>	Sticky Sword-sedge					
<i>Dampiera rosmarinifolia</i>	Rosemary Dampiera				Yes	
<i>Avena barbata</i>	Bearded Oat					
<i>Austrostipa elegantissima</i>	Feather Spear-grass					
<i>Austrostipa</i> sp.	Spear-grass					
<i>Enneapogon nigricans</i>	Black-head Grass					
<i>Rytidosperma</i> sp.	Wallaby-grass					
<i>Salvia verbenaca</i> var.	Wild Sage					
<i>Acacia calamifolia</i>	Wallowa					
<i>Acacia microcarpa</i>	Manna Wattle				Yes	
<i>Acacia myrtifolia</i>	Myrtle Wattle				Yes	
<i>Acacia pycnantha</i>	Golden Wattle					
<i>Acacia spinescens</i>	Spiny Wattle					
<i>Acacia longifolia</i> ssp. <i>longifolia</i>	Sallow Wattle					
<i>Piptatherum miliaceum</i>	Rice Millet					
<i>Trifolium arvense</i> var. <i>arvense</i>	Hare's-foot Clover					
<i>Eremophila behriana</i>	Rough Emubush					
<i>Eucalyptus odorata</i>	Peppermint Box					
<i>Daviesia asperula</i> ssp.	Bitter-pea					
<i>Templetonia retusa</i>	Cockies Tongue				Yes	
<i>Asparagus asparagoides</i> f.	Bridal Creeper					
<i>Dianella revoluta</i> var.						
<i>Lomandra collina</i>	Sand Mat-rush					
<i>Calytrix involucreata</i>	Cup Fringe-myrtle				Yes	
<i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i>	Coastal White Mallee				Yes	
<i>Eucalyptus gracilis</i>	Yorrell					
<i>Eucalyptus incrassata</i>	Ridge-fruited Mallee					
<i>Eucalyptus peninsularis</i>	Merrit				Yes	
<i>Eucalyptus petiolaris</i>	Eyre Peninsula Blue Gum					
<i>Melaleuca lanceolata</i>	Dryland Tea-tree					
<i>Melaleuca decussata</i>	Totem-poles				Yes	
<i>Melaleuca uncinata</i>	Broombush				Yes	
<i>Pinus halepensis</i>	Aleppo Pine					
<i>Pittosporum angustifolium</i>	Native Apricot				Yes	
<i>Adenanthos terminalis</i>	Yellow Gland-flower					
<i>Grevillea ilicifolia</i> ssp. <i>ilicifolia</i>	Holly-leaf Grevillea					
<i>Hakea cycloptera</i>	Elm-seed Hakea					
<i>Clematis microphylla</i>	Old Man's Beard					
<i>Correa backhouseana</i> var. <i>coriacea</i>	Thick-leaf Correa				Yes	
<i>Exocarpos sparteus</i>	Slender Cherry					
<i>Dodonaea hexandra</i>	Horned Hop-bush					
<i>Lasiopetalum baueri</i>	Slender Velvet-bush				Yes	
<i>Pimelea flava</i> ssp. <i>dichotoma</i>	Diosma Riceflower					
<i>Callistemon rugulosus</i>	Scarlet Bottlebrush					
<i>Rhagodia crassifolia</i>	Fleshy Saltbush					
<i>Gahnia filum</i>	Thatching Grass					
<i>Cassytha</i> sp.	Dodder-laurel					
<i>Threlkeldia diffusa</i>	Coast Bonefruit					
<i>Eutaxia microphylla</i>	Common Eutaxia					

Vegetation Condition Scores				
SITE:		A1		
BCM COMMUNITY		EP 8.1 Mallee & Low Woodlands with Open Sclerophyll Shrub & Chenopod Understorey		
VEGETATION ASSOCIATION DESCRIPTION		<i>Eucalyptus diversifolia</i> ssp. <i>diversifolia</i> , <i>Eucalyptus odorata</i> , <i>Eucalyptus</i>		
SIZE OF SITE (Ha)		0.78		
Benchmarked attributes (Scores determined by comparing to a Benchmark community)				
Number of Native Species (Minus herbaceous annuals for spring Surveys)		55		
Native Plant Species Diversity Score (max 30) from benchmark score weighted by a factor of 2		30.0		
Number of regenerating native species		15		
Regeneration Score (max 12) from benchmark community weighted by a factor of 1.5		12		
Weed species (Top 5 Cover x Invasiveness)		Cover (max 6)	Weed Threat Rating (max 5)	C x I
<i>Senecio pterophorus</i>		1	3	3
<i>Acacia longifolia</i> ssp. <i>longifolia</i>		2	3	6
<i>Pinus halepensis</i>		1	3	3
<i>Sisylx atropurpurea</i>		2	2	4
<i>Avena barbata</i>		1	2	2
		Cover x Threat		18
Weed Score (max 15) from benchmark community				7
Native Plant Life Forms (max 20) from benchmark score weighted by a factor of 2				20.0
Non-Benchmarked Attributes (Scores determined from direct field observations)		Is the community naturally treeless?		<input type="checkbox"/>
Native:exotic Understorey biomass Score (max 5)		5		
		Fallen Timber/Debris (max 5)		3
		Hollow-bearing trees Score (max 5)		1
		Mature Tree Score (max 8)		8
		Tree Canopy Cover Score (max 5)		4
Vegetation Condition Score calculation				
Positive Vegetation Attributes Score = Native species diversity + Regeneration + Native Plant Life Forms Fallen timber/debris + Hollow-bearing trees				
- If the community Score is Not Benchmarked (SNB) for regeneration this score is multiplied 1.24				
- If the community is naturally treeless this score is multiplied by 1.29				
				74.00
Negative Vegetation Attributes Score = (15 - Weeds) + ((10 - Biomass score - Tree Canopy Cover Score)exp2/2)				8.50
VEGETATION CONDITION SCORE (Positive veg attributes x ((80 - Negative vegetation attributes) / 80))				66.14
<div> <div>LowMediumHigh</div> <div> Native Plant Species Diversity Weed Score Native Plant Life Forms Regeneration Native:exotic Understorey Biomass Mature Trees Tree Canopy Cover Tree Hollows Fallen timber Vegetation Condition Score </div> </div>				


Conservation Significance Score									
Is the vegetation association considered a Threatened Ecological community or Ecosystem?	Yes/No								
State (Provisional List of Threatened Ecosystems of SA) Rare community (0.1 pt)	<input type="checkbox"/>								
State (Provisional List of Threatened Ecosystems of SA) Vulnerable community (0.2 pts)	<input type="checkbox"/>								
State (Provisional List of Threatened Ecosystems of SA) Endangered community (0.3 pts)	<input type="checkbox"/>								
Nationally (EPBC Act) Vulnerable community (0.35 pts)	<input type="checkbox"/>								
Nationally (EPBC Act) Endangered or Critically Endangered community (0.4 pts)	<input type="checkbox"/>								
Note: all sites will score a minimum Conservation Significance Score of 1									
Threatened Community Score	1								
Number of Threatened Flora Species recorded for the site (within the site)	Number								
<i>*If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.</i>									
State Rare species recorded (1 pt each)	0								
State Vulnerable species recorded (2.5 pt each)	0								
State Endangered recorded (5 pts each)	0								
Nationally Vulnerable species recorded (10 pts each)	0								
Nationally Endangered or Critically endangered species recorded (20 pts each)	0								
0 = 0 pts; <2 = 0.04 pts; 2 - <5 = 0.08 pts; 5 - <10 = 0.12 pts; 10 - <20 = 0.16 pts; 20 or > = 0.2 pts	0								
Threatened Flora Score	0								
Potential habitat for Threatened Fauna Species (number observed or previously recorded)	Number								
<i>*If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.</i>									
State Rare species observed or locally recorded (1 pt each)	0								
State Vulnerable species observed or locally recorded (2.5 pt each)	0								
State Endangered species observed or locally recorded (5 pt each)	0								
Nationally Vulnerable species observed or locally recorded (10 pts each)	1								
Nationally Endangered or Critically endangered species observed or locally recorded (20 pts each)	0								
0 = 0 pts; <2 = 0.02 pts; 2 - <5 = 0.04 pts; 5 - <10 = 0.06 pts; 10 - <20 = 0.08pts; 20 or > = 0.1 pts	10								
Threatened Fauna Score	0.08								
CONSERVATION SIGNIFICANCE SCORE	1.08								
<div> <div> Total Scores for the Site <table border="1"> <thead> <tr> <th></th> <th>Score</th> </tr> </thead> <tbody> <tr> <td>LANDSCAPE CONTEXT SCORE</td> <td>1.15</td> </tr> <tr> <td>VEGETATION CONDITION SCORE</td> <td>66.14</td> </tr> <tr> <td>CONSERVATION SIGNIFICANCE SCORE</td> <td>1.08</td> </tr> </tbody> </table> </div> <div> Vegetation Condition x Landscape Context x Conservation Significance = UNIT BIODIVERSITY SCORE 82.15 Total Biodiversity Score (Biodiversity Score x hectares) 64.08 </div> </div>			Score	LANDSCAPE CONTEXT SCORE	1.15	VEGETATION CONDITION SCORE	66.14	CONSERVATION SIGNIFICANCE SCORE	1.08
	Score								
LANDSCAPE CONTEXT SCORE	1.15								
VEGETATION CONDITION SCORE	66.14								
CONSERVATION SIGNIFICANCE SCORE	1.08								
<div> <div> Photo Point and Vegetation Survey Location <table border="1"> <tbody> <tr> <td>DIRECTION NW (T)</td> <td>53H 554636 6216990</td> <td>ACCURACY 2 m DATUM GDA2020</td> </tr> </tbody> </table> </div> <div>  </div> </div>		DIRECTION NW (T)	53H 554636 6216990	ACCURACY 2 m DATUM GDA2020					
DIRECTION NW (T)	53H 554636 6216990	ACCURACY 2 m DATUM GDA2020							
<div> <div> Direction of the Photo North-west GPS Reference <table border="1"> <tbody> <tr> <td>Datum</td> <td>GDA20</td> </tr> <tr> <td>Zone (52, 53 or 54)</td> <td>53</td> </tr> <tr> <td>Easting (6 digits)</td> <td>554636</td> </tr> <tr> <td>Northing (7 digits)</td> <td>6216990</td> </tr> </tbody> </table> </div> <div> Description </div> </div>		Datum	GDA20	Zone (52, 53 or 54)	53	Easting (6 digits)	554636	Northing (7 digits)	6216990
Datum	GDA20								
Zone (52, 53 or 54)	53								
Easting (6 digits)	554636								
Northing (7 digits)	6216990								

Bushland Assessment Scoresheet				(SEB Policy 1 Sept 2024; Scoresheet updated 17 Dec 2024)	
Block	A			ASSESSOR(S)	Matt Launer
Size of Block (Ha)	10.9			(Insert Full Name/s)	
Landscapes Region	Eyre Peninsula			DATE OF ASSESSMENT	3/04/2025
BCM Region	Eyre Peninsula				
IBRA Association	Cummins				
IBRA Subregion	Eyre Hills				
Map of the Block (Including the Sites)					
<div>Insert Map</div>					
Landscape Context Scores				% native veg. remaining in IBRA Assoc.	
				4	
				% native veg. remaining in IBRA subregion	
				29	
				0 - 10% = 0.05 pts; >10-20% = 0.04 pts; >20-30% = 0.03 pts;	
				>30-60% = 0.02 pts; > 60 = 0 pts	
				Score	0.08
				Score received for both IBRA assoc. and subregion then summed	
Percent Vegetation Cover (5km radius) (%)				14	
0-5% = 0 pts; >5-10% = 0.02 pts; >10-25% = 0.04 pts;					
>25-50% = 0.06 pts; >50-75% = 0.03 pt; >75-100% = 0 pts					
Score				0.04	
				% native veg. protected IBRA Assoc.	
				0	
				0-10% = 0.03 pts; >10-20% = 0.02 pts; >20-40% = 0.01 pt;	
				>40% = 0	
				Score	0.03
Block Shape Cleared perimeter:Area (km/km2)				Wetland or Riparian Habitat present	
Cleared Perimeter (m) =				Riparian zone present (Yes/No) = 0.02 pt	
4016				No	
Cleared Perimeter to area ratio				Swamp/wetland present (Yes/No) = 0.03 pts	
36.84				No	
<6 = 0.03 pts; 6 to <12 = 0.02 pts; 12 to <18 = 0.01 pt				(Swamp/wetland may be +/- riparian zone)	
Score				0	
Note; Blocks will score a minimum Landscape Context Score of 1				LANDSCAPE CONTEXT SCORE (max 1.25)	
				1.15	

[illegible]

[illegible]

Vegetation Condition Scores				
SITE:		A2		
BCM COMMUNITY		EP 8.1 Mallee & Low Woodlands with Open Sclerophyll Shrub & Chenopod Understorey		
VEGETATION ASSOCIATION DESCRIPTION		*Scabiosa atropurpurea, *Asphodelus fistulosus Herbland +/- Dampiera		
SIZE OF SITE (Ha)		0.78		
Benchmarked attributes (Scores determined by comparing to a Benchmark community)				Native Plant Life Forms Cover rating
Number of Native Species (Minus herbaceous annuals for spring Surveys)		4		Trees > 15m
Native Plant Species Diversity Score (max 30) from benchmark score weighted by a factor of 2		4.0		Trees 5 - 15 m
				Trees < 5m
				Mallee > 5m
				Mallee < 5m
Number of regenerating native species		1		Shrubs > 2m
Regeneration Score (max 12) from benchmark community weighted by a factor of 1.5		3		Shrubs 0.5 - 2m
				Shrubs < 0.5m
				Forbs
				Mat Plants
				Grasses > 0.2m
				Grasses < 0.2m
				Sedges > 1m
				Sedges < 1m
				Hummock grasses
				Vines, scramblers
				Mistletoe
				Ferns
				Grass-tree
				Total
				5
Native Plant Life Forms (max 20) from benchmark score weighted by a factor of 2				4.0
Non-Benchmarked Attributes (Scores determined from direct field observations)				Is the community naturally treeless? <input type="checkbox"/>
Native:exotic Understorey biomass Score (max 5)		1		Fallen Timber/Debris (max 5)
				Hollow-bearing trees Score (max 5)
				Mature Tree Score (max 8)
				Tree Canopy Cover Score (max 5)
				0
Vegetation Condition Score calculation Positive Vegetation Attributes Score = Native species diversity + Regeneration + Native Plant Life Forms Fallen timber/debris + Hollow-bearing trees - If the community Score is Not Benchmarked (SNB) for regeneration this score is multiplied 1.24 - If the community is naturally treeless this score is multiplied by 1.29				11.00
Negative Vegetation Attributes Score = (15 - Weeds) + ((10 - Biomass score - Tree Canopy Cover Score)exp2/2)				50.50
VEGETATION CONDITION SCORE (Positive veg attributes x ((80 - Negative vegetation attributes) / 80))				4.06

Conservation Significance Score																							
Is the vegetation association considered a Threatened Ecological community or Ecosystem?			Yes/No																				
State (Provisional List of Threatened Ecosystems of SA) Rare community (0.1 pt)			<input type="checkbox"/>																				
State (Provisional List of Threatened Ecosystems of SA) Vulnerable community (0.2 pts)			<input type="checkbox"/>																				
State (Provisional List of Threatened Ecosystems of SA) Endangered community (0.3 pts)			<input type="checkbox"/>																				
Nationally (EPBC Act) Vulnerable community (0.35 pts)			<input type="checkbox"/>																				
Nationally (EPBC Act) Endangered or Critically Endangered community (0.4 pts)			<input type="checkbox"/>																				
Note; all sites will score a minimum Conservation Significance Score of 1																							
Threatened Community Score			1																				
Number of Threatened Flora Species recorded for the site (within the site)			Number																				
*If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.																							
State Rare species recorded (1 pt each)			0																				
State Vulnerable species recorded (2.5 pt each)			0																				
State Endangered recorded (5 pts each)			0																				
Nationally Vulnerable species recorded (10 pts each)			0																				
Nationally Endangered or Critically endangered species recorded (20 pts each)			0																				
0 = 0 pts; <2 = 0.04 pts; 2 - <5 = 0.08 pts; 5 - <10 = 0.12 pts; 10 - <20 = 0.16 pts; 20 or > = 0.2 pts			0																				
Threatened Flora Score			0																				
Potential habitat for Threatened Fauna Species (number observed or previously recorded)			Number																				
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State Rare species observed or locally recorded (1 pt each)			0																				
State Vulnerable species observed or locally recorded (2.5 pt each)			0																				
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Threatened Fauna Score			0																				
CONSERVATION SIGNIFICANCE SCORE			1																				
<table border="1"> <thead> <tr> <th colspan="2">Total Scores for the Site</th> <th colspan="2">Vegetation Condition x Landscape Context x Conservation Significance =</th> </tr> <tr> <th></th> <th>Score</th> <th>UNIT BIODIVERSITY SCORE</th> <th></th> </tr> </thead> <tbody> <tr> <td>LANDSCAPE CONTEXT SCORE</td> <td>1.15</td> <td>Total Biodiversity Score</td> <td>4.67</td> </tr> <tr> <td>VEGETATION CONDITION SCORE</td> <td>4.06</td> <td>(Biodiversity Score x hectares)</td> <td>3.64</td> </tr> <tr> <td>CONSERVATION SIGNIFICANCE SCORE</td> <td>1.00</td> <td></td> <td></td> </tr> </tbody> </table>				Total Scores for the Site		Vegetation Condition x Landscape Context x Conservation Significance =			Score	UNIT BIODIVERSITY SCORE		LANDSCAPE CONTEXT SCORE	1.15	Total Biodiversity Score	4.67	VEGETATION CONDITION SCORE	4.06	(Biodiversity Score x hectares)	3.64	CONSERVATION SIGNIFICANCE SCORE	1.00		
Total Scores for the Site		Vegetation Condition x Landscape Context x Conservation Significance =																					
	Score	UNIT BIODIVERSITY SCORE																					
LANDSCAPE CONTEXT SCORE	1.15	Total Biodiversity Score	4.67																				
VEGETATION CONDITION SCORE	4.06	(Biodiversity Score x hectares)	3.64																				
CONSERVATION SIGNIFICANCE SCORE	1.00																						
Photo Point and Vegetation Survey Location		Direction of the Photo																					
<div> <div>DIRECTION NW (T)</div> <div>53H 555179 6216761</div> <div>ACCURACY 3 m DATUM GDA2020</div> </div> 		<div>North-west</div> <div>GPS Reference</div> <table border="1"> <tr> <td>Datum</td> <td>GDA20</td> </tr> <tr> <td>Zone (52, 53 or 54)</td> <td>53</td> </tr> <tr> <td>Easting (6 digits)</td> <td>555179</td> </tr> <tr> <td>Northing (7 digits)</td> <td>6216761</td> </tr> </table> <div>Description</div>		Datum	GDA20	Zone (52, 53 or 54)	53	Easting (6 digits)	555179	Northing (7 digits)	6216761												
Datum	GDA20																						
Zone (52, 53 or 54)	53																						
Easting (6 digits)	555179																						
Northing (7 digits)	6216761																						

Appendix 3. Flora Species List

Family name	Species name	Common name	Conservation status		BAM site	
			SA	Aus	A1	A2
BORAGINACEAE	<i>Halgania cyanea</i>	Rough Blue-flower			X	
CASUARINACEAE	<i>Allocasuarina muelleriana</i> ssp.	Common Oak-bush			X	
CASUARINACEAE	<i>Allocasuarina verticillata</i>	Drooping Sheoak			X	
CHENOPODIACEAE	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Ruby Saltbush			X	
CHENOPODIACEAE	<i>Rhagodia crassifolia</i>	Fleshy Saltbush			X	
CHENOPODIACEAE	<i>Threlkeldia diffusa</i>	Coast Bonefruit			X	
COMPOSITAE	* <i>Conyza bonariensis</i>	Flax-leaf Fleabane				X
COMPOSITAE	* <i>Dittrichia graveolens</i>	Stinkweed				X
COMPOSITAE	* <i>Lactuca serriola</i> f.	Prickly Lettuce				X
COMPOSITAE	<i>Olearia ramulosa</i>	Twiggy Daisy-bush			X	
COMPOSITAE	* <i>Senecio pterophorus</i>	African Daisy			X	X
CRUCIFERAE	* <i>Brassica tournefortii</i>	Wild Turnip				X
CRUCIFERAE	# <i>Diplotaxis tenuifolia</i>	Lincoln Weed				X
CUPRESSACEAE	<i>Callitris gracilis</i>	Southern Cypress Pine			X	
CYPERACEAE	<i>Gahnia deusta</i>	Limestone Saw-sedge			X	
CYPERACEAE	<i>Gahnia filum</i>	Thatching Grass			X	
CYPERACEAE	<i>Lepidosperma carphoides</i>	Black Rapier-sedge			X	
CYPERACEAE	<i>Lepidosperma viscidum</i>	Sticky Sword-sedge			X	
DIPSACACEAE	* <i>Scabiosa atropurpurea</i>	Pincushion			X	X
EUPHORBIACEAE	<i>Beyeria lechenaultii</i>	Pale Turpentine Bush			X	
GOODENIACEAE	<i>Dampiera rosmarinifolia</i>	Rosemary Dampiera			X	X
GRAMINEAE	<i>Austrostipa elegantissima</i>	Feather Spear-grass			X	
GRAMINEAE	<i>Austrostipa</i> sp.	Spear-grass			X	X
GRAMINEAE	* <i>Avena barbata</i>	Bearded Oat			X	X
GRAMINEAE	* <i>Dactylis glomerata</i>	Cocksfoot			X	
GRAMINEAE	<i>Enneapogon nigricans</i>	Black-head Grass			X	X
GRAMINEAE	* <i>Piptatherum miliaceum</i>	Rice Millet			X	X
GRAMINEAE	<i>Rytidosperma</i> sp.	Wallaby-grass			X	X
LABIATAE	* <i>Salvia verbenaca</i> var.	Wild Sage			X	X

Family name	Species name	Common name	Conservation status		BAM site	
			SA	Aus	A1	A2
LAURACEAE	<i>Cassytha sp.</i>	Dodder-laurel			X	
LEGUMINOSAE	<i>Acacia calamifolia</i>	Wallowa			X	
LEGUMINOSAE	<i>Acacia ligulata</i>	Umbrella Bush			X	
LEGUMINOSAE	<i>*Acacia longifolia ssp. longifolia</i>	Sallow Wattle			X	X
LEGUMINOSAE	<i>Acacia microcarpa</i>	Manna Wattle			X	
LEGUMINOSAE	<i>Acacia myrtifolia</i>	Myrtle Wattle			X	
LEGUMINOSAE	<i>Acacia pycnantha</i>	Golden Wattle			X	
LEGUMINOSAE	<i>Acacia sclerophylla var. sclerophylla</i>	Hard-leaf Wattle			X	
LEGUMINOSAE	<i>Acacia spinescens</i>	Spiny Wattle			X	
LEGUMINOSAE	<i>Daviesia asperula ssp.</i>	Bitter-pea			X	
LEGUMINOSAE	<i>Eutaxia microphylla</i>	Common Eutaxia			X	
LEGUMINOSAE	<i>Templetonia retusa</i>	Cockies Tongue			X	
LEGUMINOSAE	<i>*Trifolium arvense var. arvense</i>	Hare's-foot Clover			X	X
LILIACEAE	<i>#Asparagus asparagoides f.</i>	Bridal Creeper			X	
LILIACEAE	<i>*Asphodelus fistulosus</i>	Onion Weed				X
LILIACEAE	<i>Dianella revoluta var.</i>				X	
LILIACEAE	<i>Lomandra collina</i>	Sand Mat-rush			X	
MYOPORACEAE	<i>Eremophila behriana</i>	Rough Emubush			X	
MYRTACEAE	<i>Callistemon rugulosus</i>	Scarlet Bottlebrush			X	
MYRTACEAE	<i>Calytrix involucrata</i>	Cup Fringe-myrtle			X	
MYRTACEAE	<i>Eucalyptus diversifolia ssp. diversifolia</i>	Coastal White Mallee			X	
MYRTACEAE	<i>Eucalyptus gracilis</i>	Yorrell			X	
MYRTACEAE	<i>Eucalyptus incrassata</i>	Ridge-fruited Mallee			X	
MYRTACEAE	<i>Eucalyptus odorata</i>	Peppermint Box			X	
MYRTACEAE	<i>Eucalyptus peninsularis</i>	Merrit			X	
MYRTACEAE	<i>Eucalyptus petiolaris</i>	Eyre Peninsula Blue Gum			X	
MYRTACEAE	<i>Melaleuca decussata</i>	Totem-poles			X	
MYRTACEAE	<i>Melaleuca lanceolata</i>	Dryland Tea-tree			X	
MYRTACEAE	<i>Melaleuca uncinata</i>	Broombush			X	
PINACEAE	<i>#Pinus halepensis</i>	Aleppo Pine			X	

Family name	Species name	Common name	Conservation status		BAM site	
			SA	Aus	A1	A2
PITTOSPORACEAE	<i>Billardiera sericophora</i>	Silky Apple-berry			X	
PITTOSPORACEAE	<i>Pittosporum angustifolium</i>	Native Apricot			X	
PROTEACEAE	<i>Adenanthos terminalis</i>	Yellow Gland-flower			X	
PROTEACEAE	<i>Grevillea ilicifolia ssp. ilicifolia</i>	Holly-leaf Grevillea			X	
PROTEACEAE	<i>Hakea cycloptera</i>	Elm-seed Hakea			X	
RANUNCULACEAE	<i>Clematis microphylla</i>	Old Man's Beard			X	
RUTACEAE	<i>Correa backhouseana var. coriacea</i>	Thick-leaf Correa			X	
SANTALACEAE	<i>Exocarpos sparteus</i>	Slender Cherry			X	
SANTALACEAE	<i>Santalum acuminatum</i>	Quandong			X	

* = Introduced species.

= Weed species declared under the *Landscape South Australia Act 2019*.



W: www.blackoakenvironmental.com

E: info@blackoakenvironmental.com