



**TERRA
GANA**

Native Vegetation Clearance Data Report

Residential Facility, Whyalla GFG Liberty

Clearance under the *Native Vegetation Regulations 2017*

31st March 2024

Prepared by Sheree Edwards, Senior Environmental Consultant



Document Information

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1. Application information

Application details

Applicant:	GFG Liberty		
Key contact:	[REDACTED]		
	FYFE Level 2, 124 South Terrace, Adelaide SA 5000		
Landowner:	The Crown under the Custodianship of the Minister for Climate, Environment and Water of Adelaide SA 5000 (Unalienated Crown Land)		
Site Address:	Kloeden Reserve, Whyalla Norrie SA (Cnr Broadbent Terrace & Mcdouall Stuart Avenue)		
Local Government Area:	Whyalla	Hundred:	Randell
Title ID:	CR/6296/566	Parcel ID	D133897 A2

Summary of proposed clearance

Purpose of clearance	Clearance required for the construction of a Residential Facility for staff and contractors.
Native Vegetation Regulation	Regulation 12, Schedule 1; clause 33: New Dwelling or Building
Description of the vegetation under application	5.97 ha Atriplex vesicaria Low Shrubland
Total proposed clearance - area (ha) and number of trees	5.97 ha of native vegetation protected under the Native Vegetation Act is proposed to be cleared.
Level of clearance	Level 4
Overlay (Planning and Design Code)	Native Vegetation Overlay only

Map of proposed clearance area



Mitigation hierarchy	Refer to Section: Address the Mitigation Hierarchy.
SEB Offset proposal	Payment into the Native Vegetation Fund – Refer to Assessment Spreadsheets and Clearance Summary.

2. Purpose of clearance

2.1 Description

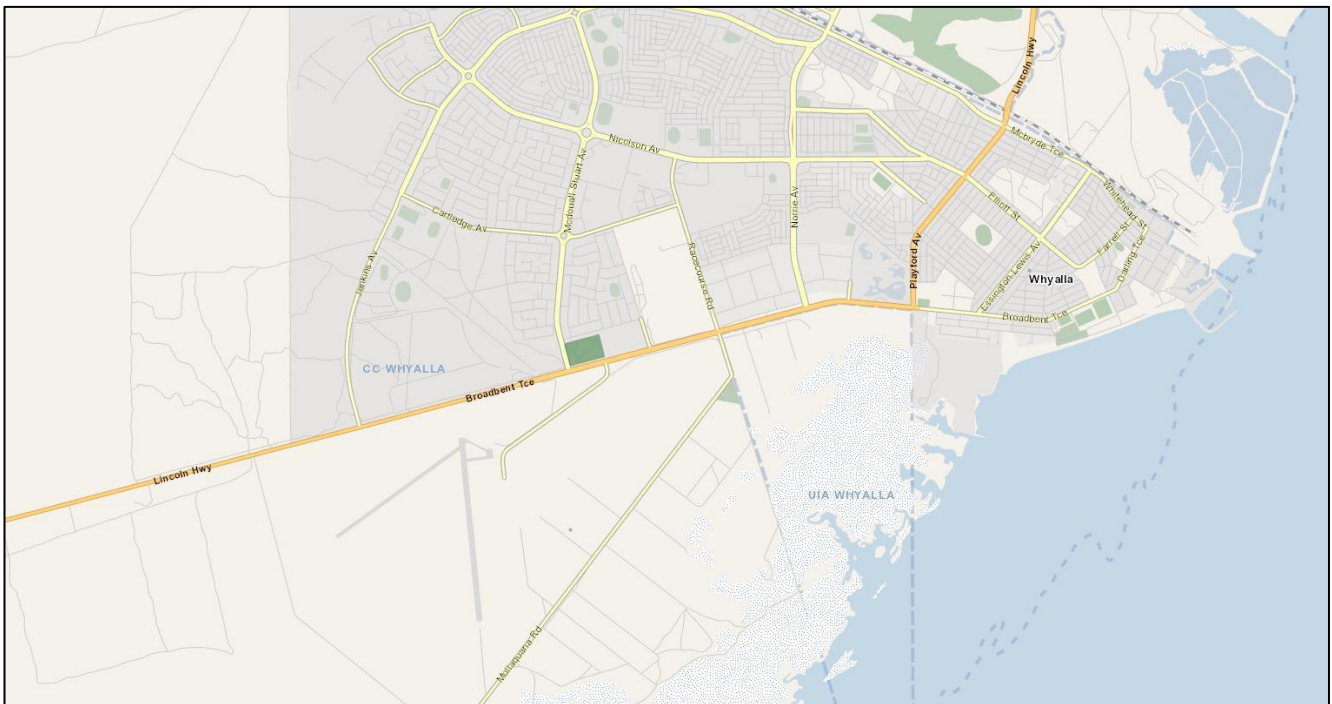
The proposed native vegetation clearance is incidental to a development to establish a residential facility. The applicant, GFG Liberty is proposing to build a facility in the heart of Whyalla to service the accommodation needs of staff and contractors. The location lends itself to local economic development opportunities, within proximity to the shopping centres, the recreation centre, and other local businesses.

The facility will incorporate, 40 single-bedroom accommodation units, 116 four single-bedroom accommodation units, kitchen and dining building, a common toilet block, boundary fence, 348 carparks, laundry buildings, a recreation room, a locker room, main administration building, an ice room, bus shelters, and gazebos. The facility will also contain two car parks, one unsealed and one sealed. The facility will be constructed around a drainage channel and will have a detention basin in the south (for stormwater runoff collection).

2.2 Background

The parcel is Unalienated Crown Land, with the intent that GFG Liberty lease the land from the Crown. The proposed clearance area is not being utilized, and the native vegetation present has been able to regenerate, apart from amenity plantings that have established along Broadbent Terrace, McDouall Stuart Ave and Kloeden Street. The parcel of land is adjoining a residential area to the north along Kloeden Street with much of the surrounding area open and undeveloped. To the South is an airport facility.

2.3 General location maps





2.4 Approvals required or obtained.

- Native Vegetation Act 1991 (application here-in)
- Planning, Development, and Infrastructure Act 2016 (pending)

2.5 Native Vegetation Regulation

It is suggested that this application to clear native vegetation is assessed under Native Vegetation Regulation 12, Clause 33 (New Dwelling or Building) of Schedule 1 in Division 5 of the Native Vegetation Regulations.

2.6 Relevant Development Application Information

Zone: General Neighbourhood – GN

Overlays

Affordable Housing - *The Affordable Housing Overlay seeks to ensure the integration of a range of affordable dwelling types into residential and mixed-use development.*

Building Near Airfields - *The Building Near Airfields Overlay seeks to ensure development does not pose a hazard to the operational and safety requirements of commercial and military airfields.*

Hazards (Flooding) - *The Hazards (Flooding) Overlay seeks to minimise flood hazard risk to people, property, infrastructure and the environment.*

Hazards (Bushfire - Regional) - *The Hazards (Bushfire - Regional) Overlay seeks to ensure development is located to minimise the threat and impact of bushfires on life and property and facilitate access for emergency service vehicles in regional areas.*

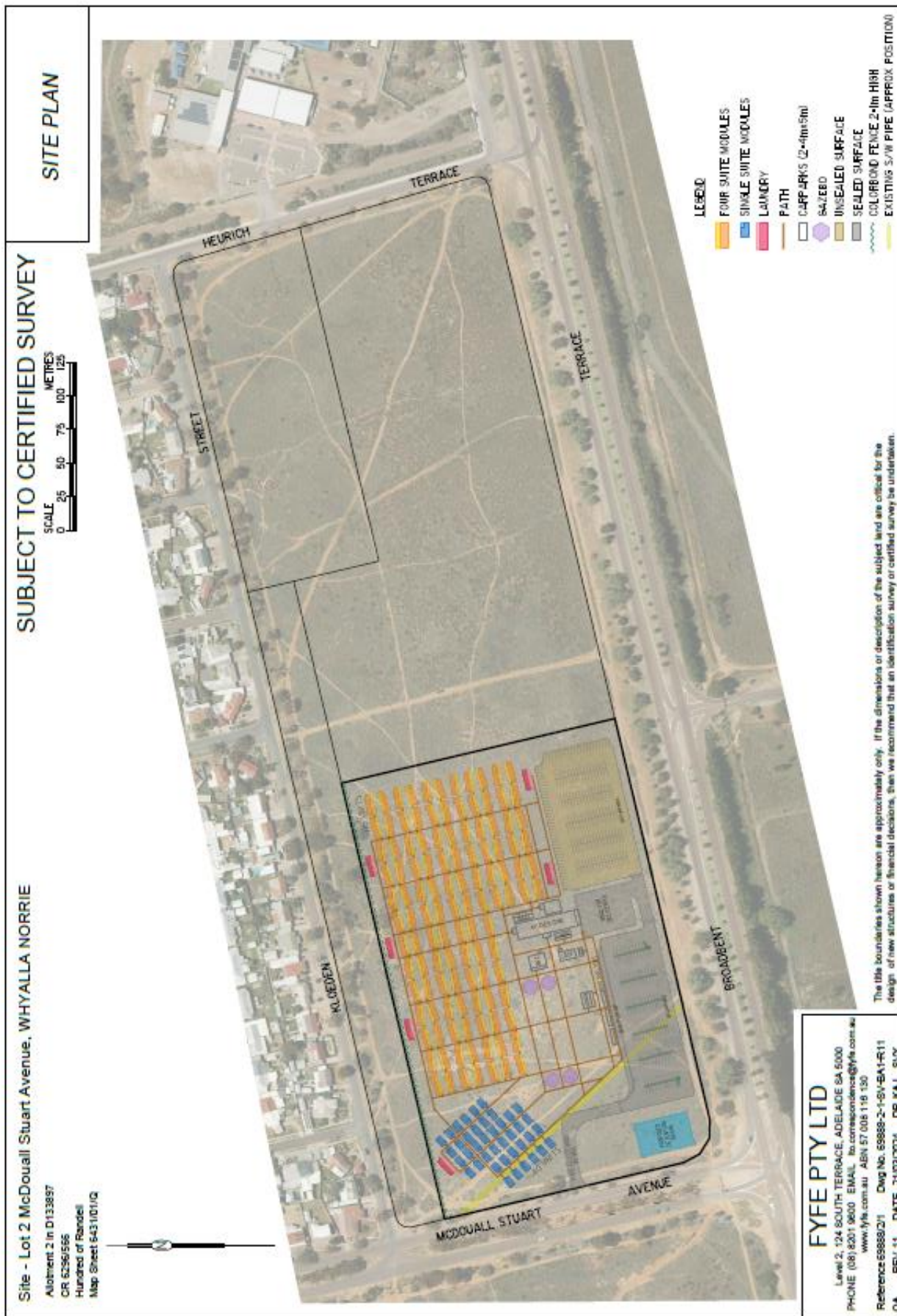
Hazards (Flooding - Evidence Required) - *The Hazards (Flooding - Evidence Required) Overlay adopts a precautionary approach to mitigate potential impacts of potential flood risk through appropriate siting and design of development.*

Noise and Air Emissions - *The Noise and Air Emissions Overlay seeks to protect new noise and air quality sensitive development from adverse impacts of noise and air emissions.*

Native Vegetation - *The Native Vegetation Overlay seeks to protect, retain and restore areas of native vegetation.*

Urban Transport Routes - *The Urban Transport Routes Overlay seeks to ensure safe and efficient vehicle movement and access along urban transport routes.*

2.7 Details of the proposal



3. Method

3.1 Flora assessment

The flora assessment was undertaken by Sheree Edwards (Native Vegetation Accredited Consultant) on the 30th of November 2023, with approximately 2 hours spent on site, following the Bushland Assessment Methodology as detailed in the Native Vegetation Council Bushland Assessment Manual (Feb 2017) approved by the Department for Environment and Water. 5.97 Hectares of native vegetation was assessed, as guided by preliminary site plans. A Level 4 assessment was completed due to the size and nature of the proposed native vegetation clearance footprint. A supplementary site visit was made during February 2024.

A pre-field desktop assessment was undertaken, including database searches of vegetation community mapping and records of threatened flora species listed under the National Parks and Wildlife Act 1972 (SA) and the Environmental Protection and Biodiversity Conservation Act 1999 (Commonwealth). The following databases were queried for records since 1995 and within proximity to the proposed clearance site (5 kms perimeter) - EPBC Act Protected Matters Search Tool, Biological Database of South Australia, and Atlas of Living Australia.

Calibrated field assessment techniques were used to undertake the assessment. Plant specimens were collected where required for further identification. A GPS with +/- 5m accuracy, ContextCam® and field maps were used to record photo point locations. Both 50m and 100m tapes were employed to measure assessment site quadrats where feasible.

3.2 Fauna assessment

The thorough fauna assessment was completed and based on the following assessment methods:

- Targeted fauna searches (incl. active searches across the site for nests, tracks, and other fauna evidence). Including a targeted bird survey undertaken by Phil Barron, experienced Ornithologist and Accredited Consultant (Refer Attachment 1).
- A habitat suitability assessment supported by the vegetation assessment using the Bushland Assessment Methodology and desktop studies.
- Desktop studies included the interrogation of state and Commonwealth flora and fauna record databases, including EPBC Act Protected Matters Search Tool, Biological Database of South Australia, and Atlas of Living Australia. With due consideration of threatened Fauna records within 5km of the impact site.
- A literature review of SPRAT, Conservation Advice and technical reports on targeted threatened fauna species.
- Communications with industry experts and Department for Environment and Water staff.
- All threatened species that were deemed that the habitat was not suitable were removed from the assessment spreadsheet – Determination made by the NVC dated, March 2024.

Refer to the Attachment 1: Fauna Report and Sections 4.2: Threatened Species Assessment and 4.3: Detailed investigations and justification for suggested habitat suitability.

4. Assessment Outcomes

4.1 Vegetation Assessment

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

The landscape:

The site occurs at the convergence of the Roopena, Pandurra and the Yorkey land systems. With relevance to the site, these land systems are very generally characterized as dissected calcareous plains. Plains and rises of myall woodland over pearl bluebush and bladder saltbush with some blackoak; undulating and level plains of pearl bluebush low shrubland +/- bladder saltbush; sandy flats and watercourses of blackbush shrubland with bladder saltbush.

The site is in the Gawler IBRA Bioregion, Myall Plains IBRA Subregion and Whyalla IBRA Environmental Association. The Gawler IBRA Bioregion is characterised by semi-arid to arid, flat topped to broadly rounded hills of the Gawler Range Volcanics and Proterozoic sediments, low plateaux on sandstone and quartzite with an undulating surface of aeolian sand or gibbers and rocky quartzite hills with colluvial footslopes, erosional and depositional plains and salt encrusted lake beds, with black oak (belah) and myall low open woodlands, open mallee scrub, bluebush/saltbush open chenopod shrublands and tall mulga shrublands on shallow loams, calcareous earths and hard red duplex soils.


The landform of the Whyalla IBRA Environmental Association is described as an easterly sloping, calcrete plain with occasional hills on outcropping conglomerate, and with mangrove flats along the coastal margin. The remnancy of the Whyalla IBRA Environmental Association is 95% and the Myall Plains IBRA Subregion's remnancy is 97%.

The site:

The proposed native vegetation clearance area contains one predominant vegetation association with microsite variations, *Atriplex vesicaria* Low Shrubland. For the purposes of this assessment, the vegetation in A1 is benchmarked against the vegetation community EP9.2: Chenopod Open Shrublands, as described in the Vegetation Communities of the Eyre Peninsula Region (Volume 3) of the Bushland Condition Monitoring Manual, 2008. Refer to Appendix 1 for a complete flora list.

The landform consists of a large plain with small sections of low drainage depressions. The vegetation community is influenced by a relatively shallow root system symptomatic of areas with soils that show limited rainfall penetration due to natural barriers near the surface. Epiphytic cryptogam crust was observed consistently patchy across the site. Fine sandy soils dominate the site with very fine clay soils located in the shallow drainage depressions. The large spread of undesignated walking tracks and vehicle tracks has caused the vegetation patch to become fragmented. The remnant vegetation within the proposed clearance area is in moderate to good condition despite the fragmentation and patches of amenity plantings which have degraded the naturally occurring vegetation association.

Vegetation associations proposed to be impacted

Vegetation Association	A1: <i>Atriplex stipitata</i> very low shrubland with emergent <i>Eremophila scoparia</i> and <i>Myoporum platycarpum</i>				
	<div style="display: flex; justify-content: space-between; font-size: small;"> DIRECTION SW (T) 736524 6341033 ACCURACY 5 m DATUM GDA2020 </div> 				
General description	<p>A1 is described as low chenopod shrubland in good to excellent condition. Species diversity is high for the benchmark community, with the vegetation providing valuable habitat for common, urban, and transient fauna species. Five introduced flora species were recorded during the assessment, <i>Mesembryanthemum crystallinum</i> (Common Iceplant), <i>Lycium ferocissimum</i> (African Boxthorn), <i>Asphodelus fistulosus</i> (Onion Weed), <i>Gazania linearis</i> (Gazania) and <i>Carrichtera annua</i> (Wards Weed), with a combined estimated projective cover (less than 5%). <i>Carrichtera annua</i> had senesced by the time the survey had taken place, with no seedlings observed, subsequently it wasn't included in the assessment. Sparse <i>Lycium ferocissimum</i>, <i>Gazania linearis</i> only observe on the edges of the site. Noting vegetation growing along the parcel boundaries has had amenity plantings of both local and introduced species.</p>				
Threatened species or community	<p>No threatened flora or fauna under the NP&W Act or EPBC Act listed species or community observed during the field assessment. Refer to the threatened species assessment for a detailed dissection of fauna value.</p>				
Landscape context score	1.08	Vegetation Condition Score	55.49	Conservation significance score	1.02
Unit biodiversity Score	61.12	Area (ha)	5.97	Total biodiversity Score	364.91

Proposed Clearance Area (A1)



Map data is compiled from a variety of sources and hence its accuracy is variable.

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Completed: 9-Mar-2024
 Generated at: www.naturemaps.sa.gov.au
 Datum: Geocentric Datum of Australia, 2020
 Projection: Web Mercator (Auxiliary Sphere)



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 and Water

Proposed Clearance Area (A1) with Site Design Elements



Map data is compiled from a variety of sources and hence its accuracy is variable.

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Government of South Australia
 Department for Environment
 and Water

Additional Photographs of A1



4.2 Threatened Species Assessment

Desktop:

One Threatened Ecological Community (TEC), under the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 was identified in the Protected Matters Search Tool (PMST) Report as likely occurring within 5 km of the proposed clearance site. This is the Subtropical and Temperate Coastal Saltmarsh, rated Vulnerable under the EPBC Act 1999. This TEC was NOT recorded during the field survey and is not present on site.

Four threatened flora species under the National Parks and Wildlife Act 1972 were identified in the Biological Database of South Australia search were previously recorded within 5 km of the proposed clearance site. *Acacia pendula*, *Acacia rhigiophylla*, *Austrostipa plumigera* and *Orobanche cernua* var. *Australiana*. These species were NOT recorded during the site visit or likely present on site. Nearby street plantings of *Acacia pendula* were observed however adjacent the site.

Of the threatened species listed in the Protected Matters Search Tool (PMST) Report as known to utilize the area, four species were further investigated for presence and habitat suitability. *Amytornis textilis myall* (Western Grasswren) (Gawler Ranges ssp, *Ardeotis australis* (Australian Bustard), *Leipoa ocellata* (Malleefowl), and *Aphelocephala leucopsis leucopsis* (Southern Whiteface). All were subsequently removed from the assessment spreadsheet.

A detailed justification of likelihood of presence and habitat use is detailed below.

The remainder of the threatened species recorded in the Protected Matters Search Tool (PMST) Report have specific and niche habitat requirements that are not present on the proposed clearance site i.e. coastal or wetland species. they have been omitted from the clearance assessment due to their likelihood of utilizing the site/ habitat.

These are *Plegadis falcinellus* (Glossy Ibis), *Stictonetta naevosa* (Freckled Duck), *Tringa glareola* (Wood Sandpiper), *Zapornia tabuensis* (Spotless Crane), *Limosa limosa melanuroides* (Black-tailed Godwit), *Egretta garzetta nigripes* (Little Egret), *Biziura lobata menziesi* (Musk Duck), *Cladorhynchus leucocephalus* (Banded Stilt), *Acanthiza iredalei* (Slender-billed Thornbill), *Actitis hypoleucos* (Common Sandpiper) and *Ardea intermedia plumifera* (Plumed Egret).

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

Species (common name)	NP&W Act	EPBC Act	Data source	Date of last record	Likelihood
<i>Amytornis textilis myall</i> (Western Grasswren) (Gawler Ranges ssp)	V	VU	4, 1, 5	09-Aug-2019	Unlikely (removed from assessment)
<i>Ardeotis australis</i> (Australian Bustard)	V	-	4, 1	26-Mar-2005	Unlikely (removed from assessment)
<i>Leipoa ocellata</i> (Malleefowl)	V	VU	4, 1, 5	18-Jun-1999	Unlikely (removed from assessment)
<i>Pachycephala inornata</i> (Gilberts Whistler)	R	-	4,1	31-Jul-2019	Likely
<i>Aphelocephala leucopsis leucopsis</i> (Southern Whiteface)	-	VU	4,1,5	10-Jun-2019	Unlikely (removed from assessment)

Criteria for the likelihood of occurrence of species within the study area.

Likelihood	Criteria
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.
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.

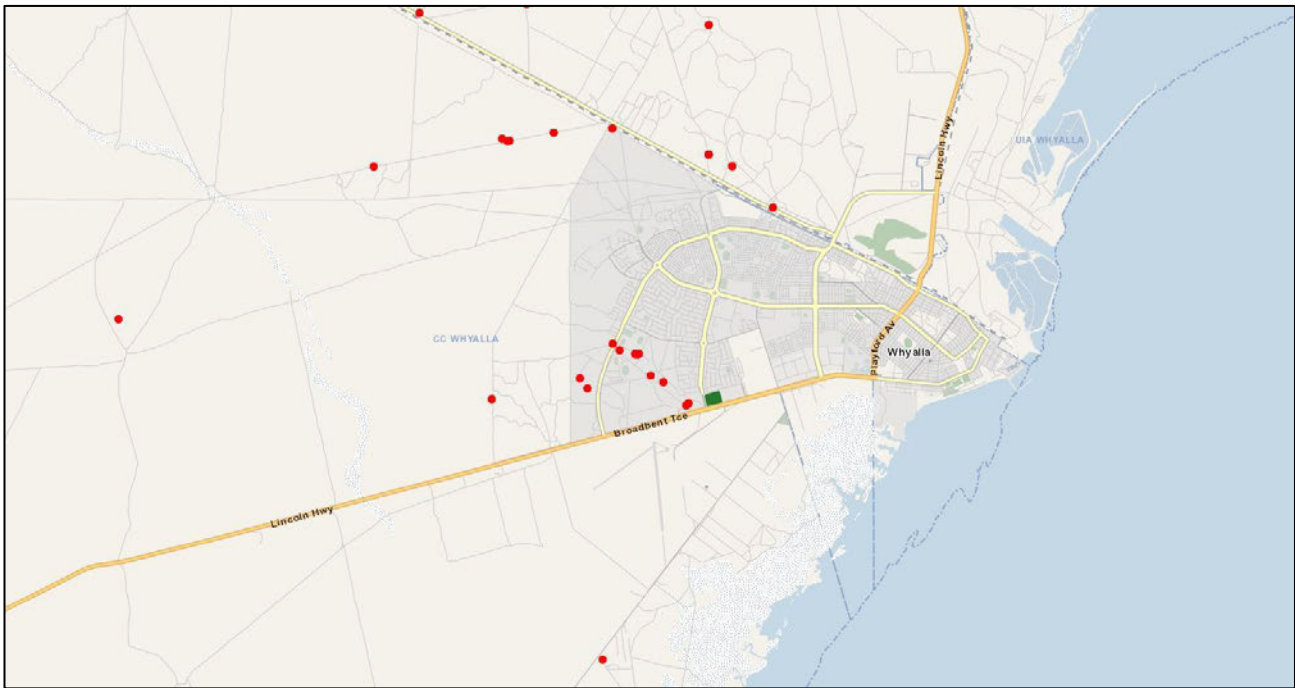
4.3 Detailed investigations and justification for suggested habitat suitability

Amytornis textilis myall (Western Grasswren) (Gawler Ranges ssp)

There are 23 records of *Amytornis textilis myall* within the 5km radius of the proposed clearance site, with the last record dated 9th August 2019 located approx. 1 km West South-West of Whyalla Stuart (suburb) and approx. 2kms from the site. The closest records, 2017-2019 were obtained through the Eyre Peninsula Bird Surveys using the 500m radius method (Birds SA). This project aimed to foster a skilled body of community members across the Eyre Peninsula, South Australia, capable of carrying out bird surveys to facilitate long-term monitoring programs. Existing bird identification expertise across the region is limited. Typically, members of the public gain experience in bird identification slowly over many years, often through self-education.

The meta data for the spatial information in the Atlas of Living Australia detailed that the closest records were recorded by a community member Larry Gruitt and vetted by Stuart Collard. A phone call to Stuart Collard confirmed the records were vetted by desktop and based on habitat suitability. The central location for the management of this monitoring program and data is held with the Conservation Ecologist, with the National Parks and Wildlife Service Eyre Peninsula and Far West. Follow up email correspondence with Katrina Pobke, (Conservation Ecologist, with the National Parks and Wildlife Service Eyre Peninsula and Far West), confirmed that no further survey work has been undertaken since 2019 and locally it is not known their spread from this site.

A site visit was completed at the closest record sites (near Broadbent Terrace, Jenkins Avenue) to compare the vegetation type to the proposed clearance site. Refer to the map below.



Amytornis textilis myall (Western Grasswren) records within 5kms of proposed clearance site.

The vegetation where the records were made is, as the Atlas of Living Australia record suggest - (*Acacia papyrocarpa*) Western Myall low open woodlands adjacent chenopod shrublands. Refer below photographs of the approximate location of the site where the *Amytornis textilis myall* records were obtained. Noting the fringing low woodland and density, height, and diversity of the chenopod shrubland. This site provides habitat which sits more satisfactorily with the habitat requirements of the *Amytornis textilis myall*, than the proposed clearance site.

The SPRAT Conservation Advice for *Amytornis textilis myall* (Western grasswren (Gawler Ranges)) prepared in 2014 details: 'Western grasswrens (Gawler Ranges) are known to occupy chenopod shrublands scattered across the North Eyre Peninsula and the Gawler Ranges (Higgins et al., 2001). The subspecies is most commonly found in low shrublands, chiefly comprising blackbush (*Maireana pyramidata*) and Australian boxthorn (*Lycium australe*), however they are also known to inhabit low woodlands, mostly comprising Western Myall (*Acacia papyrocarpa*) (Black et al., 2009). The subspecies is very occasionally found on rocky, Spinifex-covered hills within the Gawler Ranges (Higgins et al., 2001). Most of the subspecies habitat is found along drainage lines but occasionally habitat also includes low rocky hills and semi-arid low woodlands. In a survey by Black et al. (2009) the density of shrub cover in occupied sites was found to be higher than in unoccupied sites.'

Likelihood of use/ habitat suitability: Whilst detectability is difficult and many repeat surveys would need to be completed over seasons and years to understand the population dynamics of any local populations of this species. It is my opinion, also reinforced by the survey completed by Phil Barron and the thorough desktop assessment, that it is highly unlikely that the species is utilising the site. This is based on inappropriate habitat present. This species has been removed from the assessment spreadsheet.

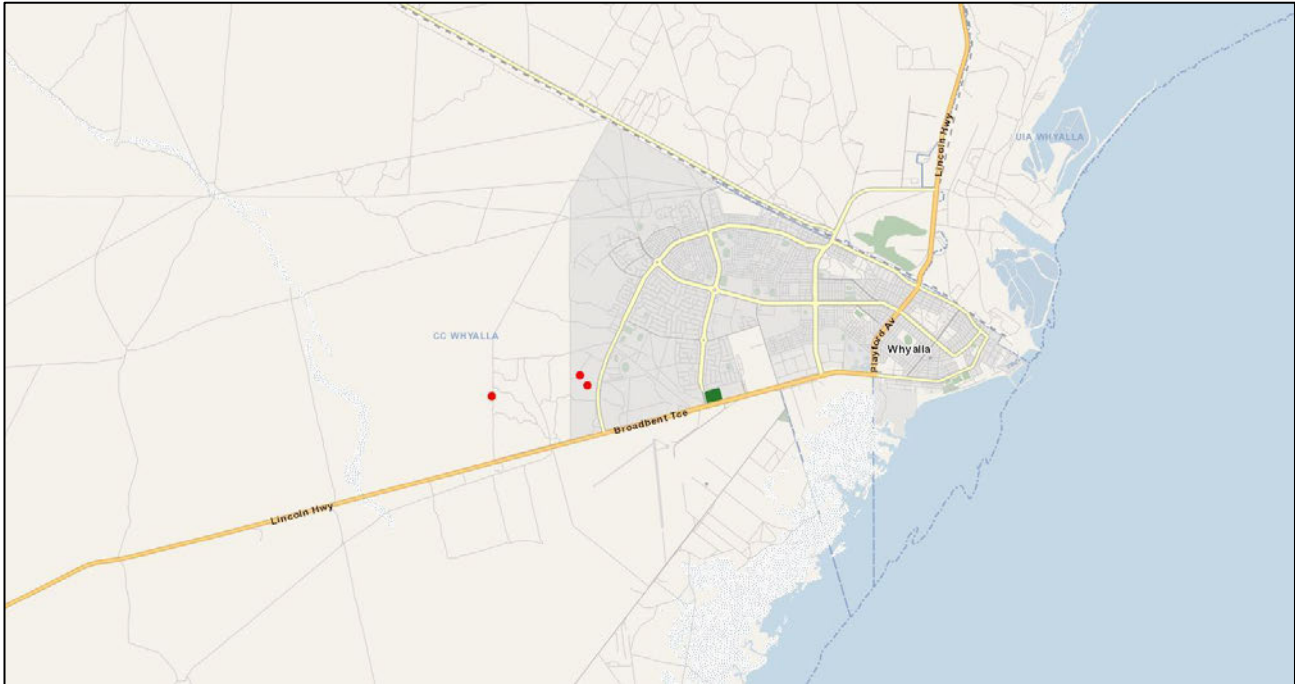
Photographs of site in proximity to where *Amytornis textilis myall* were recorded in 2018 and 2019.



Pachycephala inornata (Gilberts Whistler)

There are three records in the area, with the last record taken 31st of July 2019 (Refer map). The records in the Biological Database of SA were taken in areas of *Acacia papyrocarpa* (Western Myall) low open woodlands adjacent chenopod shrublands. The records were obtained through the Eyre Peninsula Bird Surveys using the 500m radius method (Birds SA) 2017-2019. This project aimed to foster a skilled body of community members across the Eyre Peninsula, South Australia, capable of carrying out bird surveys to facilitate long-term monitoring programs. Existing bird identification expertise across the region is limited. Typically, members of the public gain experience in bird identification slowly over many years, often through self-education.

Pachycephala inornata habitat preferences are open woodland vegetation with dense mid and shrub vegetation. However, it is a habitat generalist compared to *Pachycephala rufogularis*, being more flexible in its habitat requirements, more mobile and shifting home ranges between years and seasons. (Moyse, D. 2019). It is likely that this vegetation may provide habitat for the species but limited due to the lack of 'woodland type structure.' No observations of the species or signs of habitation during the site assessment.

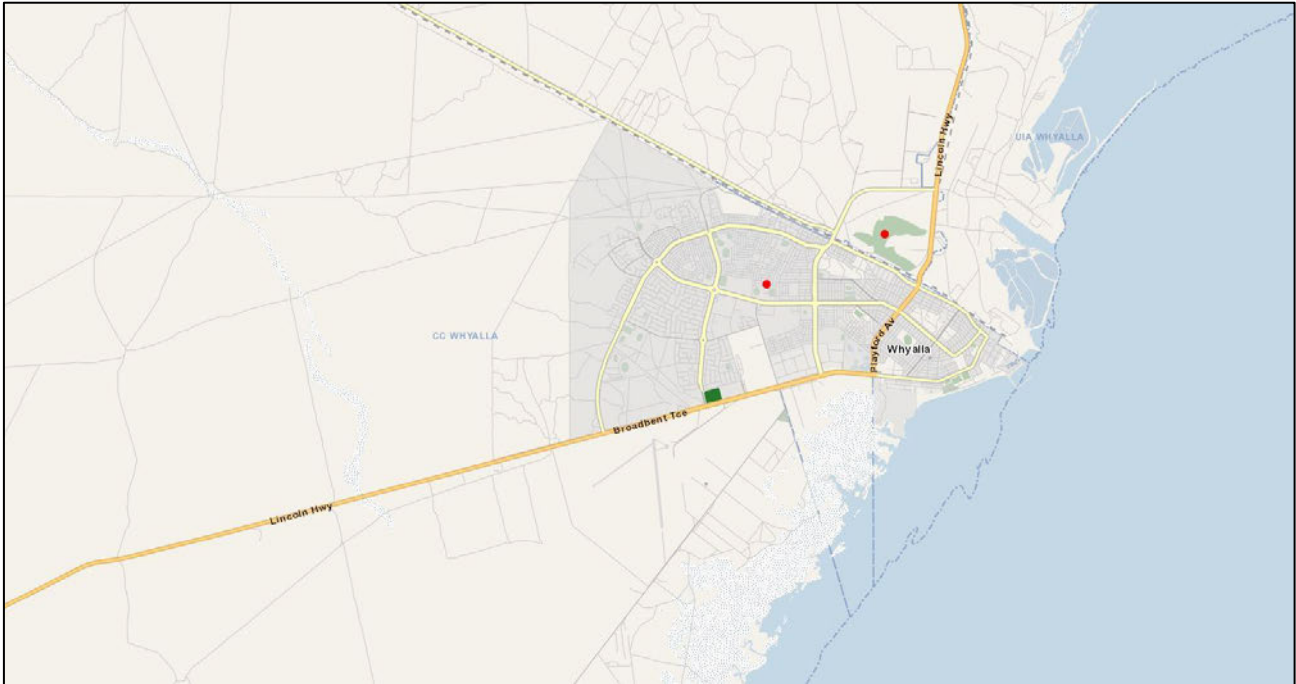


Pachycephala inornata (Gilberts Whistler) records within 5kms of proposed clearance site.

Ardeotis australis (Australian Bustard)

Two records of *Ardeotis australis* (Australian Bustard) from Birds SA journals and newsletters, with the initial dataset compiled from the SAOA newsletters by Graham Carpenter (Refer map). 26/3/2005 at the Whyalla Golf & Bowling Club, which is on the 'outskirts' of the Whyalla township (approx. 2.7 kms from the proposed clearance site). 16/1/2003 near Edward John Eyre High School (less than 1km from the proposed clearance site). The record obtained at the Whyalla Golf & Bowling Club was originally recorded as *Grus rubicunda* (Brolga) and as part of record vetting by Birds SA March 2009 in preparation of Census of the Verts of SA ed4, it was changed to *Ardeotis australis* (Australian Bustard). It is possible these records may be referring to another species which prefers wetland areas, as the original record suggests. This species has been removed from the assessment spreadsheet.

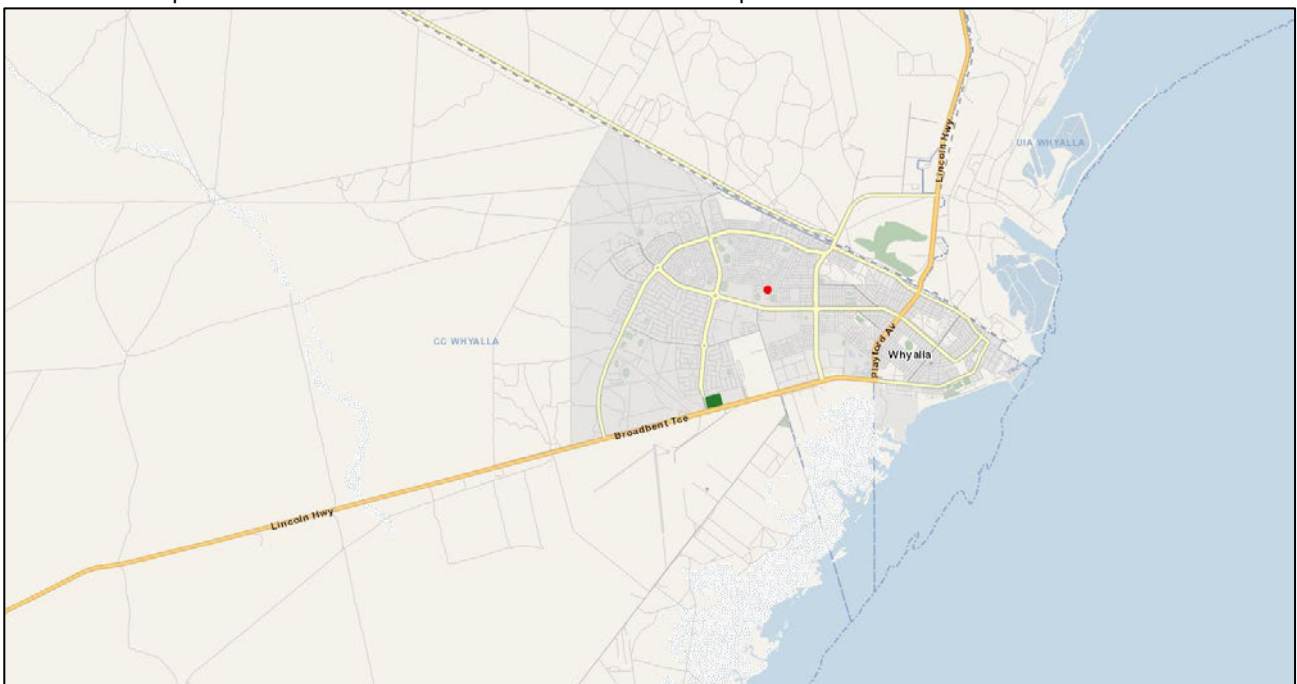
Ardeotis australis lives on dry plains, grasslands, and open woodlands, and they favour tussock and hummock grasslands. Occasionally they are seen in modified habitat areas such as farmlands and golf courses. They are dispersive, with irregular widespread movements over long distances; movements are thought to be in response to habitat and climatic conditions; It is possible that the proposed clearance site provides habitat for *Ardeotis australis* as the area falls inside the known but sparse distribution of the species, but the area provides limited habitat or feeding resources. The site is situated within the township of Whyalla, surrounded by much urban infill and on-going impacts from such an environment, so it is unlikely that the species would proliferate in this area as it once may have.



Ardeotis australis (Australian Bustard) records within 5kms of proposed clearance site.

Leipoa ocellata (Malleefowl)

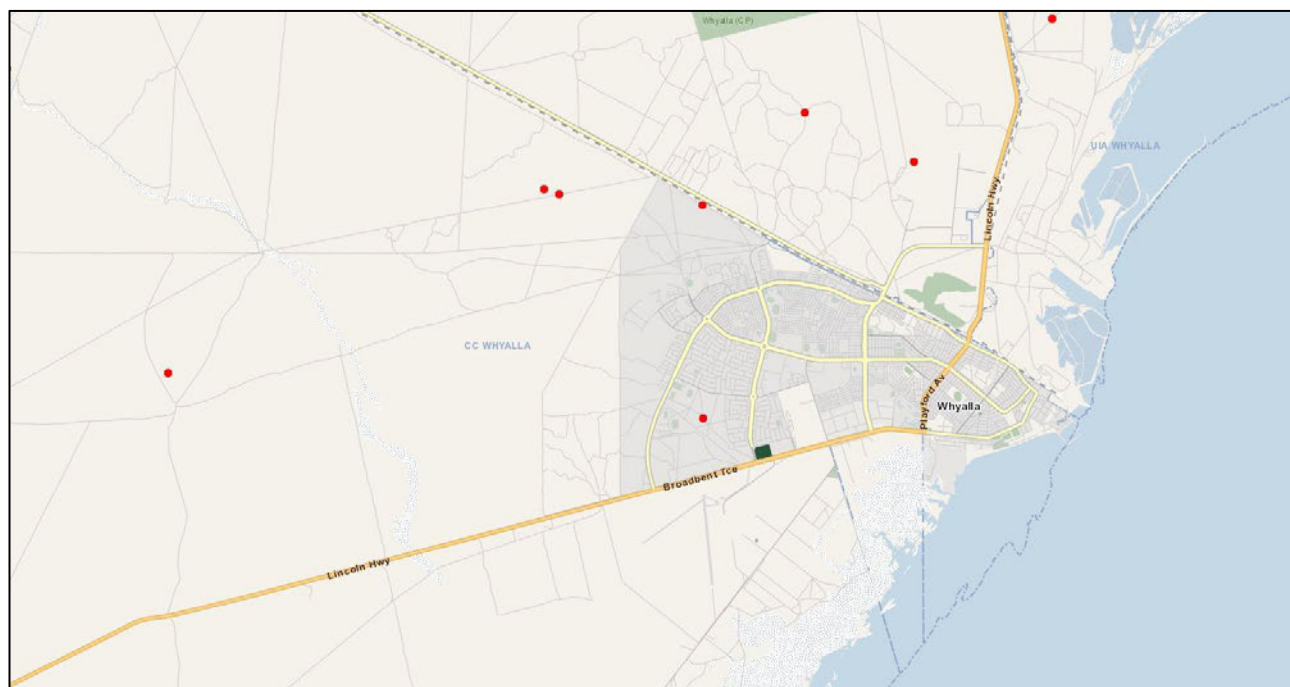
Leipoa ocellata prefer wooded mallee vegetation communities with a thick layer of leaf litter. They are unlikely to utilise the site or be present on-site during other times of the year. The vegetation is an inappropriate habitat and limited leaf litter for nesting. No evidence observed during the site visit, nor adequate feeding resources. No observations of the species or signs of habitation. There are two records in the Biological Database of SA and the Atlas of Living Australia within 5kms of the proposed clearance site. 1952 a live specimen was collected by the Australian Museum, now preserved. In 1999 a record was obtained in a built-up area of Whyalla, which has been housing for several decades. (Refer map) The record was obtained from Birds SA (originally South Australian Ornithological Association) journals and newsletters. Initial dataset was compiled from the SAOA newsletters by Graham Carpenter. It is likely that the record's location is not accurate, the closest Malleefowl records are approx. 18kms away and are within a suitable habitat and landform for Malleefowl, closer to Port Bonython, along the Morgan to Whyalla pipeline alignment. *Leipoa ocellata* (Malleefowl) records within 5kms of proposed clearance site below. This species has been removed from the assessment spreadsheet.



Aphelocephala leucopsis leucopsis (Southern Whiteface)

Aphelocephala leucopsis leucopsis inhabit dry open forests and woodland and inland patches of mallee, mulga and saltbush, especially areas with fallen timber or dead trees and stumps. Southern whiteface forage exclusively on the ground, favouring habitats with low tree densities and an herbaceous understorey litter cover. The SPRAT for this species details the habitat critical for its survival. It requires 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.

The proposed clearance site does not contain suitable habitat for *Aphelocephala leucopsis leucopsis*. This species has been removed from the assessment spreadsheet.



4.4 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.

All direct, indirect, and cumulative impacts affecting native vegetation have been taken into account in this proposal. This includes provision for Regulation 9(1)(17) – Fire prevention and control (1) Within 20 metres of a dwelling and Regulation 12(33) – New dwelling or building. This left some small areas of native vegetation in between building buffers, which would be difficult to avoid impacting during the construction phase, and subsequently included in the proposed clearance area. A 5m strip of vegetation has been omitted from the assessed due to the fence lines regulation allowing 5m native vegetation clearance along the boundaries. This project is a stand-alone development by GFG Liberty, with all impacts on this parcel accounted for.

4.5 Address the Mitigation Hierarchy

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

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

Native vegetation clearance could not be avoided as part of this proposal. The available parcel area is almost entirely covered in native vegetation, so the development could not be sited elsewhere on this parcel to avoid native vegetation clearance. Furthermore, there is a shortage of available cleared sites of appropriate size in the town of Whyalla, in proximity to town utilities. A key aim of locating the facility within the township with the intent to drive economic benefit for the local community and business.

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

The applicant has intentionally consolidated the buildings, effects, and infrastructure for the Residential Facility across 1 land parcel, avoiding development in adjoining land parcels.

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

No rehabilitation or restoration will be undertaken as part of this proposal.

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

The applicant considered all other options to achieve the Significant Environmental Benefit (SEB) and held a meeting with FYFE and the Accredited Consultant to discuss and explore all alternatives. The SEB Offset will be achieved by paying into the Native Vegetation Fund. Refer to Section 6: Significant Environmental Benefit for information regarding the payment amount.

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

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

Principle of clearance	Considerations
<p>Principle 1a - it comprises a high level of diversity of plant species</p>	<p><u>Relevant information</u></p> <p>The number of native plant species recorded: 17 The number of introduced plant species recorded: 4</p> <p>Bushland Plant Diversity Score for A1 – 28</p> <p><u>Assessment against the principle Seriously at Variance -A1</u></p> <p><u>Moderating factors that may be considered by the NVC</u></p> <p>The Native Vegetation Council (or delegate) may choose to consider the 'Amount of clearance related to area of remnant' moderating factor when assessing this native vegetation application. This determination is at the assessment and discretion of the Native Vegetation Council (or delegate).</p> <p>Where only a very small area of vegetation will be impacted relative to the amount of vegetation within the local vicinity (less than 0.25% of the native vegetation within a 5 km radius to be impacted), this may reduce the impact from 'Seriously at variance' to 'At variance', or 'At variance' to 'Not at variance'.</p> <p>There is approx. 5,105 ha of native vegetation remaining within a 5k radius. (Calculation based on 65% (NatureMaps, January 2024). 0.25% of this total is 12.76 ha of native vegetation. The area of impact is 5.97 ha, which is less than the 0.25% of the native vegetation within the 5km radius. With this in consideration, the Native Vegetation Council (or delegate) may choose to reduce the impact from 'Seriously at Variance' to 'At Variance' for vegetation association identified as A1.</p>

**Principle 1b -
significance as a
habitat for
wildlife**

Relevant information

List of threatened species have been identified within 5kms of the assessment site and potentially utilising habitat on the site. The only species this habitat is potentially suitable for is; *Pachycephala inornata* (Gilberts Whistler), which is not considered a high risk of population decline due to habitat degradation.

Amytornis textilis myall (Western Grasswren): VU (EPBC Act), V (NPW Act)

Ardeotis australis (Australian Bustard): V (NPW Act)

Leipoa ocellata (Malleefowl): VU (EPBC Act) & V (NPW Act)

Pachycephala inornata (Gilberts Whistler): R (NPW Act)

Aphelocephala leucopsis leucopsis (Southern Whiteface): EPBC Act

Threatened Fauna Scores: A1 - 0.02

Unit biodiversity Scores: A1 – 61.12

Assessment against the principle: Seriously at Variance – A1

Moderating factors that may be considered by the NVC: The Native Vegetation Council (or delegate) may choose to consider the 'Impact Significance' moderating factor when assessing this native vegetation application.

The Native Vegetation Council may wish to decrease the risk from 'Seriously at variance' to 'At Variance' with impact significance considerations. This determination is at the assessment and discretion of the Native Vegetation Council (or delegate).

It is unlikely that this clearance impact will result in accelerated declines of the listed threatened species. Including a decrease in species occupancy and population size. Due to the location, it is unlikely to fragment existing local threatened species populations or adversely affect critical habitats of a species. It is noted that the cumulative impacts (from clearance, land degradation and other impacts) contribute to declines across the landscape and this can be seen in incremental and long-term degradation of habitats and species decline. However, much of the declines in species' have been observed from long term historical degradation across the landscape.

The proposed clearance area does not contain native vegetation which is suitable habitat for *Amytornis textilis myall* (Western Grasswren): VU (EPBC Act), V (NPW Act), *Aphelocephala leucopsis leucopsis* (Southern Whiteface) and *Leipoa ocellata* (Malleefowl): VU (EPBC Act) & V (NPW Act). This has been confirmed by a habitat suitability assessment of these species, as well as habitat requirements for the species, corroborated with records within 5km of the site, site survey, technical reports, and feedback/ input from leading ornithologists.

It is possible that the *Ardeotis australis* (Australian Bustard): V (NPW Act) may frequent the site, but highly unlikely considering the urban site location, vegetation structure and threatening impacts. A transient bird species that could possibly move through the site. It may be possible that the *Pachycephala inornata* (Gilberts Whistler): R (NPW Act) may utilize the site as a habitat corridor and food resource. All but the *Pachycephala inornata* (Gilberts Whistler) have been removed from the assessment spreadsheet.

<p>Principle 1c - plants of a rare, vulnerable, or endangered species</p>	<p><u>Relevant information</u></p> <p>No threatened species flora species that were recorded during the site assessment or that may be expected but undetectable at the time of assessment.</p> <p>Threatened Flora Score – 0</p> <p><u>Assessment against the principle: Not At Variance – A1.</u></p>
<p>Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered</p>	<p><u>Relevant information</u></p> <p>No threatened communities under the EPBC Act or threatened ecosystems under the DEW Provisional list of threatened ecosystems present.</p> <p>Threatened Community Score – 1</p> <p><u>Assessment against the principle: Not at Variance – A1.</u></p>
<p>Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.</p>	<p><u>Relevant information</u></p> <p>Remnancy figures for IBRA Association and IBRA Subregion: IBRA Association: Whyalla (95%) IBRA Subregion: Myall Plains (97%)</p> <p>A1 is described as very low chenopod shrubland in good condition. Species diversity is moderate for the benchmark community, with the vegetation providing valuable habitat for common, urban, and transient fauna species. The vegetation is fragmented by narrow walking and vehicle tracks throughout, which can be seen clearly on aerial imagery. The site is frequented by people walking dogs regularly and bike tracks were observed in areas also.</p> <p><u>Total Biodiversity Score – 393.53</u></p> <p><u>Assessment against the principle: At Variance – A1</u></p>
<p>Principle 1f - it is growing in, or in association with, a wetland environment.</p>	<p><u>Relevant information</u></p> <p>The vegetation is NOT associated with a wetland.</p> <p><u>Assessment against the principle: Not at Variance: A1.</u></p>
<p>Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.</p>	<p><u>Relevant information</u></p> <p>The aesthetic amenity of this site is subjective in its very form, particularly when commenting on how highly the native vegetation is regarded by the community as part of the local landscape. The site will contribute to the urban expansion of the township of Whyalla with in-fill to the south to Broadbent Terrace, adjoining existing residential areas along Kloeden Street.</p>

4.6 Risk Assessment

Total clearance	No. of trees	-
	Area (ha)	5.97
	Total biodiversity Score	364.91
Seriously at variance with principle 1(b), 1(c) or 1 (d)		1(b)
Risk assessment outcome		Level 4

4.7 NVC Guidelines

Regulation 12(33) – New dwelling or building

To allow clearance of vegetation for a new dwelling or building approved under the Development Act 1993. This also includes clearance for associated structures (that have development approval). The new dwelling/building must be situated in a location that avoids and minimises the loss of native vegetation. It should be able to be demonstrated that any alternatives have been considered. Depending on how large the allotment, consideration of all areas for the dwelling/building should occur, including those areas that involve no vegetation clearance situated on a different part of the block or where the vegetation is shown to be less significant (or more degraded) than the vegetation proposed to be cleared.

1. Clearance for a new building, dwelling or ancillary development provided that any relevant consent has been provided under the Development Act 1993.

5. Clearance summary

Clearance Area Summary Table

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
A1	28	1	0	0.0 2	61.12	5.97	364.91	1	-	383.15	\$105,678.89	\$5,812.34
					Total	5.97	364.91			383.15	\$105,678.89	\$5,812.34

Totals Summary Table

Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
364.91	383.15	\$105,678.89	\$5,812.34	\$111,491.23

Economies of Scale Factor	0.35
Rainfall (mm)	264

6. Significant Environmental Benefit

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

ACHIEVING AN SEB

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

Pay into the Native Vegetation Fund.

PAYMENT SEB: Payment of \$105,678.89 (no GST) plus Administration Fee of \$5,812.34 (GST incl.) = \$111,491.23

Appendix 1: Flora Species List

Botanical Name	Comon Name	Introduced*
<i>Atriplex stipitata</i>	Bitter Saltbush	
<i>Austrostipa elegantissima</i>	Feather Spear-grass	
<i>Carpobrotus rossii</i>	Native Pigface	
<i>Enchylaena tomentosa var. tomentosa</i>	Ruby Saltbush	
<i>Eremophila scoparia</i>	Broom Emubush	
<i>Geijera linearifolia</i>	Sheep Bush	
<i>Maireana brevifolia</i>	Short-leaf Bluebush	
<i>Maireana pyramidata</i>	Black Bluebush	
<i>Maireana sedifolia</i>	Bluebush	
<i>Maireana trichoptera</i>	Hairy-fruit Bluebush	
<i>Nitraria billardiarei</i>	Nitre-bush	
<i>Osteocarpum acropterum var.</i>	Bonefruit	
<i>Rytidosperma setaceum</i>	Small-flower Wallaby-grass	
<i>Rytidosperma sp.</i>	Wallaby-grass	
<i>Sclerolaena obliquicuspis</i>	Oblique-spined Bindyi	
<i>Tecticornia disarticulata</i>		
<i>Vittadinia sp.</i>	New Holland Daisy	
<i>Asphodelus fistulosus</i>	Onion Weed	*
<i>Gazania linearis</i>	Gazania	*
<i>Lycium ferocissimum</i>	African Boxthorn	*
<i>Mesembryanthemum crystallinum</i>	Common Iceplant	*