Globe Derby

Native Vegetation Clearance

Data Report

Clearance under Section 28 of the Native Vegetation Act 1991

12/07/2023

Prepared by J. Skewes– EBS Ecology (NVC Accredited Consultant)

Native Vegetation Clearance Globe Derby Native Vegetation Clearance Data Report

12/07/2023

Version 2

Prepared by EBS Ecology for Seymour Group

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Glossary and abbreviations

BAM	Bushland Assessment Method
BDBSA	Biological Database of South Australia (maintained by DEW)
DAWE	Department of Agriculture, Water and the Environment (Commonwealth) (now DCCEEW)
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth) (formerly DAWE)
DEW	Department for Environment and Water (South Australia)
EBS	Environment and Biodiversity Services Pty Ltd (trading as EBS Ecology)
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
ha	Hectare(s)
IBRA	Interim Biogeographical Regionalisation of Australia
km	Kilometre(s)
m	Metre(s)
NatureMaps	Initiative of DEW that provides a common access point to maps and geographic information about South Australia's natural resources in an interactive online mapping format
NP	National Park
NPW Act	*National Parks and Wildlife Act 1972*
NV Act	*Native Vegetation Act 1991*
NVC	Native Vegetation Council
PMST	Protected Matters Search Tool (under the EPBC Act; maintained by DAWE)
Project	Subdivision to create land parcels for industrial land sale
Project Area	21-77 Globe Derby Drive, Globe Derby Park
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
TEC	Threatened Ecological Community
var.	Variety (a taxonomic rank below that of species and subspecies, but above that of form)
WoNS	Weed of National Significance

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Attachment 2 - Bushland Assessment Scoresheet VA A2 (Excel)

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Attachment 4 – Spatial data package (zipped shapefile)

1. Application information

Table 1. Application details.

Applicant:	The South Australian Harness Racing Club Inc.		
Key contact:	Stephen Lawson, Seymore Group Level 24, HSBC Building, 300 Queen St. Brisbane City QLD, 4000 Mobile: 0459 717 822		
Landowner:	The South Australian Harness Racing Club Inc.		
Site Address:	Allotment 507, Globe Derby Park		
Local Government Area:	City of Salisbury	**Hundred:**	Port Adelaide
Title ID:	CT/6160/753 CT/6160/752 CT/6160/757 CT/6160/754	**Parcel ID**	D76499 A507 D7059 A25 F114596 A35 D88317 A57

Table 2. Summary of the proposed clearance.

Purpose of clearance:	Clearance required for subdivision of land for industrial land sale.
Description of the vegetation under application:	A1 *Maireana brevifolia* Low Shrubland in poor condition regenerating on previously disturbed soil. A2 *Suaeda australis* and *Tecticornia pergranulata* ssp. *pergranulata* Low Shrubland in poor condition. 3 *Acacia salicina* (Broughton wattle) scattered trees.
Total proposed clearance – area (ha) and/or number of trees:	1.64 ha of shrubland and three scattered trees
Level of clearance:	Level 4
Overlay (Planning and Design Code):	Native Vegetation Overlay Significant and Regulated Tree Overlay
Map of proposed clearance area:	See Figure 3 for Project layout and Figure 7 for proposed vegetation clearance.
Mitigation Hierarchy:	**Avoid** The land division is proposed for a location which has previously been highly disturbed, and which contains small, fragmented patches of native vegetation in generally poor condition. The patchy nature of the vegetation meant that it was unable to be avoided without impacting the practical useability of each proposed allotment for industrial uses. **Minimise** The division plan proposes over one hectare of land as designated 'reserve', which will be landscaped in accordance with the City of Salisbury Landscaping Masterplan. Some areas of native vegetation are likely to be retained in the understorey of designated reserve areas. **Mitigate** The Landscape Masterplan is utilising the City of Salisbury Landscape Plan to select a number of locally native species for the reserve and urban forest areas. The landscaping focuses on maintaining and

	improving an urban biodiversity corridor, incorporating native species diversity in line with the existing natural landscape character.
SEB Offset proposal	Offset will be delivered by way of payment into the Native Vegetation Fund of $40,657.34 (including $2,119.58 administration fee).

2. Purpose of clearance

2.1. Description

EBS Ecology (EBS) was engaged by SeymourGroup (the Proponent) to undertake a native vegetation assessment for the proposed development at Globe Derby Park, South Australia. The property is located at 21-27 Globe Derby Drive, Globe Derby Park (Figure 1**Error! Reference source not found.**). The Project will impact 1.64 ha of degraded native low shrubland.

2.2. Background

Current and surrounding land use

The site is currently used by the South Australian Trotting Club. Infrastructure within the Project Area includes a clubhouse and bar, two harness racing tracks, a carpark, and multiple unsealed access tracks. The current proposal will develop an area of land to the south and east of the existing buildings.

The surrounding land use includes a mixture of light industry, residential areas, salt evaporation pans, and the Parafield Airport. It is located approximately 500 metres north of the Greenfields Wetland and within 5 km of the southern end of the Adelaide International Bird Sanctuary NP.

Visual inspection indicates that the Project Area has been used to dump household waste, with numerous piles of rubbish throughout the site. The site also contains large, disturbed areas of waste soil / fill piles that have been colonised by *Brassica* sp. and *Galenia pubescens* var. *pubescens*.

Administrative Boundaries

The Project Area occurs within the City of Salisbury Council Area, Green Adelaide Landscape Management Region, and the Port Adelaide Hundred.

Bioregions

The Interim Biogeographical Regionalisation of Australia (IBRA) identifies geographically distinct bioregions based on common climate, geology, landform, native vegetation and species information. The bioregions are further refined into Subregions and Environmental Associations. The Project Area is located in the Eyre Yorke Block IBRA Bioregion, St Vincent Subregion and Mallala IBRA Environmental Association. Approximately 8% (87,402 ha) of the St Vincent IBRA Subregion and approximately 3% (5,874 ha) of the Mallala IBRA Environmental Association is mapped as remnant vegetation. Of this, 5% (4,732 ha) and 2% (103 ha) is formally conserved and protected, respectively (Table 3).

Table 3. IBRA bioregion, subregion, and environmental association environmental landscape summary.

Eyre Yorke Block IBRA bioregion	
Archaean basement rocks and Proterozoic sandstones overlain by undulating to occasionally hilly calcarenite and calcrete plains and areas of aeolian quartz sands, with mallee woodlands, shrublands and heaths on calcareous earths, duplex soils and calcareous to shallow sands, now largely cleared for agriculture.	
St Vincent IBRA subregion	
Most of this region consists of with calcrete development and shallow reddish earths. The plain is mainly dune free but isolated areas are overlain by low indistinct sand dunes. Near the Mt Lofty Ranges the plains have a definite westerly gradient and merge eastwards with the alluvial fans from the Mt Lofty ranges. Moderately deep red mallee-yorrell (*Eucalyptus socialis, E. gracilis*) association occurs throughout the region with some woodland of *E. porosa* on the plains or *E. odorata* on the hills and foot slopes. The subregion has been extensively cleared and sown to crops or exotic pastures so little of the natural vegetation remains. The little vegetation that does remain, occurs on road verges and a few isolated blocks.	
Remnant vegetation	Approximately 8% (87,402 ha) of the subregion is mapped as remnant native vegetation, of which 5% (4,732ha) is formally conserved
Landform	Alluvial and littoral plains with NW-SE longitudinal dunes, mainly stabilised, in isolated areas. Near the Mt Lofty Ranges, the plains have a detritic westerly gradient and merge eastwards with the alluvial fans of the Ranges.
Geology	Calcrete development; some variably oriented dunes in northwest of unit beyond Port Augusta. Calcareous loams. Clay rich soils, both plastic and cracking varieties
Soil	Cracking clays, brown calcareous earths, highly calcareous loamy earths, plastic saline clay soils, hard setting loamy soils with red clayey subsoils.
Vegetation	Mixed chenopod, samphire or forblands.
Conservation significance	125 species of threatened fauna, 103 species of threatened flora. 5 wetlands of national significance.
Mallala IBRA environmental association	
Remnant vegetation	Approximately 3% (5,874 ha) of the association is mapped as remnant native vegetation, of which 2% (103ha) is formally conserved
Landform	Undulating plain with occasional dunes.
Geology	Alluvium and sand.
Soil	Brown calcareous loams, hard pedal red duplex soils and brownish sands.
Vegetation	Grasslands.
Conservation significance	73 species of threatened fauna, 32 species of threatened flora. 3 wetlands of national significance.

2.3. General location map

Figure 1. Location and landscape context of Project Area.

2.4. Details of the proposal

SeymourGroup are proposing to develop approximately 14.41 ha land at 12-77 Globe Derby Drive for an industrial subdivision (Figure 3).

The proposed area for the proposed division contains a mix of different land uses, including a harness racing track, sealed and unsealed access tracks, scattered amenity trees, a planted stand of *Casuarina glauca,* screening Port Wakefield Road and waste / soil dumping sites.

The development proposes 22 new allotments ranging between 2,532 m^2 and 8,140 m^2. Supporting infrastructure / components includes:

- A 20 m wide internal access road with traffic access onto Daniel Avenue, Port Wakefield Road and Globe Derby Road.
- A 15 m wide drainage easement.
- An overhead powerline electricity easement.
- Two reserves totalling just over one-hectare (6,020 m^2 and 4,065 m^2).

Indicative uses for the industrial allotments include, but are not limited to, a range of services and utilities included fast food and service stations, show room and industrial, and light industrial uses.

The Project will be undertaken in two stages, first through the creation of the subdivision including roads and civil works and then through sale of allotments.

The Project Concept Plan is detailed in Figure 2 and overlaid on satellite imagery in Figure 3.

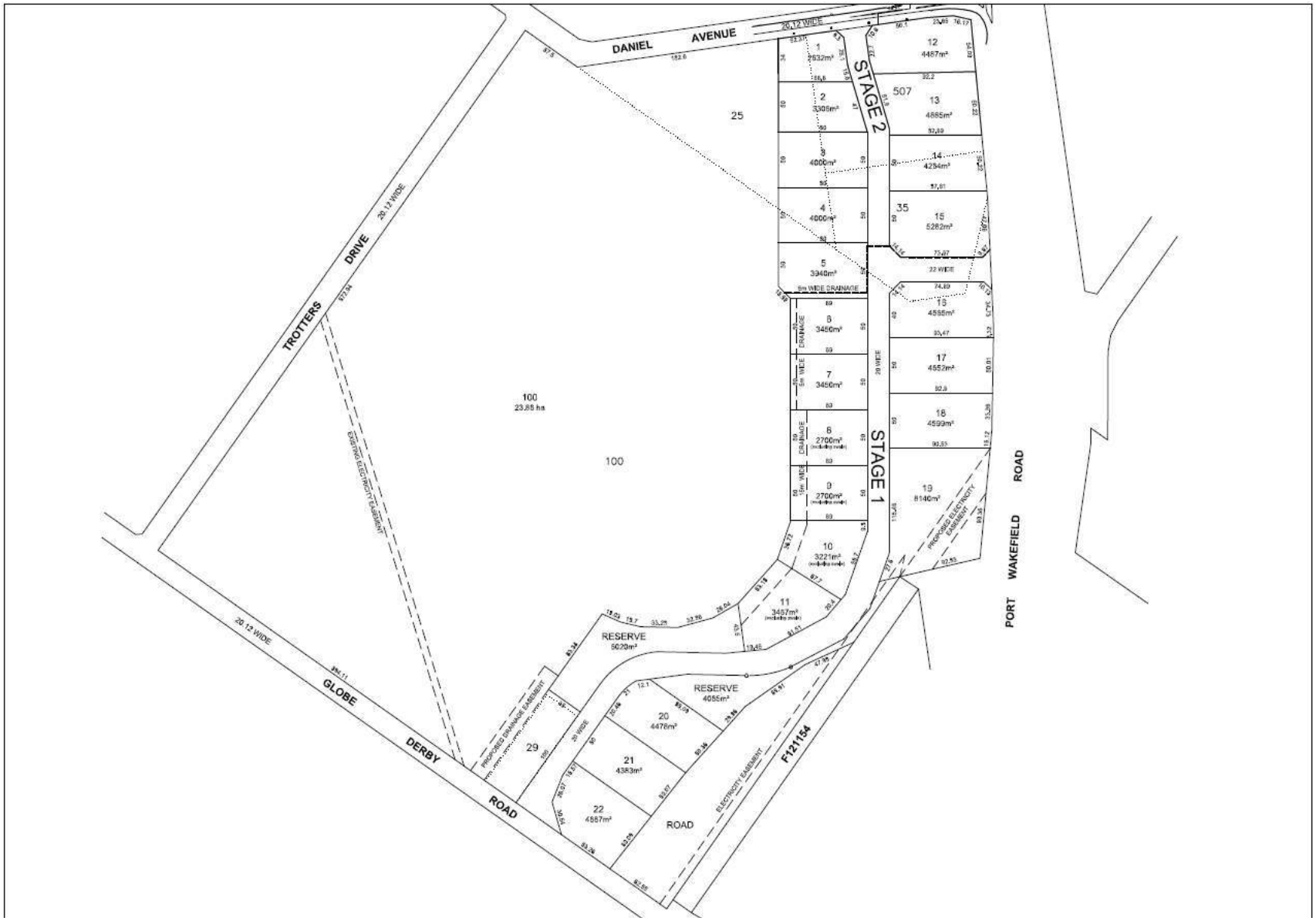


Figure 2. Concept plan proposed layout (supplied by SeymourGroup on 26/05/2023)

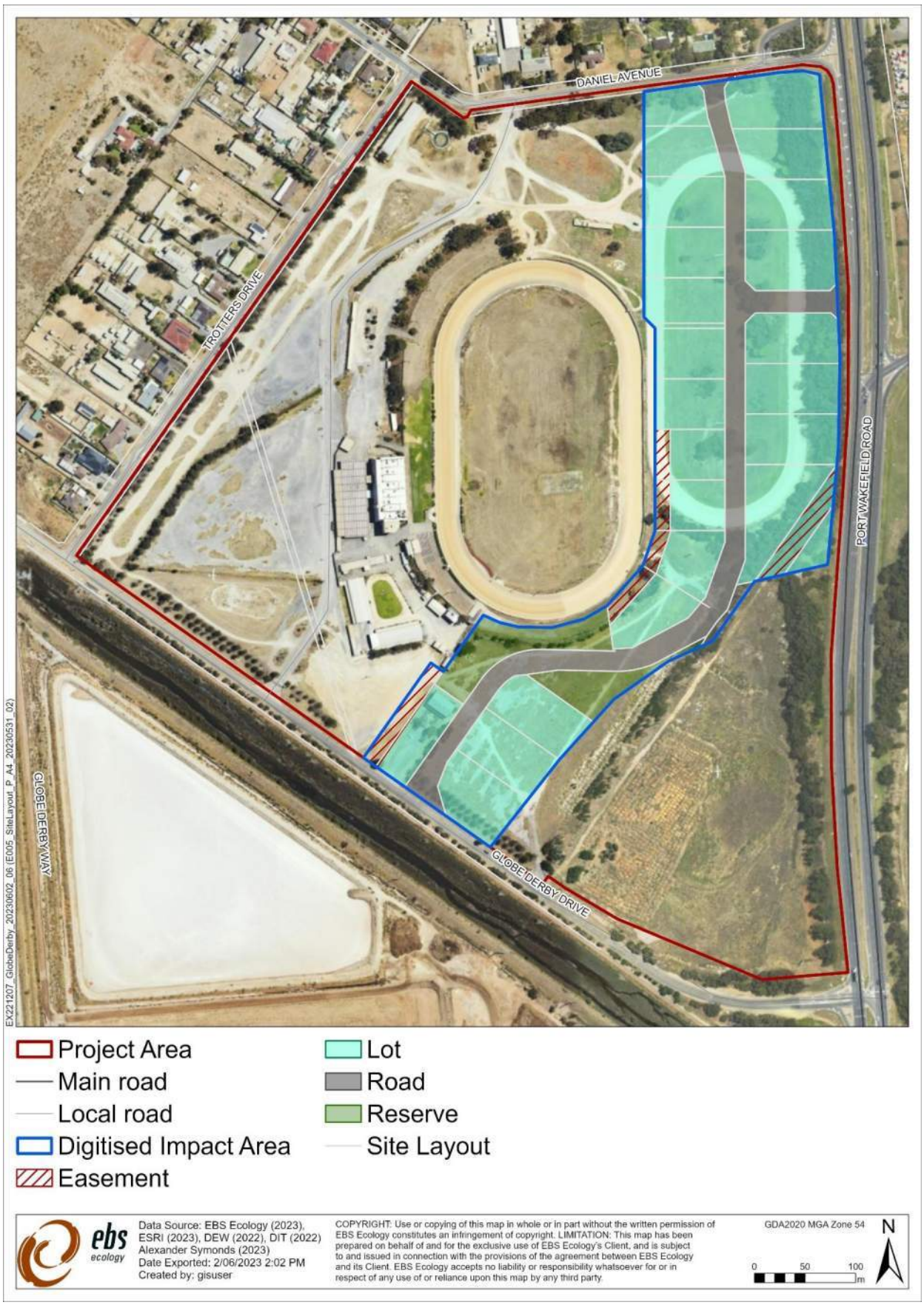


Figure 3. Project Area layout and subdivision plans including existing and proposed new allotment boundaries.

2.5. Approvals <u>required</u> *or* <u>obtained</u>

Environment Protection and Biodiversity Conservation Act 1999 **(EPBC Act)** – No EPBC listed threatened species or ecological communities are expected to be significantly impacted as a result of this Project.

Native Vegetation Act 1991 **(NV Act)** – this data report is supplied to fulfil requirements under the NV Act.

National Parks and Wildlife Act 1972 **(NPW Act)** – EBS has the required flora collection permit (K25613-22).

Landscape South Australia Act 2019 **(LSA Act)** – A Water Affecting Activity Permit is not required for this Project. **A permit to transport declared weeds on a public road** may be required for this Project. The field survey recorded 22 species of weed including five species listed as Declared under the LSA Act, and one Weed of National Significance (WoNS) within the Project Area or immediate surrounds (Figure 22). Under the LSA Act landowners have responsibilities to control and / or eradicate Declared plants in South Australia. Any permit to allow its road transport or sale can only be issued by the Chief Executive of the Department for Environment and Water (DEW) or their delegate pursuant to Section 197. A permit is required and can be obtained to transport declared weeds on a public road, for example:

- When vegetation removal occurs and declared weed plant material needs to be transported off site by the vegetation removal contractor; or
- When topsoil from an area where declared weeds are present and therefore likely to contain contaminated soil (seed or plant material), needs to be transported offsite as it may not be able to be re-used on site.

Requirements under the LSA Act for Declared weeds detected in the Project Area, are presented in Appendix 1. Flora Species List and Declared weed mapping

Planning, Development and Infrastructure Act 2016 **(PDI Act)**– Approval is required, and this report is has been prepared to accompany the development application.

Aboriginal Heritage Act 1988 - Approval will be required if any sites, objects or remains are uncovered during the works. A 'Stop Work' procedure should be in place in the event that any objects of significance are uncovered during the Project works.

Other legislative approvals may be required.

2.6. Development Application information (if applicable)

The Project Area occurs within the Community Facilities and Employment Planning Zones. A number of planning overlays apply, including Native Vegetation Overlay and Significant and Regulated Tree Overlay. This report is submitted in support of the Development Application for this Project.

3. Method

3.1. Desktop assessment

A desktop assessment was undertaken to determine the potential for any threatened flora and fauna species and Threatened Ecological Communities (TECs) (both Commonwealth and State listed) to occur within the Project Area. This was achieved by undertaking database searches using a 5 km buffer of the Project Area (Search Area).

3.1.1. PMST report

A Protected Matters Search Tool (PMST) report was generated on 17 April 2023 to identify nationally threatened flora and fauna, migratory fauna and Threatened Ecological Communities (TECs) under the EPBC Act relevant to the Project Area (DCCEEW 2023). Only species and TECs identified in the PMST report that are likely or known to occur within the Search Area were assessed for their likelihood of occurrence within the Project Area.

3.1.2. BDBSA data extract

A data extract from the Biological Database of South Australia (BDBSA) was obtained from NatureMaps to identify flora and fauna species that have been recorded within 5 km of the Project Area (data extracted 10 May 2023; DEW 2023). 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 the Department for Environment and Water's (DEW) standards for data quality, integrity and maintenance. Only species with records since 1995 and a spatial reliability of less than 1 km were assessed for their likelihood of occurrence.

3.1.3. Likelihood of occurrence

The criteria for the likelihood of occurrence of threatened species within the Project Area are described in (Table 4).

Table 4. 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.

Likelihood	Criteria
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.

3.2. Flora assessment

The flora assessment was undertaken by NVC Accredited Consultant J. Skewes and Ecologist K. McClaren on the 27 and 28 March 2023 in accordance with the Bushland Assessment Method (BAM) and Scattered Tree Assessment Method (STAM) (NVC, 2020a/NVC, 2020b).

3.2.1. Bushland Assessment Method

The BAM is derived from the Nature Conservation Society of South Australia's Bushland Condition Monitoring methodology (Croft *et al.* 2007, 2008a, 2008b, 2009). The BAM was used to assess areas of native vegetation requiring clearance and calculate the SEB requirements.

Details of site selection/stratification and assessment protocols, and the biodiversity value components assessed and the factors that influence these components are outlined in the *Bushland Assessment Manual* (NVC 2020a).

The Conservation Significance Scores were calculated from direct observations of flora and direct and historical observations of fauna species of conservation significance. All fauna identified as **known to occur** in the PMST, and fauna with BDBSA records since 1995 and with a spatial reliability of less than 1 km, within 5 km of the Project Area, were included in the BAM scoresheets. Species determined as unlikely to occur within the Project Area will be removed by the Native Vegetation Branch if the finding is supported. Marine and/or wetland species were omitted from the scoresheets given the Project Area is terrestrial.

3.2.2. 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). The STAM is suitable for assessing scattered trees in the following instances:

- Individual scattered trees (i.e., 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; or

- Dead trees (when a dead tree is considered native vegetation); or
- Clumps of trees (contiguous overlapping canopies) if the clump is small (approximately <0.1 ha); and
- 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; and
    - The area around the trees consists of introduced pasture or crops.

Details of the scattered tree Point Scoring System are outlined in the *Scattered Tree Assessment Manual* (NVC 2020b).

The numbers of uncommon and threatened scattered tree using fauna species entered into the Scattered Tree Scoresheet were calculated by cross-referring the BDBSA data extract and the lists of scattered tree using fauna in the *Scattered Tree Assessment Manual* (NVC 2020). The resource use of each species identified was considered when determining each tree's suitability for threatened fauna species (e.g. species that only use hollows in scattered trees were only assigned to scattered trees containing hollows).

3.3. Fauna assessment

Fauna surveys were conducted in conjunction with the flora assessments along the site. All native and exotic fauna species opportunistically encountered (directly observed, or tracks, scats, burrows, nests and other signs of presence) during the native vegetation assessment were recorded. Potential fauna refuge sites, such as hollows, were noted as an indication of availability of suitable habitat. Particular attention was paid to identifying habitat for threatened species. For each opportunistic fauna observation, the species, number of individuals, GPS location, detection methodology (sight, sound or sign) and habitat were recorded.

4. Assessment outcomes

4.1. Vegetation assessment

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

The terrain of the Project Area is flat, with cracking clay soils. No moving waterbodies or areas likely to hold ephemeral water were present in the Project Area. The site shows evidence of a high level of historical and current disturbances, with access tracks throughout and piles of soil and rubbish throughout. Non-native vegetation is present throughout the proposed area of clearance, including;

- A dense stand of *Casuarina glauca* (Swamp Oak) along the eastern boundary;
- Planted trees (mostly *Eucalyptus* sp.) along fence boundaries scattered throughout the site; and
- Planted and exotic shrubs adjacent to tracks and scattered throughout the site.

The Project Area contains scattered patches of native shrubland in generally poor condition which appears to have naturally regenerated on disturbed soil. Two native vegetation associations (VAs) were identified within the Project Area, detailed in Table 5 and Table 6:

- VA1 *Maireana brevifolia* Low Shrubland, and
- VA2 *Suaeda australis* and *Tecticornia pergranulata* ssp. *pergranulata* Low Shrubland.

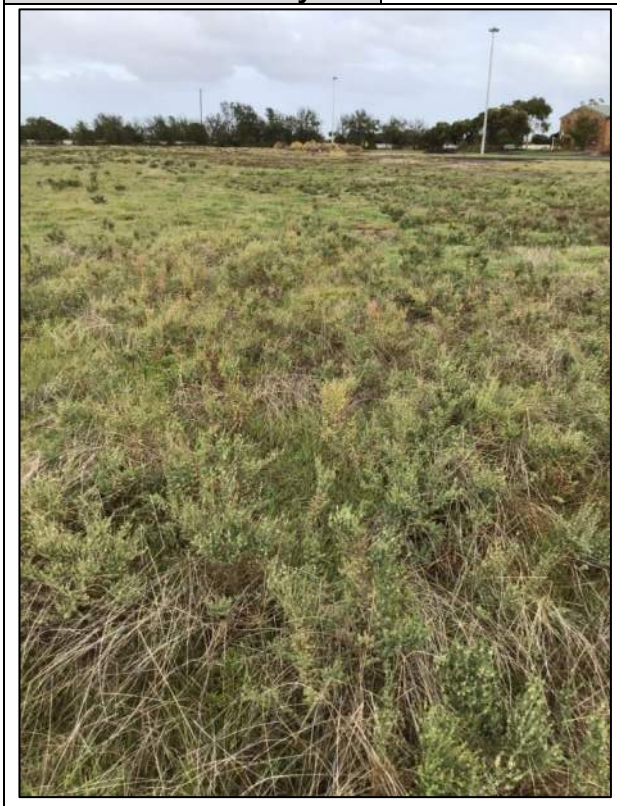
Three native scattered trees were identified within the Project Area, which were *Acacia salicina* (Broughton Willow). These are considered Near Threatened in the St Vincent subregion (DEW, 2023).

There was an exotic shrub and groundcover component throughout the Project Area. Some zones had less than 5% native cover, and as per the BAM were not assessed as native vegetation associations. The tree component in the Project Area comprised of planted and invasive species. The eastern boundary of the site was lined with a dense stand of *Casuarina glauca* (Swamp Oak) used as a screen from heavily trafficked Port Wakefield Road. The other trees within the site are predominantly *Eucalyptus* spp. which have been planted. A planted Eucalypt woodland exists in the middle of one of the harness-racing tracks and many established trees form borders along buildings or fence-lines.

The Project Area is located approximately 4 kilometres from the southernmost extent of the Adelaide International Bird Sanctuary National Park-Winaityinaityi Pangkara (NP) and 500 metres north of the Greenfields wetlands. There were no wetlands, waterbodies, or seasonally damp zones within the Project Area. The birdlife identified during the field survey were generalist or woodland species and were not generally observed in treeless zone in the Project Area.

4.1.2. Details of the vegetation associates proposed to be impacted

Table 5. Summary of VA1.

<table>
<tr><td>Vegetation Association</td><td colspan="3">VA1 Maireana brevifolia low shrubland</td></tr>
<tr><td>Benchmark Community</td><td colspan="3">NA 8 Coastal Plain Shrublands</td></tr>
<tr><td colspan="4"> 
Figure 4. Maireana brevifolia (Short-leaf Bluebush) interspersed with senescing exotic grasses. Woodland in background comprised of non-native and planted species. Photo direction: facing West Location:-34°47’47.741” 138°35’43.771, (‘A1’ photo point on Figure 7).
 
Figure 5. Example of Sclerolaena muricata var. villosa (Five-spine Bindi) present in VA1. WGS84 - 34°47’30.489” 138°35’40.68.</td></tr>
<tr><td rowspan="2">General description</td><td colspan="3">Maireana brevifolia (Short-leaf Bluebush) was the dominant and tallest native species in VA1. Enchylaena tomentosa var. tomentosa (Ruby Saltbush) and Atriplex semibaccata (Berry Saltbush) were consistent throughout VA1, with Nitraria billardierei (Nitre Bush) scattered in low density throughout.</td></tr>
<tr><td>Over storey</td><td>Mid storey</td><td>Under storey</td></tr>
<tr><td></td><td>Absent</td><td>Absent</td><td>Maireana brevifolia (Short-leaf Bluebush);
Sclerolaena muricata var. villosa (Five-spine Bindi);
Atriplex semibaccata (Berry Saltbush)</td></tr>
<tr><td>Threatened species or community</td><td colspan="3">Sclerolaena muricata var. villosa (Five-spine Bindi) (NV Act Rare) was identified in the Project Area. It was patchily distributed throughout VA1; in some areas there was over 10 individual plants within a 5m by 10m patch and in other areas it was not present.
EPBC and State NPW Act listed fauna species were recorded in the database searches as listed below.
<u>Likely</u>
• Neophema chrysostoma (Blue-winged Parrot) (EPBC Act: VU)</td></tr>
</table>

	• *Plegadis falcinellus* (Glossy Ibis) (NPW Act: R) **Possible** • *Coturnix ypsilophora australis* (Brown Quail) (NPW Act: V) • *Falco hypoleucos* (Grey Falcon) (NPW Act: VU) • *Falco peregrinus macropus* (Peregrine Falcon) (NPW Act: R) • *Falco subniger* (Black Falcon) (NPW Act: R) • *Hieraaetus morphnoides* (Little Eagle) (NPW Act: V) • *Microeca fascinans* (Jacky Winter) (NPW Act: R) • *Neophema elegans elegans* (Elegant Parrot) (NPW Act: R) • *Parvipsitta pusilla* (Little Lorikeet) (NPW Act: E) • *Petroica phoenicea* (Flame Robin) (NPW Act: V) • *Pteropus poliocephalus* (Grey-headed Flying-fox) (EPBC Act: VU, NPW Act: R) • *Saccolaimus flaviventris* (Yellow-bellied Sheath-tailed Bat) (NPW Act: R)				
Landscape context score	1.17	**Vegetation Condition Score**	27.57	**Conservation significance score**	1.12
Unit biodiversity Score	36.13	**Area (ha)**	1.22	**Total biodiversity Score**	44.26

Table 6. Summary of VA2.

Vegetation Association	*Suaeda australis and Tecticornia pergranulata ssp. pergranulata* samphire shrubland
Benchmark Community	NA 8 Coastal Plain Shrublands

Figure 6. *Suaeda australis* (Austral Seablite). A2 Photo point in Figure 7.Location: -34°47'41.643" 138°35'43.949"

General description	*Suaeda australis* (Austral Seablite), *Tecticornia pergranulata* ssp. *pergranulata* (Black-seed Samphire) were the two most dominant native

<table>
<tr><td></td><td colspan="5">plants in VA2. Exotic plant species such as Oxalis pes-caprae (Soursob) and Galenia pubescens var. pubescens (Coastal Galenia) were interspersed between native plants and formed dense mats in some places.
<table><tr><th>Over storey</th><th>Mid storey</th><th>Under storey</th></tr><tr><td>Absent</td><td>Absent</td><td>Suaeda australis (Austral Seablite),
Tecticornia pergranulata ssp. pergranulata (Black-seed Samphire),
Atriplex semibaccata (Berry Saltbush)</td></tr></table></td></tr>
<tr><td>Threatened species or community</td><td colspan="5">No threatened species were identified in vegetation association A2. However, due to the interspersed nature of the two vegetation communities, the NP Act Rare plant Sclerolaena muricata var. villosa (Five-spine Bindi) present in VA1 has potential to encroach into VA2.
<u>Likely</u>
• Neophema chrysostoma (Blue-winged Parrot) (EPBC Act: VU)
• Plegadis falcinellus (Glossy Ibis) (NPW Act: R)
<u>Possible</u>
• Coturnix ypsilophora australis (Brown Quail) (NPW Act: V)
• Falco hypoleucos (Grey Falcon) (NPW Act: VU)
• Falco peregrinus macropus (Peregrine Falcon) (NPW Act: R)
• Falco subniger (Black Falcon) (NPW Act: R)
• Hieraaetus morphnoides (Little Eagle) (NPW Act: V)
• Microeca fascinans (Jacky Winter) (NPW Act: R)
• Neophema elegans elegans (Elegant Parrot) (NPW Act: R)
• Parvipsitta pusilla (Little Lorikeet) (NPW Act: E)
• Petroica phoenicea (Flame Robin) (NPW Act: V)
• Pteropus poliocephalus (Grey-headed Flying-fox) (EPBC Act: VU, NPW Act: R)
• Saccolaimus flaviventris (Yellow-bellied Sheath-tailed Bat) (NPW Act: R).</td></tr>
<tr><td>Landscape context score</td><td>1.16</td><td>Vegetation Condition Score</td><td>28.32</td><td>Conservation significance score</td><td>1.08</td></tr>
<tr><td>Unit biodiversity Score</td><td>35.48</td><td>Area (ha)</td><td>0.42</td><td>Total biodiversity Score</td><td>14.90</td></tr>
</table>

4.1.3. Details of the scattered trees proposed to be impacted

Three scattered trees are proposed to be impacted, listed in Table 7 to Table 9. There were nine bio-regionally uncommon and two State Rare scattered tree using species found to have nearby records, however given the small stature and immature nature of the trees, and their location on the corner of the busy Port Wakefield Road, the trees were not deemed suitable to provide habitat for these species.

Table 7. Summary of Tree 1.

Tree ID - 1	
Tree spp. – *Acacia salicina*	
Number of trees – 1	
Height (m) – 2	
Hollows – None	
Diameter (cm) – 3	
Canopy dieback (%) – None	
Total Biodiversity Score – 0.17	
Small tree in healthy condition growing adjacent to VA1. Photo direction: looking West. No scattered tree using fauna listed for this tree given the small stature and lack of habitat it provides.	

Table 8. Summary of Tree 2.

Tree ID – 2	
Tree spp. – *Acacia salicina*	
Number of trees – 1	
Height (m) – 4	
Hollows – None	
Diameter (cm) – 9	
Canopy dieback (%) – None	
Total Biodiversity Score –0.42	
Medium tree in healthy condition growing in the NW corner of the Project Area. Photo direction: looking south.	

Table 9. Summary of Tree 3.

Tree ID – 3	
Tree spp. – *Acacia salicina*	
Number of trees – 1	
Height (m) – 1.2	
Hollows – None	
Diameter (cm) – 0.5	
Canopy dieback (%) – None	
Total Biodiversity Score – 0.11	
Small regenerating tree in healthy condition growing in the NE corner of the Project Site. Photo direction: looking West. No scattered tree using fauna listed for this tree given the small stature and lack of habitat it provides.	

4.1.4. Site map showing areas of proposed impact

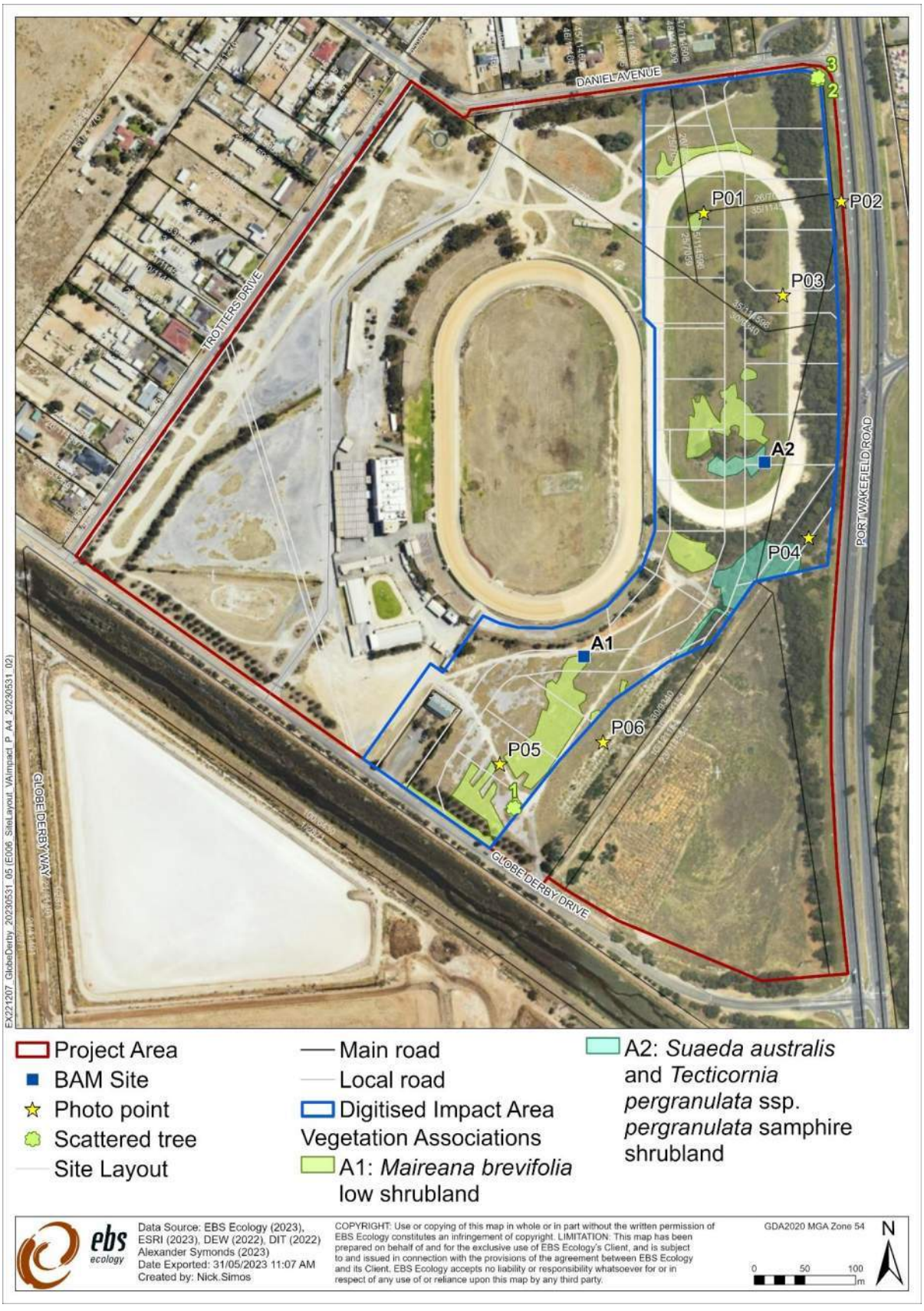


Figure 7. Vegetation Associations and Scattered Trees in the Project Area. All areas of native vegetation are subject to clearance for the proposed Project.

4.1.5. Photo log

Figure 8. Large *Eucalyptus sideroxylon*. Photo-point P01.

Figure 9. Dense screen of *Casuarina glauca* adjacent Port Wakefield Road. Photo-point P02.

Figure 10. Stand of planted *Eucalyptus occidentalis*. Photo-point P03.

Figure 11. Example of typical degradation throughout the Project Area, including scattered rubbish. Photo-

Figure 12. Patch of BAM A1 surrounded by old parking lots. Photo-point P05.

Figure 13. Mounds of fill/dirt colonised by *Galenia pubescens* var. *pubescens* with *Casuarina glauca* in the background. Photo-point P06.

4.2. Threatened species assessment

4.1.1 Matters of National Environmental Significance

The PMST identified two Listed Threatened Ecological Communities as potentially occurring within the Project Area (Table 10), of which neither were found to occur in the Project Area.

Table 10. TECs identified by the PMST as potentially occurring within the Project Area.

Threatened Ecological Community	EPBC Status	Description	Likelihood of Occurrence
Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia (PBGW)	CE	The PBGW of South Australia is dominated by *E. odorata* and typically occurs with other tree species including *E. leucoxylon*, *E. microcarpa* or *E. porosa*. Canopy height comprises low trees, generally 5-10m tall with an understorey comprised of diverse grasses and herbs including *Austrostipa* sp., *Lomandra* sp. and *Acacia pycnantha*.	**Does not occur** The PMST report lists the community as "may occur", however, is considered unlikely to occur as SA vegetation mapping (NatureMaps 2023) indicates the community is not present in the Project Area. The field assessment confirmed this, finding that PBGW TEC does not exist within the Project Area.
Subtropical and Temperate Coastal Saltmarsh (STCS)	VU	STCS communities are typified by a suite of salt-tolerant (halophytic) species of native vegetation including many succulent herbs, grasses, forbs, sedges and rushes). It spans much of southern Australia within a relatively narrow band of coastline. It is found in coastal areas that undergo regular or intermittent tidal influence.	**Does not occur** The PMST report lists the community as "likely to occur", however, the Project Area does not experience any tidal influence and the STCS is not present.

4.1.2 Threatened fauna

The PMST identified 46 fauna species (35 birds, three mammals, five reptiles, two fish and one shark) listed as threatened under the EPBC Act which may occur within 5 km of the Project Area. Of these, eight were marine, and not included in further assessment, including:

- Blue Warehou (*Seriolella brama*);
- Southern Bluefin Tuna (*Thunnus maccoyii*);
- Great White Shark (*Carcharodon carcharias*);
- Leatherback Turtle (*Dermochelys coriacea*);
- Southern Right Whale (*Eubalaena australis*);
- Australian Sea-lion (*Neophoca cinerea*);
- Loggerhead Turtle (*Caretta caretta*); and
- Green Turtle (*Chelonia mydas*).

Only species listed as known or likely to occur were assessed in detail in Table 11, unless BDBSA records also occurred. Excluding marine species, 15 bird species were listed as known to occur, and a further 12 species (11 birds and one mammal) were listed as likely to occur. Ten bird species were excluded from the BAM scoresheet due to their specialised marine or wetland habitats, of which none is present in the Project Area. A full list of species identified in the PMST search is presented in Appendix 2 – PMST Search Results.

The BDBSA (including Birdlife records) identified 48 NPW Act listed fauna species, including ten species which also have EPBC listing status, with records within 5 km of the Project Area. This included 46 birds and two mammals. Many wetland and marine bird species were found to have recent records, however, many of these are associated with specialised wetland habitats which occur nearby at the Adelaide International Bird Sanctuary, the Greenfields Wetlands, Whites Road Wetland and Barker Inlet Wetlands. The Project Area itself does not contain any wetland habitat and therefore many of these species were assessed as unlikely to occur despite the occurrence of nearby records. Threatened species records are mapped in Figure 14 to Figure 17, split into four maps alphabetically sorted to clearly display a large volume of records.

Nineteen species identified in the BDBSA search were excluded from the BAM scoresheets, as they are specialist wetland, marine or aquatic species, and the Project Area does not contain suitable habitat. Excluded species are indicated with an asterisk (*) in the likelihood table.

Two threatened species were assessed as 'likely to occur' in the Project Area, Glossy Ibis (*Plegadis falcinellus*) (NPW Act Rare) and Blue-winged Parrot (*Neophema chrysostoma*) (EPBC Act: VU, NPW Act: V). Eleven State listed terrestrial bird species and one mammal were assessed as possibly occurring within the Project Area, although it is acknowledged that the vegetation is in generally poor condition and unlikely to provide favourable habitat for most species.

Subsequent to this original assessment, EBS contacted NVC on 9 June 2023 regarding the likelihood assessment to determine which species, if any, might be removed from the NVC scoresheet based on the habitat available in the Project Area. Correspondence received indicated that only two species were likely to occur and should remain on the scoresheet: Glossy Ibis (NPW: R) and Blue-winged Parrot (EPBC:VU). The scoresheets have been amended to reflect this correspondence.

Table 11. Likelihood table of species identified as known or likely to occur in the PMST or with BDBSA records within 5km of the Project Area since 1995.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Birds						
Acanthiza iredalei rosinae (Slender-billed Thornbill (Gulf St Vincent))	VU	V	1, 2	Known, 2020	Found in dense, low heath and samphire shrublands on narrow coastal saline mudflats, often behind mangrove fringes. May be highly selective of specific species of samphire (DEH, 2008).	Unlikely - habitat does not contain dense heath near-water samphire shrublands fringing mangroves. Samphire shrubland in Project Area is minimal and highly degraded, regenerating on disturbed soil.
Actitis hypoleucos (Common Sandpiper)*		R	1	2021	Habitat is muddy banks, rocks and sandy beaches near water. Found in coastal or inland wetlands, both saline or fresh. The Common Sandpiper has been recorded in estuaries and deltas of streams, as well as on banks farther upstream; around lakes, pools, billabongs, reservoirs, dams and claypans, and occasionally piers and jetties (DCCEEW 2023).	Unlikely- recent record but no suitable wetland habitat in Project Area, may occur as flyover.
Anhinga novaehollandiae novaehollandiae (Australasian Darter)*		R	1	2020	Most common habitat is lakes, rivers, and swamps. It is rarely coastal.	Unlikely - recent record but no suitable aquatic habitat in Project Area.
Aphelocephala leucopsis (Southern Whiteface)	VU		2	Likely	Semi-arid woodlands, mallee, mulga, dry-country scrublands (Morcombe 2011).	Possible- Project Area does not contain preferred habitat, however and no recent nearby records occur.
Ardea intermedia plumifera (Plumed Egret)		R	1	2018	Habitat includes grassland, wetlands, swamps and edges of lakes and streams, freshwater lakes, rivers, and floodplains.	Unlikely - recent record but no suitable wetland habitat in Project Area.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Biziura lobata menziesi (Musk Duck)*		R	1	2021	Endemic to Australia. Occurs in deep freshwater lagoons, with dense reed beds. They are normally seen singly or in pairs but may form medium to large groups in the winter (BirdsSA, 2023).	Unlikely - no waterbody in Project Area.
Botaurus poiciloptilus (Australasian Bittern)*	EN	E	1, 2	Known, 2017	Found mainly in freshwater wetlands and, rarely, in estuaries or tidal wetlands, favouring wetlands dominated by sedges, rushes and reeds growing over a muddy or peaty substrate (DCCEEW 2023).	Unlikely - Project Area does not contain suitable vegetated wetland habitat.
Bubulcus ibis coromandus (Eastern Cattle Egret)		R	1	2010	The Cattle Egret occurs in tropical and temperate grasslands, wooded lands and terrestrial wetlands. It uses predominately shallow, open and fresh wetlands including meadows and swamps with low emergent vegetation and abundant aquatic flora (Morcombe 2011).	Unlikely - Project Area does not contain suitable grassy terrestrial wetland habitat.
Calidris canutus rogersi (Red Knot, Knot)*	EN, Mi(W)	E	1, 2	Known, 1996	Mainly inhabit intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours, sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs. They are occasionally seen on terrestrial saline wetlands near the coast, such as lakes, lagoons, pools and pans, and recorded on sewage ponds and saltworks, but rarely use freshwater swamps. They rarely use inland lakes or swamps (DCCEEW 2023).	Unlikely - Project Area does not contain wetland habitat.
Calidris ferruginea (Curlew Sandpiper)*	CE, Mi(W)	E	1, 2	Known, 2018	They mainly occur on intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, and also around non-tidal swamps, lakes	Unlikely – the Project Area does not contain permanent wetland habitat.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
					and lagoons near the coast, and ponds in saltworks and sewage farms. Are recorded inland around ephemeral and permanent lakes, dams, waterholes and bore drains, usually with bare edges of mud or sand. They occur in both fresh and brackish waters. (DCCEEW 2023).	
Calidris melanotos (Pectoral Sandpiper)*		R	1	2021	In SA the species is found mostly in the south-east, from north to the Murray River and west to Yorke Peninsula. It prefers shallow, fresh to saline wetlands. It can be found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands (DCCEEW 2023).	Unlikely - Project Area does not contain wetland habitat, may occur as flyover.
Calidris pugnax (Ruff)		R	1	2020	The Ruff is a rare but regular visitor to Australia. It is generally found on fresh, brackish or saline wetlands with exposed mudflats at the edges (DCCEEW 2023).	Unlikely - Project Area does not contain wetland habitat, may occur as flyover.
Calidris subminuta (Long-toed Stint)		R	1	2013	Occurs in a variety of terrestrial wetlands. Prefers shallow freshwater or brackish wetlands including lakes, swamps, river floodplains, streams, lagoons and sewage ponds. It can also be found in areas with a muddy shoreline, growths of short grass, weeds, sedges, low or floating aquatic vegetation, reeds, and rushes (DCCEEW 2023).	Unlikely - Project Area does not contain wetland habitat.
Calidris tenuirostris (Great Knot)	CE, Mi(W)	E	1, 2	Known, 1996	Typically prefers sheltered coastal habitats, with large intertidal mudflats or sandflats, including inlets, bays, harbours, estuaries and lagoons. Can sometimes be found on	Unlikely - the Project Area does not contain suitable habitat.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
					exposed reefs or rock platforms, shorelines with mangrove vegetation, ponds in saltworks, at swamps near the coast, salt lakes and non-tidal lagoons (DCCEEW 2023).	
Cereopsis novaehollandiae novaehollandiae (Cape Barren Goose)		R	1	2018	Found on the south-eastern coast of Australia, the southern coast of Western Australia and in south-eastern Victoria. It is locally dispersive and has been introduced to Kangaroo Island. Inhabits offshore islands, usually granite, in areas of pasture, tussock grass or low heathy scrub (Australian Museum 2023).	Unlikely - suitable habitat does not exist in the Project Area.
Charadrius leschenaultii (Greater Sand Plover, Large Sand Plover)	VU, Mi(W)		2	Likely	Coastal species that occurs in littoral and estuarine habitats. Found in sheltered sandy, shelly or muddy beaches with large intertidal mudflats or sandbanks, sandy estuarine lagoons, inshore reefs, rock platforms, small rocky islands or sand cays on coral reefs. Sometimes near coastal saltworks and salt lakes, marginal saltmarsh, brackish swamps. Seldom occur at shallow freshwater wetlands (DCCEEW 2023).	Unlikely - suitable habitat does not exist in the Project Area.
Charadrius mongolus (Lesser Sand Plover, Mongolian Plover)	EN, Mi(W)		2	Known	Found in large intertidal sandflats or mudflats in sheltered bays, harbours and estuaries. Sometimes occurs on beaches and saltmarsh or mangroves. Also occurs in saltworks and near-coastal saltpans, brackish swamps and sandy or silt islands in riverbeds (DCCEEW 2023).	Unlikely - suitable habitat does not exist in the Project Area.
Cladorhynchus leucocephalus (Banded Stilt)		V	1	2022	Endemic to Australia, mainly in the south and inland. Found mainly in saline and hypersaline (very salty) waters of the inland	Unlikely - suitable habitat does not exist in the Project Area.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
					and coast, typically large, open and shallow (Birdlife Australia, 2023).	
Coturnix ypsilophora australis (Brown Quail)		V	1	2020	Prefers dense grasslands, often on the edges of open forests, and bracken. May sometimes be seen alongside roads.	Possible - recent record and degraded habitat occurs in Project Area but is patchy and isolated.
Diomedea antipodensis (Antipodean Albatross)	VU, Mi(M)		2	Likely	Marine, pelagic and aerial. Sleeps and rests on ocean waters when not breeding. Forages widely in open water. Nests in open patchy vegetation, in tussock grassland, shrubs on ridges, slopes and plateaus (DCCEEW 2023).	Unlikely - suitable habitat does not exist in the Project Area.
Diomedea exulans (Wandering Albatross)	VU, Mi(M)		2	Likely	Breeds on Macquarie Island. Marine, pelagic and aerial (DCCEEW 2023).	Unlikely - suitable habitat does not exist in the Project Area.
Egretta garzetta nigripes (Little Egret)*		R	1	2021	It inhabits fresh, brackish or saline wetlands and shows a preference for shallow waters (10-15 cm deep) in open, unvegetated sites where water levels and dissolved oxygen levels fluctuate daily, tidally or seasonally, and where fish are concentrated in pools or at the water's surface (Birdlife International 2023)	Unlikely - no waterbody in the Project Area.
Egretta sacra sacra (Pacific Reef Heron)*		R	1	2012	Beaches, rocky shores, tidal rivers and inlets, mangroves, and exposed coral reefs (Birdlife Australia 2023).	Unlikely - no coastal habitat in Project Area.
Falco hypoleucos (Grey Falcon)	VU		2	Likely	Found over timbered lowland plains. Hunts in treeless areas. Frequents tussock grassland and open woodland (DCCEEW 2023).	Possible - may flyover Project Area but unlikely to use habitat.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Falco peregrinus macropus (Peregrine Falcon)		R	1	2021	This species prefers open habitats such as grasslands, tundra and meadows and nests on cliff faces and in crevices. It has an extremely large range and is found world-wide except for rainforests and cold, dry Arctic regions. This species has increasingly been observed inhabiting urban areas. (Dewey & Potter 2022)	Possible - may use planted trees in Project Area for perching.
Falco subniger (Black Falcon)		R	1	2019	The black falcon is found along tree-lined watercourses and in isolated woodlands, mainly in arid and semi-arid areas (Birdlife Australia 2023).	Possible- recent record from within the Project Area. May flyover Project Area to forage and / or utilise planted trees.
Gallinago hardwickii (Latham's Snipe)*		R	1	2014	Non-breeding visitor to south-eastern Australia. They occur in permanent and ephemeral wetlands up to 2000 m above sea-level, usually inhabiting open, freshwater wetlands with low, dense. However, they can also occur in habitats with saline or brackish water, in modified or artificial habitats, and in habitats located close to humans or human activity (DCCEEW, 2023).	Unlikely - the Project Area does not contain wetland habitat.
Grantiella picta (Painted Honeyeater)	VU	R	2	Likely	Forest, woodland, dry scrub, often with abundant mistletoe. Dependent on mistletoe berries (Morcombe 2011).	Unlikely - Primary food source mistletoe not observed within Project Area and vagrant to the MLR. No recent nearby records occur.
Haematopus fuliginosus fuliginosus (Sooty Oystercatcher)*		R	1	2020	The Sooty Oystercatcher is strictly coastal, usually found within 50 m of the ocean. It prefers rocky shores but will be seen on coral reefs or sandy beaches near mudflats. It breeds on offshore islands and	Unlikely - Project Area is not coastal.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
					isolated rocky headlands (BirdLife Australia, 2023).	
Haliaeetus leucogaster (White-bellied Sea Eagle)		E	1	2020	The White-bellied Sea-Eagle is found in coastal habitats (especially those close to the sea-shore) and around terrestrial wetlands in tropical and temperate regions of mainland Australia and its offshore islands. The habitats occupied by the sea-eagle are characterised by the presence of large areas of open water (larger rivers, swamps, lakes, the sea). Birds have been recorded in (or flying over) a variety of terrestrial habitats (DCCEEW 2023).	Unlikely - Project Area is not coastal. May occur as flyover only.
Hieraaetus morphnoides (Little Eagle)		V	1	2019	The Little Eagle is widespread in mainland Australia, central and eastern New Guinea. It is seen over woodland and forested lands and open country, extending into the arid zone. It tends to avoid rainforest and heavy forest (BirdLife Australia, 2023).	Possible - may use planted trees in Project Area for perching.
Hirundapus caudacutus caudacutus (White-throated Needletail)	VU, Mi(T)	V	1, 2	Known, 2014	Almost exclusively aerial in Australia, recorded mostly above wooded areas (DCCEEW, 2023).	Unlikely - may be sighted above Project Area but unlikely to use habitat. Flyover only.
Lewin pectoralis pectoralis (Lewin's Rail)		V	1	1997	Swamp woodlands; rushes, reeds, rank grass in swamps, creeks, paddocks; wet heaths, tree ferns; samphire in saltmarsh (Pizzey and Knight 2012).	Unlikely – no preferred marsh habitat occurs within the Project Area.
Limosa limosa melanuroides (Black-tailed Godwit)*		R	1	2013	The species is commonly found in sheltered bays, estuaries and lagoons with large intertidal mudflats or sandflats, or spits and banks of mud, sand or	Unlikely - wetland habitat does not exist in the Project Area.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
					shell-grit; occasionally recorded on rocky coasts or coral islets. It is also found in shallow and sparsely vegetated, near coastal wetlands. There are a few inland records. They also use lagoons in sewage farms and saltworks (DCCEEW, 2023).	
Melithreptus gularis gularis (Black-chinned Honeyeater)		VU	1	2016	Known to occupy dry Eucalypt woodland with an annual rainfall of 400-700mm, particularly associated with ironbark and box. In SA, known to occur in isolated areas along the foothills of the Mount Lofty Ranges, from Kaiserstuhl CP and Rowland Flat in the north to the eastern Fleurieu (DEH, 2008b).	Unlikely – no suitable woodland habitat within Project Area. All vegetation is planted and limited box/ ironbark species occur.
Macronectes halli (Northern Giant Petrel)*	VU, Mi(M)		2	Likely	Found in oceanic and inshore waters. Breeding sites are typically located on low areas close to the sea, on coastlines with tussock grass and broken terrain that provide shelter for nests (DCCEEW, 2023).	Unlikely - suitable coastal wetland habitat does not exist in the Project Area.
Melanodryas cucullata cucullata (South-eastern Hooded Robin, Hooded Robin (south-eastern))	EN		2	Likely	Occurs across south-eastern Australia, most of NSW, VIC and south-eastern SA. Found in Eucalypt woodland and mallee and Acacia shrubland (DEH, 2008c).	Unlikely - no preferred habitat and no recent nearby records. Species is known from more arid inland areas to the east of the Mount Lofty Ranges.
Microeca fascinans (Jacky Winter)		R	1	2019	Prefers open woodland (Eucalypt and mallee) with an open shrub layer and bare ground. Often seen in farmland and parks (DEH, 2008d).	Possible - recent nearby record, however preferred woodland habitat does not occur. Trees are planted and occur in denser stands, however surrounding open shrub habitat is available.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Neophema chrysostoma (Blue-winged Parrot)	VU		2	Known	Found in a range of habitats including, forests, grasslands, mulga, saltbush, alpine areas, and coastal dunes (Morcombe, 2011).	Likely - no nearby records but Project Area contains potentially suitable foraging habitat, and this species was assessed as likely to occur in correspondence with NVC.
Neophema elegans elegans (Elegant Parrot)		R	1	2013	Found in woodlands, lightly timbered grasslands, partly cleared farmland, margins of clearings in heavy forest, treelined watercourses, mallee, and mulga (Morcombe, 2011).	Possible - recorded within last 10 years and may visit planted trees within Project Area.
Numenius madagascariensis (Eastern Curlew, Far Eastern Curlew)*	CE, Mi(W)		2	Known	The Eastern Curlew occurs in sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass. They also occur in saltmarsh and on mudflats fringed by mangroves (DCCEEW 2023).	Unlikely - the Project Area does not contain suitable coastal habitat.
Oxyura australis (Blue-billed Duck)*		R	1	2021	Endemic to south-eastern and south-western Australia. Habitat includes permanent swamps with dense vegetation, large open lakes, tidal inlets, and bays (Morcombe, 2011)	Unlikely - the Project Area does not contain suitable deep water habitat.
Pachyptila turtur subantarctica (Fairy Prion (southern))	VU		2	Known	Sub-Antarctic seas and islands while breeding, then wanders to subtropical seas. Rarely found close inshore except when sheltering from storms (DCCEEW, 2023).	Unlikely - Project Area does not contain suitable habitat. Marine species.
Parvipsitta pusilla (Little Lorikeet)		E	1	2010	Eucalypt forest and woodland, particularly in riparian areas. Favours open country including watercourse and paddock trees (Morcombe, 2011)	Possible - recorded within last 20 years and may visit planted trees within Project Area.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Petroica phoenicea (Flame Robin)		V	1	2015	Occurs in Eucalypt forests and woodland with access to open areas, such as subalpine woodland, recently burnt forest, recently logged forest and pine plantations (Birdlife International, 2023).	Possible - recorded within last 10 years and may visit planted trees within Project Area. Vagrant to MLR.
Plegadis falcinellus (Glossy Ibis)		R	1	2017	Preferred habitat for foraging and breeding are fresh water marshes at the edges of lakes and rivers, lagoons, flood-plains, wet meadows, swamps, reservoirs, sewage ponds, rice-fields and cultivated areas under irrigation. The Glossy Ibis is occasionally found in coastal locations such as estuaries, deltas, saltmarshes and coastal lagoons (DCCEEW, 2023).	Likely - suitable foraging habitat occurs in the Project Area and there are recent nearby records.
Pluvialis fulva (Pacific Golden Plover)		R	1	2015	The Pacific Golden Plover is usually found in coastal habitats, though it sometimes occurs around inland wetlands (DCCEEW, 2023).	Unlikely - no wetlands or waterbodies in Project Area.
Podiceps cristatus australis (Great Crested Grebe)*		R	1	2015	A specialist aquatic species, preferring large deep lakes and swamps with both open water and dense reedbeds or other concealing vegetation (Morcombe 2011).	Unlikely - no waterbodies in Project Area.
Polytelis anthopeplus monarchoides (Regent Parrot)	VU	V	1	2015	The Regent Parrot (eastern) is mostly found in riparian or littoral *Eucalyptus camaldulensis* (River Red Gum) forests or woodlands and adjacent *E. largiflorens* (Black Box) woodlands. They often occur in farmland, especially where remnant patches of woodland along roadsides or in paddocks are present (DCCEEW, 2023).	Unlikely - outside of known range for species and no suitable habitat occurs. Records are from the nearby Whites Road Wetlands, which contains suitable habitat. Project Area does not support breeding or foraging activities.
Rostratula australis	EN	E	1, 2	Known, 2017	Shallow terrestrial freshwater (occasionally brackish)	Unlikely Project Area does not contain

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
(Australian Painted Snipe)					wetlands, including temporary and permanent lakes, swamps and claypans. Inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire (DCCEEW, 2023).	suitable wetland foraging habitat.
Spatula rhynchotis (Australasian Shoveler)*		R	1	2021	Found in shallow wetlands with abundant emergent vegetation. They can be found on freshwater, brackish and saline waters including inshore waters and estuaries (Morcombe, 2011).	Unlikely - Project Area does not contain wetland habitat.
Stagonopleura guttata (Diamond Firetail)	VU		2	Likely	Occurs mainly on the inland slopes of the Great Dividing Range and in the AMLR/Eyre Peninsula region of SA. Resides in a wide range of Eucalypt dominated vegetation communities that have a grassy understorey, including woodland, forest, and mallee (DEH, 2008e).	Unlikely - no records within last 20 years and Project Area does not contain suitable habitat.
Sternula albifrons sinensis (Little Tern)*		E	1	2007	Little Terns inhabit sheltered coastal environments, including lagoons, estuaries, river mouths and deltas, lakes, bays, harbours and inlets, especially those with exposed sandbanks or sand-spits, and also on exposed ocean beaches. Two breeding colonies are recorded in South Australia (DCCEEW, 2023).	Unlikely - Project Area does not contain any coastal environments. Flyover only.
Sternula nereis nereis (Australian Fairy Tern)*	VU	E	1, 2	Known, 2015	Nests on sheltered sandy beaches, spits and banks above the high tide line and below vegetation (DCCEEW, 2023).	Unlikely - Project Area does not contain suitable habitat. Flyover only.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Stictonetta naevosa (Freckled Duck)*		V	1	2018	The Freckled Duck is found primarily in south-eastern and south-western Australia, occurring as a vagrant elsewhere. They prefer permanent freshwater swamps and creeks with heavy growth of Cumbungi, Lignum or Tea-tree. During drier times they move from ephemeral breeding swamps to more permanent waters such as lakes, reservoirs, farm dams and sewage ponds (Morcombe, 2011).	Unlikely - Project Area does not contain any waterbodies.
Thalassarche carteri (Indian Yellow-nosed Albatross)*	VU, Mi(M)		2	Likely	Waters with calm seas and light winds. Nests on tussock-covered coastal cliffs and slopes, often in rocky situations (DCCEEW, 2023).	Unlikely - the Project Area is not marine.
Thalassarche cauta (Shy Albatross)*	EN, Mi(M)		2	Likely	Pelagic. Sometimes occurs in continental shelf waters, bays, and harbours (Morcombe, 2011).	Unlikely - the Project Area is not marine.
Thalassarche melanophris (Black-browed Albatross)*	VU, Mi(M)		2	Likely	Marine. Rarely sighted over land away from its breeding islands (DCCEEW, 2023).	Unlikely - the Project Area is not marine.
Thalassarche steadi (White-capped Albatross)*	VU, Mi(M)		2	Known	Marine species which occurs in subantarctic and subtropical waters. The species occurs both inshore and offshore and enters harbours and bays. (DCCEEW, 2023).	Unlikely - the Project Area is not marine.
Thinornis cucullatus cucullatus (Eastern Hooded Plover, Eastern Hooded Plover)*	VU		2	Known	The species mainly occurs on wide beaches backed by dunes with large amounts of seaweed, creek mouths and inlet entrances. (DCCEEW, 2023).	Unlikely - the Project Area is not marine.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Tringa glareola (Wood Sandpiper)		R	1	2021	The Wood Sandpiper uses well-vegetated, shallow, freshwater wetlands, such as swamps, billabongs, lakes, pools and waterholes. Sometimes uses artificial wetlands, such as open sewage ponds, reservoirs, large farm dams, and bore drains (DCCEEW, 2023).	Unlikely - the Project Area does not contain wetland habitat.
Xenus cinereus (Terek Sandpiper)*		R	1	2004	The Terek Sandpiper has a primarily coastal distribution. It forages in the open, on soft wet intertidal mudflats or in sheltered estuaries, harbours or lagoons. It roosts among mangroves, or occasionally dead trees (DCCEEW, 2023).	Unlikely - the Project Area is not coastal.
Zanda funerea whiteae (Yellow-tailed Black Cockatoo)		V	1	2021	Yellow-tailed Black Cockatoos are moderately common in the Mount Lofty Ranges, the southern Murray Mallee, the South-east and on Kangaroo Island, and uncommon on the Adelaide plains. Their habitat includes coastal heath, woodland, and forest. They are increasingly to be found in pine plantations and patches of pine trees in urban and rural areas (Birds SA, 2023).	Unlikely - despite recent records, planted trees within the Project Area are not preferred pine species for foraging. May occur as a flyover.
Zapornia tabuensis (Spotless Crake)*		R	1	2019	Found in well vegetated freshwater wetlands with rushes, reeds and cumbungi, and will frequent muddy areas, reedbeds or wetlands (DEH, 2008).	Unlikely - no wetland habitat in Project Area.
Pteropus poliocephalus (Grey-headed Flying-fox)	VU	R	1, 2	Likely, 2020	The Grey-headed Flying-fox is a canopy-feeding frugivore and nectarivore. It roosts on exposed branches, in sites typically located near water, such as lakes, rivers or the coast. Colonies also use highly modified vegetation in urban	Possible - recent record nearby, however trees within the Project Area are planted and non-native and likely to provide minimal or occasional foraging habitat.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
					and suburban areas (DCCEEW, 2023).	
Saccolaimus flaviventris (Yellow-bellied Sheath-tailed Bat)		R	1	2000	The Yellow-bellied Sheath tail-bat is a rare visitor to South Australia in late summer and autumn. It roosts singly or in groups of up to six in tree hollows and buildings. In treeless areas they are known to utilise mammal burrows (OEH, 2023).	Possible - recorded within last 10 years and may visit planted trees within Project Area, though no hollows were observed during the field survey and therefore trees are unlikely to be mature enough to support roosting.
EPBC threatened category: CE = Critically Endangered, EN = Endangered, VU = Vulnerable, Mi(M) = Migratory (Marine), Mi(W) = Migratory (Wetlands). Source: 1 = BDBSA, 2 = PMST (including Birdlife).						

Figure 14. Map 1 of 4. Threatened fauna records within 5km of the Project Area since 1995 (<1km reliability).

Figure 15. Map 2 of 4. Threatened fauna records within 5km of the Project Area since 1995 (<1km reliability).

Figure 16. Map 2 of 4. Threatened fauna records within 5km of the Project Area since 1995 (<1km reliability).

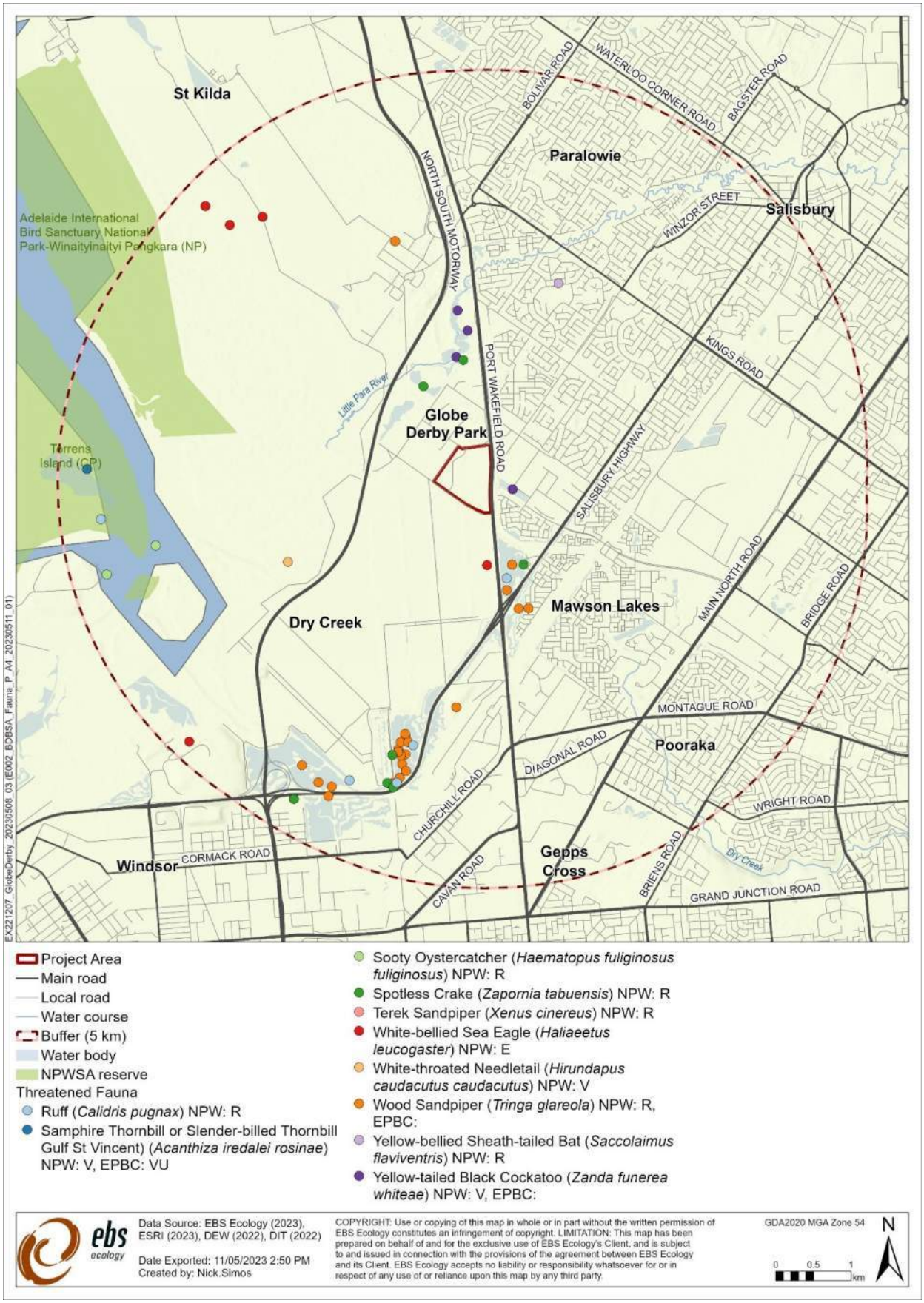


Figure 17. Map 4 of 4. Threatened fauna records within 5km of the Project Area since 1995 (<1km reliability).

4.1.3 Threatened flora

The PMST identified three flora species listed as threatened under the EPBC Act as potentially relevant to the Project Area. The BDBSA identified seven flora species listed under the NPW Act as recorded within 5 km of the Project Area. One NPW Act listed species was recorded within the Project Area, *Sclerolaena muricata* var. *villosa* (Five-spine Bindyi) during the field survey. It was found in abundance throughout the Project Area in VA1.

Table 12. Likelihood of occurrence of threatened fauna species identified in the desktop assessment. The data source and threat levels are described in the table footer.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Plants						
Acacia iteaphylla (Flinders Ranges Wattle)		R	1	2003	Endemic to SA and found on northern Eyre Peninsula eastward to the Flinders Ranges and northern Mount Lofty Ranges growing on hillsides amongst rocky outcrops or in valleys along rocky creek banks. Widely planted & naturalised elsewhere and widespread in the Mt Lofty Ranges region (DEW, 2023).	Possible - On end of range of this species. Highly naturalised in the MLR, may occur as regeneration from a planted tree. Not observed on site during field assessment.
Austrostipa gibbosa (Swollen Spear-grass)		R	1	2000	Grows in rich loamy soils along creeks and in other seasonally wet places. Also prefers open forests and woodlands or grasslands with *Eucalyptus odorata, Acacia pycnantha, Allocasuarina verticillata* and *Rytidosperma setaceum*.	Possible - record within last 40 years but no suitable habitat in Project Area.
Bothriochloa macra (Red-leg Grass)		R	1	1999	SA: FR EA EP NL MU YP SL SE. Grows on a variety of soil types in humid areas but in drier areas is restricted to run-on areas on clay or loamy soils. Occurs on most soil types but often dominant on poor, lower fertility soils and frequently invades degraded areas. Scattered recent records within southern EP. Mainly found in open grassy woodland communities and is often found in disturbed sites (DPI, 2023).	Possible - record within last 40 years but not observed during field survey.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Caladenia tensa (Greencomb Spider-orchid, Rigid Spider-orchid)	EN		2	Likely	Grows on red-brown sandy loams on rises in open woodland dominated by Yellow Gum and Rottnest Island Pine. Also in dry Cypress-pine/Yellow Gum Woodland, Pine/Box woodland, mallee-heath sites, heathy woodland and mallee woodland, generally with rock outcrops (DCCEEW, 2023).	Unlikely - no recent records and Project Area does not contain suitable conditions.
Centrolepis glabra (Smooth Centrolepis)		R	1	1996	Smooth Centrposis requires muddy conditions within ephemerally damp and swampy habitats around temporary freshwater pools and stream margins (DEH, 2008f).	Unlikely - the Project Area does not contain suitable swampy conditions.
Juncus radula (Hoary Rush)		V	1	2001	Found in the southern Flinders Ranges, Mount Lofty Ranges and the upper South-east, growing on seasonally damp areas in depressions and along drainage lines in woodland and open grassland (DEH, 2008G).	Unlikely - no suitable damp woodland or open grassland habitat exists in Project Area, and not observed during field survey.
Prasophyllum pallidum (Pale Leek-orchid)	VU		2	Likely	Endemic to South Australia and found in southern Flinders Ranges and the Mount Lofty Ranges, growing on the more fertile soils of woodland and well-grassed open forests (DEH, 2008g).	Unlikely - the Project Area is outside the species range (Mount Lofty Ranges) and has been highly disturbed.
Sclerolaena muricata var. *villosa* (Five-spine Bindyi)		R	1	2018	Coloniser of degraded areas. Found along the Murray River, creeks, and floodplains on heavy clay soils (PlantNET, 2023).	Known - record within last 10 years and observed in abundance in the Project Area during the field assessment.
Tecticornia flabelliformis (Bead Glasswort)	VU		2	Known	Margins of salt lakes, saline flats, evaporation pans and coastal salt marshes over gypsum deposits. Directly behind coastal dunes. Periodically (but not regularly) inundated depressions (DCCEEW, 2023).	Unlikely - not detected during field survey and habitat not saline.

Scientific Name (Common Name)	EPBC Act	NPW Act	Data Source	Date of Last Record	Habitat preferences	Likelihood of presence
Zannichellia palustris (Horned Pondweed)		R	1	2018	Occurs in fresh and brackish water. SA: MU SE (eFloraSA, 2023).	Unlikely - no fresh or brackish waterbody present in the Project Area.
EPBC threatened category: CE = Critically Endangered, EN = Endangered, VU = Vulnerable, Mi(M) = Migratory (Marine), Mi(W) = Migratory (Wetlands). Source: 1 = BDBSA, 2 = PMST (including Birdlife).						

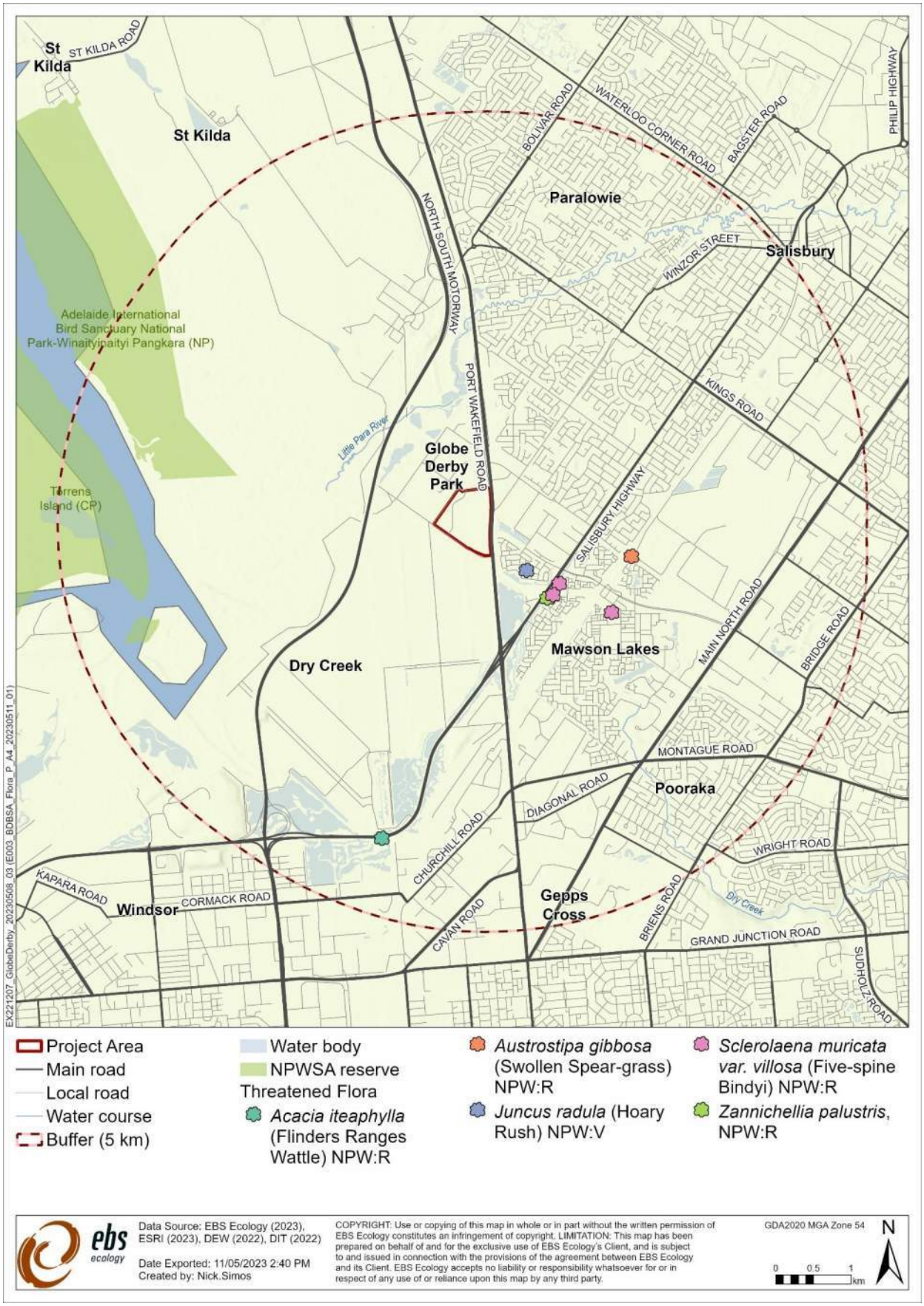


Figure 18. BDBSA records of threatened flora within 5km of the Project Area since 1995 (<1km reliability).

4.3. Presence of Substantially Intact Vegetation

If the vegetation is considered to represent a substantially intact stratum, the NVC cannot approve clearance, unless for the purpose of harvesting native vegetation (section 27(3)).

Clearance proponents must also address whether 'substantially intact vegetation' is present in accordance with *Section 3A* of the NV Act.

Does the native vegetation constitute a continuous stratum?

One pre-European Vegetation Association (Benchmark Community) was mapped across the site (Croft *et al.* 2007):

- NA (Northern Agricultural) 8.1 Coastal Plains Open Shrublands.

The key attributes considered to determine whether the vegetation constitutes an intact stratum were;

- It contains a diversity of species similar to original (pre-European) vegetation of that community;
- Plants within the stratum are growing at original (pre-European density for that community);
- It is part of a contiguous area of vegetation consisting of the stratum (size of patch >1 ha), and
- It does not contain introduced perennial species occupying greater than 20% within the stratum under consideration.

The vegetation under application in the two vegetation associations was assessed against the benchmark condition scores listed in Volume 3 of the Vegetation Communities of the Northern Agricultural and Yorke Peninsula Regions (Pedler, Croft, Milne 2007) for Benchmark community *8.1 Coastal Plain Open Shrublands*. Relevant attributes are listed in (Table 13). Based on these scores, the native plant species diversity is considered moderate, and is unlikely to contain a diversity of species similar to original (pre-European) condition. The structural diversity of plant life forms is considered poor to moderate and is unlikely to be growing at original (pre-European) density.

The proposed clearance within the Project Area will impact a total of 1.66 ha of Coastal Plain Open Shrublands, however this does not comprise of a contiguous area over 1 ha. The Coastal Plain Open Shrublands within the Project Area comprises of multiple patches of vegetation smaller than 0.05 ha.

Introduced perennial species occupied greater than 20% cover in vegetation associations A1 and A2. Two of the most widespread exotic plant species were *Galenia pubescens* var. *pubescens* and *Oxalis pes-caprae*, which formed dense swathes of cover in some areas.

Table 13. Characteristics of Healthy Coastal Plain Open Shrublands.

Indicator	A1	A2
Native plant species diversity	7	7
Species diversity Benchmark Score	7-10 (Moderate)	7-10 (Moderate)
Weed abundance and threat	19	13

Weed abundance and threat Benchmark Score	18- 25 (Poor)	12-17 (Moderate)
Structural diversity B – plant life forms	9	6
Structural diversity B – plant life forms Benchmark score	7 - 9 (Moderate)	4 - 6 (Poor)
Size of patch >1ha?	No, vegetation is disconnected in patches <1 ha in size.	No, vegetation is disconnected in patches <1 ha in size.

Has the vegetation been subject to degradation within the past 20 years?

As identified on NatureMaps (2023), the 'Land Use Description' for the Project Area is classified as "Intensive Purposes" as per the Australian Collaborative Land Use and Management Program (ACLUMP). This was evident during the field survey. The Project Area was assessed as having been subjected to significant disturbance caused by access tracks, parking, soil disposal, and unregulated waste disposal. Land use in the Project Area also included harness racing tracks, parking areas and dirt bike jumps.

Key finding on whether any or all of the area of impact could be considered as substantially intact:

The assessment for intact vegetation finds that given the level of weed invasion and previous degradation, the understorey stratum is not intact. As a naturally treeless community, the lack of overstorey is not considered as indicating degradation of the stratum. Due to the previous disturbance, patchy distribution of the vegetation, and high weed incursion, the area is unlikely to be considered substantially intact.

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.

Cumulate impacts as a result of the proposed industrial land division include:

- Clearance of 1.66 ha of patchily distributed native vegetation in poor to fair condition and three scattered trees is directly required for the division, which includes clearance for:
    - Complete clearance on all allotments for proposed future facilities including for fences, building footprints, associated infrastructure;
    - Ancillary roads and access points;
    - Overhead electrical cables;
    - Drainage swales.
- Indirect impacts may occur as a result of the development including:
    - Some dust generation during construction;
    - Loss of permeable surfaces, reducing ground water uptake;

- Loss of mature planted overstorey of introduced Eucalypt and other amenity trees resulting in loss of perching and nesting habitat for birds.

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 NP&W Act.

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

The land division development has been proposed for a location which has been highly disturbed by past and present activities, and which contains scattered patches of native vegetation in poor condition, which have regenerated on disturbed soils. The patchy nature of the vegetation meant that it was unable to be avoided without impacting the practical useability of each proposed allotment for industrial uses. Two significant trees (planted) are to be avoided / retained as part of the development.

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).

The division plan proposes over one hectare of land as designated 'reserve', detailed in a Landscape Masterplan (GD Studia, 2023) (Figure 19). Where appropriate the landscape design looks at retaining native vegetation, however due the fragmented nature of the existing vegetation many patches had to be removed. Along the interface of Port Wakefield Road, the landscape design looks at retaining where appropriate all existing vegetation to try and retain a linear green corridor. Where required the Masterplan proposes swathes of native vegetation to infill between the groups of existing trees, while still allowing for the required setbacks for trees from Port Wakefield Road. This will assist with mitigating the overall impact by reinforcing a strong biodiversity corridor. Although some existing significant trees (non-native) will be removed by the development, the landscape design proposes a new avenue of large trees to help increase tree canopy cover and strengthen a biodiversity corridor.

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.

The Landscape Masterplan includes two reserve areas, containing stormwater detention basins, grassed swales and urban forest avenues (Figure 19). Where appropriate small pockets of vegetation will be retained within reserves, where not affected by cut required for the open swale. The proposed reserves overlap with some areas mapped as VA1 and

VA2 and given the nature of the disturbance resistant vegetation, including species such as *Samphire* and *Maireana brevifolia* natural regeneration of these species may reoccur in areas where complete clearance is not undertaken.

The landscape design has looked at providing swathes of densely planted Australian native species to create 'urban forests'. The urban forests will consist of densely planting trees with native low level understorey planting that creates habitat and biodiversity benefits, while maintaining sight lines for passive surveillance. These urban forests provide substantial canopy cover, assist in linking existing vegetation to create biodiversity corridors and habitat opportunities and will aim to mitigate impacts caused by the removal of existing degrades patches of native vegetation.

The overall landscape design has adopted a very organic and natural setting language to fit into the surrounding area and has selected species from the City of Salisbury Landscape Plan (Hassell, 2007) document (predominantly Lower Alluvial Plain planting list) to ensure that species which are complementary to the existing landscape and fauna assemblage are used. Table 14 is provided to support Seymour Group to select the most appropriate species from their existing Landscape Masterplan.

Table 14. Landscape Masterplan planting list with native status and distribution indicated. Species denoted in green are local natives which EBS recommends be prioritised over those in white (non-local Australian natives or cultivars), and red (non-native species).

OVERSTOREY		UNDERSTOREY			
Species	**Status / distribution**	**Species**	**Status / distribution**	**Species**	**Status / distribution**
Agonis flexuosa	AN (WA)	*Dianella brevicaulis*	LN (SA)	*Ficinia nodosa*	LN (SA)
Angophora costata	AN (NSW, QLD)	*Myoporum parvifolium*	LN (SA)	*Poa labillardieri*	LN (SA)
Brachychiton populneus	AN (Vic, NSW, QLD)	*Salicornia quinqueflora*	LN (SA)	*Suaeda australis*	LN (SA)
Acacia pycnantha	LN (SA)	*Callistemon viminalis*	AN(c) (QLD)	*Goodenia amplexans*	LN (SA)
Lagerstroemia sp.	NN (Asia)	*Carex appressa*	LN (SA)	*Limonium perezii*	NN (Canary Islands)
Corymbia citriodora	AN (QLD)	*Lomandra multiflora dura*	LN (SA)	*Juncus sp.*	Check
Eucalyptus leucoxylon	LN (SA)	*Grevillea juniperina*	AN (NSW, QLD)	*Chrysocephalum apiculatum*	LN (SA)
Eucalyptus leucoxylon (dwarf)	AN(c)	*Maireana brevifolia*	LN (SA)	*Westringia fruticosa*	AN (NSW)
Eucalyptus camaldulensis	LN (SA)	*Eremophila nivea*	AN (WA)	*Correa reflexa*	LN (SA)
				Abelia x grandiflora	NN (Asia)
Status: AN = Australian native species (not local to the area); LN = locally native species (best choice); NN = Not native (recommend removing from planting list).					

LANDSCAPE MASTER PLAN

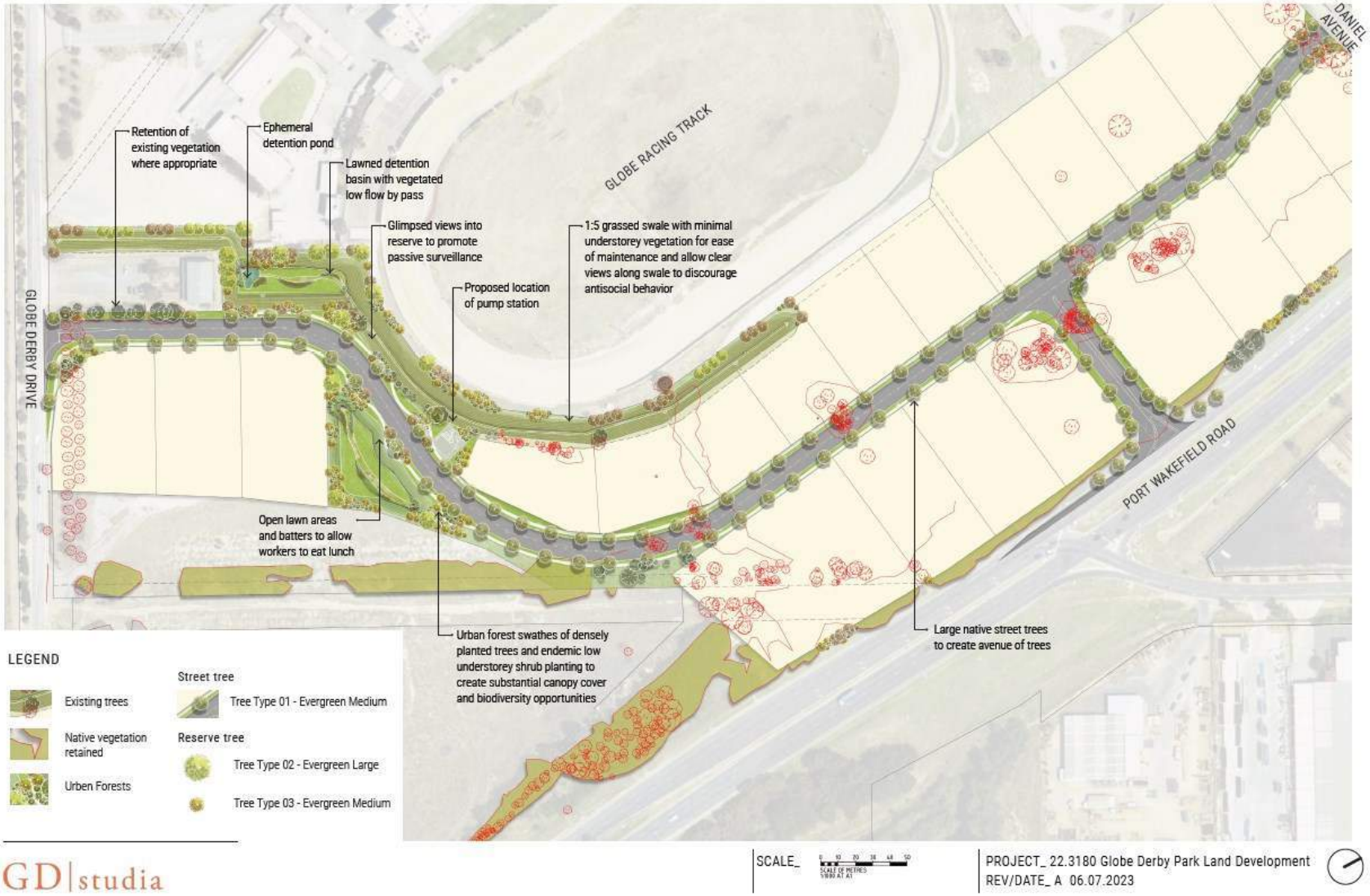


Figure 19. Landscape Masterplan for Globe Derby Park Land Development (supplied to EBS on 10/07/2023).

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

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

Offset will be achieved by way of payment into the Native Vegetation Fund of $41,511.83 (including $2,164.13 administration fee).

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

The Native Vegetation Council will consider Principles 1(b), 1(c) and 1(d) when assigning a level of Risk under Regulation 16 of the Native Vegetation Regulations. The Native Vegetation Council 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*.

Table 15. Assessment against the Principles of Clearance.

<table>
<tr><th>Principle of clearance</th><th>Considerations</th></tr>
<tr><td rowspan="3">Principle 1(a) – it comprises a high level of diversity of plant species</td><td>Relevant information
Vegetation within the Project Area was highly degraded, comprising scattered fragmented patches of native vegetation which were regenerating on previously disturbed soil.

Table 16. The number of plant species recorded (native and introduced) for each VA.
<table>
<tr><th>VA</th><th>Native</th><th>Diversity Score</th><th>At variance</th><th>Seriously at variance</th></tr>
<tr><td>A1</td><td>7</td><td>12</td><td>Yes</td><td>-</td></tr>
<tr><td>A2</td><td>6</td><td>15</td><td>Yes</td><td>-</td></tr>
</table></td></tr>
<tr><td>Assessment against the principles
Seriously at Variance
NA
At Variance –
A1, A2</td></tr>
<tr><td>Moderating factors that may be considered by the NVC
Amount of clearance related to area of remnant</td></tr>
</table>

Principle of clearance	Considerations
	The amount of native vegetation within a 5 km radius (based on DEW NatureMaps native vegetation layer), is approximately 1,503.49 ha. The total clearance for the Project is 1.64 ha which equates to 0.11%. If less than 0.25% of remnant vegetation within a 5 km radius is to be cleared, the impact may be reduced from *seriously at variance* to *at variance*, or *at variance* to *not at variance*.
Principle 1(b) – significance as a habitat for wildlife	Relevant information EPBC and State NPW Act listed fauna species were recorded in the database searches as listed below. **Likely** • *Plegadis falcinellus* (Glossy Ibis) (NPW Act: R) • *Neophema chrysostoma* (Blue-winged Parrot) (EPBC Act: VU) **Possible** • *Coturnix ypsilophora australis* (Brown Quail) (NPW Act: V) • *Falco hypoleucos* (Grey Falcon) (NPW Act: VU) • *Falco peregrinus macropus* (Peregrine Falcon) (NPW Act: R) • *Falco subniger* (Black Falcon) (NPW Act: R) • *Hieraaetus morphnoides* (Little Eagle) (NPW Act: V) • *Microeca fascinans* (Jacky Winter) (NPW Act: R) • *Neophema elegans elegans* (Elegant Parrot) (NPW Act: R) • *Parvipsitta pusilla* (Little Lorikeet) (NPW Act: E) • *Petroica phoenicea* (Flame Robin) (NPW Act: V) • *Pteropus poliocephalus* (Grey-headed Flying-fox) (EPBC Act: VU, NPW Act: R) • *Saccolaimus flaviventris* (Yellow-bellied Sheath-tailed Bat) (NPW Act: R) A number of listed threatened species were found to have nearby records, however many of these are related to nearby wetland reserves which support these species. Native vegetation within the Project was highly degraded, with the habitat likely to support these species consisting of planted patches of non-native eucalypt, not protected under the NV Act. Some foraging habitats may be provided by the vegetation in both VA1 and VA2 and it is likely the area supports a population of introduced House Mouse (*Mus musculus*) which may provide a food resource for foraging raptors such as the Black Falcon. The fragmented nature of the native vegetation further reduces its significance as habitat for wildlife. Scattered trees within the Project Area are small / young *Acacia salicina* trees which provide limited habitat for most common or threatened species. Additionally, they occur directly alongside Port

Principle of clearance	Considerations
	Wakefield Road on the corner of the block, which is likely to further reduce their importance as habitat for species, given the high level of disturbance. Nationally listed Grey-headed Flying-fox has a known camp at the Adelaide Botanic Gardens, approximately 15 km to the south of the Project Area. This species travels long distance to forage, and foraging habitat within 20 km of a known camp is considered critical to the survival of the species. The Project Area does not contain locally native tree species and planted species in the area occur only in small stands, regularly intermixed with non-food plant *Casuarina glauca*, and are unlikely to provide important foraging habitat for the species. EBS contacted NVC on 9 June 2023 regarding the possible application of moderating factors for principle 1(b), to determine which species, if any, could be removed from the NVC scoresheet based on the habitat available in the Project Area. Correspondence received found that only two species were likely to occur: Glossy Ibis (NPW: R) and Blue-winged Parrot (EPBC:VU). The scoresheets have been amended to reflect this correspondence (provided in Appendix 3 – NVC correspondence). Habitat for these species is not considered to be of high quality and there are no known records of Blue-winged Parrot in the vicinity. Landscaping plans including stormwater swales with native understorey plantings in reserve areas are likely to maintain habitat for the Glossy Ibis if it were to occur in the Project Area. Suitable habitat for Blue-winged Parrot is not being impacted in other areas of the Globe Derby complex. Table 17 and Table 18 detail the biodiversity and fauna scores of VAs and scattered trees in the Project Area, respectively. **Table 17. UBS of VAs within Project Area.** **VA** / **UBS** / **Threatened Fauna Score** / **At Variance** / **Seriously at Variance** A1 / 36.13 / 0.08 / / Yes A2 / 35.48 / 0.08 / / Yes **Table 18. UBS of trees within Project Area.** **Tree** / **UBS** / **Threatened Fauna Score** / **At Variance** / **Seriously at Variance** 1 / 0.17 / 0 / No / 2 / 0.42 / 0 / No /

Principle of clearance	Considerations
	3 | 0.11 | 0 | No |
	Assessment against the principles Seriously at Variance - A1, A2 At Variance – NA
	Moderating factors that may be considered by the NVC Based on the degraded and patchy quality of vegetation and poor quality of habitat observed, moderating factors which may be considered by the NVC include: *Impact significance* – the clearance is unlikely to: • lead to a long-term decrease in the size of any populations of threatened species; or • Reduce the area of occupancy of any species; or • Fragment an existing population; or • Adversely affect habitat critical to the survival of a species; or • Modify, destroy, remove, isolate or decrease availability of quality of habitat to the extent that a species is likely to decline, or • Result in invasive species that are harmful to a threatened species becoming established; or • Interfere with the recovery of a species. *Non-essential habitat* – the habitat within the Project Area is not considered essential to any threatened species and therefore its clearance would have a negligible impact on local populations of threatened species over the long term.
Principle 1(c) – plants of a rare, vulnerable or endangered species	Relevant information One State listed threatened species was detected within the Project Area during the field survey, *Sclerolaena muricata* var. *villosa* (Five-spine Bindyi) (NPW Act: Rare). The species was observed to occur in dense patches in several locations within the Project Area, occurring as the dominant species in some patches of VA A1. There was a population along the southern fenceline bordering Globe Derby Drive (Figure 20), and also scattered throughout VA A1 across the Project Area. Typically, the species occurred among weedy understorey species including *Oxalis pes caprae* (Sour sob) and non-native annual grasses. The species was observed to have both mature and regenerating individuals across its distribution. Within the Project Area, the entire extent of this species is likely to be removed. Within the surveyed area of Globe Derby Park, a large dense grouping (approximately 410 m^2) east of the Globe Derby Drive entrance track will be avoided. *S. muricata* var. *villosa* was the dominant shrub in this retained area.

Principle of clearance	Considerations
	Surveys were not undertaken in the wider local area, however, there are multiple records on NatureMaps which indicate that the species is locally prevalent in undeveloped areas nearby, including Parafield Airport, around Mawson Lakes, Greenfields Wetlands and Bolivar (Figure 21). **Threatened Flora Score(s) – A1: 0.04**
	 **Figure 20. Dense patch of *S. muricata* var. *villosa* along Globe Derby Drive.**
	 **Figure 21. NatureMaps records (Accessed 05/06/2023).**
	Assessment against the principles Seriously at Variance - NA At Variance – A1
	Moderating factors that may be considered by the NVC *Impact Significance* The clearance may be reduced from 'at variance' to 'not at variance' if a clearance action will not or is unlikely to have a significant impact on a threatened species, including: • 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.

Principle of clearance	Considerations
	The species is currently protected nearby within the Vernal Pools Conservation Zone at Parafield Airport. It is unknown how this species would respond to translocation; however, this is something that could be potentially considered by the proponent in landscaping / reserve works.
Principle 1(d) – the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered	Relevant information No TECs were detected within the Project Area. Threatened Community Score – **0.00**
	Assessment against the principles Seriously at Variance NA
	Moderating factors that may be considered by the NVC NA
Principle 1(e) – it is significant as a remnant of vegetation in an area which has been extensively cleared	Relevant information The Project Area is within the Mallala IBRA Association which has 3% native vegetation remaining, and St. Vincent IBRA Subregion which has 8% native vegetation remaining. Where the biodiversity score is between 5 and 500 and the Remnancy in an Association or subregion is less than 10% the clearance is considered Seriously at variance. The vegetation within the Project Area is in poor, degraded condition and is subject to soil disturbance, weed encroachment and waste disposal. The vegetation is comprised largely of disturbance resistant species which are likely to persist in the area, however the prevalence of weed species is likely to increase, based on the widespread presence of *Lycium ferocissimum* (African Boxthorn) including adult and juvenile plants. Given the patchy and disconnected nature of the vegetation, the ecological function of the habitat is minimal. **Total Biodiversity Score – 59.86**
	Assessment against the principles Seriously at Variance - Yes At Variance - NA
	Moderating factors that may be considered by the NVC *Quality of remnant*

Principle of clearance	Considerations
	The vegetation is in poor condition and occurs on land which has already been previously cleared for agricultural / industrial use – evidenced by presence of harness racing tracks, degraded pavement and old tracks, waste soil piles and high level of weed encroachment, including Weeds of National Significance (WoNS).
Principle 1(f) – it is growing in, or in association with, a wetland environment	Relevant information The Project Area does not adjoin any wetland environment. Several well-known wetland reserves occur within the vicinity; however the Project Area does not adjoin these. There are no waterbodies or ephemeral / soakage areas within the Project Area.
	Assessment against the principles Seriously at Variance - NA At Variance – NA
	Moderating factors that may be considered by the NVC - NA
Principle 1(g) – it contributes significantly to the amenity of the area in which it is growing or is situated	Relevant information There is currently minimal amenity within the Project Area. A large stand of planted Casuarina glauca (Declared weed) screens the public Port Wakefield Road from the existing facility. This screen provides minimal amenity. The land proposed for development has undergone significant disturbance and contains piles of waste soil and rubbish / household waste. Several planted amenity areas occur within the Project Area which provide visual amenity; however, these only provide amenity within the Harness Racing Track area, not to the general public.
	N/A
	Moderating factors that may be considered by the NVC - NA

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 level of risk associated with the application is detailed in Table 6 based on the risk assessment matrix in Table 20.

Table 19. Summary of the level of risk associated with the application.

Total clearance	No. of trees	3
	Area (ha)	1.64
	Total biodiversity Score	59.16
Seriously at variance with principle 1(b), 1(c) or 1 (d)		1(b)
Risk assessment outcome		4

Table 20. Risk assessment matrix utilised by the NVC to determine level of impact.

	Agricultural (EP, GA, H&F, KI, LC, M&R and N&Y Landscape Management Regions plus Port Augusta city Council and the Flinders Ranges Council).		**Pastoral** (SAAL and AW Landscape Management Regions excluding Port Augusta city Council and the Flinders Ranges Council).		**Escalating matters** Clearance assessment will be raised to the next level if;
	Patches - clearance	**Trees - clearance**	**Patches - clearance**	**Trees - clearance**	
Level 1	**0.05ha** or less	**5 trees** or less	**3ha** 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 involves **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 for Agricultural zone, or - 30cm of more for the Pastoral zone,				
Level 2	**>0.05 ha to 0.5ha**	**6 - 20 trees**	**>3ha to 10 ha**	**6 - 20 trees**	Clearance is seriously at variance with Principle of Clearance 1(b), 1(c) or 1(d).
Level 3	Total Biodiversity Score of less than or equal to **250**		Total Biodiversity Score of less than or equal to **2500**.		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**		Total Biodiversity Score of greater than **2500**		

5. Clearance summary

Results from the NVC BAM and STAM scoresheets are summarised in Table 21 and Table 22.

Clearance Area(s) Summary table

Table 21. Clearance Area BAM summary table.

Block	Site	Species diversity score	Threatened Ecological	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
A	1	12	1	0.04	0.08	36.13	1.22	44.26	1			46.47	$28,505.97	$1,567.83
A	2	15	1	0	0.08	35.48	0.42	14.9	1			15.65	$9,597.03	$527.84
						Total	**1.64**	**59.16**				**62.12**	**$38,103.00**	**$2,095.67**

Scattered trees Summary table

Table 22. STAM summary table.

Tree or Cluster ID	Number of trees	Fauna Habitat score	Threatened flora score	Biodiversity score	Loss factor	SEB Points required	SEB Payment
1	1	0	0	0.17	1	0.18	$111.64
2	1	0	0	0.42	1	0.44	$276.64
3	1	0	0	0.11	1	0.11	$70.39
Total	**3**			**0.70**		**0.73**	**$458.67**

Totals summary table

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	59.86	62.85	$ 38,537.76	$2,119.58	$40,657.34

Economies of Scale Factor	0.5
Rainfall (mm)	441

6. Significant Environmental Benefit

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

ACHIEVING AN SEB

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

☐ Establish a new SEB Area on land owned by the proponent.

☐ Use SEB Credit that the proponent has established. 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 an 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

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

Offset will be delivered by way of payment into the Native Vegetation Fund of $40,657.34 (including $2,119.58 administration fee).

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8. Appendices

Appendix 1. Flora Species List and Declared weed mapping

Table 23. Flora species list from within Project Area.

Species	Common Name	Conservation Rating	Native / Weed	LSA Act
Aizoon pubescens	Coastal Galenia		Weed	
Asphodelus fistulosus	Onion Weed		Weed	
Atriplex semibaccata	Berry Saltbush		Native	
Avena barbata	Bearded Oat		Weed	
Brassica sp.			Weed	
Bromus diandrus	Great Brome		Weed	
Casuarina glauca	Grey Buloak		Declared	• Must not be transported on a public road, including as a contaminant of anything. • Must not be traded or sold in any way.
Cenchrus clandestinus	Kikuyu		Weed	
Chloris truncata	Windmill Grass		Native	
Chondrilla juncea	Skeleton Weed		Declared	• Must not be transported on a public road, including as a contaminant of anything. • Landowners must take reasonable steps to kill plants and prevent their spread. • Must not be traded or sold in any way.
Dittrichia graveolens	Stinkweed		Weed	
Enchylaena tomentosa var. tomentosa	Ruby Saltbush		Native	
Gazania sp.	Gazania		Declared	• Must not be transported on a public road, including as a contaminant of anything. • Must not be traded or sold in any way.
Heliotropium sp.	Heliotrope		Weed	
Hordeum sp.			Weed	
Lepidium africanum	Common Peppercress		Weed	
Limonium sp.	Sea-lavender		Weed	
Lycium ferocissimum	African Boxthorn		Declared, WoNS	• Must not be transported on a public road, including as a contaminant of anything. • Landowners must take reasonable steps to kill plants and prevent their spread. • Must not be traded or sold in any way.
Maireana brevifolia	Short-leaf Bluebush		Native	

Nitraria billardierei	Nitre-bush		Native	
Oxalis pes-caprae	Soursob		Weed	
Plantago coronopus ssp.	Bucks-horn Plantain		Weed	
Reichardia tingitana	False Sowthistle		Weed	
Romulea rosea var. australis	Common Onion-grass		Weed	
Sclerolaena muricata var. villosa	Five-spine Bindyi	NPW Act: Rare	Native	
Senecio pterophorus	African Daisy		Weed	
Solanum elaeagnifolium	Silver-leaf Nightshade		Declared	• Must not be transported on a public road, including as a contaminant of anything. • Landowners must take reasonable steps to kill plants and prevent their spread. • Must not be traded or sold in any way.
Solanum nigrum	Black Nightshade		Weed	
Suaeda australis	Austral Seablite		Native	
Tecticornia pergranulata ssp. pergranulata	Black-seed Samphire		Native	
WoNS = Weed of National Significance Reference: Department of Primary Industries and Regions (2023).				

Figure 22. Map of Declared weed and WoNS, *Lycium ferocissimum*, within the Project Area. Other declared weeds occurred in the immediate vicinity but not within the Project Impact Area.

Appendix 2 – PMST Search Results

Department of Agriculture, Water and the Environment

Protected Matters Search Tool

Report Generated - 3:53PM - 17 April 2023

Matters of National Environment Significance	Count
World Heritage Properties	0
National Heritage Places	0
Wetlands of International Importance (Ramsar Wetlands)	0
Great Barrier Reef Marine Park	0
Commonwealth Marine Area	0
Listed Threatened Ecological Communities	2
Listed Threatened Species	54
Listed Migratory Species	63

Other Matters Protected by the EPBC Act	Count
Commonwealth Lands	49
Commonwealth Heritage Places	1
Listed Marine Species	99
Whales and Other Cetaceans	8
Critical Habitats	0
Commonwealth Reserves Terrestrial	0
Australian Marine Parks	0
Habitat Critical to the Survival of Marine Turtles	0

Extra Information	Count
State and Territory Reserves	4
Regional Forest Agreements	0
Nationally Important Wetlands	1
EPBC Act Referrals	12
Key Ecological Features	0
Biologically Important Areas	1
Bioregional Assessments	0
Geological and Bioregional Assessments	0

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected and is accurate at the time of generation. Please see the caveat for interpretation of information provided here. Consider carefully the age of information for decision making.

Report Metadata | Caveat

Figure 23. PMST summary sheet.

Table 24. PMST search results (extracted 17/04/2023).

Class	Scientific Name	Common Name	EPBC threatened category	Simple Presence
Plant	*Caladenia tensa*	Greencomb Spider-orchid, Rigid Spider-orchid	EN	Likely
Plant	*Prasophyllum pallidum*	Pale Leek-orchid	VU	Likely
Plant	*Prasophyllum pruinosum*	Plum Leek-orchid	EN	May
Plant	*Prasophyllum validum*	Sturdy Leek-orchid, Mount Remarkable Leek-orchid	VU	May
Plant	*Senecio macrocarpus*	Large-fruit Fireweed, Large-fruit Groundsel	VU	May
Plant	*Swainsona pyrophila*	Yellow Swainson-pea	VU	May
Plant	*Tecticornia flabelliformis*	Bead Glasswort	VU	Known
Plant	*Thelymitra matthewsii*	Spiral Sun-orchid	VU	May
Bird	*Acanthiza iredalei rosinae*	Slender-billed Thornbill (Gulf St Vincent)	VU	Known
Bird	*Aphelocephala leucopsis*	Southern Whiteface	VU	Known

Class	Scientific Name	Common Name	EPBC threatened category	Simple Presence
Bird	*Botaurus poiciloptilus*	Australasian Bittern	EN	Known
Bird	*Calidris canutus*	Red Knot, Knot	EN, Mi(W)	Known
Bird	*Calidris ferruginea*	Curlew Sandpiper	CE, Mi(W)	Known
Bird	*Calidris tenuirostris*	Great Knot	CE, Mi(W)	Known
Bird	*Charadrius leschenaultii*	Greater Sand Plover, Large Sand Plover	VU, Mi(W)	Likely
Bird	*Charadrius mongolus*	Lesser Sand Plover, Mongolian Plover	EN, Mi(W)	Known
Bird	*Diomedea antipodensis*	Antipodean Albatross	VU, Mi(M)	Likely
Bird	*Diomedea epomophora*	Southern Royal Albatross	VU, Mi(M)	May
Bird	*Diomedea exulans*	Wandering Albatross	VU, Mi(M)	Likely
Bird	*Falco hypoleucos*	Grey Falcon	VU	Likely
Bird	*Grantiella picta*	Painted Honeyeater	VU	Likely
Bird	*Hirundapus caudacutus*	White-throated Needletail	VU, Mi(T)	Known
Bird	*Limosa lapponica baueri*	Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit	VU	May
Bird	*Macronectes giganteus*	Southern Giant-Petrel, Southern Giant Petrel	EN, Mi(M)	May
Bird	*Macronectes halli*	Northern Giant Petrel	VU, Mi(M)	Likely
Bird	*Melanodryas cucullata cucullata*	South-eastern Hooded Robin, Hooded Robin (south-eastern)	EN	Likely
Bird	*Neophema chrysogaster*	Orange-bellied Parrot	CE	May
Bird	*Neophema chrysostoma*	Blue-winged Parrot	VU	Known
Bird	*Numenius madagascariensis*	Eastern Curlew, Far Eastern Curlew	CE, Mi(W)	Known
Bird	*Pachyptila turtur subantarctica*	Fairy Prion (southern)	VU	Known
Bird	*Pedionomus torquatus*	Plains-wanderer	CE	May
Bird	*Pezoporus occidentalis*	Night Parrot	EN	May
Bird	*Phoebetria fusca*	Sooty Albatross	VU, Mi(M)	May
Bird	*Rostratula australis*	Australian Painted Snipe	EN	Known
Bird	*Stagonopleura guttata*	Diamond Firetail	VU	Likely
Bird	*Sternula nereis nereis*	Australian Fairy Tern	VU	Known
Bird	*Thalassarche carteri*	Indian Yellow-nosed Albatross	VU, Mi(M)	Likely
Bird	*Thalassarche cauta*	Shy Albatross	EN, Mi(M)	Likely
Bird	*Thalassarche impavida*	Campbell Albatross, Campbell Black-browed Albatross	VU, Mi(M)	May
Bird	*Thalassarche melanophris*	Black-browed Albatross	VU, Mi(M)	Likely
Bird	*Thalassarche steadi*	White-capped Albatross	VU, Mi(M)	Known
Bird	*Thinornis cucullatus cucullatus*	Eastern Hooded Plover, Eastern Hooded Plover	VU	Known
Bird	*Zoothera lunulata halmaturina*	South Australian Bassian Thrush, Western Bassian Thrush	EN	May
Mammal	*Eubalaena australis*	Southern Right Whale	EN, Mi(M)	Known
Mammal	*Neophoca cinerea*	Australian Sea-lion, Australian Sea Lion	EN	Known
Mammal	*Pteropus poliocephalus*	Grey-headed Flying-fox	VU	Likely
Reptile	*Aprasia pseudopulchella*	Flinders Ranges Worm-lizard	VU	May
Reptile	*Caretta caretta*	Loggerhead Turtle	EN, Mi(M)	Likely
Reptile	*Chelonia mydas*	Green Turtle	VU, Mi(M)	May
Reptile	*Dermochelys coriacea*	Leatherback Turtle, Leathery Turtle, Luth	EN, Mi(M)	Known
Reptile	*Tiliqua adelaidensis*	Pygmy Blue-tongue Lizard, Adelaide Blue-tongue Lizard	EN	May

Class	Scientific Name	Common Name	EPBC threatened category	Simple Presence
Fish	*Seriolella brama*	Blue Warehou	Conservation Dependent	Known
Fish	*Thunnus maccoyii*	Southern Bluefin Tuna	Conservation Dependent	Likely
Shark	*Carcharodon carcharias*	White Shark, Great White Shark	VU, Mi(M)	Known
EPBC threatened category: CE = Critically Endangered, EN = Endangered, VU = Vulnerable, Mi(M) = Migratory (Marine), Mi(W) = Migratory (Wetlands). Source: 1 = BDBSA, 2 = PMST (including Birdlife).				

Appendix 3 – NVC correspondence

Jessica Skewes

From: Gillam, Sharon (DEW) <Sharon.Gillam@sa.gov.au>
Sent: Tuesday, 13 June 2023 4:45 PM
To: Jessica Skewes
Subject: FW: EX221207 pre-assessment of moderating factors
Attachments: EX221207_NVC Assessment Globe Derby_Report Draft_V1.pdf

OFFICIAL

Hello Jessica,

I have had a look through this assessment and the fauna species list. I have conferred with my colleague Peter Farmer, and we agree that the species that could be impacted by the clearance / potentially use the habitat to be cleared, are the:

- Glossy Ibis (R)
- Blue-winged Parrot (V)

All the other species are unlikely as there is more suitable habitat in nearby wetlands or riparian areas, or the habitat is not suitable.

Not sure if this keeps the clearance at Level 3. See how you go.

Kind regards,
Sharon

From: Jessica Skewes <jessica.skewes@ebsecology.com.au>
Sent: Friday, 9 June 2023 3:22 PM
To: Groom, Andrew (DEW) <Andrew.Groom@sa.gov.au>
Cc: Schutz, Adam (DEW) <Adam.Schutz@sa.gov.au>; Stephen Lawson <slawson@seymourgroup.com.au>; Alison Derry <Alison.Derry@ebsecology.com.au>
Subject: EX221207 pre-assessment of moderating factors

Hi Andy,

I am enquiring on behalf of a client (Globe Derby / Seymour Group) regarding the application of moderating factors to Principle 1b for a clearance related to an industrial land division proposal at the Harness Racing Club at Globe Derby Park.
Briefly, the clearance is for 1.64 ha of degraded *M. brevifolia* shrubland and some regenerating *Suaeda australis* and *Tecticornia* Shrubland, patchily distributed on disturbed ground around the site. Because of the number of well surveyed wetlands within the vicinity, including the International Bird Sanctuary, Greenfields Wetlands and Whites Road wetlands, a number of threatened species records occur nearby, or are listed as known to occur in the PMST, and the application has been escalated to level 4 based on a threatened fauna score of 0.1. Many of the species are not 'wetland' 'aquatic' or 'marine' birds and therefore cannot be removed from the scoresheet by a consultant on the basis of no suitable habitat.

I appreciate that NVC are extremely busy at the moment, however, I was hoping someone in the team might have some time to look over the report (in draft) and advise on the removal of threatened species from the scoresheet and the likelihood of this application being moderated to a Level 3 clearance? An indication of the general level of support from NVC would also be appreciated. Globe Derby / Seymour Group intend to lodge the DA Application early July 2023.

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I have attached the report for your information. If you wish to look at the scoresheets you can access them using this link: EX221207 Scoresheets

Have a good long weekend.

Kind regards,

Jessica Skewes
Senior Ecologist
EBS Ecology

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A 112 Hayward Avenue, Torrensville SA, 5031

MON	TUE	WED	THU	FRI
✓	✓	✓	✓	✓

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