

Biodiversity Action Plan

RB Connolly Reserve

North Haven 5018, South Australia

City of Port Adelaide & Enfield

20 October 2025



This document has been prepared by Neoxena Research in collaboration with City of PAE and in consultation with Trees For Life and Green Adelaide.

Our City Vision:

Port Adelaide Enfield is a welcoming, liveable City made by people.

Our Goals

Thriving Community	Prosperous Economy	Clean And Green City	Places For People
<i>A City where people have the opportunity to connect and flourish</i>	<i>A City with a thriving economy that enriches its local community</i>	<i>A City that values its natural environment</i>	<i>An accessible City where people love to be</i>

Organisational Capability:

Our diverse workforce is resourced to deliver meaningful outcomes.
 Our systems, processes and tools are contemporary and reflect leading practice.
 Our assets and finances are managed with good stewardship.

We value our constructive workplace culture:

That is supportive, takes on challenges, seizes opportunity, builds great relationships and is proud of what we deliver for our diverse community. We inspire people to be creative, grow, and learn. We place no limits on what we can achieve.

Our Organisational Values

Make a Difference We serve our community well <ul style="list-style-type: none"> • Deliver public good • Improve the quality of people's lives • Community focussed • Deliver Council's City Plan 	Grow & Improve We improve our work everyday <ul style="list-style-type: none"> • Innovate • Continuously improve • Problem solve • Adapt & change • Engage the community • Shape the future 	Better Together We collaborate & create to deliver meaningful outcomes <ul style="list-style-type: none"> • Trust, honesty, integrity • Care & support each other • Work as a team • We celebrate success • We are accountable • Open communication
---	---	---

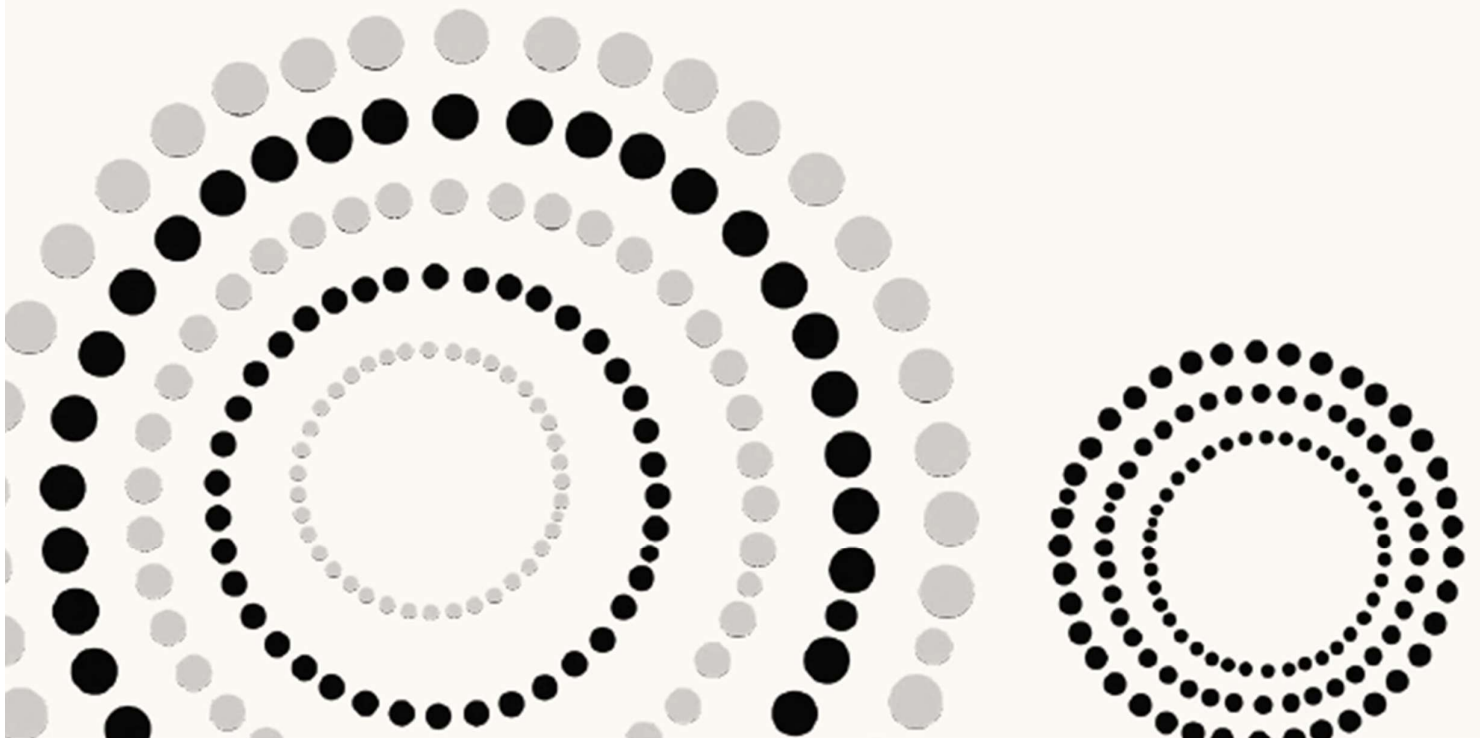


Acknowledgement of Country

We would like to acknowledge and pay respect to the Traditional Owners of the land on which we stand, the Kurna People of the Adelaide Plains.

It is upon their ancestral lands that we meet. It is also The Place of the Kardi, the Emu, whose story travels from the coast inland.

We pay respect to Elders past and present. We respect their spiritual beliefs and connections to land which are of continuing importance to the living Kurna people of today.



Project name	Biodiversity Action Plan		
Document Title	Biodiversity Action Plan – RB Connolly Reserve, North Haven 5118 South Australia for Port Adelaide Enfield Council		
Revision	Author	Signature	Date
R1	Andre Ortiz		22/09/2025
R2	Andre Ortiz		20/10/2025



Neoxena Research | ABN 54 702 129 219

Contact: Andre Ortiz, Principal Scientist & Ecologist | Neoxena Research
 7/3 Steuart Place,
 North Adelaide, South Australia 5006, Australia
T +0434 851 242 | **E** andre@neoxenaresearch.com.au

Executive Summary

Overview

A Biodiversity Action Plan has been developed for RB Connolly Reserve at North Haven 5018 South Australia. This has been prepared by Andre' Ortiz (Principal Scientists & Ecologist) in-consultation with City of Port Adelaide Enfield (City of PAE), Trees For Life and Green Adelaide. This is to provide an assessment and understanding of biodiversity and ecological values within RB Connolly Reserve to inform future management of these values. **Activities**

In summary, this review included undertaking the following activities:

- Review of the available information i.e. (Spatial imagery, existing tree attribute a summary assessment undertaken to date, proposed development activities) provided by City of PAE in April 2025.
- **Site visits during April - May 2025 to assess and collect relevant biodiversity value attribute data** i.e. (vegetation condition, flora and fauna genus/species diversity, values, key threats), including measurements in accordance with relevant biodiversity and ecological assessment guidelines.
- Collect data to identify the legislative status of biodiversity values or incidental fauna observations against relevant regulations i.e. Environment Protection and Biodiversity Act 1999 Act (EPBC Act), Native Vegetation 1991 Act (NV Act), National Parks and Wildlife 1972 Act (NPW Act), Landscapes of South Australia 2019 Act (LSA Act) and other relevant regulations.
- Assessing tree attribute data against indicative proposed biodiversity restoration initiatives and identify any key existing threats for RB Connolly Reserve.

Based on the review of the above information and method of assessment, in summary the following has been observed:

Vegetation

Two vegetation associations were identified at RB Connolly reserve, which include:

- Vegetation type 1: Coastal Low Woodland (*Callitris gracilis* +/- *Acacia pycnantha* +/- *Acacia ligulata*).
- Vegetation type 2: Park Reserve (Scattered Planted Eucalyptus and Melaleuca tree species).

No threatened ecological communities (TECs) listed under the EPBC Act or NP&W Act occur within the reserve area.

Flora species

In total 151 flora species were recorded within or adjacent to RB Connolly Reserve as part of on-ground and desktop investigations. This consists of 89 native species and 62 non-native species. Based upon the likelihood of occurrence assessment 1 flora species listed under the NP&W Act which is likely potential to occur within RB Connolly Reserve. These figures indicate that RB Connolly reserve supports important native flora biodiversity

relative to the surrounding urbanised environment, as well as an ecological refuge for local floristic values to be preserved.

Fauna

In total 50 fauna species have been recorded and/or predicted to occur within 5km of RB Connolly Reserve. This consists of 42 native species and 8 non-native species. Of the fauna species identified, four species are listed as threatened under the EPBC Act (2) and/or under the NP&W Act (3). The desktop assessment also identifies no species as migratory under the EPBC Act that are likely to occur. Based upon the likelihood of occurrence assessment four fauna species listed under the EPBC Act (2) and/or under the NP&W Act (3) are known, likely or have the potential to occur within RB Connolly Reserve.

Biodiversity Action Plan Recommendations

- Restoration efforts should be targeted understorey vegetation restoration i.e. (C4 and C3 grasses, ground cover plant species).
- Protection and preservation of key habitat features that support threatened species that have been identified to occur i.e. (fallen timber logs, fauna burrows, active avian nesting sites).
- Continual and monitored pest animal and plant control that threatened native biodiversity onsite.
- Milestone monitoring and community engagement to measure restoration effectiveness, promote awareness and update restoration measures on any new key biodiversity values or threats that emerge.

Table of Contents

Executive Summary	4
1. Introduction	7
1.1 Background	7
1.1.1 Biodiversity Action Planning key reference documentation	7
1.2 Purpose of this Plan	8
1.2.1 Scope	8
1.2.2 Limitations	9
1.2.3 Assumptions	9
2. Method of Assessment	11
2.1 Overview	11
2.2 Desktop assessment	11
2.3 Field Survey	12
2.4 Likelihood of occurrence assessment	12
2.5 Nomenclature	14
3. Biodiversity Condition and Context	15
3.1 Vegetation Condition & Flora Values	15
3.1.1 Vegetation types and condition	15
3.1.2 Flora species diversity	18
3.1.3 Likelihood of occurrence – threatened flora species	18
3.2 Fauna Values	19
3.2.1 Fauna habitat types and condition	19
3.2.2 Fauna species diversity	22
3.2.3 Likelihood of occurrence – threatened fauna species	22
4. Biodiversity Restoration Measures	25
4.1 Revegetation priorities	25
4.1.1 Revegetation preparation	25
4.2 Increased connectivity onsite and ecosystem productivity	28
4.2.1 Expanded fencing to encompass vegetation/habitat type 2 into vegetation/habitat type 1	28
4.2.2 Protection, restoration, and installation of fauna habitats	29
4.3 Enhanced community engagement and citizen science towards ecological restoration	31
5. Information sources	33
Attachment 1 – RB Connolly Reserve – Flora Species List	
Attachment 2 – RB Connolly Reserve – Fauna Species List	
Attachment 3 – Likelihood of Occurrence Assessment	
Attachment 4 – Bushland Condition Scoresheet	
Attachment 5 – Revegetation Zone Plan	
Attachment 6 – Expanded Fencing and Connectivity Plan	
Attachment 7 – Fauna Habitat Restoration Plan	
Attachment 8 – Community Engagement & Citizen Science Plan	
Attachment 9 – Flora Species Planting and Seed Propagation Inventory	
Attachment 10 – RB Connolly Reserve Action List	

1. Introduction

1.1 Background

Neoxena Research (**Neoxena**) has been requested to prepare a Biodiversity Action Plan for the City of Port Adelaide Enfield (City of PAE) to inform critical biodiversity values and outcomes for RB Connolly Reserve, North Haven 5018, South Australia. This plan has been developed in consultation with City of PAE, Trees For Life and Green Adelaide Landscape Board. RB Connolly Reserve is situated within the north-western region of the Adelaide Metropolitan, which has been developed and altered since European settlement. From undertaking spatial and initial site surroundings assessments, the local area has been built upon with residential, industrial, major commercial developments with supporting infrastructure.

This has resulted in a substantial amount of remnant native vegetation that has been cleared or disturbed i.e. (introduction of weeds species, erosion, and degradation) into the local environment. Relating to the local natural environment features, the landscape consists of sparse over storey vegetation including (Eucalyptus, Acacia, Pine and other ornamental tree species) with a mid and understorey comprising of roadside vegetation and/or park reserves.

The City of PAE, with Trees for Life of South Australia, have undertaken bush regeneration efforts at RB Connolly Reserve for the past 25 years. This has included historical on-ground monitoring of flora species i.e. (species lists, photo point monitoring), weed control of priority pest plant species, litter control, and general reserve maintenance. This assessment aims to provide planning to enhance and manage key biodiversity values such as vegetation associations (condition, diversity, coverage), flora / fauna species, threatened values, key threats and opportunities to restore the reserve for the next 5 years.

1.1.1 Biodiversity Action Planning key reference documentation

The Biodiversity Action Plan (BAP) was informed by targeted desktop and on-ground investigations of existing biodiversity health, condition, diversity, and review for existing on-ground biodiversity management of RB Connolly Reserve. This has been documented in a report prepared by Neoxena Research referred to as the 'Biodiversity Values Report: RB Connolly Reserve' (A.Ortiz 2025). This report provided an overview and opportunity to identify key restoration requirements for RB Connolly Reserve and the ecological values present.

In addition to the above documentation prepared, review of key information, documentation, and strategic planning by City of PAE in the wider region has been incorporated into this 5-year plan. This has been summarised in **Table 1** below.

Table 1: Summarised key documentation, planning and information sources for Biodiversity Action Planning strategy.

Documentation Title or Information Source	Detail / notes / reference
A.Ortiz (2025) – ‘Biodiversity Values Report: RB Connolly Reserve’, Neoxena Research.	Technical biodiversity assessment of existing values, conditions, and threats at RB Connolly Reserve.
2025 ‘Biodiversity Values and Planning – Workshop’ undertaken with City of PAE and Trees For Life SA delivered by Neoxena Research	Neoxena Research provided a workshop presentation with representatives for the City of PAE, Trees For Life SA and other relevant person(s) involved regarding the biodiversity values present and recommended biodiversity actions to proceed for the next 5-years.
Trees For Life (2023 - 2024) 6 month progress reports. Which contains bush regeneration progress onsite.	Trees For Life on-ground bush regeneration works reports provided from the times of July 2023 till 2024 have been provided. This includes details on weed control and seasonal schedules Connolly Reserve by Trees for Life.
PL009-012 RB Connolly Reserve : Indigenous and Exotic Plant Species list, Trees for Life (2025)	Documented list of flora species present within RB Connolly Reserve, which includes 5 rounds of updates to species list (2000, 2006, 2021, 2023 and 2025).
Priority Action Schedule PL009-012 RB Connolly Reserve, Trees for Life (2025)	Provides ongoing bush regeneration activities being undertaken by Trees for life at RB Connolly reserve.
‘Living Environment Strategy’ Port Adelaide-Enfield Council (2017-2022)	Living Environment Strategy 2022 contributes to the overall vision and each of the themes and indicators, while focusing on the strategic priorities that respond to the identified environment and heritage challenges confronting our city.
‘Open Space Strategy’ Port Adelaide-Enfield Council (2021-2026)	This Strategy provides a guide for the development and provision of open space now and into the future. This includes goals is to ensure that everyone in the community has access to open space to support play, recreation, health and wellbeing, and social inclusion.

1.2 Purpose of this Plan

To provide a planning document for targeted biodiversity management measures informed by completed technical assessments of biodiversity health, condition, diversity, and suggestions to assist on-ground biodiversity management of RB Connolly Reserve. The site location of this RB Connolly Reserve sites within an urban residential area of the Le Fevre Peninsula, positioned adjacent Sir Keith Smith Drive, site locality can be seen in **Figure 1**.

1.2.1 Scope

The scope of this Plan is to:

- Identify and manage known and potential flora and fauna values within and near RB Connolly Reserve.
- Identify and manage potential impacts on flora and fauna, particularly those listed under the EPBC Act and NP&W Act.
- Identify and manage the presence of Threatened Ecological Communities (TECs).
- Inform and manage ecological restoration measures for RB Connolly Reserve, and the need for further assessment requirements for long-term monitoring if required.
- Provision of the above to be summarised within 1 x Biodiversity Action Plan (the Plan).

1.2.2 Limitations

Limitations as part of this assessment include:

- If timing of surveys is not within the optimal survey period for certain species or communities, additional surveys may be required, and these would be costed as a variation to our fees.
- Alterations to assessment requirements i.e. (reserve footprint and activities) post survey would be subject to an additional assessment beyond what has been provided in Section 1.

1.2.3 Assumptions

Assumptions in preparation of this assessment exclude:

- Assessments are informed to support proposed ecological restoration zones provided details by City of PAE on 2025 within RB Connolly Reserve. Areas or assessments required outside of the agreed scope of works in the supporting RFQ have not been included.
- Any targeted threatened species survey program.
- EPBC Self-assessment or referral of the project to the DCCEEW.
- Native Vegetation Clearance Report, State Environmental Benefits (SEB) offset calculations



2. Method of Assessment

2.1 Overview

This report has been prepared by Andre’ Ortiz (Principal Scientist & Ecologist) with specialised training and 13+ years of experience. This includes having extensive understanding on the local ecology within and surrounding of Le Fevre Peninsula Region of South Australia, threatened ecological assessments, native vegetation assessments, academic research, landscape health evaluations, urban ecosystem refuge, and biodiversity linkage planning.

Professional credentials include being an accredited Native Vegetation Consultant in Scattered Tree Assessment (SCAT), Bushland Assessment Method (BAM), and Rangelands Assessment Method (RAM) (2024) by the Native Vegetation Council of South Australia, and additional expertise training in ecological condition assessments, native flora management, and conservation practices with universities or technical bodies.

2.2 Desktop assessment

A desktop assessment for biodiversity values known or predicted to be present within the 5km of project area was undertaken **Figure 2**. A review was undertaken of publicly available databases and websites, available reports, and spatial datasets as summarised in **Table 2**.

Table 2 *Desktop database sources*

Source	Detail / notes / reference
<i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) Protected Matters Search Tool (PMST).	5 km search from the perimeter of the project area.
Biological Database of South Australia (BDBSA) and NatureMaps, which provides GIS mapping, maintained by the Department of Environment and Water South Australia, including modelled mapping of broad vegetation types, locations of threatened flora and fauna records from the Flora and Fauna Atlas.	5 km search from the perimeter of the project area.
Atlas of Living Australia (ALA) Database, which contains documented historical records of species.	5 km search from the perimeter of the project area.
eStateFlora database, which contains documented historical records of flora species and habitat conditions for presence.	5 km search from the perimeter of the project area.
eBirdData data base, which contains documented historical records of avian species and values.	5 km search from the perimeter of the project area
FrogWatch SA data base, which contains documented historical records and notes of amphibian species.	5 km search from the perimeter of the project area.
FeralScan database, which contains documented historical records of introduced species that may need to be considered threats in the local environment.	5 km search from the perimeter of the project area.

2.3 Field Survey

A site inspection was undertaken during April to May 2025 which was carried out by 1 x appropriately qualified Principal Scientist and Ecologist. With suitable experience in biodiversity condition, attribute, and value assessments as described in **Section 2.1**. The focus of the survey was to ground-truth desktop vegetation mapping information and to identify vegetation communities and fauna habitat. The field assessment included the following elements:

- Identifying and mapping broad vegetation communities/associations using the National Vegetation Information System (NVIS).
- Assessing the high-level fauna habitat values of each vegetation community, considering complexity and diversity of microhabitats and the presence of foraging, breeding, roosting, and nesting resources.
- Where encountered during the surveys, identifying, and mapping the location of flora and fauna species or communities listed under the EPBC Act and NP&W Act.
- Collecting an inventory of incidental observations of native and non-native flora and fauna species encountered during the field assessment, together with their conservation status and origin.
- Collecting general site data and photographs of ecological values.
- Assessing the likelihood of threatened flora, fauna, and migratory species to occur within the project area. Likelihood is assessed based on the presence of suitable habitat identified during the field assessment, and the number and year of previous database records within the project area.

2.4 Likelihood of occurrence assessment

To assess likelihood of occurrence of species within the project area, criteria in Table 3 were applied to each of the threatened and migratory species listed in desktop assessment sources outlined in Table 2. The full assessment is provided in Appendix B.

The likelihood of occurrence criteria are based on:

- Field survey results
- Species records for the project area and desktop search area
- A review of the species' distribution and habitat requirements, based upon available documentation (e.g. species recovery plans, conservation advice etc.)
- Consideration of habitats in the project area, habitat connectivity in the landscape, and the species' relative mobility

A conservative likelihood category was applied where there was uncertainty related to:

- Survey limitations such as:
 - Survey timing (i.e. seasonality and time of day) for migratory, nomadic, or nocturnal fauna species or cryptic flora species

- Reduced detectability of species (e.g., inactive fauna, such as reptiles and frogs)
 - Length of survey
 - Methods employed for survey
 - Weather conditions
- Project area location i.e. remote locations that may not have been surveyed previously with limited records.
 - Project area disturbance related to climate events such as bushfire, flooding, cyclone within the previous 1-5 years.
 - Habitat conditions related to climate e.g. drought.

Table 3 *Likelihood of occurrence assessment criteria*

Likelihood category	Criteria
Known	<p>Listed fauna Habitat is present in the project area, and the species has been recorded in the project area, or in connected habitat adjacent to the project area, in the last 10 years.</p> <p>Threatened flora Habitat is present in the project area, and the species has been recorded in the project area during the last 10 years.</p> <p>TECs Presence of TEC has been confirmed through ground-truthing during surveys undertaken in the last 2 years.</p>
Likely	<p>Listed fauna Habitat is present in the project area, and the species has been recorded in the broader search area, or in connected habitat adjacent to the project area, in the last 11 to 30 years. OR Habitat is present in the project area, and the species has been recorded within its dispersal range/limit from the project area in the last 11 to 30 years, and there are no significant barriers to movement between the records and the project area.</p> <p>Threatened flora Habitat is present in the project area, and the species has been recorded in the project area in the last 11 to 30 years. OR Habitat is present in the project area and adequate surveys to determine presence/absence have not been undertaken, but the vegetation community composition indicates the species is probably present.</p> <p>TECs This likelihood category is not applicable to TECs. If there is the potential for a TEC to occur, the vegetation needs to be ground-truthed and presence or absence confirmed.</p>
Potential	<p>Listed fauna Habitat is present in the project area, and the species has been recorded in the broader search area, or in connected habitat adjacent to the project area, more than 31 years ago. OR Habitat is in the project area, the project area is within the species modelled or typical distribution range, and the species may use the habitat at least occasionally or opportunistically. OR Habitat is in the project area, and it could be used in the future as a climate refuge.</p>

Likelihood category	Criteria
	<p>Threatened flora</p> <p>Habitat is present in the project area, and the species has been recorded in the project area more than 31 years ago.</p> <p>OR</p> <p>Habitat is present in the project area, the project area is within the species modelled distribution, and adequate surveys have not been undertaken to prove the species is absent.</p> <p>TECs</p> <p>This likelihood category is not applicable to TECs. If there is the potential for a TEC to occur, the vegetation needs to be ground-truthed and presence or absence confirmed.</p>
Unlikely	<p>Listed fauna</p> <p>Habitat is not present within or adjacent to the project area, but the project area is within the species' typical distributional range.</p> <p>OR</p> <p>Habitat is present in the project area, and the species has been recorded within its dispersal range/limit from the project area over 30 years ago, and there are no significant barriers to movement between the records and the project area.</p> <p>Threatened flora</p> <p>Habitat is not present within or adjacent to the project area and robust targeted surveys have not been undertaken to prove if the species is absent.</p> <p>TECs</p> <p>This likelihood category is not applicable to TECs. If there is the potential for a TEC to occur, the vegetation needs to be ground-truthed and presence or absence confirmed.</p>
Highly unlikely	<p>The project area is outside the known, modelled, or documented extent of the species' distribution.</p> <p>Conditions for species survival not present.</p>

2.5 Nomenclature

Common and scientific names for plants follow the Census of South Australian plants, algae, and fungi (current version 2023). Native vegetation in South Australia is assessed using the Native Vegetation Information System (NVIS).

Other vegetation types that may occur in South Australia include 'ecological communities' listed as threatened under the Commonwealth EPBC Act or threatened under the NP&W Act. These acts have vegetation classification systems that differ from each other. As such, any single patch of native vegetation occurring within the project area (or anywhere in South Australia) will be classifiable as a particular vegetation type and may also be classifiable as a different ecological community under the EPBC Act, and / or as another flora community under the NP&W Act.



Investigation Area

RB Connolly Reserve,
North Haven, SA

Note:
The map provided is intended for informational and illustrative purposes only. Users should exercise caution and refer to authorized sources where greater accuracy is required.
Aerial Imagery sourced from Metromap Dated: 11/01/2025

Figure 2

Scale : 1:25,000 @Size A3
0 200 400 800
Meters

Ref : 25A1106
Revision : R0
Date: 30/05/2025
Projection: GDA2020 MGA Zone 54



3. Biodiversity Condition and Context

3.1 Vegetation Condition & Flora Values

3.1.1 Vegetation types and condition

Vegetation Type 1 - *Callitris* low open woodlands

Vegetation type one within RB Connolly Reserve is known as a *Callitris* low woodland, which is a form of low open forest with mixed mid-storey vegetation and patches of grassy understorey. The *Callitris* low woodland currently covers 1.2 hectares of RB Connolly Reserve as illustrated in **Figure 3 and Figure 5**. This vegetation type is widely distributed over 15 per cent of the Australian continent through temperate, coastal, riparian, and urbanised areas. This vegetation type is comprised with an overstorey dominated by a tree canopy layer of Southern Cypress Pine (*Callitris gracilis*), with other associated tree species that are present. Species include, Drooping Sheoak (*Allocasuarina verticillata*), Red Iron Bark (*Eucalyptus sideroxylon*) and South Australian Blue Gum (*Eucalyptus leucoxylon*). The **overstorey vegetation layer is in relatively good health** with moderate canopy foliage cover throughout the site, as well as **mature and emergence of regenerating tree saplings**.

The mid-storey vegetation layer comprises of shrubs and smaller tree species which are relatively dense and diverse onsite. This vegetation type is dominated predominately by a mix of Wattle (*Acacia* sp.) onsite. Species include Golden Wattle (*Acacia pycnantha*), Umbrella bush (*Acacia ligulata*), Golden Wreath-Wattle (*Acacia saligna*), Common Boobialla (*Myoporum insulare*), and Sticky Hop-bush (*Dodonaea viscosa* ssp. *spatulata*). The **midstorey layer is in relatively good to moderate health providing** sufficient amount of timber, branches and leaf litter **contributing to improve soil health and important fauna habitat conditions**.

The understorey vegetation layer comprises with a mixture of grasses, forbs, mat plants, sedges, and creepers. Common grass species present include a mix of Spear grasses (*Austrostipa* sp.), Wallaby grasses (*Rytidosperma* sp.), Saltbushes i.e. (*Atriplex* sp., *Enchylaena* sp., *Rhagodia* sp.), Coastal sword sedge (*Lepidosperma gladiatum*) and mixture of mat plants i.e. Native Pigface (*Carpobrotus rossi*). The **understorey layer is relatively patchy throughout the site and of moderate to poor condition** in some areas. This includes experiencing disturbance by weeds, soil degradation and limited diversity or cover in a number of patches.

The condition of the vegetation is moderate, with relatively intact overstorey and mid-storey vegetation present, with patches of bare ground. There is levels of disturbance identified during the field observations i.e. (weed incursions, minor tracks from visitors creating visitor/animals creating ground disturbance). To provide a measure for this vegetation condition, an assessment in accordance with the **Bushland Assessment Method (BAM)** was undertaken which provided a **biodiversity score of 74.34** which **scored above the benchmark associated community** (SMLR Co. Non eucalypt Coastal Low Woodlands), refer to **Attachment 4** for full BAM scoresheet attributes (DEW 2020).

Key biodiversity priorities and threats:

- Organic ground-layer plant species growth.
- Low diversity and coverage of C4 and C3 grass species present.
- Weed incursion and infestation competing with native flora species area of occupancy.



Figure 3: Photograph illustrating vegetation type 1 - *Callitris* forests and low open woodlands present at RB Connolly Reserve.

Vegetation Type 2- Park Reserve (Scattered planted *Eucalyptus* and *Melaleuca* tree species)

Vegetation type two within RB Connolly Reserve is characterised as a park reserve, with accompanying planted tree individuals i.e. (*Eucalyptus* and *Melaleuca* tree species) and covers approximately 1 hectare of RB Connolly Reserve as illustrated in **Figure 4** and **Figure 5**. This vegetation type onsite is common throughout metropolitan areas in Australia, and Adelaide metropolitan area commonly existing within urban green spaces. Areas such as these provide important green spaces and bare minimum biodiversity and aesthetic values to urban environments.

As mentioned above, the predominant native vegetation that is present exists within the overstorey layer. This includes a mix of tree species that have been planted approximately from the past 50 to 10 years. Key species present within this overstorey include South Australian Blue Gum (*Eucalyptus leucoxylon*) and Prickly-leaved Paper Bark (*Melaleuca styphelioides*).

Majority of the native vegetation of this vegetation type onsite has been historically cleared of the understorey and midstorey vegetation layers. The current understorey is covered with a common grass species i.e. (Kikuya grass, Couch grass, or Rye grass), which is generally seen as ideal for recreational activities observed at RB Connolly reserve i.e. (playing cricket or soccer).

Biodiversity priorities and threats:

- Absent diversity or presence of midstorey shrubs and understorey vegetation layer.
- Low diversity of C4 and C3 grass species presence.
- Limited connectivity with vegetation type 1.
- Weed incursion and presence throughout vegetation area



Figure 4: Photograph illustrating vegetation type 2 - Park Reserve (Scattered planted Eucalyptus and Melaleuca tree species)

3.1.2 Flora species diversity

Based on the outlined investigations, two vegetation types have been identified. This includes a total of 151 flora species have been recorded and/or predicted to occur within desktop search area and on-ground investigations at RB Connolly Reserve. This includes 89 native species and 62 introduced (weed) species. Of these species recorded 4 are listed as threatened under the EPBC Act (0) and/or NP&W Act (4). A collated flora species list for the reserve can be seen in **Attachment 1** with a summarised values in **Table 4**.

These biodiversity measurements indicate that the vegetation types associated with RB Connolly reserve are able to support moderate flora biodiversity, with majority of the composition consisting of native species. These statistics provide an indicator on measuring biodiversity outcomes following restoration efforts.

Table 4: Summarised flora species values for RB Connolly Reserve.

No. of flora species	Native	Exotic	Threatened Status		Weed threat status	
			EPBC Act	NP&W Act	WoNs	LSA Act
151	89	62	-	4	2	14

3.1.3 Likelihood of occurrence – threatened flora species

The likelihood of occurrence for one species listed under the NP&W Act is included in **Attachment 3**. A summary of species assessed as having the potential to occur within the project area is included in **Table 5**.

Table 5: Summary table of known, likely or possible threatened flora species occurrence

Scientific name	Common name	EPBC Act	NP&W Act	Relevant Vegetation Type	Likelihood of occurrence
<i>Senecio pinnatifolius</i> var. <i>pinnatifolius</i>	Variable Groundsel	-	Rare	Vegetation type 1	Likely



*Figure 6: Photograph of threatened flora species - Variable groundsel (*Senecio pinnatifolius* var. *pinnatifolius*).*

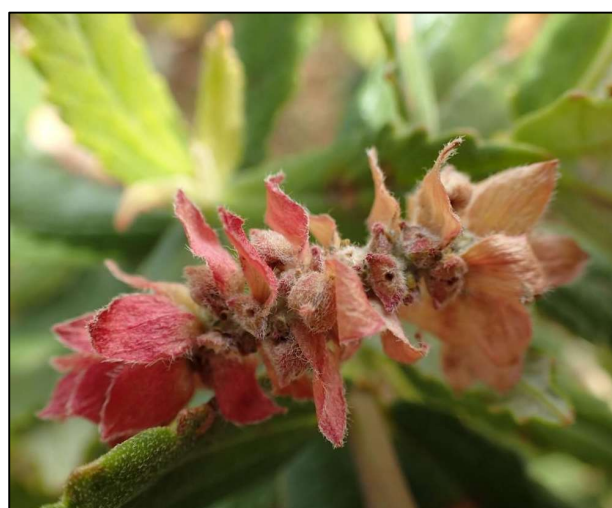


*Figure 7: Photograph of fruiting of unique flora species - Coast bitter bush (*Adriana quadripartita*).*



Vegetation and Flora

RB Connolly Reserve, North Haven, SA

Note:
The map provided is intended for informational and illustrative purposes only. Users should exercise caution and refer to authorized sources where greater accuracy is required.
Aerial Imagery sourced from Metromap Dated: 11/01/2025

Legend

● Threatened Flora

Vegetation Type

■ Coastal Low Woodland (*Callitris gracilis* +/- *Acacia Pycnantha* +/- *Acacia ligulata*)

■ Park Reserve (Scattered Planted Eucalyptus and Melaleuca tree species)

Figure 5

N

Scale : 1:500 @Size A3

0

2.5

5

10

Meters

Ref : 25A1106

Revision : R0

Date: 30/05/2025

Projection: GDA2020 MGA Zone 54

NEOXENA

RESEARCH

Alexander Symonds

Surveying Consultants

3.2 Fauna Values

3.2.1 Fauna habitat types and condition

Fauna habitat within RB Connolly reserve is strongly influenced by the vegetation, soil composition, and disturbance activities. Two habitat types were described as coastal low open woodland and urban scattered tree park reserve are discussed below and mapped in **Figure 19**.

Habitat type 1: Coastal low open woodland

The coastal low open woodland habitat consisted of vegetation characterised by Southern Cypress Pine (*Callitris gracilis*), *Acacia Pycnantha*, *Umbrella Bush (Acacia ligulata)*, midstorey and understorey shrubs, grasses and mat plants as described in vegetation type one. This vegetation consisted of intact overstorey and midstorey, with patchy understorey with intermittent sand deposits, fallen timber and bare ground areas. This vegetation associated with this habitat type provides foraging, nesting, and sheltering habitat for shrubland birds that favour denser midstorey areas, including bird's species Superb Fairy-wren (*Malurus cyaneus*) which were observed in the area, and potential to support the threatened EPBC listed species such as (Vulnerable-listed) Southern Whiteface (*Aphelocephala leucopsis*). The vegetation and soil type associated with this area provides burrowing habitat for reptiles and small mammals. Burrows observed within understorey soil surface areas and within fallen timber log crevices. An additional key observation onsite is the occurrence of the Bitterbush Blue Butterfly (*Theclinesthes albocincta*), as well as numerous records of pollination invertebrates present i.e. (wasps, bees, moths, and ants). This indicates the site provides substantial pollination activity to support healthy ecosystem function onsite.

The habitat has limited connectivity within the Le Fevre Peninsula as majority of the environment has been built upon for residential and industrial development purposes. Areas with similar type of habitat to provide connectivity for this habitat type include Biodiversity Park approximately 400 metres north of RB Connolly Reserve.

The project area did not contain any watercourses, waterbodies, or features (dry at the time of site visit), therefore there is nil to limited opportunity to support wetland or aquatic species.

Key biodiversity priorities and threats:

- Preservation and restoration of micro-habitat fauna features i.e. (fallen timber/logs, burrowing, nest creation materials, ground-cover vegetation restoration for increased food resources).
- Pest animal control, in particular, fox predation and den establishment onsite.
- Minimising ground-disturbance of soil, and human disturbance activities i.e. (litter, noise pollution).



Figure 8 Micro-habitat feature (reptile burrow) observed onsite.



Figure 9: Micro-habitat feature (Small avian nest) observed onsite.



Figure 10: Micro-habitat feature (fallen timber, leaf litter, and materials) observed onsite.

Habitat type 2: Urban scattered tree park reserve

The second habitat type observed onsite was an urban scattered tree park reserve with vegetation consisting of planted Eucalypt and Melaleuca tree species and recreational grass layer for community sport activities. The overstorey vegetation planted within the reserve provide nesting, resting and perching habitat for bird species that prefer open areas. This habitat type is absent of a midstorey and limited understorey vegetation layer limiting the habitat features to support significant biodiversity. Key features onsite include man-made structures i.e. (fence lines, poles, signs, sheltered area) which provides additional perching locations for bird species. The park reserve borders habitat type one as seen in **Figure 19**, and has an evident amount of fauna interaction between them. The park reserve space presents itself as an opportunity to be restored and expand additional connectivity for fauna species that in-habit habitat type one.

The habitat has minor connectivity within the Le Fevre Peninsula as majority of the environment has been built upon for residential and industrial development purposes. Areas with similar type of habitat to provide connectivity for this habitat type include Biodiversity Park approximately 400 metres north of RB Connolly Reserve.

Key biodiversity priorities and threats:

- Promote connectivity with habitat type 1, i.e. (expand fencing of habitat type 1 into habitat type 2).
- Installation of habitat features i.e. (logs with crevices, rock/stone features).
- Midstorey and understorey vegetation restoration.
- Pest animals, in patrilocal fox den presence within habitat type 1.



Figure 11: Scattered mature tree individuals overstorey habitat feature.



Figure 12: Scattered Semi-mature planted scattered trees with surrounding man-made features i.e., (posts, fencing).

3.2.2 Fauna species diversity

Based on the outlined investigations, two habitat types have been identified with a total of 50 fauna species, which includes 32 birds, 9 reptiles, 7 Mammals and 1 amphibian,. These have been recorded and/or predicted to occur through desktop search area and on-ground investigations at RB Connolly Reserve.

This includes 42 native species and 8 introduced species. Of these species recorded four are listed as threatened under the (2) EPBC Act and (3) NP&W Act. A collated fauna species list for the reserve can be seen in **Attachment 2** with a summarised values in **Table 5**.

Table 3: Summary table of fauna species composition

Species Type	Native	Exotic	Threatened Status		LSA Act Noxious Pest
			EPBC Act	NP&W Act	
Amphibian	1	0	0	0	0
Bird	26	6	1	1	5
Invertebrate	1	0	0	0	0
Mammal	5	2	1	2	2
Reptile	9	0	0	0	0
Total	42	8	2	3	7

3.2.3 Likelihood of occurrence – threatened fauna species

The likelihood of occurrence assessment found that four species that have the potential to occur which include (2) EPBC Act listed species and (3) NP&W Act. A summary of species assessed that have the potential to have a possible, likely, or known occurrence are in **Table 6** and further assessment details found in **Attachment 3**.

Table 4 Summary table of known, likely or possible threatened fauna species occurrence

Scientific name	Common name	EPBC Act	NP&W Act	Relevant Habitat Type	Likelihood of occurrence
<i>Pteropus poliocephalus</i>	Grey-headed Flying Fox	Vulnerable	Rare	Habitat type 1	Likely
<i>Trichosurus vulpecula</i>	Common Brushtail Possum	-	Rare	Habitat Type 1 and Two	Likely
<i>Aphelocephala leucopsis</i>	Southern Whiteface	Vulnerable	-	Habitat type 1	Possible
<i>Falco peregrinus</i>	Peregrine Falcon	-	Rare	Habitat type 1 and 2	Possible



Figure 13: Superb Fairy-wren observed onsite (Photo source: Australian Museum 2023)



Figure 14: Grey-headed flying fox (*Pteropus poliocephalus*) threatened species (Photo Source : ALA 2024)

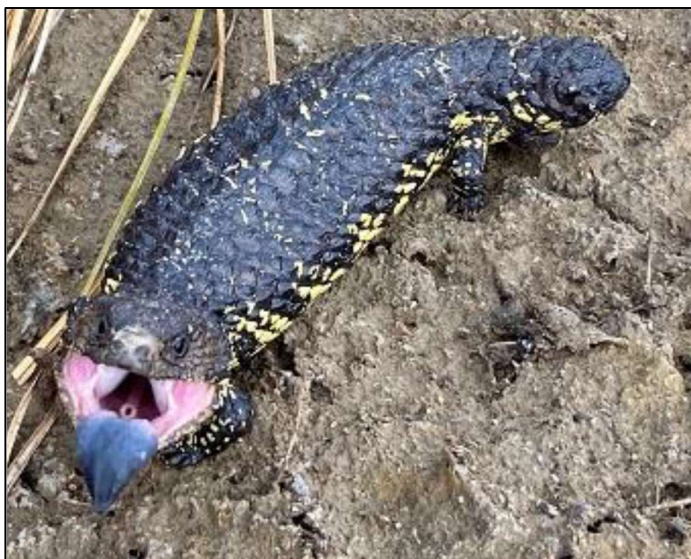


Figure 15 Photograph of Sleepy Lizard (*Tiliqua rugosa*) observed onsite.



Figure 16: Southern Whiteface (*Aphelocephala leucopsis*) threatened species (Photo sourced eBirdData 2024).

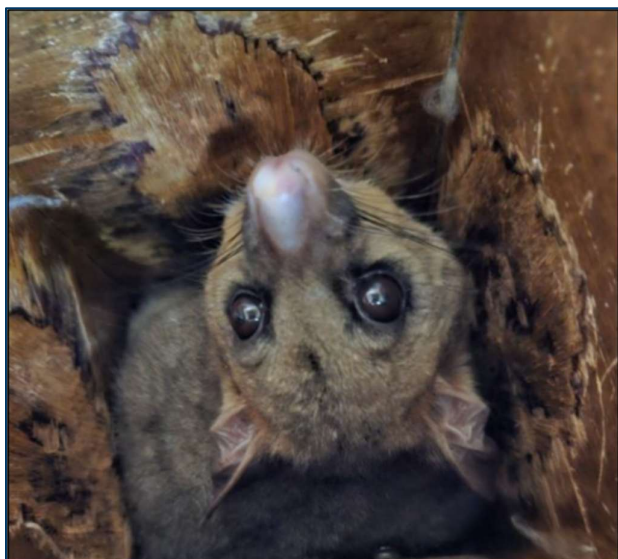
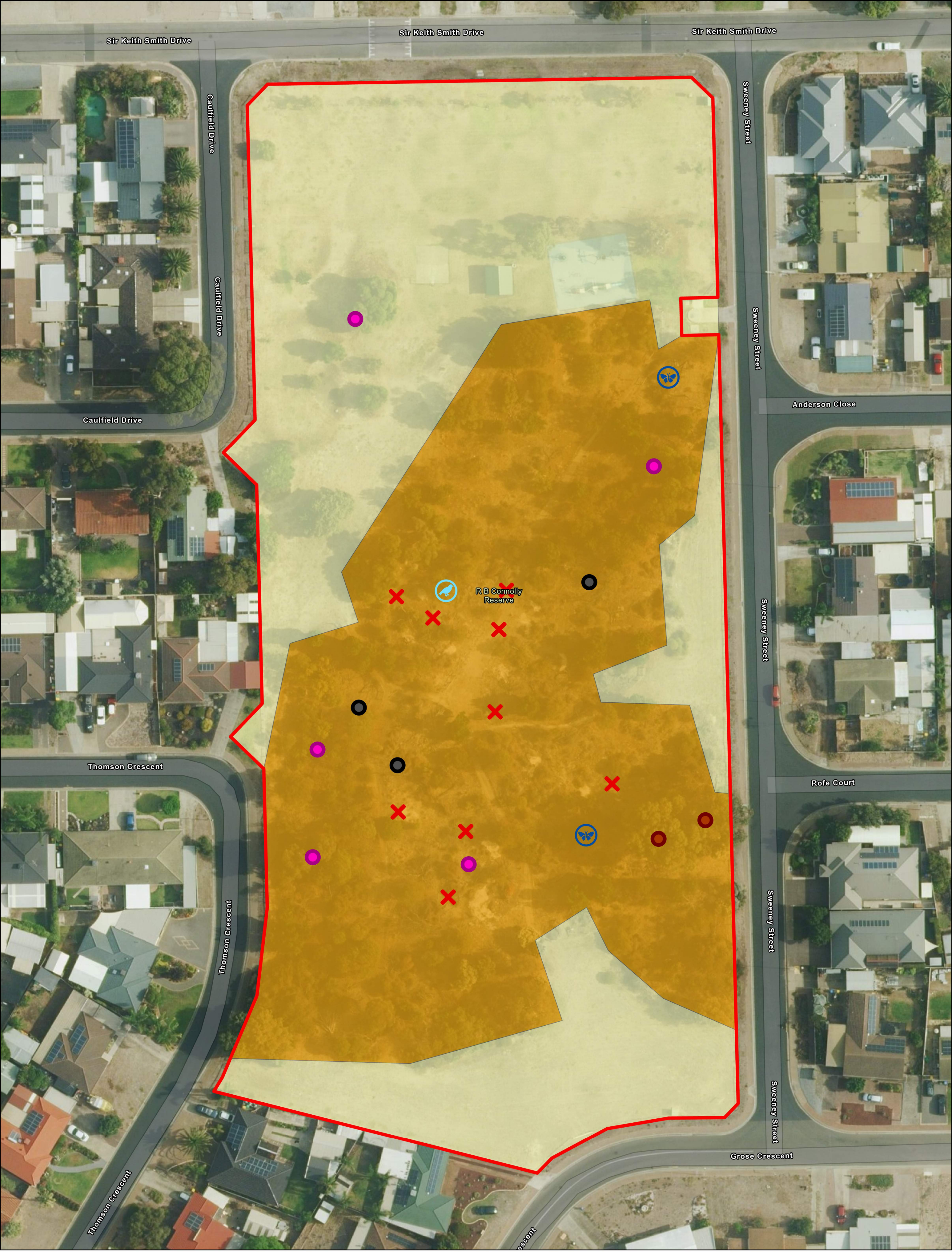


Figure 17: Photograph of *Trichosurus vulpecula* (Common Brushtail Possum) female (A. Ortiz 2025)



Figure 18: Photograph of Bitterbush Blue Butterfly (*Theclines thes albocincta*) observed onsite (Photo sourced SA Butterfly Society 2023).



Key threats and action priorities

To inform restoration strategies for the RB Connolly Reserve, the following threats and key biodiversity priorities have been identified to inform management of the reserve for the next 5-years:

- Targeted measures to support habitat features of threatened species likely to occur.
- Organic ground-layer plant species growth.
- Low diversity and coverage of C4 and C3 grass species present.
- Weed incursion and pest animals competing with native flora species and fauna habitat area of occupancy.
- Preservation and restoration of micro-habitat fauna features i.e. (fallen timber/logs, burrowing, nest creation materials, ground-cover vegetation restoration for increased food resources).
- Minimising ground-disturbance of soil, and human disturbance activities i.e. (litter, noise pollution).
- Absent diversity or presence of mid-storey shrubs and understorey vegetation layer.
- Limited connectivity with vegetation type 1.



Figure 20: Bridal Creeper (*Asparagus asparagoides* f.) Key identifying features and appropriate removal i.e. (leaf material, root system, and root balls).



Figure 21: Example of Human Disturbance within reserve through waste/littering into the environment.



Figure 22: Red Fox (*Vulpes vulpes*) key pest fauna species onsite (Photo sourced FeralScan 2023).



Figure 23: Onsite fencing infrastructure to limit disturbance for vegetation at RB Connolly Reserve.

4. Biodiversity Restoration Measures

Based on the findings of the biodiversity values assessment which include vegetation condition, threatened values, fauna habitat, and threats. Essential actions are required to improve ecosystem function, promote local biodiversity, and become a key focus of the Biodiversity Action Plan. An outlined action plan table of key tasks, deliverables and responsibilities can be found in **Attachment 10**.

4.1 Revegetation priorities

4.1.1 Revegetation preparation

Prior to any planned revegetation efforts, a certain amount of preparation to provide optimal outcomes, this can include but not be limited to the following:

- Priorities to promote natural regeneration and vegetation community gaps in productivity.
- Soil conditioning i.e. (appropriate soil requirements to support planned plant species collection).
- Managing existing priority weed incursion, pest animal or known human ground-disturbance activities that may impede on revegetation success.
- Revegetation and/or strategies to optimise successful planting survival rate i.e. (seasonality, rainfall conditions, species specific seed preparation for germination).

A detailed planting list for relevant revegetation zones have been developed in **Attachment 5** and **Attachment 9**. This includes providing details on species relevant to support optimal restoration of the relevant revegetation zones, as well as seed germination and plant preparation specifics for each species.

4.1.1.1 Targeted weed and pest animal control

As part of supporting restoration of the reserve, continual weed and targeted pest animal control is required. It is important to note that the species of threat to the ecosystem need to be monitored and updated accordingly for the site. Currently onsite there is active weed management control carried out by Trees For Life – Bush For Life Program , and has been so for the past 25 years in collaboration with the City of PAE. From the Bushland Condition Assessment undertaken for the reserve identified the following weed plant species as the priority threats for the site at the time of the assessment.

Table 7: Summarised key weed threat species identified during Biodiversity Values Survey - May 2025

Common Name	Scientific Name	WoNs listing	LSA Noxious Weed Listing	BAM Weed Threat Rating for the Region
African Boxthorn	<i>Lycium ferocissimum</i>	Applicable	2	3
Couch Grass	<i>Cynodon dactylon</i> var. <i>dactylon</i>	N/A	N/A	2
Bridal Creeper	<i>Asparagus asparagoides</i> f.	Applicable	2	5
Olive Tree	<i>Olea europaea</i>	Applicable	2	4
False Caper	<i>Euphorbia terracina</i>	N/A	3	3

It is important to note, though the above weed species have been identified as 'key threats' during the time of the Bushland Assessment Field Survey, priority weed control needs to be adapted towards seasonality and targeted biodiversity outcomes, this includes providing targeted and / or intensive weed management of the following areas within the reserve over the next 5-years:

- Newly proposed areas of revegetation should receive weed control prior to planting activities, in particular, weeds species that are likely to pose as a threat to the specific native species proposed to be planted. An example of this would be proposed plantings of native grass patches, should be prepared and coupled with specific grass weed control within and surrounding these areas.
- Areas providing habitat for threatened flora and fauna species likely to exist, as these are biodiversity priorities to be conserved and restored. Through targeted management of weed threats in these areas will allow further occupancy of additional rare biodiversity to gain a foothold into the reserve.

4.1.1.2 Ground-cover vegetation restoration

As part of restoration a supporting component of this ecosystem is the ground-cover species layer. These species provide an important function in improving soil quality, water retention, flora biodiversity, erosion control and contribute to a functioning ecosystem. Currently onsite these species are of low coverage across both vegetation types in numbers and coverage. The following is proposed to improve ground-cover vegetation:

- **Re-seeding/revegetation:** A select number of ground-cover species will be re-seeded and revegetated onsite to increase cover and diversity. This will be predominantly occurring within areas that provide suitable soil conditions and seed propagation requirements. In addition to this, areas will also be targeted to provide connectivity between ground-cover vegetation 'bare patches' and/or areas requiring additional abundance to provide a robust ground-cover vegetation layer i.e. (fenced off patches). The species selected for the relevant revegetation zones can be referred to in **Attachment 5 and Attachment 9**.
- **Informative material:** Localised signage and tree guards promote awareness of ground-cover species for the reserve to limit impacts from human disturbance i.e. (trampling, erosion, over-utilisation by pest herbivorous).



Figure 24: Example of ground-cover plant species (*Sida corrugata*).



Figure 25: Example of ground-cover plant species (*Goodenia paradoxa*)

4.1.1.3 Increase diversity of C4 and C3 grasses

As a key component of this ecosystem is the grass species vegetation layer. More importantly, the type of species diversity which can be referred to as C3 and C4 grass types. C3 and C4 grass refer to the types of carbon absorbed by these plants which is also stored within the top-soil layer. Typically, C3 grasses are more predominant in the cooler seasons and C4 grasses during warmer periods due to the different carbon compounds available to absorb. Through improving the diversity, coverage and health of these grasses enables a functioning grassland ecosystem to thrive all-year round, improves soil quality, provides erosion control, and increases the carrying capacity for other flora and fauna species present to be supported. Relevant grass species for proposed revegetation zones can be seen in **Attachment 5** and **Attachment 9**.

There are a number of areas where C3 and C4 grasses can be improved through the following:

- **Re-seeding/revegetation:** A select number of grass species will be re-seeded and revegetated onsite to C3 and C4 grass diversity. This will be predominantly occurring within areas that provide suitable soil conditions and seed propagation requirements. In addition to this, areas will also be targeted to provide connectivity between limited grass diversity presence and/or areas requiring additional abundance to provide a robust grass vegetation layer i.e. (fenced off patches).
- **Informative material:** Develop visual, written and on-ground materials and support to promote awareness of C3 and C4 grass species for the landowner to limit impacts from existing pressures through i.e. (monitoring C3/C4 grasses in changing seasons, over-utilisation, and trampling effects). Visual aid material will be developed to easily identify C3 and C4 grasses vegetation.



Figure 26: Example of C4 grass plant species (*Themeda triandra*)



Figure 27: Example of C3 grass plant species (*Rytidosperma* sp.)

4.2 Increased connectivity onsite and ecosystem productivity

4.2.1 Expanded fencing to encompass vegetation/habitat type 2 into vegetation/habitat type 1

Promoting connectivity in ecological restoration is vital for maintaining ecosystem health and resilience by allowing unimpeded movement of species and natural processes, such as bird migration, and seed dispersal. This can be impacted by human activities i.e. (land development, roads, deforestation) causing habitat fragmentation and isolated species population. Connectivity enhances biodiversity, supports ecosystem functions like nutrient cycling and clean water, boosts resilience to threats, and provides vital corridors for adaptation.

Currently onsite at RB Connolly Reserve an existing fence line exists for 'Zone 1' which is the already managed area of biodiversity values onsite. Through this plan allows an opportunity to expand inclusive management into Zones 2, 3 and 4. To appropriately maximise the biodiversity outcomes for these new areas facilitating species movement will appropriately allow this to be achieved. It is proposed that the existing fence line is expanded to encompass the outer perimeter of these new zones so that it is managed as 'one reserve' and not segmented, refer to fencing plan **Attachment 6**.

Through achieving this fencing objective will promote the following biodiversity outcomes:

- **Facilitates species movement:** Connectivity allows wildlife to move between habitats to find food, breed, and establish new territories, which is crucial for survival.
- **Ensures ecosystem processes:** It supports natural processes such as pollination, seed dispersal, water flow, and nutrient cycling, which are essential for a functioning ecosystem.
- **Boosts biodiversity:** By preventing isolation, connectivity conservation helps maintain the diversity of species and maintain healthy, diverse communities within an ecosystem.
- **Strengthens ecosystem resilience:** Connected systems are more robust and better able to withstand threats like invasive species, diseases, and natural disasters.
- **Counteracts fragmentation:** Human activities have fragmented landscapes, turning protected areas into isolated "islands". Restoring connectivity links these isolated fragments, creating larger, more functional ecological systems.
- **Integrates conservation planning:** Connectivity conservation is a science-based approach that moves beyond managing individual sites to focusing on the landscape-level patterns that sustain life.
- **Improves restoration outcomes:** Priorities restoration sites with connectivity in mind can lead to greater benefits for multiple co-benefits, such as improved ecological health and human well-being.

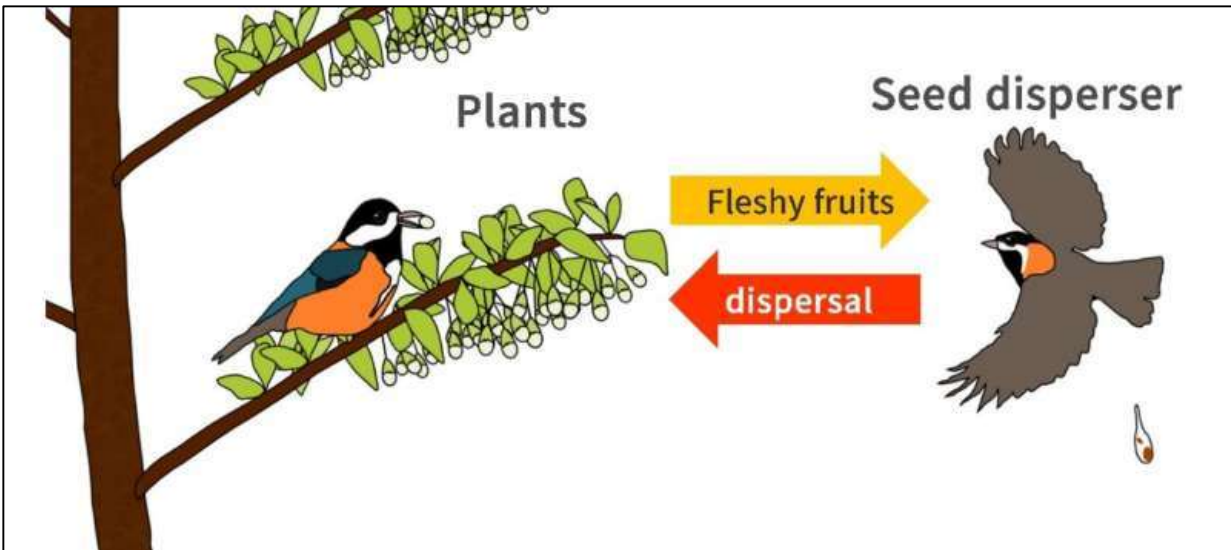


Figure 28: Ecological connectivity seed dispersal diagram through avian activity (Falcon 2018)

4.2.2 Protection, restoration, and installation of fauna habitats

Based on the fauna habitat and species assessment, the reserve provides sufficient habitat to support a number of threatened fauna species. Through consideration and restoration of fauna habitat features will enable improved productivity and ecosystem functioning accelerating restoration outcomes.

From assessment of suitable habitat and species identified are known, likely or possible to be present against key threats it is recommended the following measures are implemented:

- **Protection and restoration of grassland nesting, nest box, and tree hollow habitat features:** Onsite there is a diversity of grassland and woodland bird species that have been recorded or likely to occur. Many of these species depend on tree species associated with grassland ecosystems to provide food resource availability, nesting materials, shelter, and roosting activities.
- These features have found to be supporting a number of threatened woodland and/or grassland bird species including the Elegant Parrot, White-Winged Chough, Southern Whiteface, as well as a number of shrub birds such as Wren and Thornbill species. It is recommended that targeted restoration efforts are undertaken:
 - o Protection and identification of upper and midstorey tree species onsite i.e. (fencing or marking). Buffers should include within areas that active hollows or nesting areas are present to provide foraging and nesting materials for bird species i.e. (to leave fallen logs).
 - o Create artificial hollows in medium-sized live trees using chainsaw carved techniques.
 - o Nest-box installation, consider the specific needs of the target species including hole size and placement.

- Sparse revegetation of semi-mature to mature midstorey tree/bush species i.e. (*Eucalyptus sp.*, *Acacia sp.*) within areas nearby moderate to high grassland understorey present.
- Installation and creation of artificial grass nests to be installed into sparse midstorey. Nests should be ideally created with native grassland materials and seeds for food resources inside.

Targeted pest animal control of known threatened grassland bird species nesting sites.

- **Protection and restoration of rock features and sandy substrate:** Onsite there is currently a diversity of burrowing habitat features that provide habitat for a number of different species types i.e. (reptiles, birds, invertebrates, amphibians, and small mammals). It is recommended that sites that are known to have ground dwelling fauna species or habitat presence are protected.

Lizards and reptiles in-particular need shelter to hide and sleep to protect from rain and predators. Predators include cats and dogs. Stones, rocks, hollows, and logs can all be used to make a shelter. Important notes when developing reptile shelter areas include to:

- Try and stop water from entering the burrow as they prefer a dry shelter.
- Beware of disturbing other lizards if you are collecting rocks around the vegetation.

Lizards cannot produce their own body heat but rely on the warmth from the sun. They need a sun warmed rock or hard stone surface and open basking areas. Lizards shed their skin a few times a year, and they appreciate a **rough stone or piece of tree trunk to rub against to help to exfoliate**. Reptiles interact with many plant species for habitat and use them for shelter, and the seeds and berries. Including the groundcover Creeping Boobialla (*Myoporum parvifolium*), Kangaroo Grass (*Themeda triandra*), Woolly-head Mat-rush (*Lomandra leucocephala ssp. robusta*) Purple Coral-Pea (*Hardenbergia violacea* cv.), and Muntries (*Kunzea pomifera*) for their fruits. A detailed plan for recommended habitat restoration measures and feature installations can be found in **Attachment 7**.

Additional important notes for successful fauna habitat restoration onsite include:

- Fencing installation of known active burrowing sites, which still allow fauna passage from underneath to still allow species movement activities for i.e. (migration, foraging).
- Early Installation of erosion prevention measures of burrow habitat features.
- Monitoring and control of pest animal predation.
- Limit and provide buffers of noise/vibration activities nearby known burrow sites.
- Avoidance of infrastructure to be built nearby or encroaching these areas i.e. (roads, fencing and other supporting ancillary infrastructure).

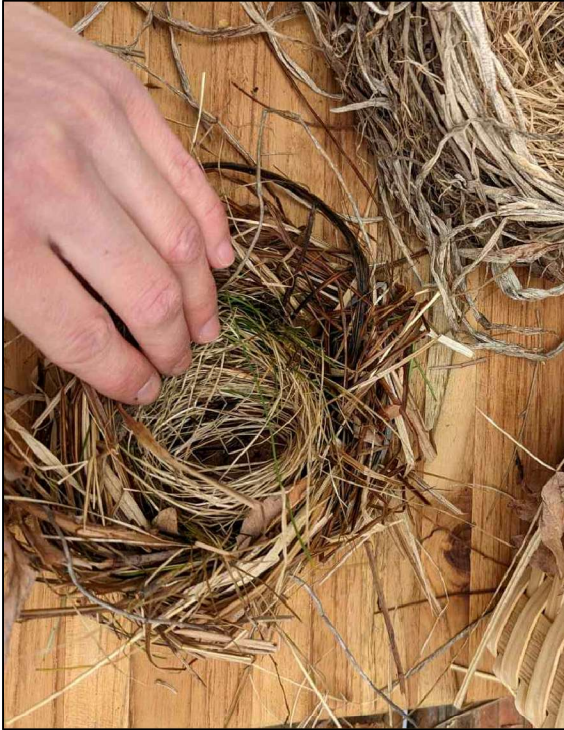


Figure 29: Construction of Avian Grass Nests to provide micro-habitat for small avian shrub diversity.



Figure 30: Artificial Hollow Installation into *Eucalyptus camuledensis* (River Red Gum) tree trunk.

4.3 Enhanced community engagement and citizen science towards ecological restoration

Community engagement and citizen science are vital for ecological restoration because they integrate local knowledge, build crucial public trust, long-term support, and foster a sense of ownership and stewardship. This leads to more effective, sustainable, and equitable outcomes. Citizen science, in particular, empowers local people by training them to collect vital ecological data, build scientific skills, and promote environmental awareness through authentic participation in restoration projects. A key component to promote biodiversity outcomes for RB Connolly Reserve is to promote, maintain and maximise community engagement and citizen science opportunities with stakeholders and local community members. This biodiversity action plan in **Attachment 8** has proposed the following initiatives to explore further to assist in promoting this space:

- Extension of existing pathways within Zone 1 to new entry points and walkways into Zones 2, 3 and 4.
- Installation of QR – Scan barcodes across the reserve for people to scan with their phones that would lead you to an online information page about RB Connolly Reserve, the fauna and flora species sight, the conservation importance of the area and ways to get involved i.e. (the existing Trees For Life SA volunteers).
- Creation of an interpretive sign RB Connolly reserve for people that walk within Zone 1 in particular that provides a visual informative tool to for visitors.

- Continual data collection and monitoring of RB Connolly Reserve is critical to ensure that updated targeted efforts are being met to maximise biodiversity outcomes, Establishment of Bushland Condition Monitoring (BCM) programme (every 5 year minimum). These monitoring activities will inform changes in terms of threats as well as, presence of different potential threatened species.



Figure 31: QR Code example with 'Blue Butterfly Design' to provide information for visitors of RB Connolly Reserve.

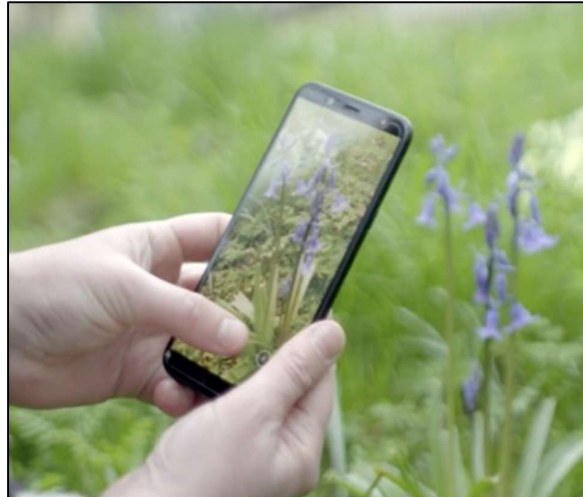


Figure 32: Visual of citizen science data collection of flora species present.

Yours Sincerely,

Andre' Ortiz

Principal Ecologist & Scientist

Masters by Research (Urban Ecological Services) & Bachelor of Ecological Sciences

Native Vegetation Accredited Consultant - Native Vegetation Council (NVC)

5. Information sources

Armstrong, D. M., Croft, S. N., and Foulkes, J. N. (2003). A Biological Survey of the Southern Mount Lofty Ranges, South Australia, 2000-2001. Department for Environment and Heritage, South Australia.

Butterfly Conservation South Australia (2025), Species profile: Bitterbush Blue : *Theclinesthes albocincta*. accessed 12/04/2025, available url: <https://butterflyconservationsa.net.au/butterfly/bitterbush-blue/>

Cale, B. (2005). Towards a Recovery Plan for the Declining Birds of the Mount Lofty Ranges. Scientific Resource Document for Birds for Biodiversity.

Commonwealth of Australia 2025, Protected Matters Search Tool. available url: <http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf>.

Commonwealth of Australia (1993) Australian Federal Government Gazette. 'Environment, Protection and Biodiversity and Conservation Act.' Canberra, Australia.

Department of Agriculture, Water and Environment (DAWE) 2021. National Recovery Plan for the Grey-headed Flying-fox *Pteropus poliocephalus*. Canberra: Commonwealth of Australia. Available from: <http://www.environment.gov.au/biodiversity/threatened/publications/recovery/grey-headed-flying-fox>

Eby, P. (1996). Interactions between the Grey-headed Flying-fox *Pteropus poliocephalus* (Chiroptera: Pteropodidae) and its diet plants-seasonal movements and seed dispersal. Ph.D. Thesis. Armidale, NSW: University of New England.

Falcon, W (2018). Seed dispersal by chelonians: From individuals to communities. *ResearchGate Journal*, vol.12, pp.112-116.

Flora Sight (2025), Biodiversity Action Plan: Biodiversity Park.

Higgins PJ, Peter JM & Cowling SJ (Eds) (2007) Handbook of Australian, New Zealand, and Antarctic Birds. Volume 7: Boatbill to Starlings. Oxford University Press, Melbourne.

Matthew J (1994). The status, distribution, and habitat of the Slender-billed Thornbill *Acanthiza iredalei* in South Australia. *South Australian Ornithologist*. 32: 1-19.

Matthew J (2002). Notes on the ecology of the Slender-billed Thornbill *Acanthiza iredalei rosinae*. *South Australian Ornithologist*. 34: 15-22.

Native Vegetation Council (NVC) (2020a). Bushland Assessment Manual July 2020. Native Vegetation Council, Adelaide. Available url: <https://www.environment.sa.gov.au/topics/nativevegetation/clearing/vegetationassessments> .

Plan SA, SAPPA Planning Development : Spatial Portal, South Australian Government Department : Planning SA, viewed: 03/12/2024, available: <https://sappa.plan.sa.gov.au/>.

PlantNET (2025), Species profile: *Senecio pinnatifolius* var. *pinnatifolius*, viewed: 21/05/2025, available url: <https://plantnet.rbgsyd.nsw.gov.au>

Price H (2024), RB Connolly Reserve: 6-monthly bush regeneration report. Trees for Life South Australia.

Price H (2023), RB Connolly Reserve: 6-monthly bush regeneration report, Trees for Life South Australia.

Schodde R & Mason IJ (1999) The Directory of Australian Birds: Passerines. CSIRO Publishing, Melbourne.

Seeds of South Australia (SSAa) (2025), Seeds of South Australia: *Atriplex australasica* (Native Orache), viewed:21/05/2025, available:
<https://spapps.environment.sa.gov.au/SeedsOfSA/speciesinformation.html?rid=516>

SSAb (2025), Seeds of South Australia: *Olearia passerinoides ssp. Glutescens* (Compositae) Sticky Daisy-bush, viewed: 21/05/2025, available:
<https://spapps.environment.sa.gov.au/SeedsOfSA/speciesinformation.html?rid=3115>

South Australia Government, Department for Environment and Water, NatureMaps (On-line resource) NatureMaps Home (environment.sa.gov.au)

South Australian Government (2020) The South Australian Government Gazette. 'Landscape South Australia Act 2019' pp. 4002-4038. Adelaide, South Australia.

South Australian Government (2017) The South Australian Government Gazette. 'Planning, Development, and Infrastructure Regulations.' Adelaide, South Australia.

South Australian Government (2016) The South Australian Government Gazette. 'Planning, Development and Infrastructure Act.' Adelaide, South Australia.

South Australian Government (2016) The South Australian Government Gazette. 'Native Vegetation Regulations.' Adelaide, South Australia.

South Australian Government (1991) The South Australian Government Gazette. 'Native Vegetation Act.' Adelaide, South Australia.

South Australian Government (1972) The South Australian Government Gazette. 'National Parks and Wildlife Act.' Adelaide, South Australia

South Australian Government (1991) The South Australian Government Gazette. 'Native Vegetation Act.' Adelaide, South Australia.

South Australian Government (1972) The South Australian Government Gazette. 'National Parks and Wildlife Act.' Adelaide, South Australia

Threatened Species Scientific Committee (TSSC) (2023), Conservation Advice: *Aphelocephala leucopsis* (Southern Whiteface), Commonwealth of Australia, accessed 21/05/2025, available url:
<https://www.environment.gov.au/biodiversity/threatened/species/pubs/529-conservation-advice-31032023.pdf>

Threatened Species Scientific Committee (TSSC) (2020), Conservation Advice: *Falco hypoleucos* (Grey Falcon), Commonwealth of Australia, accessed 21/05/2025, available url:

(TSSC) (2016), Conservation Advice: *Caladenia tensa* (rigid spider-orchid), Commonwealth of Australia, accessed 21/05/2025, available url: <https://www.environment.gov.au/biodiversity/threatened/species/pubs/24390-conservation-advice-16122016.pdf>

TTSC (2001), Conservation Advice: *Pteropus cinerea* (Grey-headed flying fox), Commonwealth of Australia, accessed: 21/05/2025, available url:
<https://www.dcceew.gov.au/environment/biodiversity/threatened/conservation-advice/pteropus-poliocephalus>

Trees for Life South Australia (TLSA) 2025, RB Connolly Reserve : Indigenous and Exotic Plant Species list.

TLSA (2023), 6 monthly bush regeneration report.

Attachment 1

RB Connolly Reserve – Flora Species List

Attachment 1.1 - RB Connolly Reserve (Flora Species List)

Scientific name	Common name	Native	Introduced	EPBC Act	NPSW Act	WoNs	LSA Act	Recorded Onsite	Desktop record
<i>Acacia cupularis</i>	Cup Wattle	X							X
<i>Acacia cyclops</i>	Western Coastal Wattle	X							X
<i>Acacia ligulata</i>	Umbrella Bush	X						X	X
<i>Acacia pycnantha</i>	Golden Wattle	X						X	X
<i>Acacia saligna</i>	Golden Wreath Wattle		X					X	X
<i>Adriana quadripartita</i>	Coast Bitter-bush	X						X	X
<i>Aizoon pubescens</i>	Coastal Galenia		X					X	X
<i>Allocasuarina verticillata</i>	Drooping Sheoak	X						X	X
<i>Aloe arborescens</i>	Candelabra aloe		X						X
<i>Amaranthus albus</i>	Stiff Tumbleweed		X						X
<i>Arctotheca calendula</i>	Cape Weed		X					X	X
<i>Arctotis stoechadifolia</i>	White Arctotis		X						X
<i>Asphodelus fistulosus</i>	Onion Weed		X					X	X
<i>Atriplex australasica</i>	Saltbush	X			Rare				X
<i>Atriplex cinerea</i>	Coast Saltbush	X							X
<i>Atriplex nummularia ssp. (NC)</i>	Old-man Saltbush	X							X
<i>Atriplex paludosa ssp. cordata</i>	Marsh Saltbush	X						X	X
<i>Atriplex prostrata</i>	Creeping Saltbush		X						X
<i>Atriplex semibaccata</i>	Berry Saltbush	X						X	X
<i>Austrostipa elegantissima</i>	Feather Spear-grass	X							X
<i>Austrostipa mollis</i>	Soft Spear-grass	X						X	X
<i>Austrostipa sp.</i>	Spear Grass	X						X	X
<i>Avena barbata</i>	Bearded Oat		X				x	X	X
<i>Banksia sp.</i>	Banksia	X							X
<i>Billardiera cymosa ssp. cymosa</i>	Sweet Apple-berry	X						X	

<i>Bolboschoenus caldwellii</i>	Salt Club-rush	X							X
<i>Brachypodium distachyon</i>	False Brome		X					X	X
<i>Brachyscome ciliaris</i> var. <i>ciliaris</i>	Variable Daisy	X							X
<i>Brachyscome</i> sp.	Daisy	X						X	
<i>Brassica tournefortii</i>	Wild Turnip	X							X
<i>Bromus diandrus</i>	Great Brome	X						X	X
<i>Bromus</i> sp.	Brome	X						X	X
<i>Cakile maritima</i> ssp. <i>maritima</i>	Two-horned Sea Rocket		X						X
<i>Caladenia X idiastes</i>	Cerise Spider Orchid	X							X
<i>Caladenia tensa</i>	Greencomb Spider Orchid	X			Endangered				
<i>Calandrinia eremaea</i>	Dryland Purslane	X						X	
<i>Callitris gracilis</i>	Southern Cypress Pine	X						X	X
<i>Carpobrotus rossii</i>	Native Pigface	X						X	X
<i>Casuarina glauca</i>	Grey Bul oak		X				X	X	X
<i>Caulerpa trifaria</i>		X							X
<i>Cenchrus clandestinus</i>	Kikuyu		X				X	X	X
<i>Cenchrus setaceus</i>	Fountain Grass		X				X		X
<i>Chenopodium murale</i>	Nettle-leaf Goosefoot		X						
<i>Chloris truncata</i>	Windmill Grass	X						X	X
<i>Chondrilla juncea</i>	Skeleton Weed		X				X	X	X
<i>Clematis microphylla</i>	Old Man's Beard	X						X	X
<i>Codium fragile</i> ssp. <i>Tomentosoides</i>	Suringar		X						X
<i>Crassula decumbens</i> var. <i>decumbens</i>	Spreading Crassula	X						X	
<i>Crassula</i> sp.	Crassula	X						X	
<i>Cynodon dactylon</i> var. <i>dactylon</i>	Couch		X					X	X
<i>Delairea odorata</i>	Cape Ivy		X						X
<i>Dianella brevicaulis</i>	Short-stem Flax-lily	X						X	X
<i>Diplotaxis tenuifolia</i>	Lincoln Weed		X						X

<i>Disphyma crassifolium ssp. clavellatum</i>	Round-leaf Pigface	X							X
<i>Dittrichia graveolens</i>	Stinkweed		X						X
<i>Dodonaea viscosa ssp. spatulata</i>	Sticky Hop-bush	X						X	X
<i>Ehrharta calycina</i>	Perennial Veldt Grass		X					X	X
<i>Ehrharta longiflora</i>	Annual Veldt Grass		X					X	X
<i>Einadia nutans ssp. nutans</i>	Climbing Saltbush	X						X	X
<i>Enchylaena tomentosa var. tomentosa</i>	Ruby Saltbush	X						X	X
<i>Eucalyptus leptophylla</i>	Narrow-leaf Red Mallee		X						X
<i>Eucalyptus leucoxyloides ssp.</i>	South Australian Blue Gum	X						X	X
<i>Eucalyptus sideroxylon ssp. sideroxylon</i>	Red Ironbark		X					X	X
<i>Eucalyptus utilis</i>	Coastal Moort		X						X
<i>Euphorbia terracina</i>	False Caper		X				X	X	
<i>Ficinia nodosa</i>	Knobby Club-rush	X						X	
<i>Foeniculum vulgare</i>	Fennel		X						X
<i>Fraxinus angustifolia ssp.</i>	Narrow-leaved Ash		X				X		
<i>Gazania sp.</i>	Gazania		X				X	X	X
<i>Goodenia varia</i>	Sticky Goodenia	X						X	X
<i>Hordeum marinum</i>	Sea Barley-grass		X						X
<i>Hordeum sp.</i>	Barley Grass		X					X	X
<i>Hypochaeris glabra</i>	Smooth Cat's Ear		X					X	X
<i>Hypochaeris radicata</i>	Rough Cat's Ear		X					X	
<i>Juncus acutus</i>	Sharp Rush								X
<i>Kennedia prostrata</i>	Scarlet Runner	X						X	
<i>Lagurus ovatus</i>	Hare's Tail Grass		X					X	
<i>Lawrencia squamata</i>	Thorny Lawrencia	X							X
<i>Lepidosperma gladiatum</i>	Coast Sword-sedge	X						X	X
<i>Leptospermum laevigatum</i>	Coast Tea-tree		X				X		X
<i>Leptospermum lanigerum</i>	Silky Tea-tree	X							X

<i>Limonium companyonis</i>	Sea-lavender	X							X
<i>Limonium hyblaeum</i>	Sicilian Sea-lavendar	X							X
<i>Lolium perenne</i>	Perennial Ryegrass	X							X
<i>Lolium rigidum</i>	Wimmera Ryegrass	X							X
<i>Lolium sp.</i>	Rye-grass		X					X	
<i>Lotus australis</i>	Austral Trefoil	X							X
<i>Lycium ferocissimum</i>	African Boxthorn		X			X	X	X	X
<i>Maireana brevifolia</i>	Short-leaf Bluebush	X							X
<i>Maireana erioclada</i>	Rosy Bluebush	X							X
<i>Maireana oppositifolia</i>	Salt Bluebush	X							X
<i>Malva parviflora</i>	Small-flower Marshmallow	X							X
<i>Medicago polymorpha</i>	Burr-medic	X							X
<i>Medicago sp.</i>	Medic		X					X	X
<i>Melaleuca acuminata ssp. acuminata</i>	Mallee Honey-myrtle	X							X
<i>Melaleuca armillaris ssp. armillaris</i>	Bracelet Honey-myrtle		X					X	
<i>Melaleuca halmaturorum</i>	Swamp Paper-bark	X							X
<i>Melaleuca lanceolata</i>	Dryland Tea-tree	X						X	X
<i>Melaleuca nesophila</i>	Showy Honey Myrtle		X					X	
<i>Melaleuca uncinata</i>	Broombush	X							X
<i>Melilotus indicus</i>	King Island Melilot		X						X
<i>Mesembryanthemum crystallinum</i>	Common Iceplant		X					X	X
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum	X						X	X
<i>Myoporum insulare</i>	Common Boobialla	X						X	X
<i>Nicotiana glauca</i>	Tree Tobacco		X						X
<i>Nitraria billardierei</i>	Nitre-bush	X							X
<i>Oenothera stricta ssp. stricta</i>	Common Evening Primrose		X					X	X
<i>Olea europaea ssp. europaea</i>	Olive		X				X	X	X
<i>Olearia axillaris</i>	Coast Daisy-bush	X						X	X
<i>Olearia passerinoides ssp.glutescens</i>	Sticky Daisy Bush	X			Rare				X

<i>Opuntia elatior</i>	Red-flower prickly pear		X			X	X		X
<i>Oxalis pes-caprae</i>	Soursob		X					X	X
<i>Parapholis incurva</i>	Curly Ryegrass		X						X
<i>Pelargonium australe</i>	Austral Stork's-bill	X						X	X
<i>Phoenix sp.</i>	Date Palm		X						X
<i>Piptatherum miliaceum</i>	Rice Millet		X					X	X
<i>Pittosporum angustifolium</i>	Native Apricot	X							X
<i>Plantago lanceolata</i> var. <i>lanceolata</i>	Ribwort		X					X	X
<i>Platanus X hispanica</i> cv. <i>Acerifolia</i>	London Plane		X						X
<i>Porphyra lucasii</i>	Levring	X							X
<i>Pottia sp.</i>	Moss	X							X
<i>Pyrus calleryana</i>	Gallery pear	X							X
<i>Reichardia tingitana</i>	False Sowthistle		X					X	X
<i>Rhagodia candolleana</i> ssp. <i>candolleana</i>	Sea-berry Saltbush	X						X	X
<i>Rhagodia crassifolia</i>	Fleshy Saltbush	X						X	X
<i>Rhamnus alaternus</i>	Blowfly Bush		X				X	X	X
<i>Roepera aurantiacum/eremaeum</i>	Shrubby Twinleaf	X							X
<i>Rytidosperma sp.</i>	Wallaby Grass	X						X	X
<i>Salsola australis</i>	Buckbush	X						X	X
<i>Sarcozona praecox</i>	Sarcozona	X							X
<i>Scaevola crassifolia</i>	Cushion Fanflower	X							X
<i>Senecio glossanthus</i>	Annual Groundsel	X						X	
<i>Senecio pinnatifolius</i> var. <i>pinnatifolius</i>	Variable Groundsel	X			Rare			X	
<i>Senecio sp.</i>	Groundsel	X						X	X
<i>Senecio spanomerus</i>	Native Groundsel	X							
<i>Solanum nigrum</i>	Black Nightshade		X						X
<i>Sonchus oleraceus</i>	Common Sow-thistle		X					X	
<i>Spergularia marina</i>	Salt Sand-spurrey	X							X
<i>Stenopetalum lineare</i>	Narrow Thread-petal	X							X

<i>Suaeda australis</i>	Austral Seablite	X							X
<i>Suaeda baccifera</i>	Seablite		X						X
<i>Tecticornia pergranulata ssp. pergranulata</i>	Black-seed Samphire	X							X
<i>Tetragonia decumbens</i>	Sea Spinach		X						X
<i>Tetragonia implexicoma</i>	Bower Spinach	X						X	X
<i>Threlkeldia diffusa</i>	Coast Bonefruit	X						X	X
<i>Trachyandra divaricata</i>	Dune onioneweed		X				X		X
<i>Vicia monantha ssp. triflora</i>	Spurred Vetch		X						X
<i>Vittadinia cuneata var. cuneata</i>	Fuzzy New Holland Daisy	X						X	X
<i>Vittadinia sp.</i>	New Holland Daisy	X						X	X
<i>Vulpia fasciculata</i>	Sand Fescue		X						X
<i>Westringia sp.</i>	Native Rosemary	X							X

Note: EPBC Act listings are (CE= Critically Endangered, E= Endangered V=Vulnerable), Migratory species listings are (Mi=Migratory, Ma=Marine) and NP&W Act listings are (CE= Critically Endangered, E=Endangered, V=Vulnerable, R=Rare).

Attachment 2

RB Connolly Reserve – Fauna Species List

Attachment 2.1 RB Connolly Reserve (Fauna Species List)

Species type	Scientific name	Common name	Native	Introduced	EPBC Act	NPSW Act	LSA Act	Recorded Onsite	Desktop record
Amphibian	<i>Limnodynastes tasmaniensis</i>	Spotted Marsh Frog	X					X	X
Avian	<i>Anthochaera carunculata</i>	Red Wattlebird	X					X	X
Avian	<i>Anthochaera chrysoptera</i>	Little Wattlebird	X						X
Avian	<i>Aphelocephala leucopsis</i>	Southern Whiteface	X		Vulnerable				X
Avian	<i>Chroicocephalus novaehollandiae novaehollandiae</i>	Silver Gull	X					X	X
Avian	<i>Colluricincla harmonica</i>	Grey Shrikethrush	X					X	
Avian	<i>Columba livia</i>	Feral Pigeon		X				X	X
Avian	<i>Coracina novaehollandiae</i>	Black-faced Cuckooshrike	X						X
Avian	<i>Corvus mellori</i>	Little Raven	X						X
Avian	<i>Elanus axillaris</i>	Black-shouldered Kite	X						X
Avian	<i>Falco peregrinus</i>	Peregrine Falcon	X			Rare		X	
Avian	<i>Gavicalis virescens</i>	Singing Honeyeater	X						X
Avian	<i>Geopelia cuneata</i>	Diamond Dove	X						X
Avian	<i>Glossopsitta concinna</i>	Musk Lorikeet	X					X	
Avian	<i>Grallina cyanoleuca cyanoleuca</i>	Magpielark	X					X	X
Avian	<i>Gymnorhina tibicen</i>	Australian Magpie	X					X	X
Avian	<i>Hirundo neoxena neoxena</i>	Welcome Swallow	X					X	X
Avian	<i>Manorina melanocephala</i>	Noisy Miner	X					X	X
Avian	<i>Malurus cyaneus</i>	Superb Fairywren	X					X	
Avian	<i>Ocyphaps lophotes lophotes</i>	Crested Pigeon	X					X	X
Avian	<i>Pardalotus punctatus</i>	Spotted Pardalote	X						X
Avian	<i>Passer domesticus domesticus</i>	House Sparrow		X			X		X
Avian	<i>Petrochelidon ariel</i>	Fairy Martin	X					X	
Avian	<i>Phalacrocorax varius hypoleucos</i>	Australian Pied Cormorant	X						X
Avian	<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater	X					X	X
Avian	<i>Psittacula krameri</i>	Rose-ringed Parakeet		X			X		X
Avian	<i>Rhipidura leucophrys leucophrys</i>	Willie Wagtail	X					X	

Avian	<i>Spilopelia chinensis</i>	Spotted Dove		X			X		X
Avian	<i>Sturnus vulgaris vulgaris</i>	Common Starling		X			X	X	X
Avian	<i>Threskiornis molucca molucca</i>	Australian White Ibis	X						X
Avian	<i>Trichoglossus moluccanus moluccanus</i>	Rainbow Lorikeet	X					X	X
Avian	<i>Turdus merula merula</i>	Common Blackbird		X			X		X
Avian	<i>Tyto javanica delicatula</i>	Eastern Barn Owl	X						X
Invertebrate	<i>Theclinesthes albocincta</i>	Bitterbush Blue Butterfly	x					X	
Mammal	<i>Austronomus australis</i>	White-striped Free-tailed Bat	X						X
Mammal	<i>Chalinolobus gouldii</i>	Gould's Wattled Bat	X						X
Mammal	<i>Mormopterus planiceps</i>	Southern Free-tailed Bat	X						X
Mammal	<i>Oryctolagus cuniculus</i>	Rabbit (European Rabbit)		X			X		X
Mammal	<i>Pteropus poliocephalus</i>	Grey-headed Flying Fox	X		Vulnerable	Rare			
Mammal	<i>Trichosurus vulpecula</i>	Common Brushtail Possum				Rare		X	
Mammal	<i>Vulpes vulpes</i>	Fox (Red Fox)		X			X	X	X
Reptile	<i>Christinus marmoratus</i>	Marbled Gecko	X						X
Reptile	<i>Ctenophorus pictus</i>	Painted Dragon	X						X
Reptile	<i>Hemiergis peronii</i>	Four-toed Earless Skink	X						X
Reptile	<i>Lerista dorsalis</i>	Southern Four-toed Slider	X						X
Reptile	<i>Menetia greyii</i>	Common Dwarf Skink	X						X
Reptile	<i>Pogona barbata</i>	Eastern Bearded Dragon	X						X
Reptile	<i>Pseudonaja textilis</i>	Eastern Brown Snake	X						X
Reptile	<i>Tiliqua rugosa</i>	Sleepy Lizard	X					x	X
Reptile	<i>Tiliqua scincoides</i>	Eastern Bluetongue	X					x	X

Note: EPBC Act listings are (CE= Critically Endangered, E= Endangered V=Vulnerable), Migratory species listings are (Mi=Migratory, Ma=Marine) and NP&W Act listings are (CE= Critically Endangered, E=Endangered, V=Vulnerable, R=Rare).

Attachment 3

Likelihood of Occurrence Assessment

Attachment 3.1 - Likelihood of occurrence assessment table

Species name Common Name Data source	EPBC Act	Migratory (Mi)	NP&W Act	Habitat types – foraging, breeding, dispersal	project area in species' known distribution	Likelihood	Likelihood reason
Plants							
<i>Atriplex australasica</i> Data source (PMST, NatureMaps)	-	-	Rare	<ul style="list-style-type: none"> Found mostly in the southern Mount Lofty Ranges and Murray regions, with scattered records on York Peninsula, Kangaroo Island and South-east. Also found in New South Wales, Victoria and Tasmania. Growing in blackish soil near the coastlines, foreshores or inland coastal wetland environments (SSAa 2025). 	<ul style="list-style-type: none"> Occurs in predominantly five regions in South Australia, Murray, Yorke Peninsula, Southern Lofty, Kangaroo Island and Southeastern Regions. <p>The project area is:</p> <ul style="list-style-type: none"> Near, but not within the extent of the species distribution and approximately 5km from the nearest record. 	Unlikely	<ul style="list-style-type: none"> Most recent records occur within the desktop search area: April 2022, however, was recorded within Largs Beach South-East of the site foreshore. Habitat for this species does not occur within the project area i.e. (soil or coastal hydrological).
<i>Caladenia tensa</i> <i>Greencomb Spider Orchid</i> (PMST)	Endangered	-	Endangered	<ul style="list-style-type: none"> Found in the upper South-east in South Australia, growing in dry woodland and mallee on sandy loams. Also found in Victoria with four old record from the central west of New South Wales (TSSC 2016). 	<ul style="list-style-type: none"> Occurs in predominately two regions in South Australia, Murray and Southeastern regions. <p>The project area :</p> <ul style="list-style-type: none"> Near, but not within the extent of species distribution and no records found within 5km from Project area. 	Highly Unlikely	<ul style="list-style-type: none"> Species has not records found within desktop search area. Absent soil conditions and habitat features to support species presence i.e. (dry mallee woodland environment.
<i>Olearia passerinoides</i> <i>ssp.glutescens</i> Sticky Daisy-bush (PMST, NatureMaps)	-	-	Rare	<ul style="list-style-type: none"> Found in the wetter parts of South Australia, on the tip of Yorke Peninsula, southern Mount Lofty Ranges and in the Murray. Also found in New South Wales and Victoria (SSAb 2025). 	<ul style="list-style-type: none"> Occurs in predominately three regions in South Australia, Murray, Yorke Peninsula and Southern Lofty Regions. <p>The project area is:</p> <ul style="list-style-type: none"> Near, but not within the extent of the species distribution and approximately 5km from the nearest record. 	Unlikely	<ul style="list-style-type: none"> Most recent records only occur within desktop search area 2023, however, was recorded within Torrens Island National park with drastically different environment characteristics to the project area. Habitat for this species does not occur within the project area i.e. (requiring wetter soils, nearby coastal inundation areas).
<i>Senecio pinnatifolius</i> <i>var. pinnatifolius</i> Variable Groundsel (NatureMaps, ALA, on-ground observation)	-	-	Rare	<ul style="list-style-type: none"> This variety is found in a variety of habitats including coastal dunes, forest, woodland, and shrubland, both in dry and wet regions of South Australia. It thrives in a range of environments, including coastal areas, forest, woodland, 	<ul style="list-style-type: none"> Occurs predominantly within predominately within East-Australian coastlines, with presence also found within Western Australia, Tasmania, and in the southeast of South Australia. 	Likely	<ul style="list-style-type: none"> Most recent records occurs within desktop area, as well as, historical monitoring documentation of species presence onsite. Project area provides suitable habitat conditions to support

Species name Common Name Data source	EPBC Act	Migra tory (Mi)	NP&W Act	Habitat types – foraging, breeding, dispersal	project area in species' known distribution	Likelihood	Likelihood reason
				and shrubland, and can be found in both dry and wet regions (PlantNET 2025)			species presence i.e. (vegetation associations, sandy loam soils, coastal climates).
Animals							
Birds							
<i>Acanthiza iredalei</i> <i>rrosinae</i> Slender-billed Thornbill (Gulf St. Vincent Data Source (ERM 2012)	-	-	Vulnerable	<ul style="list-style-type: none"> The slender-billed thornbill (Gulf St Vincent) is mainly restricted to chenopod shrublands, particularly samphire dominated by shrubby glasswort (<i>Sclerostegia arbuscula</i>), on narrow coastal saline mudflats usually within 20m of a tidal channel or saline lake (TSSC 2015). It mostly forages in dense, tall samphire, but occasionally forages from the surface of mud and among smaller samphire's, and in grey mangrove (<i>Avicennia marina</i>) adjacent to samphire shrublands and predominantly predate on insects (Matthew, 1994, 2002). 	<ul style="list-style-type: none"> Occurs in Gulf St. Vincent regions of South Australia, extending from St. Kilda to Adrosson of South Australia (Higgins & Peter 2002) Recent surveys identified species presence at Port Prime, Torrens Island and Port Gawler region as well. <p>The project area is:</p> <ul style="list-style-type: none"> Not within species distribution area, desktop search buffer area only 	Unlikely	<ul style="list-style-type: none"> Species has been recorded within the desktop search area within the past 5 years. Project area is absent of habitat features found throughout the project area i.e. (vegetation associations, relevant food resource availability).
<i>Aphelocephala leucopsis</i> Southern Whiteface	Vulnerable	-	-	<ul style="list-style-type: none"> Usually occurs within relatively undisturbed open woodland and shrublands with an understorey of grasses or shrubs or both (TSSC 2023) Key habitat features include substantial dead tree material essential for nest building. 	<ul style="list-style-type: none"> Occurs across most of mainland Australia south of tropics, from the north-eastern edge of the Western Australian Wheatbelt, east to the Great Dividing Range (Mason 1999) <p>The project area is:</p> <ul style="list-style-type: none"> Within and near the extent of the species distribution. 	Possible	<ul style="list-style-type: none"> Species recorded within the desktop search area within the past 5 years. Number of habitat elements present to potentially support species presence i.e. (substantial timber, leaf litter for nest creation, acacia shrubland mid-storey, food resource availability).
<i>Stagonopleura guttata</i> Diamond Firetail	Vulnerable	-	Vulnerable	<ul style="list-style-type: none"> Diamond firetails occur in eucalypt, acacia or casuarina woodlands, open forests and other lightly timbered habitats, including farmland and grassland with scattered trees (Higgins et al. 2007). Habitats considered critical for the diamond firetail include Eucalypt, acacia or casuarina woodlands, open forests and other lightly timbered habitats; 	<ul style="list-style-type: none"> Diamond firetails occur on the south-east mainland of Australia from south-east Queensland to Eyre Peninsula, South Australia, and about 300 km inland from the sea (Higgins et al. 2007). <p>The project area is:</p> <ul style="list-style-type: none"> Within and near the extent of the species distribution. 	Unlikely	<ul style="list-style-type: none"> Species has not been recorded within the desktop search. Number of habitat elements present to are limited support species presence i.e. (overly timbered habitat, non-substantial grass cover, limited food resource availability).

Species name Common Name Data source	EPBC Act	Migra tory (Mi)	NP&W Act	Habitat types – foraging, breeding, dispersal	project area in species' known distribution	Likelihood	Likelihood reason
				<ul style="list-style-type: none"> Low tree density, few large logs, and little litter cover but high grass cover for foraging, roosting and breeding; 			
<i>Falco hypoleucos</i> Grey Falcon Data source (PMST, NatureMaps, ALA)	Vulnerable		-	<ul style="list-style-type: none"> Species inhabits timbered lowland plains, especially acacia shrublands in vicinity of watercourses (TSSC 2020). 	<ul style="list-style-type: none"> Distributed in northern South Australia, in arid and semi-arid environments (BirdLife International 2024). <p>The project area is:</p> <ul style="list-style-type: none"> Within and not at the extent of the species distribution. 	Unlikely	<ul style="list-style-type: none"> No previous records within desktop search have been identified. project area does not contain sufficient habitat features to support this species i.e. (lowland plains, perching areas, acacia woodland along watercourses)
<i>Falco peregrinus</i> Peregrine Falcon	-	-	Rare	<ul style="list-style-type: none"> Found in most habitats, from rainforests to the arid zone, and at most altitudes, from the coast to alpine areas. Requires abundant prey and secure nest sites, preferring coastal and inland cliffs or open woodlands near water, and may even be found nesting on high city buildings especially where feral pigeons are available as prey (Cole 2005). 	<ul style="list-style-type: none"> Sparsely distributed in SA, with most records in Red Gum woodlands (especially near water), in gorges with rock faces and along coastal cliffs (Armstrong 2003). <p>The project area is:</p> <ul style="list-style-type: none"> Within and near the extent of the species distribution. 	Possible	<ul style="list-style-type: none"> Species has been recorded within the desktop search area, within the past 3 years. Some elements are present to support potential occurrence of species i.e. (open woodland components, food resource availability, perching areas i.e. Eucalyptus tree species and man-made structures)
Mammals							
<i>Pteropus cinerea</i> Grey-headed flying fox Data source (PMST, ALA)	Vulnerable	-	Rare	<ul style="list-style-type: none"> Utilises vegetation communities including rainforests, open forests, closed and open urban woodlands, Melaleuca and Banksia woodlands. It also feeds on commercial fruit crops and on introduced tree species in urban areas. The primary food source is blossom from Eucalyptus and related genera but in some areas it also utilises a wide range of rainforest fruits (Eby 1996). Species has a recovery plan (National Recovery Plan for the Grey-headed Flying-fox <i>Pteropus poliocephalus</i>) (TSSC 2001). 	<p>Species is widespread from the Eastern Australia, through to South-East and South Australian region.</p> <p>The project area is:</p> <ul style="list-style-type: none"> Within and near the extent of the species distribution. 	Likely	<ul style="list-style-type: none"> Species has been recorded within the 5km desktop search area within the past 5 years. Elements of habitat features are present within the Project Area to support species i.e. (urban woodland vegetation, hollow/crack bearing trees).
<i>Trichosurus vulpecula</i> Common Brushtail Possum	-	-	Rare	<ul style="list-style-type: none"> Wide range of forests and woodlands across the state. They are generally absent from the driest areas. Highly adaptable to 	<p>Species is widespread from the Eastern Australia, through to South-East and South Australian region.</p> <p>The project area is:</p>	Likely	<ul style="list-style-type: none"> Species records have been found within 5km of the project site. The project site provides some habitat

Species name Common Name Data source	EPBC Act	Migra tory (Mi)	NP&W Act	Habitat types – foraging, breeding, dispersal	project area in species’ known distribution	Likelihood	Likelihood reason
Data source (PMST, ALA)				urban environments for shelter and foraging.	- Within and near the extent of the species distribution.		availability for the species to inhabit, however, is not considered critical or substantial habitat for abundance presence.

Attachment 4

Bushland Condition Scoresheet

Attachment 4-1 : Bushland Condition Score sheet

OFFICIAL

Vegetation Condition Scores

SITE:	1
BCM COMMUNITY	SMLR Co 7.31 Non eucalypt Coastal Low Woodlands
VEGETATION ASSOCIATION DESCRIPTION	<i>Callitris gracillis</i> +/- <i>Acacia pycnantha</i> +/- <i>Acacia ligulata</i>
SIZE OF SITE (Ha)	1.2

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) Vulnerable 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.		
Trees > 15m	1	
Trees 5 - 15 m	2	
Trees < 5m	3	
Mallee > 5m		
Mallee < 5m		
Shrubs > 2m	3	
Shrubs 0.5 - 2m	3	
Shrubs <0.5m	2	
Forbs	1	
Mat Plants	1	
Grasses > 0.2m	1	
Grasses < 0.2m	1	
Sedges > 1m		
Sedges < 1m		
Hummock grasses		
Vines, scramblers	1	
Mistletoe		
Ferns		
Grass-tree		
Total	19	
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		1
Threatened Flora Score		0.04
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.		
		2
		0
		0
		0
		2
		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		22
Threatened Fauna Score		0.1
CONSERVATION SIGNIFICANCE SCORE		1.14

Non-Benchmarked Attributes (Scores determined from direct field observations)		Is the community naturally treeless?	☐	Total Scores for the Site		Vegetation Condition x Landscape Context x Conservation Significance =	
Native:exotic Understorey biomass Score (max 5)		3		Score		UNIT BIODIVERSITY SCORE	
				LANDSCAPE CONTEXT SCORE		Total Biodiversity Score	
				VEGETATION CONDITION SCORE		(Biodiversity Score x hectares)	
				CONSERVATION SIGNIFICANCE SCORE		74.34	

Vegetation Condition Score calculation			Photo Point and Vegetation Survey Location		Direction of the Photo	
Positive Vegetation Attributes Score = Native species diversity + Regeneration + Native Plant Life Forms					South-West	
Fallen timber/debris + Hollow-bearing trees					GPS Reference	
- If the community Score is Not Benchmarked (SNB) for regeneration this score is multiplied 1.24					Datum	
- If the community is naturally treeless this score is multiplied by 1.29					Zone (52, 53 or 54)	
Negative Vegetation Attributes Score = (15 - Weeds) + ((10 - Biomass score - Tree Canopy Cover Score)exp2/2)					Easting (6 digits)	
VEGETATION CONDITION SCORE (Positive veg attributes x ((80 - Negative vegetation attributes) / 80))			48.09		Northing (7 digits)	
					Description	
					Photograph of vegetation association illustrating visual example of overstorey, mid-storey and understorey vegetation. As well as array of soil composition and disturbance present.	

		Low	Medium	High	
Native Plant Species Diversity		<div></div>			
Weed Score		<div></div>			
Native Plant Life Forms		<div></div>			
Regeneration		<div></div>			
Native:exotic Understorey Biomass		<div></div>			
Mature Trees		<div></div>			
Tree Canopy Cover		<div></div>			
Tree Hollows		<div></div>			
Fallen timber		<div></div>			
Vegetation Condition Score		<div></div>			

Attachment 5

Revegetation Zone Plan



Revegetation Plan

RB Connolly Reserve,
North Haven, SA

Note:
The map provided is intended for informational and illustrative purposes only. Users should exercise caution and refer to authorized sources where greater accuracy is required.
Aerial Imagery sourced from Metromap Dated: 11/01/2025

Legend

-  Native Tree Indicative Planting Area
-  Zones


Scale : 1:500 @Size A3
0 2.5 5 10
Meters

Ref : 25A1106
Revision : R0
Date: 10/09/2025
Projection: GDA2020 MGA Zone 54



Attachment 6

Expanded Fencing and Connectivity Plan



Proposed Fencing and Path

**RB Connolly Reserve,
North Haven, SA**

Note:
The map provided is intended for informational and illustrative purposes only. Users should exercise caution and refer to authorized sources where greater accuracy is required.
Aerial Imagery sourced from Metromap Dated: 11/01/2025

- Legend**

 - Existing fencing
 - Proposed fencing
 - Existing Path
 - Proposed Path
 - Zone 1
 - Zone 2
 - Zone 3
 - Zone 4

N

Scale : 1:500 @Size A3

0

2.5

5

10

Meters

Ref : 25A1106

Revision : RA

Date: 21/10/2025

Projection: GDA2020 MGA Zone 54

NEOXENA

RESEARCH

Alexander Symonds

Surveying Consultants

Attachment 7

Fauna Habitat Restoration Plan



Habitat Restoration Plan

RB Connolly Reserve, North Haven, SA

Note:
The map provided is intended for informational and illustrative purposes only. Users should exercise caution and refer to authorized sources where greater accuracy is required.
Aerial Imagery sourced from Metromap Dated: 11/01/2025

Legend

Proposed Habitat Features

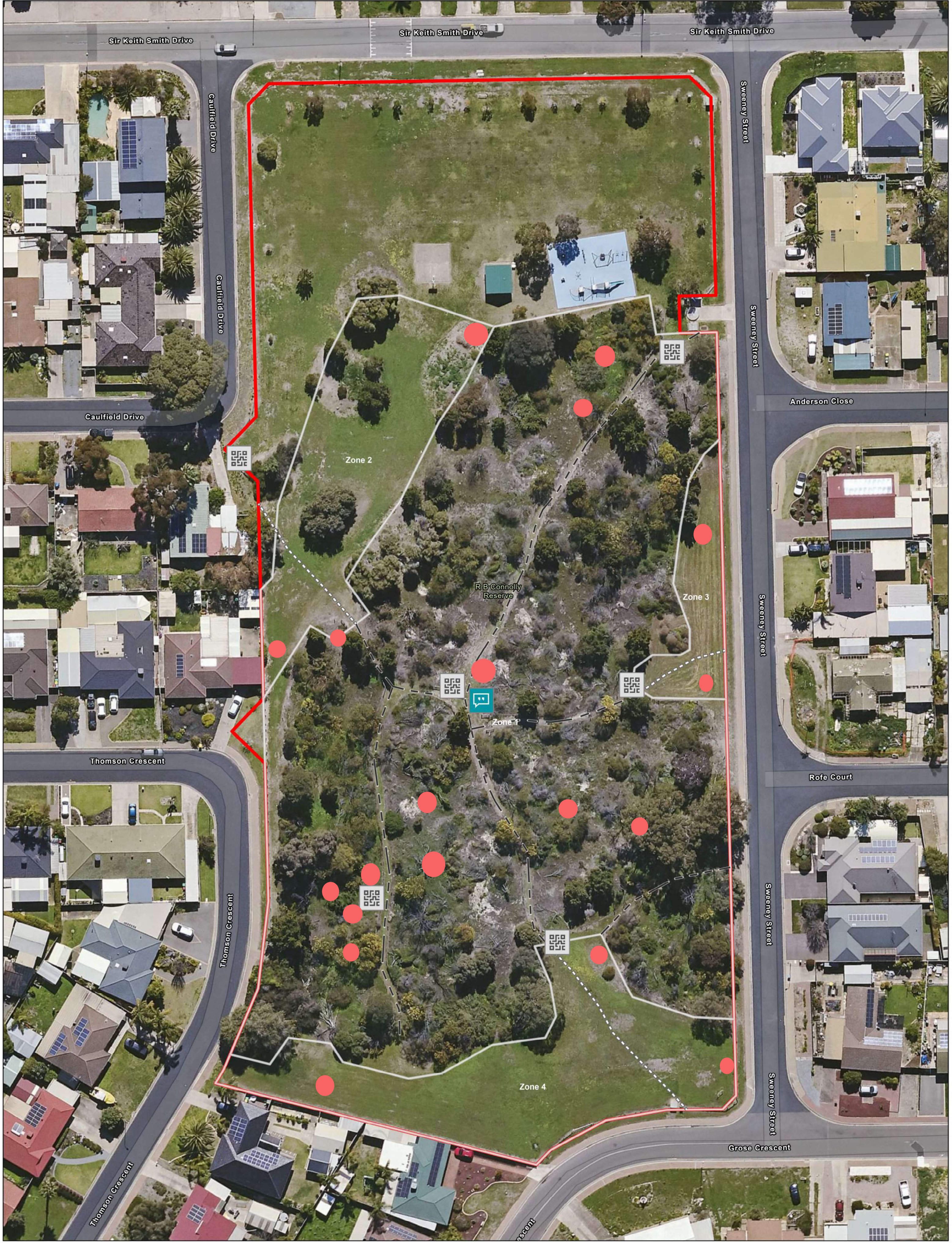
- Artificial Grass/Stick Nest
- Artificial Hollow
- Artificial Nest Box
- Reptile Rock Habitat
- Fox Den Control
- Zones

Ref : 25A1106
Revision : R0
Date: 10/09/2025
Projection: GDA2020 MGA Zone 54

Scale : 1:500 @Size A3
0 2.5 5 10 Meters

Attachment 8

Community Engagement & Citizen Science Plan



Community Engagement Sites

RB Connolly Reserve, North Haven, SA

Note:
The map provided is intended for informational and illustrative purposes only. Users should exercise caution and refer to authorized sources where greater accuracy is required.
Aerial Imagery sourced from Metromap Dated: 11/01/2025

Legend

Activity Locations

Citizen Science Photopoint

Interpretive Sign

Scan Me - QR Code

..... Existing Path

- - - - - Proposed Path

▭ Zones

N

Scale : 1:500 @Size A3

0 2.5 5 10

Meters

Ref : 25A1106

Revision : RA

Date: 21/10/2025

Projection: GDA2020 MGA Zone 54

NEOXENA

RESEARCH

Alexander Symonds

Surveying Consultants

Attachment 9

Flora Species Planting and Seed Propagation Inventory

						Revegetation Zone				Planting Time Periods												Planting Considerations
Strata Layer	Species type	Scientific Name	Common Name	EPBC Status	NPW Status	Zone 1	Zone 2	Zone 3	Zone 4	January	February	March	April	May	June	July	August	September	October	November	December	
Overstorey	Tree Canopy	<i>Allocasuarina verticillata</i>	Drooping Sheoak				X															Conditions should consider full sun to part shade with well-draining soil. The tree is very drought and soil-tolerant, handling various soil types including sandy, rocky, and clay, and is also resistant to salt. Water well after planting and keep the soil moist until established, but avoid waterlogged conditions, which are detrimental.
Overstorey	Tree Canopy	<i>Callitris gracilis</i>	Southern Cypress Pine						X													Provide well-drained, sandy, or rocky soils, preferably with limestone, and ensure adequate sunlight. Once established, the trees are very drought-resistant and require minimal water. They are suitable for coastal conditions, can tolerate moderate frost and salt spray, and are excellent for windbreaks, screens, and large gardens.
Overstorey	Tree Canopy	<i>Eucalyptus leucoxylon ssp.</i>	South Australian Blue Gum				X	X	X													Plant between June and August during winter when soil moisture is adequate, ensuring seedlings are protected from sun and wind. Dig a generous circle of loosened soil around the planting site, and plant the seedling deep enough to cover the entire soil plug. Maintain adequate spacing, such as 4 metres between rows and 2.5 metres between trees, and order seedlings 6-12 months in advance from a reputable nursery.
Mid-storey	Tree & Tall Shrub	<i>Acacia cupularis</i>	Cup Wattle				X		X													Select a full sun position with well-drained soil, ideally in late winter to spring after treating the seeds. The seed treatment involves soaking in near-boiling water overnight, and they should be planted about 1.5 cm deep. The shrub is hardy, requires minimal watering once established, and can be pruned to maintain a compact form, but it is crucial to plant it more than 2 meters away from sewer lines.
Mid-storey	Tree & Tall Shrub	<i>Acacia ligulata</i>	Umbrella Bush				X	X	X													Plant in well-draining soil in a full sun to part shade position, covering the seed with its own depth of damp soil, then a layer of gravel. This hardy, fast-growing shrub is drought, salt, and lime tolerant, making it suitable for coastlines, dunes, and plains, and is excellent for soil stabilization and as a screen.
Mid-storey	Tree & Tall Shrub	<i>Acacia pycnantha</i>	Golden Wattle				X	X	X													Choose a full sun to light shade position with free-draining soil. Protect young plants from frost and consider their mature height and spread to avoid planting too close to structures like water pipes.
Mid-storey	Tree & Tall Shrub	<i>Adriana quadripartita</i>	Coast Bitter-bush				X	X	X													Select a protected, moist spot in a swale or rear dune, as it thrives with greater moisture and wind protection
Midstorey	Tree & Tall Shrub	<i>Pittosporum angustifolium</i>	Native Apricot				X															Choose a spot in full sun to part shade with well-draining soil, ideally loamy or sandy. Water regularly to establish the tree, then water moderately through dry periods, as it is highly drought-tolerant.
Midstorey	Tall Shrub	<i>Melaleuca acuminata ssp. acuminata</i>	Mallee Honey-myrtle				X		X													Choose a sunny or partly shaded spot with well-drained soil, though some species tolerate wet conditions or sandy soils. Dig a hole twice as wide as the root-ball, position the plant, and backfill. Mulch around the base, keeping it away from the trunk, and prune lightly after flowering to maintain a bushy shape and promote new growth.
Midstorey	Tall Shrub	<i>Melaleuca halmaturorum</i>	Swamp Paper-bark				X	X														Same as above
Midstorey	Tall Shrub	<i>Melaleuca lanceolata</i>	Dryland Tea-tree				X	X														Same as above
Midstorey	Tall Shrub	<i>Melaleuca uncinata</i>	Broombush				X	X														Same as above
Midstorey	Tall Shrub	<i>Santalum acuminatum</i>	Quandong			X		X	X													Choose a location with well-drained soil and good sun exposure. Ensure the soil is not waterlogged, as quandongs are susceptible to root diseases.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Brachyscome ciliaris var. ciliaris</i>	Variable Daisy			X																Refer to seed germination advice for regeneration
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Caladenia tensa</i>	Greencomb Spider Orchid		Endangered	X																Refer to seed germination advice for regeneration
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Calandrinia eremaea</i>	Dryland Purslane			X																Refer to seed germination advice for regeneration
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Crassula decumbens var. decumbens</i>	Spreading Crassula			X																Focus on its natural habitat preferences: sandy, loamy soils, often in seasonally moist but well-drained locations like disturbed areas or dry woodlands, rather than deliberately cultivating it.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Dianella brevicaulis</i>	Short-stem Flax-lily			X	X		X													To allow the plant to establish roots before the hot summer months. While they can be planted later in the season, the cooler, wetter months are best for reducing plant stress and promoting root development, leading to better establishment and hardiness.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Goodenia varia</i>	Sticky Goodenia			X			X													Choose a sunny to partly shaded location with well-drained soil, which can be clay, loam, or sand, including coastal or poor soils.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Lawrencia squamata</i>	Thorny Lawrencia			X																Lawrencia squamata grows in sandy, gypsum, and limestone soils, particularly in saline flats and coastal areas. Planting is best done when the physical dormancy of the seeds is overcome by nicking or softening the seed coat, followed by sowing in a suitable saline environment.

Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Lotus australis</i>	Austral Trefoil			X	X														Plant in part to full sun and thrives in sandy or loamy soils that have good drainage. Minimal supplementary watering is needed, as it is relatively drought-tolerant once established.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Pelargonium australe</i>	Austral Stork's-bill			X															Choose a location in full sun with well-drained soil, such as sandy, loamy, or rocky conditions found in coastal dunes or open woodlands.
Understorey – Groundcover	Broad Leaved Forbs & Forbs	<i>Pterostylis arenicola</i>	Sandhill Greenhood Orchid			X															Use a freely draining, sandy mix suitable for orchids, protected position with about 50% sun is recommended during the growing period, Keep the growing plants moist but not waterlogged, and do not let them dry out during this time.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Roepera aurantiacum/eremaeum</i>	Shrubby Twinleaf			X															During autumn or winter after good rain when the soil is damp and softened. Choose a position with full sun to part shade, well-drained soil, and moderate drought tolerance. Once established, it requires minimal water and can provide ornamental ground cover, weed suppression, and soil control.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Scaevola crassifolia</i>	Cushion Fanflower			X	X		X												Provide full sun and well-draining, sandy, or loamy soils in coastal or exposed areas. Water moderately, especially in the beginning.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Senecio glossanthus</i>	Annual Groundsel			X	X	X	X												Choosing a site with well-draining soil, such as sandy or clayey-sandy types, in seasonally wet areas like Gilgai plains or creek lines.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Senecio pinnatifolius var. pinnatifolius</i>	Variable Groundsel		Rare	X															As per above
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Senecio spanomerus</i>	Native Groundsel			X	X		X												As per above
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Spergularia marina</i>	Salt Sand-spurrey			X															Choosing sites that are moist, sandy, saline-tolerant conditions, such as near salt lakes, marshes, and drainage channels, with full sun.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Stenopetalum lineare</i>	Narrow Thread-petal			X															Plant species can be grown a variety of soils, including calcareous sands, clays, and shallow, stony loams. The species prefers a sunny position often grows as scattered individuals in open, sandy areas.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Vittadinia cuneata var. cuneata</i>	Fuzzy New Holland Daisy			X	X														Plant prefers soils including sand, clay, and limestone, drainage essential for healthy grow Plant in masses, as this helps them proliferate and form dense, attractive carpets.
Understorey - Groundcover	Broad Leaved Forbs & Forbs	<i>Westringia sp.</i>	Native Rosemary			X	X		X												Choose sites full sun to part shade in well-drained soil, which is crucial as it dislikes heavy, wet soils.
Understorey - Groundcover	Climbers	<i>Billardiera cymosa ssp. cymosa</i>	Sweet Apple-berry			X															Choose a full sun to part shade position with free-draining soil in a warm, sheltered site, noting that the species can become a shrub in open situations or a light climber with support.
Understorey - Groundcover	Climbers	<i>Clematis microphylla</i>	Old Man's Beard			X	X	X													Choose a position in full sun or semi-shade, in well-drained soil; it is not ideal for very dry sites, but it tolerates dry periods and frost once established. Provide a trellis, fence, or other support for its climbing habit.
Understorey - Groundcover	Climbers	<i>Kennedia prostrata</i>	Scarlet Runner			X															Full sun to light shade with well-drained soil, which can be sandy, clay, or loamy, and in acidic, neutral, or alkaline conditions. It thrives as a groundcover or for spilling over banks and walls.
Understorey - Groundcover	Climbers	<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum			X	X														Before planting, check the top 30 cm of the soil to ensure it is damp. Adequate moisture content is crucial for successful establishment. Choose a location that receives ample sunlight. Ensure the planting site is protected from harsh winds.
Undercover – Groundcover	Grasses	<i>Aristida behriana</i>	Brush wiregrass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Austrostipa elegantissima</i>	Feather Spear-grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Austrostipa mollis</i>	Soft Spear-grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Austrostipa sp.</i>	Spear Grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey – Groundcover	Grasses	<i>Bothriochloa macra</i>	Red-leg grass			X	X	X	X												Refer to seed germination advice for regeneration

Understorey - Groundcover	Grasses	<i>Chloris truncata</i>	Windmill Grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Cymbopogon ambiguous</i>	Lemon scented-grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Distichlis distichophylla</i>	Australian salt grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Enneapogon nigricans</i>	Bottlebrush grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey – Groundcover	Grasses	<i>Poa sp.</i>	Poa Grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Ficinia nodosa</i>	Knobby Club-rush			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Lomandra leucocephala ssp. robusta</i>	Wooly Mat-rush			X	X	X	X												Lomandra prefer well-drained soil, which receives full sun to partial shade and water the new plants regularly until they are established, especially for the first couple of weeks.
Understorey Grasses	Grasses	<i>Panicum effusum</i>	Hairy Panic			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Paspalidium constrictum</i>	Knotty Butt grass			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Grasses	<i>Rytidosperma sp.</i>	Wallaby Grass			X	X	X	X												Refer to seed germination advice for regeneration
Underground - Groundcover	Grasses	<i>Themeda triandra</i>	Kangaroo Grass			X	X	X	X												Refer to seed germination advice for regeneration
Undercover – Groundcover	Grasses	<i>Walwhalleya proluta</i>	Rigid Panic			X	X	X	X												Refer to seed germination advice for regeneration
Understorey - Groundcover	Mat Plant	<i>Myoporum insulare</i>	Common Boobialla			X															Select a position in full sun, ideally in well-drained soil, and provide regular watering until the plant is established to encourage strong root growth.
Understorey - Groundcover	Rushes	<i>Bolboschoenus caldwellii</i>	Salt Club-rush						X												Provide damp to wet, fresh, or brackish soils in permanent or semi-permanent water, ideally in a location with full sun or part shade.
Understorey - Groundcover	Sedges	<i>Lepidosperma gladiatum</i>	Coast Sword-sedge			X			X												Plant in full sun to part shade in free-draining sandy to clay-loam soils during March to November, ensuring the plant's base remains above the soil line.
Understorey - Groundcover	Shrub	<i>Atriplex australasica</i>	Saltbush		Rare	X	X	X													Well-draining, free-draining soils, full sun, and water-wise conditions. se mechanical planters to create an adequate tilth for best results. Space plants about 1 to 2 meters apart in rows that are 3 to 5 meters apart.
Understorey - Groundcover	Shrub	<i>Atriplex cinerea</i>	Coast Saltbush			X	X	X	X												Same as above
Understorey - Groundcover	Shrub	<i>Atriplex nummularia ssp. (NC)</i>	Old-man Saltbush			X	X		X												Same as above
Understorey - Groundcover	Shrub	<i>Atriplex paludosa ssp. cordata</i>	Marsh Saltbush			X	X		X												Same as above
Understorey - Groundcover	Shrub	<i>Atriplex semibaccata</i>	Berry Saltbush			X		X	X												Same as above
Understorey - Groundcover	Shrub	<i>Disphyma crassifolium ssp. clavellatum</i>	Round-leaf Pigface			X	X		X												Provide full sun and well-drained soil, which can be sand, loam, or clay. This hardy, drought-tolerant groundcover is well-suited to coastal conditions and thrives in poor, saline environments. Once established, it requires minimal watering, with watering needed for the first 8-12 weeks to establish the roots.
Understorey - Groundcover	Shrub	<i>Dodonaea viscosa ssp. spatulata</i>	Sticky Hop-bush			X	X	X	X												Full sun to part shade, a well-drained soil (clay, loam, or sand), and allow for some watering once established, though it is drought-tolerant.
Understorey - Groundcover	Shrub	<i>Einadia nutans ssp. nutans</i>	Climbing Saltbush			X		X	X												Full sun to part shade and tolerates a wide range of soils, especially well-drained, sandy, or loamy conditions, including some salinity. It thrives with minimal watering once established and benefits from supplemental watering during extended dry spells.
Understorey - Groundcover	Shrub	<i>Enchylaena tomentosa var. tomentosa</i>	Ruby Saltbush			X	X	X	X												Full sun and a well-drained, sandy, or loamy soil and is tolerant of saline conditions.
Understorey - Groundcover	Shrub	<i>Leptospermum lanigerum</i>	Silky Tea-tree			X															Plant prefers full sun to part shade, tolerates most soil types including moist to wet conditions, and can handle drought and frost.
Understorey - Groundcover	Shrub	<i>Maireana brevifolia</i>	Short-leaf Bluebush			X			X												Planting during this period, when the top 30 cm of soil is damp, gives the plants the best chance to establish a strong root system before the drier summer months.
Understorey - Groundcover	Shrub	<i>Maireana oppositifolia</i>	Salt Bluebush			X															Same as above
Understorey - Groundcover	Shrub	<i>Nitraria billardiarei</i>	Nitre-bush			X	X		X												Aim for a full sun position in alkaline to neutral sandy, loamy, or clay soils, where it tolerates drought, salinity, and moderate frost
Understorey - Groundcover	Shrub	<i>Olearia axillaris</i>	Coast Daisy-bush		Rare	X															Provide a sunny, open site with well-drained soil to prevent wet feet, tolerating salty conditions, wind, and drought once established. Water regularly until established, then water sparingly. Apply a low-phosphorus native fertiliser in spring and early summer, mulching with coarse bark or gravel, but keep it away from the stem.
Understorey - Groundcover	Shrub	<i>Olearia passerinoides ssp.glutescens</i>	Sticky Daisy Bush			X															Same as above
Understorey - Groundcover	Shrub	<i>Pimelea serpyllifolia ssp. serpyllifolia</i>	Thyme Riceflower			X		X													Well-drained soil in a sunny position, it naturally grows on calcareous and sandy soils.

Understorey - Groundcover	Shrub	<i>Rhagodia candolleana ssp. candolleana</i>	Sea-berry Saltbush			X	X		X												Plant in full sun or semi-shade and a wide range of soils, including sandy, clay, or loamy.
Understorey - Groundcover	Shrub	<i>Rhagodia crassifolia</i>	Fleshy Saltbush			X	X		X												Same as above
Understorey - Groundcover	Shrub	<i>Suaeda australis</i>	Austral Seablite			X															Ensure the top 30 cm of soil is damp before planting. Choose a spot that receives good sunlight and has moist soil. Seablite can thrive in various settings, including coastal areas and suburban gardens. Water the plant well and often during the hot summer months, and reduce watering in cooler seasons, ensuring the soil remains moist.
Understorey - Groundcover	Shrub	<i>Tecticornia pergranulata ssp. pergranulata</i>	Black-seed Samphire			X		X	X												It can tolerate very dry locations or areas with physiologically dry, saline water. It prefers rich organic soil, though its natural habitat suggests it will grow in saline soil conditions.
Understorey - Groundcover	Shrub	<i>Tetragonia implexicoma</i>	Bower Spinach			X			X												Provide a full sun to semi-shade position with well-drained, light sandy soil, though it can also grow in medium (loamy) soils.
Understorey - Groundcover	Shrub	<i>Threlkeldia diffusa</i>	Coast Bonefruit			X															Full sun to partial shade in alkaline to neutral soil with textures ranging from clay to sand.
Understorey - Groundcover	Succulent	<i>Carpobrotus rossii</i>	Native Pigface			X	X	X	X												Choose a spot in full sun or light shade with well-drained, ideally sandy, or rocky, soil.
Understorey - Groundcover	Succulent	<i>Sarcozona praecox</i>	Sarcozona			X	X	X	X												Plant in a sunny to partially shaded position in well-drained, sandy to clay soils, as it is a hardy, low-water plant tolerating poor sandy conditions and coastal exposure.

		Optimal Seed Collection Time Periods												Seed Propagation and Germination Considerations
Scientific Name	Common Name	January	February	March	April	May	June	July	August	September	October	November	December	
<i>Allocasuarina verticillata</i>	Drooping Sheoak													Cones can be collected anytime as mature cones remain on the female plant. Collect cones that have closed valves from the lower part of the stem as these are more mature. Place cones in a tray and leave to dry for 2-3 weeks. This will allow the valves to dry and open releasing the seeds. Place the dried cones in a bucket and shake gently to dislodge the seeds. Use a sieve to separate seeds from the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was low, at 30%.Seeds are non-dormant, viable seed should germinate readily.
<i>Callitris gracilis</i>	Southern Cypress Pine													Collect cones that are not open but large, hard, and dark. These will contain maturing seeds. Place the cones in a tray and leave to dry for 3-5 weeks to allow the cones to open naturally. Then shake the cones in a bucket to dislodge the seeds. Use a sieve to separate the seeds from the cones. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From two collections, the seed viability was low to average, ranging from 25% to 60%. Viable seed should germinate readily, if stored in a fridge prior to sowing in winter.
<i>Eucalyptus leucoxylon ssp.</i>	South Australian Blue Gum													Collect mature fruits that are dark and hard (difficult to break with a fingernail), with the valves un-open any time of year. Leave the fruits in a breathable container in a dry room for one to two weeks. This allows the valves on the fruit to open and release the seeds. Separate the seeds by placing all the materials into a bucket and shaking it to dislodge the seeds. Pass the material through a sieve to separate the unwanted material. The finer material will contain both seeds (soft) and frass (hard) usually distinguishable from each other but can be similar in shape and colour. With finer sieves, the seeds can be separated from the frass, but this is not essential for storage or propagation. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. Seeds are non-dormant, viable seed should germinate readily.
<i>Acacia cupularis</i>	Cup Wattle													Collect mature pods that are turning brown, with hard, dark seeds inside. Place the pods in a tray and leave to dry for 1-2 weeks or until the pods begin to split. Then rub the dried pods to dislodge the seeds. Use a sieve to separate any unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From three collections, the seed viability was high, ranging from 90% to 100%. This species has physical dormancy that needs to be overcome for the seed to germinate (e.g. nicking or softening the seed coat).
<i>Acacia ligulata</i>	Umbrella Bush													Collect mature pods that are turning brown, with hard, dark seeds inside. Place the pods in a tray and leave to dry for 1-2 weeks or until the pods begin to split. Then rub the dried pods to dislodge the seeds. Use a sieve to separate any unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 90%. This species has physical dormancy that needs to be overcome for the seed to germinate (e.g. nicking or softening the seed coat).
<i>Acacia pycnantha</i>	Golden Wattle													Water seedlings to prevent them drying out and avoid waterlogging. The seeds require scarification and soaking before sowing.
<i>Adriana quadripartita</i>	Coast Bitter-bush													Collect ripe fruits when they become dull in colour and seeds are mature, hard. Keep a close eye on maturing fruit as it will open and release the seeds quickly. Place the fruits in a paper bag and leave to dry for 1 to 2 weeks, until they split. Then rub the capsules gently by hand to dislodge the seeds. Use a sieve to separate the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. Seed viability can be variable, and seeds are prone to predation. From two collections, the seed viability was average, ranging from 65% to 72%. This species has physiological dormancy that needs to be overcome for the seed to germinate.
<i>Banksia sp.</i>	Banksia													Collect mature cones with obvious un-open valves. These will contain viable seeds. Mature cones can be hard to fine as very few are produced. Place cones in a tray and leave to dry until the valves open. Cones can be placed in the oven at low temperatures to achieve the same result. Place the dried cones in a bucket and shake to dislodge the seeds from the valves. Separate the seeds from the cone and store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 95%. Seeds are non-dormant, viable seed should germinate readily without pre-treatment.

<i>Pittosporum angustifolium</i>	Native Apricot													Collect by hand fruits that are orange in colour, opened or not opened. Place the fruit in a tray and leave to dry for at least two weeks. The fruit will split and open as it dries. Once the fruits split, use your fingers or a small spoon to extract the seeds. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 100%.
<i>Melaleuca acuminata</i> ssp. <i>acuminata</i>	Mallee Honey-myrtle													Collect capsules that are large and hard with closed valves. Place the capsules in a tray and leave to dry for at least two weeks or until all the valves are open. Then place all the capsules into a bucket with a lid if possible and shake hard to dislodge the seeds from the capsules. Use a sieve to separate the seeds from the capsules. The fine material will contain the seeds and other flowering material. It is exceedingly difficult to separate the seeds from this other material as the size, shape and weight are similar. However, the seeds will be a darker brown. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 85%. Seeds are non-dormant, viable seed should germinate readily.
<i>Melaleuca halmaturorum</i>	Swamp Paper-bark													Same as above
<i>Melaleuca lanceolata</i>	Dryland Tea-tree													Same as above
<i>Melaleuca uncinata</i>	Broombush													Same as above
<i>Santalum acuminatum</i>	Quandong													crack the hard seed coat to allow moisture to reach the embryo. You should then sow the seed in a free-draining medium with a host plant, like a native grass or legume, and provide consistent moisture while keeping the seeds at an optimal germination temperature of around (15-20c)
<i>Brachyscome ciliaris</i> var. <i>ciliaris</i>	Variable Daisy													Mimic summer or winter conditions with fluctuating temperatures, as constant temperatures and spring/autumn conditions inhibit germination. You can also try moist stratification in the refrigerator for up to six months or a short dry after-ripening period at 30-45°C. Collect seeds, clean them by rubbing dried seed heads and sieving, and store them in an airtight container.
<i>Caladenia tensa</i>	Greencomb Spider Orchid													Collect fat capsules as they start to dry and turn brown. Pods will split and release the seeds quickly and will require monitoring. To increase the chances of collecting mature pods, it is recommended that a small breathable bag (i.e.. Organza bags) be used to enclose the developing capsules. Place the capsules in a container that will hold fine seeds and leave to dry for a few weeks or until the capsule split. Then carefully hold the capsule and tap it gently to release the seeds. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place, refrigerator or in liquid nitrogen. For the NVC Southeast Orchid Project one population consisting of more than 40 individuals was recorded from the Mt Boothby Conservation Park. Approximately 38,000 seeds (0.02 g) were banked from this population. Seed viability for this collection was 61%. Seed germination in Caladenia species is difficult without compatible mycorrhizal fungi.
<i>Calandrinia eremaea</i>	Dryland Purslane													Collect mature capsules, those that are turning a red-brown colour and contain dark seeds. Place the capsules in a tray and leave to dry for one to two weeks. Then rub the capsules gently by hand to dislodge the seeds. Use a sieve to separate the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From three collections, the seed viability was high, ranging from 85% and 100%.
<i>Crassula decumbens</i> var. <i>decumbens</i>	Spreading Crassula													Sow them in a sandy, well-draining soil and provide seasonally moist conditions. Sow seeds lightly on the soil surface, pressing them in slightly. Provide light to medium shade and maintain consistent moisture, ensuring the soil does not become waterlogged.
<i>Dianella brevicaulis</i>	Short-stem Flax-lily													Pick the fruits that are soft and purple. These will have hard black seeds inside. It is best to clean the fruit when it is fresh. Place fruits in a bucket of water and rub the fruit gently by hand to dislodge the seeds. Then use a sieve to separate unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 90%. Seeds are non-dormant, viable seed should germinate readily.
<i>Goodenia varia</i>	Sticky Goodenia													Sow them in a well-drained compost in a greenhouse and apply heat to simulate fire, which may improve germination. Once large enough, prick seedlings into individual pots and grow them in the greenhouse for at least a year before planting out in early summer, providing winter protection for the first year.
<i>Lawrencia squamata</i>	Thorny Lawrencia													Collect mature fruits; those that are fat and reddish in colour and with the segment containing dark hard seeds. Place the fruits in a tray and leave to dry for one to two weeks. Then rub the fruits with a rubber bung to separate the seed. Use a sieve to separate the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 90%. This species has physical dormancy that needs to be overcome for the seed to germinate (e.g. nicking or softening the seed coat).

<i>Lotus australis</i>	Austral Trefoil													Collect seeds from mid to late summer as the pods split, and note that they have hard coats requiring treatments like moistening for germination. Cover seeds to their own depth with damp soil and a layer of gravel after sowing
<i>Pelargonium australe</i>	Austral Stork's-bill													Collect matured fruit, those that are turning brown and the mericarps are starting to peel off the fruit stalk. Place the mericarps in a tray and leave to dry from 1 to 2 weeks. If only the mericarps are collected, no further cleaning is required, and it can be stored as is. Store the mericarps with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place.
<i>Pterostylis arenicola</i>	Sandhill Greenhood Orchid													A specific symbiotic relationship with a particular mycorrhizal fungus for germination. Artificial propagation is complex and often involves in-vitro germination in sterile, nutrient-rich flasks to overcome the need for the fungus and a pollinator for seed development.
<i>Roepera aurantiacum/eremaeum</i>	Shrubby Twinleaf													Collect semi-dried and dried capsules by running your hands through the stems of the plant. Mature fruits will come off easily and will have a hard and dark seed inside each segment. Place the capsules in a tray and leave to dry for 1 to 2 weeks, depending on how green the fruit is. Then rub the dried capsules to dislodge the seeds. Use a sieve to remove the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. Seed viability is generally high.
<i>Scaevola crassifolia</i>	Cushion Fanflower													A pre-treatment with smoke water is highly beneficial, as is a potential post-treatment with Gibberellic Acid (GA), a plant hormone that can stimulate germination. Place seeds in a moist, well-drained substrate and provide a constant temperature around 18-22°C for germination to occur within 21-60 days.
<i>Senecio glossanthus</i>	Annual Groundsel													Sow them in a well-draining medium at around 20°C, as they require relatively high temperatures for maximum germination. Provide light, as germination levels decrease with less light. Germination can occur within a week of moistening and is spread over a period of at least 70 days.
<i>Senecio pinnatifolius</i> var. <i>pinnatifolius</i>	Variable Groundsel													Same as above
<i>Senecio spanomerus</i>	Native Groundsel													Same as above
<i>Spergularia marina</i>	Salt Sand-spurrey													Collect maturing capsules that are turning brown and contain hard seeds between January and December. Dry the collected capsules for about two weeks, then gently rub them to release the small, dark seeds. Sow seeds directly into the prepared sandy, moist soil in a bright location.
<i>Stenopetalum lineare</i>	Narrow Thread-petal													Covering seeds and seedlings cover with light soil and keeping them moist acting as moisture entrapment layer.
<i>Vittadinia cuneata</i> var. <i>cuneata</i>	Fuzzy New Holland Daisy													Collect the fluffy seed heads. Store the collected seeds in an airtight container with a desiccant, such as dried rice, in a cool, dry place. Non-dormant, viable seeds should germinate readily without pre-treatment.
<i>Westringia</i> sp.	Native Rosemary													Collect capsules that are fat and turning brown. A lot of time will be required to collect sufficient amount of seeds. Place the capsules in a tray and leave to dry for one to two weeks. Then rub the capsules gently with a rubber bung to dislodge the seeds. Use a sieve to separate the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. This species has physiological dormancy that needs to be overcome for the seed to germinate.
<i>Billardiera cymosa</i> ssp. <i>cymosa</i>	Sweet Apple-berry													Pick mature fruits that are soft or have hard brown seeds inside. Clean ripe fruit as soon as possible as it will go hard if left to dry too long. Rub the fruits in water with your hands to dislodge the seeds from the fruit. Pour the mixture into a sieve to separate the seeds from the flesh. Place the wet seeds in a tray lined with paper and leave to dry for 1 to 2 days. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From three collections, the seed viability was high, ranging from 85% to 95%. This species has physiological dormancy that need to be overcome for the seed to germinate.
<i>Clematis microphylla</i>	Old Man's Beard													Pick the seeds from the cluster with your fingers. The seeds will come away easily. The seeds should be hard and brown when mature. No further cleaning is required. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From two collections, the seed viability was high, ranging from 80% to 100%. Seeds are non-dormant, viable seed should germinate readily.

<i>Kennedia prostrata</i>	Scarlet Runner													Place the pods in a tray and cover with paper to prevent seeds popping out and leave to dry for a week. Then rub the pods with your hands to dislodge the seeds. Use a sieve to separate the unwanted material. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From two collections, the seed viability were high, at 95%. This species has physical dormancy that needs to be overcome for the seed to germinate (e.g. nicking or softening the seed coat).
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum													Collect ripping fruits that are turning yellow and containing a hard black seed. Place fruits in a bucket of water and leave to soak overnight. Then rub the fruit to remove the flesh. Rub and change the water a few times until all the fresh are removed. Leave the cleaned seed to dry and then store with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From three collections, the seed viability were average to high, ranging from 75% to 100%. Seeds are non-dormant, viable seed should germinate readily.
<i>Aristida behriana</i>	Brush wiregrass													Dry them for two weeks, and store them in an airtight container in a cool, dry place. Sow the seeds in autumn, placing them in a tray with a native potting mix to about twice their diameter and covering with gravel; they require moisture but can be sensitive to overwatering. Germination is expected within 2–4 weeks.
<i>Austrostipa elegantissima</i>	Feather Spear-grass													Use your hands to gently strip the seeds (lemma) off the mature fruiting spike, those that are turning yellowish-brown. Mature seeds will come off easily compared to the immature seeds that remain on the spike. Alternatively, you can break off the whole fruit spike to allow some of the seeds to mature further. Place the seeds/spike in a tray and leave to dry for two weeks. No further cleaning is required if only seed collected. If seed spikes collected, use hand to strip off the mature seeds. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. Viability of grass seeds could be very variable, depending on time of seed collections and seasonal conditions.
<i>Austrostipa mollis</i>	Soft Spear-grass													Same as above
<i>Austrostipa sp.</i>	Spear Grass													Same as above
<i>Bothriochloa macra</i>	Red-leg grass													Sow the seeds by broadcasting them with sand to aid even distribution, and ensure the area is kept consistently moist while gently watering to help germination.
<i>Chloris truncata</i>	Windmill Grass													Seeds require light for germination, have an optimal temperature range of 20–25°C, and can tolerate a wide range of temperatures from 10 to 40°C, but should not be sown too deeply. Seedlings will not emerge if the seed is buried, so surface sowing is recommended, though a light sowing depth (around 25mm) is sometimes suggested for good establishment, according to some sources.
<i>Cymbopogon ambiguous</i>	Lemon scented-grass													sow the seeds on the surface of moist, peat-free potting mix and lightly cover them, as grass seeds need light. Water from the bottom to keep the soil consistently moist but not waterlogged. Place the tray in a warm, protected spot with plenty of light and keep the soil moist until seedlings emerge. Germination can take a few weeks, and seedlings can be transplanted once they are large enough to handle.
<i>Distichlis distichophylla</i>	Australian salt grass													Collect seeds just as the heads are turning from green to brown. Clean the seeds and pre-soak them in water for 24 hours. Sow seeds on the surface of a moist, sandy, or standard potting mix, keep them consistently warm (77-86c), and maintain high moisture levels for germination, which can take up to 3-6 weeks.
<i>Enneapogon nigricans</i>	Bottlebrush grass													collect seeds from seedheads when they turn black and brittle, then sow them on the surface of a moist growing medium, covering lightly with gravel. Maintain warm temperatures (20-25c) and keep the mix saturated, as germination takes about 7–10 days under ideal conditions, and the seeds require light to germinate.
<i>Poa sp.</i>	Poa Grass													sow seeds in autumn or winter in well-draining soil and keep the soil consistently moist. For specific species, surface sow and cover lightly with gravel, or scatter seeds on moist compost and cover them with a permeable material like cheesecloth or burlap. Germination typically occurs within two to four weeks when conditions are right, and seedlings require consistent moisture, especially during hot weather.
<i>Ficinia nodosa</i>	Knobby Club-rush													Collect seed-heads that are brown and come off easily with your fingers. Place the seed-heads in a tray to dry for a week. Then rub the heads by hand and use a fine sieve to separate the unwanted material. Be careful as the seeds are small. Seeds are orange brown and hard. Store the seeds with a desiccant such as dried silica beads or dry rice, in an airtight container in a cool and dry place. From one collection, the seed viability was high, at 100%. Seeds are non-dormant, viable seed should germinate readily.

[illegible]

<i>Nitraria billardierei</i>	Nitre-bush												Collection requires removing these fruits before they ripen to ensure successful germination, though prior passage through the digestive system of birds, especially emus, greatly improves germination rates.
<i>Olearia axillaris</i>	Coast Daisy-bush												To germinate the seeds, pour extremely hot water over them, then let them cool. After cooling, sow the seeds on the surface of a sandy or general propagating mix. Keep the soil moist until germination occurs.
<i>Olearia passerinoides ssp. glutescens</i>	Sticky Daisy Bush												Same as above
<i>Pimelea serpyllifolia ssp. serpyllifolia</i>	Thyme Riceflower												Cuttings being the recommended method. If attempting seed propagation, smoke treatment may slightly improve results, and some success has been reported with a combination of heat and smoke, though results are erratic.
<i>Rhagodia candolleana ssp. candolleana</i>	Sea-berry Saltbush												Some native plants benefit from smoke pre-treatment to break dormancy and improve germination rates. Sow the seeds onto a well-draining, porous mix and cover them lightly. Keep the sowing mix consistently damp, in a warm, shaded to semi-shaded position, and protect it from drying out. Sow seeds during winter or spring, or when temperatures are moderate (around 18-24°C), for best results.
<i>Rhagodia crassifolia</i>	Fleshy Saltbush												Same as above
<i>Suaeda australis</i>	Austral Seablite												Is generally considered highly suitable for direct seeding, with optimum germination temperatures around 20°C. Germination typically takes 2 to 4 weeks.
<i>Tecticornia pergranulata ssp. pergranulata</i>	Black-seed Samphire												Germinate within 30 days without any pre-treatment. For successful germination, seeds should be exposed to fluctuating light and dark conditions and a temperature range of 7-30°C. Salinity negatively affects germination, so seeds will germinate more rapidly in freshwater conditions following exposure to saline environments.
<i>Tetragonia implexicoma</i>	Bower Spinach												Soak seeds in hot water overnight or in warm tap water for at least six hours to overcome their physiological dormancy. Sow the soaked seeds on a well-draining, porous seed-raising mix, keeping the medium consistently moist but not waterlogged.
<i>Threlkeldia diffusa</i>	Coast Bonefruit												Hot water treatments or scarification (nick/abrade the seed coat) to break the dormancy and allow water to reach the embryo. Soaking the seeds in boiling or hot water for varying durations, or using gibberellic acid (GA) and smoke water (SS), can also be effective germination aids.
<i>Carpobrotus rossii</i>	Native Pigface												Sow seeds onto a sandy, well-draining soil in autumn, providing good light exposure and a cool, stable temperature around 15-20°C, or by replicating the winter/spring conditions (15°C to 22°C) found in its native South Australian habitat
<i>Sarcozona praecox</i>	Sarcozona												Using a method that involves soaking them in extremely hot water, straining, and then planting them 3-5mm under the soil in a sunny, open position. Keep the seeds moist until they germinate.

Attachment 10

RB Connolly Reserve Action List

Attachment 10 -1 Action Table

Action	Task	Methods	Timeframe	Responsibility Lead
On-going bush care tasks	Targeted Weed Control Activities across reserve and proposed new revegetation areas	<ul style="list-style-type: none"> - Targeting priority weed threats and coverage into native vegetation onsite. - Update weed control based on seasonal threats and condition changes. - Minimal ground-disturbance weed control techniques. - Any planned herbicide control should be limited and if required to minimise indirect impacts to native flora species or surface water run-off areas. - Ad-hoc Litter and rubbish control maintenance. - Provide ad-hoc fencing updates and occasional maintenance. - Informal monitoring of fox den and fox presence onsite. 	<ul style="list-style-type: none"> - Ongoing weed maintenance of revegetation Zone 1 - 1 to 3 years of Intensive weed control for revegetation Zone 2, 3 and 4 to undertake weed control of new revegetation zones and areas of threatened flora and fauna species presence. 	Trees For Life SA
Photo point monitoring	Collect photographic evidence of biodiversity restoration progress onsite	<ul style="list-style-type: none"> - Take photographs from already established, and newly proposed photo point locations within RB Connolly Reserve. - Photographs should be taken from the same direction and angle each time for consistent comparison of reserve changes. - Photographs to be taken within consistent time framing i.e. (every 6 months). - Photographs should also be accompanied with GPS location. 	<ul style="list-style-type: none"> - Ongoing for all photo point monitoring - Immediate establishment of new Photo points within revegetation Zone 2, 3 and 4. 	Trees For Life SA
Fencing Upgrades	Installation of fencing infrastructure for revegetation zone 2,3 and 4	<ul style="list-style-type: none"> - Installation of fencing infrastructure to minimise disturbance into new proposed revegetation zones 2,3 and 4. - Allow additional protection from vegetation or habitat degradation, and facilitate effective restoration measures to be fulfilled. 	<ul style="list-style-type: none"> - 1-2 years for fencing installation 	City of PAE

Revegetation Works	Revegetation of flora species to promote flora diversity, coverage and manage vegetation strata layer gaps.	<ul style="list-style-type: none"> - Revegetation of flora species with relevant revegetation zones as per Attachment 5 and 9. - It is important to note the proposed list of flora species to be planted is to provide flexible species options to achieve floristic biodiversity outcomes. - Flora species that are selected to be revegetation list is at the discretion by the City of PAE. 	- 0 - 3 years (as required)	City of PAE
Bushland Condition Monitoring	Undertake Bushland Condition Monitoring (BCM) of RB Connolly Reserve.	<ul style="list-style-type: none"> - Utilised Bushland Condition Assessment Method (NVC 2020). - Assess Biodiversity Values, threats, and condition compared to a 5 year period. - Provide a revised Biodiversity Action Plan based out findings from BCM results. 	- Repeat 5 years minimum	City of PAE
Signage	Develop RB Connolly Reserve interpretive signage.	<ul style="list-style-type: none"> - Position within RB Connolly Reserve Revegetation Zone 1. - Depict key ecological and biodiversity values of the reserve i.e. (photographs of flora/fauna onsite, species information, importance of reserve in urban areas). - Historical context of the reserve both from First Nations and post-European settlement of the reserve. - Details on where to visit for more information and get involved as a volunteer. 	- 1 year	City of PAE
Citizen Science Activities	Provide initiatives to promote community engagement in Citizen Science and Data collection on biodiversity values present at RB Connolly Reserve.	<ul style="list-style-type: none"> - Extension of pathways within Zone 1 to new entry points and walkways into Zone 2, 3 and 4 as per Attachment. - Development of informative material similar to interpretive signage to be accessed via QR Code installations for people to scan and find out about RB Connolly Reserve 	<ul style="list-style-type: none"> - 1 to 2 years for pathway and walkway extension - 3-6 months for QR Code installation 	City of PAE

		<ul style="list-style-type: none"> - QR Code installations will also provide link for community to upload records or data to publicly available biological databases i.e. (iNaturalist, Atlas of Living Australia, FeralScan). 		
Habitat Restoration Activities	Restoration of key habitat features onsite to support local biodiversity	<ul style="list-style-type: none"> - Targeted Fox control i.e. (monitoring of fox den presence, baiting). - Installation of rock, stone, and sandy substrate features. - Create artificial hollows and/or nest boxes on mature tree individuals. - Protection of fallen timber logs, branches, and leaf litter. - Limit noise and vibration activities onsite during key breeding seasons of threatened fauna species likely present onsite i.e. (park and gardens maintenance crew machinery). - Artificial nest material depositing or nest creation. 	<ul style="list-style-type: none"> - 1 to 2 years within revegetation Zone 1 - Immediately post fencing installation for revegetation Zone 2, 3 and 4 	City of PAE