

Native Vegetation Clearance

Mankama Poultry Farm
8 Notts Well Road, Paisley

Data Report

Clearance under the *Native Vegetation Regulations 2017*

24/07/2025

Prepared by Ecosphere Ecological Solutions



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Document Information and Distribution

Document information	
Item	Detail
Project Number	M40409
Document Title	Mankama Poultry Farm, 8 Notts Well Road, Paisley
Client	ProTen Ltd.
Prepared by	Ecosphere Ecological Solutions
Document status	Final
Version number	2

Document distribution				
Authors	Document status	Version number	Date of issue	Issued to
Andrew Sinel Alex Blackall	Draft	1	24/07/2025	Spirecom Project Management
Andrew Sinel Alex Blackall	Final	2	31/07/2025	Spirecom Project Management

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1 Application Information

Table 1. Application details.

Applicant:	ProTen Ltd		
Key contact:	Spirecom Project Management		
Landowner:	ProTen Ltd Kenneth Wong PO Box 1746 North Sydney, New South Wales, 2060		
Site Address:	8 Notts Well Road, Paisley, South Australia, 5357		
Local Government Area:	Loxton Waikerie	Hundred:	Paisley
Title ID:	CT 5434/94	Parcel ID:	D25012A2

Table 2. Summary of proposed clearance.

Purpose of Clearance	Clearance required to allow the currently operating broiler farm to extend one existing broiler shed group, construct two new broiler shed groups, and four associated dwellings for staff, as well as associated access roads to the broiler sheds and driveways to the staff dwellings.
Native Vegetation Regulation	Regulation 12, Schedule 1; clause 33, New dwelling or building Regulation 12, Schedule 1; clause 37, Commercial vehicle access track exceeding 5 metres
Description of the vegetation under application	Vegetation at the Project area is predominantly composed of semi-arid shrubland with differences in vegetation structure and diversity related to the degrading impacts of sheep grazing. Three vegetation associations were recorded: 1. <i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i>, and <i>Maireana sedifolia</i> open shrubland over <i>Atriplex stipitata</i>, <i>Enchylaena tomentosa</i>, <i>Rhagodia spinescens</i>, <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp. This vegetation association represents the best quality native vegetation within the Project area. Approximately 17.80 ha clearance in total. 2. <i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i>, and <i>Maireana sedifolia</i> very open shrubland over <i>Atriplex stipitata</i>, <i>Enchylaena tomentosa</i>, <i>Rhagodia spinescens</i>, <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp. This vegetation association has similar diversity to vegetation association 1 but with a lower abundance of larger shrubs. Approximately 2.12 ha clearance in total. 3. <i>Acacia nyssophylla</i>, <i>Enchylaena tomentosa</i>, <i>Roepera aurantiaca</i> ssp., <i>Sclerolaena</i> sp., and <i>Maireana</i> sp. low very open shrubland over <i>Austrostipa</i> sp.

	This vegetation association represents a highly degraded area of vegetation due to sheep grazing. Approximately 12.85 ha clearance in total.
Total proposed clearance - area (ha) and number of trees	32.77 ha
Level of clearance	Level 4
Overlay (Planning and Design Code)	Native Vegetation Overlay



Mitigation hierarchy	- The construction of additional broiler sheds, roads, and staff dwellings necessitates the clearance of native vegetation within the Project area. - The project layout has been modified since the initial field survey and the current design results in making better use of existing access tracks.
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	• Additional broiler sheds, roads, and staff dwellings are located within areas of sparser and / or more degraded vegetation compared to other areas within the overall allotment. • The location of broiler shed group site 3 occurs within a highly degraded area of vegetation with little biodiversity value. • Native vegetation will be planted around the Project area to act as screening for the broiler sheds and enhance biodiversity values of the surrounding area.
SEB Offset proposal	The SEB will be met through a payment into the NV fund. Total payment is \$418,666.72.

2 Purpose of Clearance

2.1 Description

The Project area is located at Paisley, approximately 90 km north of Murray Bridge, South Australia (SA) (Figure 1). The surrounding land use is mainly dryland agriculture for cropping and grazing, or otherwise non-woody native vegetation. The purpose of clearance is to allow the currently operating broiler farm to extend one existing broiler shed group, construct two new broiler shed groups and four associated dwellings for staff, as well as associated access roads to the broiler sheds and driveways to the staff dwellings.

2.2 Background

2.2.1 Interim Biogeographic Regionalisation for Australia (IBRA)

The Interim Biogeographic Regionalisation for Australia (IBRA) identifies geographically distinct Bioregions based on common climate, geology, landform, native vegetation, and species information. These Bioregions are further refined into IBRA Subregions and IBRA Environmental Associations.

The Project area lies within the Murray Darling Depression IBRA Bioregion, the Murray Mallee IBRA Subregion, and the Blanchetown IBRA Environmental Association. The Murray Mallee IBRA Subregion has 21 % of its area composed of remnant native vegetation, of which 17 % is formally protected in reserves or heritage agreements. The Blanchetown IBRA Environmental Association has 67 % of its area composed of remnant native vegetation, of which 22 % is formally protected in reserves or heritage agreements.

2.2.2 National Vegetation Information System (NVIS)

The National Vegetation Information System (NVIS) represents the State Government's key extant native floristic vegetation mapping layer for SA and provides information on the extent and distribution of vegetation types in the state. The NVIS broadly maps the Project area as low open tussock grassland:

- *Austrostipa* sp. +/- *Sclerolaena diacantha* / *uniflora* +/- *Enchylaena tomentosa* +/- *Sclerolaena obliquicuspis* low open tussock grassland.

Two other vegetation groups may also occur interspersed within this broader vegetation type:

- *Maireana sedifolia*, *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia spinescens*, *Austrostipa* sp. mid sparse shrubland.
- *Alectryon oleifolius* ssp. *canescens*, *Enchylaena tomentosa* var. *tomentosa*, *Austrostipa* sp., *Sclerolaena obliquicuspis* low open woodland.

2.3 General Location

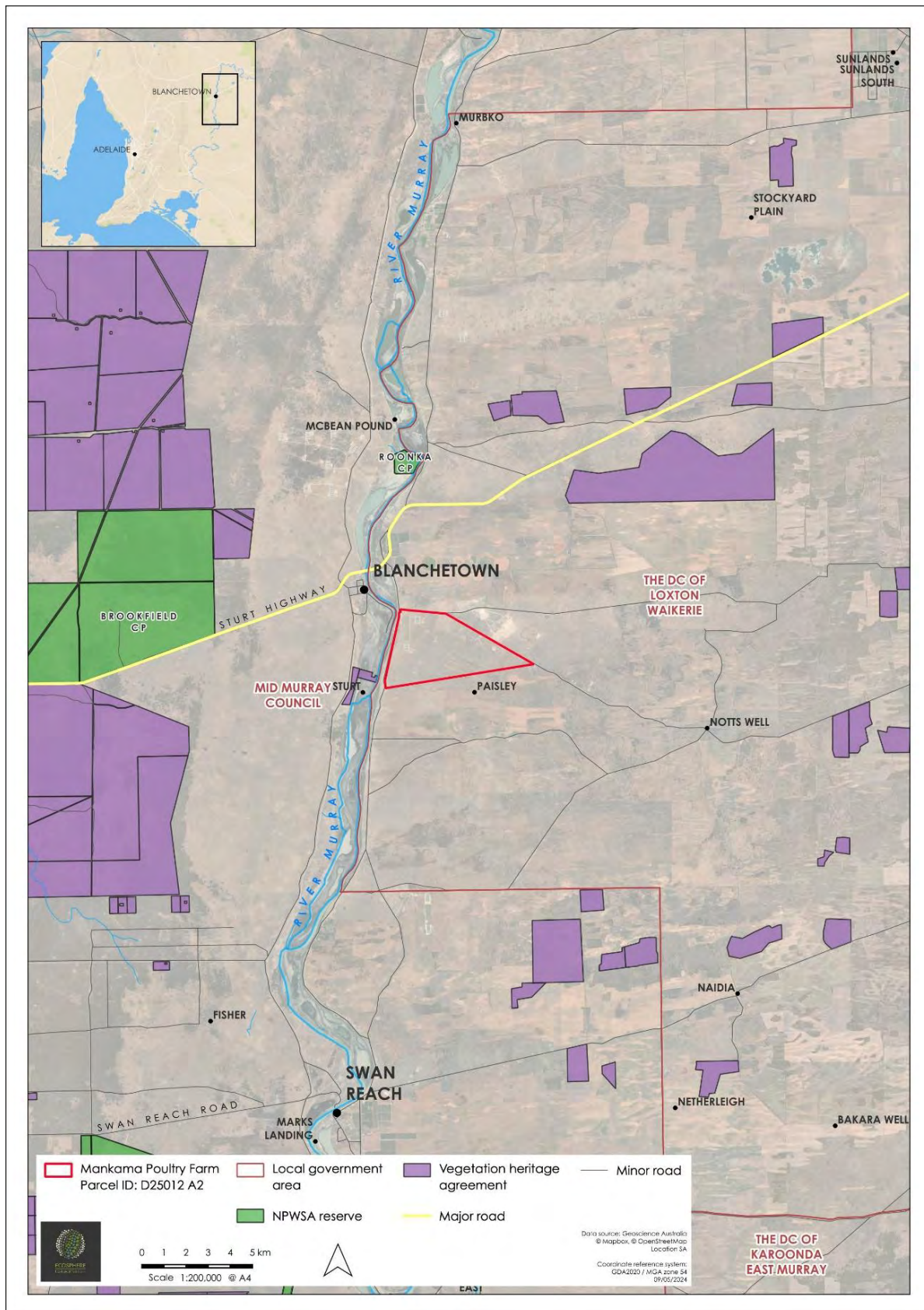


Figure 1. Regional location of the Project area.

2.4 Details of the Proposal

This project is centred around an existing broiler farm owned by ProTen. ProTen is the leading broiler chicken farm developer and operator in Australia. ProTen owns and operates a total of 561 poultry sheds across 47 broiler farms strategically located in SA, New South Wales, Victoria, Western Australia, and Queensland.

Two existing groups of six broiler sheds are located on the Paisley property and are actively managed and functioning under this purpose (Figure 3). One of these is to be extended with the addition of four extra broiler sheds for a total of ten broiler sheds per group. Two new groups of ten broiler sheds will also be constructed east of the existing groups of broiler sheds, as well as four new associated staff dwellings. Approximately 3.7 km of 10 m wide road will be constructed to allow access for heavy vehicles and machinery between the existing infrastructure on site and the new broiler sheds, and 370 m of 6 m wide driveways for staff dwelling access will be constructed (Figure 3).

The total clearance area of each new staff dwelling is approximately 0.375 ha. Inclusion of a 10 m buffer as per Schedule 1, Regulation 8, Clause 1- Vegetation within 10 metres of existing building, which allows clearance of vegetation within 10 metres of a building for the purpose of maintaining the building, would increase the allowed cumulative clearance to 0.654 ha per staff dwelling. Depending on whether the building will be used as a dwelling as defined in the Native Vegetation Regulations (i.e., "building or part of a building used as a self-contained residence") Schedule 1, Regulation 9, Clauses 1 and 17 – Fire prevention and control, may apply. This regulation allows for the clearance of vegetation for fire prevention and control measures to be undertaken around dwellings within a 20 m buffer. The proponent should seek clarity via the CFS regarding any applicable Bushfire Management Plan and seek clearance approval prior to clearing within the 10 – 20 m buffer of the new staff dwellings. The area of extension of the existing broiler shed group is approximately 4.394 ha (Table 2). These areas include both hardstands and access around the perimeter incorporating the 10 m buffer. The area of each new broiler shed group is approximately 12.253 ha for broiler shed group site 3 and 11.984 ha for broiler shed group site 4 (Table 2). These areas include both hardstands and access around the perimeter incorporating the 10 m buffer. Excluding areas of already cleared vegetation (i.e., vehicle access roads) within the Project area the total area of vegetation clearance required for the project is 32.77 ha.

ProTen has been contracted to produce broilers for Gourmet Poultry. The additional broiler sheds to be constructed will facilitate higher efficiency production, while simultaneously maintaining appropriate biosecurity by grouping broiler stages together in one age group. This results in significant efficiencies around transport and processing management.

The two new groups of broiler sheds and their associated staff dwellings are located to the east of the existing groups and micro-sited to avoid areas of denser vegetation and for biosecurity restrictions.

2.5 Approvals Required or Obtained

Provide details of the following approvals or applications under the follow legislation, where relevant:

- *Native Vegetation Act 1991* (Clearance approval is subject of the current proposal)
- *Planning, Development and Infrastructure Act 2016* (PDI Act) (Approval required for the current project)
- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (Desktop assessment and field survey undertaken to determine if MNES occur within the Project area, detailed below)
- *National Parks and Wildlife Act 1972* (NPW Act) (Desktop assessment and field survey undertaken to determine if state level threatened flora and fauna occur within the Project area, detailed below)
- *Landscape South Australia Act 2019* (LSA Act) (Desktop assessment and field survey undertaken to determine if weeds of concern occur within the Project area, detailed below)

2.6 Native Vegetation Regulation

Schedule 1, Regulation 12, Clause 33 – New dwelling or building.

To allow clearance of vegetation for a new dwelling or building approved under the *Development Act 1993* (superseded by the *Planning, Development and Infrastructure Act 2016*). This also includes clearance for associated structures (that have development approval).

The new dwelling / building must be situated in a location that avoids and minimises the loss of native vegetation. It should be able to be demonstrated that any alternatives have been considered. Depending on how large the allotment, consideration of all areas for the dwelling / building should occur, including those areas that involve no vegetation clearance situated on a different part of the block or where the vegetation is shown to be less significant (or more degraded) than the vegetation proposed to be cleared.

Proponent must comply with the following additional requirements:

- Clearance for a new building, dwelling or ancillary development provided that any relevant consent has been provided under the *Development Act 1993* (superseded by the PDI Act).

Regulation 12, Schedule 1; clause 37, Commercial vehicle access track exceeding 5 metres.

To allow clearance of vegetation to establish or widen a commercial vehicle access track, intended to transport farm machinery.

Proponent must comply with the following additional requirements:

- Clearance to establish or widen an access track that is more than 5 metres in width; and
- Use of the track is for commercial purposes by vehicles having at least 4 wheels; and
- The track must be reasonably required to provide access for large commercial vehicles.

2.7 Development Application Information

Under the PDI Act the property of 8 Notts Well Road is zoned as Rural and falls within the following overlays:

- Dwelling Excision
- Hazards (Bushfire – Regional)
- Heritage Adjacency
- Hazards (Flooding – Evidence Required)
- Key Outback and Rural Routes
- Murray-Darling Basin
- Native Vegetation

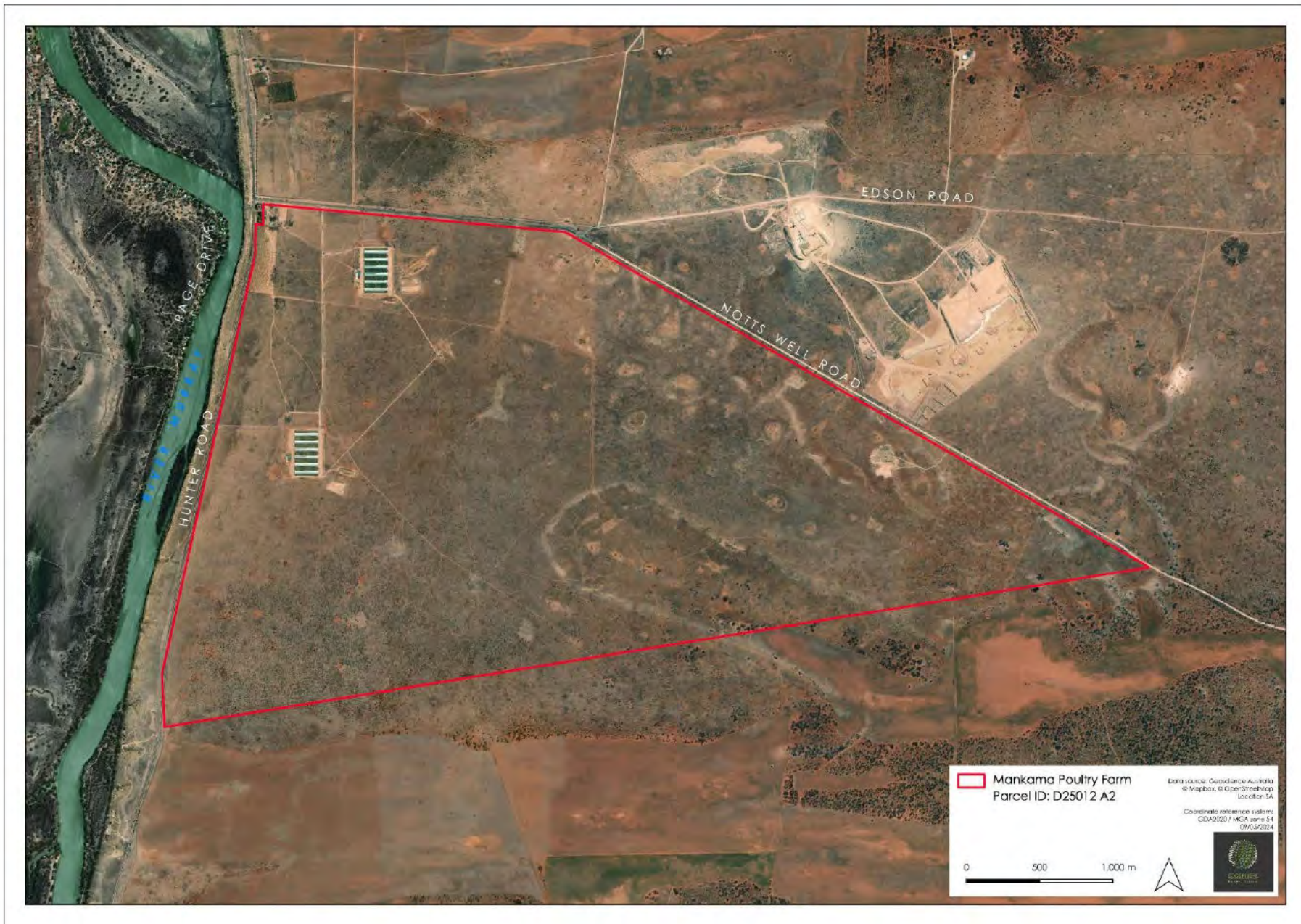


Figure 2. Lot 2 Notts Well Road parcel

Mankama Poultry Farm – 8 Notts Well Road, Paisley

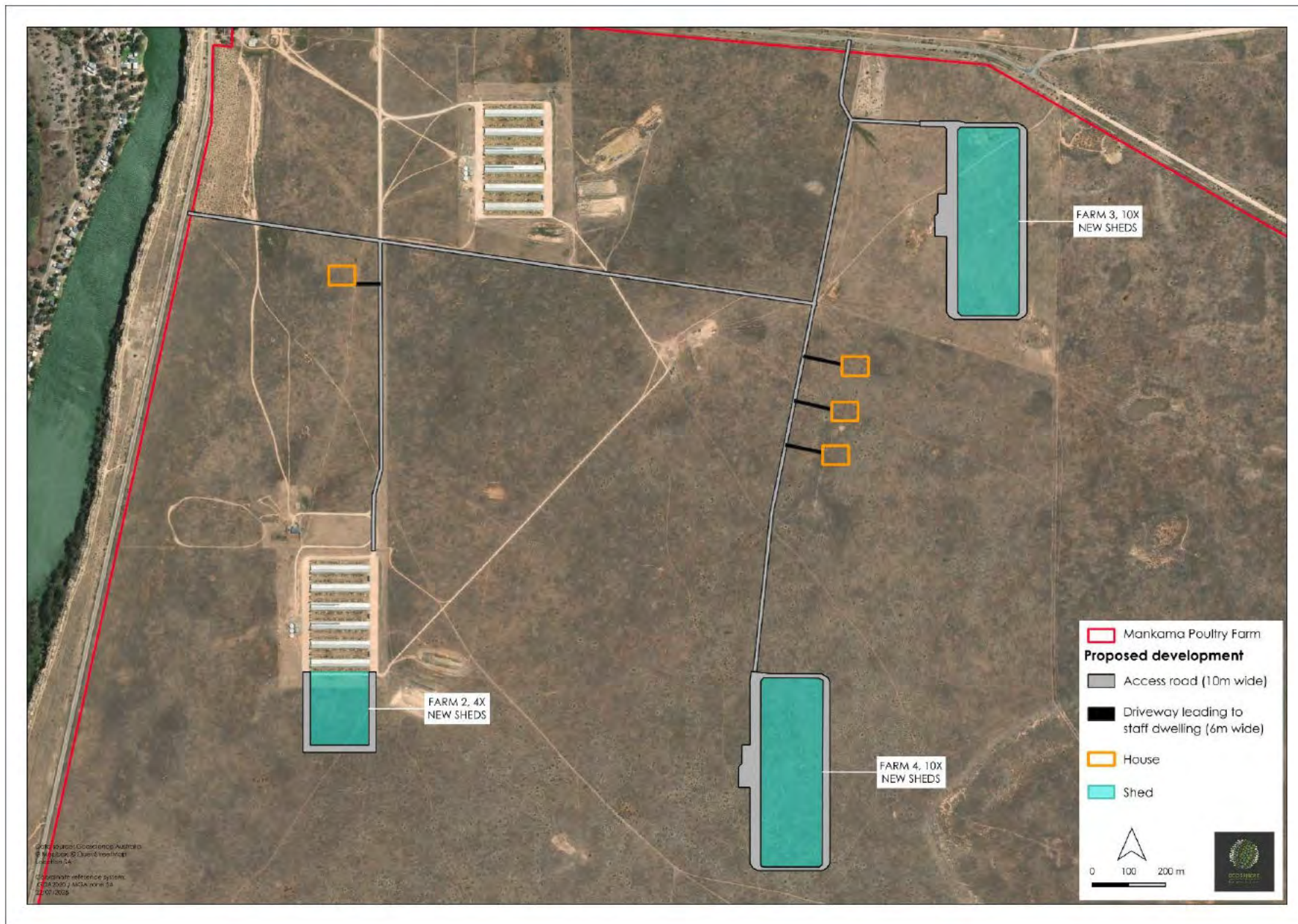


Figure 3. Proposed project footprint

Mankama Poultry Farm – 8 Notts Well Road, Paisley

3 Methods

3.1 Desktop Assessment

A desktop assessment was used to search for records of threatened communities, flora, and fauna that possibly occur within 5 km of the Project area located at 8 Notts Well Road.

3.1.1 Protected Matters Search Tool (PMST)

A Protected Matters Search Tool (PMST) report was generated on 23rd of April 2024 to identify MNES under the EPBC Act relevant to the Project area (DCCEEW 2024a) (see section 4.4 for the PMST report summary and appendix 9.1 for the full PMST report results). The PMST is maintained by the Department of Climate Change, Energy the Environment and Water (DCCEEW) and was used to identify flora and fauna or ecological communities of national environmental significance that may occur or are likely to have suitable habitat within 5 km of the Project area.

3.1.2 Biological Database of South Australia (BDBSA)

Records for threatened flora and fauna species listed under the EPBC Act and NPW Act were assessed using the Biological Database of South Australia (BDBSA) Supertable (DEW 2024a), accessed via the general query tool on NatureMaps (NatureMaps 2024) (see sections 0 and 4.6 for summaries of the BDBSA search results and appendix 9.2 and 9.3 for the full BDBSA search results). The BDBSA is comprised of an integrated collection of corporate databases which meet Department for Environment and Water (DEW) standards for data quality, integrity, and maintenance. In addition to DEW biological data the BDBSA also includes data from partner organisations (Birdlife Australia, Birds SA, Australasian Wader Study Group, SA Museum, and other State Government Agencies). This data is included under agreement with the partner organisation for ease of distribution, but they remain owners of the data and should be contacted directly for further information. The dataset was obtained on 23rd of April 2024 and was used to identify records of threatened flora and fauna that have been recorded within 5 km of the Project area, have a spatial reliability of < 1 km, and were recorded during or after 1995 as per the Bushland Assessment Method (BAM) (2024).

3.2 Assessment of the Likelihood of Occurrence

A likelihood of occurrence assessment for each threatened flora and fauna species or subspecies highlighted by the PMST report and the BDBSA search as potentially occurring in the Project area was conducted. This assessment was used to filter the outputs of the PMST report and BDBSA search results to derive a subset of flora and fauna with potential to occur in the Project area for consideration during the field survey. The assessment was updated with habitat suitability information obtained during the field survey.

A likelihood of occurrence rating (i.e., Highly Likely / Known, Likely, Possible, and Unlikely) was assigned to each threatened flora and fauna species or subspecies identified in the desktop PMST report and BDBSA search (Table 3). See Table 7 and Table 8 for outcomes of the likelihood of occurrence assessment.

Table 3. Criteria for the likelihood of occurrence 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 largely intact 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 species habitat which is largely intact.

Likelihood	Criteria
Possible	Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area does not provide species habitat which is largely intact. Recorded within 20-40 years, survey effort is considered adequate, habitat is present and intact, and species of similar habitat needs have been recorded in the area.
Unlikely	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 within the previous 40 years despite suitable habitat being known to occur in the area. No records despite adequate survey effort.

3.3 Field Survey

A field survey was undertaken by Ecosphere Ecological Solutions on the 7th of May 2024.

3.3.1 Vegetation survey

The vegetation survey was performed in accordance with the BAM (NVC 2024). The BAM was designed for assessing vegetation that is located within the agricultural region of SA in addition to the Port Augusta City Council and the Flinders Ranges Council. The BAM uses biodiversity surrogates or indicators to measure biodiversity value against benchmark communities. Each area to be assessed is termed an application area (Block), within which different vegetation associations (Sites) are identified. Sites are identified based on both flora composition and levels of degradation. For the BAM, three components of the biodiversity value of the Site are measured and scored (Vegetation Condition, Landscape Context, and Conservation Significance). These three component scores are combined to provide a Unit Biodiversity Score (UBS) for a hectare (ha) and then multiplied by the size in ha of the Site to provide a Total Biodiversity Score for the Site. Multiple Sites within a Block are totalled to reach the final overall score.

The vegetation survey was performed on the 7th of May 2024 based on an older project layout. The project layout has since been subsequently updated and thus the vegetation present in some areas of the current design has not been ground truthed. The vegetation deemed to be present is based on an extrapolation of aerial imagery and known areas of vegetation from the prior field survey.

3.4 Desktop Study Limitations

The content of the desktop study was derived from existing datasets and references from a range of sources. Flora and fauna records were sourced from the PMST report and the BDBSA search via NatureMaps (2024). The BDBSA only includes verified flora and fauna records submitted to DEW or partner organisations. It is recognised that drawing conclusions can be unreliable within areas that have been underrepresented in terms of biological studies. It is possible, therefore, that significant species occur within the Project area that were not reflected by database records.

4 Assessment Outcomes

4.1 Vegetation Assessment

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

- Landform, geography and soils

The Project area is located at Paisley, approximately 90 km north of Murray Bridge, SA (Figure 1). The surrounding land use is mainly dryland agriculture for cropping and grazing, or otherwise non-woody native vegetation. The Project area lies within the Blanchetown IBRA Environmental Association. Broadly the soil within the location of the Project area consists of shallow calcareous loam on calcrete (NatureMaps 2024). The topography of the area consists of low-lying flat calcrete plains adjacent to the Murray River. The soils of the area are mostly non-arable.

- Landform features of significance (rivers, creeks, rocky outcrops, etc.)

There are no landform features of significance within the Project area. The Murray River lies approximately 1.5 km to the west of the Project area.

- General overview of the vegetation under application as a whole (e.g. number of vegetation associations / trees)

Vegetation at the Project area is predominantly composed of semi-arid shrubland consisting of *Senna artemisioides* ssp., *Acacia nyssophylla* and *Maireana sedifolia* over an understorey of *Atriplex stipitata*, *Enchylaena tomentosa*, *Rhagodia spinescens*, *Roepera aurantiaca* ssp., *Maireana* sp. and *Austrostipa* sp. Two vegetation associations were recognised based on the density of larger shrubs (0.5 – 2m) of *Senna artemisioides* ssp., *Acacia nyssophylla* and *Maireana sedifolia*.

Sheep grazing has significantly impacted vegetation within the northeast section of the Project area, in the location of broiler shed group site 3, and this area was classified as a separate vegetation association consisting of sparsely distributed low growing shrubs (< 0.5 m) of *Acacia nyssophylla*, *Enchylaena tomentosa*, *Roepera aurantiaca* ssp., and *Maireana* sp. over *Austrostipa* sp. In particular, as a result of sheep grazing, much of this vegetation association consists of barren unvegetated soil.

- General description of the vegetation relating to type and condition (i.e. is the vegetation relatively homogeneous, or is there significant variation)

The vegetation within the Project area is relatively homogenous with differences in vegetation structure and diversity related to the degrading impacts of sheep grazing.

- Provide a description of the landscape context for the vegetation (e.g. isolated patch of vegetation in cropping landscape) and proximity to protected areas (Conservation Parks, Heritage Agreements, etc.)

The Project area is located within the property boundaries of an operating broiler farm owned by ProTen. The vegetation within the property consists of more or less degraded shrubland forming part of the wider vegetation community within the surrounding area. There is one Heritage Agreement within 5 km of the Project area which lies approximately 3.2 km to the south-west along the bank of the Murray River. Two SEB Offset Areas of approximately 73.98 ha and 16.69 ha occur within the property but will be unimpacted by the development.

4.2 Vegetation Associations

None of the vegetation associations recorded within the Project area were associated with a Threatened Ecological Community under the EPBC Act (Table 4 and Figure 4).

Table 4 Vegetation associations occurring within the Project area and their area of clearance.

Association	Description	Area (ha)
1	<i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i> , and <i>Maireana sedifolia</i> open shrubland over <i>Atriplex stipitata</i> , <i>Enchylaena tomentosa</i> , <i>Rhagodia spinescens</i> , <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp.	17.80
2	<i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i> , and <i>Maireana sedifolia</i> very open shrubland over <i>Atriplex stipitata</i> , <i>Enchylaena tomentosa</i> , <i>Rhagodia spinescens</i> , <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp.	2.12
3	<i>Acacia nyssophylla</i> , <i>Enchylaena tomentosa</i> , <i>Roepera aurantiaca</i> ssp., <i>Sclerolaena</i> sp., and <i>Maireana</i> sp. low very open shrubland over <i>Austrostipa</i> sp.	12.85

Vegetation Association 1	<i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i> , and <i>Maireana sedifolia</i> open shrubland over <i>Atriplex stipitata</i> , <i>Enchylaena tomentosa</i> , <i>Rhagodia spinescens</i> , <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp.	
DIRECTION 196 deg(T)	34.37803°S 139.64843°E	ACCURACY 5 m DATUM GDA2020
		
Site 4		2024-05-07 13:00:17+09:30
General description	Open shrubland consisting of taller shrubs (0.5 – 2m) of <i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i>, and <i>Maireana sedifolia</i> over <i>Atriplex stipitata</i>, <i>Enchylaena tomentosa</i>, <i>Rhagodia spinescens</i>, <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp. <i>Lycium australe</i> also occurs throughout but in lower density. Emergent trees of <i>Myoporum platycarpum</i> occur within this association across the property. Representative photo shows vegetation association 1 occurring at the location of broiler shed group site 4 current at the time of field survey.	
Threatened species or community	No threatened communities or flora species were recorded in the site. The vegetation association is unlikely to provide high quality habitat for any threatened fauna but may be used at times by Southern Whiteface (<i>Aphelocephala leucopsis leucopsis</i>, EPBC: VU) and Little Eagle (<i>Hieraaetus morphnoides</i>, NPW: V).	

Vegetation Association 2		<i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i> , and <i>Maireana sedifolia</i> very open shrubland over <i>Atriplex stipitata</i> , <i>Enchylaena tomentosa</i> , <i>Rhagodia spinescens</i> , <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp.	
DIRECTION 23 deg(T)		34.37526°S 139.64500°E	ACCURACY 5 m DATUM GDA2020
			
Site 4 house		2024-05-07 13:16:48+09:30	
General description	Very open shrubland consisting of sparsely distributed taller shrubs (0.5 – 2m) of <i>Senna artemisioides</i> ssp., <i>Acacia nyssophylla</i> , and <i>Maireana sedifolia</i> over <i>Atriplex stipitata</i> , <i>Enchylaena tomentosa</i> , <i>Rhagodia spinescens</i> , <i>Roepera aurantiaca</i> ssp., <i>Maireana</i> sp., and <i>Austrostipa</i> sp. <i>Lycium australe</i> also occurs throughout but in lower density. Emergent trees of <i>Myoporum platycarpum</i> occur within this association across the property. Dieback was prominent on many of these trees. Representative photo shows vegetation association 2 occurring at the location of the new staff dwelling to be built as part of broiler shed group site 4 current at time of the field survey.		
Threatened species or community	No threatened communities or flora species were recorded in the site. The vegetation association is unlikely to provide high quality habitat for any threatened fauna but may be used at times by Southern Whiteface (<i>Aphelocephala leucopsis leucopsis</i> , EPBC: VU) and Little Eagle (<i>Hieraaetus morphnoides</i> , NPW: V).		

Vegetation Association 3		Acacia nyssophylla, Enchylaena tomentosa, Roepera aurantiaca ssp., Sclerolaena sp., and Maireana sp. low very open shrubland over Austrostipa sp.	
DIRECTION 23 deg(T)		34.36891°S 139.65433°E	ACCURACY 5 m DATUM GDA2020
			
Site 3		2024-05-07 13:39:53+09:30	
General description	Low very open shrubland consisting of sparsely distributed low growing shrubs (< 0.5 m) of Acacia nyssophylla, Enchylaena tomentosa, Roepera aurantiaca ssp., Sclerolaena sp., and Maireana sp. over Austrostipa sp. A small number of emergent trees of Myoporum platycarpum occur within this association across the property. Dieback was prominent on many of these trees. This site has been heavily impacted by sheep grazing with areas of barren soil prominent. Representative photo shows vegetation association 3 occurring at broiler shed group site 3 current at the time of the field survey.		
Threatened species or community	No threatened communities or flora species were recorded in the site. The vegetation association is unlikely to provide high quality habitat for any threatened fauna but may be used at times by Little Eagle (Hieraetus morphnoides, NPW: V) while hunting / foraging within the wider area.		

4.3 Exotic Flora

No introduced flora species were observed across the Project area during the time of the field survey. However, it is likely that a number of annual and perennial herbaceous weeds occur within the Project area which would be visible across winter to summer. In particular, below average rainfall leading up to the field survey likely resulted in the lack of germination and growth of many herbaceous weeds.

Declared weeds under the LSA Act considered more than likely to occur within the Project area, based on knowledge of the wider region and nearby records, include:

- *Echium plantagineum* (Salvation Jane)
- *Marrubium vulgare* (Horehound)

Under the LSA Act landowners in the Murraylands and Riverland region must take reasonable steps to kill both *Echium plantagineum* (Salvation Jane) and *Marrubium vulgare* (Horehound) and prevent their spread. These weed species must also not be transported on a public road, including as a contaminant (e.g., in the form of a cutting, seed or potted specimen). Care must be taken that these weeds if present are destroyed prior to any cleared vegetation being transported from the Project area.

Other weeds considered more than likely to occur within the Project area, based on knowledge of the wider region and nearby records, include *Asphodelus fistulosus* (Onion weed), species of *Brassica*, and *Carrichtera annua* (Ward's weed).

4.4 Assessment of Threatened Communities, Flora, and Fauna

4.4.1 EPBC PMST Search Summary

A total of 28 listed threatened species / subspecies and 11 migratory species / subspecies were identified by the EPBC Act PMST report as potentially occurring or having suitable habitat potentially occurring within 5 km of the Project Area (Table 5) (DCCEEW 2024a). The ecological MNES protected under the EPBC Act relevant to this report are discussed in detail below.

Table 5 Results of the EPBC PMST report.

Search area (5 km buffer)	Matters of National Environmental Significance	Identified within search area
	World Heritage Properties	0
	National Heritage Places	0
	Wetlands of International Importance (RAMSAR)	1
	Great Barrier Reef Marine Park	0
	Commonwealth Marine Area	0
	Listed Threatened Ecological Communities	3
	Listed Threatened Species	28
	Listed Migratory Species	11
	Other matters protected by the EPBC	
	Commonwealth Lands	1
	Commonwealth Heritage Places	0
	Listed Marine Species	17
	Whales and Other Cetaceans	0
	Critical Habitats	0
	Commonwealth Reserves Terrestrial	0
	Australian Marine Parks	0
	Habitat Critical to the Survival of Marine Turtles	0
	Extra information	
	State and Territory Reserves	2
	Regional Forest Agreements	0
	Nationally Important Wetlands	0
	EPBC Act Referrals	6
	Key Ecological Features	0
	Biologically Important Areas	0
	Bioregional Assessments	0
	Geological and Bioregional Assessments	0

4.4.2 Threatened Ecological Communities (TEC)

Three threatened Ecological Communities (TEC) were identified in the PMST report as potentially occurring within 5 km of the Project area (Table 6). However, no TEC were detected during the field survey of the Project area.

Table 6. Threatened ecological communities listed under the EPBC Act identified within 5 km of the Project area.

Threatened Ecological Community	EPBC Status	Likelihood of occurrence in Project area
Mallee Bird Community of the Murray Darling Depression Bioregion - Four broad types of mallee (<i>Triodia</i> , Chenopod, Shrubby and Heathy) that supports 20 bird species that rely on mallee habitats for their continued persistence within the Murray-Darling Depression bioregion.	Endangered	Unlikely
Buloke Woodlands of the Riverina and Murray Darling Depression Bioregions - Woodland or open woodland dominated by <i>Allocasuarina luehmannii</i> (buloke/bull-oak) with a well-developed grassy and/or herbaceous and shrub understory. Extremely important for temperate woodland birds.	Endangered	Unlikely
Plains mallee box woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain - Medium to tall open mallee eucalypt woodland with a canopy dominated by 'mallee box' <i>Eucalyptus</i> species. Provide habitat for a high species richness of reptiles and mammals.	Critically Endangered	Unlikely

4.5 Nationally Threatened Flora

Four flora species listed as threatened under the EPBC Act was identified in the PMST report as potentially occurring or having suitable habitat potentially occurring within 5 km of the Project area (Table 7):

- *Dodonaea subglandulifera* (Peep Hill Hop-Bush, EPBC: EN, NPW: E)
- *Lepidium monoplacoides* (Winged Pepper-cress, EPBC: EN, NPW: E)
- *Pterostylis xerophila* (Desert Greenhood, EPBC: VU, NPW: V)
- *Swainsona pyrophila* (Yellow Swainson-pea, EPBC: VU, NPW: R)

No records of these species were identified within 5 km of the Project area and none of the species were observed during field survey.

4.5.1 State Threatened Flora

Ten flora species / subspecies of state conservation significance had historical records within 5 km of the Project area from the NatureMaps BDBSA search (Table 7 and Figure 5):

- *Brachyscome paludicola* (Swamp Daisy, NPW: R)
- *Callistemon brachyandrus* (Prickly Bottlebrush, NPW: R)
- *Calotis scapigera* (Tufted Burr-daisy, NPW: R)
- *Ceratophyllum demersum* (Hornwort, NPW: R)
- *Eremophila gibbifolia* (Coccid Emubush, NPW: R)
- *Lepidium pseudotasmanicum* (Shade Peppercress, NPW: V)
- *Maireana rohrlachii* (Rohrlach's Bluebush, NPW: R)
- *Myriophyllum papillosum* (Robust Milfoil, NPW: R)
- *Picris squarrosa* (Squat Picris, NPW: R)

- *Sclerolaena muricata* var. *villosa* (Five-spine Bindyi, NPW: R)

The two state rare species of *Eremophila gibbifolia* (Coccid Emubush) and *Maireana rohrlachii* (Rohrlach's Bluebush) were considered possible to occur in the Project area (Table 7). These two species were not observed during the field survey.

Table 7. Threatened flora listed under the EPBC Act and NPW Act identified within 5 km of the Project area via the PMST (Source 1), BDBSA (Source 2), or observed during the field survey. Likelihood of occurrence refers to presence within the Project area.

Scientific name	Common name	EPBC Act	NPW Act	Data source	Date of last record	Known habitat preference(s)	Likelihood of occurrence
<i>Brachyscome paludicola</i>	Swamp Daisy		R	2	20/11/2002	Perennial rhizomatous herb. Inhabits inundated clay soils and is common in seasonally wet, red gum dominated flats.	Unlikely
<i>Callistemon brachyandrus</i>	Prickly Bottlebrush		R	2	24/02/2012	A shrub to small tree that grows on the sandy soil of alluvial flats.	Unlikely
<i>Calotis scapigera</i>	Tufted Burr-daisy		R	2	13/01/2012	Perennial stoloniferous herb. Inhabits both saltbush and <i>Eucalyptus camaldulensis</i> communities growing on damp clay soils in flood-prone areas.	Unlikely
<i>Ceratophyllum demersum</i>	Hornwort		R	2	18/09/2011	Aquatic plant found in ponds, lakes, and slow-flowing waters.	Unlikely
<i>Dodonaea subglandulifera</i>	Peep Hill Hop-bush	EN	E	1		Endemic to South Australia. Inhabits open woodland, open shrubland and mallee woodland growing on low hills with loamy soils and rocky outcrops.	Unlikely
<i>Eremophila gibbifolia</i>	Coccid Emubush		R	2	1/11/2005	Small shrub growing on sandy loam soils usually under mallee scrub.	Possible
<i>Lepidium monolocoides</i>	Winged Pepper-cress	EN	E	1		Mallee scrub in semi-arid areas prone to waterlogging.	Unlikely
<i>Lepidium pseudotasmanicum</i>	Shade Peppercress		V	2	16/07/2003	Annual to biennial herb growing in grassy woodlands, grasslands, bare ground, and rocky areas. Mainly rocky areas in South Australia.	Unlikely
<i>Maireana rohrlachii</i>	Rohrlach's Bluebush		R	2	13/05/2014	Often found fringing lakes or growing in seasonally wet areas. One record within the property boundary approximately 4250 m southeast of the Project area.	Possible
<i>Myriophyllum papillosum</i>	Robust Milfoil		R	2	13/02/2013	Grows in shallow water or on mud.	Unlikely
<i>Picris squarrosa</i>	Squat Picris		R	2	22/11/2011	Coastal sand-dunes or riverbanks and floodplains.	Unlikely
<i>Pterostylis xerophila</i>	Desert Greenhood	VU	V	1		Dry woodland or granite and quartzite outcrops. Only eight populations containing about 150 plants are known.	Unlikely
<i>Sclerolaena muricata</i> var. <i>villosa</i>	Five-spine Bindyi		R	2	19/11/2002	Mostly found along the Murray River and associated floodplains and also heavy soils prone to inundation.	Unlikely
<i>Swainsona pyrophila</i>	Yellow Swainson-pea	VU	R	1		Short lived shrub that grows in mallee woodland on sandy and loamy soils. Typically germinates following rain after fire. Found in South Australia across a range of areas where not previously seen following fire.	Unlikely

NP&W Act: E = Endangered, V = Vulnerable, R = Rare.

EPBC Act: Ex = Extinct, CR = Critically Endangered, EN = Endangered, VU = Vulnerable.

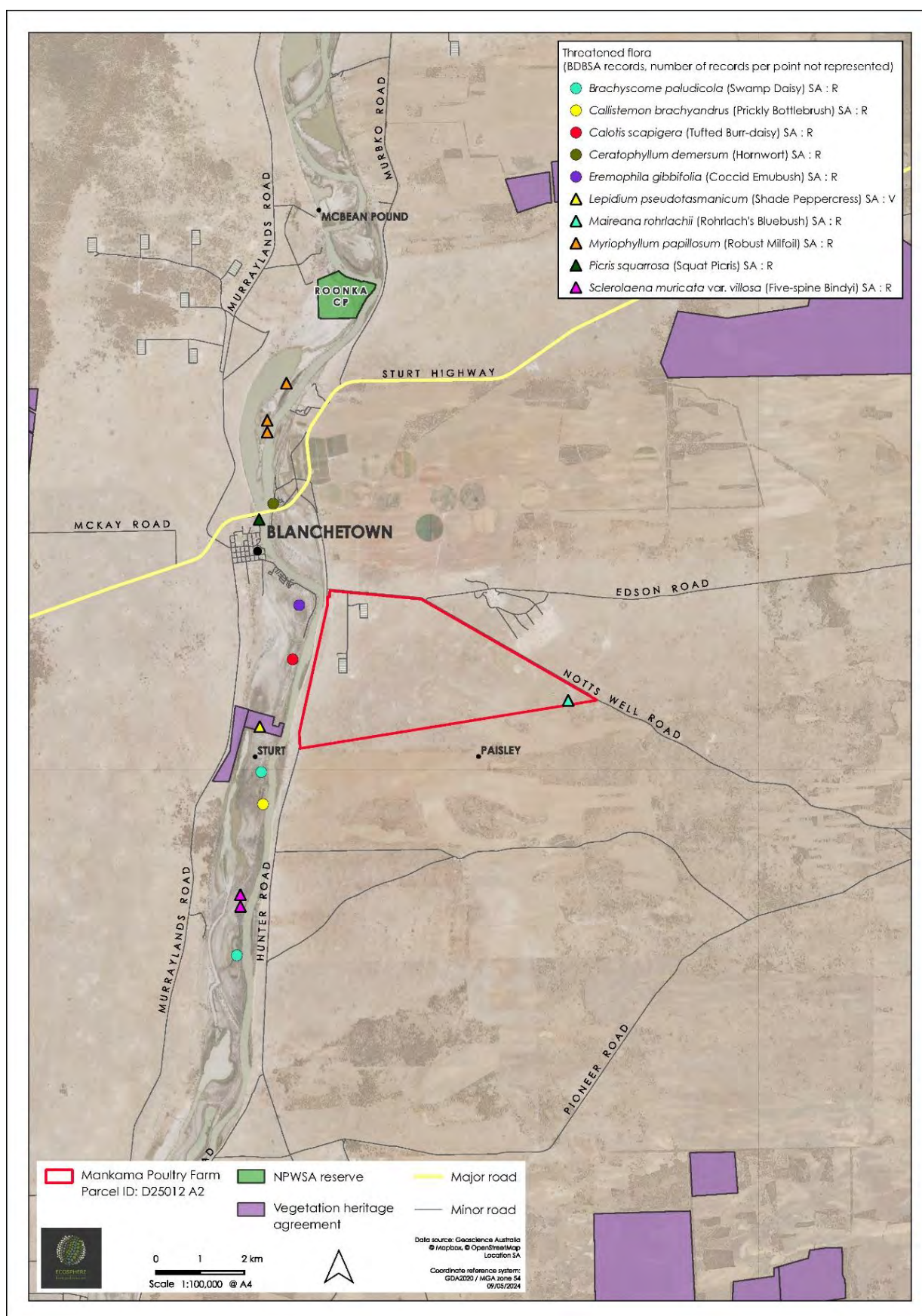


Figure 5. Threatened flora records within 5 km of the Project area.

4.6 Nationally Threatened Fauna

Twenty-four fauna species / subspecies listed as threatened under the EPBC Act were identified by the PMST report as potentially occurring or having suitable habitat potentially occurring within 5 km of the Project area (Table 8). This included 18 bird, 1 mammal, 1 frog, and 4 fish species / subspecies. Two fauna species / subspecies threatened under the EPBC Act also had records of occurrence within 5 km of the Project area, as returned via the NatureMaps BDBSA search (Figure 6). These included:

- Southern Whiteface (*Aphelocephala leucopsis leucopsis*, EPBC: VU)
- Southern Bell Frog (MLR) (*Litoria raniformis raniformis*, EPBC: VU, NPW: V)

Southern Bell Frog (MLR) (*Litoria raniformis raniformis*) was considered as unlikely to occur within the Project area due to a lack of suitable habitat (Table 8).

Southern Whiteface (*Aphelocephala leucopsis*) was considered as possible to occur within the Project area (Table 8). Two subspecies are recognized, with *Aphelocephala leucopsis leucopsis* occurring in SA. This species was added to the threatened fauna list under the EPBC Act on the 31st of March 2023 due to a continued overall population decline, although the extent to which populations have declined within the arid and mallee regions of Australia are less clear. The species occurs across most of mainland Australia south of the tropics in a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. The species prefers habitat with low tree densities and herbaceous understorey litter cover which provides essential foraging habitat and requires hollows / crevices in trees for roosting / nesting. Key threats for the species are broad landscape based and relate to pastoralism and the loss of shrubs and grasses. The PMST report suggested the presence of Southern Whiteface within the Project area and five recorded observations occurred within 5 km of the Project area (Figure 6). However, vegetation within the Project area is unlikely to be regularly utilised by the species given the lack of trees with hollows / crevices required for breeding and roosting, the lack of *Acacia* / Eucalypt dominated woodland / shrubland (preferred habitat), and the low amount of herbaceous understorey litter cover. Southern Whiteface was also not observed during the field survey. Following an EPBC Assessment of Significance habitat within the Project area was not deemed critical and clearance of native vegetation within the Project area is not expected to have a significant impact on an important population of this species. Further information regarding this decision can be found in section 7.

4.6.1 Migratory Fauna

Eleven EPBC Act listed migratory species / subspecies were identified by the PMST report as potentially occurring or having suitable habitat potentially occurring within 5 km of the Project area. The migratory birds identified are all unlikely to utilise the Project area other than as a brief flyover considering the lack of suitable habitat. These migratory birds are largely associated with waterbodies associated with feeding and or refuge areas which are not present within the Project area.

4.6.2 State Threatened Fauna

Twelve fauna species / subspecies of state conservation significance has historical records from the NatureMaps BDBSA search within 5 km of the Project area (Figure 6). One species was considered to possibly occur within the Project area:

- Little Eagle (*Hieraaetus morphnoides*, NPW: V)

Little Eagle (*Hieraaetus morphnoides*) is a small species of eagle with a widespread distribution across mainland Australia. The species inhabits open forest, woodland, grassland, and agricultural land extending into the arid zone, where it predares on a broad range of small prey items. Nesting takes place in areas of mature trees in open woodland and along watercourses. The Project area does not provide suitable habitat for nesting, but Little Eagle (*Hieraaetus morphnoides*) may possibly forage at times within the Project area. Little Eagle (*Hieraaetus morphnoides*) was not observed during the field survey.

4.6.3 Marine Fauna

Seventeen marine species / subspecies listed under the EPBC Act were identified in the PMST report as potentially occurring or having suitable habitat potentially occurring within 5 km of the Project area. Given the terrestrial nature of the Project area these species / subspecies were not considered as part of the desktop assessment.

Table 8. Threatened fauna listed under the EPBC Act and NP&W Act and EPBC listed migratory fauna identified within 5 km of the Project area via the PMST (Source 1), BDBSA (Source 2), or observed during the field survey. Likelihood of occurrence refers to presence within the Project area.

Scientific name	Common name	EPBC Act	NPW Act	Data source	Date of last record	Known habitat preference(s)	Likelihood of occurrence
AVES							
<i>Actitis hypoleucos</i>	Common Sandpiper	Mi	R	1		Migratory shorebird. Found in coastal or inland wetlands, both saline and fresh, and mainly on muddy edges or rocky shores. Prefers freshwater lakes and shallow rivers during the breeding season in the northern hemisphere. Mostly found in northern and western Australia.	Unlikely
<i>Amytornis striatus howei</i>	Murray Mallee Striated Grasswren	EN	R	1		Inhabits sandplains dominated by mature spinifex and typically with a <i>Eucalyptus</i> overstorey. Builds nests within spinifex clumps.	Unlikely
<i>Anhinga novaehollandiae novaehollandiae</i>	Australasian Darter		R	2	14/03/2013	Fish predating water bird of wetlands and sheltered coastal waters.	Unlikely
<i>Aphelocephala leucopsis leucopsis</i>	Southern Whiteface	VU		1,2	19/10/2010	Inhabits a wide range of open woodlands and shrublands with an understorey of grasses and / or shrubs. Favours habitat with an herbaceous understorey litter cover for foraging and requires hollows / crevices in trees for roosting / nesting.	Possible
<i>Apus pacificus</i>	Fork-tailed Swift	Mi		1		Asian origin - species is aerial during its stay in Australia	Unlikely
<i>Ardea intermedia plumifera</i>	Plumed Egret		R	2	21/10/2005	Found in inland areas associated with natural and artificial bodies of water where it forages on invertebrates and aquatic prey. Prefers areas with short emergent vegetation.	Unlikely
<i>Botaurus poiciloptilus</i>	Australasian Bittern	EN	E	1		Well vegetated freshwater and brackish wetlands.	Unlikely
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	VU, Mi		1		Migratory wetland species. Does not breed in Australia. Prefers the grassy edges of shallow inland freshwater wetlands. It is also found around sewage farms, flooded fields, mudflats, mangroves, rocky shores, and beaches.	Unlikely
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR, Mi	E	1		Migratory wetland species. Does not breed in Australia. Curlew Sandpipers in Australia are present within coastal and subcoastal habitats. The habitats within which they are present range from fresh to hypersaline, and include intertidal mudflats, saltworks, sewage farms, wetlands, lakes, swamps, and lagoons.	Unlikely
<i>Calidris melanotos</i>	Pectoral Sandpiper	Mi	R	1		Migratory wetland species. Does not breed in Australia. Pectoral Sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains, and artificial wetlands.	Unlikely

Scientific name	Common name	EPBC Act	NPW Act	Data source	Date of last record	Known habitat preference(s)	Likelihood of occurrence
<i>Cinclosoma castanotum</i>	Chestnut-backed Quailthrush (Chestnut Quailthrush)		R	2	19/09/1996	Arid to semi-arid areas of low-lying mallee and heathland.	Unlikely
<i>Corcorax melanorhamphos</i>	White-winged Cough		R	2	05/04/2004	Predominantly ground-feeding bird that inhabits open forests and woodlands. Prefers wetter areas with high leaf-litter levels for foraging and mud for nest building.	Unlikely
<i>Falco hypoleucos</i>	Grey Falcon	VU	R	1		The species has a widespread, but sparse distribution across Australia, occurring in arid and semi-arid areas, including the Murray-Darling Basin, Eyre Basin, central Australia, and Western Australia. Inhabits shrubland, grassland and wooded watercourses in arid and semi-arid regions of inland areas. The species is mainly found where annual rainfall is less than 500 mm, except when wet years are followed by drought, when the species might become marginally more widespread.	Unlikely
<i>Gallinago hardwickii</i>	Latham's Snipe	VU, Mi	R	1		Migratory wetland species. Does not breed in Australia. Inhabits tussock grass and low dense sedges surrounding permanent and ephemeral freshwater wetlands.	Unlikely
<i>Grantiella picta</i>	Painted Honeyeater	VU	R	1		Dry open forests and woodlands. Associated with the fruiting of mistletoe and follows the availability of this seasonal food resource throughout the year.	Unlikely
<i>Hieraaetus morphnoides</i>	Little Eagle		V	2	7/11/2012	Widespread distribution across mainland Australia. Inhabits open forest, woodland, grassland, and agricultural land extending into the arid zone. Nesting takes place in areas of mature trees in open woodland and along watercourses.	Possible
<i>Leipoa ocellata</i>	Malleefowl	VU	V	1		The Murray Mallee is the stronghold for the Malleefowl, but it has severely declined throughout its range. It is now found in scattered locations through semi-arid rangelands and dry-land cropping zones in the southeast of South Australia and the Eyre Peninsula. Principally found in mallee eucalypt woodland and scrub as well as dry forest dominated by other eucalypts, Mulga and other <i>Acacia</i> spp.	Unlikely
<i>Lophochroa leadbeateri leadbeateri</i>	Pink Cockatoo (eastern)	EN	R	1		Arid and semi-arid woodlands of Mulga, mallee, or cypress pine. Requires hollows for nesting that typically only occur within older trees of <i>Eucalyptus</i> and cypress pine. Feeds on the seeds of native plants.	Unlikely
<i>Manorina melanotis</i>	Black-eared Miner	EN	E	1		Mature long unburnt areas of shallow sand mallee and chenopod mallee. Requires large areas of contiguous mallee.	Unlikely

Scientific name	Common name	EPBC Act	NPW Act	Data source	Date of last record	Known habitat preference(s)	Likelihood of occurrence
<i>Melanodryas cucullata cucullata</i>	Hooded Robin (south-eastern)	EN	R	1		Lightly timbered woodland, dominated by <i>Acacia</i> and/or eucalypts.	Unlikely
<i>Motacilla cinerea</i>	Grey Wagtail	Mi		1		Uncommon terrestrial migratory species. Prefers fast-flowing streams and rivers often in forested areas, in addition to lowland watercourses, including lakes and marshes.	Unlikely
<i>Motacilla flava</i>	Yellow Wagtail	Mi		1		Uncommon terrestrial migratory species. Inhabits a variety of damp or wet habitats including marshes and bogs. Roosts in dense vegetation.	Unlikely
<i>Myiagra cyanoleuca</i>	Satin Flycatcher	Mi	E	1		Eucalypt forests, often near wetlands or watercourses. Occurs at high elevations during the breeding season but has wider habitat preferences during its migration.	Unlikely
<i>Myiagra inquieta</i>	Restless Flycatcher		R	2	19/09/1996	Inhabits open forests and woodlands and frequently seen in farmland.	Unlikely
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	1		Woodlands, coastal heaths, and grasslands. However, the species favours grasslands and grassy woodlands, often near wetlands.	Unlikely
<i>Pandion haliaetus</i>	Osprey	Mi	E	1		Mostly coastal bird of prey which requires large open areas of fresh, brackish, or saline water for foraging.	Unlikely
<i>Pedionomus torquatus</i>	Plains-wanderer	CR	E	1		Small, ground-dwelling bird. Plains-wanderers inhabit sparse native grasslands and are often absent from areas where grass becomes too dense or too sparse. They nest amongst native grasses and herbs, or sometimes amongst crops, feeding on a mixture of seeds, invertebrates, and leaves.	Unlikely
<i>Polytelis anthopeplus monarchoides</i>	Regent Parrot (eastern)	VU	V	1		Forages across large areas of mallee woodland and typically nests in <i>Eucalyptus camaldulensis</i> woodland during breeding season.	Unlikely
<i>Rostratula australis</i>	Australian Painted Snipe	EN	E	1		Shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans.	Unlikely
<i>Spatula rhynchos</i>	Australasian Shoveler		R	2	29/11/2013	Shallow wetlands, preferring large undisturbed heavily vegetated freshwater swamps.	Unlikely
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	V	1		Open grassy woodland, heath and farmland or grassland with scattered trees. Preference for areas with high grass cover. Roost within dense shrubs and feed at ground level on seeds and insects. Somewhat transient populations.	Unlikely

Scientific name	Common name	EPBC Act	NPW Act	Data source	Date of last record	Known habitat preference(s)	Likelihood of occurrence
<i>Stictonetta naevosa</i>	Freckled Duck		V	2	29/11/2013	Permanent freshwater swamps and creeks with heavy growth of bullrushes, lignum, or tea-tree. Breeding occurs in ephemeral swamps formed by flooding.	Unlikely
<i>Tringa nebularia</i>	Common Greenshank	EN, Mi		1		Migratory coastal shorebird. Does not breed in Australia. Widespread in coastal regions of Australia where it forages within wetlands, mudflats, and shallows around the edge of waterbodies. Nests are constructed in association with waterbodies both coastal (e.g., estuaries and mudflats) and inland (e.g., swamps and flooded crops).	Unlikely
MAMMALIA							
<i>Myotis macropus</i>	Large-footed Myotis		E	2	10/04/2018	Coastal and subcoastal areas and along the Murray River always close to water.	Unlikely
<i>Nyctophilus corbeni</i>	Corben's Long-eared Bat	VU	V	1		Confined to extensive stands of tall mallee shrubland in South Australia. Inhabits wider range of woodland vegetation types in the eastern mainland states of Australia.	Unlikely
<i>Trichosurus vulpecula</i>	Common Brushtail Possum		R	2	4/04/2004	An arboreal nocturnal marsupial of urban areas, forests, woodlands, and heath.	Unlikely
REPTILIA							
<i>Morelia spilota</i>	Carpet Python		R	2	10/10/2008	Associated with River Red Gum habitat and small rocky areas throughout the year.	Unlikely
AMPHIBIA							
<i>Litoria raniformis raniformis</i>	Southern Bell Frog (MLR)	VU	V	2	16/11/2010	Variety of still or slow-flowing natural and artificial wetlands, riverine floodplains, farm dams, quarries, and irrigation channels. Reliant on permanent freshwater lagoons for breeding.	Unlikely
FISH							
<i>Galaxias rostratus</i>	Flathead Galaxias	CR		1		No habitat available.	Unlikely
<i>Bidyanus bidyanus</i>	Silver Perch	CR		1		No habitat available.	Unlikely
<i>Craterocephalus fluviatilis</i>	Murray Hardyhead	EN		1		No habitat available.	Unlikely
<i>Maccullochella peelii</i>	Murray Cod	VU		1		No habitat available.	Unlikely

NP&W Act: E = Endangered, V = Vulnerable, R = Rare.

EPBC Act: Ex = Extinct, CR = Critically Endangered, EN = Endangered, VU = Vulnerable, CD = Conservation Dependent, Mi = Migratory.

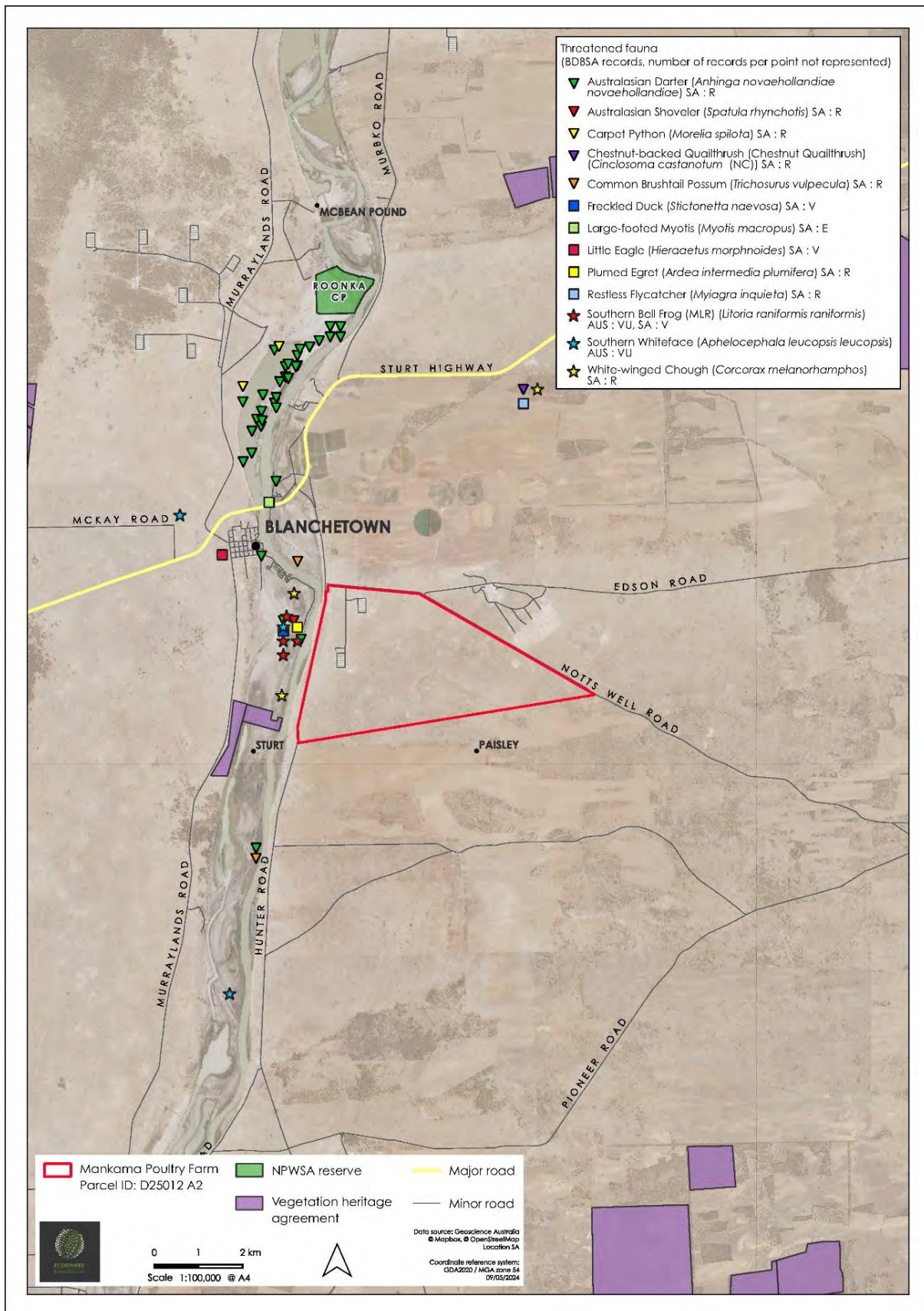


Figure 6 Threatened fauna records within 5 km of the Project area.

4.7 Cumulative Impact

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.

Cumulative impacts will be managed through construction guidelines. Nothing from the sheds or hardstands will enter vegetation with a stormwater culvert to extend around the perimeter of the sites and directed into retention. Dust or other impacts associated with the construction and ongoing presence of the staff dwellings and broiler sheds are unlikely to cause ongoing impacts to vegetation within or surrounding the project.

4.8 Address 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 locations of the additional broiler sheds, roads, and staff dwellings have been precisely located and micro-sited to avoid areas of higher quality vegetation as much as possible while taking biosecurity requirements into account. However, due to the need for additional broiler sheds and the buffer distances between blocks of broiler sheds for biosecurity, the vegetation clearance cannot be avoided.

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 locations of the additional broiler sheds, roads, and staff dwellings have been chosen as the vegetation is sparser and / or more degraded compared to other areas within the allotment (e.g. shrubland of similar or better condition than vegetation association 1 occurs within the south-west of the property). In particular, the location of broiler shed group site 3 occurs within a highly degraded area of vegetation as a result of sheep grazing. The project layout has also been modified since the initial field survey and the current design makes better use of existing access tracks.

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.

Native vegetation will be planted around the site to act as screening for the broiler sheds. A planting schedule using locally indigenous plants will be used for plantings in an effort to enhance biodiversity values in the area.

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 SEB will be met through a payment into the NV fund.

Total payment is \$418,666.72.

4.5 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*.

Noting, consultants can discuss the Moderating factors, but must not change the outcome of the assessment against the principles. This is determination for the NVC only. The Assessment against the principles must be based on the outcomes of the Bushland Assessment, Rangeland Assessment or Scattered tree assessment.

Data Report for level 3 or 4 application associated with a Development application

If a data report is in relation to a level 3 or 4 application that will be subject to a development application, then principles a – g need to be address. The NVC will consider the principles in full when receiving a referral for a development application.

Principle of clearance	Considerations
Principle 1a - it comprises a high level of diversity of plant species	<u>Relevant information</u> <u>The number of plant species recorded (native and introduced) for each vegetation association:</u> - Vegetation association 1 = 15 native species, 5 introduced species. - Vegetation association 2 = 13 native species, 5 introduced species. - Vegetation association 3 = 7 native species, 5 introduced species. <u>Bushland Plant Diversity Score:</u> - Vegetation association 1 = 16 - Vegetation association 2 = 14 - Vegetation association 3 = 8
	<u>Assessment against the principles</u> <u>Seriously at Variance</u> N/A <u>At Variance</u> - Vegetation association 1 - Vegetation association 2
	<u>Moderating factors that may be considered by the NVC</u> - The diversity of plant species is not high within any of the sites assessed. - Both vegetation association 1 and 2 are degraded to some extent from grazing. - Vegetation association 3 is in very poor condition, with heavy impacts of sheep grazing, and the extent to which regenerating plants may establish themselves is limited.
	<u>Relevant information</u> <u>List of threatened species that were recorded or may use the vegetation:</u> The vegetation present is unlikely to provide high quality habitat for any threatened fauna but vegetation associations 1 and 2 may be used at times by Southern Whiteface (<i>Aphelocephala leucopsis leucopsis</i>, EPBC: VU) and the Project area overall may be used by Little Eagle (<i>Hieraetus morphnoides</i>, NPW: V) at times for foraging / hunting.

	<u>Detail if the vegetation support a high diversity of animal species:</u> - The vegetation is unlikely to support a relatively high diversity of animal species due to its mostly degraded nature. The threatened animal species recorded within the 5 km buffer are mostly associated with the nearby Murray River or otherwise areas of mallee woodland outside of the property. <u>Detail if the vegetation provide a corridor for movements between other areas of native vegetation, or a habitat refuge, especially in heavily cleared areas:</u> - The vegetation associations may form part of a habitat corridor for some species, but vegetation clearance is unlikely to disrupt animal movement given the large area of unimpacted vegetation remaining on the property, including two SEB offset areas of approximately 73.98 ha and 16.69 ha, and similar vegetation generally within the surrounding area. Vegetation clearance does not result in the physical separation of any remnants and will not significantly reduce an area of habitat refuge. <u>Threatened Fauna Score:</u> - Vegetation association 1 = 0.04 - Vegetation association 2 = 0.04 - Vegetation association 3 = 0.04 <u>Unit biodiversity Score:</u> - Vegetation association 1 = 40.73 - Vegetation association 2 = 38.19 - Vegetation association 3 = 20.36
	<u>Assessment against the principles</u> <u>Seriously at Variance</u> N/A <u>At Variance –</u> - Vegetation association 1 - Vegetation association 2 - Vegetation association 3
	<u>Moderating factors that may be considered by the NVC</u> - No threatened fauna species were recorded or considered likely or highly likely to use the vegetation. - The two threatened fauna species considered as possible to occur in Southern Whiteface and Little Eagle are both likely to occur infrequently if at all, and the vegetation does not provide roosting or nesting habitat or critical resources for survival. - Clearance is highly unlikely to impact the conservation of any threatened fauna occurring within the local area.
Principle 1c - plants of a rare, vulnerable or endangered species	<u>Relevant information</u> <u>List threatened species that were recorded for the site or that may be present but undetectable at the time of assessment (e.g. orchids):</u> No threatened flora species were recorded or considered likely or highly likely to occur within the areas of vegetation assessed.

	- Although some <i>Maireana</i> spp. could not be confidently identified to species level due to the dry conditions and absence of fruit they clearly were not individuals of the threatened <i>Maireana rohrlachii</i> (Rohrlach's Bluebush, NPW: R). <u>Threatened Flora Score(s):</u> - Vegetation association 1 = 0 - Vegetation association 2 = 0 - Vegetation association 3 = 0 <u>Assessment against the principles</u> <u>Seriously at Variance</u> N/A <u>At Variance –</u> N/A <u>Moderating factors that may be considered by the NVC</u> N/A
Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered:	<u>Relevant information</u> <u>Identify any threatened communities under the EPBC Act or threatened ecosystems under the DEW Provisional list of threatened ecosystems present?</u> - No threatened communities occurred within the areas of vegetation assessed. <u>Threatened Community Score:</u> - Vegetation association 1 = 1 - Vegetation association 2 = 1 - Vegetation association 3 = 1 <u>Assessment against the principles</u> <u>Seriously at Variance</u> N/A <u>Moderating factors that may be considered by the NVC</u> N/A
Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.	<u>Relevant information</u> <u>Provide remnancy figures for IBRA Association and IBRA Subregion:</u> - Blanchetown IBRA Environmental Association = 67 % - Murray Mallee IBRA Subregion = 21 % <u>Discuss the health and likely longevity of remnants:</u> - Vegetation association 3 is in very poor condition with heavy impacts of sheep grazing present. The extent to which regenerating plants may establish themselves is limited and the site is unlikely to see an increase in native vegetation occupancy into the future without substantial intervention. - Vegetation associations 1 and 2 represent less degraded areas of vegetation and the cover of larger shrubs in vegetation association 1 approaches that of tall shrubland occurring within the south-west of the property. The biodiversity of vegetation associations could be improved via planting and weeding practices if desired, although weed incursion would be an ongoing issue.

	<u>Total Biodiversity Score:</u> - Vegetation association 1 = 797.49 - Vegetation association 2 = 89.06 - Vegetation association 3 = 287.79
	<u>Assessment against the principles</u> <u>Seriously at Variance</u> - Vegetation association 1 - Vegetation association 2 - Vegetation association 3
	<u>At Variance</u> N/A
	<u>Moderating factors that may be considered by the NVC</u> The locations of the additional broiler sheds, roads, and staff dwellings have been selected within areas of sparser and / or more degraded vegetation compared to other areas within the allotment (e.g., shrubland of similar to better condition than vegetation association 1 occurs within the south-west of the property). In particular, the location of broiler shed group site 3 occurs within a highly degraded area of vegetation because of sheep grazing. Two SEB offset areas of approximately 73.98 ha and 16.69 ha occur within the property, which will be unimpacted by the development, and similar vegetation occurs generally within the surrounding area.
Principle 1f - it is growing in, or in association with, a wetland environment.	<u>Relevant information</u> <u>Discuss if any of the vegetation is associated with a wetland:</u> N/A
	<u>Assessment against the principles</u> <u>Seriously at Variance</u> N/A
	<u>At Variance –</u> N/A
	<u>Moderating factors that may be considered by the NVC</u> N/A
Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.	<u>Relevant information</u> N/A
	N/A
	<u>Moderating factors that may be considered by the NVC</u> N/A

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.

4.9 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	N/A
	Area (ha)	32.77
	Total biodiversity Score	1067.58
Seriously at variance with principle 1(b), 1(c) or 1 (d)		List the principles is seriously at variance with: Not Seriously at Variance.
Risk assessment outcome		Level 4

4.10 NVC Guidelines

Provide any other information that demonstrates that the clearance complies with any relevant NVC guidelines related to the activity.

N/A

5 Clearance Summary

5.1 Clearance Area(s) Summary Table

Insert table from the Summary Clearance Table for **patches** of vegetation assessed using the Bushland or Rangeland Assessment Method.

Block	Site	Native species diversity score	Threatened Ecological community Score	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
A	1	16	1	0	0.04	40.73	17.8	724.99	1.0			797.49	\$269,492.92	\$14,822.11
A	2	14	1	0	0.04	38.19	2.12	80.96	1.0			89.06	\$30,095.73	\$1,655.27
A	3	8	1	0	0.04	20.36	12.85	261.63	1.0			287.79	\$97,251.84	\$5,348.85

5.2 Totals Summary Table

Insert table containing totals from Summary Clearance Table as well as Economies of Scale and Rainfall.

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	1067.58	1174.34	\$396,840.49	\$21,826.23	\$418,666.72

IBRA Association percent vegetation remnancy (%)	67.0
IBRA Subregion percent vegetation remnancy (%)	21.0
Is the vegetation associated with a Wetland	No
Economies of Scale Factor	0.35
Rainfall Factor (mm)	266
SEB Points of Gain/ha Factor	7

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:

As based on the SEB credit register accessed 23/07/2025 there are currently no suitable on-ground SEB offset areas available (either as active credit sites or potential credit sites listed with the NVC) within the same IBRA Association which would meet the criteria of like-for-like or better required by the NVC. A number of current credit sites occur within the same IBRA Subregion but only one could be expected to meet the criteria of like-for-like and provides only 93.51 SEB points against the 1067.58 required. Use of all other available credits within the same IBRA Subregion and ignoring the criteria of like-for-like or better required by the NVC would still only provide 364.29 SEB points against the 1067.58 required. Thus, a payment to the Native Vegetation Fund is proposed to meet the SEB requirement.

The payment to satisfy the offset required for the clearance of vegetation within the Project area is \$396,840.49 plus an administration fee of \$21,826.23 for a total fee of \$418,666.72.

7 Assessment of Significance

Assessments of Significance for EPBC Act listed entities known or considered highly likely, likely, or possible to occur within or in close proximity to the Project area was limited to Southern Whiteface (*Aphelocephala leucopsis*, EPBC: VU). Southern Whiteface was assessed against the significant impact criteria for a vulnerable species as per the Significant Impact Guidelines 1.1 Matters of National Environmental Significance (DotE 2013).

An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:

Lead to a long-term decrease in the size of an important population of a species:

Although it is considered possible that Southern Whiteface may be present at times within the Project area, potential habitat within the Project area is unlikely to be critical to the survival of Southern Whiteface given the lack of trees with hollows / crevices required for breeding and roosting, the lack of *Acacia* / Eucalypt dominated woodland / shrubland (preferred habitat), and the low amount of herbaceous understory litter cover that provides essential foraging resources. Habitat degradation caused by domestic livestock grazing is listed as a threat to Southern Whiteface and has also already occurred to varying extents within the Project area. The total area of proposed vegetation clearance is small relative to the amount of same or similar vegetation types remaining within the property, including two SEB offset areas of approximately 73.98 ha and 16.69 ha, which will be unimpacted by the development, and similar vegetation within the surrounding landscape more generally. Vegetation clearance also does not result in the physical separation of any remnants. Vegetation clearance is highly unlikely to lead to a long-term decrease in the size of an important population of Southern Whiteface given the unsuitability of the Project area as critical and / or even preferred habitat.

Reduce the area of occupancy of an important population:

The total area of proposed vegetation clearance is small relative to the amount of same or similar vegetation types remaining within the property and the surrounding landscape more generally and is not suitable for breeding or preferred habitat of Southern Whiteface. Vegetation clearance is highly unlikely to reduce the area of occupancy of an important population.

Fragment an existing important population into two or more populations:

Vegetation clearance is highly unlikely to represent a barrier to the movement of Southern Whiteface. Vegetation clearance does not result in the physical separation of any remnants and the vegetation does not represent a habitat corridor which may be utilised by Southern Whiteface in an otherwise sparsely vegetated area. Moreover, the occurrence of Southern Whiteface within the Project area would require individuals to already effectively disperse across previously cleared areas. The proposed vegetation clearance will not fragment any existing population(s).

Adversely affect habitat critical to the survival of a species:

Clearance will not affect habitat critical to the survival of Southern Whiteface given that vegetation within the Project area is not suitable for breeding or preferred habitat of Southern Whiteface and the area of vegetation clearance is small relative to same or similar vegetation types remaining within the property and surrounding landscape more generally.

Disrupt the breeding cycle of an important population:

The vegetation within the Project area is unsuitable for breeding and clearance will not disrupt the breeding cycle of an important population.

Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline:

The total area of proposed vegetation clearance is small relative to same or similar vegetation types remaining within the property and the surrounding landscape more generally and the Project area is not suitable for breeding or preferred habitat of Southern Whiteface. Habitat degradation caused by domestic livestock grazing is listed as a threat to Southern Whiteface and has already occurred to varying extents within the Project area. Clearance is highly unlikely to modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat:

Invasive species are not specifically identified as a threat to Southern Whiteface. The proposed vegetation clearance is highly unlikely to result in the establishment of harmful invasive species within the habitat of Southern Whiteface.

Introduce disease that may cause the species to decline:

The Conservation Advice for Southern Whiteface does not list any diseases as a threat to populations of the species.

Interfere substantially with the recovery of the species:

There is no recovery plan for the species. The total area of proposed vegetation clearance is small relative to potential habitat remaining within the wider landscape and is not suitable for breeding or preferred habitat of Southern Whiteface. Clearance is highly unlikely to interfere substantially with the recovery of Southern Whiteface.

8References

- Department for Environment and Water (DEW) (2024). BDBSA Supertable overview. Accessed 23rd April 2024. Available at: <https://www.environment.sa.gov.au/topics/science/information-and-data/biological-databases-of-south-australia>
- Department of Climate Change, Energy, the Environment and Water (DCCEEW) (2024) Protected Matters Search Tool. Accessed: 23rd April 2024. Available at: <http://www.environment.gov.au/epbc/protected-matters-search-tool>
- Department of the Environment (DotE) (2013) Matters of National Environmental Significance, Significant impact guidelines 1.1, *Environment Protection and Biodiversity Conservation Act 1999*. Available from: <https://www.dcceew.gov.au/environment/epbc/publications/significant-impact-guidelines-11-matters-national-environmental-significance>
- NatureMaps (2024) EnviroData SA. Government of South Australia, Department of Environment and Water (DEW). Available at: <http://spatialwebapps.environment.sa.gov.au/naturemaps/?locale=en-us&viewer=naturemaps>
- Native Vegetation Council (NVC) (2024) Bushland Assessment Manual. Government of South Australia, Department for Environment and Water, Adelaide.

9 Appendices

9.1 PMST Results

Department of Climate Change, Energy, the Environment and Water

Protected Matters Search Tool

Report Generated - 9:51AM - 24 April 2024

Matters of National Environment Significance	Count
World Heritage Properties	0
National Heritage Places	0
Wetlands of International Importance (Ramsar Wetlands)	1
Great Barrier Reef Marine Park	0
Commonwealth Marine Area	0
Listed Threatened Ecological Communities	3
Listed Threatened Species	28
Listed Migratory Species	11

Extra Information	Count
State and Territory Reserves	2
Regional Forest Agreements	0
Nationally Important Wetlands	0
EPBC Act Referrals	6
Key Ecological Features	0
Biologically Important Areas	0
Bioregional Assessments	0
Geological and Bioregional Assessments	0

Other Matters Protected by the EPBC Act	Count
Commonwealth Lands	1
Commonwealth Heritage Places	0
Listed Marine Species	17
Whales and Other Cetaceans	0
Critical Habitats	0
Commonwealth Reserves Terrestrial	0
Australian Marine Parks	0
Habitat Critical to the Survival of Marine Turtles	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](#)

Wetlands of International Importance (Ramsar Wetlands)

Ramsar Site No.	Ramsar Site Name	Proximity	Website	Buffer Status
25	THE COORONG, AND LAKES ALEXANDRINA AND ALBERT WETLAND	100 - 150km upstream	Australian Wetlands	In feature area

Listed Threatened Ecological Communities

[Resource Information]

Community ID	Community Name	Threatened Category	Website	Presence	Text	Buffer Status
151	Mallee Bird Community	Endangered	Species Profile and	Likely	Community likely to	In buffer area only
3	Buloke Woodlands of	Endangered	Species Profile and	May	Community may occur	In feature area
150	Plains mallee box	Critically Endangered	Species Profile and	May	Community may occur	In feature area

Listed Threatened Species [Resource Information]

Species ID	Scientific Name	Common Name	Class	Simple Presence	Presence Text	Threatened Category
906	<i>Pedionomus torquatus</i>	Plains-wanderer	Bird	May	Species or species	Critically Endangered
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	May	Species or species	Critically Endangered
449	<i>Manorina melanotis</i>	Black-eared Miner	Bird	Likely	Species or species	Endangered
82926	<i>Lophochroa leadbeateri</i>	Major Mitchell's	Bird	Likely	Species or species	Endangered
1001	<i>Botaurus poiciloptilus</i>	Australasian Bittern	Bird	May	Species or species	Endangered
77037	<i>Rostratula australis</i>	Australian Painted	Bird	Likely	Species or species	Endangered
91648	<i>Amytomis striatus howei</i>	Murray Mallee Striated	Bird	May	Species or species	Endangered
67093	<i>Melanodryas cucullata cucullata</i>	South-eastern Hooded	Bird	Likely	Species or species	Endangered
832	<i>Tringa nebularia</i>	Common Greenshank,	Bird	Likely	Species or species	Endangered
470	<i>Grantiella picta</i>	Painted Honeyeater	Bird	May	Species or species	Vulnerable
934	<i>Leipoa ocellata</i>	Malleefowl	Bird	Likely	Species or species	Vulnerable
59612	<i>Polytelis anthopeplus</i>	Regent Parrot (eastern)	Bird	Likely	Breeding likely to	Vulnerable
929	<i>Falco hypoleucos</i>	Grey Falcon	Bird	Likely	Species or species	Vulnerable
529	<i>Aphelocephala leucopsis</i>	Southern Whiteface	Bird	Known	Species or species	Vulnerable
59398	<i>Stagonopleura guttata</i>	Diamond Firetail	Bird	Known	Species or species	Vulnerable
863	<i>Gallinago hardwickii</i>	Latham's Snipe,	Bird	May	Species or species	Vulnerable
726	<i>Neophema chrysostoma</i>	Blue-winged Parrot	Bird	Likely	Species or species	Vulnerable
874	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	Known	Species or species	Vulnerable
84745	<i>Galaxias rostratus</i>	Flathead Galaxias,	Fish	May	Species or species	Critically Endangered
76155	<i>Bidyanus bidyanus</i>	Silver Perch, Bidyan	Fish	Known	Species or species	Critically Endangered
56791	<i>Craterocephalus fluvialilis</i>	Murray Hardyhead	Fish	May	Species or species	Endangered
66633	<i>Maccullochella peelii</i>	Murray Cod	Fish	Known	Species or species	Vulnerable
1828	<i>Litoria raniformis</i>	Southern Bell Frog,,	Frog	Known	Species or species	Vulnerable
83395	<i>Nyctophilus corbeni</i>	Corben's Long-eared	Mammal	May	Species or species	Vulnerable
11956	<i>Dodonaea subglandulifera</i>	Peep Hill Hop-bush	Plant	May	Species or species	Endangered
9190	<i>Lepidium monolocoides</i>	Winged Pepper-cress	Plant	May	Species or species	Endangered
7997	<i>Pterostylis xerophila</i>	Desert Greenhood	Plant	May	Species or species	Vulnerable
56344	<i>Swainsona pyrophila</i>	Yellow Swainson-pea	Plant	May	Species or species	Vulnerable

Listed Migratory Species [Resource Information]

Species ID	Scientific Name	Common Name	Class	Presence		Threatened Category
				Rank	Text	
59309	<i>Actitis hypoleucos</i>	Common Sandpiper	Bird	Known	Species or species	
678	<i>Apus pacificus</i>	Fork-tailed Swift	Bird	Likely	Species or species	
874	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	Known	Species or species	Vulnerable
856	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	May	Species or species	Critically Endangered
858	<i>Calidris melanotos</i>	Pectoral Sandpiper	Bird	Known	Species or species	
863	<i>Gallinago hardwickii</i>	Latham's Snipe,	Bird	May	Species or species	Vulnerable
642	<i>Motacilla cinerea</i>	Grey Wagtail	Bird	May	Species or species	
644	<i>Motacilla flava</i>	Yellow Wagtail	Bird	May	Species or species	
612	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	Bird	May	Species or species	
952	<i>Pandion haliaetus</i>	Osprey	Bird	Likely	Species or species	
832	<i>Tringa nebularia</i>	Common Greenshank,	Bird	Likely	Species or species	Endangered

Commonwealth Lands [Resource Information]

Commonwealth	Commonwealth	Agency	State	Buffer Status
41450	Commonwealth Land -	Transport and Regional	SA	In buffer area only

Listed Marine Species [Resource Information]

Species ID	Scientific Name	Common Name	Class	Presence		Threatened Category
				Rank	Text	
670	<i>Merops ornatus</i>	Rainbow Bee-eater	Bird	May	Species or species	
612	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	Bird	May	Species or species	
642	<i>Motacilla cinerea</i>	Grey Wagtail	Bird	May	Species or species	
678	<i>Apus pacificus</i>	Fork-tailed Swift	Bird	Likely	Species or species	
77037	<i>Rostratula australis</i>	Australian Painted	Bird	Likely	Species or species	Endangered
66521	<i>Bubulcus ibis</i>	Cattle Egret	Bird	May	Species or species	
663	<i>Gallinago hardwickii</i>	Latham's Snipe,	Bird	May	Species or species	Vulnerable
643	<i>Haliaeetus leucogaster</i>	White-bellied Sea-	Bird	Likely	Species or species	
658	<i>Calidris melanotos</i>	Pectoral Sandpiper	Bird	Known	Species or species	
644	<i>Motacilla flava</i>	Yellow Wagtail	Bird	May	Species or species	
63425	<i>Chalcites osculans</i>	Black-eared Cuckoo	Bird	Likely	Species or species	
69309	<i>Actitis hypoleucos</i>	Common Sandpiper	Bird	Known	Species or species	
656	<i>Calidris ferruginea</i>	Curlew Sandpiper	Bird	May	Species or species	Critically Endangered
726	<i>Neophema</i>	Blue-winged Parrot	Bird	Likely	Species or species	Vulnerable
632	<i>Tringa nebularia</i>	Common Greenshank,	Bird	Likely	Species or species	Endangered
652	<i>Pandion haliaetus</i>	Osprey	Bird	Likely	Species or species	
674	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	Bird	Known	Species or species	Vulnerable

State and Territory Reserves [Resource Information]

Protected Area ID	Protected Area	Reserve Type	State	Jurisdiction	Environment	Buffer Status
SA_1299	Unnamed (No. HA1299)	Heritage Agreement	SA	State	Terrestrial	In buffer area only
SA_1352	Unnamed (No. HA1352)	Heritage Agreement	SA	State	Terrestrial	In feature area

EPBC Act Referrals [Resource Information]

Reference Number	Title of referral	Jurisdiction	Industry Type	Stage	Stage Description	Referral Outcome
2017/7996	INDIGO Marine Cable	CM	Telecommunications	Post-Approval	Referral Decision Made	Not Controlled Action
2001/510	Nava-1 Cable System	CM	Telecommunications	Completed	Withdrawn	Controlled Action
2007/3484	Proposed temporary	SA	Water Management	Completed	Withdrawn	Controlled Action
2015/7522	Improving rabbit	NSW	Natural Resources	Completed	Referral Decision Made	Not Controlled Action
2017/8127	INDIGO Central	NSW	Telecommunications	Completed	Referral Decision Made	Not Controlled Action
2004/1792	Fish	SA	Water Management	Completed	Referral Decision Made	Not Controlled Action

9.2 BDBSA Flora Records within 5 km of the Project area

Scientific name	Common name	Date of last record
<i>Acacia ligulata</i>	Umbrella Bush	13/05/2014
<i>Acacia nyssophylla</i>	Spine Bush	13/05/2014
<i>Acacia oswaldii</i>	Umbrella Wattle	23/09/2010
<i>Acacia stenophylla</i>	River Cooba	13/02/2013
<i>Agrostis avenacea</i> var. <i>avenacea</i> (NC)	Common Blown-grass	20/11/2002
<i>Ajuja iva</i>	Bugle	5/11/2012
<i>Alectryon oleifolius</i> ssp. <i>canescens</i>	Bullock Bush	23/09/2003
<i>Alopecurus geniculatus</i>	Marsh Fox-tail	16/07/2003
<i>Alternanthera denticulata</i>	Lesser Joyweed	20/02/2013
<i>Alternanthera denticulata</i> (NC)	Lesser Joyweed	7/12/2009
<i>Alternanthera nodiflora</i>	Common Joyweed	21/11/2002
<i>Ammannia multiflora</i>	Jerry-jerry	20/02/2013
<i>Angianthus tomentosus</i>	Hairy Angianthus	23/09/2003
<i>Aristida contorta</i>	Curly Wire-grass	27/12/2001
<i>Asparagus aethiopicus</i>	Asparagus Fern	22/11/2011
<i>Asparagus asparagoides</i> f.	Bridal Creeper	19/11/2002
<i>Asparagus asparagoides</i> f. <i>asparagoides</i>	Bridal Creeper	16/07/2010
<i>Asperula gemella</i>	Twin-leaf Bedstraw	22/11/2011
<i>Asphodelus fistulosus</i>	Onion Weed	16/07/2010
<i>Asteridea athrixioides</i>	Wirewort	27/12/2001

Scientific name	Common name	Date of last record
<i>Atriplex leptocarpa</i>	Slender-fruit Saltbush	21/11/2002
<i>Atriplex prostrata</i>	Creeping Saltbush	1/11/2005
<i>Atriplex semibaccata</i>	Berry Saltbush	13/02/2013
<i>Atriplex</i> sp.	Saltbush	7/12/2009
<i>Atriplex stipitata</i> (NC)	Bitter Saltbush	13/05/2014
<i>Atriplex suberecta</i>	Lagoon Saltbush	7/12/2009
<i>Atriplex vesicaria</i>	Bladder Saltbush	7/12/2009
<i>Austrobryonia micrantha</i>	Desert Cucumber	20/02/2013
<i>Austrostipa elegantissima</i>	Feather Spear-grass	5/11/2012
<i>Austrostipa eremophila</i>	Rusty Spear-grass	27/12/2001
<i>Austrostipa nitida</i>	Balcarra Spear-grass	5/11/2012
<i>Austrostipa nodosa</i>	Tall Spear-grass	23/09/2003
<i>Austrostipa puberula</i>	Fine-hairy Spear-grass	27/12/2001
<i>Austrostipa scabra</i> ssp. <i>falcata</i>	Slender Spear-grass	27/12/2001
<i>Austrostipa</i> sp.	Spear-grass	13/05/2014
<i>Austrostipa trichophylla</i>		27/12/2001
<i>Avena barbata</i>	Bearded Oat	1/11/2005
<i>Avena fatua</i>	Wild Oat	23/09/2003
<i>Azolla rubra</i>	Pacific Azolla	13/02/2013
<i>Brachyscome ciliaris</i> var. <i>ciliaris</i>	Variable Daisy	19/11/2002
<i>Brachyscome paludicola</i>	Swamp Daisy	20/11/2002
<i>Brassica tournefortii</i>	Wild Turnip	23/07/2002
<i>Brassicaceae</i> sp.	Cress Family	13/05/2014
<i>Bromus catharticus</i>	Prairie Grass	1/11/2005
<i>Bromus diandrus</i>	Great Brome	1/11/2005
<i>Bromus hordeaceus</i> ssp. <i>hordeaceus</i>	Soft Brome	1/11/2005
<i>Bromus rubens</i>	Red Brome	20/11/2002
<i>Bupleurum semicompositum</i>	Hare's Ear	22/11/2011
<i>Callistemon brachyandrus</i>	Prickly Bottlebrush	24/02/2012
<i>Calotis cuneifolia</i>	Purple Burr-daisy	19/03/2009
<i>Calotis hispidula</i>	Hairy Burr-daisy	23/09/2010
<i>Calotis scapigera</i>	Tufted Burr-daisy	13/01/2012
<i>Cardamine moirensis</i>		13/01/2012
<i>Carpobrotus rossii</i>	Native Pigface	1/11/2005
<i>Carrichtera annua</i>	Ward's Weed	13/05/2014
<i>Carthamus lanatus</i>	Saffron Thistle	29/02/2004
<i>Casuarina pauper</i>	Black Oak	13/05/2014
<i>Cenchrus ciliaris</i>	Buffel Grass	26/08/2013
<i>Cenchrus ciliaris/pennisetiformis</i>	Buffel Grass	11/05/2012
<i>Centaurea calcitrapa</i>	Star Thistle	29/02/2004
<i>Centaurea melitensis</i>	Malta Thistle	23/09/2003
<i>Centipeda cunninghamii</i>	Common Sneezeweed	20/02/2013
<i>Centipeda cunninghamii</i> (NC)	Common Sneezeweed	19/11/2002
<i>Ceratophyllum demersum</i>	Hornwort	18/09/2011
<i>Chamaesyce drummondii</i> (NC)	Caustic Weed	21/11/2002
<i>Chenopodium curvispicatum</i>	Cottony Goosefoot	5/11/2012
<i>Chloris truncata</i>	Windmill Grass	1/11/2005
<i>Chondrilla juncea</i>	Skeleton Weed	27/12/2001
<i>Cirsium vulgare</i>	Spear Thistle	20/11/2002
<i>Convolvulus angustissimus</i> ssp. <i>angustissimus</i> (NC)	Narrow-leaf Bindweed	23/09/2010
<i>Convolvulus remotus</i>	Grassy Bindweed	13/05/2014
<i>Craspedia</i> sp.		1/11/2005
<i>Crassula helmsii</i>	Swamp Crassula	13/02/2013

Scientific name	Common name	Date of last record
<i>Crassula tetragona</i> ssp. <i>robusta</i>	Crassula	22/11/2011
<i>Cullen australasicum</i>	Tall Scurf-pea	6/12/2008
<i>Cuscuta campestris</i>	Golden Dodder	13/01/2012
<i>Cynara cardunculus</i> ssp. <i>flavescens</i>	Artichoke Thistle	20/11/2002
<i>Cynodon dactylon</i> var. <i>dactylon</i>	Couch	13/02/2013
<i>Cynodon</i> sp.	Couch	1/11/2005
<i>Cyperus difformis</i>	Variable Flat-sedge	20/02/2013
<i>Cyperus eragrostis</i>	Drain Flat-sedge	23/07/2002
<i>Cyperus exaltatus</i>	Splendid Flat-sedge	20/02/2013
<i>Cyperus gymnocaulos</i>	Spiny Flat-sedge	20/02/2013
'dead <i>Eucalyptus</i> ' <i>camaldulensis</i> var. <i>camaldulensis</i>		21/11/2002
<i>Distichlis distichophylla</i>	Emu-grass	13/02/2013
<i>Dittrichia graveolens</i>	Stinkweed	13/02/2013
<i>Dodonaea viscosa</i> ssp.	Sticky Hop-bush	10/12/2001
<i>Dodonaea viscosa</i> ssp. <i>angustissima</i>	Narrow-leaf Hop-bush	13/05/2014
<i>Duma florulenta</i>	Lignum	20/02/2013
<i>Dysphania pumilio</i>	Small Crumbweed	1/11/2005
<i>Echium plantagineum</i>	Salvation Jane	23/09/2003
<i>Eclipta platyglossa</i> ssp. <i>platyglossa</i>	Yellow Twin-heads	21/11/2002
<i>Einadia nutans</i> ssp.	Climbing Saltbush	13/02/2013
<i>Einadia nutans</i> ssp. <i>nutans</i>	Climbing Saltbush	21/11/2002
<i>Eleocharis acuta</i>	Common Spike-rush	1/11/2005
<i>Enchylaena tomentosa</i> var.	Ruby Saltbush	13/05/2014
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	Ruby Saltbush	13/02/2013
<i>Enneapogon nigricans</i>	Black-head Grass	27/12/2001
<i>Eragrostis elongata</i>	Clustered Love-grass	6/12/2008
<i>Eremophila divaricata</i> ssp. <i>divaricata</i>	Spreading Emubush	19/11/2002
<i>Eremophila gibbifolia</i>	Coccid Emubush	1/11/2005
<i>Eremophila scoparia</i>	Broom Emubush	1/11/2005
<i>Eremophila</i> sp.	Emubush/Turkey-bush	1/11/2005
<i>Eriochiton sclerolaenoides</i>	Woolly-fruit Bluebush	5/11/2012
<i>Erodium cicutarium</i>	Cut-leaf Heron's-bill	19/11/2002
<i>Erodium crinitum</i>	Blue Heron's-bill	23/09/2010
<i>Eucalyptus camaldulensis</i> ssp.	River Red Gum	7/12/2009
<i>Eucalyptus camaldulensis</i> ssp. <i>camaldulensis</i>	River Red Gum	18/09/2017
<i>Eucalyptus camaldulensis</i> var. <i>camaldulensis</i> (NC)	River Red Gum	23/07/2002
<i>Eucalyptus gracilis</i>	Yorrell	23/09/2003
<i>Eucalyptus largiflorens</i>	River Box	20/02/2013
<i>Eucalyptus oleosa</i> (NC)	Red Mallee	23/09/2003
<i>Eucalyptus oleosa</i> ssp.		13/05/2014
<i>Eucalyptus phenax</i> (NC)	Sessile-fruit White Mallee	23/09/2003
<i>Eucalyptus socialis</i> (NC)	Beaked Red Mallee	23/09/2003
<i>Euphorbia dallachyana</i>	Caustic Weed	20/11/2002
<i>Euphorbia terracina</i>	False Caper	1/11/2005
<i>Geijera linearifolia</i>	Sheep Bush	5/11/2012
<i>Glinus lotoides</i>	Hairy Carpet-weed	20/02/2013
<i>Goodenia glauca</i>	Pale Goodenia	20/11/2002
<i>Goodenia pusilliflora</i>	Small-flower Goodenia	13/05/2014
<i>Gramineae</i> sp.	Grass Family	1/11/2005
<i>Helichrysum scorpioides</i> (NC)	Button Everlasting	1/11/2005
<i>Helichrysum</i> sp.	Everlasting	1/11/2005
<i>Heliotropium curassavicum</i>	Smooth Heliotrope	13/02/2013
<i>Heliotropium supinum</i>	Creeping Heliotrope	20/02/2013

Scientific name	Common name	Date of last record
<i>Helminthotheca echioides</i>	Ox-tongue	21/11/2002
<i>Hordeum leporinum</i>	Wall Barley-grass	23/09/2003
<i>Hornungia procumbens</i>	Oval Purse	20/11/2002
<i>Hydrocotyle verticillata</i>	Shield Pennywort	13/02/2013
<i>Hypertelis cerviana</i>	Wire-stem Chickweed	1/11/2005
<i>Hypochaeris radicata</i>	Rough Cat's Ear	27/12/2001
<i>Isoetopsis graminifolia</i>	Grass Cushion	23/09/2010
<i>Isolepis australiensis</i>	Southern Club-rush	1/03/1997
<i>Juncus acutus</i>	Sharp Rush	16/07/2010
<i>Juncus aridicola</i>	Inland Rush	20/02/2013
<i>Juncus caespiticius</i>	Grassy Rush	13/02/2013
<i>Juncus pallidus</i>	Pale Rush	23/07/2002
<i>Juncus subsecundus</i>	Finger Rush	7/12/2009
<i>Juncus usitatus</i>	Common Rush	1/11/2005
<i>Lachnagrostis</i> sp.	Blown-grass	1/11/2005
<i>Lactuca saligna</i>	Willow-leaf Lettuce	1/11/2005
<i>Lactuca serriola</i> f. <i>serriola</i>	Prickly Lettuce	27/12/2001
<i>Lawrencia squamata</i>	Thorny Lawrencia	13/05/2014
<i>Lepidium africanum</i>	Common Peppergrass	21/11/2002
<i>Lepidium didymum</i>	Lesser Swine's-cress	13/01/2012
<i>Lepidium pseudotasmanicum</i>	Shade Peppergrass	16/07/2003
<i>Lepidium</i> sp.	Peppergrass	7/12/2009
<i>Limonium lobatum</i>	Winged Sea-lavender	27/12/2001
<i>Lobelia anceps</i>	Angled Lobelia	22/11/2011
<i>Ludwigia peploides</i> ssp. <i>montevidensis</i>	Water Primrose	13/02/2013
<i>Lycium australe</i>	Australian Boxthorn	5/11/2012
<i>Lycium ferocissimum</i>	African Boxthorn	23/08/2011
<i>Maireana brevifolia</i>	Short-leaf Bluebush	7/12/2009
<i>Maireana enchylaenoides</i>	Wingless Fissure-plant	1/11/2005
<i>Maireana lobiflora</i>	Lobed Bluebush	23/09/2010
<i>Maireana microcarpa</i>	Swamp Bluebush	1/11/2005
<i>Maireana rohrbachii</i>	Rohrlich's Bluebush	13/05/2014
<i>Maireana sedifolia</i>	Bluebush	13/05/2014
<i>Maireana</i> sp.	Bluebush/Fissure-plant	13/05/2014
<i>Maireana turbinata</i>	Top-fruit Bluebush	5/11/2012
<i>Malva parviflora</i>	Small-flower Marshmallow	1/11/2005
<i>Marrubium vulgare</i>	Horehound	1/11/2005
<i>Marsilea drummondii</i>	Common Nardoo	1/11/2005
<i>Medicago minima</i>	Little Medic	23/09/2010
<i>Medicago polymorpha</i>	Burr-medic	7/12/2009
<i>Medicago sativa</i>	Lucerne	22/11/2011
<i>Medicago</i> sp.	Medic	13/05/2014
<i>Melilotus indicus</i>	King Island Melilot	16/10/1999
<i>Mesembryanthemum crystallinum</i>	Common Iceplant	1/11/2005
<i>Mesembryanthemum granulicaule</i>	Match-head Plant	13/05/2014
<i>Mesembryanthemum nodiflorum</i>	Slender Iceplant	20/11/2002
<i>Moraea setifolia</i>	Thread Iris	23/09/2010
<i>Myoporum montanum</i>	Native Myrtle	13/02/2013
<i>Myoporum platycarpum</i> ssp.	False Sandalwood	29/02/2004
<i>Myriophyllum papillosum</i>	Robust Milfoil	13/02/2013
<i>Myriophyllum verrucosum</i>	Red Milfoil	1/11/2005
<i>Nicotiana glauca</i>	Small-flower Tobacco	23/09/2010
<i>Nitraria billardieri</i>	Nitre-bush	11/12/1998

Scientific name	Common name	Date of last record
<i>Nymphaea mexicana</i>	Mexican Water-lily	13/11/2013
<i>Onopordum acanthium</i>	Scotch Thistle	1/11/2005
<i>Onopordum acaulon</i>	Horse Thistle	13/05/2014
<i>Opuntia</i> spp.	Prickly Pear	28/11/2011
<i>Osteocarpum acropterum</i> var. <i>acropterum</i>	Tuberculate Bonefruit	1/11/2005
<i>Paspalum distichum</i>	Water Couch	19/11/2002
<i>Persicaria lapathifolia</i>	Pale Knotweed	1/11/2005
<i>Phragmites australis</i>	Common Reed	1/11/2005
<i>Phyla canescens</i>	Lippia	7/12/2009
<i>Picris squarrosa</i>	Squat Picris	22/11/2011
<i>Pittosporum angustifolium</i>	Native Apricot	29/02/2004
<i>Plantago lanceolata</i> var.	Ribwort	1/11/2005
<i>Plantago lanceolata</i> var. <i>lanceolata</i>	Ribwort	11/12/1998
<i>Polygonum plebeium</i>	Small Knotweed	20/02/2013
<i>Polypogon monspeliensis</i>	Annual Beard-grass	13/02/2013
<i>Potamogeton crispus</i>	Curly Pondweed	1/11/2005
<i>Ranunculus pentandrus</i> var. <i>platycarpus</i>	Smooth Buttercup	16/07/2003
<i>Ranunculus pumilio</i> var. <i>pumilio</i>	Ferny Buttercup	16/07/2003
<i>Reichardia tingitana</i>	False Sowthistle	16/07/2010
<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Sea-berry Saltbush	23/07/2002
<i>Rhagodia spinescens</i>	Spiny Saltbush	23/09/2003
<i>Rhodanthe polygalifolia</i>	Milkwort Everlasting	21/11/2002
<i>Roepera apiculata</i>	Pointed Twinleaf	13/05/2014
<i>Roepera aurantiaca</i> ssp.	Shrubby Twinleaf	13/05/2014
<i>Roepera ovata</i>	Dwarf Twinleaf	23/09/2010
<i>Romulea</i> sp.	Onion-grass	13/05/2014
<i>Rorippa palustris</i>	Yellow Marsh-cress	20/02/2013
<i>Rumex</i> sp.	Dock	19/11/2002
<i>Rytidosperma caespitosum</i> (NC)	Common Wallaby-grass	23/09/2010
<i>Salix babylonica</i>	Weeping Willow	1/11/2005
<i>Salvia verbenaca</i> var.	Wild Sage	13/05/2014
<i>Salvia verbenaca</i> var. <i>vernalis</i>	Wild Sage	27/12/2001
<i>Schinus molle</i>	Pepper-tree	16/07/2010
<i>Schismus barbatus</i>	Arabian Grass	1/11/2005
<i>Schoenoplectus tabernaemontani</i>	River Club-rush	13/02/2013
<i>Sclerolaena divaricata</i>	Tangled Bindyi	1/11/2005
<i>Sclerolaena muricata</i> var. <i>muricata</i>	Five-spine Bindyi	20/11/2002
<i>Sclerolaena muricata</i> var. <i>villosa</i>	Five-spine Bindyi	19/11/2002
<i>Sclerolaena obliquicuspis</i>	Oblique-spined Bindyi	13/05/2014
<i>Sclerolaena patenticuspis</i>	Spear-fruit Bindyi	23/09/2010
<i>Sclerolaena</i> sp.	Bindyi	7/12/2009
<i>Sclerolaena tricuspid</i>	Three-spine Bindyi	20/11/2002
<i>Senecio longicollaris</i>		13/01/2012
<i>Senecio pinnatifolius</i> (NC)	Variable Groundsel	23/07/2002
<i>Senecio quadridentatus</i>	Cotton Groundsel	13/01/2012
<i>Senecio runcinifolius</i>	Thistle-leaf Groundsel	7/12/2009
<i>Senecio</i> sp.	Groundsel	23/07/2002
<i>Senna artemisioides</i> ssp. <i>petiolaris</i>		13/05/2014
<i>Senna artemisioides</i> ssp. <i>petiolaris</i> (NC)	Flat-stalk Senna	23/09/2003
<i>Senna artemisioides</i> ssp. <i>X artemisioides</i>	Silver Senna	23/09/2003
<i>Senna artemisioides</i> ssp. <i>X coriacea</i>	Broad-leaf Desert Senna	13/05/2014
<i>Setaria jubiflora</i>	Warrego Summer-grass	21/11/2002
<i>Sida corrugata</i> var.	Corrugated Sida	5/11/2012

Scientific name	Common name	Date of last record
<i>Sida corrugata</i> var. <i>corrugata</i>	Corrugated Sida	23/09/2010
<i>Sisymbrium erysimoides</i>	Smooth Mustard	23/09/2003
<i>Sisymbrium irio</i>	London Mustard	16/07/2010
<i>Solanum opacum</i>	Green-berry Nightshade	24/02/2012
<i>Sonchus hydrophilus</i>	Native Sow-thistle	27/12/2001
<i>Sonchus oleraceus</i>	Common Sow-thistle	23/09/2010
<i>Sonchus</i> sp.	Sow-thistle	13/05/2014
<i>Spergularia diandra</i>	Lesser Sand-spurrey	23/09/2010
<i>Sphaeromorphaea littoralis</i>	Spreading Nut-heads	20/02/2013
<i>Sporobolus mitchellii</i>	Rat-tail Couch	20/02/2013
<i>Sporobolus virginicus</i>	Salt Couch	19/11/2002
<i>Stemodia florulenta</i>	Bluerod	20/02/2013
<i>Swainsona greyana</i>	Darling Pea	19/03/2009
<i>Swainsona</i> sp.	Swainson-pea	1/11/2005
<i>Symphotrichum subulatum</i>	Aster-weed	13/02/2013
<i>Taraxacum khatoonae</i>	Dandelion	27/12/2001
<i>Tecticornia pergranulata</i> ssp. <i>pergranulata</i>	Black-seed Samphire	13/02/2013
<i>Tetragonia eremaea</i>	Desert Spinach	23/09/2010
<i>Teucrium racemosum</i>	Grey Germander	20/02/2013
<i>Typha domingensis</i>	Narrow-leaf Bulrush	13/02/2013
<i>Typha orientalis</i>	Broad-leaf Bulrush	7/12/2009
<i>Typha</i> sp.	Bulrush	1/11/2005
<i>Vallisneria australis</i>	River Eel-grass	13/02/2013
<i>Verbena supina</i> var.		20/02/2013
<i>Vittadinia australasica</i> var. <i>australasica</i>	Sticky New Holland Daisy	27/12/2001
<i>Vittadinia gracilis</i>	Woolly New Holland Daisy	27/12/2001
<i>Vulpia</i> sp.	Fescue	1/11/2005
<i>Wahlenbergia fluminalis</i>	River Bluebell	13/02/2013
<i>Wahlenbergia</i> sp.	Native Bluebell	23/07/2002
<i>Wurmbea dioica</i> ssp.	Early Nancy	23/09/2010
<i>Xerochrysum bracteatum</i>	Golden Everlasting	6/12/2008

9.3 BDBSA Fauna Records within 5 km of the Project area

Scientific name	Common name	Date of last Record
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater	7/11/2012
<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	19/10/2010
<i>Acanthiza uropygialis</i>	Chestnut-rumped Thornbill	13/04/2005
<i>Accipiter fasciatus fasciatus</i>	Brown Goshawk	28/10/1999
<i>Acrocephalus australis australis</i>	Australian Reed Warbler	24/11/2014
<i>Acrocephalus stentoreus</i>	Clamorous Reedwarbler	29/11/2013
<i>Aegotheles cristatus cristatus</i>	Australian Owlet-nightjar	4/04/2004
<i>Anas gracilis gracilis</i>	Grey Teal	18/08/2014
<i>Anas superciliosa</i>	Pacific Black Duck	23/01/2014
<i>Anhinga novaehollandiae novaehollandiae</i>	Australasian Darter	14/03/2013
<i>Anthochaera carunculata</i>	Red Wattlebird	11/11/2012
<i>Anthus australis</i>	Australian Pipit	19/10/2010
<i>Aphelocephala leucopsis leucopsis</i>	Southern Whiteface	19/10/2010

Scientific name	Common name	Date of last Record
<i>Aquila audax audax</i>	Wedge-tailed Eagle	1/03/2013
<i>Ardea alba modesta</i>	Great Egret	14/03/2013
<i>Ardea intermedia plumifera</i>	Plumed Egret	21/10/2005
<i>Ardea pacifica</i>	White-necked Heron	14/03/2013
<i>Artamus cyanopterus</i>	Dusky Woodswallow	14/03/2013
<i>Artamus superciliosus</i>	White-browed Woodswallow	14/03/2013
<i>Austronomus australis</i>	White-striped Free-tailed Bat	11/04/2018
<i>Aythya australis</i>	Hardhead	1/03/2013
<i>Barnardius zonarius</i>	Australian Ringneck	4/04/2004
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	24/11/2014
<i>Cacatua sanguinea gymnopsis</i>	Little Corella	14/03/2013
<i>Calidris ruficollis</i>	Red-necked Stint	14/03/2013
<i>Carassius auratus</i>	Goldfish	3/04/2017
<i>Chalcites basalis</i>	Horsfield's Bronze Cuckoo	11/11/2012
<i>Chalinolobus gouldii</i>	Gould's Wattled Bat	11/04/2018
<i>Chalinolobus morio</i>	Chocolate Wattled Bat	11/04/2018
<i>Chelodina longicollis</i>	Eastern Long-necked Turtle	28/02/2013
<i>Chenonetta jubata</i>	Maned Duck	14/03/2013
<i>Cherax destructor</i>	Common Yabbie	3/04/2017
<i>Christinus marmoratus</i>	Marbled Gecko	6/04/2004
<i>Chroicocephalus novaehollandiae novaehollandiae</i>	Silver Gull	14/03/2013
<i>Cincloramphus mathewsi</i>	Rufous Songlark	19/09/1996
<i>Cinclosoma castanotum</i> (NC)	Chestnut-backed Quailthrush (Chestnut Quailthrush)	19/09/1996
<i>Circus approximans</i>	Swamp Harrier	14/03/2013
<i>Climacteris picumnus picumnus</i>	Brown Treecreeper	24/11/2014
<i>Colluricincla harmonica</i>	Grey Shrikethrush	24/11/2014
<i>Columba livia</i>	Feral Pigeon	14/03/2013
<i>Coracina novaehollandiae</i>	Black-faced Cuckooshrike	14/03/2013
<i>Corcorax melanorhamphos</i>	White-winged Chough	5/04/2004
<i>Corvus coronoides</i>	Australian Raven	14/03/2013
<i>Corvus mellori</i>	Little Raven	11/11/2012
<i>Coturnix pectoralis</i>	Stubble Quail	19/09/1996
<i>Cracticus nigrogularis nigrogularis</i>	Pied Butcherbird (MM)	14/03/2013
<i>Cracticus torquatus leucopterus</i>	Grey Butcherbird	28/10/1999
<i>Craterocephalus fulvus</i>	Unspecked Hardyhead	3/04/2017
<i>Crinia parinsignifera</i>	Murray Valley Froglet	15/09/2014
<i>Cygnus atratus</i>	Black Swan	18/08/2014
<i>Cyprinus carpio</i>	European Carp	3/04/2017
<i>Dacelo novaeguineae novaeguineae</i>	Laughing Kookaburra	14/03/2013
<i>Dicaeum hirundinaceum hirundinaceum</i>	Mistletoebird	13/04/2005
<i>Dromaius novaehollandiae</i>	Emu	4/04/2004
<i>Egernia striolata</i>	Eastern Tree Skink	6/04/2004
<i>Egretta novaehollandiae</i>	White-faced Heron	14/03/2013

Scientific name	Common name	Date of last Record
<i>Elanus axillaris</i>	Black-shouldered Kite	13/08/1996
<i>Elseyonis melanops</i>	Black-fronted Dotterel	29/11/2013
<i>Eolophus roseicapilla</i>	Galah	24/11/2014
<i>Epthianura albifrons</i>	White-fronted Chat	1/03/2013
<i>Erythronyctes alba</i>	Red-kneed Dotterel	23/01/2014
<i>Eulamprus quoyii</i>	Eastern Water Skink	6/04/2004
<i>Falco berigora berigora</i>	Brown Falcon	5/04/2004
<i>Falco cenchroides cenchroides</i>	Nankeen Kestrel	24/11/2014
<i>Fulica atra australis</i>	Eurasian Coot	29/11/2013
<i>Gallinula tenebrosa tenebrosa</i>	Dusky Moorhen	14/03/2013
<i>Gambusia holbrooki</i>	Eastern Gambusia	3/04/2017
<i>Gavicalis virescens</i>	Singing Honeyeater	11/11/2012
<i>Geopelia placida placida</i>	Peaceful Dove	14/03/2013
<i>Glossopsitta concinna</i>	Musk Lorikeet	14/03/2013
<i>Grallina cyanoleuca cyanoleuca</i>	Magpie	24/11/2014
<i>Gymnorhina tibicen</i>	Australian Magpie	24/11/2014
<i>Haliastur sphenurus</i>	Whistling Kite	24/11/2014
<i>Heteronotia binoei</i>	Bynoe's Gecko	6/04/2004
<i>Hieraaetus morphnoides</i>	Little Eagle	7/11/2012
<i>Himantopus leucocephalus</i>	Pied Stilt	23/01/2014
<i>Hirundo neoxena neoxena</i>	Welcome Swallow	24/11/2014
<i>Hydroprogne caspia</i>	Caspian Tern	14/03/2013
<i>Hypseleotris sp.</i>		3/04/2017
<i>Hypseleotris spp. (complex)</i>	n/a	15/10/2013
<i>Lalage tricolor</i>	White-winged Triller	19/09/1996
<i>Lasiorhinus latifrons</i>	Southern Hairy-nosed Wombat	19/10/2010
<i>Lepus europaeus</i>	European Brown Hare	4/04/2004
<i>Limnodynastes dumerilii</i>	Banjo Frog	15/09/2014
<i>Limnodynastes tasmaniensis</i>	Spotted Marsh Frog	15/09/2014
<i>Litoria calliscelis</i>	South Australia Tree Frog (MLR MN)	2/09/2013
<i>Litoria peronii</i>	Peron's Tree Frog	15/09/2014
<i>Litoria raniformis raniformis</i>	Southern Bell Frog (MLR)	16/11/2010
<i>Macquaria ambigua ambigua</i>	Murray-Darling Golden Perch	15/10/2013
<i>Macropus (Osphranter) robustus</i>	Euro	2/04/2004
<i>Macropus (Osphranter) rufus</i>	Red Kangaroo	13/10/2010
<i>Macropus fuliginosus</i>	Western Grey Kangaroo	11/11/2012
<i>Macropus sp.</i>		19/10/2010
<i>Malacorhynchus membranaceus</i>	Pink-eared Duck	29/11/2013
<i>Malurus assimilis assimilis</i>	Purple-backed Fairywren	14/03/2013
<i>Malurus cyaneus leggei</i>	Superb Fairywren (Mainland SA)	24/11/2014
<i>Malurus leucopterus leuconotus</i>	White-winged Fairywren	19/10/2010
<i>Malurus sp.</i>	fairywrens	4/04/2004
<i>Manorina melanoccephala</i>	Noisy Miner	24/11/2014
<i>Melanotaenia fluviatilis</i>	Murray Rainbowfish	3/04/2017

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<i>Menetia greyii</i>	Dwarf Skink	7/04/2004
<i>Merops ornatus</i>	Rainbow Bee-eater	1/03/2013
<i>Microcarbo melanoleucos melanoleucos</i>	Little Pied Cormorant	21/10/2005
<i>Milvus migrans affinis</i>	Black Kite	17/10/2010
<i>Misgurnus anguillicaudatus</i>	Oriental Weatherloach	15/10/2013
<i>Morelia spilota</i>	Carpet Python	10/10/2008
<i>Morethia boulengeri</i>	Common Snake-eye	7/04/2004
<i>Mormopterus planiceps</i>	Southern Free-tailed Bat	11/04/2018
<i>Mus musculus</i>	House Mouse	7/04/2004
<i>Myiagra inquieta</i>	Restless Flycatcher	19/09/1996
<i>Myotis macropus</i>	Large-footed Myotis	10/04/2018
<i>Nematalosa erebi</i>	Bony Bream	3/04/2017
<i>Ninox boobook</i>	Australian Boobook	5/04/2004
<i>Nycticorax caledonicus australasiae</i>	Nankeen Night Heron	1/03/2013
<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	11/04/2018
<i>Nyctophilus sp.</i>		20/02/2018
<i>Nymphicus hollandicus</i>	Cockatiel	3/04/2004
<i>Ocyphaps lophotes lophotes</i>	Crested Pigeon	24/11/2014
<i>Oryctolagus cuniculus</i>	Rabbit (European Rabbit)	11/11/2012
<i>Ovis aries</i>	Sheep (Feral Sheep)	19/10/2010
<i>Pachycephala rufiventris rufiventris</i>	Rufous Whistler	19/09/1996
<i>Pardalotus striatus substriatus</i>	Striated Pardalote	24/11/2014
<i>Parvipsitta porphyrocephala</i>	Purple-crowned Lorikeet	11/11/2012
<i>Passer domesticus domesticus</i>	House Sparrow	14/03/2013
<i>Pelecanus conspicillatus</i>	Australian Pelican	23/01/2014
<i>Perca fluviatilis</i>	Redfin Perch	31/10/2012
<i>Petrochelidon ariel</i>	Fairy Martin	14/03/2013
<i>Petrochelidon nigricans</i>	Tree Martin	24/11/2014
<i>Petrochelidon sp.</i>	Fairy/Tree Martin spp	4/04/2004
<i>Phalacrocorax carbo</i>	Great Cormorant	14/03/2013
<i>Phalacrocorax sulcirostris</i>	Little Black Cormorant	29/11/2013
<i>Phalacrocorax varius hypoleucos</i>	Australian Pied Cormorant	14/03/2013
<i>Phaps chalcoptera</i>	Common Bronzewing	4/11/2003
<i>Philypnodon grandiceps</i>	Big-headed Gudgeon	3/04/2017
<i>Philypnodon macrostomus</i>	Dwarf Flathead Gudgeon	3/10/2013
<i>Phylidonyris novaehollandiae novaehollandiae</i>	New Holland Honeyeater (mainland SA)	11/11/2012
<i>Platalea flavipes</i>	Yellow-billed Spoonbill	1/03/2013
<i>Platalea regia</i>	Royal Spoonbill	1/03/2013
<i>Platycercus elegans</i>	Crimson Rosella	24/11/2014
<i>Poliiocephalus poliocephalus</i>	Hoary-headed Grebe	28/10/1999
<i>Pomatostomus ruficeps</i>	Chestnut-crowned Babbler	19/10/2010
<i>Pomatostomus superciliosus</i>	White-browed Babbler	14/03/2013
<i>Poodytes gramineus goulburni</i>	Little Grassbird	29/11/2013
<i>Porphyrio melanotus melanotus</i>	Australasian Swampphen	14/03/2013

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<i>Psephotus haematonotus haematonotus</i>	Red-rumped Parrot (eastern SA except NE)	4/04/2004
<i>Ptilotula ornata</i>	Yellow-plumed Honeyeater	4/11/2003
<i>Ptilotula penicillata</i>	White-plumed Honeyeater	24/11/2014
<i>Purnella albifrons</i>	White-fronted Honeyeater	28/10/1999
<i>Rattus rattus</i>	Black Rat (Ship Rat, Roof Rat)	7/04/2004
<i>Recurvirostra novaehollandiae</i>	Red-necked Avocet	1/03/2013
<i>Retropinna semoni</i>	Australian Smelt	15/10/2013
<i>Rhipidura leucophrys leucophrys</i>	Willie Wagtail	24/11/2014
<i>Smicrornis brevirostris</i>	Weebill	11/11/2012
<i>Spatula rhynchotis</i>	Australasian Shoveler	29/11/2013
<i>Spilopelia chinensis</i>	Spotted Dove	1/03/2013
<i>Stictonetta naevosa</i>	Freckled Duck	29/11/2013
<i>Strepera versicolor melanoptera</i>	Black-winged Currawong (MLR, MM, SE)	1/03/2013
<i>Sturnus vulgaris vulgaris</i>	Common Starling	14/03/2013
<i>Tachybaptus novaehollandiae novaehollandiae</i>	Australasian Grebe	14/03/2013
<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	6/04/2004
<i>Tadorna tadornoides</i>	Australian Shelduck	14/03/2013
<i>Tadpole sp.</i>	tadpole	16/11/2010
<i>Taeniopygia guttata castanotis</i>	Zebra Finch	14/03/2013
<i>Tandanus tandanus</i>	Freshwater Catfish	2/10/2013
<i>Threskiornis molucca molucca</i>	Australian White Ibis	23/01/2014
<i>Threskiornis spinicollis</i>	Straw-necked Ibis	18/08/2014
<i>Todiramphus sanctus sanctus</i>	Sacred Kingfisher	26/01/2024
<i>Tribonyx ventralis</i>	Black-tailed Nativehen	23/01/2014
<i>Trichosurus vulpecula</i>	Common Brushtail Possum	4/04/2004
<i>Turdus merula merula</i>	Common Blackbird	28/10/1999
<i>Vanellus miles</i>	Masked Lapwing	29/11/2013
<i>Vanellus tricolor</i>	Banded Lapwing	17/10/2010
<i>Vespadelus regulus</i>	Southern Forest Bat	9/04/2018
<i>Vespadelus vulturnus</i>	Little Forest Bat	11/04/2018
<i>Vulpes vulpes</i>	Fox (Red Fox)	4/04/2004