



Salisbury Highway Dry Creek

Native Vegetation Clearance Data Report

Final

April 2026

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Prepared by
Umwelt (Australia) Pty Limited

On behalf of
Department for Infrastructure and Transport

Project Director: Dr Travis How
Project Manager: Angela Carpenter
Report No.: RO6
Date: April 2026



112 Hayward Avenue, Torrensville



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Acknowledgement of Country

Umwelt acknowledges the Traditional Owners of Country throughout Australia and their continuing values, culture and connection to the land, waters and sky.

We pay our respects to Elders past and present.

The below image is from the artwork *Yapung Maryiyang* (Pathway Forward) by Saretta Fielding.



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Document Status

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V3	DIT	24/03/2026	Dr Travis How	01/04/2026

Executive Summary

The Department for Infrastructure and Transport (DIT) engaged Umwelt (Australia) Pty Ltd (Umwelt) to undertake a native vegetation clearance assessment at Lot 107 Port Wakefield Rd, Dry Creek (the Project Area). The purpose of the clearance is to enable the site to be utilised for a spoil receipt facility, to receive spoil from the Torrens to Darlington (T2D) Project.

The clearance totals 21.98 ha and impacts two vegetation associations:

- A1: *Tecticornia* spp. ± *Nitraria billardierei* Low Shrubland over exotic grasses
- A2: *Melaleuca halmaturorum* / *Myoporum insulare* Tall Shrubland over *Tecticornia pruinosa*.

The Project Area was surveyed using the Bushland Assessment Method (BAM) on 28 July 2025. The survey did not record any threatened flora or fauna species and confirmed that no threatened ecological communities are present.

The assessment indicates that the clearance constitutes a Level 4 clearance, with a total biodiversity score of 603.26. The proponent will be required to offset the clearance by providing a Significant Environmental Benefit (SEB) of either 663.59 SEB points or payment into the Native Vegetation Fund of \$539,877.29 and administration fee of \$29,693.25.

Abbreviations

Abbreviation	Definition
BAM	Bushland Assessment Method
BDBSA	Biological Database of South Australia
CEMP	Construction Environmental Management Plan
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEW	Department for Environment and Water (SA)
DIT	Department for Infrastructure and Transport (SA)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
IBRA	Interim Biogeographical Regionalisation of Australia
LSA Act	<i>Landscape South Australia Act 2019</i>
MCA	Multi-Criteria Assessment
MNES	Matters of National Environmental Significance
NPW Act	<i>National Parks and Wildlife Act 1972</i> (SA)
NSC	North South Connector Project
NV Act	<i>Native Vegetation Act 1991</i> (SA)
NVC	Native Vegetation Council
PDI Act	<i>Planning, Development and Infrastructure Act 2016</i>
PMST	Protected Matters search Tool
Project Area	The site of the proposed clearance, Lot 107 Port Wakefield Road, Dry Creek
SEB	Significant Environmental Benefit
sp.	Species
spp.	Species plural
SRF	Spoil Reveal Facility
ssp.	Subspecies
T2D	River Torrens to Darlington Project
TBM	Tunnel boring machine
Umwelt	Umwelt (Australia) Pty Ltd

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Appendices

Appendix 1 Flora and Fauna Recorded by the Field Survey

Appendix 2 Likelihood of Occurrence Assessment

1.0 Application Information

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

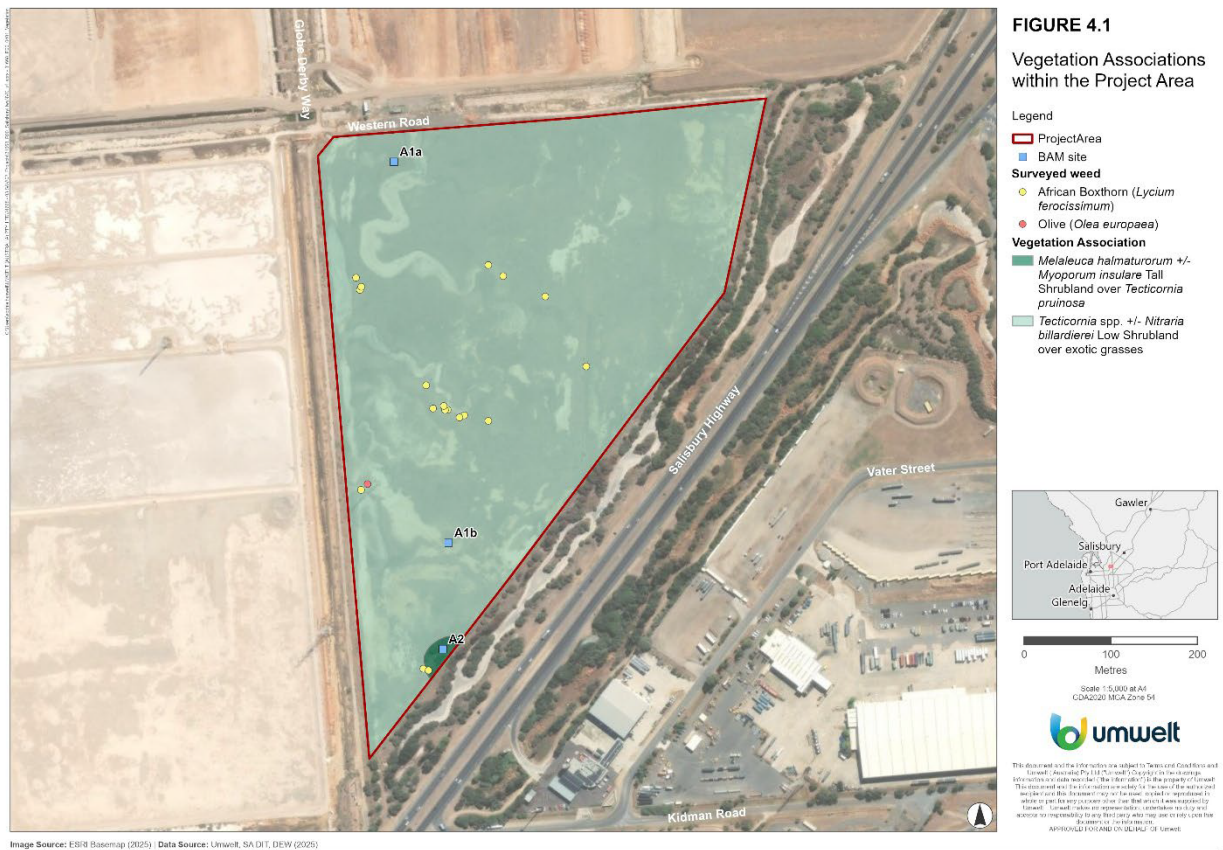
Table 1.1 Application Details

Applicant:	Department for Infrastructure and Transport		
Key contact:			
Landowner:	Department for Infrastructure and Transport		
Site Address:	Lot 107 Port Wakefield Rd, Dry Creek		
Local Government Area:	City of Salisbury	Hundred:	Port Adelaide
Title ID:	CT5491/615	Parcel ID	D47757 AL107

Table 1.2 Summary of Proposed Clearance

Purpose of clearance	Native vegetation clearance is required for the filling of the site at Lot 107 Salisbury Highway, Dry Creek for filling and development of the land for an industrial/commercial estate. The Salisbury Highway Dry Creek site has been selected for potential future commercial / industrial development. Investigations around the potential suitability and impacts associated with filling, and ameliorating the site for a potential future commercial / industrial land use type are being undertaken.
Native Vegetation Regulation	Regulation 12 (32) – Works on behalf of the Commissioner of Highways
Description of the vegetation under application	The native vegetation under application consists of two vegetation associations <ul style="list-style-type: none"> • A1: <i>Tecticornia</i> spp. ± <i>Nitraria billardierei</i> Low Shrubland over exotic grasses • A2: <i>Melaleuca halmaturorum</i> / <i>Myoporum insulare</i> Tall Shrubland over <i>Tecticornia pruinosa</i>
Total proposed clearance - area (ha) and number of trees	Total proposed clearance: 21.98 ha
Level of clearance	Level 4
Overlay (Planning and Design Code)	Native Vegetation Overlay

Map of proposed clearance area (show as a minimum; property boundary and proposed clearance area)



Mitigation hierarchy

Avoidance

The Project Area has been selected as a preferred Spoil Reveal Facility (SRF) as it avoids any impact to threatened species and ecological communities that would occur at alternative sites, as described in Umwelt 2025. In addition, it avoids areas likely to be identified as future conservation zones in the Dry Creek Code Amendment, anticipated to commence at the end of 2025.

Minimisation

The Project will minimise clearance, including cumulative impact, by locating all laydown areas and other infrastructure required for construction within the boundaries of the Project Area and by utilising existing access routes.

DIT will undertake all vegetation removal activities in accordance with the DIT Vegetation Impact Assessment Guideline. Prior to any clearance taking place, DIT and its contractors will develop and implement a detailed Construction Environmental Management Plan (CEMP), which will include a Vegetation Management Plan or equivalent, to minimise the risk of indirect and unplanned or accidental impacts to native vegetation.

Further, DIT will aim to limit indirect disturbance to and impact on neighbouring native vegetation and fauna by undertaking, at a minimum, the following measure during construction:

- Dust and erosion management, according to the measures developed in an agreed CEMP.
- Stormwater, runoff and drainage management, according to the measures developed in an agreed CEMP.
- Biosecurity, including weeds and pathogens, according to the measures developed in an agreed CEMP.
- Wastewater and chemical contamination management, according to the measures developed in an agreed CEMP.

Indirect impacts to fauna will be managed by the development of a Biodiversity Management Plan or its equivalent, that will include as a minimum:

- Measures for managing the impact of lighting on fauna where construction activities are occurring at night.
- Measures for managing the impact of mortality of fauna caused by interactions between fauna and vehicles, plant and machinery.
- Measures for managing the impacts associated with construction noise.

Rehabilitation or restoration

The Salisbury Highway Dry Creek site has been selected for potential future commercial / industrial development. Investigations around the potential suitability and impacts associated with filling, and ameliorating the site for a potential future commercial / industrial land use type are being undertaken. Clearance of native vegetation will allow the receipt of spoil which will enable the site to be developed further for industrial land use purposes. Clearance is therefore expected to be permanent, with no rehabilitation or restoration likely to be undertaken.

Offset

The proponent has searched within DIT for any suitable on-ground offset and was unable to find a suitable offset that was not already committed against previous impacts (Northern Connector impacts). Adverse impacts by achieving the SEB obligations, according to that set out in Section 5.0 on page 28 and Section 6.0 on page 29.

SEB Offset proposal

Payment into the Native Vegetation Fund of \$569,570.54 (including admin fee of \$29,693.25).

2.0 Purpose of the Clearance

2.1 Description

The Department for Infrastructure and Transport (DIT) has engaged Umwelt (Australia) Pty Ltd (Umwelt) to undertake a Native Vegetation Assessment and Native Vegetation Clearance Data Report for clearance of native vegetation at Lot 107 Port Wakefield Rd, Dry Creek (the Project Area) to permit filling and development of the land for commercial/industrial use. The Salisbury Highway Dry Creek site has been selected for potential future commercial / industrial development. Investigations around the potential suitability and impacts associated with filling, and ameliorating the site for a potential future commercial / industrial land use type are being undertaken.

An Environment and Heritage Impact Assessment (EHIA) is currently being completed to investigate the potential suitability and impacts associated with required amelioration and filling of the site, including an assessment of impacts to biodiversity (both flora and fauna) which this investigation will inform.

2.2 Background

The T2D Project extends from Tonsley Boulevard, Darlington to Grange Road, Hindmarsh. The project design includes two twin tunnels (northern tunnel and southern tunnel sections), three connecting lowered motorways (northern lowered, tunnel connector and southern lowered) and various road upgrades.

During construction, the T2D Project will produce surplus soil (spoil) during excavation of the lowered motorway, tunnel portal and tunnel sections of the alignment. Approximately 40% of the spoil will be generated by using a tunnel boring machine (TBM), with the remaining 60% generated by bulk earthworks using earthmoving equipment.

As there are limited opportunities for re-use at the project's construction site, all spoil and waste, including TBM spoil and surface bulk earthworks, will be transported to dedicated approved spoil receival sites.

To assist in developing the Spoil Management Strategy for the T2D project, a Multi-Criteria Assessment (MCA) of 22 potential sites to store and treat spoil from the Project for re-use and disposal was undertaken.

The DIT completed an open Expression of Interest process for spoil management sites to gain an understanding of options for how the spoil from the Project could be managed, all 22 sites were assessed under an MCA framework which assessed the following five criteria:

- Economic
- Environmental
- Social
- Technical
- Cost / risk.

Through this process a different site, the Gillman SRF (located at North Arm Road, CT 6312/944 Lot 501 Gillman and CT 6312/944 Lot 502 Dry Creek), was selected as the preferred spoil receipt site.

In Q4 of 2024 a rapid assessment of three alternative sites that had been initially considered during the MCA process was conducted, with these sites located on land parcels already in the possession of DIT. This rapid assessment was based on existing environmental and planning factors on each site at:

- Dry Creek Salt Fields
- Gillman Marshalling Yard
- Lot 107 Port Wakefield Rd, Dry Creek (the Project Area).

Potential future use of each of the alternative sites have been considered in consultation with the Department for Housing and Urban Development to determine the most likely potential use of each site and consider the likelihood that residential development could be included in any of the sites;

- Dry Creek Salt Flats
 - Potential Industrial Land Use
 - Re-zoning required- Low likelihood of successful outcome
- Gillman Marshalling Yards
 - Potential Residential Land Use
 - Re-zoning required- High likelihood of successful outcome
 - Potential Industrial Land Use
 - No re-zoning required.
- Lot 107 Port Wakefield Rd, Dry Creek (the Project Area)
 - Potential Industrial Land Use
 - Re-zoning required- High likelihood of successful outcome.

The Project Area was selected as one of the preferred sites to use for the receipt of spoil for the reasons discussed in Section 4.4 on Page 20.

2.3 General Location Map

The proposed clearance is located at Lot 107 Port Wakefield Road, Dry Creek. This is shown on the map in **Figure 2.1**.

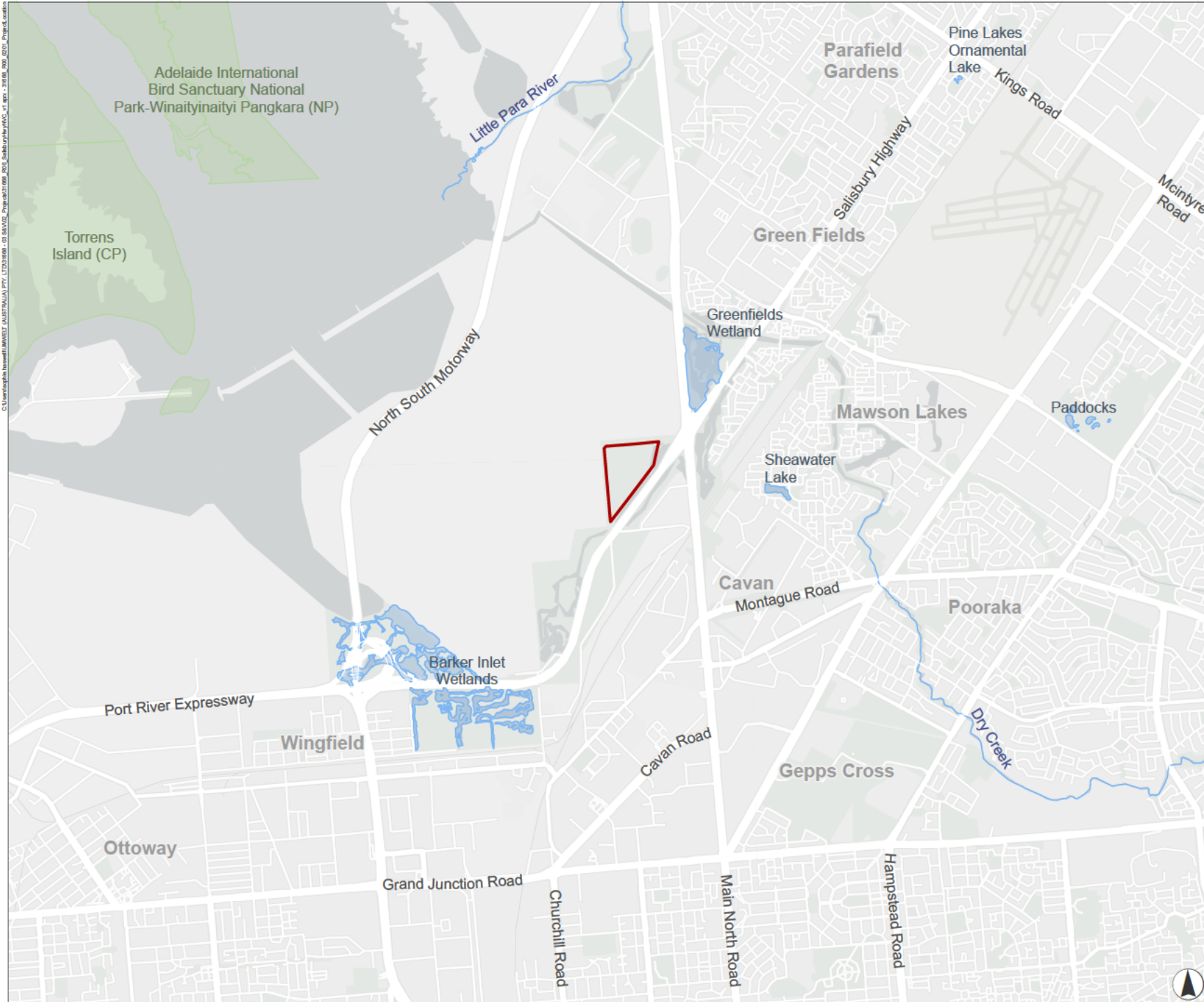


FIGURE 2.1
Location of the Project Area

- Legend**
- ▭ Project Area
 - Watercourse
 - ▭ Waterbody
 - ▭ NPWSA reserve



Scale 1:50,000 at A4
GDA2020 MGA Zone 54



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2.4 Details of the Proposal

DIT is proposing to use the Project Area as a receival site for spoil and waste generated from the T2D Project, as described in Section 2.2. The Project Area will be filled and raised with imported spoil material which will fill and raise the land, permitting later development of the Project Area for potential commercial/industrial use.

The entire Project Area shown on the map in **Figure 2.1** will be impacted by the proposal, with clearance of native vegetation required. Existing access routes into the Project Area will be used during the filling process, with all other impacts associated with the proposal, such as laydown areas, ancillary structures, boundary fences etc. included inside the Project Area and assessed for clearance by this application.

Details of the construction and fill level are yet to be determined and are subject to further hydrology assessment and Auditor advice to achieve suitability for the proposed land use zoning. However, it is expected that the entire site will be utilised.

The Project Area adjoins other areas of like vegetation to the west, and degraded habitat to the north.

2.5 Approvals Required or Obtained

Relevant legislation and/or approvals required to undertake the proposed clearance are listed in **Table 2.1**. The project does not require a Development Approval.

Table 2.1 Approvals Required or Obtained

Legislation	Jurisdiction	Approval required	Details
<i>Native Vegetation Act 1991</i> (NV Act)	SA	Yes	The proposal requires removal, or clearance, of native vegetation. Clearance approval is sought under Regulation 12(32).
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)	Commonwealth	Unlikely	Given the nature of the habitat impacted, it is unlikely that approval under the EPBC Act is required. However, this report does not constitute an assessment of the project under the EPBC Act. It is recommended that an assessment under the Act be undertaken to determine if approval is required.
<i>National Parks and Wildlife Act 1972</i> (NPW Act)	SA	Yes	Flora and fauna surveys undertaken as part of this clearance assessment have been carried out under the following scientific permit: <ul style="list-style-type: none"> ○ K25613-27
<i>Planning, Development and Infrastructure Act 2016</i> (PDI Act)	SA	No	DIT does not require a Development Approval under the PDI Act.
<i>Landscape South Australia Act 2019</i> (LSA Act)	SA	Possible	Declared weeds occur in the Project Area. Removal of vegetative matter and soil from the site may require: <ul style="list-style-type: none"> ○ A permit to transport Declared Weeds on a public road.

2.6 Native Vegetation Regulation

Clearance is sought under Regulation 12, Schedule 1; Clause 32 – Works on behalf of the Commissioner of Highways.

This regulation allows for the clearance of vegetation incidental to new work being undertaken by or on behalf of the Commissioner of Highways, including roads and ports infrastructure. Under the regulation, the proponent must comply with the following requirements:

1. Clearance of vegetation must be incidental to new work being undertaken by or on behalf of the Commissioner of Highways, and/or
2. Clearance is undertaken in accordance with an NVC approved Standard Operating Procedure.

3.0 Method

3.1 Flora Assessment

3.1.1 Bushland Assessment Method

The native vegetation under clearance application was assessed according to the Bushland Assessment Method (BAM). The BAM is derived from the Nature Conservation Society of South Australia's Bushland Condition Monitoring methodology (Croft, Pedler, & Milne, 2005). The BAM is used to assess areas of native vegetation requiring clearance and calculate the Significant Environmental Benefit (SEB) requirements.

Details of site selection/stratification and assessment protocols, and the biodiversity value components assessed and the factors that influence these components are outlined in the Bushland Assessment Manual (NVC, 2024b).

The Conservation Significance Scores were calculated from direct observations of flora and direct and historical observations of fauna species of conservation significance. This is discussed further in Section 3.2.

The field survey component of the BAM was undertaken on 28 July 2025 by accredited Principal Ecologist Jesse Carpenter and Ecologist Taylor Headland.

3.1.2 Threatened Ecological Communities and Ecosystems

The potential for Threatened Ecological Communities (TEC) listed under the EPBC Act to occur on site was determined by undertaking a search of the Protected Matters Search Tool (PMST). The PMST is maintained by DCCEEW.

The actual presence of TECs in the Project Area was based on the vegetation associations confirmed by the field survey. The *Provisional List of Threatened Ecosystems* (Department for Environment and Heritage, 2005a) was also consulted to determine the presence of any threatened communities not listed under the EPBC Act.

3.2 Fauna Assessment

3.2.1 Desktop Assessment

A desktop analysis of the Project Area was undertaken to determine threatened species that have potential to occur in the Project Area. A Search Area within a 5 km radius of the Project Area was used to query relevant databases.

Two relevant databases were queried:

1. Protected Matters Search Tool (PMST)
2. Biological Database of South Australia (BDBSA).

3.2.1.1 PMST

A PMST report was generated on the 8th of July 2025 to identify flora, fauna and TECs listed under the EPBC Act as threatened or migratory (Department of Climate Change, Energy, the Environment and Water, 2025). Only species and TECs identified in the PMST report as known to occur within the Search Area were assessed for their likelihood of occurrence within the Project Area.

Species assessed as possible, likely or highly likely to occur in the Project Area were entered into the BAM scoresheets for the purposes of calculating the threatened fauna score, conservation significance score and SEB obligations of the clearance.

3.2.1.2 BDBSA

A data extract from the BDBSA was obtained from Naturemaps to identify flora and fauna species that have been recorded within 5 km of the Project Area (data extracted 8/7/2025) (DEW, 2025b).

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

Species assessed as possible, likely or highly likely to occur in the Project Area were entered into the BAM scoresheets for the purposes of calculating the threatened fauna score, conservation significance score and SEB obligations of the clearance.

3.2.2 Field Survey

No targeted fauna survey was undertaken. However, all native and introduced fauna observed opportunistically while undertaking the vegetation survey was recorded.

Although not part of the proposed impact area of Project Area, two observers walked the length of the wetland forming the eastern boundary of the Project Area. Observers searched to record opportunistic observations of wetland and/or migratory birds that might occur adjacent to the proposed impact area.

3.2.3 Likelihood of Occurrence Assessment

Threatened fauna identified by the database searches were assessed for their likelihood of occurrence in the Project Area. The assessment considered the habitat requirement of individual species, available habitat in the Project Area and the recency and proximity of historical records. Threatened species were assigned one of the likelihood categories listed in **Table 3.1**.

Table 3.1 Likelihood of Occurrence Assessment Criteria

Likelihood	Criteria
Highly Likely/Known	Recorded in the last 10 years, the species does not have highly specific niche requirements, the habitat is present and falls within the known range of the species distribution or; The species was recorded as part of field surveys.
Likely	Recorded within the previous 20 years, the area falls within the known distribution of the species and the area provides habitat or feeding resources for the species.

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

3.3 Limitations

3.3.1 Desktop Assessment

Flora and fauna records were retrieved from the PMST and BDBSA data extracts. The BDBSA only includes verified flora and fauna records submitted to DEW or partner organisations. It is recognised that information is imperfectly captured, and it is possible that significant species may occur in the Project Area that are not reflected by database records. Although much of the BDBSA data has been through a variety of validation processes, the lists may contain errors and should be used with caution. DEW gives no warranty that the data is accurate or fit for any particular purpose of the user or any person to whom the user discloses the information.

3.3.2 Field Survey

The field survey was undertaken over one day in winter when not all species may have been present or identifiable.

No species-specific targeted flora or fauna surveys were undertaken.

4.0 Assessment Outcomes

4.1 Vegetation Assessment

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

Native vegetation in the Project Area consists of 21.98 ha of low shrubland and shrubland. The Project Area occurs in a low-lying run on area that includes broad, shallow drainage features that are temporarily inundated following rainfall (**Photo 4.1**). The predominance of *Tecticornia* sp. indicates the saline nature of the soils and ephemeral wet areas.

The Project Area is remote from the tidal influence of the Port River and Barker Inlet. Even during exceptionally high tide events, the site is protected by the industrial development of the salt fields and constructed bunds and banks. Temporary inundation of the lower lying parts of the Project Area is caused by rainfall and local run-off.

The Project Area has been used for grazing purposes historically, with remains of stock infrastructure, such as water troughs, still present. It is currently surrounded by the Salisbury Highway to the east and the Barker Inlet salt fields on the northern and western boundaries, Part of the Magazine Road Wetlands complex runs the length of the eastern boundary, between the Project Area and the Salisbury Highway. This wetland, which is not impacted by the proposed clearance, consists of artificially constructed pools and channels with planted vegetation (**Photo 4.2**). This planted vegetation consists of native species but is not considered native vegetation as defined under the NV Act.

A total of 21 flora species were recorded on site during the field survey, including 11 non-native weed species. Two species listed as Declared under the LSA Act were detected, *Lycium ferocissimum* (African Boxthorn) and *Olea Europaea* (European Olive). Refer to **Appendix 1** for a list of species recorded during the field survey.

Three BAM surveys were undertaken across the site, where two native vegetation associations occur. These are listed below and described further in Section **4.1.3**:

- A1: *Tecticornia* spp. ± *Nitraria billardiarei* Low Shrubland over exotic grasses
- A2: *Melaleuca halmaturorum* / *Myoporum insulare* Tall Shrubland over *Tecticornia pruinosa*

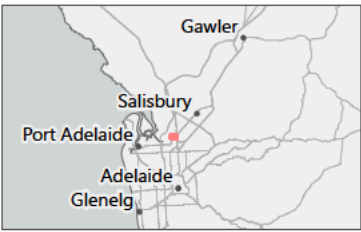
The extent of these vegetation associations and the location of BAM survey sites are shown on the map in **Figure 4.1**.

Vegetation is generally in poor to moderate condition, with a low structural and species diversity. It is heavily impacted by weeds (**Photo 4.3**), especially grass and forb species such as *Oxalis pes-caprae* (Sour Sob) and *Avena barbata* (Bearded Oat), but also woody weeds, particularly *Lycium ferocissimum* (African Boxthorn) (**Photo 4.4**). The locations where African Boxthorn was recorded are shown on the map in **Figure 4.1**.



FIGURE 4.1
Vegetation Associations within the Project Area

- Legend**
- Project Area
 - BAM site
- Surveyed weed**
- African Boxthorn (*Lycium ferocissimum*)
 - Olive (*Olea europaea*)
- Vegetation Association**
- Melaleuca halmaturorum* +/- *Myoporum insulare* Tall Shrubland over *Tecticornia pruinosa*
 - Tecticornia* spp. +/- *Nitraria billardierei* Low Shrubland over exotic grasses



0 100 200
Metres
Scale 1:5,000 at A4
GDA2020 MGA Zone 54



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4.1.2 Threatened Ecological Communities

The PMST identified three TEC that might be relevant to the Project Area. These are listed below:

- Grey Box (*Eucalyptus microcarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia (EPBC Act Endangered).
- Peppermint Box (*Eucalyptus odorata*) Grassy Woodland of South Australia (EPBC Act Critically Endangered).
- Subtropical and Temperate Coastal Saltmarsh (EPBC Act Vulnerable).

None of the above TEC occur in the Project Area, for the reasons set out in **Table 4.1**. The vegetation associations present do not meet the descriptions of any threatened ecosystem listed in the *Provisional List of Threatened Ecosystems*.

Table 4.1 Threatened Ecological Community Assessment

Threatened Ecological Community	Description	Occurrence Assessment
Grey Box (<i>Eucalyptus microcarpa</i>) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia	Characterised by the dominance or co-dominance of Grey Box with a grassy understory. These communities typically occur on fertile, well-drained soils in the temperate climatic zones of south-eastern Australia, including parts of Victoria, New South Wales, and South Australia. The understory features a rich diversity of native grasses, herbs, and forbs, with minimal shrub cover. In many areas, original woodland has been extensively cleared or degraded, resulting in derived native grasslands that retain elements of the original ecological structure and function. These ecosystems are adapted to low-intensity fire and seasonal variability and provide critical habitat for a range of threatened flora and fauna.	Does not occur. The Project Area consists of low chenopod / samphire shrubland. Characteristic canopy species are absent and there is no native grass understorey present.
Peppermint Box (<i>Eucalyptus odorata</i>) Grassy Woodland of South Australia (EPBC Act Critically Endangered).	Characterised by the dominance or co-dominance of Peppermint Box with an understorey of native grasses, herbs, and forbs. These woodlands typically occur on fertile, moderately well-drained soils in the temperate climatic zones of South Australia, particularly within the Mount Lofty Ranges and adjoining agricultural regions. The understorey is generally open, with a high diversity of perennial tussock grasses and seasonal herbaceous species, and a sparse cover of shrubs.	Does not occur. The Project Area consists of low chenopod / samphire shrubland. Characteristic canopy species are absent and there is no native grass understorey present.
Subtropical and Temperate Coastal Saltmarsh	An ecological community characterised by low-growing vegetation adapted to saline and waterlogged conditions in intertidal zones. It typically occurs on coastal flats, estuarine margins, and the landward side of mangrove systems across subtropical and temperate regions of Australia. The community is dominated by salt-tolerant herbs, sedges, succulent shrubs, and grasses, such as species of <i>Sarcocornia</i> , <i>Tecticornia</i> , <i>Juncus</i> , and <i>Sporobolus</i> . Vegetation structure and composition is influenced by tidal inundation, salinity, and elevation. Periods of inundation caused by tidal movements is diagnostic on the TEC.	Does not occur. Although native vegetation in the Project Area is somewhat characteristic of this TEC, dominated by low <i>Tecticornia</i> shrubland, the area has no tidal connection. Infrequent inundation occurs from rainfall and local runoff independent of tidal influence.

4.1.3 Details of the Vegetation Associations Proposed to be Impacted

Two vegetation associations occur in the Project Area and are described in **Table 4.2** and

Table 4.3:

- Site A1a and A1b – Table 4.2
- Site A2 – Table 4.3

Table 4.2 Details of A1a and A1b: *Tecticornia* spp. ± *Nitraria billardierei* Low Shrubland over exotic grasses

Benchmark Community SMLR Co 8.2 – Coastal Samphire / Saltbush, Bluebush. Shrublands with Infrequent Inundation/ Lower Salinity



Site A1a



Site A1b

General Description of VA	The vegetation comprised of a dominant understory of samphire, particularly <i>Tecticornia pruinosa</i> , but with small patches of <i>Sarcocornia blackiana</i> present closer to water bodies. Exotic grasses were interspersed amongst the samphire, such as <i>Lolium sp.</i> , <i>Medicago sp.</i> , and <i>Romulea sp.</i> One declared weed was observed on site, <i>Lycium ferocissimum</i> (African Boxthorn). Shrubland species included <i>Enchylaena tomentosa</i> and <i>Nitraria billardierei</i> .				
Threatened Species or Community	This vegetation association does not comprise a listed TEC. A range of common bird species were detected on site during the field survey. No state or nationally listed threatened fauna species were detected on site during the survey. However, the desktop search identified several threatened species which may utilise the habitat, which can be found in table 4.4.				
Landscape Context Score	1.2 / 1.2	Vegetation Condition Score	14.90 / 26.64	Conservation Significance Score	1.1 / 1.1
Unit Biodiversity Score	19.67 / 35.16	Area (ha)	21.87	Total Biodiversity Score	430.18 / 768.95

Table 4.3 Details of A2: *Melaleuca halmaturorum* / *Myoporum insulare* Tall Shrubland over *Tecticornia pruinosa*



Site A2

General Description of VA	The vegetation comprised of a dominant understory of samphire, in particular <i>Tecticornia pruinosa</i> , but with small patches of <i>Sarcocornia blackiana</i> present. Exotic grasses and native shrubs were interspersed amongst the samphire, such as <i>Lolium</i> sp., <i>Medicago</i> sp., as well as <i>Nitraria billardieri</i> , <i>Atriplex semibaccata</i> and <i>Enchylaena tomentosa</i> . The midstory comprised of regenerating <i>Melaleuca halmaturorum</i> and <i>Myoporum insulare</i> .				
Threatened Species or Community	This vegetation association does not comprise a listed TEC. A range of common bird species were detected on site during the field survey. No state or nationally listed threatened fauna species were detected on site during the survey. However, the desktop search identified several threatened species which may utilise the habitat, which can be found in table 4.4.				
Landscape Context Score	1.17	Vegetation Condition Score	26.04	Conservation Significance Score	1.10
Unit Biodiversity Score	33.51	Area (ha)	0.11	Total Biodiversity Score	3.69

4.1.4 Photo log

Additional photographs of the Project Area are provided in the Figures below. These have been referenced in the text throughout the report.



Photo 4.1 Shallow, Ephemeral Wetland in the Project Area.



Photo 4.2 The Magazine Road Wetlands, Which Occur Outside the Eastern Boundary of the Project Area



Photo 4.3 The Weed *Oxalis pes-caprae* (Sour Sob) smothering a *Tecticornia* shrub.



Photo 4.4 A *Lycium ferocissimum* (African Boxthorn) Shrub in the Project Area

4.2 Threatened Species Assessment

The field survey observed 13 fauna species. All were species are common and widespread in urban green spaces and semi-rural areas in South Australia, including species such as the Australian Magpie (*Gymnorhina tibicen*), Singing Honeyeater (*Gavicalis virescens*) and Shingleback Lizard (*Tiliqua rugosa*). All 13 fauna species recorded are listed in **Appendix 1**.

Although no threatened species were observed by the field survey, the database searches identified 92 threatened species that might be relevant to the Project Area. Of these, 72 species have been assessed as unlikely to occur based on:

- The habitat provided by the vegetation in the Project Area
- The habitat needs of each species
- The recency and proximity of historical records.

This likelihood of occurrence assessment is presented in full in **Appendix 2**. The assessment found that 20 threatened species are possible, likely or highly likely to occur in the Project Area. These are listed in **Table 4.4**.

Database searches also identified 31 species listed as Migratory (but not threatened) under the EPBC Act might be relevant to the Project. These species were also assessed for their likelihood of occurrence (see **Appendix 2**). Seven of these species were assessed as possibly occurring, as listed in **Table 4.5**.

The threatened species listed in **Table 4.4** have been entered in the BAM scoresheets for the purposes of calculating an SEB and clearance risk level. Those listed as Migratory (see **Table 4.5**) have not been entered and are included in this report for information only.

Table 4.4 Threatened Species Assessed as Possible, Likely, Highly Likely or Known to Occur

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Year of Last Record / PMST Result	Likelihood of Occurrence
<i>Actitis hypoleucos</i>	Common Sandpiper	Mi	R	2021/Known	Highly Likely.
<i>Ardea intermedia plumifera</i>	Plumed Egret	-	R	2012	Likely.
<i>Bubulcus ibis coromandus</i>	Eastern Cattle Egret	-	R	1998	Possible.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	VU	-	2021/Known	Highly Likely.
<i>Calidris ferruginea</i>	Curlew Sandpiper	CE	E	2015/Known	Highly Likely.
<i>Calidris melanotos</i>	Pectoral Sandpiper	Mi	R	2021/Known	Highly Likely.
<i>Calidris pugnax</i>	Ruff	Mi	R	2003/Known	Possible.
<i>Calidris subminuta</i>	Long-toed Stint	Mi	R	2006/Known	Possible.
<i>Cereopsis novaehollandiae novaehollandiae</i>	Cape Barren Goose	-	R	2018	Likely.
<i>Cladorhynchus leucocephalus</i>	Banded Stilt	-	V	2023	Highly likely.
<i>Egretta garzetta nigripes</i>	Little Egret	-	R	2023	Highly likely.
<i>Falco subniger</i>	Black Falcon	-	R	2019	Likely.
<i>Lewinia pectoralis pectoralis</i>	Lewin's Rail	-	V	1997	Possible.
<i>Limosa limosa melanuroides</i>	Black-tailed Godwit	EN	R	1996/Known	Possible.
<i>Neophema chrystostoma</i>	Blue-winged Parrot	VU	V	Known	Possible.
<i>Neophema elegans elegans</i>	Elegant Parrot	-	R	2002	Likely.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Year of Last Record / PMST Result	Likelihood of Occurrence
<i>Plegadis falcinellus</i>	Glossy Ibis	-	R	2014	Likely.
<i>Pluvialis fulva</i>	Pacific Golden Plover	Mi	R	1999/Known	Possible.
<i>Tringa nebularia</i>	Common Greenshank	EN	-	2014/Known	Likely.
<i>Xenus cinereus</i>	Terek Sandpiper	VU	R	1996	Possible.

¹EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*): CR, Critically Endangered. EN, Endangered. VU, Vulnerable. Mi, Migratory.

²NPW Act (*National Parks and Wildlife Act 1972*): E, Endangered. V, Vulnerable. R, Rare.

Table 4.5 Migratory Species Assessed as Possible, Likely, Highly Likely or Known to Occur

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Year of Last Record / PMST Result	Likelihood of Occurrence
<i>Apus pacificus</i>	Fork-tailed Swift	Mi	-	Likely	Possible.
<i>Calidris ruficollis</i>	Red-necked Stint	Mi	-	Known	Possible.
<i>Charadrius bicinctus</i>	Double-banded Plover	Mi	-	Known	Possible.
<i>Limosa lapponica</i>	Bar-tailed Godwit	Mi	-	Known	Possible.
<i>Numenius minutus</i>	Little Curlew	Mi	-	Known	Possible.
<i>Tringa stagnatilis</i>	Marsh Sandpiper	Mi	-	Known	Possible.
<i>Tringa totanus</i>	Common Redshank	Mi	-	Known	Possible.

¹EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*): CR, Critically Endangered. EN, Endangered. VU, Vulnerable. Mi, Migratory.

²NPW Act (*National Parks and Wildlife Act 1972*): E, Endangered. V, Vulnerable. R, Rare.

4.3 Cumulative Impact

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

The Project will utilise an alternative site (the Gillman SRF - located at North Arm Road, CT 6312/944 Lot 501 Gillman and CT 6312/944 Lot 502 Dry Creek). The Gillman SRF is within the native vegetation exempt area, however, vegetation that is native to the area (saltmarsh), will be removed at the Gillman SRF.

In the Project Area, all expected direct impacts will occur within the area of clearance covered by this application. This includes all construction areas, hardstands and laydown facilities. Existing access routes will be used to enter the Project Area, within which no native vegetation occurs.

Indirect impacts caused by changes to hydrological cycles due to level changes resulting from receiving of fill may occur. These are currently being investigated by the proponent, with results of investigations influencing the final design and planning of the SRF.

4.4 Mitigation Hierarchy

When exercising a power or making a decision under Division 5 of the Regulations, the NVC must have regard to the mitigation hierarchy. The NVC will also consider, with the aim to minimise, impacts on

biological diversity, soil, water and other natural resources, threatened species or ecological communities under the EPBC Act or listed species under the NP&W Act.

a) avoidance – measures should be taken to avoid clearance of native vegetation

To assist in developing the Spoil Management Strategy for the T2D Project, a Multi-Criteria Assessment (MCA) of 22 potential sites to store and treat spoil from the T2D Project for re-use and disposal was undertaken. Through this process the Gillman Spoil Receiving Facility (SRF), located at Gillman was selected as the preferred spoil receiving site.

An additional rapid assessment process of the suitability of three alternative sites to handle surplus spoil. These three sites include the Project Area and are listed below:

1. Dry Creek Salt Flats
2. Gillman Marshalling Yards
3. Lot 107 Port Wakefield Rd, Dry Creek (the Project Area)

Of these sites the final two have been selected as preferred sites. This avoids any impact to threatened species and ecological communities that would occur if the Dry Creek salt Flats were developed. In addition, the Dry Creek Code Amendment anticipated to commence at the end of 2025 has identified that site and a potential future conservation zone.

b) minimisation – if clearance of native vegetation cannot be avoided, measures should be taken to minimise the extent, duration and intensity of impacts of the clearance on biological diversity to the fullest possible extent (whether the impact is direct, indirect or cumulative)

The Project will minimise clearance, including cumulative impact, by locating all laydown areas and other infrastructure required for construction within the boundaries of the Project Area and by utilising existing access routes.

DIT will undertake all vegetation removal activities in accordance with the *DIT Vegetation Impact Assessment Guideline*. Prior to any clearance taking place, DIT and its contractors will develop and implement a detailed Construction Environmental Management Plan (CEMP), which will include a Vegetation Management Plan or equivalent, to minimise the risk of indirect and unplanned or accidental impacts to native vegetation.

Further, DIT will aim to limit indirect disturbance to and impact on neighbouring native vegetation and fauna by undertaking, at a minimum, the following measure during construction:

- Dust and erosion management, according to the measures developed in an agreed CEMP.
- Stormwater, runoff and drainage management, according to the measures developed in an agreed CEMP.
- Biosecurity, including weeds and pathogens, according to the measures developed in an agreed CEMP.
- Wastewater and chemical contamination management, according to the measures developed in an agreed CEMP.
- Indirect impacts to fauna will be managed by the development of a Biodiversity Management Plan or its equivalent, that will include as a minimum:

- Measures for managing the impact of lighting on fauna where construction activities are occurring at night.
- Measures for managing the impact of mortality of fauna caused by interactions between fauns and vehicles, plant and machinery.
- Measures for managing the impacts associated with construction noise.

c) rehabilitation or restoration – measures should be taken to rehabilitate ecosystems that have been degraded, and to restore ecosystems that have been destroyed, by impacts of clearance of native vegetation that cannot be avoided or further minimised

Clearance of native vegetation will allow the receipt of spoil which will enable the site to be developed further for industrial land use purposes. Clearance is therefore expected to be permanent, with no rehabilitation or restoration likely to be undertaken.

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

Adverse impacts will be offset by achieving the SEB obligations, according to that set out in Section 5.0 on page 28 and Section 6.0 on page 29.

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

4.5.1 Assessment Against the Principles of Clearance

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

The clearance has been assessed against the Principles of Clearance according to **Table 4.6**.

Table 4.6 Assessment Against the Principles of Clearance

Principle of Clearance	Relevant Information	Assessment Against the Principles	Moderating Factors that may be Considered by the NVC
Principle 1(b) – significance as a habitat for wildlife.	<p>The desktop assessment and habitat assessment identified 20 threatened fauna as potentially occurring in the Project Area (see Table 4.4).</p> <p><u>Threatened Fauna Score (TFS)</u> A1: 0.1 A2: 0.1</p> <p><u>Total Biodiversity Score (TBS)</u> 603.26</p>	<p><u>Seriously at Variance</u> A1 (TFS = 0.1) A2 (TFS = 0.1)</p>	Moderating factors are discussed in Section 4.5.2.1
Principle 1(c) – plants of a rare, vulnerable or endangered species.	<p>No threatened flora species were observed at the site.</p> <p><u>Threatened Flora Score (TFLS)</u> A1: 0 A2: 0</p>	<p><u>Not at Variance</u> A1 (TFLS = 0) A2 (TFLS = 0)</p>	Not applicable
Principle 1(d) – the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or Endangered.	<p>No TEC was found to occur in the Project Area.</p> <p><u>Threatened Community Score</u> A1: 1 A2: 1</p>	<p><u>Not at Variance</u> A1 A2</p>	Not applicable
Principle 1(e) – it is significant as a remnant of vegetation in an area which has been extensively cleared.	<p>Remnant native vegetation cover in the Interim Biogeographic Regionalisation for Australia (IBRA) subregion environmental association is moderate at approximately 44%.</p> <p><u>Total biodiversity Score (TBS)</u> 603.26</p>	<p><u>At Variance</u> TBS = 602.26, remnancy = 44%</p>	Not applicable
Principle 1(f) – it is growing in, or in association with, a	<p>The proposed clearance area is within the vicinity of a wetland than runs adjacent to the eastern side of the Project Area. Wetland</p>	<p><u>Seriously at Variance</u></p>	Moderating factors are discussed in Section 4.5.2.2

Principle of Clearance	Relevant Information	Assessment Against the Principles	Moderating Factors that may be Considered by the NVC
wetland environment.	species such as ducks were observed using this habitat during field surveys.		

4.5.2 Moderating Factors

The proposed clearance is seriously at variance with Principles 1(b) and 1(f). The moderating factors for these principles have been discussed below.

4.5.2.1 Principle 1(b) – significance as a habitat for wildlife

Impact Significance

If the NVC are of the opinion that the clearance will not have a significant impact on fauna habitat, the clearance may be reduced to ‘At Variance’.

The proposed clearance is unlikely to cause a significant impact to any threatened species. This has been assessed against NVC’s significant impact criteria as set out in **Table 4.7**. This does not constitute a significant impact assessment under the EPBC Act and no assessment against the EPBC Act’s *Matters of National Environmental Significance significant impact guidelines 1.1* (Department of the Environment (DotE), 2013) has been undertaken.

Table 4.7 Principle 1(b) Impact Significance Assessment

NVC Significant Impact Criteria - Wetlands	Assessment
Lead to a long-term decrease in the size of a population.	Given the size of the clearance in the context of the surrounding area (see Section 4.5.2.2), clearance is not likely to lead to a long-term decrease in the size of a population.
Reduce the area of occupancy of the species.	No threatened species were found to be occupying the site at the time of the field survey. Given the extent of open space and suitable habitat within the surrounding area (see Section 4.5.2.2), any reduction in area of occupancy would be negligible.
Fragment an existing population into two or more populations.	The extent of clearance is not sufficient to fragment a population of any threatened species. Threatened species assessed as possibly or likely to use the vegetation under clearance are all species that are known to move large distances across areas of unsuitable habitat, such as migratory birds and the clearance would not prevent movement of species between areas of suitable habitat.
Adversely affect habitat critical to the survival of a species.	The vegetation under application is not considered to provide habitat that is critical to the survival of any threatened species.
Modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.	Although the clearance of vegetation will destroy and remove habitat, the extent in the context of similar habitat in the surrounding area is small (see Section 4.5.2.2). Its removal is not likely to cause the decline of any species.
Result in invasive species that are harmful to a threatened species becoming established in a threatened species habitat.	The vegetation under application is currently heavily impacted by invasive plants (see Section 4.1) and it is likely that invasive animals common in urban areas are present such as cats, foxes and rabbits. The clearance is not likely to introduce additional invasive species that would impact threatened species beyond the current level of impacts occurring in the Project Area.
Interfere with the recovery of a species.	The clearance is not likely to interfere with the recovery of any threatened species.

Common Species

If the vegetation provides habitat for native species that are relatively common, and the area of clearance is not considered essential habitat to maintain the local population, it may be reduced to ‘At variance’.

The field survey observed only fauna species that are common in urban green spaces and semi-rural habitats in South Australia, including areas of introduced vegetation. The Project Area sits within a large network of similar open-space and areas bordering wetlands (see Section 4.5.2.2) and similar habitat to the vegetation impacted by the clearance is widespread. The vegetation under application contains no habitat features such as hollow-bearing trees, fallen timber or other habitat features that would be important as breeding habitat for most fauna, providing habitat that may be utilised for temporary foraging activities only.

It is therefore not considered likely that the vegetation under application provides essential habitat for maintaining local populations of fauna.

Non-essential Habitat

If the clearance is of non-essential habitat for threatened species and the clearance will have a negligible impact on that species local population over the long term (i.e. next 20 to 50 years), it may be reduced to ‘At variance’.

No threatened species were observed in the Project Area or in the adjoining wetlands outside the eastern boundary of the site. Although it has been assessed that some species possibly use the site at times, it is unlikely that clearance would cause the long-term decline of any species population. The habitat is considered non-essential habitat for the reasons discussed above.

4.5.2.2 Principle 1(f) – it is growing in, or associated with, a wetland environment

Impact Significance

If the NVC are of the opinion that the clearance will not have a significant impact on a wetland environment, the clearance may be reduced to ‘At Variance’. The significance of the proposal’s impact to nearby wetlands has been assessed against the NVC’s criteria in **Table 4.8**

Table 4.8 Principle 1(f) Impact Significance Assessment

NVC Significant Impact Criteria - Wetlands	Assessment
Areas of the wetland being destroyed or substantially modified.	Clearance of native vegetation and filling of the site with spoil will destroy the small areas of temporarily inundated wetland in the Project Area.
A substantial and measurable change in the hydrological regime of the wetland (e.g. a change in the volume, timing, duration and frequency of ground and surface water flows to and within the wetland).	Filling the site is likely to change the hydrological regime of the small wetland areas impacted. The magnitude of this change is unknown, since no hydrological studies have been undertaken.
The habitat or lifecycle of native species dependant upon the wetland being seriously affected.	Given the small extent (see Area of Impact on Page 27), it is unlikely that native species are entirely dependent on the Project Area.
A substantial and measurable change in the physio-chemical status of the wetland (e.g. change in the level of salinity, pollutants or nutrients in the wetland, change in water temperature which may adversely impact on biodiversity).	No baseline data on the physio-chemical status of the impacted wetland area is available. Therefore, any change is unable to be measured.

NVC Significant Impact Criteria - Wetlands	Assessment
The introduction of invasive species.	The proposed clearance is unlikely to cause the introduction of invasive species. DIT and/or its contractors will undertake the clearance in accordance with DIT's Environment and Heritage Technical Manual Part 4 – Vegetation. Invasive species that are likely to impact the vegetation and surrounding areas, such as African Boxthorn and Sour-sob, are already well established in the Project Area.

Quality of the Wetland

If the wetland has been highly degraded and is in poor to very poor condition, then the clearance may be reduced to 'At Variance'.

The impacted wetland is heavily impacted by weeds and runoff from nearby industrial sites, such as the Salisbury Highway and Dry Creek salt fields. Areas that are likely to contain water following rainfall are unvegetated, with no permanent water bodies aquatic vegetation present and the surrounding vegetation is generally in poor condition (vegetation condition score 21.87 to 26.04) (see **Photo 4.1**).

Nearby wetlands that form part of the larger Magazine Road and Greenfields Wetlands complex are unimpacted by the proposed clearance. This includes the nearby Barker Inlet and St Kilda Wetland of National Significance.

Area of Impact

If the wetland is relatively small, considering the wetlands within the same system or within close proximity (within 5 km radius), then it may be reduced to 'At Variance'.

Including the Magazine Road and Greenfields Wetlands complex and Barker Inlet Wetlands, there is approximately 2,800 ha of wetlands within 5 km of the Project Area. This is based on spatial data available through NatureMaps (DEW, 2025b).

Wetland areas in the Project Area are limited to small areas shown in the photographs in **Table 4.2** (see page 16) and **Photo 4.1** (see page 18) and waterbody and wetland topographical data from NatureMaps shows that there is no mapped wetland in the Project Area. The areas shown in the photographs total approximately 2 ha.

This is small considering the mapped wetlands within 5 km, representing only 0.07% of the total approximate wetland area.

4.6 Risk Assessment

The risk level of the proposed clearance is summarised in **Table 4.9**.

Table 4.9 Risk Assessment for the Proposed Clearance

Total Clearance	No. of Trees	0
	Area (ha)	21.98
	Total Biodiversity Score	603.26
Seriously at variance with principle 1(b), 1(c) or 1(d)		1(b)
Risk Assessment Outcome		Level 4

5.0 Clearance Summary

Clearance summary tables for the clearance application are shown in **Table 5.1**, with the SEB totals summary provided as **Table 5.2**.

Table 5.1 Clearance Summary Table

Block	Site	Native Plant Diversity Score	TEC Score	Threatened Plant Score	Threatened Fauna Score	UBS	Area (ha)	TBS	Loss Factor	SEB Points	SEB Payment	Admin Fee	
A	A1a		18	1	0	0.1	19.67	21.87	430.18	1	473.20	\$383,879.31	\$21,113.36
	A1b		18	1	0	0.1	35.16	21.87	768.95	1	845.85	\$689,258.51	\$37,909.22
	A1 Mean		18				27.41	21.87	599.57	1	659.53	\$536,568.91	\$29,511.29
A	A2		9	1	0	0.1	33.51	0.11	3.69	1	4.06	\$3,308.38	\$181.96
Totals							21.98	603.26			663.59	\$539,877.29	\$29,693.25

Table 5.2 Totals summary Table

	Total Biodiversity Score	Total SEB Points Required	Total SEB Payment	Admin Fee	Total Payment
Application		603.26	663.59	\$539,877.29	\$29,693.25
Economies of Scale Factor	0.5				
Rainfall (mm)	A1a = 447 A1b = 449 A2 = 449				
SEB Points of Gain/ha Factor	7				

6.0 Significant Environmental Benefit

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

Achieving a SEB

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

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

Payment SEB

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

- The Native Vegetation Credit Register was checked for appropriate credit on 15 October 2025. No like for like vegetation in the vicinity is available as an offset area in the credit register.

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:

Payment amount required (including admin. fee)

The proponent has searched within DIT for any suitable on-ground offset areas and was unable to find a suitable offset that was not already committed.

Clearance associated with this project will be offset by payment of \$569,570.54 into the Native Vegetation Fund, inclusive of \$29,693.25 in administration fees.

7.0 References

- Croft, S. J., Pedler, J. A., & Milne, T. I. (2005). Bushland Condition Monitoring Manual: Southern Mount Lofty Ranges. In *Vegetation Communities of the Southern Mount Lofty Ranges* (Vol. 3, p. 148). Adelaide: Nature Conservation Society of South Australia Inc.
- Department for Environment and Heritage. (2005a). *Provisional List of Threatened Ecosystems*. Adelaide: Unpublished and provisional list by the Department for Environment and Heritage.
- Department of Climate Change, Energy, the Environment and Water. (2025). *Protected Matters Search Tool*. Retrieved April 22, 2025, from Protected Matters Search Tool: <https://pmst.environment.gov.au/#/map?lng=138.51547121892511&lat=-35.0972496179863&zoom=17&baseLayers=Imagery,ImageryLabels>
- Department of Climate Change, Energy, the Environment and Water. (2025b, August 5). *Species Profile and Threats Database*. Retrieved from Department of Climate Change, Energy, the Environment and Water: <https://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>
- Department of the Environment (DotE). (2013). *Matters of National Environmental Significance significant impact guidelines 1.1*. Canberra: Commonwealth Government.
- DEW. (2025a). Biological Databases of South Australia (BDBSA) data extract: Recordset number Recordset number DEWNRBDBSA250401-2. Adelaide: Government of South Australia.
- DEW. (2025b, September 4). *NatureMaps*. Retrieved 2025, from Department for Environment and Water: <http://data.environment.as.gov.au/NatureMaps/Pages/default.aspx>
- NVC. (2024b). *Native Vegetation Council (NVC) Bushland Assessment Manual*. Adelaide: Native Vegetation Council, Government of South Australia.
- Umwelt. (2025). *(T2D) Gillman Receiving Facility Addendum - Option 2 Impact Area*. Adelaide: Unpublished report for Department of Infrastructure and Transport.

Appendix 1

Flora and Fauna Recorded by the Field Survey

Scientific Name	Common Name	EPBC Act Status ¹	NPW Act Status ²
Native flora species			
<i>Atriplex semibaccata</i>	Berry Saltbush	-	-
<i>Enchylaena tomentosa</i>	Ruby Saltbush	-	-
<i>Maireana brevifolia</i>	Short-leaf Bluebush	-	-
<i>Melaleuca halmaturorum</i>	Swamp Paper-bark	-	-
<i>Myoporum insulare</i>	Common Boobialla	-	-
<i>Nitraria billardierei</i>	Nitre-bush	-	-
<i>Salicornia blackiana</i>	Thick-head Samphire	-	-
<i>Senecio glossanthus</i>	Annual Groundsel	-	-
<i>Tecticornia pruinosa</i>	Bluish Samphire	-	-
<i>Threlkeldia diffusa</i>	Coast Bonefruit	-	-
Exotic flora species			
<i>Aizoon pubescens</i>	Coastal Galenia	-	-
<i>Avena barbata</i>	Bearded Oat	-	-
<i>Limonium companyonis</i>	Sea-lavender	-	-
<i>Lolium</i> sp.	Ryegrass	-	-
<i>Lycium ferocissimum</i>	African Boxthorn	-	-
<i>Medicago</i> sp.	Medic	-	-
<i>Mesembryanthemum crystallinum</i>	Common Iceplant	-	-
<i>Olea europaea</i>	Olive	-	-
<i>Oxalis pes-caprae</i>	Soursof	-	-
<i>Romulea rosea</i> var. <i>australis</i>	Common Onion-grass	-	-
<i>Sonchus oleraceus</i>	Common Sow-thistle	-	-
Fauna species			
<i>Anas castanea</i>	Chestnut Teal	-	-
<i>Corvus mellori</i>	Little Raven	-	-
<i>Crinia signifera</i>	Common Eastern Froglet	-	-
<i>Epthianura albifrons</i>	White-fronted Chat	-	-
<i>Falco cenchroides</i>	Nankeen Kestrel	-	-
<i>Gavicalis virescens</i>	Singing Honeyeater	-	-
<i>Grallina cyanoleuca cyanoleuca</i>	Magpie-lark	-	-
<i>Gymnorhina tibicen</i>	Australian Magpie	-	-
<i>Hirundo neoxena neoxena</i>	Welcome Swallow	-	-
<i>Malurus cyaneus</i>	Superb Fairywren	-	-
<i>Rhipidura leucophrys leucophrys</i>	Willie Wagtail	-	-
<i>Tachybaptus novaehollandiae novaehollandiae</i>	Australasian Grebe	-	-
<i>Tiliqua rugosa</i>	Shingleback Lizard	-	-

¹EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*): CR, Critically Endangered. EN, Endangered. VU, Vulnerable. Mi, Migratory.

²NPW Act (*National Parks and Wildlife Act 1972*): E, Endangered. V, Vulnerable. R, Rare.

Appendix 2

Likelihood of Occurrence Assessment

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Acanthiza iredalei rosinae</i>	Slender-billed Thornbill (Gulf St Vincent)	VU	-	PMST	Known	Chenopod shrublands, particularly samphire dominated by shrubby glasswort (<i>Sclerostegia arbuscula</i>), on narrow coastal saline mudflats usually within 20m of a tidal channel or saline lake. It mostly forages in dense, tall samphire (DCCEEW, 2025b).	Unlikely. The low shrubland habitat without taller, dense <i>Sclerostegia arbuscula</i> and saltbush is unsuitable habitat.
<i>Actitis hypoleucos</i>	Common Sandpiper	Mi	R	BDBSA/PMST	2021/Known	Inhabits saltwater and freshwater ecosystems (DCCEEW, 2025b).	Highly Likely. Highly likely to occur when wetland areas are inundated.
<i>Anhinga novaehollandiae novaehollandiae</i>	Australasian Darter	-	R	BDBSA	2024	Darters are moderately common in the north-east and especially along the River Murray, they are rare elsewhere. They are mainly to be found in still, shallow inland waters but also in slow flowing rivers, swamps and reservoirs.	Unlikely. The shallow, ephemeral swamp/wetland areas in the Project Area are not suitable habitat for this species.
<i>Aphelocephala leucopsis leucopsis</i>	Southern Whiteface	VU	-	PMST	Known	Habitat critical to the survival of the Southern Whiteface includes areas of (DCCEEW, 2025b): <ul style="list-style-type: none"> Relatively undisturbed open woodlands and shrublands with an understorey of grasses or shrubs, or both. Habitat with low tree densities and an herbaceous understorey litter cover which provides essential foraging habitat. Living and dead trees with hollows and crevices which are essential for roosting and nesting. 	Unlikely. There are no recent records of the species within 5 km and no suitable habitat in the Project Area.
<i>Aprasia pseudopulchella</i>	Flinders Ranges Worm-lizard	VU	-	PMST	Likely	The Flinders Ranges Worm-lizard burrows freely in loose sand and soil, under rocks and litter. The species occurs in open woodland, native tussock grassland, riparian habitats and rocky isolates (DCCEEW, 2025b).	Unlikely. There are no recent records of the species within 5 km and no suitable habitat in the Project Area.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Apus pacificus</i>	Fork-tailed Swift	Mi	-	PMST	Likely	Almost entirely aerial, occurs over dry and open habitats (Higgins & Davies 1993).	Possible. Although there are no nearby records, habitat is suitable. However, the species is unlikely to use terrestrial habitat in the project Area.
<i>Ardea intermedia plumifera</i>	Plumed Egret	-	R	BDBSA	2012	Freshwater wetlands and tidal mudflats.	Likely. The species is likely to occur when swamp/wetland areas contain water.
<i>Ardenna carneipes</i>	Flesh-footed Shearwater, Flesh-footed Shearwater	Mi	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Ardenna grisea</i>	Sooty Shearwater	VU	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Arenaria interpres</i>	Ruddy Turnstone	VU	-	PMST	Known	Exposed rock coastline and coral reefs, shingle or gravel beaches (DCCEEW, 2025b).	Unlikely. There are no recent records of the species within 5 km and no suitable habitat in the Project Area.
<i>Balaenoptera edeni</i>	Bryde's Whale	Mi	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Biziura lobata menziesi</i>	Musk Duck	-	R	BDBSA	2023	Well vegetated swamps and wetlands.	Unlikely. There is no suitable vegetated wetland habitat in the Project Area.
<i>Botaurus poiciloptilus</i>	Australasian Bittern	EN	E	BDBSA	2006	Wetlands with tall dense vegetation, where it forages in still, shallow water up to 0.3 m deep, often at the edges of pools or waterways, or from platforms or mats of vegetation over deep water. It favours permanent and seasonal freshwater	Unlikely. There is no suitable vegetated wetland

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
						habitats, particularly those dominated by sedges, rushes and reeds or cutting grass (DCCEEW, 2025b).	habitat in the Project Area.
<i>Bubulcus ibis coromandus</i>	Eastern Cattle Egret	-	R	BDBSA	1998	Paddocks, pastures, crops and wetland habitats including tidal mudflats.	Possible. Habitat is suitable, however there are no records <20 years old.
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	VU	-	BDBSA/PMST	2021/Known	Muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation (DCCEEW, 2025b).	Highly Likely. Highly likely to occur when wetland areas are inundated.
<i>Calidris alba</i>	Sanderling	Mi	-	PMST	Known	Almost always found on the coast, mostly on open sandy beaches exposed to open sea-swell, and also on exposed sandbars and spits, and shingle banks, where they forage in the wave-wash zone and amongst rotting seaweed (DCCEEW, 2025b).	Unlikely. There are no recent records within 5 km and no suitable habitat in the Project Area.
<i>Calidris canutus</i>	Red Knot, Knot	VU	-	PMST	Known	Mainly inhabits intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours; sometimes on sandy ocean beaches or shallow pools on exposed wave-cut rock platforms or coral reefs (DCCEEW, 2025b)).	Unlikely. There are no recent records within 5 km and no suitable habitat in the Project Area.
<i>Calidris ferruginea</i>	Curllew Sandpiper	CE	E	BDBSA/PMST	2015/Known	Occurs in freshwater and saline ecosystems, favouring intertidal mudflats, lakes and lagoons. Recorded less frequently inland, primarily around saltworks and sewerage farms (DCCEEW, 2025b).	Highly Likely. Highly likely to occur when wetland areas are inundated.
<i>Calidris melanotos</i>	Pectoral Sandpiper	Mi	R	BDBSA/PMST	2021/Known	In SA the species is found mostly in the south-east, from north to the Murray River and west to Yorke Peninsula. In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands (DCCEEW, 2025b).	Highly Likely. Highly likely to occur when wetland areas are inundated.
<i>Calidris pugnax</i>	Ruff	Mi	R	BDBSA/PMST	2003/Known	Fresh, brackish or saline wetlands with exposed mudflats at the edges (DCCEEW, 2025b).	Possible. Habitat is suitable, however there are no recent records within 5 km <20 years old.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Calidris ruficollis</i>	Red-necked Stint	Mi	-	PMST	Known	Sheltered inlets, bays, lagoons and estuaries with intertidal mudflats, often near spits, islets and banks and, sometimes, on protected sandy or coralline shores. Saltmarsh; ephemeral or permanent shallow wetlands near the coast or inland (DCCEEW, 2025b).	Possible. Although there are no records within 5 km, there is suitable habitat in the Project Area.
<i>Calidris subminuta</i>	Long-toed Stint	Mi	R	BDBSA/PMST	2006/Known	Shallow freshwater or brackish wetlands including lakes, swamps, river floodplains, streams, lagoons and sewage ponds (DCCEEW, 2025b).	Possible. Suitable habitat, but no records <20 years old.
<i>Calidris tenuirostris</i>	Great Knot	VU	E	PMST	Known	Sheltered coastal habitats, with large intertidal mudflats or sandflats (DCCEEW, 2025b).	Unlikely. There are no recent records within 5 km and no suitable habitat in the Project Area.
<i>Caperea marginata</i>	Pygmy Right Whale	Mi		PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Carcharias taurus</i>	Grey Nurse Shark	Mi		PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Carcharodon carcharias</i>	White Shark, Great White Shark	VU		PMST	Known	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Caretta caretta</i>	Loggerhead Turtle	EN		PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Cereopsis novaehollandiae novaehollandiae</i>	Cape Barren Goose	-	R	BDBSA	2018	Pastures, salty ground with native succulents, margins of fresh or brackish swamps and lakes.	Likely. Recorded recently and habitat is suitable.
<i>Charadrius bicinctus</i>	Double-banded Plover	Mi	-	PMST	Known	Estuarine and fresh or saline terrestrial wetlands and also saltmarsh, grasslands and pasture (DCCEEW, 2025b).	Possible. Although there are no records within 5 km, there is suitable

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
							habitat in the Project Area.
<i>Charadrius leschenaultii</i>	Greater Sand Plover, Large Sand Plover	VU	-	PMST	Likely	Almost entirely coastal, inhabiting littoral and estuarine habitats (DCCEEW, 2025b).	Unlikely. No nearby records and no estuarine habitat.
<i>Charadrius mongolus</i>	Lesser Sand Plover, Mongolian Plover	EN	-	PMST	Known	Extensive, freshly-exposed areas of intertidal sandflats and mudflats in estuaries or beaches, or in shallow ponds in saltworks (DCCEEW, 2025b)	Unlikely. No nearby records and no estuarine or beach habitat.
<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel	Mi	-	PMST	Known	Usually inhabit flat, open, semi-arid or arid grasslands, where the grass is short and sparse, and interspersed with hard, bare ground, such as claypans, dry paddocks, playing fields, lawns and cattle camps (DCCEEW, 2025b).	Unlikely. No nearby records and no suitable habitat in the Project Area.
<i>Chelonia mydas</i>	Green Turtle	VU	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Cladorhynchus leucocephalus</i>	Banded Stilt	-	V	BDBSA	2023	Shallow salt lakes, saltmarshes, tidal mudflats, salt fields.	Highly likely. Recent records within 5 km and suitable habitat occurs in the Project Area.
<i>Coturnix ypsilophora australis</i>	Brown Quail	-	V	BDBSA	2020	Tall grasses near wetlands, drains, green pastures. Swampy coastal heaths, tall grasslands, spinifex savannah.	Unlikely. No suitable habitat in Project Area.
<i>Dermochelys coriacea</i>	Leatherback Turtle	EN	-	PMST	Known	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Diomedea antipodensis</i>	Antipodean Albatross	VU	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Diomedea epomophora</i>	Southern Royal Albatross	VU	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Diomedea exulans</i>	Wandering Albatross	VU	-	PMST	Likely	N/A - Marine	Unlikely.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
							No suitable marine habitat.
<i>Egretta garzetta nigripes</i>	Little Egret	-	R	BDBSA	2023	Tidal mudflats, saltmarshes, freshwater wetlands.	Highly likely. Nearby recent records and suitable habitat.
<i>Egretta sacra sacra</i>	Pacific Reef Heron	-	R	BDBSA	2012	Islands, rocky shores, exposed reefs, beaches and mangroves.	Unlikely. No suitable habitat.
<i>Eubalaena australis</i>	Southern Right Whale	EN		PMST	Known	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Falco subniger</i>	Black Falcon	-	R	BDBSA	2019	Plains, grasslands, foothills, timbered watercourses and wetland environments.	Likely. Black Falcon might hunt over the Project Area.
<i>Gallinago hardwickii</i>	Latham's Snipe	VU	R	BDBSA/PMST	2001/Known	Open, freshwater wetlands with low, dense vegetation (e.g. swamps, flooded grasslands or heathlands, around bogs and other water bodies) (DCCEEW, 2025b).	Unlikely. There is no suitable habitat in the Project Area.
<i>Gallinago megala</i>	Swinhoe's Snipe	Mi	-	PMST	Likely	Dense clumps of grass and rushes round the edges of fresh and brackish wetlands (DCCEEW, 2025b).	Unlikely. There is no suitable habitat in the Project Area.
<i>Gallinago stenura</i>	Pin-tailed Snipe	Mi	-	PMST	Likely	Edges of shallow freshwater swamps, ponds and lakes with emergent, sparse to dense cover of grass/sedge or other vegetation (DCCEEW, 2025b).	Unlikely. There is no suitable habitat in the Project Area.
<i>Grantiella picta</i>	Painted Honeyeater	VU	R	PMST	Likely	Inhabits mistletoes in eucalypt forests/woodlands, riparian woodlands of Black Box and River Red Gum, Box-Ironbark-Yellow Gum woodlands, acacia-dominated woodlands (DCCEEW, 2025b).	Unlikely. No nearby records and no suitable habitat in the Project Area.
<i>Hieraaetus morphnoides</i>	Little Eagle	-	V	BDBSA	2019	Plains, foothills, open forests, woodlands and scrublands.	Unlikely. The Project Area contains no suitable habitat.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Hirundapus caudacutus</i>	White-throated Needletail	VU	V	BDBSA/PMST	2012/Known	In Australia, the White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground (DCCEEW, 2025b).	Unlikely. Although it might occur in the airspace over the Project Area, it is unlikely to use terrestrial habitats.
<i>Lagenorhynchus obscurus</i>	Dusky Dolphin	Mi	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Lamna nasus</i>	Porbeagle, Mackerel Shark	Mi	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Lewinia pectoralis</i>	Lewin's Rail	-	V	BDBSA	1997	Swamp woodlands, rushes, reeds, tall grasses in swamps and creeks. Samphire in saltmarshes.	Possible. Habitat is suitable, but the species has not been recorded within 5 km of the Project Area in more than 20 years.
<i>Limicola falcinellus</i>	Broad-billed Sandpiper	Mi	-	PMST	Known	Estuarine mudflats but also occasionally occur on saltmarshes, shallow freshwater lagoons, saltworks and sewage farms, and in areas with large soft intertidal mudflats, which may have shell or sandbanks nearby.	Unlikely. No nearby records and no suitable habitat in the Project Area.
<i>Limosa lapponica</i>	Bar-tailed Godwit	Mi	-	PMST	Known	Large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays. It has been sighted in coastal sewage farms and saltworks, salt lakes and brackish wetlands (DCCEEW, 2025b).	Possible. Although there are no nearby records, habitat is suitable.
<i>Limosa limosa melanuroides</i>	Black-tailed Godwit	EN	R	BDBSA/PMST	1996/Known	Sheltered bays, estuaries and lagoons with large intertidal mudflats or sandflats, or spits and banks of mud, sand or shell-grit; occasionally recorded on rocky coasts or coral islets. Near-coastal, wetlands; such as saltmarsh, salt flats, river pools, swamps, lagoons and floodplains (DCCEEW, 2025b).	Possible. Most recent records are >20 years old, but habitat in the Project Area is broadly suitable.
<i>Macronectes giganteus</i>	Southern Giant-Petrel, Southern Giant Petrel	EN	-	PMST	May	N/A - Marine	Unlikely.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
							No suitable marine habitat.
<i>Macronectes halli</i>	Northern Giant Petrel	VU	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Megaptera novaeangliae</i>	Humpback Whale	Mi	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Motacilla cinerea</i>	Grey Wagtail	Mi	-	PMST	May	Near running water in sandy and rocky streams of escarpments and rainforests.	Unlikely. No nearby records and limited habitat available.
<i>Motacilla flava</i>	Yellow Wagtail	Mi		PMST	May	Short grass and bare ground. Swamp margins and sewage ponds, saltmarshes.	Unlikely. No nearby records and limited habitat available.
<i>Neophema chrysostoma</i>	Blue-winged Parrot	VU	V	PMST	Known	<ul style="list-style-type: none"> Grasslands, grassy woodlands and semi-arid chenopod shrubland with native and introduced grasses, herbs and shrubs. Wetlands both near the coast and in semi-arid zones used for foraging and staging. Eucalypt forests and woodlands within the breeding range in Tasmania, coastal southeastern South Australia and southern Victoria. Live and dead trees and stumps with suitable hollows within the breeding range. 	Possible. One element of the species habitat listed opposite occurs in the project area (coastal wetlands). However, there are no recent records within 5 km of the Project Area.
<i>Neophema elegans elegans</i>	Elegant Parrot	-	R	BDBSA	2002	Woodlands, shrublands, open forest. Also, saltbush shrublands, saltmarshes and mallee.	Likely. Habitat in the Project Area is suitable and there are nearby records <40 years old.
<i>Numenius madagascariensis</i>	Eastern Curlew, Far Eastern Curlew	CE	E	PMST	Known	Sheltered intertidal sandflats or mudflats.	Unlikely. No suitable intertidal habitat and no nearby records.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Numenius minutus</i>	Little Curlew	Mi	-	PMST	Known	Open woodlands with a grassy or burnt understorey, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads and airstrips are also used (DCCEEW, 2025b).	Possible. No recent records nearby but habitat might be suitable.
<i>Numenius phaeopus</i>	Whimbrel	Mi	-	PMST	Known	Intertidal mudflats of sheltered coasts. It is also found in harbours, lagoons, estuaries and river deltas, often those with mangroves, but also open, unvegetated mudflats	Unlikely. No suitable intertidal habitat and no nearby records.
<i>Oxyura australis</i>	Blue-billed Duck	-	R	BDBSA	2021	Large, deep, well-vegetated freshwater swamps, lakes and dams.	Unlikely. No suitable habitat in the Project Area.
<i>Pandion haliaetus</i>	Osprey	Mi	E	PMST	Likely	Coastal habitats and terrestrial wetlands with extensive areas of open fresh, brackish or saline water for foraging (DCCEEW, 2025b).	Unlikely. No nearby recent records and no suitable habitat in the Project Area.
<i>Phalaropus lobatus</i>	Red-necked Phalarope	Mi	-	PMST	Known	In Australia it is recorded at both inland and coastal lakes/swamps, including highly saline waters and artificial wetlands notably salt fields.	Unlikely. No nearby recent records and no suitable habitat in the Project Area.
<i>Phoebastria fusca</i>	Sooty Albatross	VU	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Plegadis falcinellus</i>	Glossy Ibis	-	R	BDBSA	2014	Well-vegetated wetlands, mudflats, wet pastures. Freshwater and saline.	Likely. Habitat may be suitable, but there are no nearby records <10 years old.
<i>Pluvialis fulva</i>	Pacific Golden Plover	Mi	R	BDBSA/PMST	1999/Known	Beaches, mudflats and sandflats (sometimes in vegetation such as mangroves, low saltmarsh such as <i>Sarcocornia</i> , or beds of seagrass) in sheltered areas including harbours, estuaries and lagoons, and also in evaporation ponds in saltworks (DCCEEW, 2025b).	Possible. Habitat may be suitable, however there are no nearby records <20 years old.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Pluvialis squatarola</i>	Grey Plover	VU	-	PMST	Known	Large areas of exposed mudflats and beaches of sheltered coastal shores such as inlets, estuaries and lagoons (DCCEEW, 2025b).	Unlikely. No nearby recent records and no suitable habitat in the Project Area.
<i>Podiceps cristatus australis</i>	Great Crested Grebe	-	R	BDBSA	2002	Lakes, large lagoons and swamps. Bays and inlets.	Unlikely. No suitable habitat in Project Area.
<i>Pteropus poliocephalus</i>	Grey-headed Flying-fox	VU	R	BDBSA/PMST	2020/Likely	In 2010 the species established a permanent camp in Botanic Park in Adelaide. Grey-headed flying foxes are herbivores and feed on nectar and pollen from native trees such as eucalypts and banksias, as well as fruit from native and introduced species. They typically travel about 20 km from their camp each night in search of food, although they have been observed travelling >20 km from their camp in search of other food sources.	Unlikely. There are no suitable food trees in the Project Area. Vegetation consists of low shrubland.
<i>Rostratula australis</i>	Australian Painted-snipe	EN	E	BDBSA	2002	Shallow terrestrial freshwater (occasionally brackish) wetlands. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, often with scattered clumps of lignum (<i>Muehlenbeckia</i>) or Canegrass or sometimes tea-tree (<i>Melaleuca</i>).	Unlikely. There is no suitable habitat in the Project Area.
<i>Spatula rhynchotis</i>	Australasian Shoveler	-	R	BDBSA	2021	Large fresh and saline lakes, well-vegetated wetlands.	Unlikely. No suitable habitat in Project Area.
<i>Stagonopleura guttata</i>	Diamond Firetail	VU	V	PMST	Likely	<i>Eucalyptus</i> , <i>Acacia</i> or <i>Casuarina</i> woodlands, open forest and other lightly timbered habitats (DCCEEW, 2025b).	Unlikely. No nearby recent records and no suitable habitat in the Project Area.
<i>Sternula albifrons</i>	Little Tern	VU		PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Sternula nereis nereis</i>	Australian Fairy Tern	VU	E	BDBSA/PMST	2012/Known	N/A - Marine	Unlikely. No suitable marine habitat.

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
<i>Stictonetta naevosa</i>	Freckled Duck		V	BDBSA	2017	Large, well-vegetated swamps.	Unlikely. No suitable habitat in Project Area.
<i>Thalassarche carteri</i>	Indian Yellow-nosed Albatross	VU	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Thalassarche cauta</i>	Shy Albatross	EN	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Thalassarche impavida</i>	Campbell Albatross	VU	-	PMST	May	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Thalassarche melanophris</i>	Black-browed Albatross	VU	-	PMST	Likely	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Thalassarche steadi</i>	White-capped Albatross	VU	-	PMST	Known	N/A - Marine	Unlikely. No suitable marine habitat.
<i>Thinornis cucullatus cucullatus</i>	Eastern Hooded Plover	VU	V	PMST	Known	Wide beaches backed by dunes with large amounts of seaweed and jetsam, creek mouths and inlet entrances (DCCEEW, 2025b).	Unlikely. No suitable habitat in Project Area and no nearby records.
<i>Tringa brevipes</i>	Grey-tailed Tattler	Mi	R	PMST	Known	Sheltered coasts with reefs and rock platforms or with intertidal mudflats. It can also be found at intertidal rocky, coral or stony reefs as well as platforms and islets that are exposed at low tide (DCCEEW, 2025b).	Unlikely. No suitable habitat in Project Area and no nearby records.
<i>Tringa glareola</i>	Wood Sandpiper	Mi	R	PMST	Known	Well-vegetated, shallow, freshwater wetlands, such as swamps, billabongs, lakes, pools and waterholes. They are typically associated with emergent, aquatic plants or grass, and dominated by taller fringing vegetation, such as dense stands of rushes or reeds, shrubs, or dead or live trees (DCCEEW, 2025b).	Unlikely. No suitable habitat in Project Area and no nearby records.
<i>Tringa nebularia</i>	Common Greenshank	EN	-	BDBSA/PMST	2014/Known	Habitats include embayments, harbours, river estuaries, deltas and lagoons and are recorded less often in round tidal pools, rock-flats and	Likely. Nearby records and suitable habitat when

Scientific Name	Common Name	EPBC Act ¹ Status	NPW Act ² Status	Source of Record	Last Sighting (year) / PMST listing	Habitat Requirements	Likelihood of Occurrence in Project Area
						rock platforms. The species uses both permanent and ephemeral terrestrial wetlands, including swamps, lakes, dams, rivers, creeks, billabongs, waterholes and inundated floodplains, claypans and salt flats (DCCEEW, 2025b).	wetland areas are inundated.
<i>Tringa stagnatilis</i>	Marsh Sandpiper	Mi	-	PMST	Known	Permanent or ephemeral wetlands of varying salinity, including swamps, lagoons, billabongs, salt pans, saltmarshes, estuaries, pools on inundated floodplains, and intertidal mudflats and also regularly at sewage farms and saltworks (DCCEEW, 2025b).	Possible. No nearby records, but suitable habitat when wetland areas are inundated.
<i>Tringa totanus</i>	Common Redshank	Mi	-	PMST	Known	Bays, river estuaries, lagoons, inlets and saltmarsh (with bare open flats and banks of mud or sand). They are also found around salt lakes, freshwater lagoons, artificial wetlands and saltworks and sewage farms (DCCEEW, 2025b).	Possible. No nearby records, but suitable habitat when wetland areas are inundated.
<i>Xenus cinereus</i>	Terek Sandpiper	VU	R	BD/BSA/PMST	1996	The species has also been recorded on islets, mudbanks, sandbanks and spits, and near mangroves and occasionally in samphire (DCCEEW, 2025b).	Possible. Nearby records and suitable habitat when wetland areas are inundated.

¹EPBC Act (*Environment Protection and Biodiversity Conservation Act 1999*): CR, Critically Endangered. EN, Endangered. VU, Vulnerable. Mi, Migratory.

²NPW Act (*National Parks and Wildlife Act 1972*): E, Endangered. V, Vulnerable. R, Rare.

