Native Vegetation Clearance

Residential Subdivision
Farr Street, Cowell
Data Report

Clearance under the *Native Vegetation Regulations 2017*

4 November 2022

Prepared by Matt Launer from BlackOak Environmental Pty Ltd

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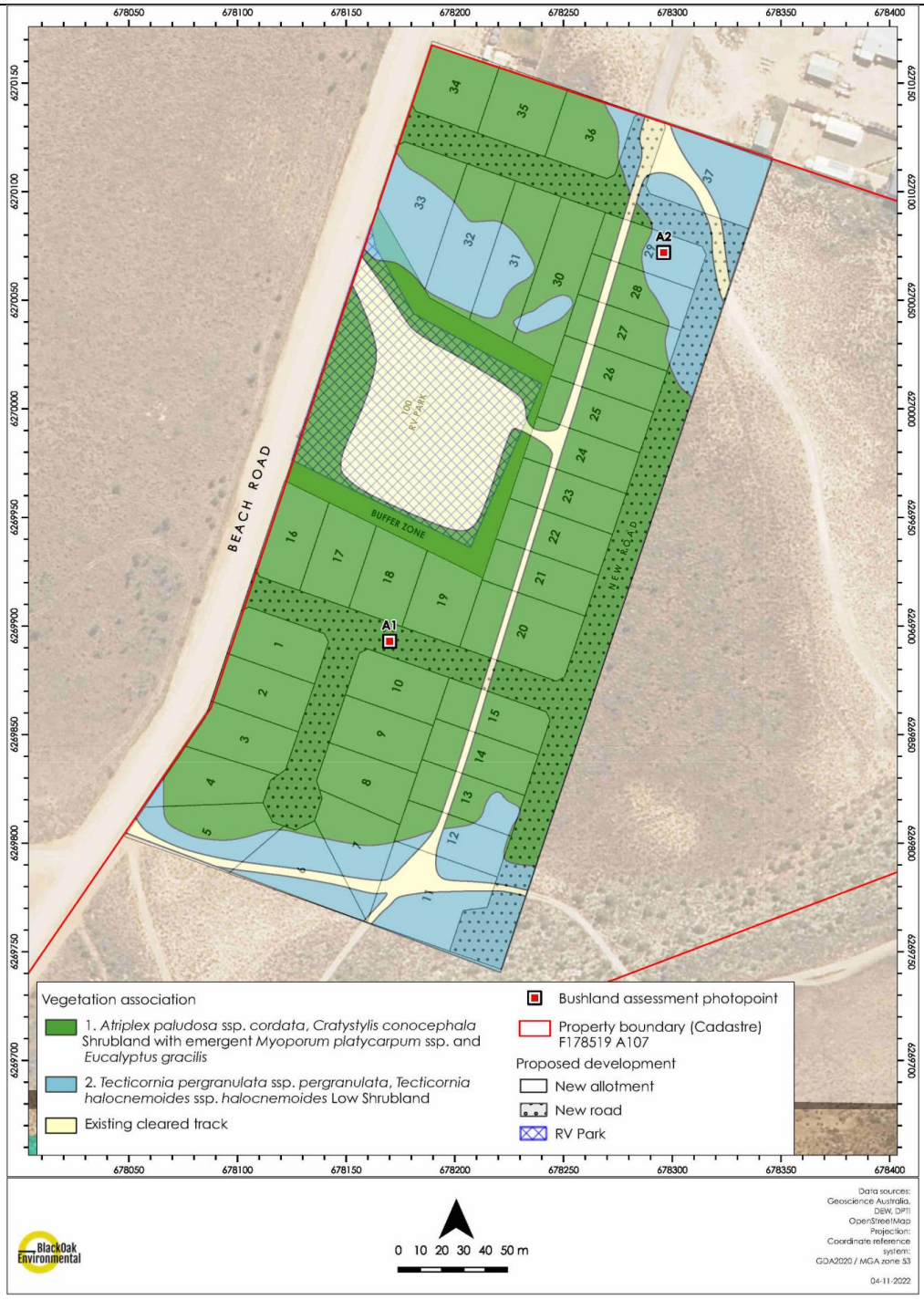
1. Application information

Application Details

Applicant:	[redacted] (Southern Launch)		
Key contact:	[redacted]		
Landowner:	The District Council of Franklin Harbour		
Site Address:	Farr Street, Cowell		
Local Government Area:	The District Council of Franklin Harbour	Hundred:	Playford
Title ID:	CT/5804/626	Parcel ID	F178519 A107

Summary of proposed clearance

Purpose of clearance	The clearance is required to develop a residential subdivision at Farr Street on the southern outskirts of Cowell. The proposal involves small allotments that will be completely cleared.
Native Vegetation Regulation	It is considered that the native vegetation clearance required for this project falls under the provisions of Division 5 of the *Native Vegetation Regulations 2017* which provide for the clearance of native vegetation under Part 6 – Other activities (regulation 12), Clause 35 – Residential subdivision 5(1)(ab).
Description of the vegetation under application	4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* in good condition. And 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland in good to excellent condition.
Total proposed clearance - area (ha)	4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* and 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland.
Level of clearance	Level 4.
Overlay (Planning and Design Code)	The Project area is within the Native Vegetation Overlay.
Map of proposed clearance area.	



Mitigation hierarchy	The clearance is required to develop a residential subdivision at Farr Street on the southern outskirts of Cowell. The subdivision will connect to the existing township of Cowell. The subject land is owned by District Council of Franklin Harbour and zoned as Neighborhood (Planning and Design Code). The following actions will be undertaken during construction of the residential subdevelopment to prevent impacts (Refer to CEMP): • Placing and storing equipment, vehicles and machinery away from nearby vegetated areas; • Placing soil and rock stockpiles away from nearby vegetated areas; • Clearly marking on ground areas that are to be avoided at all times to prevent unintended impacts or accidental clearance; and

	• Suppressing dust to prevent indirect impacts to nearby vegetated areas. The development will result in the direct clearance of 4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* and 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland. There is approximately 46% vegetation cover within 5 km of the Project area (NatureMaps 2022). The Project area is located within the Eyre Hills IBRA Subregion and the Cleve IBRA Association. The Eyre Hills Subregion has approximately 29% of native vegetation remaining and the Cleve Association has approximately 17% of native vegetation remaining. Approximately 17% of the native vegetation within the Cleve Association is protected (NatureMaps 2022). The majority of the land surrounding the Project area contains native vegetation, predominantly Chenopod Shrublands. *A Avicennia marina ssp. marina* (Mangrove) Low Open Forest is located approximately 350 m east of the Project area. The Project area is located within a 3021.93 patch of native vegetation (NatureMaps 2022). The direct clearance of vegetation (4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* and 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland) is considered permanent and therefore rehabilitation or restoration is not practicable.
SEB Offset proposal	A 70 ha Significant Environmental Benefit (SEB) offset was approved under application 2017/3045/922, which includes 15 ha on Lot 107 and 55 ha on Lot 283 (Refer to Attachment 2). The District Council of Franklin Harbour would like to retain and utilise the SEB offset. The SEB offset required under the current application equates to 319.70 points or approximately 39.97 ha.

2. Purpose of clearance

2.1 Description

The District Council of Franklin Harbour are proposing to develop a residential subdivision located on the south eastern fringe of the township of Cowell. The residential subdivision will include 37 allotments and sealed roads (Figure 3). A total of 5.68 ha of vegetation will require clearance for the development of the residential subdivision.

2.2 Background

A clearance application on behalf of The District Council of Franklin Harbour and associated vegetation assessment by L. Bebbington was lodged and approved by the Native Vegetation Council in 2017 (Refer to Attachment 2 for the Regulation Advice Notification). The application (2017/3045/922) was for the subject land; however, the endorsement was only for a period of 5 years (after which time a new endorsement is required).

Historical land use appears to have consisted of small holdings for township fringe dwellers as pottery fragments, glass bottles and old tins are scattered throughout the Project area. Old *Eucalyptus gracilis* (Yorrell) and *Myoporum platycarpum ssp.* (False Sandalwood) stumps that have been felled by axe are also found across the Project area which suggests that mallee communities may have been cleared for firewood and building timber. This was also noted during the February 2017 assessment (Bebbington 2017).

The majority of the land surrounding the Project area contains native vegetation, predominantly Chenopod Shrublands. An *Avicennia marina ssp. marina* (Mangrove) Low Open Forest is located approximately 350 m east of the Project area. The Project area is located within a 3021.93 ha patch of native vegetation (NatureMaps 2022). The proposed residential subdivision is situated on the south eastern fringe of the township of Cowell adjoining Farr Street.

The Project area is located within the Eyre Peninsula Landscape Management Region, the Jervois County, the Hundred of Playford and the District Council of Franklin Harbour. The NPWSA Franklin Harbor Conservation Park is located approximately 4.0 km south-east of the Project area. The Franklin Harbor Conservation Park covers an area of 1,974 ha (Figure 1). There are six Heritage Agreements (HA) ranging from 127 ha to 500 ha in size within 15 km of the Project area.

2.3 General location map

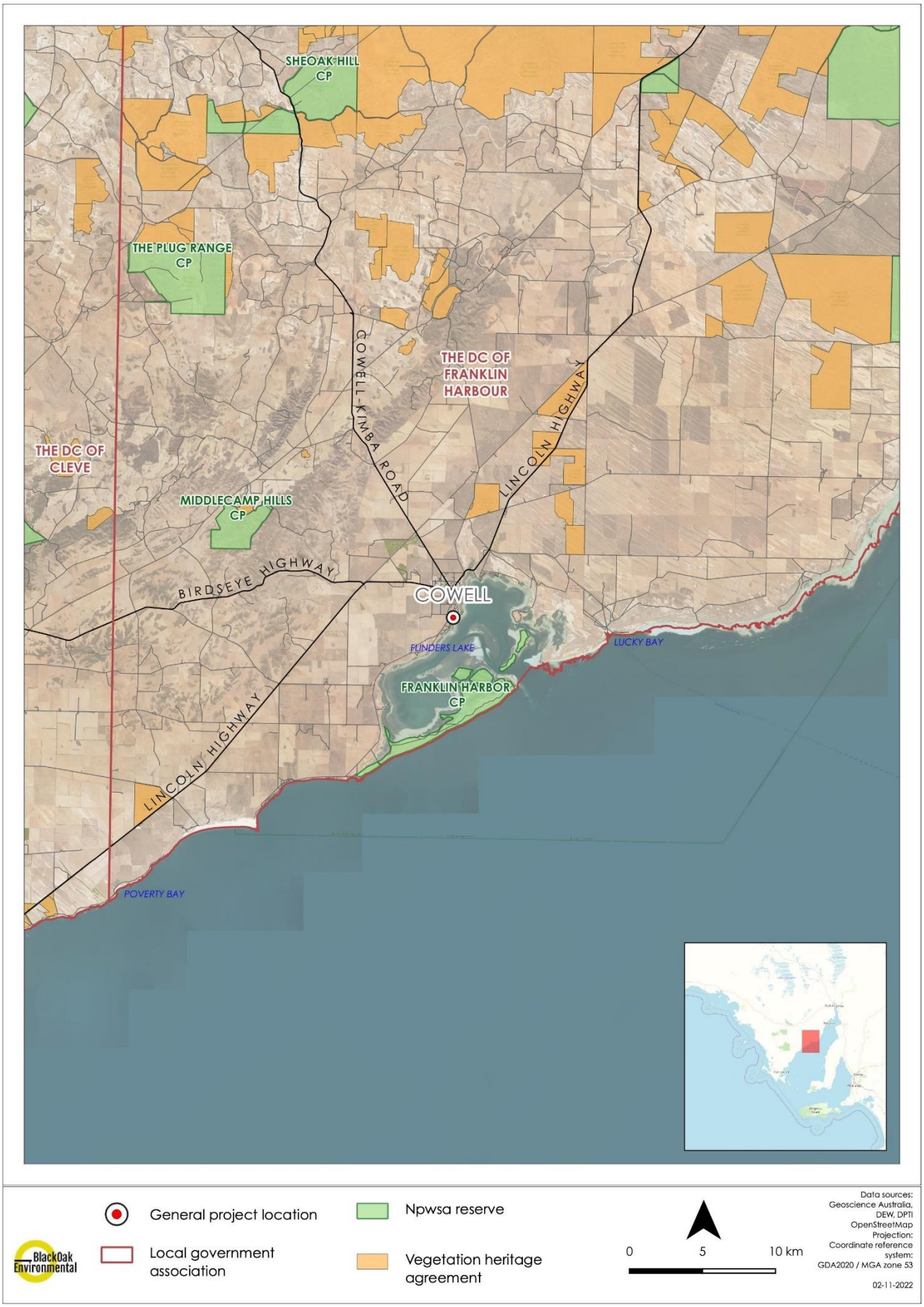


Figure 1. General location of the Project area.

Figure 2. Location of the Project area within proximity to the township of Cowell.

2.4 Details of the proposal

The land division application plan by Jefferey Fudge & Associates for The District Council of Franklin Harbour is provided in Appendix 4. The design plan overlaid on an aerial image is provided in Figure 3. The GIS shapefiles for the proposed project will be provided on submission of the Native Vegetation Clearance Proposal.

2.5 Approvals required *or* obtained

Native Vegetation Act 1991

The *Native Vegetation Act 1991* (NV Act) provides protection for native vegetation in South Australia and sets out a process for applying to clear vegetation. The Act ensures that areas of high conservation value are protected, and that clearances are subject to a thorough assessment process. The Native Vegetation Council (NVC) is responsible for providing advice and making decisions about the removal and re-establishment of native vegetation. In line with the Act. Clearance under the NV Act is the subject of this assessment and proposal.

A clearance application on behalf of The District Council of Franklin Harbour and associated vegetation assessment by L. Bebbington was lodged and approved by the Native Vegetation Council in 2017 (Refer to Attachment 1 for the Regulation Advice Notification). The application (2017/3045/922) was for the same subject land; however, the endorsement was only for a period of 5 years (after which time a new endorsement is required).

A 70 ha Significant Environmental Benefit (SEB) offset was also approved under application 2017/3045/922, which includes 15 ha on Lot 107 and 55 ha on Lot 283 (Refer to Attachment 2).

Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) applies to any action which is likely to have a significant impact on a Matter of National Environmental Significance (MNES). There are nine MNES that act as "triggers" for the Commonwealth assessment and approval process. A Protected Matters Search Tool (PMST) report was generated on 19 October 2022 to identify MNES under the EPBC Act potentially occurring within 5 km of the Project area.

All MNES applicable to the Project area have been considered in this assessment and proposal.

National Parks and Wildlife Act 1972

The *National Parks and Wildlife Act 1972* (NPW Act) provides for the establishment and management of reserves for public benefit and enjoyment; to provide for the conservation of wildlife in a natural environment; and for other purposes. Impacts to flora and fauna species listed under National Parks Schedules have been considered in this assessment and proposal. The NPWSA Franklin Harbor Conservation Park is located approximately 4.0 km south-east of the Project area. The Franklin Harbor Conservation Park covers an area of 1,974 ha (Figure 1).

Planning, Development and Infrastructure Act 2016

The *Planning, Development and Infrastructure Act 2016* provides for matters that are relevant to the use, development and management of land and buildings, including by providing a planning system to regulate development within the State, rules with respect to the design, construction and use of buildings, and other initiatives to facilitate the development of infrastructure, facilities and environments that will benefit the community.

2.6 Native Vegetation Regulation

It is considered that the native vegetation clearance required for this project falls under the provisions of Division 5 of the *Native Vegetation Regulations 2017,* which provide for the clearance of native vegetation under Part 6 – Other activities (regulation 12), Clause 35 – Residential subdivision 5(1)(ab).

2.7 Development Application information (if applicable)

The Project area is within the Neighbourhood (Planning and Design Code) the Native Vegetation Overlay.

3. Method

3.1 Flora assessment

A desktop assessment was conducted to assess the potential for any threatened flora species (both Commonwealth and State listed) to occur within the Project area. This was achieved by undertaking database searches of a 5 km buffer of the Project area, as specified in the Bushland Assessment Method (BAM) manual (NVC 2017).

A Protected Matters Report (PMR) was generated on 19 October 2022 to identify MNES (Matters of National Environmental Significance) under the EPBC Act (DoEE 2019). The PMR is maintained by DoEE and was used to identify flora and or ecological communities of national environmental significance that may occur or have suitable habitat within the Project area.

Flora species listed under South Australia's NPW Act were assessed using the NatureMaps Supertable, obtained through the general query tool on NatureMaps. The dataset was obtained on 19 October 2022 and was used to identify threatened species that have been recorded within the 5 km buffer of the Project area (DEW 2020). Known records of threatened species listed under the EPBC Act were also identified within this search.

The flora survey was conducted on 20 October 2022 by NVC accredited consultant Matt Launer. The flora assessment was performed in accordance with the BAM (NVC 2017). The Native Vegetation Council (NVC) BAM is suitable for assessing vegetation that is located within the agricultural region of South Australia. The BAM uses biodiversity 'surrogates' or 'indicators' to measure biodiversity value against benchmark communities. Each area to be assessed is termed an application area ('block'), within which different vegetation associations ('sites') are identified and compared to the Nature Conservation Society of South Australia's 'benchmark' vegetation communities.

A representative 1 ha quadrat was surveyed within the Project area. Three components of the biodiversity value of the site were measured and scored. These are: vegetation condition, conservation value and landscape context. The three component scores are combined to provide Unit Biodiversity Score (per ha) and then multiplied by the size (ha) of the site to provide a 'Total Biodiversity Score' for the site. This is used to calculate a Significant Environmental Benefit (SEB) area and value for payment in to the Native Vegetation Fund derived from the clearance of native vegetation (NVC 2017).

The Project area was traversed on foot and a complete flora species list was recorded. This was carried out in addition to the BAM quadrat. The survey also included targeted searches for species listed under the NPW Act 1972 and the EPBC Act 1999.

3.2 Fauna assessment

A desktop assessment was conducted to assess the potential for any threatened fauna species (both Commonwealth and State listed) to occur within the Project area. This was achieved by undertaking database searches of a 5 km buffer of the Project area, as specified in the Bushland Assessment Method (BAM) manual (NVC 2017).

A PMR was generated on 19 October 2022 to identify MNES (Matters of National Environmental Significance) under the EPBC Act (DoEE 2019). The PMR is maintained by DoEE and was used to identify fauna species of national environmental significance that may occur or have suitable habitat within the Project area.

Fauna species listed under South Australia's NPW Act were assessed using the NatureMaps Supertable, obtained through the general query tool on NatureMaps. The dataset was obtained on 19 October 2022 and was used to identify threatened species that have been recorded within the 5 km buffer of the Project area (DEW 2020). Known records of threatened species listed under the EPBC Act were also identified within this search. The Project area was traversed on foot. All vertebrate fauna species, signs of species (scats, tracks etc.) and potential habitat for fauna was recorded. The value of habitat for the threatened fauna species identified in the desktop assessment was also determined when surveying the Project area.

4. Assessment Outcomes

4.1 Vegetation Assessment

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

The Project area contained two vegetation associations; *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* (A1) and *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland (A2) (Figure 3). A total of 53 flora species were recorded which included 52 native species and 11 introduced species (Appendix 3). Two of the weed species recorded, *Gazania linearis* (Gazania) and *Lycium ferocissimum* (African Boxthorn) are listed as a declared species under the *Landscape South Australia Act 2019*.

Landforms consist of undulating coastal plains with sandy loams and shallow drainage depressions dominated by saline clays. Lichens and moss are present. Historical land use appears to have consisted of small holdings for township fringe dwellers as pottery fragments, glass bottles and old tins are scattered throughout the Project area. Old *Eucalyptus gracilis* (Yorrell) and *Myoporum platycarpum ssp.* (False Sandalwood) stumps that have been felled by axe are also found across the Project area which suggests that mallee communities may have been cleared for firewood and building timber. This was also noted during the February 2017 assessment (Bebbington 2017).

The Project area contains a 0.4 ha hardstand area for Recreational Vehicles (RV's) and several unsealed vehicle tracks (Figure 3). Parcel A107 is situated on the south eastern fringe of the township of Cowell. The adjoining Franklin Harbour is classified as Wetland of National Importance (SA010). Franklin Harbour is a shallow almost totally landlocked embayment with two entrance points to the harbour (Department of Environment and Natural Resources 1995).

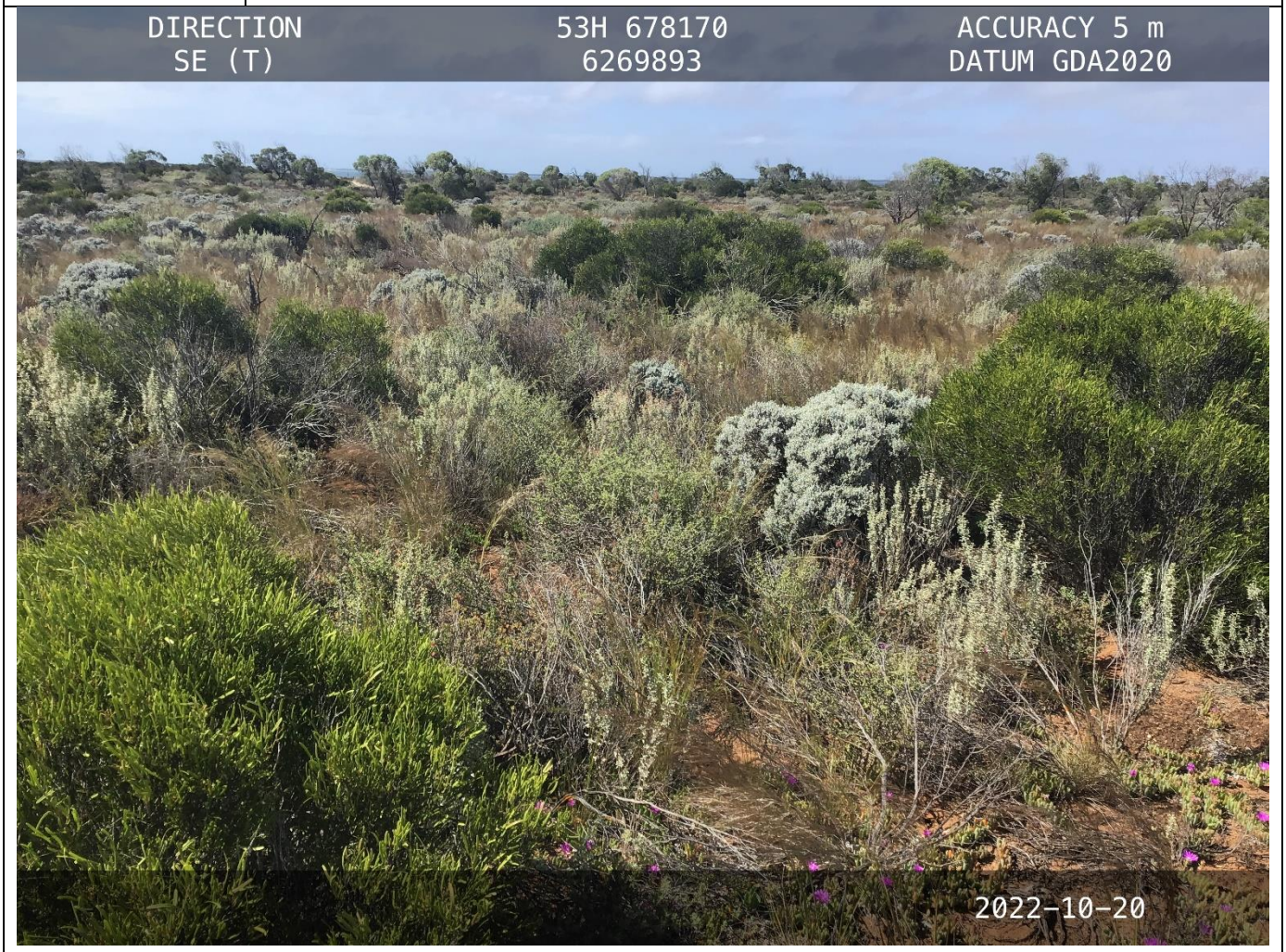
There is approximately 46% vegetation cover within 5 km of the Project area (NatureMaps 2022). The Project area is located within the Eyre Hills IBRA Subregion and the Cleve IBRA Association. The Eyre Hills Subregion has approximately 29% of native vegetation remaining and the Cleve Association has approximately 17% of native vegetation remaining. Approximately 17% of the native vegetation the Cleve Association is protected (NatureMaps 2022).

The NPWSA Franklin Harbor Conservation Park is located approximately 4.0 km south-east of the Project area. The Franklin Harbor Conservation Park covers an area of 1,974 ha (Figure 1). There are six Heritage Agreements (HA) ranging from 127 ha to 500 ha in size within 15 km of the Project area.

There were no threatened ecological communities or conservation rated flora species recorded within the *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* or *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland.

Details of the vegetation associations proposed to be impacted

Vegetation Association	*Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis*.



General description	A total of 39 flora species were recorded within the *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp*. and *Eucalyptus gracilis*, which includes: 39 native species and 8 introduced species (Appendix 3). One of the weed species recorded, *Lycium ferocissimum* (African Boxthorn) is listed as a declared species under the *Landscape South Australia Act 2019*. The vegetation has a projective foliage cover of approximately 60% (mid-dense) and is an average height of 0.5 m. Approximately 80% of the groundcover layer contained native vegetation, lichens and moss species. Dominant native species included: *Atriplex paludosa ssp. cordata* (Marsh Saltbush), *Cratystylis conocephala* (Bluebush Daisy), *Austrostipa drummondii* (Cottony Spear-grass), *Austrostipa scabra ssp. scabra* (Rough Spear-grass), *Geijera linearifolia* (Sheep Bush) and *Disphyma crassifolium ssp. clavellatum* (Round-leaf Pigface). *Eucalyptus gracilis* (Yorrell) and *Myoporum platycarpum ssp.* (False Sandalwood) trees were sparsely distributed and were an average height of 2.5 m and 2.0 m respectively. Common introduced species included: *Galenia secunda* (Galenia), *Reichardia tingitana* (False Sowthistle), *Carrichtera annua* (Ward's Weed), *Avena barbata* (Bearded Oat) and *Medicago polymorpha var. polymorpha* (Burr-medic). The vegetation was considered to be in good condition (Vegetation condition score = 40.25).

Threatened species or community	There were no threatened ecological communities or conservation rated flora species recorded within the *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis*.				
Landscape context score	1.16	Vegetation Condition Score	40.25	Conservation significance score	1.00
Unit biodiversity Score	46.69	Area (ha)	4.43	Total biodiversity Score	206.84

Vegetation Association	*Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland.

General description	A total of 19 flora species were recorded within the *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland, which includes: 12 native species and 7 introduced species (Appendix 3). One of the weed species recorded, *Gazania linearis* (Gazania) is listed as a declared species under the *Landscape South Australia Act 2019*. The vegetation has a projective foliage cover of approximately 45% (mid-dense) and is an average height of 0.4 m. Approximately 40% of the groundcover layer contained native vegetation and moss species. Dominant native species included: *Tecticornia halocnemoides ssp. halocnemoides* (Grey Samphire), *Tecticornia pergranulata ssp. pergranulata* (Black-seed Samphire), *Disphyma crassifolium ssp. clavellatum* (Round-leaf Pigface) and *Maireana oppositifolia* (Salt Bluebush). The diversity of flora species is typically low within saline clay soils. Common introduced species included: *Reichardia tingitana* (False Sowthistle), *Avena barbata* (Bearded Oat) and *Asphodelus fistulosus* (Onion Weed). The vegetation was considered to be in good to excellent condition (Vegetation condition score = 67.34).
Threatened species or community	There were no threatened ecological communities or conservation rated flora species recorded within the *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland.

Landscape context score	1.16	Vegetation Condition Score	67.34	Conservation significance score	1.00
Unit biodiversity Score	78.11	Area (ha)	1.25	Total biodiversity Score	97.64

Site map showing areas of proposed impact

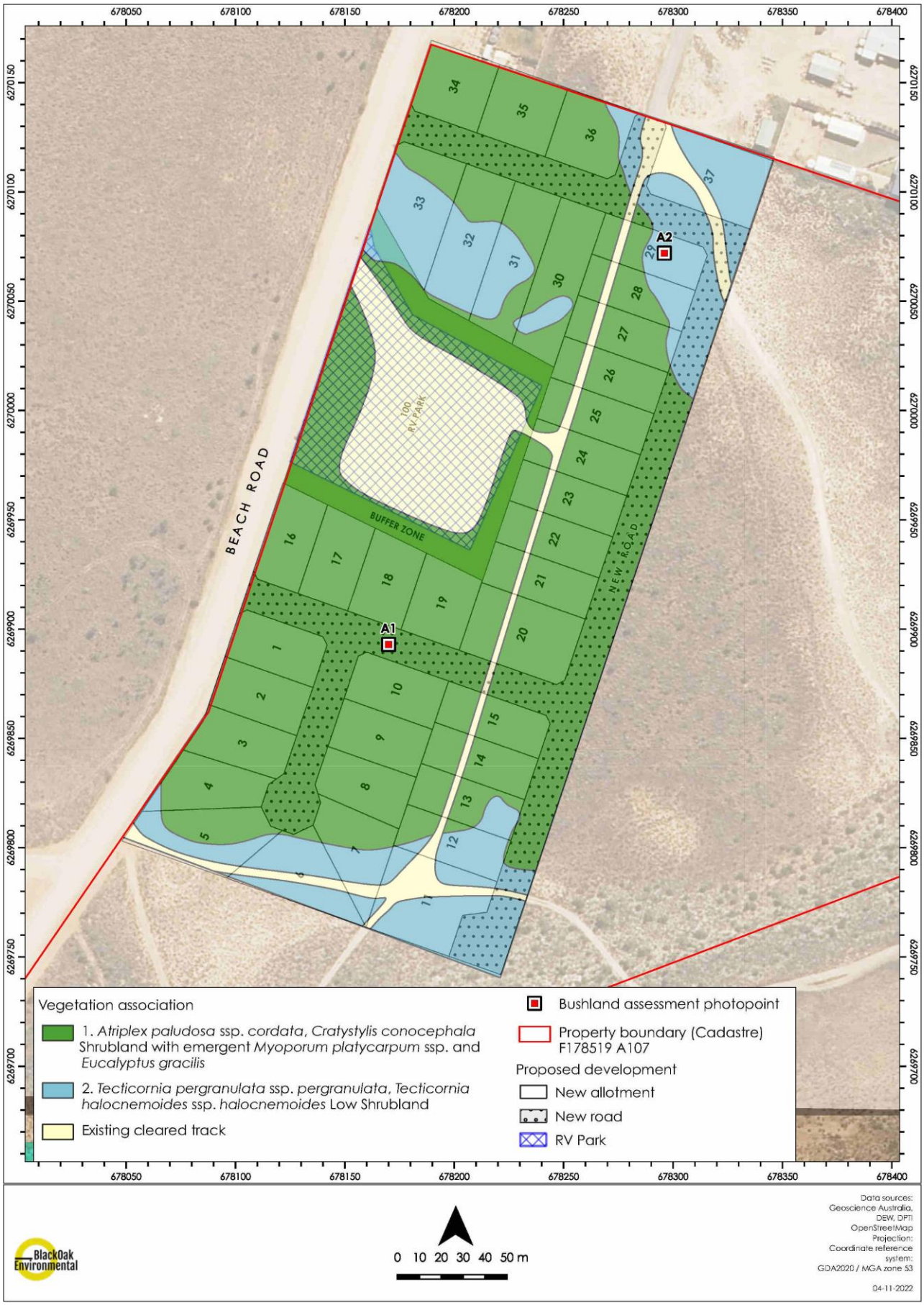


Figure 3. Vegetation association mapping and BAQ photopoint locations within the Project area.

4.2 Threatened Species assessment

Threatened Ecological Communities

One threatened ecological community (TEC) was identified in the PMR as potentially occurring within 5 km of the Project area. This was the Subtropical and Temperate Coastal Saltmarsh (EPBC Act: Vulnerable). The 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland recorded within the Project area does not meet the criteria for inclusion under the EPBC Act as it is not under regular or intermittent tidal influence. The ecological community requires some form of ongoing connection to the tidal regime (Department of Climate Change, Energy, the Environment and Water 2022). The saltmarsh within the Project area occurs on inland saline soils with no tidal connection.

No TEC's were recorded within the Project area during the field survey.

Provisional List of Threatened Ecosystems of SA

The two vegetation associations recorded within the Project are not listed under the Provisional List of Threatened Ecosystems of SA.

Nationally threatened flora

Six nationally threatened flora species were identified in the PMR as potentially occurring within 5 km of the Project area. One of these species was listed as 'Species or species habitat known to occur in the area'. This was *Acacia rhetinocarpa* (Neat Wattle, Resin Wattle) (EPBC Act: Vulnerable, NPW Act: Vulnerable) (refer to Table below).

No nationally threatened flora species were recorded during the field survey.

State threatened flora

No threatened flora species listed under the NPW Act were identified in the BDBSA search as being previously recorded within 5 km of the project area since 1995. No threatened flora species were recorded during the field survey.

Nationally threatened fauna

Thirty-five nationally threatened fauna species (Twenty-six birds, two fish, three mammals, three reptiles and one shark) were identified in the PMR as potentially occurring within 5 km of the Project area. Ten of these species were listed as 'Species or species habitat known to occur in the area'. This included the following species:

- Red Knot (*Calidris canutus*) (EPBC Act: Endangered).
- Curlew Sandpiper (*Calidris ferruginea*) (EPBC Act: Critically Endangered, NPW Act: Endangered).
- Malleefowl (*Leipoa ocellata*) (EPBC Act: Vulnerable, NPW Act: Vulnerable).
- Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit (*Limosa lapponica baueri*) (EPBC Act: Vulnerable, NPW Act: Rare).
- Eastern Curlew, Far Eastern Curlew (*Numenius madagascariensis*) (EPBC Act: Critically Endangered, NPW Act: Endangered).
- Australian Fairy Tern (*Sternula nereis nereis*) (EPBC Act: Vulnerable, NPW Act: Endangered).
- White-capped Albatross (*Thalassarche steadi*) (EPBC Act: Vulnerable).
- Eastern Hooded Plover, Eastern Hooded Plover (*Thinornis cucullatus cucullatus*) (EPBC Act: Vulnerable NPW Act: Vulnerable).
- Leatherback Turtle, Leathery Turtle, Luth (*Dermochelys coriacea*) (EPBC Act: Endangered, NPW Act: Vulnerable).
- White Shark, Great White Shark (*Carcharodon carcharias*) (EPBC Act: Vulnerable).

Two threatened fauna species listed under the EPBC Act were identified in the BDBSA search as being previously recorded within 5 km of the project area since 1995. These were the Malleefowl and Eastern Curlew. Both the Malleefowl and Eastern Curlew are considered unlikely to occur within the Project area due to a lack of preferred habitat (refer to Table below). No nationally threatened fauna species were recorded during the field survey.

State threatened fauna

Fifteen state threatened bird species listed under the NPW Act were identified in the BDBSA search as being previously recorded within 5 km of the Project area since 1995 (Figure 4). The majority of the threatened bird species recorded prefer and rely on coastal and inland wetlands.

No threatened fauna species listed under the NPW Act were recorded during the field survey.

Species observed on site, or 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	Species known habitat preferences	Likelihood of use for habitat – Comments
Flora						
Acacia rhetinocarpa (Neat Wattle, Resin Wattle)	V	VU	5	No records	Has a distribution throughout south-eastern South Australia occurring in the Arno Bay area, Eyre Peninsula, the Curramulka area, Yorke Peninsula, and between Gilberts and Monarto South. On Eyre Peninsula, the Neat Wattle grows on deep, yellow sand, on the gentle, east-facing slopes of a wide valley between low sand ridges. The species has been collected from low Mallee communities featuring White Mallee, Narrow-leaved Red Mallee, Gooseberry Mallee, Yellow Mallee and Chindoo Mallee.	Unlikely: No suitable habitat occurs within the Project area.
Birds						
Actitis hypoleucos (Common Sandpiper)	R		3	2009	In Australia, the Common Sandpiper is found in coastal or inland wetlands, both saline or fresh. It is found mainly on muddy edges or rocky shores.	Unlikely: No suitable habitat occurs within the Project area.
Ardeotis australis (Australian Bustard)	V		3	2017	Australian Bustards can be found in each state of Australia, but are less common in both the south and	Unlikely: No suitable habitat occurs within the Project area.

					south-eastern regions. Preferred habitats are on open grassed plains, low shrubbed areas and in woodland.	
Arenaria interpres interpres (Ruddy Turnstone)	R		3	2019	In Australia, Ruddy Turnstones are widespread around the coast of the mainland and off-shore islands. They breed on the northern coasts of Europe, Asia and North America. The Ruddy Turnstone is found singly or in small groups along the coastline and only occasionally inland. They are mainly found on exposed rocks or reefs, often with shallow pools, and on beaches.	Unlikely: No suitable habitat occurs within the Project area.
Biziura lobata (Musk Duck)	R		3	2019	Musk Ducks are found only in Australia. They range from north-west Western Australia, through the south and east to southern Queensland, and can be found several hundred kilometres inland in some areas. Musk Ducks tend to be found in deep freshwater lagoons, with dense reed beds. They are normally seen singly or in pairs, but may form medium to large groups in the winter.	Unlikely: No suitable habitat occurs within the Project area.

Bubulcus ibis coromandus (Eastern Cattle Egret)	R		3	2019	The Cattle Egret occurs in tropical and temperate grasslands, wooded lands and terrestrial wetlands. It has occasionally been seen in arid and semi-arid regions however this is extremely rare.	Unlikely: No suitable habitat occurs within the Project area.
Calidris canutus (Red Knot)	E	EN	5	No records	The Red Knot has a worldwide distribution, breeding at a range of locations right around the Arctic. The species then migrates to non-breeding areas that extend to the southernmost parts of the Americas, Africa, Europe and Australasia.	Unlikely: No suitable habitat occurs within the Project area.
Calidris ferruginea (Curlew Sandpiper)	E	EN	5	No records	In South Australia, Curlew Sandpipers occur in widespread coastal and subcoastal areas east of Streaky Bay. Important sites include the former saltfields at Bolivar now part of the Adelaide International Bird Sanctuary, and The Coorong. Occurs on intertidal mudflats in sheltered coastal areas, such as estuaries, bays, inlets and lagoons, as well as around non-tidal swamps, lakes and lagoons near the coast, and ponds in saltworks and sewage farms.	Unlikely: No suitable habitat occurs within the Project area.

Calidris melanotos (Pectoral Sandpiper)	R		3	2002	In Australasia, the Pectoral Sandpiper prefers shallow fresh to saline wetlands. The species is found at coastal lagoons, estuaries, bays, swamps, lakes, inundated grasslands, saltmarshes, river pools, creeks, floodplains and artificial wetlands.	Unlikely: No suitable habitat occurs within the Project area.
Cladorhynchus leucocephalus (Banded Stilt)	V		3	1996	Banded Stilts are found mainly in saline and hypersaline (very salty) waters of the inland and coast, typically large, open and shallow.	Unlikely: No suitable habitat occurs within the Project area.
Egretta garzetta nigripes (Little Egret)	R		3	2018	The Little Egret is found mainly in coastal and inland areas of northern, eastern and south-eastern Australia. Frequents tidal mudflats, saltwater and freshwater wetlands, and mangroves.	Unlikely: No suitable habitat occurs within the Project area.
Haematopus fuliginosus fuliginosus (Sooty Oystercatcher)	R		3	2019	The Sooty Oystercatcher is widespread in coastal eastern, southern and western Australia. The Sooty Oystercatcher is strictly coastal, usually within 50 m of the ocean. It prefers rocky shores, but will be seen on coral reefs or sandy beaches near mudflats. It breeds on offshore	Unlikely: No suitable habitat occurs within the Project area.

					islands and isolated rocky headlands.	
Haematopus longirostris (Pied Oystercatcher)	E		3	2019	The Pied Oystercatcher is found in coastal areas throughout the Australian continent except for areas of unbroken sea cliffs. They prefer mudflats, sandbanks and sandy ocean beaches and is less common along rocky or shingle coastlines.	Unlikely: No suitable habitat occurs within the Project area.
Haliaeetus leucogaster (White-bellied Sea Eagle)	E		3	2006	The White-bellied Sea-Eagle is distributed along the coastline (including offshore islands) of mainland Australia and Tasmania. The White-bellied Sea-Eagle is found in coastal habitats (especially those close to the sea-shore) and around terrestrial wetlands in tropical and temperate regions of mainland Australia and its offshore islands.	Unlikely: No suitable habitat occurs within the Project area.
Leipoa ocellata (Malleefowl)	V	VU	5, 3	1999	The Murray Mallee is the stronghold for the Malleefowl, but it has severely declined throughout its range. It is now found in scattered locations through semi-arid rangelands and dry-land cropping zones in the south east of South Australia and the	Unlikely: No suitable habitat occurs within the Project area.

					Eyre Peninsula. Principally found in mallee eucalypt woodland and scrub as well as dry forest dominated by other eucalypts, Mulga, and other Acacia spp. They feed on seeds and herbage and build nest mounds in sandy substrates with leaf litter.	
Limosa lapponica baueri (Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit)	R	VU	5	No records	The Nunivak Bar-tailed Godwit has been recorded in the coastal areas of all Australian states. occurs mainly in coastal habitats such as large intertidal sandflats, banks, mudflats, estuaries, inlets, harbours, coastal lagoons and bays.	Unlikely: No suitable habitat occurs within the Project area.
Numenius madagascariensis (Eastern Curlew, Far Eastern Curlew)	E	CE	5, 3	2015	During the non-breeding season in Australia, the eastern curlew is most commonly associated with sheltered coasts, especially estuaries, bays, harbours, inlets and coastal lagoons, with large intertidal mudflats or sandflats, often with beds of seagrass. Occasionally, the species occurs on ocean beaches and coral reefs, rock platforms, or rocky islets.	Unlikely: No suitable habitat occurs within the Project area.
Oxyura australis (Blue-billed Duck)	R		3	2017	The Blue-billed Duck is almost wholly aquatic, and is seldom seen on land. Non-breeding	Unlikely: No suitable habitat occurs within the Project area.

					flocks, often with several hundred individuals, congregate on large, deep open freshwater dams and lakes in autumn.	
Pachycephala inornata (Gilbert's Whistler)	R		3	2016	Gilbert's Whistlers usually inhabit semi-arid mallee or box–ironbark eucalypt, acacia, cypress-pine or Belah shrublands and woodlands (or mixed assemblages of these), usually with a dense, continuous or patchy understorey of shrubs such as acacias, Eremophila, Dodonaea or Cassia; they inhabit these shrubs in the understorey.	Unlikely: No suitable habitat occurs within the Project area.
Sternula nereis nereis (Australian Fairy Tern)	V	EN	5	No records	Within Australia, the Fairy Tern occurs along the coasts of Victoria, Tasmania, South Australia and Western Australia; occurring as far north as the Dampier Archipelago near Karratha.	Unlikely: No suitable habitat occurs within the Project area.
Thalassarche steadi (White-capped Albatross)		VU	5	No records	The White-Capped Albatross is a marine species and occurs in subantarctic and subtropical waters.	Unlikely: No suitable habitat occurs within the Project area.
Thinornis cucullatus cucullatus (Eastern Hooded Plover, Eastern Hooded Plover)	V	VU	5	No records	The Hooded Plover is a small Australian beach nesting bird. It mainly occurs on wide beaches backed by dunes with large amounts	Unlikely: No suitable habitat occurs within the Project area.

					of seaweed and jetsam, creek mouths and inlet entrances. Nests are found above the high-water mark on flat beaches, on stony terraces, or on sparsely vegetated dunes.	
Reptiles						
Dermochelys coriacea (Leatherback Turtle, Leathery Turtle, Luth)	V	EN	5	No records	The Leatherback Turtle is a pelagic feeder, found in tropical, subtropical and temperate waters throughout the world. It has been recorded feeding in the coastal waters of all Australian States. No major nesting has been recorded in Australia, although scattered isolated nesting occurs in southern Queensland.	Unlikely: Marine species.
Sharks						
Carcharodon carcharias (White Shark, Great White Shark)		VU	5	No records	Great White Sharks are widely, but not evenly, distributed in Australian waters. Areas where observations are more frequent include waters in and around some Fur Seal and Sea Lion colonies such as the Neptune Islands (South Australia); areas of the Great Australian Bight as well as the Recherche Archipelago and the islands off the lower west coast of Western Australia.	Unlikely: Marine species.

					Great White Sharks can be found from close inshore around rocky reefs, surf beaches and shallow coastal bays to outer continental shelf and slope areas. They also make open ocean excursions and can cross ocean basins. Great White Sharks are often found in regions with high prey density, such as pinniped colonies.	
Source; 1- BDBSA, 2 - AoLA, 3 – NatureMaps 4 – Observed/recorded in the field, 5 - Protected matters search tool, 6 – others NP&W Act; E= Endangered, V = Vulnerable, R= Rare EPBC Act; Ex = Extinct, CR = Critically endangered, EN = Endangered; VU = Vulnerable						

Criteria for the likelihood of occurrence of species within the Study 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 provided 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 provided 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.

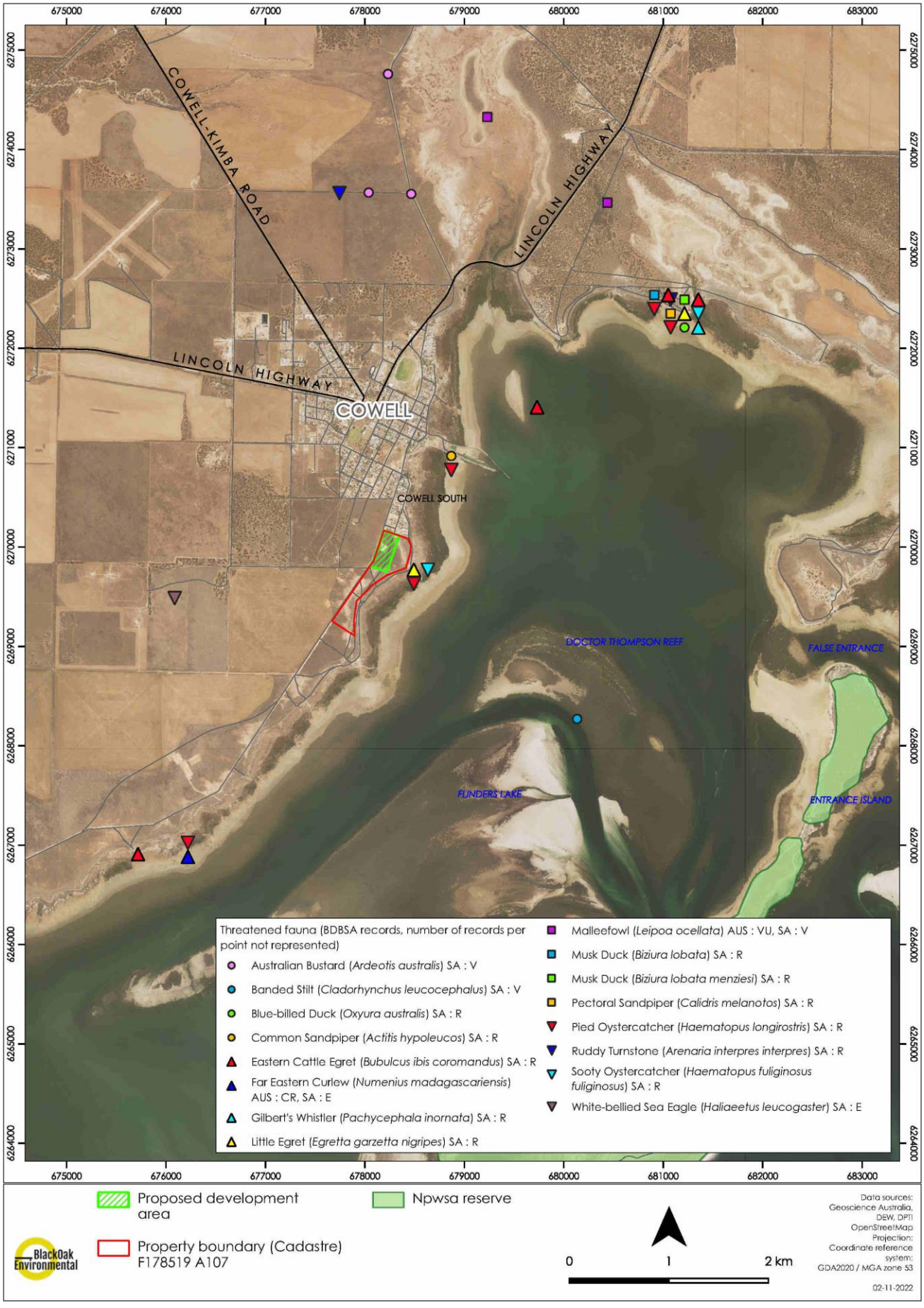


Figure 4. Threatened fauna species identified within 5 km of the Project area in the BDBSA search. Only records since 1995 are shown.

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 clearance is required to develop a residential subdivision located on the south eastern fringe of the township of Cowell. The residential subdivision will include 37 allotments and sealed roads. The development will result in the direct clearance of 4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* and 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland.

There will be no subsequent clearance of native vegetation required for the project.

Indirect impacts that could potentially occur as a result of the development have been identified and controls will be implemented via a Construction Environmental Management Plan (CEMP). Possible indirect impacts which will be managed include:

- Clearance for access of construction machinery or material access;
- Dust generation, including smothering of vegetation;
- Impacts on the root zone of vegetation, such as adding fill to adjust ground level, compaction of soils, severing of roots through trenching for infrastructure, and the construction of hard surfaces which may reduce the infiltration of water; and
- Introduction of new weed species or pathogens to the Project area via vehicles, machinery and materials.

All matters listed in the 'Guide for clearance applications' have been considered.

4.4 Address the Mitigation Hierarchy

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

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

The clearance is required to develop a residential subdivision at Farr Street on the southern outskirts of Cowell. The subdivision will connect to the existing township of Cowell (Figure 3). The subject land is owned by District Council of Franklin Harbour and zoned as Neighborhood (Planning and Design Code).

The following actions will be undertaken during construction of the residential subdevelopment to prevent impacts (Refer to CEMP):

- Placing and storing equipment, vehicles and machinery away from nearby vegetated areas;
- Placing soil and rock stockpiles away from nearby vegetated areas;
- Clearly marking on ground areas that are to be avoided at all times to prevent unintended impacts or accidental clearance; and
- Suppressing dust to prevent indirect impacts to nearby vegetated areas.

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 development will result in the direct clearance of 4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* and 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland.

There is approximately 46% vegetation cover within 5 km of the Project area (NatureMaps 2022). The Project area is located within the Eyre Hills IBRA Subregion and the Cleve IBRA Association. The Eyre Hills Subregion has approximately 29% of native vegetation remaining and the Cleve Association has approximately 17% of native vegetation remaining. Approximately 17% of the native vegetation within the Cleve Association is protected

(NatureMaps 2022). The majority of the land surrounding the Project area contains native vegetation, predominantly Chenopod Shrublands. *A Avicennia marina ssp. marina* (Mangrove) Low Open Forest is located approximately 350 m east of the Project area. The Project area is located within a 3021.93 patch of native vegetation (NatureMaps 2022).

Direct and indirect impacts have been discussed above in section (a) Avoidance – outline measures taken to avoid indirect clearance of native vegetation.

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

The direct clearance of vegetation (4.43 ha of *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* and 1.25 ha of *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland) is considered permanent and therefore rehabilitation or restoration is not practicable.

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.

A 70 ha Significant Environmental Benefit (SEB) offset was approved under application 2017/3045/922 which includes 15 ha on Lot 107 and 55 ha on Lot 283 (Refer to Attachment 2). The District Council of Franklin Harbour would like to retain and utilise the SEB offset. The SEB offset required under the current application equates to 319.70 points or approximately 39.97 ha.

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

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
Principle 1a - it comprises a high level of diversity of plant species	Relevant information A total of 39 flora species were recorded within the *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp*. and *Eucalyptus gracilis* (A1), which includes: 39 native species and 8 introduced species. One of the weed species recorded, *Lycium ferocissimum* (African Boxthorn) is listed as a declared species under the *Landscape South Australia Act 2019*. A total of 19 flora species were recorded within the *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland (A2), which includes: 12 native species and 7 introduced species. One of the weed species recorded, *Gazania linearis* (Gazania) is listed as a declared species under the *Landscape South Australia Act 2019*. No threatened flora species listed under the EPBC Act or NPW Act were recorded during the field survey. Patches; A1 = 4.43 ha and A2 = 1.25 ha. Bushland Plant Diversity Score – A1 = 24 and A2 = 30.
	Assessment against the principles Seriously at Variance *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* (A1) and *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland (A2). At Variance – Not applicable.
	Moderating factors that may be considered by the NVC Amount of clearance related to area of remnant. 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'. The proposed development will result in the clearance of 5.68 ha of vegetation. There is approximately 3,612.84 ha of native vegetation within a 5 km radius of the Project area (NatureMaps 2022). 0.25% of 3,612.84 ha equates to 9.03 ha, given the clearance area is less than 0.25% (5.68 ha) Principle 1a may be reduced from or 'Seriously at variance' to 'At variance'.
Principle 1b - significance as a habitat for wildlife	Relevant information A desktop assessment was conducted to assess the potential for any threatened species (both Commonwealth and State listed) that could occur within the Project area. Thirty-five nationally threatened fauna species (Twenty-six birds, two fish, three mammals, three reptiles and one shark) were identified in the PMR as potentially occurring within 5 km of the Project area. Ten of these species were listed as 'Species or species habitat known to occur in the area'. This included the following species: • Red Knot (*Calidris canutus*) (EPBC Act: Endangered). • Curlew Sandpiper (*Calidris ferruginea*) (EPBC Act: Critically Endangered, NPW Act: Endangered).

	• Malleefowl (*Leipoa ocellata*) (EPBC Act: Vulnerable, NPW Act: Vulnerable). • Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit (*Limosa lapponica baueri*) (EPBC Act: Vulnerable, NPW Act: Rare). • Eastern Curlew, Far Eastern Curlew (*Numenius madagascariensis*) (EPBC Act: Critically Endangered, NPW Act: Endangered). • Australian Fairy Tern (*Sternula nereis nereis*) (EPBC Act: Vulnerable, NPW Act: Endangered). • White-capped Albatross (*Thalassarche steadi*) (EPBC Act: Vulnerable). • Eastern Hooded Plover, Eastern Hooded Plover (*Thinornis cucullatus cucullatus*) (EPBC Act: Vulnerable NPW Act: Vulnerable). • Leatherback Turtle, Leathery Turtle, Luth (*Dermochelys coriacea*) (EPBC Act: Endangered, NPW Act: Vulnerable). • White Shark, Great White Shark (*Carcharodon carcharias*) (EPBC Act: Vulnerable). Two threatened fauna species listed under the EPBC Act were identified in the BDBSA search as being previously recorded within 5 km of the project area since 1995. These were the Malleefowl and Eastern Curlew. Both the Malleefowl and Eastern Curlew are considered unlikely to occur within the Project area due to a lack of preferred habitat. Fifteen state threatened bird species listed under the NPW Act were identified in the BDBSA search as being previously recorded within 5 km of the Project area since 1995. The majority of the threatened bird species recorded prefer and rely on coastal and inland wetlands. Eight bird species, two introduced mammal species and one reptile species were detected within the Project area during the survey. Additional surveys within the Project area would likely result in added species of regionally common birds and reptiles being recorded. No threatened fauna species listed under the EPBC Act or NPW Act were recorded during the field survey. Patches; Threatened Fauna Score – 0.00 Unit biodiversity Score – 78.11
	<u>Assessment against the principles</u> <u>Seriously at Variance</u> *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland (A2). <u>At Variance</u> – Not applicable.
	<u>Moderating factors that may be considered by the NVC</u> Impact Significance The following criteria are used to determine whether an action will have a significant impact on listed threatened fauna species and therefore clearance will be raised to 'Seriously at variance'. A clearance action will have or is likely to have a significant impact on a threatened species if it may: • lead to a long-term decrease in the size of a population, or • reduce the area of occupancy of the species, or • fragment an existing population into two or more populations, or • adversely affect habitat critical to the survival of a species, or • modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline, or • result in invasive species that are harmful to a threatened species becoming established in the threatened species habitat, or • interfere with the recovery of the species.

	If the NVC are of the opinion that the clearance will not have a significant impact on fauna habitat, the clearance may be reduced to 'At variance'. Significant benefit If the SEB provides a benefit to the threatened species that is well over and above what is required in the SEB Policy and Guide, it may be reduced to 'At variance'. Common species If the vegetation provides habitat for native species that are relatively common, and the area of clearance is not considered essential habitat to maintain the local population, it may be reduced to 'At variance'. Non-essential habitat If the clearance is of non-essential habitat for threatened species and the clearance will have a negligible impact on that species local population over the long term (i.e., next 20 to 50 years), it may be reduced to 'At variance'.
Principle 1c - plants of a rare, vulnerable or endangered species	Relevant information N/A
	Assessment against the principles Seriously at Variance N/A At Variance – N/A
	Moderating factors that may be considered by the NVC
***Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered*:**	Relevant information N/A
	Assessment against the principles Seriously at Variance N/A
	Moderating factors that may be considered by the NVC N/A
Principle 1e - it is significant as a remnant of vegetation in an area which has been extensively cleared.	Relevant information There is approximately 46% vegetation cover within 5 km of the Project area (NatureMaps 2022). The Project area is located within the Eyre Hills IBRA Subregion and the Cleve IBRA Association. The Eyre Hills Subregion has approximately 29% of native vegetation remaining and the Cleve Association has approximately 17% of native vegetation remaining. Approximately 17% of the native vegetation within the Cleve Association is protected (NatureMaps 2022). The majority of the land surrounding the Project area contains native vegetation, predominantly Chenopod Shrublands. An *Avicennia marina ssp. marina* (Mangrove) Low Open Forest is located approximately 350 m east of the Project area. The Project area is located within a 3021.93 ha patch of native vegetation (NatureMaps 2022). The vegetation within A1 was considered to be in good condition (Vegetation condition score = 40.25) and the vegetation within A2 was considered to be in good to excellent condition (Vegetation condition score = 67.34). Total Biodiversity Score - 304.47

	Assessment against the principles Seriously at Variance N/A At Variance *Atriplex paludosa ssp. cordata*, *Cratystylis conocephala* Shrubland with emergent *Myoporum platycarpum ssp.* and *Eucalyptus gracilis* (A1) and *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland (A2).
	Moderating factors that may be considered by the NVC Impact significance The following criteria are used to determine whether a clearance proposal will have a significant impact on a remnant in a highly landscape and therefore clearance will be raised to 'Seriously at variance' with this principle. An action has, will have, or is likely to have a significant impact on a remnant in a highly cleared landscape if it does, will, or is likely to: • impact on a tree species or vegetation community that has been selectively removed within the IBRA Association or IBRA Subregion and are therefore underrepresented in the vegetation that remains. • Impact on a remnants in relatively good condition, particularly if the vegetation within the IBRA Association or IBRA Subregion where vegetation has largely been degraded. *Quality of remnant* If the vegetation is in poor to very poor condition, is continuing to degrade and its long term (next 20 to 50 years) persistence is unlikely, then it may be reduced to 'At variance'.
Principle 1f - it is growing in, or in association with, a wetland environment.	Relevant information N/A
	Assessment against the principles Seriously at Variance N/A At Variance – N/A
	Moderating factors that may be considered by the NVC N/A
Principle 1g - it contributes significantly to the amenity of the area in which it is growing or is situated.	Relevant information N/A
	N/A
	Moderating factors that may be considered by the NVC N/A

4.6 Risk Assessment

Determine the level of risk associated with the application

Total clearance	No. of trees	Not applicable.
	Area (ha)	5.68
	Total biodiversity Score	304.47
Seriously at variance with principle 1(b), 1(c) or 1 (d)		The *Tecticornia pergranulata ssp. pergranulata*, *Tecticornia halocnemoides ssp. halocnemoides* Low Shrubland (A2) is seriously at variance with principle 1 (b).
Risk assessment outcome		Level 4.

5. Clearance summary

Clearance Area(s) Summary table

Block	Site	Species diversity score	Threatened Ecological community	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
A	A1	24	1	0	0	46.69	4.43	206.84	1			217.18	$78,134.47	$4,297.40
A	A2	30	1	0	0	78.11	1.25	97.64	1			102.52	$36,883.47	$2,028.59
						Total	**5.68**	**304.47**				**319.70**	**$115,017.94**	**$6,325.99**

Totals summary table

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	304.47	319.70	$115,017.94	$6,325.99	$121,343.92

Economies of Scale Factor	0.50
Rainfall (mm)	269

6. Significant Environmental Benefit

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

ACHIEVING AN SEB

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

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

☒ Use SEB Credit that the proponent has established. Provide the SEB Credit Ref. No. _____

☐ Apply to have SEB Credit assigned from another person or body. The application form needs to be submitted with this Data Report.

☐ Apply to have an SEB to be delivered by a Third Party. The application form needs to be submitted with this Data Report.

☐ Pay into the Native Vegetation Fund.

A 70 ha Significant Environmental Benefit (SEB) offset was approved under application 2017/3045/922 which includes 15 ha on Lot 107 and 55 ha on Lot 283 (Refer to Attachment 2). The District Council of Franklin Harbour would like to retain and utilise the SEB offset.

The SEB offset required under the current application equates to 319.70 points or approximately 39.97 ha.

7. Appendices

Appendix 1. Fauna species list.

Fauna assessment

Eight bird species, two introduced mammal species and one reptile species were detected within the Project area during the survey (Refer to table below). None of the fauna species recorded are listed as threatened under the EPBC Act or NPW Act. Additional surveys within the Project area would likely result in additional species of regionally common birds and reptiles being recorded.

Class name	**Species name**	**Common name**	**Quantity observed/comment**
AVES	*Artamus cyanopterus*	Dusky Woodswallow	Common
AVES	*Chroicocephalus novaehollandiae*	Silver Gull	2
AVES	*Coracina novaehollandiae*	Black-faced Cuckooshrike	4
AVES	*Corvus coronoides*	Australian Raven	Common
AVES	*Eolophus roseicapilla*	Galah	5 (fly over)
AVES	*Gavicalis virescens*	Singing Honeyeater	Common
AVES	*Rhipidura leucophrys*	Willie Wagtail	Common
AVES	*Turnix velox*	Little Buttonquail	1
MAMMALIA	**Canis lupus familiaris*	Feral Dog	Tracks and scats
MAMMALIA	**Oryctolagus cuniculus*	Rabbit (European Rabbit)	Old scats
REPTILIA	*Ctenotus sp.*		1

* = Introduced species.

Appendix 2. Bushland Assessment Scoresheets.

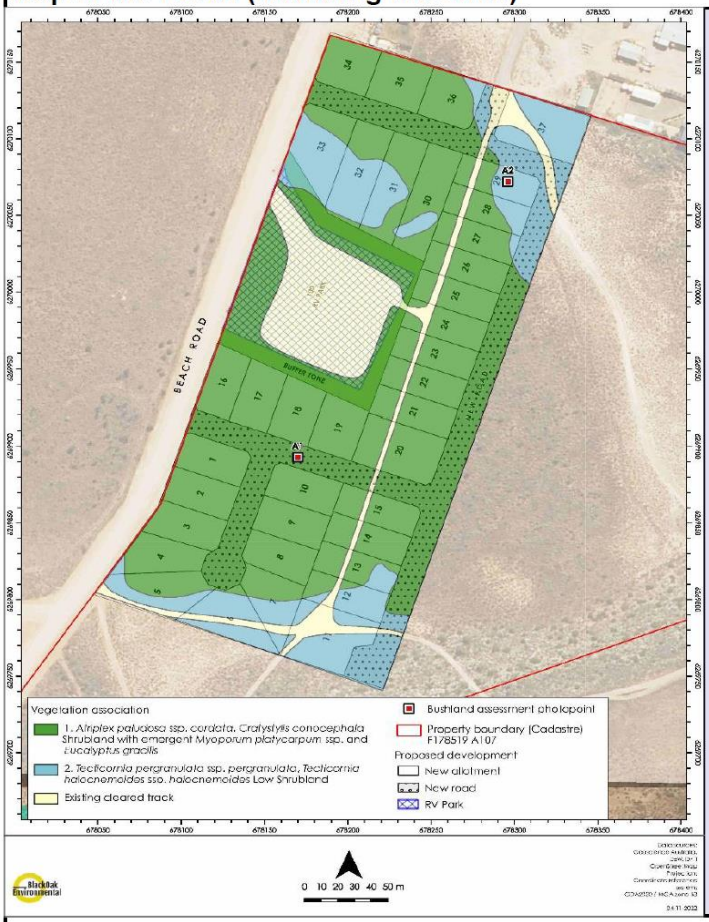
A1.

Bushland Assessment Scoresheets (Version - 22 Oct 2021)

Block	A
Size of Block (Ha)	5.680
Landscapes Region	Eyre Peninsula
BCM Region	Eyre Peninsula
IBRA Association	Cleve
IBRA Subregion	Eyre Hills

ASSESSOR(S)	Matt Launer
DATE OF ASSESSMENT	20/10/2022

Map of the Block (Including the Sites)



Landscape Context Scores

% native veg. remaining in IBRA Assoc.	17
% native veg. remaining in IBRA subregion	29
0 - 10% = 0.05 pts; >10-20% = 0.04 pts; >20-30% = 0.03 pts; >30-60% = 0.02 pts; > 60 = 0 pts — **Score**	0.07

Score received for both IBRA assoc. and subregion then summed

Percent Vegetation Cover (5km radius) (%)	46
0-5% = 0 pts; >5-10% = 0.02 pts; >10-25% = 0.04 pts; >25-50% = 0.06 pts; >50-75% = 0.03 pt; >75-100% = 0 pts — **Score**	0.06

% native veg. protected IBRA Assoc.	17
0-10% = 0.03 pts; >10-20% = 0.02 pts; >20-40% = 0.01 pt; >40% = 0 — **Score**	0.02

Block Shape Cleared perimeter:Area (km/km2)	
Cleared Perimeter (m) =	814
Cleared Perimeter to area ratio	14.33
<6 = 0.03 pts; 6 to <12 = 0.02 pts; 12 to <18 = 0.01 pt — **Score**	0.01

Wetland or Riparian Habitat present	
Riparian zone present (Yes/No) = 0.02 pt	No
Swamp/wetland present (Yes/No) = 0.03 pts	No
(Swamp/wetland may be +/- riparian zone) — **Score**	0

Note; Blocks will score a minimum Landscape Context Score of 1

LANDSCAPE CONTEXT SCORE (max 1.25)	**1.16**

Plant Species Recorded (Native and Introduced)		Listed Species			Natives only		
Species	Common Name	EPBC	SA	Not in quadrat	Regen	Annual Herbs Spring survey	Introduced Species
Atriplex holocarpa	Pop Saltbush						
Atriplex paludosa ssp. cordata	Marsh Saltbush				Yes		
Atriplex vesicaria	Bladder Saltbush						
Austrostipa elegantissima	Feather Spear-grass						
Austrostipa scabra ssp. scabra	Rough Spear-grass				Yes		
Austrostipa drummondii	Cottony Spear-grass				Yes		
Cratystylis conocephala	Bluebush Daisy						
Dianella revoluta var.							
Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface				Yes		
Enchylaena tomentosa var.	Ruby Saltbush						
Eragrostis dielsii	Mulka						
Eremophila glabra ssp.	Tar Bush						
Eucalyptus gracilis	Yorrell						
Frankenia pauciflora var.	Southern Sea-heath						
Geijera linearifolia	Sheep Bush						
Hemichroa diandra	Mallee Hemichroa				Yes		
Lycium australe	Australian Boxthorn						
Myoporum platycarpum ssp. platycarpum	False Sandalwood						
Nitraria billardierei	Nitre-bush						
Rhagodia candolleana ssp.	Sea-berry Saltbush				Yes		
Rytidosperma setaceum	Small-flower Wallaby-grass				Yes		
Salsola australis	Buckbush						
Sclerolaena diacantha	Grey Bindyi						
Sclerolaena obliquicuspis	Oblique-spined Bindyi				Yes		
Tecticornia pergranulata ssp. pergranulat	Black-seed Samphire						
Scaevola spinescens	Spiny Fanflower						
Santalum acuminatum	Quandong				Yes		
Carpobrotus rossii	Native Pigface						
Maireana erioclada	Rosy Bluebush				Yes		
Tetragonia implexicoma	Bower Spinach				Yes		
Threlkeldia diffusa	Coast Bonefruit						
Roepera ovata	Dwarf Twinleaf				Yes		
Rhagodia crassifolia	Fleshy Saltbush						
Senna artemisioides ssp. X coriacea	Broad-leaf Desert Senna						
Minuria cunninghamii	Bush Minuria						
Senecio pinnatifolius group	Variable Groundsel				Yes		
Lawrencia spicata	Salt Lawrencia						
Pittosporum angustifolium	Native Apricot				Yes		
Maireana appressa	Pale-fruit Bluebush						
Aizoon secundum	Galenia						*
Asphodelus fistulosus	Onion Weed						*
Avena barbata	Bearded Oat						*
Carrichtera annua	Ward's Weed						*
Eragrostis barrelieri	Pitted Love-grass						*
Lycium ferocissimum	African Boxthorn						*
Reichardia tingitana	False Sowthistle						*
Olearia muelleri	Mueller's Daisy-bush						
Medicago polymorpha	Burr-medic						*

Threatened or Introduced Animal Species Recorded or Observed (Native and Introduced)		Threatened Species				Introduced Species
Species	Common Name	EPBC	SA	Past Record	Observed	
Coracina novaehollandiae	Black-faced Cuckooshrike				Observed	
Gavicalis virescens	Singing Honeyeater				Observed	
Artamus cyanopterus	Dusky Woodswallow				Observed	
Rhipidura leucophrys	Willie Wagtail				Observed	
Artamus cyanopterus	Dusky Woodswallow				Observed	
Chroicocephalus novaehollandiae	Silver Gull				Observed	
Canis lupus familiaris	Feral Dog				Observed	*
Ctenotus sp.					Observed	
Oryctolagus cuniculus	Rabbit (European Rabbit)				Observed	*
Turnix velox	Little Buttonquail				Observed	
Eolophus roseicapilla	Galah				Observed	
Corvus coronoides	Australian Raven				Observed	

Vegetation Condition Scores

SITE:	A1
BCM COMMUNITY	EP 11.2 Sub coastal & Coastal Low Mallee with Mid Dense Sclerophyll Shrub Understorey on Limestone Soils
VEGETATION ASSOCIATION DESCRIPTION	*Atriplex paludosa ssp. cordata* , *Cratystylis conocephala* Shrubland wi
SIZE OF SITE (Ha)	4.43

Benchmarked attributes
(Scores determined by comparing to a Benchmark community)

Number of Native Species (Minus herbaceous annuals for spring Surveys)	40
Native Plant Species Diversity Score (max 30) from benchmark score *weighted by a factor of 2*	**24.0**
Number of regenerating native species	14
Regeneration Score (max 12) from benchmark community weighted by a factor of 1.5	**12**

Weed species (Top 5 Cover x Invasiveness)	Cover (max 6)	Weed Threat Rating (max 5)	C x I
Lycium ferocissimum	1	4	4
Asphodelus fistulosus	1	2	2
Carrichtera annua	2	2	4
Medicago spp.	1	2	2
Avena spp.	1	2	2
	Cover x Threat		14
Weed Score (max 15) from benchmark community			**9**

Native Plant Life Forms	**Cover rating**
Trees > 15m	
Trees 5 - 15 m	
Trees < 5m	
Mallee > 5m	
Mallee < 5m	2
Shrubs > 2m	1
Shrubs 0.5 - 2m	3
Shrubs < 0.5	4
Forbs	2
Mat Plants	2
Grasses > 0.2m	3
Grasses < 0.2m	1
Sedges > 1m	
Sedges < 1m	
Hummock grasses	
Vines, scramblers	1
Mistletoe	
Ferns	
Grass-tree	
Total	19
Native Plant Life Forms (max 20) from benchmark score *weighted by a factor of 2*	**16.0**

Non-Benchmarked Attributes
(Scores determined from direct field observations)

Native:exotic Understorey biomass Score (max 5)	**4**

Is the community naturally treeless?	☐
Fallen Timber/Debris (max 5)	**0.5**
Hollow-bearing trees Score (max 5)	**0**
Mature Tree Score (max 8)	**5**
Tree Canopy Cover Score (max 5)	**0**

Vegetation Condition Score calculation

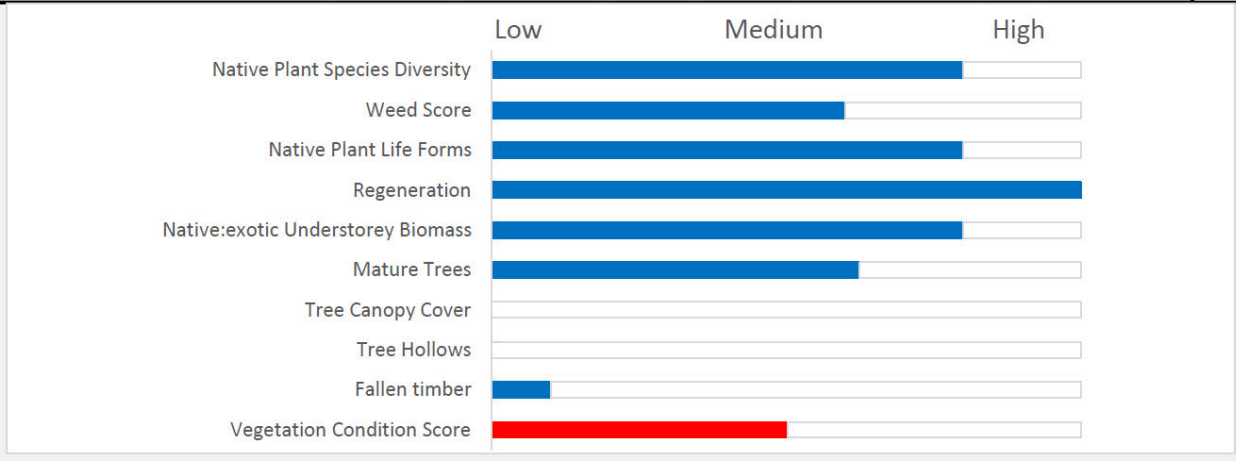
Positive Vegetation Attributes Score = Native species diversity + Regeneration + Native Plant Life Forms Fallen timber/debris + Hollow-bearing trees

- If the community Score is Not Benchmarked (SNB) for regeneration this score is multiplied 1.24

- If the community is naturally treeless this score is multiplied by 1.29 57.50

Negative Vegetation Attributes Score = (15 - Weeds) + ((10 - Biomass score - Tree Canopy Cover Score)exp2/2) 24.00

VEGETATION CONDITION SCORE (Positive veg attributes x ((80 - Negative vegetation attributes) / 80)) **40.25**



Conservation Significance Score

Is the vegetation association considered a Threatened Ecological community or Ecosystem?	Yes/No
State (Provisional List of Threatened Ecosystems of SA) **Rare** community (0.1 pt)	☐
State (Provisional List of Threatened Ecosystems of SA) **Vulnerable** community (0.2 pts)	☐
State (Provisional List of Threatened Ecosystems of SA) **Endangered** community (0.3 pts)	☐
Nationally (EPBC Act) V**ulnerable** community (0.35 pts)	☐
Nationally (EPBC Act) **Endangered** or **Critically Endangered** community (0.4 pts)	☐
Note; all sites will score a minimum Conservation Significance Score of 1 **Threatened Community Score**	1

Number of Threatened Flora Species recorded for the site (within the site)	Number
**If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.*	
State **Rare** species recorded (1 pt each)	0
State **Vulnerable** species recorded (2.5 pt each)	0
State **Endangered** recorded (5 pts each)	0
Nationally **Vulnerable** species recorded (10 pts each)	0
Nationally **Endangered** or **Critically endangered** species recorded (20 pts each)	0
0 = 0 pts; <2 = 0.04 pts; 2 - <5 = 0.08 pts; 5 - <10 = 0.12 pts; 10 - <20 = 0.16 pts; 20 or > = 0.2 pts	**0**
Threatened Flora Score	0

Potential habitat for Threatened Fauna Species (number observed or previously recorded)	Number
**If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.*	
State **Rare** species observed or locally recorded (1 pt each)	0
State **Vulnerable** species observed or locally recorded (2.5 pt each)	0
State **Endangered** species observed or locally recorded (5 pt each)	0
Nationally **Vulnerable** species observed or locally recorded (10 pts each)	0
Nationally **Endangered** or **Critically endangered** species observed or locally recorded (20 pts each)	0
0 = 0 pts; <2 = 0.02 pts; 2 - <5 = 0.04 pts; 5 - <10 = 0.06 pts; 10 - <20 = 0.08pts; 20 or > = 0.1 pts	**0**
Threatened Fauna Score	0
CONSERVATION SIGNIFICANCE SCORE	1

Total Scores for the Site

	Score
LANDSCAPE CONTEXT SCORE	1.16
VEGETATION CONDITION SCORE	40.25
CONSERVATION SIGNIFICANCE SCORE	1.00

Vegetation Condition x Landscape Context x Conservation Significance =	
UNIT BIODIVERSITY SCORE	46.69
Total Biodiversity Score (Biodiversity Score x hectares)	206.84

Photo Point and Vegetation Survey Location

Direction of the Photo	
South-east	
GPS Reference	
Datum	GDA94
Zone (52, 53 or 54)	53
Easting (6 digits)	678170
Northing (7 digits)	6269893
Description	

What is the purpose of Assessment? Clearance | SEB Area | Other

Assessment for Clearance

Loss Factor	1.0
Loadings for clearance of protected areas	
Reductions for rehabilitation of impact site	
SEB Points required	**217.18**

Approximate hectares required	27.15
Economies of Scale Factor	0.5
Mean Annual rainfall for the site (mm)	269
Payment into the fund (GST Exclusive)	**$78,134.47**
Administration fee (GST Inclusive)	**$4,297.40**

A2.

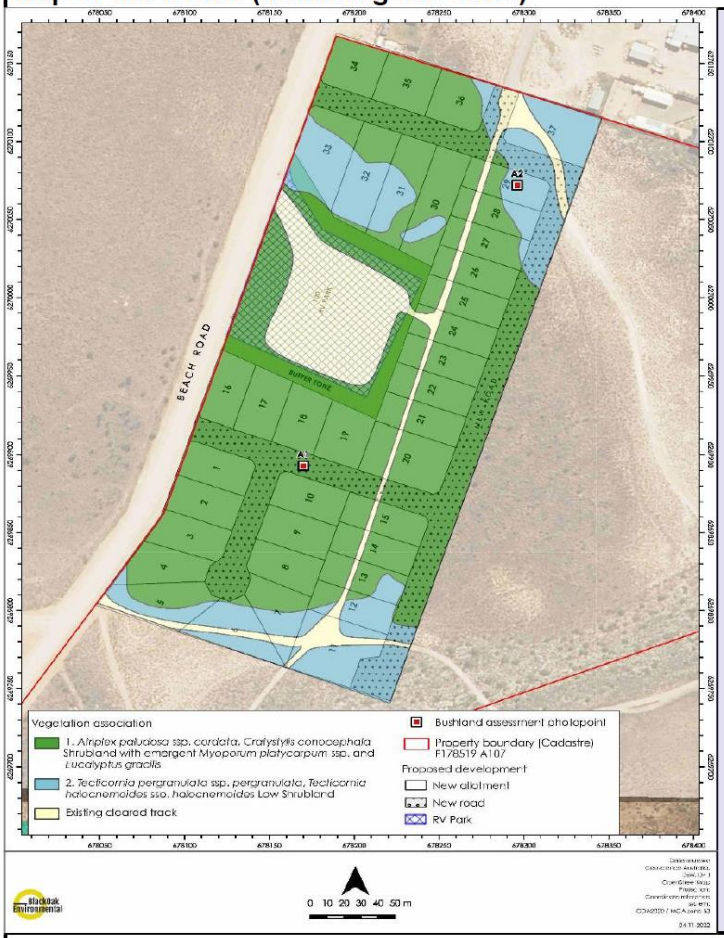
Bushland Assessment Scoresheets

(Version - 22 Oct 2021)

Block	A
Size of Block (Ha)	5.680
Landscapes Region	Eyre Peninsula
BCM Region	Eyre Peninsula
IBRA Association	Cleve
IBRA Subregion	Eyre Hills

ASSESSOR(S)	Matt Launer
DATE OF ASSESSMENT	20/10/2022

Map of the Block (Including the Sites)



Landscape Context Scores

% native veg. remaining in IBRA Assoc.	17
% native veg. remaining in IBRA subregion	29
0 - 10% = 0.05 pts; >10-20% = 0.04 pts; >20-30% = 0.03 pts; >30-60% = 0.02 pts; > 60 = 0 pts — **Score**	0.07

Score received for both IBRA assoc. and subregion then summed

Percent Vegetation Cover (5km radius) (%)	46
0-5% = 0 pts; >5-10% = 0.02 pts; >10-25% = 0.04 pts; >25-50% = 0.06 pts; >50-75% = 0.03 pt; >75-100% = 0 pts — **Score**	0.06

% native veg. protected IBRA Assoc.	17
0-10% = 0.03 pts; >10-20% = 0.02 pts; >20-40% = 0.01 pt; >40% = 0 — **Score**	0.02

Block Shape Cleared perimeter:Area (km/km2)	
Cleared Perimeter (m) =	814
Cleared Perimeter to area ratio	14.33
<6 = 0.03 pts; 6 to <12 = 0.02 pts; 12 to <18 = 0.01 pt — **Score**	0.01

Wetland or Riparian Habitat present	
Riparian zone present (Yes/No) = 0.02 pt	No
Swamp/wetland present (Yes/No) = 0.03 pts (Swamp/wetland may be +/- riparian zone)	No
Score	0

Note; Blocks will score a minimum Landscape Context Score of 1

LANDSCAPE CONTEXT SCORE (max 1.25)	**1.16**

Plant Species Recorded (Native and Introduced)		Listed Species			Natives only		
Species	Common Name	EPBC	SA	Not in quadrat	Regen	Annual Herbs Spring survey	Introduced Species
Atriplex paludosa ssp. cordata	Marsh Saltbush						
Austrostipa drummondii	Cottony Spear-grass				Yes		
Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface				Yes		
Eragrostis barrelieri	Pitted Love-grass						*
Frankenia pauciflora var.	Southern Sea-heath				Yes		
Hemichroa diandra	Mallee Hemichroa				Yes		
Lycium australe	Australian Boxthorn						
Maireana oppositifolia	Salt Bluebush						
Nitraria billardierei	Nitre-bush						
Rytidosperma caespitosum	Common Wallaby-grass				Yes		
Tecticornia pergranulata ssp. pergranulat	Black-seed Samphire						
Tecticornia halocnemoides ssp. halocner	Grey Samphire						
Asphodelus fistulosus	Onion Weed						*
Avena barbata	Bearded Oat						*
Mesembryanthemum sp.	Iceplant						*
Gazania linearis	Gazania						*
Reichardia tingitana	False Sowthistle						*
Minuria cunninghamii	Bush Minuria						
Sonchus oleraceus	Common Sow-thistle						*

Threatened or Introduced Animal Species Recorded or Observed (Native and Introduced)		Threatened Species				Introduced Species
Species	Common Name	EPBC	SA	Past Record	Observed	
Coracina novaehollandiae	Black-faced Cuckooshrike				Observed	
Gavicalis virescens	Singing Honeyeater				Observed	
Artamus cyanopterus	Dusky Woodswallow				Observed	
Rhipidura leucophrys	Willie Wagtail				Observed	
Artamus cyanopterus	Dusky Woodswallow				Observed	
Chroicocephalus novaehollandiae	Silver Gull				Observed	
Canis lupus familiaris	Feral Dog				Observed	*
Ctenotus sp.					Observed	
Oryctolagus cuniculus	Rabbit (European Rabbit)				Observed	*
Turnix velox	Little Buttonquail				Observed	
Eolophus roseicapilla	Galah				Observed	
Corvus coronoides	Australian Raven				Observed	

Vegetation Condition Scores

SITE:	A2
BCM COMMUNITY	EP 13.2 Samphire or Chenopod Shrublands with Infrequent Inundation /Saline Soils
VEGETATION ASSOCIATION DESCRIPTION	*Tecticornia pergranulata ssp. pergranulata , Tecticornia halocnemoide*
SIZE OF SITE (Ha)	1.25

Benchmarked attributes
(Scores determined by comparing to a Benchmark community)

Number of Native Species (Minus herbaceous annuals for spring Surveys)	12
Native Plant Species Diversity Score (max 30) from benchmark score *weighted by a factor of 2*	**30.0**
Number of regenerating native species	5
Regeneration Score (max 12) from benchmark community weighted by a factor of 1.5	**12**

Weed species (Top 5 Cover x Invasiveness)	Cover (max 6)	Weed Threat Rating (max 5)	C x I
Gazania sp.	1	3	3
Asphodelus fistulosus	1	2	2
Mesembryanthemum crystallinum	1	2	2
Avena spp.	1	2	2
Reichardia tingitana	1	2	2
	Cover x Threat		11
Weed Score (max 15) from benchmark community			**9**

Native Plant Life Forms	**Cover rating**
Trees > 15m	
Trees 5 - 15 m	
Trees < 5m	
Mallee > 5m	
Mallee < 5m	
Shrubs > 2m	
Shrubs 0.5 - 2m	
Shrubs < 0.5	3
Forbs	2
Mat Plants	2
Grasses > 0.2m	2
Grasses < 0.2m	1
Sedges > 1m	
Sedges < 1m	
Hummock grasses	
Vines, scramblers	
Mistletoe	
Ferns	
Grass-tree	
Total	10

Native Plant Life Forms (max 20) from benchmark score *weighted by a factor of 2* **16.0**

Non-Benchmarked Attributes
(Scores determined from direct field observations)

Native:exotic Understorey biomass Score (max 5)	**4**

Is the community naturally treeless?	☑
Tree attributes not scored for treeless communities or communities with only emergent trees	

Vegetation Condition Score calculation

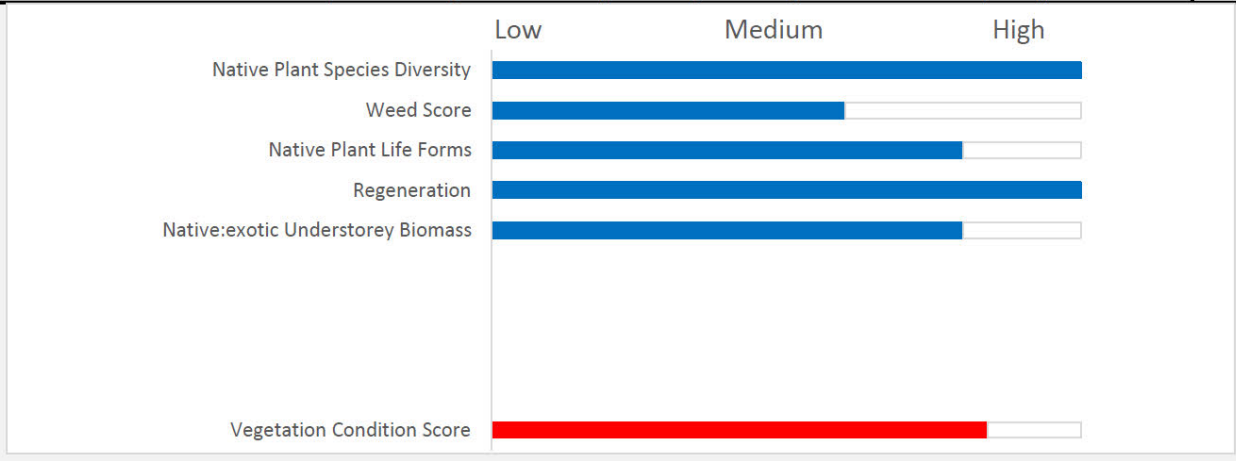
Positive Vegetation Attributes Score = Native species diversity + Regeneration + Native Plant Life Forms Fallen timber/debris + Hollow-bearing trees

- If the community Score is Not Benchmarked (SNB) for regeneration this score is multiplied 1.24

- If the community is naturally treeless this score is multiplied by 1.29 74.82

Negative Vegetation Attributes Score = (15 - Weeds) + ((10 - (Biomass score x 2))exp2/2) 8.00

VEGETATION CONDITION SCORE (Positive veg attributes x ((80 - Negative vegetation attributes) / 80)) **67.34**



Conservation Significance Score

Is the vegetation association considered a Threatened Ecological community or Ecosystem?	Yes/No
State (Provisional List of Threatened Ecosystems of SA) **Rare** community (0.1 pt)	☐
State (Provisional List of Threatened Ecosystems of SA) **Vulnerable** community (0.2 pts)	☐
State (Provisional List of Threatened Ecosystems of SA) **Endangered** community (0.3 pts)	☐
Nationally (EPBC Act) V**ulnerable** community (0.35 pts)	☐
Nationally (EPBC Act) **Endangered** or **Critically Endangered** community (0.4 pts)	☐
Note; all sites will score a minimum Conservation Significance Score of 1 **Threatened Community Score**	1

Number of Threatened Flora Species recorded for the site (within the site)	Number
**If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.*	
State **Rare** species recorded (1 pt each)	0
State **Vulnerable** species recorded (2.5 pt each)	0
State **Endangered** recorded (5 pts each)	0
Nationally **Vulnerable** species recorded (10 pts each)	0
Nationally **Endangered** or **Critically endangered** species recorded (20 pts each)	0
0 = 0 pts; <2 = 0.04 pts; 2 - <5 = 0.08 pts; 5 - <10 = 0.12 pts; 10 - <20 = 0.16 pts; 20 or > = 0.2 pts	**0**
Threatened Flora Score	0

Potential habitat for Threatened Fauna Species (number observed or previously recorded)	Number
**If a species has both a State (NP&W Act) and National (EPBC Act) rating, it's only recorded for its National rating.*	
State **Rare** species observed or locally recorded (1 pt each)	0
State **Vulnerable** species observed or locally recorded (2.5 pt each)	0
State **Endangered** species observed or locally recorded (5 pt each)	0
Nationally **Vulnerable** species observed or locally recorded (10 pts each)	0
Nationally **Endangered** or **Critically endangered** species observed or locally recorded (20 pts each)	0
0 = 0 pts; <2 = 0.02 pts; 2 - <5 = 0.04 pts; 5 - <10 = 0.06 pts; 10 - <20 = 0.08pts; 20 or > = 0.1 pts	**0**
Threatened Fauna Score	0
CONSERVATION SIGNIFICANCE SCORE	**1**

Total Scores for the Site

	Score
LANDSCAPE CONTEXT SCORE	**1.16**
VEGETATION CONDITION SCORE	**67.34**
CONSERVATION SIGNIFICANCE SCORE	**1.00**

Vegetation Condition x Landscape Context x Conservation Significance =	
UNIT BIODIVERSITY SCORE	**78.11**
Total Biodiversity Score (Biodiversity Score x hectares)	97.64

Photo Point and Vegetation Survey Location	**Direction of the Photo**
	South
	GPS Reference
	Datum: GDA94
	Zone (52, 53 or 54): 53
	Easting (6 digits): 678296
	Northing (7 digits): 6270072
	Description

What is the purpose of Assessment? Clearance | SEB Area | Other

Assessment for Clearance

Loss Factor	1.0
Loadings for clearance of protected areas	
Reductions for rehabilitation of impact site	
SEB Points required	**102.52**

Approximate hectares required	12.82
Economies of Scale Factor	0.5
Mean Annual rainfall for the site (mm)	269
Payment into the fund (GST Exclusive)	**$36,884.45**
Administration fee (GST Inclusive)	**$2,028.64**

Appendix 3. Flora species list.

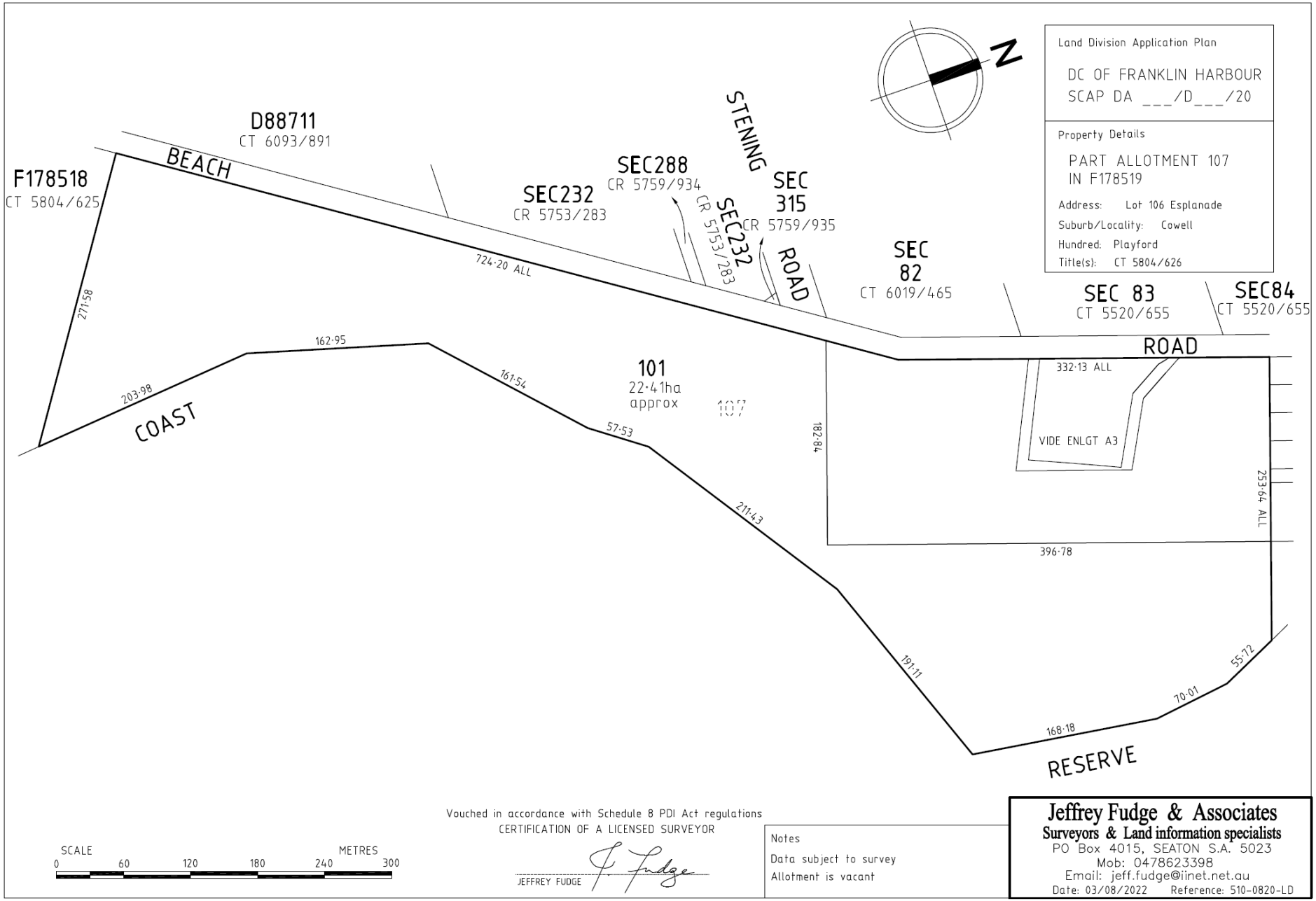
Family name	Species name	Common name	A1	A2
AIZOACEAE	*Carpobrotus rossii*	Native Pigface	✓	
AIZOACEAE	*Disphyma crassifolium ssp. clavellatum*	Round-leaf Pigface	✓	✓
AIZOACEAE	**Galenia secunda*	Galenia	✓	
AIZOACEAE	**Mesembryanthemum sp.*	Iceplant		✓
AIZOACEAE	*Tetragonia implexicoma*	Bower Spinach	✓	
AMARANTHACEAE	*Hemichroa diandra*	Mallee Hemichroa	✓	✓
CHENOPODIACEAE	*Atriplex holocarpa*	Pop Saltbush	✓	
CHENOPODIACEAE	*Atriplex paludosa ssp. cordata*	Marsh Saltbush	✓	✓
CHENOPODIACEAE	*Atriplex vesicaria*	Bladder Saltbush	✓	
CHENOPODIACEAE	*Enchylaena tomentosa var.*	Ruby Saltbush	✓	
CHENOPODIACEAE	*Maireana appressa*	Pale-fruit Bluebush	✓	
CHENOPODIACEAE	*Maireana erioclada*	Rosy Bluebush	✓	
CHENOPODIACEAE	*Maierana oppositifolia*	Salt Bluebush		✓
CHENOPODIACEAE	*Rhagodia candolleana ssp.*	Sea-berry Saltbush	✓	
CHENOPODIACEAE	*Rhagodia crassifolia*	Fleshy Saltbush	✓	
CHENOPODIACEAE	*Salsola australis*	Buckbush	✓	
CHENOPODIACEAE	*Sclerolaena diacantha*	Grey Bindyi	✓	
CHENOPODIACEAE	*Sclerolaena obliquicuspis*	Oblique-spined Bindyi	✓	
CHENOPODIACEAE	*Tecticornia halocnemoides ssp. halocnemoides*	Grey Samphire		✓
CHENOPODIACEAE	*Tecticornia pergranulata ssp. pergranulata*	Black-seed Samphire	✓	✓
CHENOPODIACEAE	*Threlkeldia diffusa*	Coast Bonefruit	✓	
COMPOSITAE	*Cratystylis conocephala*	Bluebush Daisy		
COMPOSITAE	*#Gazania linearis*	Gazania		✓
COMPOSITAE	*Minuria cunninghamii*	Bush Minuria	✓	✓
COMPOSITAE	*Olearia muelleri*	Mueller's Daisy-bush	✓	
COMPOSITAE	**Reichardia tingitana*	False Sowthistle	✓	✓
COMPOSITAE	*Senecio pinnatifolius group*	Variable Groundsel	✓	
COMPOSITAE	**Sonchus oleraceus*	Common Sow-thistle		✓
CRUCIFERAE	**Carrichtera annua*	Ward's Weed	✓	
FRANKENIACEAE	*Frankenia pauciflora var.*	Southern Sea-heath	✓	✓
GOODENIACEAE	*Scaevola spinescens*	Spiny Fanflower	✓	
GRAMINEAE	*Austrostipa drummondii*	Cottony Spear-grass	✓	✓
GRAMINEAE	*Austrostipa elegantissima*	Feather Spear-grass	✓	
GRAMINEAE	*Austrostipa scabra ssp. scabra*	Rough Spear-grass	✓	
GRAMINEAE	**Avena barbata*	Bearded Oat	✓	✓
GRAMINEAE	**Eragrostis barrelieri*	Pitted Love-grass	✓	✓

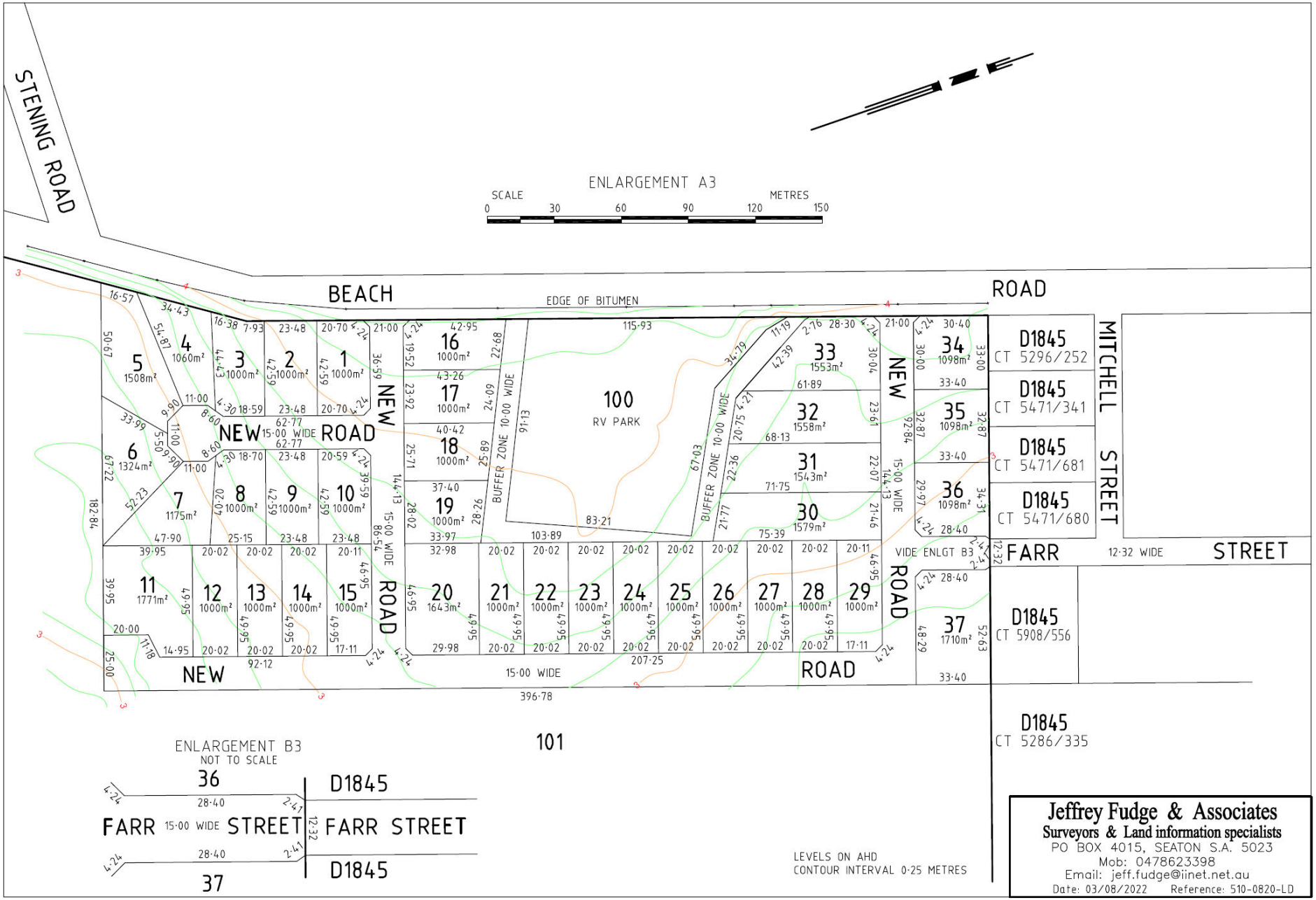
Family name	Species name	Common name	A1	A2
GRAMINEAE	*Eragrostis dielsii*	Mulka	✓	
GRAMINEAE	*Rytidosperma setaceum*	Small-flower Wallaby-grass	✓	✓
LEGUMINOSAE	**Medicago polymorpha var. polymorpha*	Burr-medic	✓	
LEGUMINOSAE	*Senna artemisioides ssp. X coriacea*	Broad-leaf Desert Senna	✓	
LILIACEAE	**Asphodelus fistulosus*	Onion Weed	✓	✓
LILIACEAE	*Dianella revoluta var.*		✓	
MALVACEAE	*Lawrencia spicata*	Salt Lawrencia	✓	
MYOPORACEAE	*Eremophila glabra ssp. glabra*	Tar Bush	✓	
MYOPORACEAE	*Myoporum platycarpum ssp.*	False Sandalwood	✓	
MYRTACEAE	*Eucalyptus gracilis*	Yorrell	✓	
PITTOSPORACEAE	*Pittosporum angustifolium*	Native Apricot	✓	
RUTACEAE	*Geijera linearifolia*	Sheep Bush	✓	
SANTALACEAE	*Santalum acuminatum*	Quandong	✓	
SOLANACEAE	*Lycium australe*	Australian Boxthorn	✓	✓
SOLANACEAE	*#Lycium ferocissimum*	African Boxthorn	✓	
ZYGOPHYLLACEAE	*Nitraria billardierei*	Nitre-bush	✓	✓
ZYGOPHYLLACEAE	*Roepera ovata*	Dwarf Twinleaf	✓	

* = Introduced species.

= Weed species declared under the *Landscape South Australia Act 2019*.

Appendix 4. Land division application plan.




STENING ROAD
ENLARGEMENT A3
SCALE
METRES
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BEACH
EDGE OF BITUMEN
ROAD
MITCHELL STREET
NEW ROAD
15·00 WIDE
100
RV PARK
BUFFER ZONE 10·00 WIDE
15·00 WIDE
VIDE ENLGT B3
FARR
12·32 WIDE
STREET
D1845 CT 5296/252
D1845 CT 5471/341
D1845 CT 5471/681
D1845 CT 5471/680
D1845 CT 5908/556
D1845 CT 5286/335
101
ENLARGEMENT B3
NOT TO SCALE
36
D1845
FARR 15·00 WIDE STREET
12·32
FARR STREET
D1845
37
LEVELS ON AHD
CONTOUR INTERVAL 0·25 METRES
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Date: 03/08/2022 Reference: 510-0820-LD

8. Attachments

Attachment1. Vegetation Assessment Farr Street extension and proposed sub-division, Cowell SA for District Council of Franklin Harbour (Larry Bebbington 2017).

Attachment 2. Regulation Advice Notification NVC 2017/3045/922 (Native Vegetation Council 2017).