APPENDIX 10
Native Vegetation Report

succession ecology

Native Vegetation Clearance

Gifford Hill Precinct 1B

Data Report

Clearance under the *Native Vegetation Regulations 2017*

5 May 2026

Prepared by Dr C. E. Timothy Paine and Chloe Stevens

Document Specification

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1	17/03/2026	Chloe Stevens	Dr C. E. Timothy Paine	Draft
2	05/05/2026	Chloe Stevens	Dr C. E. Timothy Paine	Final

LIMITATION

This report has been completed in accordance with the relevant federal, state and local legislation and current industry best practice. It has been prepared on behalf of and for the exclusive use of Succession Ecology's client and is subject to and issued in connection with the provisions of the agreement between Succession Ecology and its client. Succession Ecology accepts no liability or responsibility whatsoever for or in respect of any use of or reliance upon this report by any third party.

ACKNOWLEDGEMENT OF COUNTRY

Succession Ecology acknowledges and pays respect to the past, present and future Traditional Custodians and Elders of this nation and the continuation of cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander peoples.

Glossary

AoLA	Atlas of Living Australia
BAM	Bushland Assessment Method
BDBSA	Biological Database of South Australia (maintained by DEW)
DCCEEW	Department of Climate Change, Energy, the Environment and Water (Commonwealth)
DEW	Department of Environment and Water (South Australia)
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
ha	Hectare
IBRA	Interim Biogeographical Regionalisation of Australia
MNES	Matters of National Environmental Significance
NVC	Native Vegetation Council
PMST	Protected Matters Tool
SEB	Significant Environmental Benefits
TEC	Threatened Ecological Community
VA	Vegetation Association

Table of Contents

1. Application information

1.1 Application details

Applicant:	Grange Development		
Key contact:	[redacted]		
Landowner:			
Site Address:	Lot 102 Usher Road, Gifford Hill		
Local Government Area:	Rural City of Murray Bridge	**Hundred:**	170700
Title ID:	CT6294/857, CT6294/855	**Parcel ID:**	D133204AL 104 D133204AL 102

1.2 Summary of proposed clearance

Purpose of clearance	Precinct 1B of the Gifford Hill development covers approximately 143 ha, zoned as Master Planned Neighbourhood, and will include 1244 housing lots. There are patches of remnant vegetation present on site, some of which will be impacted by the proposed development
Native Vegetation Regulation	Regulation 12, Schedule 1, clause 35, Residential subdivision of the *Native Vegetation Act, 1991.*
Description of the vegetation under application	2.25 ha of Mallee woodland dominated by *Eucalyptus porosa.*
Total proposed clearance – area (ha) and number of trees	The proposed clearance is 2.25 ha.
Level of clearance	Level 4.
Overlay (Planning and Design Code)	Native Vegetation Overlay

Map of proposed Clearance Area	
Mitigation hierarchy	***Avoidance*** The proposed clearance is required to facilitate a large residential development and, as such, some level of impact to native vegetation is unavoidable. However, the design has been developed to largely utilise areas that were previously cleared for agriculture, thereby minimising impacts to remnant vegetation. Clearance is confined to a strip of vegetation between two large paddocks in the Project Area. Vegetation Association VA1b to the west and Vegetation Association VA2 to the north will be retained and managed for conservation purposes. ***Minimization*** Site assessments have been undertaken and incorporated into the planning of infrastructure works and the Gifford Hill Landscape Masterplan to ensure the minimum amount of vegetation disturbance. Native vegetation is to be retained and conserved where possible.
SEB Offset proposal	A payment of $56,595.50 (incl. Admin fee $3,112.75) = $59,708.25 into the Native Vegetation Fund.

2. Purpose of clearance

2.1 Description

Gifford Hill is a joint venture between Grange Development and Costa Property Group. At 1,860 hectares, the development will be the largest master-planned community in South Australia. It will be home to 44,000 residents over the next four decades and is located between Mount Barker and Murray Bridge. The project will deliver 17,100 total dwellings, with 14,000 of those being residential allotments (Figure 1).

An initial stage of Gifford Hill is Precinct 1B, for which a lodgement of land division and planning consent application will shortly be submitted, which will also result in a boundary realignment for 1C (Figures 1 and 2). Precinct 1B covers approximately 143 ha, zoned as Master Planned Neighbourhood, and will include 1,244 housing lots. There are patches of remnant vegetation present on site, some of which will be impacted by the proposed development. An application for the clearance of Native Vegetation will therefore be required under the *Native Vegetation Act 1991* (SA*; NV ACT*).

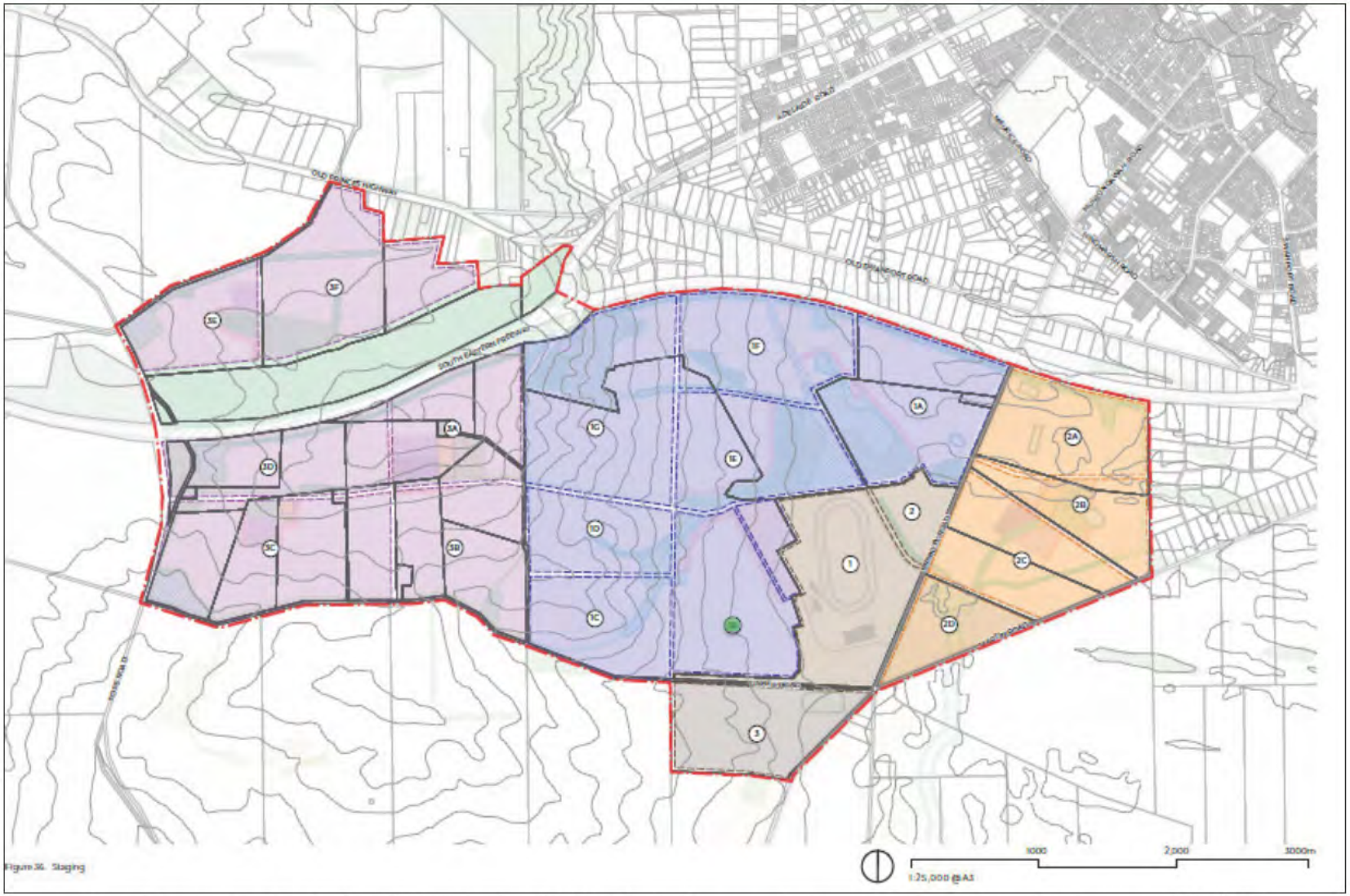

Figure 1: Proposed staging plan for Gifford Hill. Precinct 1B is highlighted with a green dot. Imagery supplied by Grange Development on 28/10/2025.

2.2 General location

The Project area is located along Usher Road in Gifford Hill, SA and lies adjacent to the Murray Bridge Racecourse, which is situated east of the site. An uphill training track is located immediately to the south of the site (Figure 2). The Project area forms part of a semi-rural landscape characterised by open cultivated paddocks and scattered patches of remnant vegetation.

Figure 2: Gifford Hill Precinct 1B Project Area.

2.3 Background

2.3.1 Administrative Boundaries

The Project is sited within the Rual City of Murray Bridge Local Government Association and the Murraylands and Riverland Landscape Board. It is located within the Loydella IBRA Association, the Murray Darling Depression Region and the Murray Mallee Subregion (Department of Environment and Water SA 2020).

2.3.2 Local and Regional Land Use

Land use surrounding the Project Area is comprised of intensive irrigated horticulture, rural residential, open pasture and grazing land, and patches of remnant native vegetation. Murray Bridge Racing Club is situated to the east, with an uphill sand track running adjacent to the south boundary along Usher Road. The site falls under the Rural Overlay.

2.3.3 Native Vegetation Remnancy

The local area contains a low level of remnant vegetation with only 5 % of remnancy mapped within 5 km of the site (statistic derived from NatureMaps; (NatureMaps 2022). The Loydella IBRA Association contains 9 % remnancy, with 37 % protected (Native Vegetation Council 2024a).

2.3.4 Associated Development

Precincts 1B and 1C are the first to be developed within Stage 1 of Gifford Hill. A further three Stages, totalling approximately 1,900 ha, are to be developed over the next 50 years. The Gifford Hill Landscape Plan aims to conserve existing landscape ecologies and expand connections within and beyond the site to for regional biodiversity (Figure 3). Directly north of the racetrack, northwest of Precinct 1B, a waterway will be developed through part of the vegetation patch leading to a large drainage basin (Figure 3). This will be assessed under a separate native vegetation clearance application.

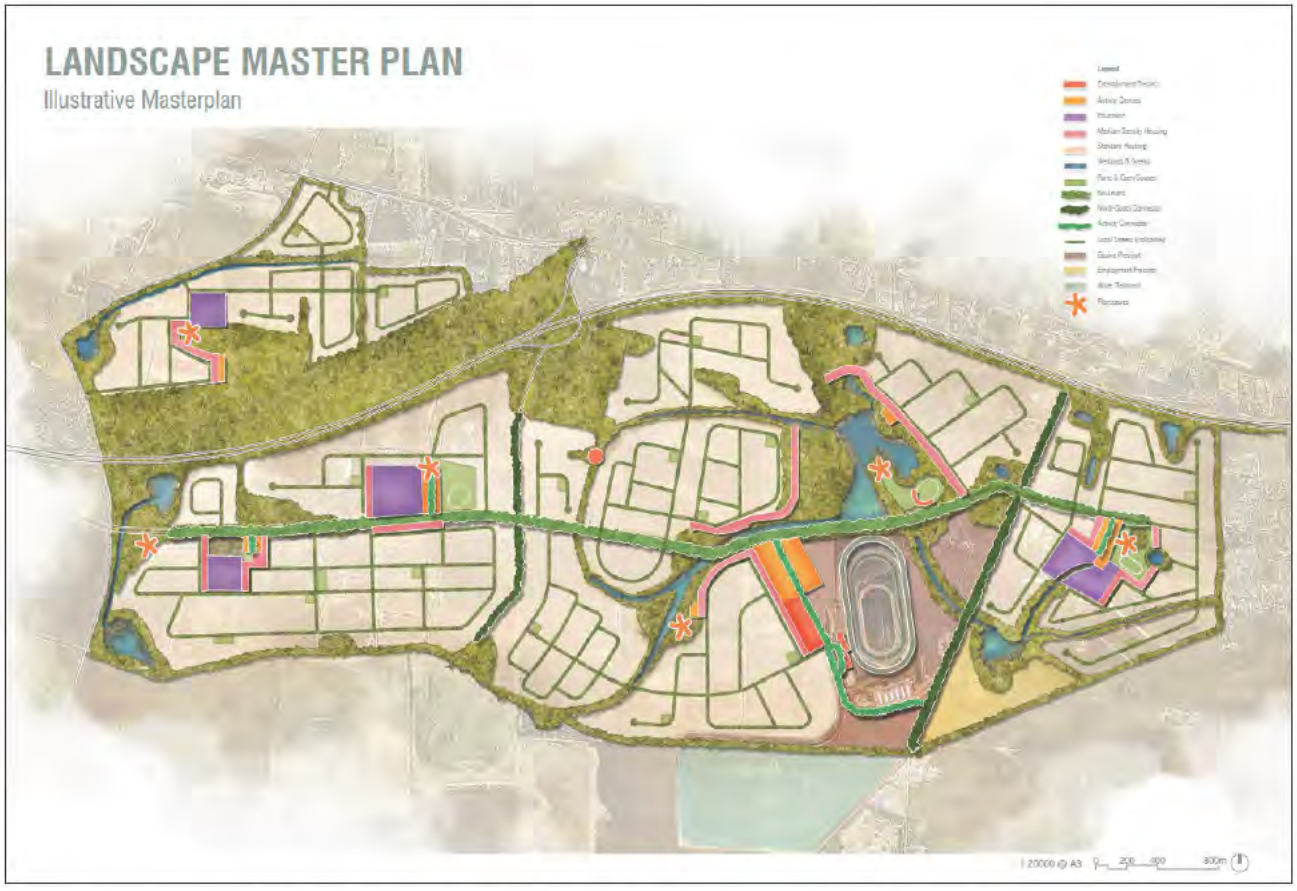

Figure 3: Landscape Master Plan for the whole of Gifford Hill. Illustration supplied by Grange Development 20/02/2026.

2.4 Details of the proposal

Precinct 1B will include the development of 1,244 housing lots, two local parks, a conservation area, connector trails linking to the connector roads throughout the precinct, and major and primary centres (Figure 4). Two access tracks will be developed along Usher Road, utilising existing access points.

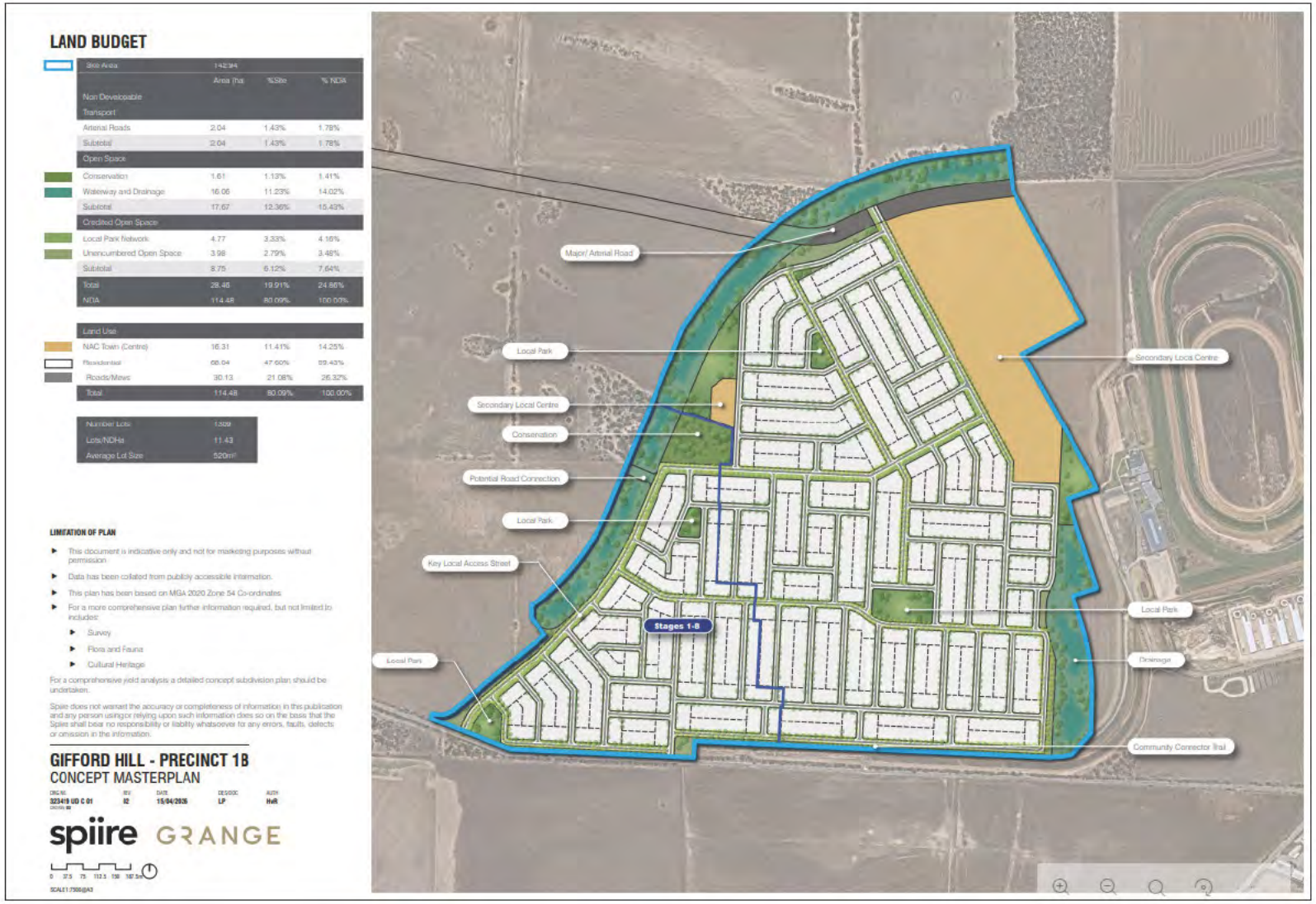

Figure 4: Gifford Hill Precinct 1B Zoning Plan. Imagery provided by Ekistics on 27/04/2026

2.5 Approvals required or obtained

The project is subject to the *Native Vegetation Act, 1991.*

No other approvals with regards to native vegetation clearance are required.

2.6 Native vegetation regulation

The proposed clearance will be assessed under Regulation 12, Schedule 1, clause 35, Residential subdivision of the *Native Vegetation Act, 1991*.

2.7 Development Application Information

The site is located within the Rural Zone. The following Planning and Design Overlays apply to the Project Area.

- Affordable Housing
- Hazards (Bushfire – General)
- Hazards (Flooding – Evidence Required)
- Murray-Darling Basin
- Major Urban Transport Routes
- Native Vegetation
- Non-stop Corridor
- Significant Retirement Facility Supported Accommodation Sites
- Water Resources

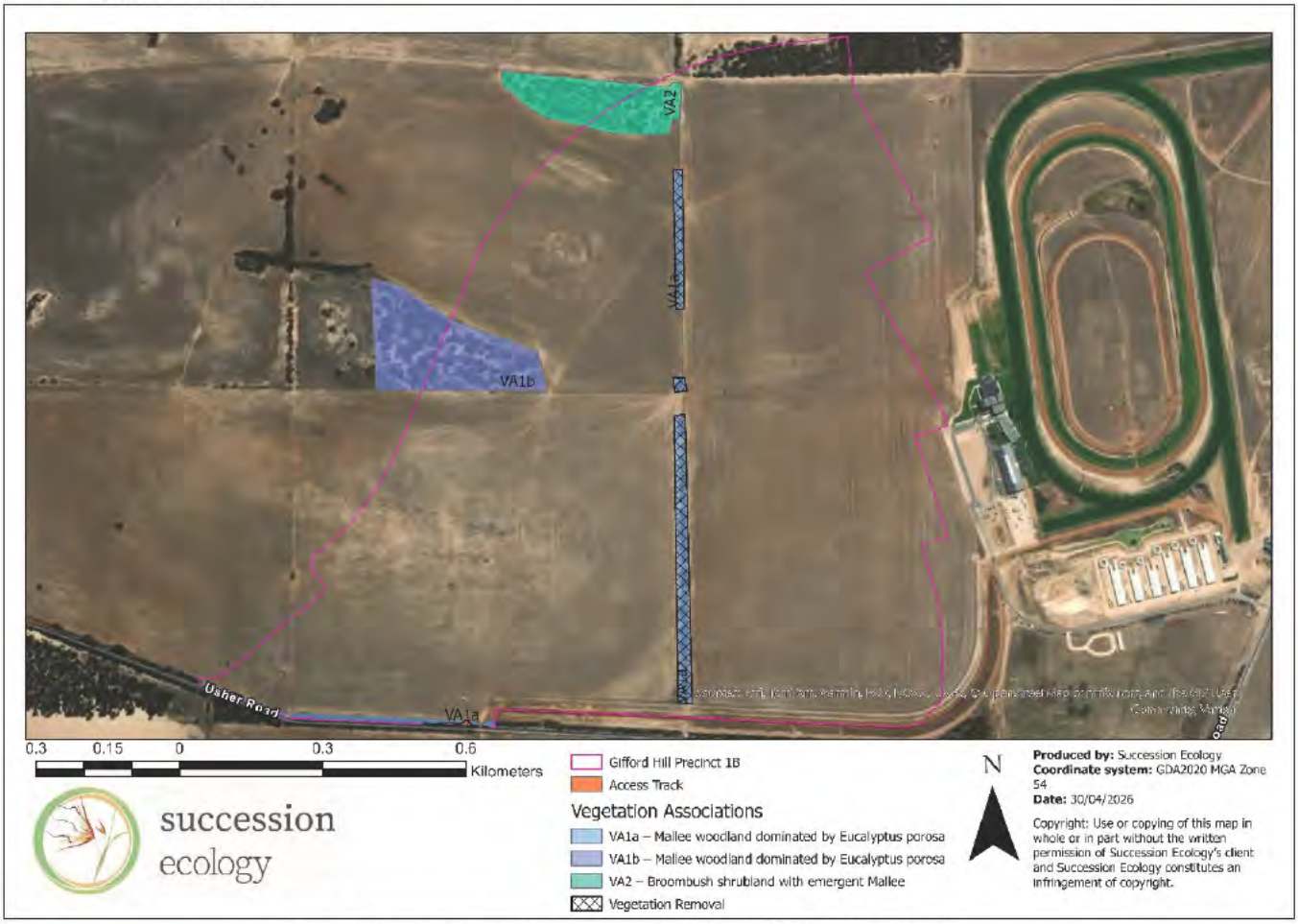

Figure 5: Vegetation associations assessed within Gifford Hill Precinct 1B.

3. Method

3.1 Flora and Fauna assessment

3.1.1 Desktop assessment

A desktop assessment was conducted to undertake preliminary mapping of native vegetation protected under the *NV Act 1991* via the NatureMaps tool. This mapping was used to plan the assessment and inform the field methodology.

The desktop assessment was also undertaken to determine the threatened ecological communities, flora species, and fauna species that potentially occur in the area. Communities and species were evaluated as threatened if they were listed under the *National Parks and Wildlife (NPW) Act 1972* and/or the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999*, as outlined below:

- ***NPW Act 1972***
  - Schedule 7 – Endangered Species
  - Schedule 8 – Vulnerable Species
  - Schedule 9 – Rare Species
- ***EPBC Act 1999***

Part 13 – Species and communities – Division 1- Listed threatened species and ecological communities – Subdivision A – Listing – 178 Listings of threatened Species

  - Section 178 (c) – Critically Endangered
  - Section 178 (d) – Endangered
  - Section 178 (e) – Vulnerable

Threatened communities and species were evaluated if they had been recorded within 5 km of the project site since 1995 or were considered 'known' to occur within the search area via the Protected Matters Search Tool.

Databases searched during the desktop assessment included:

- Protected Matters Search Tool (PMST): to identify Matters of National Environmental Significance (MNES) under the *EPBC Act 1999,* including nationally threatened species and ecological communities, 'known' to occur in the search area.
- NatureMaps: to identify records of threatened flora and fauna listed under either the *NPW Act 1972* or *EPBC Act 1999*, recorded since 1995 within the search area.
- Biological Database of South Australia: to identify threatened flora and fauna listed under either the *NPW Act 1972* or *EPBC Act 1999*, recorded since 1995 within the search area that have restricted access to distribution data.
- Atlas of Living Australia (AoLA): to identify threatened flora and fauna listed under either the *NPW Act 1972* or *EPBC Act 1999*, recorded since 1995 within the search area. Records from 'citizen science' initiatives are excluded from results.
- Appendices in the NVC Bushland and Scattered Tree Assessment Manuals: to determine scattered trees species that provide suitable habitat for threatened fauna and threatened ecological communities protected under *NPW Act 1972*.
- List of rare and threatened vegetation communities in South Australia's agricultural regions: to identify threatened and rare ecosystems of the agricultural regions. This list has been revised by Native Vegetation Branch (March 2026) from the previous list found in Appendix 11 of the Bushland Assessment Manual, including the DEH 2001 provisional list of threatened ecosystems.

A likelihood of occurrence/habitat use assessment was carried out for threatened communities, fauna and flora species identified during the Desktop Assessment. The likelihood of these species using the site following the metric described in Table 1.

The distribution of vegetation associations were assessed using satellite imagery and vegetation community data obtained through NatureMaps. All maps were generated using ArcGIS Pro.

Table 1: Criteria for the likelihood of occurrence/habitat use of species within the survey area.

Likelihood	Criteria
Highly Likely/Known	Recorded in the last 10 years, the species does not have highly specific niche requirements, the habitat is present and falls within the known range of the species distribution or The species was recorded as part of field surveys.
Likely	Recorded within the previous 20 years, the area falls within the known distribution of the species and the area provides habitat or feeding resources for the species.
Possible	Recorded within the previous 20 years, the area falls inside the known distribution of the species, but the area provides limited habitat or feeding resources for the species. Recorded within 20–40 years, survey effort is considered adequate, habitat and feeding resources present, and species of similar habitat needs have been recorded in the area.
Unlikely	Recorded within the previous 20 years, but the area provides no habitat or feeding resources for the species, including perching, roosting or nesting opportunities, corridor for movement or shelter. 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.

3.1.2 Field Survey

Vegetation surveys were conducted on 12th November 2025 and 2nd March 2026. Ground truthing of vegetation communities identified in the desktop assessment was carried out and the vegetation subject to clearance was surveyed using the Bushland (Native Vegetation Council 2024a) as appropriate. Careful inspection was undertaken to identify any threatened flora and threatened fauna species known to occur in the region.

All field datasheets were entered into excel scoresheets. Data cleaning was then undertaken to merge some into a single scoresheet (for vegetation associations where multiple assessments were conducted), to simplify the data output. Decisions on what field datasheets to merge were made based on the similarity of species observed within the vegetation associations.

The level of clearance has been assessed as a level 4, which would require a formal fauna assessment. However, only one species, *Corcorax melanorhamphos* (White-winged Chough) listed under the *NPW Act* as Rare was identified during the desktop assessment as Likely to utilise the Project area as habitat. This species was not observed during either field survey, and the vegetation proposed to be cleared is unlikely to represent important habitat for their persistence.

3.1.3 Limitations

Limitations are inherent in all field surveys, as seasonal timing can influence detectability, including whether plants are in flower and when species are most active (e.g. during breeding periods). The first survey conducted on the 12 November 2025 was during late spring, an appropriate time to observe many threatened species; however, it did not occur at the optimal season for detection of some threatened species, such as *Caladenia tensa* (Greencomb Spider-orchid). The second survey, conducted on 2 March 2026, took place in early autumn, when vegetation is typically drying off following summer and relatively few genera remain in flower. These seasonal conditions may have further reduced the likelihood of detecting certain species.

4. Assessment outcomes

4.1 Vegetation assessment

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

IBRA Regions

The Project area falls within the Loydella IBRA Association, the Murray Darling Depression Region and the Murray Mallee Subregion (Department of Environment and Water SA 2020). A description of the Murray Darling Depression Region is presented in Table 2.

The Murray Darling Depression IBRA Region is an extensive, gently undulating sand and clay plain of Tertiary and Quaternary age, often overlain by aeolian dunes. Vegetation includes semi-arid woodlands dominated by Black Oak/Belah, Bullock Bush/Rosewood and various Acacia species, along with mallee shrublands, heathlands and savanna woodlands. More than three quarters of the native vegetation in the Murray Malle in South Australia has been removed to make way for agricultural production. At least half of the remnant mallee remaining occurs within the Billiat and Ngarkat Conservation Parks.

Table 2: Description of the Murray Mallee IBRA Region (Thackway and Cresswell, 1995).

Characteristic	Description
Landform	Plains with variable dune cover, from dune formations with relatively small plains between to plains with isolated tracts of dunes. Claypans, saline soils, swamps, and intermittent lakes in low-lying areas.
Geology	Exposed caliche & crusty loamy soils; colluvial sand, silt, clay and gravel along foot slopes of Olay Spur. Evaporite deposits; gypsum & halite.
Soil	Brown calcareous earths, highly calcareous loamy earths, Cracking clays, yellow grey, Hard setting loamy soils with red clayey subsoils.
Vegetation	Mallee Woodland and Shrubland.
Climate	E6: Semi-arid climate that is too dry to support field crops. Soil moisture tends to be greatest in winter.

Vegetation Overview

The vegetation within Gifford Hill Precinct 1B has been extensively modified for agricultural use, resulting in remnant patches persisting within a predominantly cleared and farmed landscape. Two vegetation associations were identified across the project area: VA1 – Mallee woodland dominated by *Eucalyptus porosa*, and VA2 – Broombush shrubland with emergent mallee.

VA1 was further divided into two condition classes, VA1a and VA1b. VA1a supported a higher-quality native understory with comparatively low weed incursion, and trees appeared in relatively good condition. In contrast, VA1b was characterised by greater weed presence, reduced native understory diversity, and mallee individuals exhibiting poorer overall health. VA1a occurred along Usher Road and in the linear strip in the centre of the Project area. VA1b and VA2 occurred in patches to the west and north of the Project area, respectively. Neither VA1b nor VA2 will be impacted by the proposed development, but rather will be retained within the development as reserve area. As a result, they are not discussed further in this Data Report. No scattered trees were recorded within the Project area.

All vegetation associations, with the exception of the roadside vegetation, have been subject to sheep grazing. Grazing pressure has contributed to a reduction in native understory cover and diversity, particularly within VA1b and VA2.

Several environmental weeds were recorded across all associations, including Cape Weed (*Arctotheca calendula),* Bridal Creeper (*Asparagus asparagoides*), and African Boxthorn (*Lycium ferocissimum*). Each of these species is declared under the *Landscape South Australia Act 2019* (*LSA Act 2019*). One threatened species listed as Rare under the *NPW Act 1972*, which was not identified in the desktop assessment, was recorded during the field survey along Usher Road: Mallee Bitter-pea (*Daviesia devito*). Only a single individual was observed, which will not be impacted by the proposed access tracks.

A full list of species identified during the field survey is presented in Appendix A.

4.1.2 Details of the vegetation associations and scattered trees proposed to be impacted

Vegetation Association	VA1a: Mallee woodland dominated by *Eucalyptus porosa*

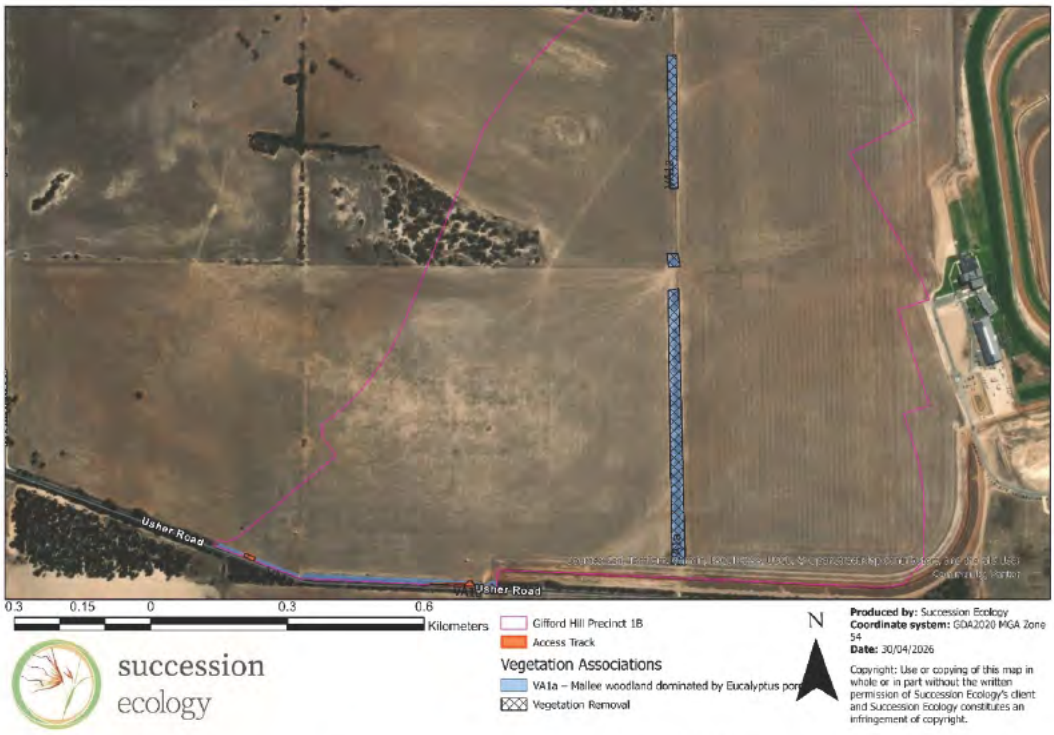

Figure 6: Bushland Assessment area for VA1a.

Figure 7: The southwest corner of Gifford Hill Precinct 1B, showing the location of two access points off Usher Road.

Vegetation Association	VA1a: Mallee woodland dominated by *Eucalyptus porosa*

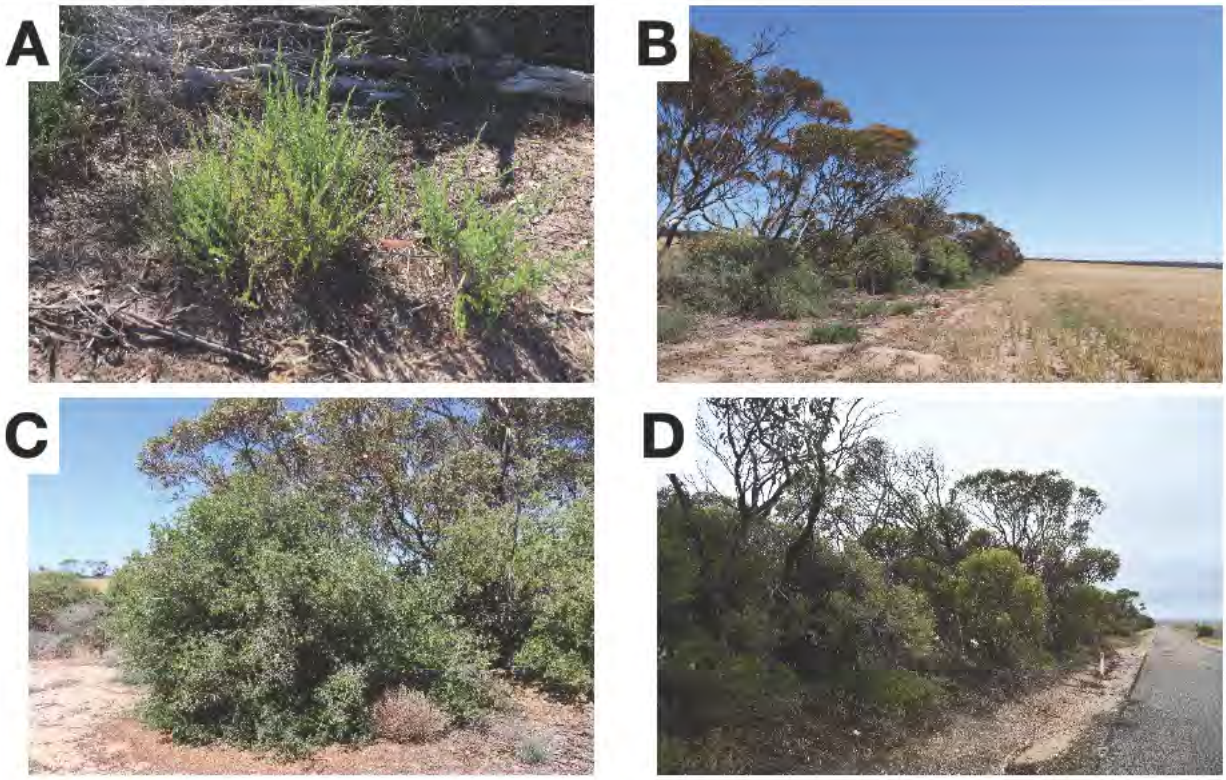

Figure 8: Overview site images in VA1a. (A) *Enchylaena tomentosa*. (B) Strip of Mallee woodland within cultivated farmland. (C) Declared African Boxthorn (*Lycium ferocissimum*). (D) Mallee woodland along Usher Road.

General description	VA1a is dominated by *Eucalyptus porosa* with a sparse *Enchylaena tomentosa* and *Marieana brevifolia* understory. A considerable amount of the declared weed African Boxthorn (*Lycium ferocissimum*) is present. The strip of native vegetation in the centre of the Project area follows a fenceline separating two cultivated paddocks, where sheep grazing has occurred previously. Weeds were abundant throughout, particularly Common Ice Plant (*Mesembryanthemum crystallinum*), which was regenerating across the entire VA and African Boxthorn (*Lycium ferocissimum*). Numerous mallee trees contained bird nests. The mallee trees are of mixed ages and do not occur in rows, indicating that it is not a planted windbreak but rather, remnant vegetation. The benchmark community selected for this VA is MDBSA 2.1 Open Mallee/Low Open Woodland with a Chenopod Shrub Understory. In both VA1a and VA1b, the species diversity was similar, with the exception of Sticky Hop Bush (*Dodonaea viscosa*) and Reed-leaf Wattle (*Acacia euthycarpa*), which were recorded only in VA1b. The primary distinction between the two, however, is their condition: VA1a supports a more intact native understorey, with lower weed density, and is in overall better ecological condition.
Threatened species or community	**Threatened Ecological Communities** Of the four threatened ecological community (TEC) identified during the desktop assessment: Peppermint Box (*Eucalyptus odorata*) Grassy Woodlands of South Australia, Plains Mallee Box Woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain Bioregions,

Vegetation Association	VA1a: Mallee woodland dominated by *Eucalyptus porosa*
	and River Murray downstream of the Darling River, and associated aquatic and floodplain systems. No Threatened Ecological Communities were observed in the Project Area during the field surveys. **Threatened Fauna** The desktop search identified a total of 19 threatened fauna species within the search area. Thirteen listed under the *EPBC Act 1999* and six further fauna listed as threatened under the *NPW Act 1972*. These species are discussed further in section 4.2.2. Of these, one species was considered likely to occur within VA1a: *Corcorax melanorhamphos* (White-winged Chough); NPW Act (R) No threatened fauna species were identified during the field survey. **Threatened Flora** The desktop search identified a total of nine threatened flora species within the search area; five listed under the *EPBC Act 1999* as known, or have habitat known to occur and four further flora listed as threatened under the *NPW Act 1972*. These species are discussed further in section 4.2.2. One threatened species listed as Rare under the *NPW Act 1972* but not identified in the desktop assessment was observed during the field survey along Usher Road: Mallee Bitter-pea (*Daviesia devito*). Only one individual was observed and will not be impacted by access tracks.

Landscape context score	1.12	**Vegetation Condition Score**	28.60	**Conservation significance score**	1.14
Unit Biodiversity Score	36.52	**Area (ha)**	2.25	**Total Biodiversity Score**	82.17

NPW Act; E= Endangered, V = Vulnerable, R= Rare
EPBC Act; Ex = Extinct, CR = Critically endangered, EN = Endangered; VU = Vulnerable

Photo log

Additional site photos are presented in Appendix B.

4.2 Threatened species assessment

4.2.1 Threatened ecological communities

A Protected Matters Search identified four Threatened Ecological Communities likely to be located within the Project area: Peppermint Box (*Eucalyptus odorata*) Grassy Woodlands of South Australia, Plains Mallee Box Woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain Bioregions, and River Murray downstream of the Darling River, and associated aquatic and floodplain systems. No Threatened Ecological Communities were observed in the Project Area during the field survey.

4.2.2 Threatened fauna

The desktop search identified a total of 19 threatened fauna species within the search area. Thirteen listed under the *EPBC Act 1999* and six further fauna listed as threatened under the *NPW Act 1972*. Of these species, seven species listed under the *EPBC Act 1999* and seven further species listed under the *NPW Act 1972* have been included in the likelihood of use assessment (Table 3), using the site following the metric described in Table 1. The remaining six species identified, but not considered relevant to this assessment, are presented in Appendix C. None of the threatened fauna species identified within the desktop search were identified within the Project area. Records of the one threatened species with a likelihood of occurrence of likely or above are shown in Figure 7 and are discussed below.

Corcorax melanorhamphos (White-winged Chough); NPW Act (R) – Likely

White-winged Chough are large black birds with a distinctively curved beak, a red eye, and a large white wing patch, which is visible in flight. The species is strongly social, often occurring in flocks of up to 20 birds. Flocks can comprise breeding adults as well as non-breeding helpers, which can be young from previous years' broods (DEH 2014). The species is widespread across the east and southeast of Australia (Figure 9). They inhabit woodland areas including mallee and prefer areas with leaf litter where they forage for insects, suitable native shrubs with seeds for feeding as well as mud for nest building (DEH 2014).

Threats

White-winged Chough is threatened by predation from invasive predators as well as removal of habitat and feeding resources (DEH 2014). The species persists in remnant woodland areas within a farmland matrix, indicating that the species is capable of dispersing across open areas (DEH 2014).

Local populations

The project site contains little required habitat features for this species. Most observations have been recorded in conservation parks, forestry plantations, and the immediate adjacent farmlands. The species is known to inhabit agricultural areas with remnant scattered trees that represent an open woodland. The Project Area is near Monarto Woodlands Conservation Park, which would enable the species to travel to and between sites.

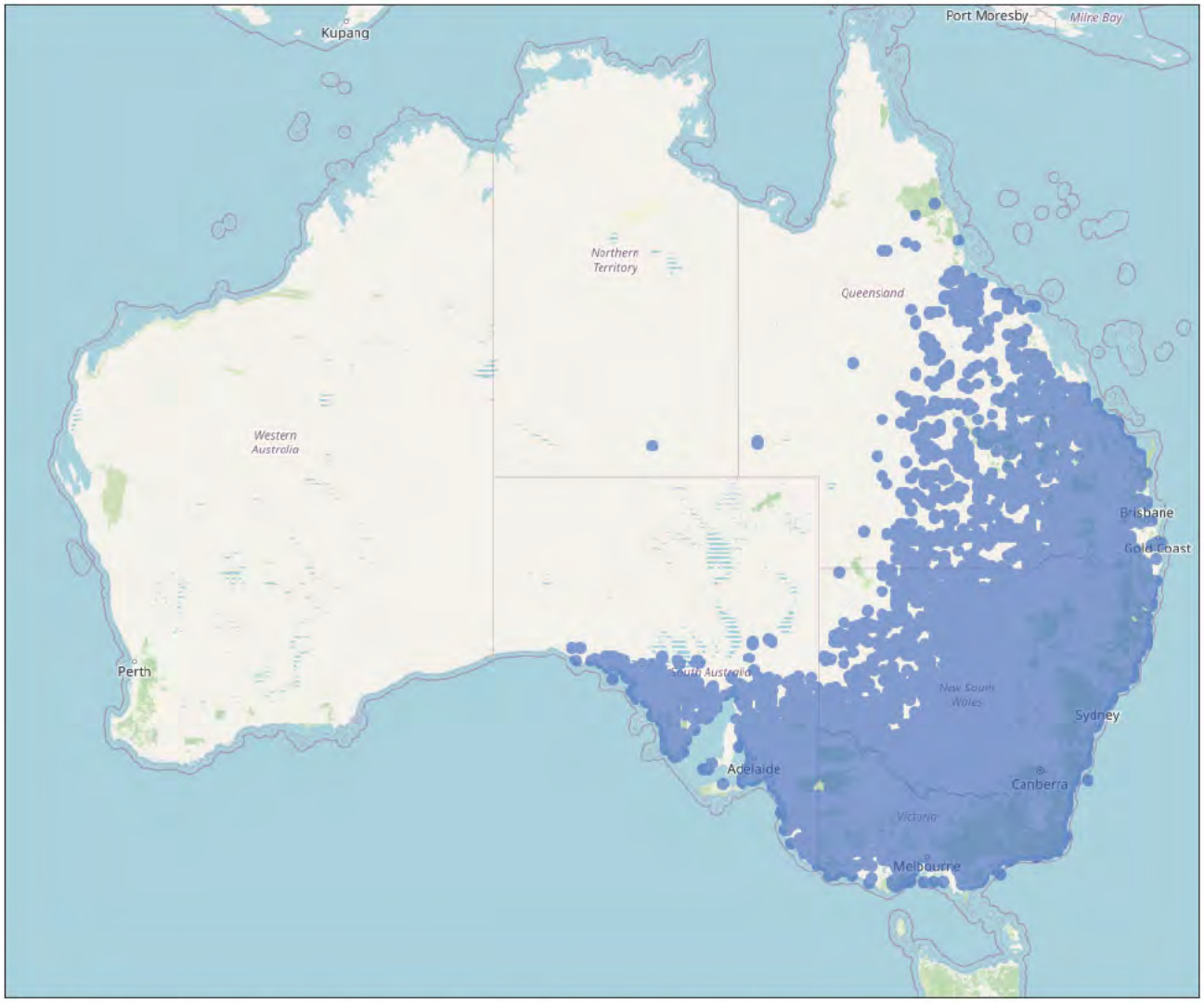

Figure 9: The Australian distribution of White-winged Chough. Record obtained from Atlas of Living Australia on 02/03/2026.

Table 3: A summary of the fauna species observed on site or recorded within 5 km of the Project area since 1995, or those listed as known to occur in the PMST.

Species (common name)	NPW Act	EPBC Act	Data source	Year of last record	Species known habitat preferences	Likelihood
AVES						
Aphelocephala leucopsis (Southern Whiteface)		VU	5		Wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains (Birdlife Australia 2023a).	Unlikely – No observations within 5 km since 1995.
Calidris acuminata (Sharp-tailed Sandpiper)		VU	5		Prefers muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline saltlakes inland. They also occur in saltworks and sewage farms. They use flooded paddocks, sedgelands and other ephemeral wetlands, but leave when they dry (DCCEEW 2016).	Unlikely – No observations within 5 km since 1995.
Corcorax melanorhamphos (White-winged Chough)	R		2, 3	2018	Woodland and tall mallee, with a preference for wetter areas with leaf-litter for feeding and mud for building nests (Birdlife Australia 2024).	**Likely** – 36 observations within 5 km. Most recent observation was 4 km to the northwest in 2018. Closest observation since 1995 was 4 km to the west. Some suitable habitat in project area.
Gallinago hardwickii (Latham's Snipe)		VU	5		Inhabit open, freshwater wetlands with low, dense vegetation (e.g. swamps, flooded grasslands or heathlands, around bogs and other water bodies) (Birdlife Australia 2023b).	Unlikely – No observations within 5 km since 1995.
Hieraaetus morphnoides (Little Eagle)	V		3	2008	Seen over woodland, forested land and open country. Avoids heavy forest. (Birdlife Australia 2021a).	Possible – No observations within 5 km since 1995.
Lichenostomus cratitius occidentalis (Purple-gaped Honeyeater)	R		2, 3	2019	Mallee heathlands with occasional recordings in mallee with open understorey and River Red Gums along waterways (DPIE 2017).	Possible – One observation within 5 km. Closest and most recent observation was 2.8 km to the northwest in 2019. Some suitable habitat in project area.
Manorina flavigula melanotis (Yellow-throated Miner (complex))	EN	EN	3	2012	Restricted to old growth mallee eucalypt woodland (DEH 2021).	Unlikely – No observations within 5 km since 1995.
Melanodryas cucullata cucullata (Hooded Robin)	R	EN	3, 5	2012	Dry eucalypt and acacia woodlands and shrublands with an open understorey, some grassy areas and a complex ground layer. Species avoids woodlands with tall trees or dense tree cover but sometimes occur in tall, dense heaths with scattered open areas. Known to occur in patches as small as 2.9 ha (DCCEEW 2023a)	Possible – Closest observation is 1.5 km southeast in 2012. Some suitable habitat in project area.

Species (common name)	NPW Act	EPBC Act	Data source	Year of last record	Species known habitat preferences	Likelihood
AVES						
Melithreptus gularis gularis (Black-chinned Honeyeater)	V		3	2016	Occupy dry Eucalypt woodland with an annual rainfall range of 400-700 mm, particularly associations containing ironbark and box. Favoured habitats incorporate a mixture of mature and regenerating woodland Eucalypts, although adjacent scattered paddock trees are also used (DEH 2008).	Unlikely – No observations within 5 km since 1995.
Neophema chrysostoma (Blue-winged Parrot)		VU	5		Woodlands, coastal heaths and grasslands (DCCEEW 2023b).	Unlikely – No observations within 5 km since 1995.
Plectorhyncha lanceolata (Striped Honeyeater)	R		2	2003	Found in forests and woodlands often along rivers (Birdlife Australia 2021b).	Possible – 17 observations within 5 km. Closest and most recent observation was 4.9 km to the west in 2003. Some suitable habitat in project area.
Stagonopleura guttata (Diamond Firetail)	V	VU	3, 5	2023	Populations unlikely to occur or persist in patches less than 200 hectares (DCCEEW 2023c).	Possible – Closest observation was 1.5 km south in 1999. Most recent was to the west in 2013. Some suitable habitat in project area.
Strepera versicolor (Grey Currawong)	E		3	2019	Known to occur in the far NW corner of the State (Atlas of Living Australia 2021a).	Unlikely – No observations within 5 km since 1995.
MAMMALIA						
Trichosurus vulpecula (Common Brushtail Possum)	R		2, 3	2019	Inhabits woodland, forests, heath and urban areas using trees with hollows for nesting (Australian Museum 2022).	Unlikely – One observation within 5 km. Closest and most recent observation was 4 km to the northwest in 2019. No suitable habitat in project area.

Sources 1- BDBSA, 2- ALA, 3- NatureMaps, 4- Observed/recorded in the field, 5- Protected matters search tool, 6- Other
NP&W Act: E- Endangered, V- Vulnerable, R- Rare
EPBC Act: Ex- Extinct, CR- Critically endangered, EN- Endangered, VU- Vulnerable

4.2.3 Threatened flora

The desktop search identified a total of nine threatened flora species within the search area; five listed under the *EPBC Act 1999* as known, or have habitat known to occur and four further species listed as threatened under the *NPW Act 1972*. All nine of these species are presented in the likelihood of use assessment (Table 4), using the site following the metric described in Table 1. None of the threatened flora species were identified within the Project area. One threatened species listed as Rare under the *NPW Act 1972*, which was not identified in the desktop assessment, was recorded during the field survey along Usher Road: Mallee Bitter-pea (*Daviesia devito*).

Table 4: A summary of the flora species observed on site or recorded within 5 km of the application area since 1995, or those listed as known to occur in the PMST.

Species (common name)	NPW Act	EPBC Act	Data source	Year of last record	Species known habitat preferences	Likelihood
Acacia menzelii (Menzel's Wattle)	V	VU	2, 3, 5	2007	Endemic to Monarto and the Flinders Ranges, in areas of open scrub often in association with *Eucalyptus socialis* and *E. incrassata*. (Electronic Flora of SA 2021a).	Possible – 4 observations within 5 km. Closest and most recent observation was 4.8 km to the west in 2007. Some suitable habitat in project area.
Acacia rhetinocarpa (Resin Wattle)	V	VU	2, 3, 5	2007	Usually found in open scrub, associated with *Eucalyptus socialis* and other *Eucalyptus sp.* Restricted to Monarto area (Electronic Flora of SA 2021b).	Possible – 5 observations within 5 km. Closest and most recent observation was 1.5 km to the southeast in 2007. Some suitable habitat in project area.
Acacia rhigiophylla (Dagger-leaf Wattle)	R		3	2021	Critically endangered within the Murray Mallee Region, occurring in open scrub associated with *Eucalyptus socialis* and *E. gracilis*, (Seeds of SA 2021).	Unlikely – No observations within 5 km since 1995.
Caladenia tensa (Greencomb Spider-orchid)		EN	5		Grows on red-brown sandy loams, on rises in open woodland, mallee woodland and mallee/heath sites (DAWE 2022).	Unlikely – No observations within 5 km since 1995.
Myriophyllum variifolium (Varied Milfoil)	R		3	1997	Grows in still and slowly flowing water (Atlas of Living Australia 2021b).	Unlikely – No observations within 5 km since 1995.
Olearia pannosa ssp. pannosa (Silver Daisy-bush)	V	VU	3	2016	Occurs in sandy, flat areas and in hilly, rocky areas in woodland or mallee. Often occurs in roadside remnants (DCCEEW 2013).	Unlikely – No observations within 5 km since 1995.
Olearia passerinoides ssp. glutescens (Sticky Daisy-bush)	R		3	2019	In Mallee and forest communities (Flora of Victoria 2022).	Unlikely – No observations within 5 km since 1995.
Podolepis jaceoides (Showy Podolepis)	R		2, 3	2017	Occurs in woodland, mallee and grassland on heavy clay to sandy soils (Australian Botanic Gardens 2021).	Possible – 2 observations within 5 km. Most recent observation was 5 km to the west in 2017. Closest observation since 1995 was 4.4 km to the west. Some suitable habitat in project area.
Prostanthera eurybioides (Monarto Mintbush)		EN	5		Prefers granite outcrops on sandy loams within Eucalyptus mallee woodlands and in associate with *Melaleuca uncinata* and *Acacia* spp (S A Landscape 2021).	Unlikely – No observations within 5 km since 1995.

Sources 1- BDBSA, 2- ALA, 3- NatureMaps, 4- Observed/recorded in the field, 5- Protected matters search tool, 6- Other
NP&W Act: E- Endangered, V- Vulnerable, R- Rare
EPBC Act: Ex- Extinct, CR- Critically endangered, EN- Endangered, VU- Vulnerable

4.3 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.

The cumulative impact of clearing is the gradual reduction of remnants in the area, a loss of connectivity between remnant patches and reduction of available habitat to threatened flora and fauna. Patches of remnant vegetation provide important habitat for native flora and fauna and are at high risk of degradation from clearance and other impacts such as weed incursion. This data report considers all sources of impact to native vegetation posed by the project.

The local area contains a low level of remnant vegetation with only 5 % of remnancy mapped within 5 km of the site (statistic derived from NatureMaps; NatureMaps 2022). The Loydella IBRA Association contains 9 % remnancy, with 37 % protected (Native Vegetation Council 2024a).

The Project Area encompasses approximately 140 ha, of which 6.21 ha comprises native vegetation. The proposed development will require the clearance of approximately 2.18 ha within VA1a through the centre of the Project Area.. Additionally, an approximate of 0.067 ha of native vegetation along Usher Road will be impacted for two access points used for bushfire access and connector roads. No other areas of native vegetation will be impacted.

The entirety of VA1b and VA2 will be retained and managed as conservation areas, consistent with the Gifford Hill Masterplan. In addition, the eastern portion of Precinct 1B is proposed to be developed as a wetland, restoring the area to a more natural hydrological regime by following existing land contours and incorporating appropriate site drainage.

The Project Area is highly fragmented as a result of historical agricultural clearing. The proposed development footprint has been designed to confine vegetation impacts to a narrow strip of VA1a in the centre of the site. Given the limited extent of the 2.25 ha of native vegetation proposed for clearance within the site centre and the two access points along Usher Road, these areas are unlikely to play a significant role in facilitating fauna movement within the broader landscape.

Potential indirect or offsite impacts of infrastructure construction projects can include the alteration of hydrological processes, weed invasion or spread, dust impacts on neighbouring vegetation, and contamination from waste.

Weed species tend to be specialists at colonising disturbed soils. As such, any disturbance caused by construction activities is susceptible to weed invasion, which can impact habitat for fauna and flora, and may spread to neighbouring habitat. Management actions will be implemented to ensure no new weed infestations occur within the Project area, and project activities do not cause a spread of weeds to neighbouring habitat.

Construction activities are likely to cause an increase in dust levels in the local area, for the duration of earthworks and vehicular travel on un-surfaced tracks. Dust can coat vegetation, potentially interfering with plant growth and reproduction. Dust emissions will be confined to construction activities only, and as such any impacts will be temporary. Further, dust suppression activities will be employed during all stages of construction to assist in limiting dust impacts on neighbouring vegetation.

Construction activities can generate waste products, both hazardous and non-hazardous, that can impact flora and fauna or their habitat within and adjacent to the Project area. Such impacts may include soil contamination and smothering by litter or other waste materials. Management actions will be implemented to ensure all waste is appropriately managed on-site and disposed of in accordance with regulatory requirements.

4.4 Address the mitigation hierarchy

When exercising a power or making a decision under Division 5 of the Native Vegetation Regulations (NV) 2017, the NVC must have regard to the mitigation hierarchy. The NVC will also consider, with the aim to minimize, impacts on biological diversity, soil, water and other natural resources, threatened species or ecological communities under the EPBC Act or listed species under the NPW Act.

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

The proposed clearance is required to facilitate a large residential development and, as such, some level of impact to native vegetation is unavoidable. However, the design has been developed to largely utilise areas that were previously cleared for agriculture, thereby minimising impacts to remnant vegetation. Clearance is confined to a central strip of vegetation within the Project Area and the two access points along Usher Road, which could not be avoided.

Vegetation Associations VA1b to the west and VA2 to the north will be retained and managed for conservation purposes.

e) 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).

Site assessments have been undertaken and incorporated into the planning of infrastructure works and the Gifford Hill Landscape Masterplan to ensure the minimum amount of vegetation disturbance. Native vegetation is to be retained and conserved where possible.

f) 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.

Due to the narrow, linear nature of the impact zone and considering the purpose of this development it is not possible to rehabilitate or restore native vegetation in this area.

g) 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 proponent will contribute an SEB payment into the Native Vegetation Fund to support restoration and conservation works in the region.

The NVC will only consider an offset once avoidance, minimization and restoration have been documented and fulfilled. The NVC Policy for a Significant Environmental Benefit explains the biodiversity offsetting principles that must be met (Native Vegetation Council 2024b).

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

Principle of clearance	Considerations
Principle 1(a) - it comprises a high level of diversity of plant species	Relevant information VA1a: Number of plant species recorded (native) 21, (introduced) 15. Native Plant Diversity Score: VA1a: 28
	Assessment against the principles Seriously at Variance - VA1a
	Moderating factors that may be considered by the NVC There is approximately 392.7 ha of native vegetation remaining within 5 km of the site (5 %). The proposed clearance of 2.25 ha represents approximately 0.57 % of the native vegetation within the surrounding landscape. VA1a is therefore eligible for reduction from 'Seriously at Variance' to 'At Variance'.
Principle 1(b) - significance as a habitat for wildlife	Relevant information No threatened species were observed during the field survey. One threatened species: *Corcorax melanorhamphos* (White-winged Chough); *NPW Act* (R) was considered likely to utilise the Project area. It is unlikely that the linear strip of vegetation proposed to be removed would constitute as significant habitat for this species. Threatened Fauna Score – VA1a: 0.1 Unit Biodiversity Score – VA1a: 36.52
	Assessment against the principles Seriously at Variance - VA1a
	Moderating factors that may be considered by the NVC The proposed clearance is unlikely to result in significant impacts to listed threatened fauna, including any measurable decrease in occupancy or population size. The vegetation proposed for removal has abundant African Boxthorn and other environmental weeds throughout due to occurring within a highly fragmented landscape previously cleared for agriculture. Overall, the vegetation proposed to be cleared provides low habitat suitability for threatened species and is unlikely to represent important habitat for their persistence.
Principle 1(c) - plants of a rare, vulnerable or endangered species	Relevant information No threatened flora species identified in the desktop assessment were recorded during either field survey. The only species that may not have been detectable at the time of the survey is *Caladenia tensa* (Greencomb Spider-orchid). One threatened species listed as Rare under the *NPW Act 1972*, which was not identified in the desktop assessment, was recorded during the field survey along Usher Road: Mallee Bitter-pea (*Daviesia devito*). Only a single individual was observed, and it will not be impacted by the proposed access tracks. Threatened Flora Score(s) – 0.04
	Assessment against the principles At Variance – VA1a
	Moderating factors that may be considered by the NVC Only one individual of Mallee Bitter-pea (*Daviesia devito*) was recorded along Usher Road. This individual will not be impacted by the proposed access tracks.

Principle of clearance	Considerations
Principle 1(d) - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered:	Relevant information A Protected Matters Search identified four Threatened Ecological Communities likely to be located within the Project area: Peppermint Box (*Eucalyptus odorata*) Grassy Woodlands of South Australia, Plains Mallee Box Woodlands of the Murray Darling Depression, Riverina and Naracoorte Coastal Plain Bioregions, and River Murray downstream of the Darling River, and associated aquatic and floodplain systems. No Threatened Ecological Communities were observed in the Project Area during the field survey. Threatened Community Score - 1
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC N/A
Principle 1(e) - it is significant as a remnant of vegetation in an area which has been extensively cleared.	Relevant information The local area contains a low level of remnant vegetation with only 5 % of remnancy mapped within 5 km of the site (statistic derived from NatureMaps; (NatureMaps 2022). The Loydella IBRA Association contains 9 % remnancy, with 37 % protected (Native Vegetation Council 2024a). Total Biodiversity Score – 82.17
	Assessment against the principles Seriously at Variance - VA1a
	Moderating factors that may be considered by the NVC The Project area forms part of a fragmented landscape due to being previously cleared for agriculture and does not contribute to a broader, well-connected patch of native vegetation. The vegetation proposed for clearance is unlikely to function as a meaningful landscape corridor or habitat connector for native species.
Principle 1(f) – it is growing in, or in association with, a wetland environment.	Relevant information The vegetation is not associated with a wetland.
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC N/A.
Principle 1(g) - it contributes significantly to the amenity of the area in which it is growing or is situated.	Relevant information The vegetation proposed to be removed is on private property that is surrounded by agriculture. It is not utilised by the community and does not contribute significantly to the amenity of the area.
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC N/A

Principles of Clearance (h-m) will be considered by comments provided by the local Landscape Board or relevant Minister. The Data Report should contain information on these principles where relevant and where sufficient information or expertise is available.

4.6 Risk assessment

Determine the level of risk associated with the application

Total clearance	No. of Trees	0
	Area (ha)	2.25
	Total Biodiversity Score	82.17
Seriously at variance with principle 1(b), 1(c) or 1 (d)		VA1a is Seriously at Variance with principle 1(b).
Risk assessment outcome		4

4.7 NVC guidelines

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

NA

5. Clearance summary

Clearance area(s) summary table

Block	Site	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
1	VA1a	28	1	0.04	0.1	36.52	2.25	82.17	1.0	0.0	0.0	90.39	$56,595.50	$3,112.75
						Total	2.25	82.17				90.39	$56,595.50	$3,112.75

Total summary table

Economies of Scale Factor	0.50
Rainfall (mm) Factor	345
SEB Points of Gain/ha Factor	7

SEB Uplift Factor	1.10
Management Cost ($/ha)	$25,408.00

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	82.17	90.39	$56,595.50	$3,112.75	$59,708.25

NOTE: The minimum payment for this clearance will be $500.

6. Significant Environmental Benefit

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

6.1 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.

☐ 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.

6.2 Payment SEB

6.2.1 Investigation into On-ground 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 whole Project area is being utilised for development associated with the housing development or the native vegetation is being retained for conservation purposes. Establishing an SEB offset area is not feasible within the immediate area of Precinct 1B. The proponent will make a payment of $54,829.83 into the Native Vegetation Fund to support and improve vegetation in the surrounding area.

6.2.2 Payment SEB

The proponent will make a payment of $56,595.50 (incl. Admin fee $3,112.75) = $59,708.25 into the Native Vegetation Fund. The payment will be made once the decision of the application has been made, prior to beginning groundworks

7. References

Atlas of Living Australia. 2021a. Species Profile: Strepera versicolor plumbea, Grey Currawong.
Atlas of Living Australia. 2021b. Species Profile: Myriophyllum variifolium.
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Birdlife Australia. 2023a. Southern Whiteface.
Birdlife Australia. 2023b. Gallinago hardwickii (Latham's Snipe).
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DAWE. 2021a. Conservation Advice for Melithreptus brevirostris magnirostris (Kangaroo Island Brown Headed Honeyeater.
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DCCEEW. 2023a. Conservation Advice for Melanodryas cucullata cucullata (hooded robin (south-eastern)).
DCCEEW. 2023b. Conservation Advice for Neophema chrysostoma (Blue-winged Parrot).
DCCEEW. 2023c. Conservation Advice for Stagonopleura guttata (Diamond firetail).
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DPIE. 2017. Threatened Species Profile: Lichenostomus cratitius, Purple-gaped Honeyeater. NSW.
Electronic Flora of SA. 2021a. Species Profile: Acacia menzelii, Menzel's Wattle.
Electronic Flora of SA. 2021b. Species Profile: Acacia rhetinocarpa, Resin Wattle.
Flora of Victoria. 2022. Olearia passerinoides ssp. glutescens.
Native Vegetation Council. 2024a. Native Vegetation Council Bushland Assessment Manual.
Native Vegetation Council. 2024b. Policy for a Significant Environmental Benefit.
NatureMaps. 2022. Interim Biogeographic Regionalisation for Australia (IBRA) Maping Layer. https://data.environment.sa.gov.au/NatureMaps/Pages/default.aspx.
S A Landscape. 2021. Threatened Species Profile: Prostanthera eurybioides, Monarto Mintbush.
Seeds of SA. 2021. Species Profile: Acacia rhigiophylla, Dagger-leaf Wattle.

8. Appendices & Attachments

Appendices

Appendix A: Complete species lists of species recorded during field surveys.

Appendix B: Additional site photos.

Appendix C: Threatened fauna and flora species excluded from assessment

Attachments

Attachment 1: Bushland assessment scoresheets associated with the proposed clearance

Attachment 2: Site maps as shapefiles

Appendix A – Flora and fauna species

SPECIES NAME	COMMON NAME	VEGETATION ASSOCIATION		
Native Flora		VA1a	VA1b	VA2
Acacia cupularis	Cup Wattle	✓		
Austrostipa sp.	Spear-grass	✓	✓	✓
Callitris gracilis	Southern Cypress Pine	✓	✓	✓
Cassytha sp	Dodder-laurel	✓	✓	
Dianella sp.	Flax-lily	✓	✓	
Dodonaea viscosa ssp.	Sticky Hop-bush			✓
Einadia nutans ssp.	Climbing Saltbush	✓	✓	
Enchylaena tomentosa var. tomentosa	Ruby Saltbush	✓	✓	
Enneapogon sp.	Bottle-washers	✓	✓	
Eucalypts gracilis	Yorrell	✓	✓	
Eucalypts socialis	Beaked Red Mallee	✓	✓	
Eucalyptus leptophylla	Narrow-lead Red Mallee	✓	✓	
Eucalyptus oleosa ssp. oleosa	Red Mallee	✓	✓	
Eucalyptus phenax ssp. phenax	White Mallee	✓	✓	
Eucalyptus porosa	Mallee Box	✓	✓	✓
Hysterobaeckea behrii	Silver Broombush			✓
Maireana brevifolia	Short-leaf Bluebush	✓	✓	
Melaleuca acuminata ssp. acuminata	Mallee Honey-myrtle	✓	✓	
Melaleuca lanceolata	Dryland Tea-tree	✓	✓	
Melaleuca uncinata	Broombush	✓		✓
Rhagodia candolleana	Sea-berry Saltbush	✓	✓	
Rhagodia crassifolia	Fleshy Saltbush			✓
Rhagodia parabolica	Mealy Saltbush	✓	✓	
Vittadinia sp.	New Holland Daisy			✓
Exotic Flora				
Arctotheca calendula	Cape Weed **	✓	✓	
Asparagus asparagoides	Bridal Creeper **	✓	✓	✓
Asphodelus fistulosus	Onion Weed	✓	✓	✓
Avena sp.	Oat	✓	✓	
Bromus rubens	Red Brome	✓	✓	
Cucumis myriocarpus ssp. myriocarpus	Paddy Melon **	✓	✓	
Ehrharta erecta	Panic Veldt Grass	✓	✓	✓
Euphorbia terracina	False Caper **			✓
Gazania rigens	Gazania **		✓	✓
Lolium rigidum	Wimmera Ryegrass	✓	✓	
Lycium ferocissimum	African Boxthorn **	✓	✓	
Marrubium vulgare	Horehound **	✓	✓	
Medicago polymorpha	Burr-medic	✓	✓	
Mesembryanthemum crystallinum	Common Iceplant	✓	✓	
Sixalix fistulosus	Pincushion	✓	✓	✓
Solanum elaeagnifolium	Silver-leaf Nightshade **	✓	✓	
Sonchus oleraceus	Common Sow-thistle	✓	✓	
Native Fauna				
Acanthagenys rufogularis	Spiny-cheeked Honeyeater	✓	✓	
Anthus australis	Australian Pipit	✓	✓	✓
Aquila audax audax	Wedge-tailed Eagle	✓	✓	✓
Corvus mellori	Little Raven	✓	✓	
Eolophus roseicapilla	Galah	✓	✓	
Gymnorhina tibicen	Australian Magpie	✓	✓	✓
Ocyphaps lophotes lophotes	Crested Pigeon	✓	✓	✓

Pomatostomus superciliosus	White-browed Babbler	✓	✓	
Rhipidura leucophrys leucophrys	Willie Wagtail	✓	✓	✓
Threskiornis spinicollis	Straw-necked Ibis	✓		

Appendix B – Site photos

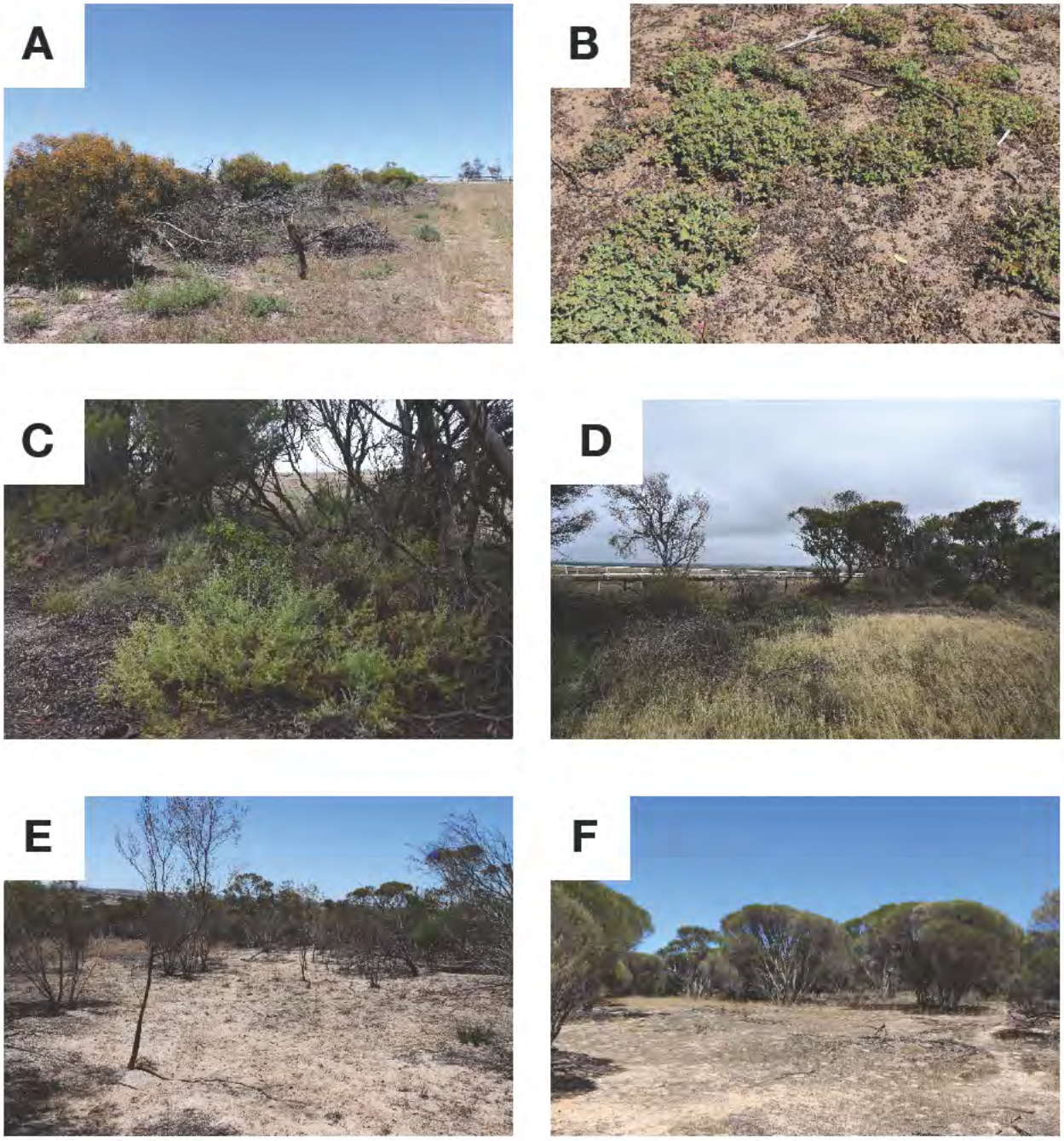

*Figure 10: Additional site photos. (A) Mallee coppice regrowth observed along the centre strip of vegetation in VA1a. (B) Common Iceplant (*Mesembryanthemum crystallinum*) observed in VA1a. (C) Ruby Saltbush (*Enchylaena tomentosa var. tomentosa*) observed in VA1a along Usher Road. Wild Oat (*Avena sp.*) observed in VA1b along Usher Road. (E) Low native understory observed in VA1b. (F) VA2 - Broombush shrubland.*

Appendix C – Threatened fauna and flora species excluded from assessment

A number of species which were identified in the threatened species search have been excluded from assessment here, as the habitat under application was considered completely unsuitable and would not support the species, or the threatened subspecies does not occur within the vicinity of the application area. Such species include:

Species (common name)	NPW Act	EPBC Act	Data source	Year of last record	Species known habitat preferences	Likelihood
AVES						
Melithreptus brevirostris magnirostris (Brown-headed Honeyeater)		EN	3	2012	Mainly inhabits temperate assemblages, especially those dominated by eucalypts, as well as forests, mallee, and stringybark scrub. Can also be found within urban environments, including on golf courses and in gardens (DAWE 2021a).	This subspecies is found exclusively on Kangaroo Island.
Platycercus elegans melanopterus (Crimson Rosella)		VU	3	2018	Occurs across Kangaroo Island occupying mesic forests and woodlands with dense, open or grassy understoreys, as well as remnant vegetation on private land, alongside fences and creeks, and roadsides (DAWE 2021b).	This subspecies is found exclusively on Kangaroo Island.
FISH						
Bidyanus bidyanus (Silver Perch, Bidyan)		EN	5			There are no water bodies within Precinct 1B.
Craterocephalus fluviatilis (Murray Hardyhead)		EN	5			There are no water bodies within Precinct 1B.
Maccullochella peelii (Murray Cod)		VU	5			There are no water bodies within Precinct 1B.
Mogurnda adspersa (Southern Purple Spotted Gudgeon)		EN	5			There are no water bodies within Precinct 1B.
Sources 1- BDBSA, 2- ALA, 3- NatureMaps, 4- Observed/recorded in the field, 5- Protected matters search tool, 6- Other NP&W Act: E- Endangered, V- Vulnerable, R- Rare EPBC Act: Ex- Extinct, CR- Critically endangered, EN- Endangered, VU- Vulnerable						

succession
ecology