Native Vegetation Clearance Assessment Data Report: T-Ports – Lucky Bay

Clearance under Section 28 of the *Native Vegetation Act 1991*

April 2023

Prepared by Jeremy Ross-Carter

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1. Application information

Application Details

Applicant:	T-Ports Pty Ltd		
Key contact:			
Landowners:	T-Ports Pty Ltd		
Site Address:	Lucky Bay Road, Lucky Bay, SA 5602		
Local Government Area:	The District Council of Franklin Harbour	Hundred:	Wilton
Title ID:	CT/6194/467	Parcel ID	D115028 A20

Summary of proposed clearance

Purpose of clearance	Clearance required in connection with the disposal of dredging spoil from the marine harbour.
Description of the vegetation under application	5.52 ha of rehabilitated *Tecticornia halocnemoides ssp. halocnemoides* (Grey Samphire) +/-*Tecticornia pergranulata ssp. pergranulata* (Black-seed Samphire) low open shrubland in moderate to good condition. However, large bare patches are present, particularly in the centre of the site and northeast corner.
Total proposed clearance -	5.52 ha is proposed to be cleared.
Level of clearance	Level 4
Planning and Design Code Overlay	Native Vegetation Overlay
Map of proposed clearance area 	
Mitigation hierarchy	The intact vegetation surrounding and on the fringe of Site A1 that was not degraded in 2014 will not be impacted during the proposed development activities.
SEB Offset proposal	Site A1 2023: Payment amount required (including admin. fee): $133,822.67 Site A1 2014 - Benchmark: Payment amount required (including admin. fee): $133,490.18

2. Purpose of clearance

2.1 Introduction

Jeremy Ross-Carter was commissioned by MasterPlan, on behalf of T-Ports Pty Ltd, to conduct a native vegetation assessment at a rehabilitated Samphire Chenopod shrubland site at Lucky Bay, South Australia (Map 1) and to assess the proposed clearance envelope against the Clearance Requirements of the *Native Vegetation Act 1991*.

2.2 Background

The vegetation under assessment is located within the Midgee IBRA Associations of South Australia.

The landform in the Midgee IBRA Association is described as sandy plains and dunes with low faults scraps or granite inselbergs, mangrove flats and low coastal cliffs. The vegetation in the association is dominated by grasslands of sow pastures and cereal crops and mallee scrub. Approximately 61% of the Midgee IBRA Association is mapped as remnant native vegetation.

The vegetation under assessment is located within D115028 A20 (CT/6194/467) in the Hundred of Wilton. According to NatureMaps Generalised Land Use layer 2021 the subject allotment is described as utility industry. Adjoining properties include reserves, utility industry, rural residential, vacant blocks and agriculture.

During the construction of the harbour extension in 2014 the previous owners of the site deposited large amounts of dredging spoil over an Inland Saltmarsh which contained a Samphire Chenopod open shrubland. This activity was undertaken without approval under the *Development Act* 1993 or *Native Vegetation Act 1991*. Removal of the deposited spoil from the site commenced in 2015 and was completed in 2016.

In 2017, the Native Vegetation Council representatives undertook an investigation into the unauthorised clearance and approached T-Port Pty Ltd who were by then the owners of the site. While not responsible for the clearance, T-Port Pty Ltd agreed with the Native Vegetation Council to undertake a rehabilitation program and engaged Larry Bebbington to prepare and implement a Rehabilitation Management Plan[1] (Appendix 1). The plan was initiated in 2018. The following species were direct seeded to revegetate the sites with appropriate saltmarsh species:

- *Atriplex paludosa ssp cordata*
- *Disphyma crassifolium ssp clavellatum*
- *Maireana appressa*
- *Maireana erioclada*
- *Suaeda australis*
- *Tecticornia pergranulata ssp pergranulata*
- *Tecticornia halocnemoides*
- *Roepera aurantiaca* (previously *Zygophyllum aurantiacum*)

2.3 Details of the proposed development

T-Ports Pty Ltd is currently investigating a proposal to further dredge the harbour for operation purposes. It is estimated this will create approximately 80,000^{m3} of spoil. The original proposal was to deposit the material on a nearby beach. However, the Department for Environment and Water (DEW) raised concerns for this solution and have recommended a preference for an inland dewatering/disposal alternative. In recent communications between T-Port Pty Ltd, DEW and the Environmental Protection Authority, the subject land addressed in this report was identified as a potential location. Therefore, this data report has been developed to assess the biodiversity value of the application area and to determine the feasibility to use the area for the proposed development (personal communication with Michael Richardson, 3 March 2023).

[1] Bebbington, L. 2017, Rehabilitation Plan for 6ha Inland Salt Marsh: Lucky Bay Harbour Extension Project, Larry Bebbington Habitat & Land Management Consultant (Appendix 1)

2.4 Approvals **required** ***or*** **obtained**

- *Native Vegetation Act 1991*: Consent to clear native vegetation under the *Native Vegetation Act 1991* is required and subject to this report.
- *Planning, Development and Infrastructure Act 2016*: Development Approval is required.

3. Method

Prior to the site survey the following desktop assessments were conducted:

- Review of Atlas Living Australia to determine the likelihood of State listed flora and fauna species that may be present on or near the subject land.
- Review of the EPBC Act 1999 Protected Matter Search Tool within 5km of the site to determine the likelihood of nationally listed flora species or habitat of conservation significance that may be present within the vicinity of the subject land.

The subject area was surveyed on 22nd March 2023. The site survey was undertaken in accordance with the *Native Vegetation Council (NVC) Bushland Assessment Manual 2020*. The aim of the site survey was to:

- record the vegetation association and flora species present;
- record the condition of the vegetation present;
- record any threatened flora species, if present;
- record any opportunistic fauna sightings;
- identify any suitable alternative locations to avoid or minimise the impacts to native vegetation; and
- to assess the proposed clearance against the Requirements of the *Native Vegetation Regulations 2017*.

In addition, to determine the condition of the subject area prior to impacts sustained by the depositing of the dredging spoil in 2014, a desktop review was conducted using biological survey and vegetation mapping data, and previous reports by Larry Bebbington[2 & 3].

Results of site survey and desktop assessment are detail below in Section 4.

[2] Bebbington, L. 2010, District Council of Franklin Harbour Lucky Bay & Spencer Gulf Ferry Service Operations Ecological Assessment, Larry Bebbington Habitat & Land Management Consultant (Appendix 2)
[3] Bebbington, L. 2017, Rehabilitation Plan for 6ha Inland Salt Marsh: Lucky Bay Harbour Extension Project, Larry Bebbington Habitat & Land Management Consultant (Appendix 1)

Map 1. Location of Vegetation under Application

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

0 1: 50,000 2,500 Kms

Compiled: 5-Apr-2023
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

4. Assessment Outcomes

4.1 Vegetation Assessment

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

The land system of the region is described as plains formed on calcreted Wiabuna Formation (highly calcareous aeolian deposits) and overlain by low to moderate parallel siliceous sandhills (NatureMaps 2022). The original soils of the subject land are described as saline soils (NatureMaps 2023). The Franklin Harbor Conservation Park is located approximately 5.5km west of the subject land. Heritage Agreement (HA 172) is located approximately 5.6km north of the application area. The subject area is mapped as part of the Franklin Harbor Wetland Complex (NatureMaps, 2023)

Current details of the vegetation proposed to be impacted

Site A1: 2023 (Map 2)

Vegetation Association	Rehabilitated *Tecticornia halocnemoides ssp. halocnemoides* (Grey Samphire) +/-*Tecticornia pergranulata ssp. pergranulata* (Black-seed Samphire) low open shrubland

Photo 1: Areas of direct seeding on eastern border of site viewing west.

Photo 2: Eastern border of site viewing north.

Photo 3: Denser patch of vegetation cover along southern border in lower lying areas viewing west.

Photo 4: Denser patch of vegetation cover in lower lying areas viewing northwest. Sparse vegetation cover in the background on higher ground.

Photo 5: Denser patch of vegetation cover in lower lying areas in front of large bare area with minimal regeneration or direct seeding germination. Viewing north.

Photo 6: Bare ground in foreground with the background showing denser vegetation cover and healthy chenopod shrubs. Viewing west.

Photo 7: Site A1 viewing east.

Photo 8: Large bare area. Centre of site viewing west.

General description	Site A1 contains a rehabilitated *Tecticornia halocnemoides ssp. halocnemoides* (Grey Samphire) *+/-Tecticornia pergranulata ssp. pergranulata* (Black-seed Samphire) low open shrubland. While the two Samphire species are dominant, other common species include *Nitraria billardierei* (Nitre-bush), *Frankenia pauciflora var.* (Southern Sea-heath), *Wilsonia humilis* (Silky Wilsonia), *Atriplex paludosa ssp. cordata* (Marsh Saltbush), *Maireana erioclada* (Rosy Bluebush), *Disphyma crassifolium ssp. clavellatum* (Round-leaf Pigface) and *Austrostipa nitida* (Balcarra Spear-grass). Five introduced species were observed in Site A1. They include *Lycuim ferocissmum* (African Boxthorn), *Asphodelus fistulosus* (Onion Weed), *Brassica sp., Aizoon pubescens* (Coastal Galenia) and *Carrichtera annua* (Ward's Weed). *Lycuim ferocissmum* (African Boxthorn) is listed as declared plant species under the *Landscape South Australia Act 2019*. See Table 1 below for the full list of flora species recorded in Site A1. Approximately 90-100% of the vegetation biomass across the site was observed as native, while the remaining was recorded as introduced species. The site contains large areas of bare ground where direct seeding or natural regeneration has not established, particularly in the centre of the site and northeast corner. Bare ground constitutes approximately 30% of the total area. In the remaining areas where vegetation is present, plant re-establishment and condition ranges from moderate to good with lower-lying wetter areas containing denser, healthier patches of shrubs and represent approximately 10% of the site. Slightly higher, elevated ground tends to contain sparser vegetation with higher canopy die-back at approximately 20% and represent 60% of the site. Two native species were recorded as regenerating, both being the two dominant Samphire species.
Threatened species or community	No threatened species or community was recorded in Site A1. Due to the early stages of the site rehabilitating and the sparse vegetation cover across most of the site it is unlikely that Site A1 would provide suitable habitat for threatened fauna species.

Landscape context score	1.11	Vegetation Condition Score	51.92	Conservation significance score	1.00
Unit biodiversity Score	57.63	Impact Area (ha)	5.52	Total biodiversity Score	318.14

Table 1. Flora species recorded in Site A1

Native Species	**Common Name**
Acacia ligulata **NQ**	Umbrella Bush
Atriplex paludosa ssp. cordata	Marsh Saltbush
Atriplex vesicaria	Bladder Saltbush
Austrostipa nitida	Balcarra Spear-grass
Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface
Dodonaea viscosa ssp. angustissima **NQ**	Narrow-leaf Hop-bush
Enchylaena tomentosa var. tomentosa **NQ**	Ruby Saltbush
Frankenia pauciflora var.	Southern Sea-heath
Maireana appressa	Pale-fruit Bluebush
Maireana erioclada	Rosy Bluebush
Nitraria billardierei	Nitre-bush
Olearia axillaris **NQ**	Coast Daisy-bush
Rhagodia crassifolia **NQ**	Fleshy Saltbush
Salsola australis **NQ**	Buckbush
Sporobolus virginicus **NQ**	Salt Couch
Tecticornia halocnemoides ssp. halocnemoides **R**	Grey Samphire
Tecticornia pergranulata ssp. pergranulata **R**	Black-seed Samphire
Wilsonia humilis	Silky Wilsonia
Introduced Species	**Common Name**
Aizoon pubescens	Coastal Galenia
Asphodelus fistulosus	Onion Weed
Brassica sp.	
Carrichtera annua	Ward's Weed
Lycium ferocissimum **D**	African Boxthorn

R – Regenerating; **NQ** – Not in quadrat; **D** – Declared Plant

Note: The plant list above in Table 1 represents additional species that were used during the revegetation activities in 2018. It is likely that these additional species seed has entered the site from adjacent vegetation blocks and regerminated on the site.

Map 2. Site A1

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

0 139 Metres

Compiled: 5-Apr-2023
Generated at: www.naturemaps.sa.gov.au
Datum: Geocentric Datum of Australia, 2020
Projection: Web Mercator (Auxiliary Sphere)

Historic details of the vegetation prior to disturbance in 2014 and benchmark score

Site A1 is mapped as a *Tecticornia sp*. (Samphire) low open shrubland over *Disphyma crassifolium ssp. clavellatum* (Round-leaf Pigface) in a swamp area with clay soils (NatureMaps 2023). No nearby biological survey records are available for similar environments or vegetation communities which would represent flora species diversity that may have been found on the site prior to the 2014 disturbance.

Further to the above, Larry Bebbington's Rehabilitation Plan, which was compiled in July 2017[4], describes the Inland Samphire Marshes of the Lucky Bay region, including Site A1, as *Tecticornia halocnemoides ssp. halocnemoides* (Grey Samphire) +/-*Tecticornia pergranulata ssp. pergranulata* (Black-seed Samphire) low shrubland over *Frankenia pauciflora* (Southern Sea-heath), *Wilsonia humilis* (Silky Wilsonia), *Sclerolaena diacantha* (Grey Bindyi), *Atriplex paludosa* (Marsh Saltbush), *Maireana appressa* (Pale-fruit Bluebush), *Maireana erioclada* (Rosy Bluebush), *Carpobrotus rossi* (Native Pigface) *and Disphyma crassifolium ssp clavellatum* (Round-leaf Pigface).

In addition, Bebbington's July 2017[5] Rehabilitation Plan provides a brief history of Site A1 with photographic evidence of its condition prior to disturbance in 2014. Bebbington's report states:

"The inland Salt Marsh had previously been assessed and flagged as a "no go" area under the recommendations section of the *Ecological Assessment Lucky Bay Common User Transhipment Facility – June 2011 – Bebbington, L*. This was primarily due to the discovery of 11 juvenile *Tecticornia flabelliformis* (Vulnerable AUS) plants in the eastern section of the inland Salt Marsh during vegetation surveys. The Salt Marsh vegetation in June 2011 was considered to be in good condition with a Mid Dense cover which was a result of a long history of stock grazing and camping on the Salt Marsh.

While the site had been destocked by 2009, a flock of 30+ sheep and 14 feral goats from the neighbouring property entered sometime in 2012 and regularly grazed and camped on the Inland Salt Marsh due to the proximity of water at the shack settlement.

During vegetation assessments for the harbour extension and wharf loading facilities in 2013 it was noted that the Salt Marsh was in poor condition and the 11 *T. flabelliformis* had become locally extinct due to prolonged heavy grazing and stock trampling.

The deposition of excavated soils onto the Salt Marsh appears to have occurred in late 2014 with a cessation of such activity being implemented in March 2015. Removal of the overburden from the Salt Marsh commenced sometime in 2015 and ceased at the onset of winter in 2016."

The following photos provide visual representation of the sites condition prior to the disturbance in 2014. Photos 9 and 10 were taken in 2011 prior to prolonged stock grazing. Photo 11 was taken in 2013 following intense grazing and trampling by stock and shows a dramatic reduction in the cover of the shrubland vegetation and increased areas of bare ground. Photo 11 was taken the year before the site was used to deposit the spoil from the harbour dredging in 2014.

From the information presented above, the information in the Table 2 below has been developed to provide an assumed benchmark Biodiversity Score for Site A1 in 2013 prior to disturbance in 2014 (refer to Appendix 3. T-Port_Lucky Bay_Site A1 2014 Benchmark_Bushland Assessment Scoresheet).

Threatened species or community	No threatened flora species or community was recorded in Site A1 in 2013. Due to the reduced vegetation cover across the site and degraded nature due to over grazing and trampling it was unlikely that Site A1 would have provided suitable habitat for threatened fauna species in 2013-2014.				
Landscape context score	1.11	Vegetation Condition Score	51.79	Conservation significance score	1.00
Unit biodiversity Score	57.49	Impact Area (ha)	5.52	Total biodiversity Score	317.35

[4] Bebbington, L. 2017, Rehabilitation Plan for 6ha Inland Salt Marsh: Lucky Bay Harbour Extension Project, Larry Bebbington Habitat & Land Management Consultant (Appendix 1)

Photo 9: Site A1 facing southwest from northeast corner of Salt Marsh in 2011

Photo 10: Site A1 facing southwest from northeast corner of Salt Marsh in 2011

Photo 11: Site A1 in 2013 facing same area as in Photo 10 but following intense grazing and trampling by stock in 2012. Area in foreground and centre of photo contained 11 juvenile *T. flabelliformis* prior to stock damage.

4.2 Threatened Species assessment

No species of conservation significance at the national or state level were recorded during the site assessment.

A NatureMaps and Protected Matters Search Tool (PMST) search identified 5 Nationally listed fauna species and 13 State listed fauna species which has been recorded since 1998, or are known to occur, within a 5km radius of the assessment area (see Table 4 below).

Table 4: Species observed on site, or recorded within 5km of the application area since 1997, 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
Arenaria interpres interpres	Ruddy Turnstone	R		3	2000	Mainly found on coastal regions with exposed rock coast lines or coral reefs.	Unlikely
Calidris canutus rogersi	Red Knot	E	EN	3, 5	2014	Mainly inhabit intertidal mudflats, sandflats and sandy beaches of sheltered coasts, in estuaries, bays, inlets, lagoons and harbours	Unlikely
Calidris ferruginea	Curlew Sandpiper	E	CR	3, 5	2009	Found on intertidal mudflats of estuaries, lagoons, mangroves, as well as beaches, rocky shores and around lakes, dams and floodwaters.	Unlikely
Charadrius leschenaultii leschenaultii	Greater Sand Plover	R	VU	3, 5	2009	Almost entirely coastal, inhabiting littoral and estuarine habitats.	Unlikely

Haematopus fuliginosus fuliginosus	Sooty Oystercatcher	R		3	2009	Strictly coastal, usually within 50 m of the ocean.	Unlikely
Haematopus longirostris	Pied Oystercatcher	R		3	2016	Prefers mudflats, sandbanks and sandy ocean beaches and is less common along rocky or shingle coastlines.	Unlikely
Haliaeetus leucogaster	White-bellied Sea Eagle	E		3	2016	Normally seen perched high in a tree or soaring over waterways and adjacent land.	Unlikely
Numenius madagascariensis	Far Eastern Curlew	E	CR	3, 5	2009	Found on intertidal mudflats and sandflats, often with beds of seagrass, on sheltered coasts, especially estuaries, mangrove swamps, bays, harbours and lagoons.	Unlikely
Pachycephala inornata	Gilbert's Whistler	R		3	2012	Usually inhabit semi-arid mallee or box–ironbark eucalypt, acacia, cypress-pine shrublands and woodlands 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
Pandion haliaetus cristatus	Eastern Osprey	E		3	2016	Occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands.	Unlikely
Plegadis falcinellus	Glossy Ibis	R		3	2016	Requires shallow water and mudflats, so is found in well-vegetated wetlands, floodplains and mangroves.	Unlikely
Sternula nereis nereis	Fairy Tern	E	VU	3, 5	2009	Found on coastal beaches, inshore and offshore islands, sheltered inlets, sewage farms, harbours, estuaries and lagoons.	Unlikely
Tringa brevipes	Grey-tailed Tattler	R		3	2000	Usually seen in small flocks on sheltered coasts with reefs and rock platforms or with intertidal mudflats.	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 does not provide 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 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.

A review of the threatened species habitat preferences, including foraging and breeding habitats, shows that several threatened fauna species listed in Table 4 are likely to utilise healthy, intact Inland Saltmarshes in the region as suitable habitat.

However, as Site A1 in 2023 is in the early stages rehabilitation and has large areas of sparse vegetation cover it is unlikely that the vegetation would provide suitable habitat for threatened fauna species. In addition, due to the reduced vegetation cover across the site and degraded nature due to over grazing and trampling it is unlikely that Site A1 would have provided suitable habitat for threatened fauna species in 2013-2014.

Note: The Native Vegetation Branch may assess the site as suitable habitat for threatened fauna species and address this according during the assessment of this data report.

4.3 Presence of Substantially Intact Vegetation

If the vegetation is considered to represent a substantially intact stratum, the NVC cannot approve clearance, unless for the purpose of harvesting native vegetation (section 27(3)).

Does the native vegetation constitute a continuous stratum?

- Currently Site A1 has several small patches of low-lying wetter areas that may be considered stratum growing at original density for an Inland Saltmarsh community. It is estimated that these areas represent approximately 10% of the site. Slightly higher, elevated areas with less water retention tends to contain sparser vegetation with higher canopy die-back at approximately 20% and represent approximately 60% of the site. These areas would not be considered to contain stratum growing at original density for an Inland Saltmarsh community. In addition, large bare ground containing no to very scattered native plants constitute approximately 30% of the total area and is not growing at original density for an Inland Saltmarsh community.
- While Site A1 is dominated by two species, *Tecticornia halocnemoides ssp. halocnemoides* (Grey Samphire) and*Tecticornia pergranulata ssp. pergranulata* (Black-seed Samphire), 11 species were recorded within the assessment quadrat which would be similar to original species diversity for an Inland Saltmarsh community.
- Site A1 is directly adjacent to an intact native vegetation block greater than one hectare in size.
- Introduced flora species cover represents less than 10% across Site A1.

Continuous Stratum Outcome: As the majority of the Site A1 contains vegetation cover density lower than what would be expected in an original Inland Saltmarsh community it is unlikely to be considered a continuous stratum.

Has the vegetation been subject to degradation within the past 20 years?

- While the vegetation in Site A1 was severely degraded in 2014 because of dredging spoil being deposited over the area it was not undertaken in compliance with the *Native Vegetation Act 1991*.
- The degradation occurred within the past 20 years.
- The degradation was a direct result of human activity.
- The degradation included modifying, destroying vegetation cover and loss of plant species diversity.
- The degradation included changing abiotic (non-living) factors such as frequency and scale of water inundation and importing dredged spoil from the marine floor.

Degradation Outcome: The Degradation of Site A1 in 2014 was not undertaken in compliance with the *Native Vegetation Act 1991*.

4.4 Address the Mitigation Hierarchy

The Native Vegetation Council will consider if the applicant has avoided and minimized the clearance of native vegetation as much as practically possible.

a) Avoidance

During the site assessment, T-Ports Pty Ltd advised that the intact vegetation surrounding and on the fringe of Site A1 that was not degraded in 2014 will not be impacted during the proposed development activities.

b) Minimization

Where clearance cannot be avoided all reasonable measures shall be implemented in accordance with the conditions of any related approvals, such as Development Approval and NVC Consent to Clear Native vegetation. This may include but is not limited to; delineation of native vegetation not to be impacted with appropriate marking, use of designated access and egress points and dust mitigation to avoid impacted to neighbouring native vegetation.

c) Rehabilitation or restoration

To be further discussed with T-Port Pty Ltd and DEW.

d) Offset

As stated below in Section 6, PW2PA has requested preference to provide the Significant Environmental Benefit (SEB) through payment into the NVC Fund.

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

Principle of clearance	Considerations
Principle 1a - it comprises a high level of diversity of plant species	Relevant information Bushland Plant Diversity Score – • Site A1 2023: 28 • Site A1 2014 Benchmark: 26
	Assessment against the principles Seriously at Variance: • Site A1 2023 • Site A1 2014 Benchmark
	Moderating factors that may be considered by the NVC NatureMaps Percentage Vegetation Cover data indicates there is approximately 5,026ha of native vegetation with 5km of Site A1. Therefore, the vegetation under application represents 0.001% of the remnant native vegetation within a 5 km radius.
Principle 1b - significance as a habitat for wildlife	Relevant information • Site A1 2023 is unlikely to provide suitable habitat for threatened fauna due to the early stages of the site rehabilitating and the sparse vegetation cover across. • Site A1 2014 Benchmark was unlikely to provide suitable habitat for threatened fauna due to the reduced vegetation cover across the site and degraded nature due to over grazing and trampling. Unit Biodiversity Score: • Site A1 2023: 57.63 • Site A1 2014 Benchmark: 57.49
	Assessment against the principles Seriously at Variance: • Site A1 2023 • Site A1 2014 Benchmark
	Moderating factors that may be considered by the NVC Due to the reduced vegetation canopy cover of Site A1 and the site being recently rehabilitated in the last 5 years, the NVC may consider the vegetation as non-essential habitat for threatened species and clearance will have a negligible impact on that species local population over the long term.

Principle 1c - plants of a rare, vulnerable or endangered species	Relevant information No threatened species were recorded during the site assessment. Threatened Flora Score: 0
	Assessment against the principles Not at Variance
	Moderating factors that may be considered by the NVC N/A
***Principle 1d - the vegetation comprises the whole or part of a plant community that is Rare, Vulnerable or endangered*:**	Relevant information No threatened plant communities were recorded in Site A1 in 2023 and 2013.
	Assessment against the principles Not at Variance
	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 Remnancy Figures • Midgee IBRA Association: 61 • Eyre Mallee IBRA Subregion: 38 Total Biodiversity Score: • Site A1 2023: 318.14 • Site A1 2014 Benchmark: 317.35
	Assessment against the principles At Variance
	Moderating factors that may be considered by the NVC N/A
Principle 1f - it is growing in, or in association with, a wetland environment.	Relevant information The vegetation in Site A1 historically grows within a wetland ecosystem.
	Assessment against the principles Seriously at Variance
	Moderating factors that may be considered by the NVC As the original wetland was destroyed in 2014, the NVC may consider the current condition of the wetland environment in Site A1 to be in poor condition compared to other wetlands in the region. The Franklin Harbour Wetlands of National Importance is estimated to be 1500ha in size and is approximately 700m east of Site A1. In addition, there are numerous other smaller inland and coastal wetlands in the Lucky Bay region. Being 5.52ha in size, the NVC may consider Site A1 relatively small, considering the wetlands within the same system or within a close proximity.
Principle 1g - it contributes significantly to the amenity of the area in which it is	Relevant information Vegetation within Site A1 contains low growing shrubs which is not visible from any public areas or roads.
	Moderating factors that may be considered by the NVC N/A

growing or is situated.	

4.6 Risk Assessment

Determine the level of risk associated with the application

Site A1 2023

Total clearance	No. of trees	N/A
	Area (ha)	5.52
	Total biodiversity Score	318.14
Seriously at variance with principle 1(a) to 1(g)		1(a) 1(b) 1(f)
Risk assessment outcome		Level 4

Site A1 2014: Benchmark

Total clearance	No. of trees	N/A
	Area (ha)	5.52
	Total biodiversity Score	317.35
Seriously at variance with principle 1(a) to 1(g)		1(a) 1(b) 1(f)
Risk assessment outcome		Level 4

5. Clearance summary

Clearance Area(s) Summary table

Block	Site	Species diversity score	Threatened Ecological community Score	Threatened plant score	Threatened fauna score	UBS	Area (ha)	Total Biodiversity score	Loss factor	Loadings	Reductions	SEB Points required	SEB payment	Admin Fee
A	A1 2023	28	1	0	0	57.63	5.52	318.14	1	0	0	334.05	$126,846.13	$6,976.54
A	A1 2014	26	1	0	0	57.49	5.52	317.35	1	0	0	333.22	$126,530.98	$6,959.20

Totals summary table

	Total Biodiversity score	Total SEB points required	SEB Payment	Admin Fee	Total Payment
Site A1 2023	318.14	334.05	$126,846.13	$6,976.54	$133,822.67
Site A1 2014: Benchmark	317.35	333.22	$126,530.98	$6,959.20	$133,490.18

Economies of Scale Factor	0.5
Rainfall (mm)	271

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.

☐ Apply to have SEB Credit assigned from another person or body.

☐ Apply to have an SEB to be delivered by a Third Party.

☒ Pay into the Native Vegetation Fund.

PAYMENT SEB

If a proponent proposes to achieve the SEB by paying into the Native Vegetation Fund the following will be required to offset the loss of native vegetation:

- **Site A1 2023:** Payment amount required (including admin. fee): $133,822.67
- **Site A1 2014- Benchmark:** Payment amount required (including admin. fee): $133,490.18

7. Appendices

Appendix 1. Rehabilitation Plan Inland Salt Marsh Lucky Bay Harbour Extension (provided in PDF)

Appendix 2. District Council of Franklin Harbour Lucky Bay & Spencer Gulf Ferry Service Operations Ecological Assessment (provided in PDF)

Appendix 3. T-Port_Lucky Bay_Site A1 2023_Bushland Assessment Scoresheet (provided in Excel)

Appendix 3. T-Port_Lucky Bay_Site A1 2014 Benchmark_Bushland Assessment Scoresheet (provided in Excel)