Native Vegetation Clearance

Residential Subdivision, Cowell

Data Report

Clearance under the *Native Vegetation Regulations 2017*May 2023

Prepared by West Coast Revegetation NVC Accredited Consultant Phil Landless



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1. Application information

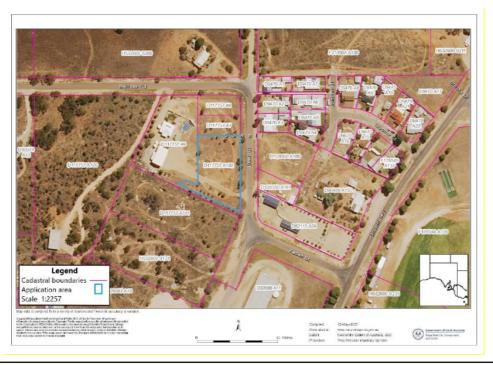
Application Details

Applicant:						
Key contact:						
Landowner:						
Site Address:	Lot 102 Deer Street, Cowell SA 5602					
Local Government	District Council of Franklin	Hundred:	Playford			
Area:	Harbour					
Title ID:	CT6203/537	Parcel ID	D117757 AL102			

Summary of proposed clearance

Purpose of clearance	Clearance is required for a residential subdivision.					
Native Vegetation Regulation	Schedule 1, Regulation 12(35); Residential Subdivision.					
Description of the vegetation under application	0.4 ha of low open shrubland.					
Total proposed clearance - area (ha)	0.4 ha					
Level of clearance	Level 3					
Overlay (Planning and Design Code)	 Airport Building Heights (Aircraft Landing Area) Building Near Airfields Hazards (Bushfire – Regional) Hazards (Flooding – Evidence Required) Native vegetation 					

Map of proposed clearance area



Mitigation hierarchy	Avoidance The location, design, size, or scale of the activity cannot be adjusted in order to reduce the scale of the impact. The area under application will be cleared to enable development of the subdivision and to facilitate access to the proposed allotments.
	 Minimisation Development of the residential allotments, all of which are under 2000m², requires removal of all vegetation. Extent, duration, and intensity of the impacts to the site will be minimized by the following: Access to the proposed clearance site will be from Deer Street, Cleared vegetation will be stored on-site before removal, minimizing impacts to surrounding vegetation, All clearance activities necessary will be staged from within the application area, Servicing, refueling and inspection for machinery contaminant leaks will be carried out on the worksite, Rehabilitation The proposed development of the site will be permanent. Rehabilitation will not be possible.
SEB Offset proposal	Payment of \$1659.06 (SEB payment plus administration fee).

2. Purpose of clearance

2.1 Description

Clearance is required for a residential subdivision. The applicant proposes to subdivide Lot 102 Deer Street Cowell into three residential building blocks (see Appendix 3 Proposed subdivision: Stage 1, Allotments 4-6).

2.2 Background

Cowell is located 490 km west of Adelaide by road, and approximately 160 km north-east of Port Lincoln on the east coast of the Eyre Peninsula. Cowell is a coastal town on the Franklin Harbour and is a popular fishing destination. The population was recorded as 1124 at the 2021 census.

The applicant's property is located on the northern outskirts of the town on Deer Street (Figures 1, 2, 3, 4). It was used for grazing in the past. Anecdotal evidence suggests that the site was part of a "shanty town" settlement called Stenningtown or Stenningville during the depression in the 1920s and 1930s.

The vegetation appears to be regrowth on what could be classified as wasteland. Residential properties flank the site to the east, south and west with agricultural land to the north.

2.3 Location maps

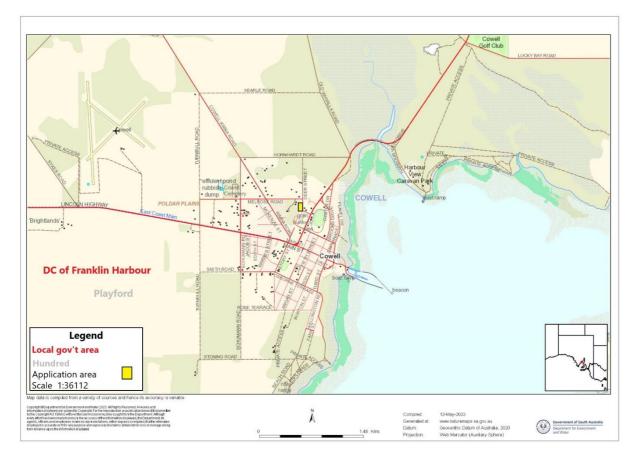


Figure 1. General location map.



Figure 2. General location satellite image.

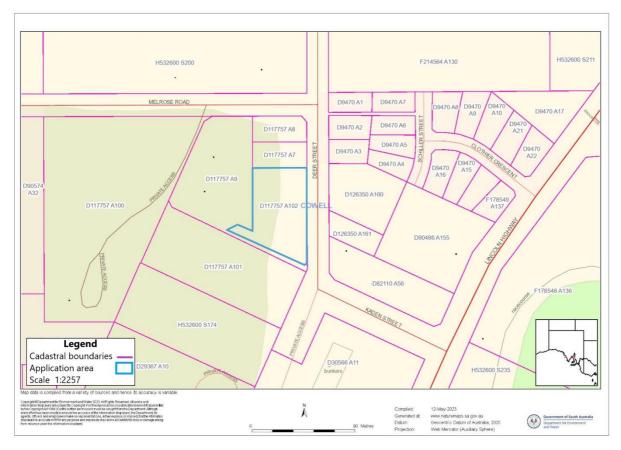


Figure 3. Site map.

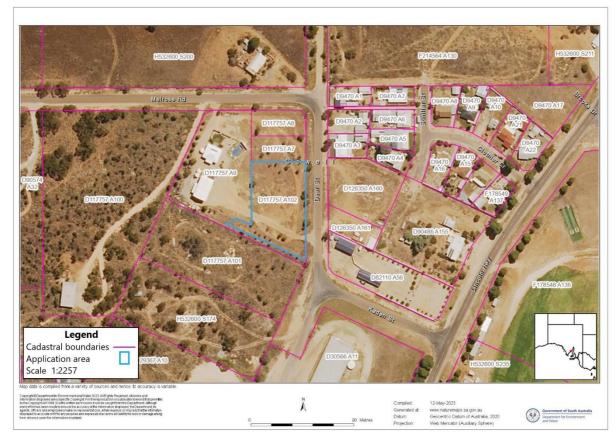


Figure 4. Site satellite image.

2.4 Details of the proposal

The applicant proposes to subdivide Lot 102 Deer Street (Lot D117757 AL102) into three residential blocks. (Figures 3 and 4; Appendix 3 Proposed subdivision: Stage 1, Allotments 4-6).

2.5 Approvals required or obtained

<u>Native Vegetation Act 1991.</u> No previous approvals to clear native vegetation on this site have been granted. Clearance under the Native vegetation Act 1991 is the subject of this proposal.

<u>Planning, Development and Infrastructure Act 2016.</u> An application for Planning Consent, Application ID 22030412, has been lodged with the District Council of Franklin Harbour. PlanSA has made a Request for Documentation (Appendix 4).

2.6 Native Vegetation Regulation

The proposed clearance will be assessed under Schedule 1, Regulation 12(35), Residential Subdivision.

2.7 Development Application information

Zone

Neighbourhood - N

Overlays

- Airport Building Heights (Aircraft landing Area)
- Building Near Airfields
- Hazards (Bushfire Regional)
- Hazards (Flooding Evidence Required)
- Native vegetation

Variations

- Finished ground and Floor Levels
- Maximum Building Height (Metres)
- Minimum Frontage
- Minimum Site Area
- Maximum Building Height (Levels)

3. Method

3.1 Flora assessment

A desktop survey was conducted, prior to the field work, using the BDBSA on NatureMaps for the presence of plant species with state and/or national conservation status recorded within a 5 km radius of the site (Table 1).

The field work was carried out on 18 May 2023 by Phil Landless (NVC Accredited Consultant) following the methodology set out in the NVC Bushland Assessment Manual 2020. The site was surveyed, a species list prepared, and scores for the other attributes listed on the field data sheet were recorded. Plants with conservation status under the NP&W 1972 or the EPBC Act 1999 (as identified by the desktop survey) were actively searched for during the field survey.

3.2 Fauna assessment

A desktop fauna survey was conducted prior to the field work, using the BDBSA on NatureMaps for the presence of fauna species with state and/or national conservation status recorded within a 5 km radius of the site (Table 2). Fauna species with conservation status under the NP&W 1972 or the EPBC Act 1999 (as identified by the desktop survey) were actively searched for during the field survey.

4. Assessment Outcomes

4.1 Vegetation Assessment

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

The area under application falls within the Cleve IBRA Association and the Eyre Hills IBRA Subregion. The land is generally level. Soil is a shallow calcareous sandy loam with a limestone surface strew over most of the site. There are no significant features such as watercourses or rocky outcrops.

The vegetation on the site is low open shrubland in very poor condition, with a very small number of emergent small trees. Introduced species make up a large part of the vegetation. There are also large areas of bare ground.

Middlecamp Hills Conservation Park lies approximately 14.7 km to the north-west; Franklin Harbour Conservation Park is approximately 6.2 km to the south-east. A number of Heritage Agreement Areas (Ha 1207, 306, 692, 172) are situated between 8 and 10 km to the north-east.

The nearest Clearance Application Areas are 2013_3097 (750 m to the north), 2017_3066, 2018_3188 and 2022_3237 (1.2 km to the south-east) and 2017_3045 (1.9 km to the south).

Details of the vegetation associates/scattered trees proposed to be impacted

Vegetation Low open shrubland Association



Position: 53S 628169E 6272007N **Direction of photo:** W 259°

General description

The vegetation on the site appears to be regrowth on what could be described as wasteland. Twenty-eight species were recorded, fourteen native and fourteen introduced. Common native species included *Enchylaena tomentosa var. tomentosa* Ruby Saltbush, *Atriplex vesicaria* Bladder Saltbush and *Carpobrotus rossii* Native Pigface. Common introduced species included *Lycium ferocissimum* African Boxthorn, *Gazania sp.* Gazania, and *Mesembryanthemum crystallinum* Common Iceplant. Introduced plants dominated the site.

Threatened species or community

Threatened flora species

Nine threatened species were noted in the threatened species search to be present within a 5 km radius of the site. None were considered as possibly occurring on the site, either because they were recorded before 1996 or there was no suitable habitat. No threatened species were observed during the field survey (see Table 1).

Threatened plant community

The vegetation association on the site does not appear in the Provisional List of Threatened Ecosystems included in the NVC Bushland Assessment Manual 2020.

Threatened fauna species

Twenty threatened species were noted in the threatened species search to be present within a

	5 km radius of the site. None were considered as possible users of the vegetation as habitat as the site was so degraded or otherwise unsuitable. No threatened species were observed								
	during the field	during the field survey (see Table 2).							
Landscape	1.14	Vegetation	11.40	Conservation	1.1				
context score		Condition Score significance score							
Unit biodiversity	14.30	Area (ha)	0.4 ha	Total biodiversity	5.72				
Score				Score					

Photo log

The photolog is included as Appendix 5.

4.2 Threatened Species assessment

Table 1. Flora 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
Haegiela tatei (Small Nut- heads)	R		3	2001	Saline habitats. Clay, sandy loam or gypseous soils often in samphire flats and chenopod shrublands.	Unlikely.
Acacia cretacia (Chalky Wattle)	E	EN	3	1983	Low shrubland and mallee on deep red sand.	Disregard as last recorded before 1995.
Acacia dodonaeifolia (Hopbush Wattle)	R		3	1976	Woodland, open forest.	Disregard as last recorded before 1995.
Acacia hexaneura (Six-nerve Spine-bush)	R		3	1970	Well-drained sands and gravelly loams.	Disregard as last recorded before 1995.
Acacia iteaphylla (Flinders Ranges Wattle)	R		3	1965	Shallow loams often on rocky outcrops or rocky creek banks.	Disregard as last recorded before 1995.
Acacia lineata (Streaked Wattle)	R		3	1984	Open scrub vegetation on brown calcareous earths.	Disregard as last recorded before 1995.
Acacia rhetinocarpa (Resin Wattle)	R	VU	3	1975	Open scrub vegetation on calcareous sands, red loams or grey- brown calcareous loams.	Disregard as last recorded before 1995.

Acacia rhygiophylla (Dagger- leaf Wattle)	R	3	1979	Open scrub on hard alkaline calcareous loams.	Disregard as last recorded before 1995.
Eremophila gibbifolia (Coccid Emubush)	R	3	1950	Mallee scrub on powdery clay or sandy loam.	Disregard as last recorded before 1995.

Source; 1- BDBSA, 2 - AoLA, 3 - NatueMaps 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

Table 2. Fauna 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
Actitis hypoleucos (Common Sandpiper)	R		3	2009	Banks, rocks, sandy beaches near water.	Unlikely.
<i>Ardeotis australis</i> (Australian Bustard)	V		3	2017	Open grassland, grassy woodland, pastoral land, crops.	Unlikely.
Arenaria interpres interpres (Ruddy Turnstone)	R		3	2019	Exposed coastal rocks and reefs and on beaches.	Unlikely.
Biziura lobata (Musk Duck)	R		3	2019	Swamps, lakes, tidal inlets and bays.	Unlikely.
<i>Biziura lobata menziesi</i> (Musk Duck)	R		3	2020	Swamps, lakes, tidal inlets and bays.	Unlikely.
Bubulcus ibis coromandus (Eastern Cattle Egret)	R		3	2019	Pasture, among stock; occasionally shallows of wetlands.	Unlikely.
Calidris melanotis (Pectoral Sandpiper)	R		3	2002	Grassy coastal and inland swamps.	Unlikely.
Cladorhynchus leucocephalus (Banded Stilt)	V		3	1996	Fresh and saltwater marshes, marine mudflats, large temporary lakes as salinity increases.	Unlikely.
Corcorax melanorhamphos (White-winged Chough)	R		3	2002	Woodlands and taller mallee, feeding among the leaf litter.	Unlikely.
Corcorax melanorhamphos whiteae (White-winged Chough [Gawler Ranges, EP, southern FR, MLR])	SP		3	2020	Woodlands and taller mallee, feeding among the leaf litter.	Unlikely.

Dromaius novaehollandiae (Emu)	ssp	ssp	3	2018	Sclerophyll forests and savanna woodland.	Unlikely.
Egretta garzetta nigripes (Little Egret)	R		3	2020	Shallows of wetlands, intertidal mudflats.	Unlikely.
Haemotopus fuliginosus fuliginosus (Sooty Oystercatcher)	R		3	2020	Rocky coastline, estuaries.	Unlikely.
Haemotopus longirostris (Pied Oystercatcher)	R		3	2020	Sandy beaches, estuaries.	Unlikely.
Haliaeetus leucogaster (White- bellied Sea Eagle)	E		3	2006	Large rivers, lakes, reservoirs, coastal seas, islands.	Unlikely.
Leipoa ocellata (Mallee Fowl)	V	VU	3	1999	Dry inland scrub.	Unlikely.
Manorina flavigula (Yellow- throated Miner)	ssp	ssp	3	2020	Dry woodlands, especially mallee.	Unlikely.
Oxyura australis (Blue-billed Duck)	R		3	2017	Deep freshwater marshes with dense vegetation.	Unlikely.
Pachycephala inornata (Gilbert's Whistler)	R		3	2016	Shrubby woodland, mallee.	Unlikely.
Strepera versicolor (Grey Currawong)	ssp		3	2020	Forests, woodlands, mallee and heaths.	Unlikely.

Source; 1- BDBSA, 2 - AoLA, 3 - NatueMaps 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 provides limited habitat or feeding resources for the species.
	Recorded within 20 -40 years, survey effort is considered adequate, habitat and feeding resources present, and species of similar habitat needs have been recorded in the area.
Unlikely	Recorded within the previous 20 years, but the area provides no habitat or feeding resources for the species, including perching, roosting or nesting opportunities, corridor for movement or shelter.
	Recorded within 20 -40 years; however, suitable habitat does not occur, and species of similar habitat requirements have not been recorded in the area.
	No records despite adequate survey effort.

4.3 Cumulative impact

Direct impact

The area under application will be completely cleared of vegetation to facilitate the development of the subdivision.

Indirect impact

Measures to minimize indirect impacts will include:

- Dust suppression,
- · Retention of present site hydrology,
- · Accessing the site only from existing roads,
- Stockpiling vegetative debris on site before removal,
- Staging necessary clearing activities from within the site,
- Storing, servicing and fueling of machinery within the site,

4.4 Address the Mitigation Hierarchy

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

The location, design, size, or scale of the activity cannot be adjusted in order to reduce the scale of the impact. The area under application will be cleared to enable development of the subdivision and to facilitate access to the proposed allotments.

b) Minimisation – 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).

Development of the residential allotments, all of which are under 2000m², requires removal of all vegetation. Extent, duration and intensity of the impacts to the site will be minimized by the following:

- Access to the proposed clearance site will be from Melrose Road,
- Cleared vegetation will be stored on-site before removal, minimizing impacts to surrounding vegetation,
- All clearance activities necessary will be staged from within the application area,
- Servicing, refueling and inspection for machinery contaminant leaks will be carried out on the worksite,
- 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 minimised, such as allowing for the re-establishment of the vegetation.

The proposed development of the site will be permanent. Rehabilitation will not be possible.

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 proposes to achieve the SEB by paying \$1659.06 (SEB payment plus administration fee) into the Native Vegetation Fund.

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

Principle of	Considerations
clearance	
Principle 1a -	Relevant information
it comprises a high level of	Fourteen native plant species were recorded. Fourteen introduced species were recorded.
diversity of plant species	Bushland Plant Diversity Score – 15
,	Assessment against the principles
	At Variance
	Vegetation Association – Low open shrubland.
	Moderating factors that may be considered by the NVC
	The vegetation on the site appears to be regrowth on wasteland and the majority of the vegetation on the site are introduced species.
Principle 1b -	Relevant information
significance	Twenty threatened species were noted in the threatened species search to be present within a 5
as a habitat for wildlife	km radius of the site. None were considered as possible users of the vegetation as habitat.
701 171141170	Threatened Fauna Score – 0.1
	Unit biodiversity Score – 14.30
	Assessment against the principles
	Seriously at Variance
	Vegetation Association - Low open shrubland.
	Moderating factors that may be considered by the NVC
	The condition of the vegetation on the site, which seems to be regrowth on a wasteland, does not appear to be viable habitat for any of the threatened fauna identified in the desktop survey
	(Table 2). The majority of the vegetation on the site are introduced species.
Principle 1c -	Relevant information
plants of a	Nine threatened species were noted in the threatened species search to be present within a 5 km
rare,	radius of the site. None were considered as possibly occurring on the site.
vulnerable or	
endangered species	Threatened Flora Score – 0
	Assessment against the principles
	Not at Variance
	Vegetation Association - Low open shrubland.
	Moderating factors that may be considered by the NVC
Principle 1d -	Relevant information
the	No communities under the EPBC Act or threatened ecosystems under the DEW Provisional list of
vegetation	threatened ecosystems present.
comprises the whole or	Threatened Community Score – 1

	T
part of a	Assessment against the principles
plant	Not at Variance
community	
that is Rare,	Moderating factors that may be considered by the NVC
Vulnerable or	Moderating factors that may be considered by the MVC
endangered:	
Principle 1e -	Relevant information
it is	Remnancy figures for IBRA Association – 17%
significant as	Remnancy figures for IBRA Subregion – 29%
a remnant of	
vegetation in	Total Biodiversity Score – 5.72
an area which	
has been	Assessment against the principles
extensively	At Variance
cleared.	
	Moderating factors that may be considered by the NVC
	The vegetation on the site appears to be regrowth on wasteland, not a significant remnant. The
	majority of the vegetation on the site are introduced species.
Principle 1f -	Relevant information
it is growing	Not applicable.
in, or in	
association	Assessment against the principles
with, a	Not applicable.
wetland	
environment.	Moderating factors that may be considered by the NVC
Principle 1g -	Relevant information
it contributes	Not applicable.
significantly	inot applicable.
to the	Assessment against the principles
	Assessment against the principles
amenity of the area in	Not applicable.
which it is	Madautica fataa that are de a said and hothe NVC
	Moderating factors that may be considered by the NVC
growing or is	
situated.	

4.6 Risk Assessment

 $\ \, \textbf{Determine the level of risk associated with the application} \\$

Total	No. of trees	
clearance	Area (ha)	0.4 ha
	Total biodiversity Score	5.72
Seriously at va 1(b), 1(c) or 1	ariance with principle (d)	1(b)
Risk assessme	nt outcome	Level 3

5. Clearance summary

Table 3. Clearance Area Summary table

Block	Site	Species diversity score	Threatened Ecological community Score	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
Α	A1	15	1	0	0.1	14.30	0.4	5.72	1			6.0	\$1572.57	\$86.49
														·
						Total	0.4	5.72				6.0	\$1572.57	\$86.49

Table 4. Totals summary table

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Application	5.72	6.0	\$1572.57	\$86.49	\$1659.06

Economies of Scale Factor	0.35
Rainfall (mm)	269

6. Significant Environmental Benefit

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 <u>application form</u> needs to be submitted with this Data Report.
 Apply to have an SEB to be delivered by a Third Party. The <u>application form</u> needs to be submitted with this Data Report.
🛿 Pay into the Native Vegetation Fund.

PAYMENT SEB

The applicant proposes to achieve the SEB by paying \$1659.06 (SEB payment plus administration fee) into the Native Vegetation Fund.

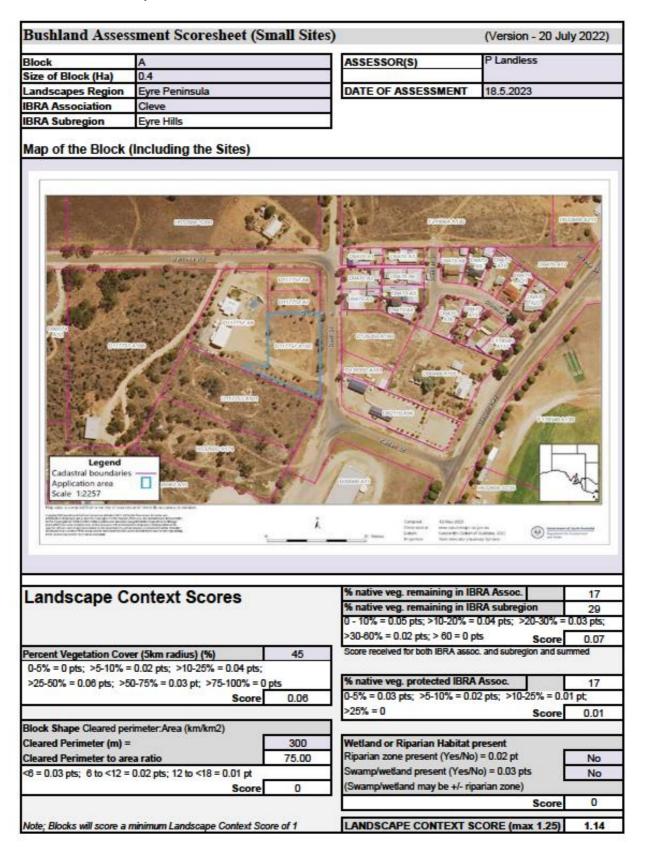
7. Appendices

Appendix 1. Flora species recorded during the field survey

Note: asterisk (*) denotes introduced species.

Family	Species	Common name
Aizoaceae	*Aizoon pubescens	Coastal Galenia
	Carpobrotus rossii	Native Pigface
	Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface
	*Mesembryanthemum aitonis	Angled Iceplant
	*Mesembryanthemum crystallinum	Common Iceplant
Asphodelaceae	*Asphodelus fistulosus	Onion Weed
Asteraceae	*Gazania sp.	Gazania
	*Reichardia tingitana	False Sowthistle
	*Sonchus oleraceus	Common Sowthistle
Brassicaceae	*Carrichtera annua	Ward's Weed
	*Diplotaxis tenuifolia	Lincoln Weed
Chenopodiaceae	Atriplex holocarpa	Pop Saltbush
	Atriplex vesicaria	Bladder Saltbush
	Enchylaena tomentosa var. tomentosa	Ruby Saltbush
	Eriochiton sclerolaenoides	Wooly-fruit Bluebush
	Maireana brevifolia	Short-leaf Bluebush
	Salsola australis	Buckbush
	Sclerolaena obliquicuspis	Oblique-spined Bindyi
Iridaceae	*Moraea setifolia	Thread Iris
Lamiaceae	*Salvia verbenaca var.	Wild Sage
Malvaceae	*Malva sp.	Mallow
Mimosaceae	Acacia oswaldii	Umbrella Wattle
Myoporaceae	Myoporum platycarpum ssp.	False Sandalwood
Poaceae	Austrostipa sp.	Spear-grass
	*Avena sp.	Oat
Solanaceae	*Lycium ferocissimum	African Boxthorn
Zygophyllaceae	Nitraria billardierei	Nitre Bush
	Roepera apiculata	Pointed Twinleaf

Appendix 2. Bushland Vegetation Assessment Scoresheets associated with the proposed clearance (also submitted in Excel format)



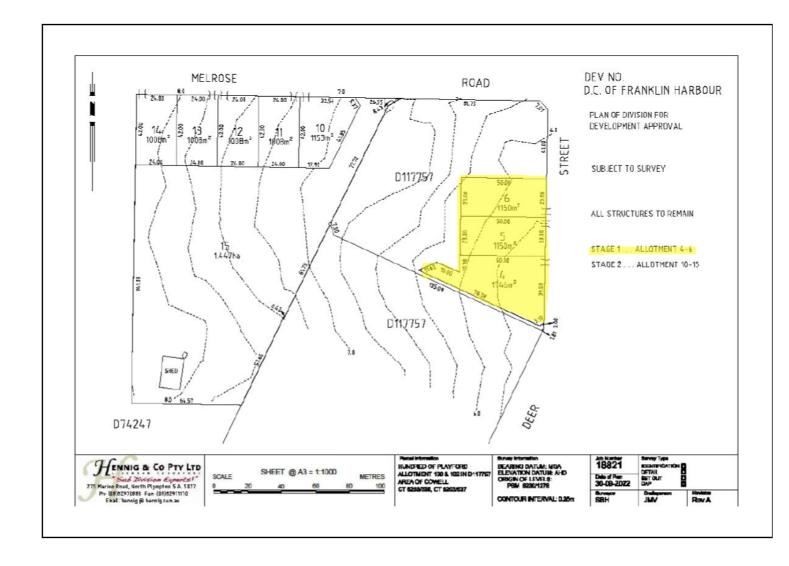
Plant Species Recorded (Native and Intro	oduced)	Threat	ened Sp.	
Species	Common Name	EPBC	SA	Introduced Species
Enchylaena tomentosa var. tomentosa	Ruby Saltbush	Libe	J.	Species
Atriplex holocarpa	Pop Saltbush			1
Nitraria billardierei	Nitre-bush			+
Salsola australis	Buckbush			
Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface			
Eriochiton sclerolaenoides	Woolly-fruit Bluebush			1
Myoporum platycarpum ssp.	False Sandalwood			1
Roepera apiculata	Pointed Twinleaf		3	¥.
Maireana brevifolia	Short-leaf Bluebush		8	
Sclerolaena obliquicuspis	Oblique-spined Bindyi			1
Austrostipa sp.	Spear-grass			1
Acacia oswaldii	Umbrella Wattle			
Atriplex vesicaria	Bladder Saltbush			
Carpobrotus rossii	Native Pigface			1
Gazania sp.	Gazania			*
Lycium ferocissimum	African Boxthorn			
Malva sp.	Mallow			
Aizoon pubescens	Coastal Galenia			×
Mesembryanthemum aitonis	Angled Iceplant		t	*
Mesembryanthemum crystallinum	Common Iceplant			
Carrichtera annua	Ward's Weed			
Reichardia tingitana	False Sowthistle			×
Diplotaxis tenuifolia	Lincoln Weed	-	 	*
Sonchus oleraceus	Common Sow-thistle	- 1	is .	
Asphodelus fistulosus	Onion Weed		8	
Moraea setifolia	Thread Iris	-	`	*
Avena sp.	Oat	_		
Salvia verbenaca var.	Wild Sage			
Salvia verberiaca var.	Wild Sage	_	8	32
		_	1	+
		_		+
		_		+
	-		8	+
			9.	-
	- 2			+
				+
	-			+
		- 1	9.	
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	hreatened or Introduced Animal Species Recorded or Observed lative and Introduced)					Introduced
pecies	Common Name	Species	SA	Past Record	Observed	
Actitis hypoleucos	Common Sandpiper		R	2009		
Ardeotis australis	Australian Bustard		V	2017		
Arenaria interpres interpres	Ruddy Turnstone		R	2019		
Biziura lobata menziesi	Musk Duck		R	2020		
Bubulcus ibis coromandus	Eastern Cattle Egret		R	2019		
Calidris melanotos	Pectoral Sandpiper		R	2002		
Cladorhynchus leucocephalus	Banded Stilt		V	1996		
Corcorax melanorhamphos	White-winged Chough		R	2002		
Corcorax melanorhamphos whiteae	White-winged Chough (Ga			2020		
Dromaius novaehollandiae	Emu			2018		
Egretta garzetta nigripes	Little Egret		R	2020		
Haematopus fuliginosus fuliginosus	Sooty Oystercatcher		R	2020		
Haematopus longirostris	Pied Oystercatcher		R	2020		
Haliaeetus leucogaster	White-bellied Sea Eagle		E	2006		
Leipoa ocellata	Malleefowl	VU	v	1999		
Manorina flavigula	Yellow-throated Miner	-	i	2020		
Oxyura australis	Blue-billed Duck		R	2017		
Pachycephala inomata	Gilbert's Whistler		R	2016		
Strepera versicolor	Grey Currawong	_	IX.	2010		
refera verdicolor	Grey Currawong	_	 	2020		
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Vegetati	ion Condition Scores							
SITE:		A1						
VEGETATION	ASSOCIATION DESCRIPTION	Low ope	ow open shrubland					
SIZE OF SITE	(Ha)	0.4		- 3				
Native Plant 5	species diversity	500	Regeneration	-				
	ersity of species present in the site as a pr	roportion to	No regeneration present (0 Points)					
	expected in a vegetation of that commun		Very low regeneration, consisting of highly scattered					
	n (approaching a pre-European state)	100	juvenile plants of a limited number of species (3	☑				
<5% (3 Points)	A		points)					
5-10% (6 Point	1		Regeneration present, consisting of multiple individual					
11 - 20% (9 Pc			juvinile plants but a limited number of species (6					
21 - 30% (12 P			points)					
31 - 40 % (15)		7	Multiple species regenerating, but low numbers of					
41 - 50% (18 P			juvenile plants (9 points)					
51 - 60% (21 P			Multiple species regenerating with multiple individual	П				
61 - 70% (24 P	Points)		juviniles present with varying age classes (12 points)	37				
71 - 80% (27 P			Regeneration Score (Max 12)	3				
>80% (30 Poin	nts)							
Native Plant s	species diversity score (max score of 30	0) 15						
		16 32	All strata of vegetation heavily impacted and native					
Weed Scores			vegetation represented by only scattered plants (4	Ø				
	contain plant species declared under the		points)					
NRM Act 2004			All strata of vegetation impacted with limited structural					
	or all declared weeds (max of 6)	7	diversity, largely uniform age classes and reduced vegetation cover (8 points)	20				
	contain environmental weeds (introduced		At least one strata of vegetation has been impacted,	\vdash				
	e capacity to invade and exclude native bushland. This typically includes species v	with Z	with reduced structural diversity, elements may be	200				
	bushland. This typically includes species threat rating of 3, 4 or 5). (1 Point)	Milli	missing (such as plant species that provide specific					
d Dom mees	lifeat rating or 5, 4 or 5). (11 5mg)		structural features e.g. sedges or mid layer shrubs)					
	or all environmental weeds (max of 6)	4	and reduce vegetation cover (12 points)					
Weed Score ((max score of 15)	5	Limited impacts on native vegetation, with a diversity					
			of structural features and a varied age class, with only					
	nity naturally treeless?		a minor loss in structurally diversity, vegetation cover	1000				
Mature Tree S		2	or structural elements (16 points)					
	/debris (max 5)	0	All strata of vegetation present, little or no sign of	111000				
	ng trees Score (max 5)	0	disturbance. A variety of life forms and associated age					
Tree Canopy	Cover Score (max 5)	0	classes present. Vegetation cover near complete (20					
. Commetie	Linear may 5)	1 3	points) Native Plant life form score (may 20)	4				
Native:exouc	Understorey biomass score (max 5)	2	Native Plant life form score (max 20)	4				
Vegetation	Condition Score calculation							
		es diversity +	Regeneration + Native Plant Life Forms + Mature Trees +					
The second secon	debris + Hollow-bearing trees	S directory	Negeneration 1 House I am Land					
	ty is naturally treeless this score is multiplied t	by 1.24		24.00				
Negative Vege	etation Attributes Score = (15 - Weeds) +	((10 - Biomas	ss score - Tree Canopy Cover Score)exp2/2)	42.00				
VEGETATION	CONDITION SCORE (Positive veg attrit	butes x ((Neg	ative vegetation attributes + 60) / 80))	11.40				
		Low	Medium High					
	Native Plant Species Diversity							
	Weed Score							
	Native Plant Life Forms	77						
	Regeneration							
	Native:exotic Understorey Biomass							
	Tree Canopy Cover Score							
	Mature Tree Score	5						
	Tree Hollows							
	Fallen timber							
	Vegetation Condition Score							
	Paradan sandan san							

Conservation Significance Score		
is the vegetation association considered a Threatened Ecolog	ical community or Ecosystem?	Yes/No
State (Provisional List of Threatened Ecosystems of SA) Ra	are community (0.1 pt)	
State (Provisional List of Threatened Ecosystems of SA) Vu	E/ 2014 TATE LATE TO THE PARTY OF THE PARTY	
State (Provisional List of Threatened Ecosystems of SA) En		
Nationally (EPBC Act) Vulnerable community (0.35 pts)	, (
Contains a Nationally (EPBC Act) Endangered or Critically	Findangered community (0.4 pts)	
Note; all sites will score a minimum Conservation Significance Sco		1
N		Number
Number of Threatened Flora Species recorded for the s *If a species has both a State (NP&W Act) and National (EF		A STATE OF THE STA
State Rare species recorded (1 pt each)	bo Acq rading, it's only recorded for its National rading	
State Vulnerable species recorded (2.5 pt each)		
State Endangered recorded (5 pts each)		
Nationally Vulnerable species recorded (10 pts each)		
Nationally Endangered or Critically endangered species r	recorded (20 pts each)	
	pts; 5 - <10 = 0.12 pts; 10 - <20 = 0.16pts; 20 or > = 0.2 pts	
	Threatened Flora Score	C
Potential habitat for Threatened Fauna Species (numbe		Number
⁴ If a species has both a State (NP&W Act) and National (EF		
State Rare species observed or locally recorded (1 pt each)		- 11
State Vulnerable species observed or locally recorded (2.5		
State Endangered species observed or locally recorded (5		
Nationally Vulnerable species observed or locally recorded Nationally Endangered or Critically endangered species of		
	pts; 5 - <10 = 0.06 pts; 10 - <20 = 0.08pts; 20 or > = 0.1 pts	31
0 - 0 pts, <2 - 0.02 pts, 2 - <5 - 0.04	Threatened Fauna Score	0.1
	Tilleaterieu Fauria acore	0.1
CONSERVATION SIGNIFICANCE SCORE		1.1
CONSERVATION SIGNIFICANCE SCORE		1.1
CONSERVATION SIGNIFICANCE SCORE		9
Total Scores for the Site	Vegetation Condition x Landscape Conte	9
Total Scores for the Site	Conservation Significance =	ext x
Total Scores for the Site Score LANDSCAPE CONTEXT SCORE 1.14	Conservation Significance = UNIT BIODIVERSITY SCORE	ext x
Total Scores for the Site LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE 11.40	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score	ext x 14.30
Total Scores for the Site Score LANDSCAPE CONTEXT SCORE 1.14	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score	ext x 14.30
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score	14.30 5.72
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo	14.30 5.72
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees	14.30 5.72
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference	14.30 5.72
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum	14.30 5.72 WGS84
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54)	14.30 5.72 WGS84
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits)	14.30 5.72 5.72 WGS84 53 678123
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits)	14.30 5.72 5.72 WGS84 53 678123
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits)	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE 11.40	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE 1.14 VEGETATION CONDITION SCORE 11.40 CONSERVATION SIGNIFICANCE SCORE 1.10	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description	14.30 5.72 5.72 WGS84 53 678123 6272011
Total Scores for the Site Score LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE CONSERVATION SIGNIFICANCE SCORE Photo Point and Vegetation Survey Location	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description Looking southeast acro	14.30 5.72 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE CONSERVATION SIGNIFICANCE SCORE Photo Point and Vegetation Survey Location Assessment for Clearance	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description Looking southeast acro	14.30 5.72 5.72 WGS84 53 678123 6272011
Total Scores for the Site LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE CONSERVATION SIGNIFICANCE SCORE Photo Point and Vegetation Survey Location Assessment for Clearance Loss Factor	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description Looking southeast acro Approximate hectares required Economies of Scale factor	14.30 5.72 5.72 WGS84 53 678123 6272011 ss the site
Total Scores for the Site LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE CONSERVATION SIGNIFICANCE SCORE Photo Point and Vegetation Survey Location Assessment for Clearance Loss Factor Loadings for clearance of protected areas	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description Looking southeast acro Approximate hectares required Economies of Scale factor Mean Annual rainfall for the site (mm)	14.30 5.72 5.72 0 WGS84 53 678123 6272011 0.75 0.35 268
Total Scores for the Site LANDSCAPE CONTEXT SCORE VEGETATION CONDITION SCORE CONSERVATION SIGNIFICANCE SCORE Photo Point and Vegetation Survey Location Assessment for Clearance Loss Factor Loadings for clearance of protected areas Reductions for rehabilitation of impact site	Conservation Significance = UNIT BIODIVERSITY SCORE Total Biodiversity Score (Biodiversity Score x hectares) Direction of the Photo SE 126 degrees GPS Reference Datum Zone (52, 53 or 54) Easting (6 digits) Northing (7 digits) Description Looking southeast acro Approximate hectares required Economies of Scale factor	14.30 5.72 WGS84 53 678123 6272011

Appendix 3. Proposed subdivision





25/01/2023

Hennig Surveyors 275 MARION ROAD NORTH PLYMPTON SA 5037

Request for Information

Applicant:

Application ID: 22030412

Subject Land:

LOT 102 DEER ST COWELL SA 5602

Title ref.: CT 6203/537 Plan Parcel: D117757 AL102 Council: THE DC OF FRANKLIN HARBOUR

11 MELROSE RD COWELL SA 5602

Title ref.: CT 6203/535 Plan Parcel: D117757 AL100 Council: THE DC OF FRANKLIN HARBOUR

Dear Sir/Madam,

The following additional information is required by the due date 26/04/2023 to assist with the assessment of your Planning Consent for proposed development.

Proposed Development:

Land Division - 2 allotments into 9 allotments

Required Information

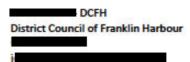
 A Native Vegetation Consultant report which determines the level of vegetation clearance associated with proposed allotments 10, 11, 12, 13, 14, and 15 (Melrose Road frontage).

If you require additional time to provide the information, please contact the Authority on the details below as soon as possible to allow for consideration of your request.

Please note failure to provide the requested information may result in refusal of your application.

If you have any other questions regarding your application, please use the contact details below.

Yours sincerely,



Planning, Development and Infrastructure Act 2016 & Planning, Development and Infrastructure (General)	Section 119(3) / Regulation 34
Regulations 2017	55.000 001

Appendix 5. Photolog



Position: 53S 678140E 6271965N Direction of photo: N 5°



Position: $53S\ 678153E\ 6271952N$ Direction of photo: $N\ 5^o$



Position: $53S\ 678174E\ 6271974N$ Direction of photo: W 278°



Position: 53S 678169E 6272007N Direction of photo: W 259°



Position: $53S\ 678144E\ 6272011N$ Direction of photo: $S\ 176^{\circ}$



Position: 53S 678123E 6272011N Direction of photo: SE 126 $^{\circ}$