

# Master Plan for Ratalang Basham Beach Conservation Reserve

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## Appendix A: Ngarrindjeri Heritage Committee Inc. (NHC) - Risk Management Protocols

# Acknowledgement of Country

Alexandrina Council and its communities acknowledge the Ngarrindjeri nation as the traditional custodians of the lands and waters of our Council district.

On 8 October 2002, Alexandrina Council and the Ngarrindjeri Nation entered into a Kungun Ngarrindjeri Yunnan (Listen to Ngarrindjeri People Talking) Agreement. This agreement was the first of its type to be entered into between the Ngarrindjeri Nation and any level of government. The agreement articulates a joint commitment by Council and the Ngarrindjeri Nation to seek ways of working together to uphold Ngarrindjeri rights and advance Ngarrindjeri interests.

In keeping with the KNY Agreement, Alexandrina Council is committed to working collaboratively with the Ngarrindjeri Regional Authority (NRA) in managing, developing and caring for Ratalang Basham Beach Conservation Reserve. This commitment builds upon many years of collaborative engagement, consultation and work with the local Ngarrindjeri community in delivering projects at Ratalang including the Food and Medicine Garden, Interpretive Shelter, Aboriginal Ranger Training Program and ongoing revegetation efforts.

The Ngarrindjeri Regional Authority (NRA) is a contemporary form of ongoing Ngarrindjeri government (the Tendi) which represents the Ngarrindjeri Nation in southern South Australia. Ngarrindjeri use the term Ruwe/Ruwar to encapsulate the interconnection between Country, body and spirit. This interconnection is fundamental to wellbeing and it is for this reason that healthy lands and waters are critical to healthy Ngarrindjeri people and culture. Ngarrindjeri have the responsibility to care for Ruwe/Ruwar.

Ratalang is part of the living body of Yarlumar-Ruwe/Ruwar (lands, waters, sky, body spirit and all living things) and Creation Ancestors. Ratalang (Basham Beach) has been cared for by Ngarrindjeri over many generations. For this part of Ngarrindjeri Yarlumar-Ruwe to continue to give life to the Ngarrindjeri Nation it must be healthy and cared for in a culturally respectful and appropriate manner. The Ngarrindjeri Nation Yarlumar-Ruwe Plan (2006) outlines Ngarrindjeri plans for Ngarrindjeri Ruwe/Ruwar and highlights opportunities for the development of educational, research and tourism initiatives. The Ngarrindjeri vision for Country is outlined below:

*Our Lands, Our Waters, Our People, All Living Things are connected. We implore people to respect our Ruwe (Country) as it was created in the Kaldowinyeri (the Creation). We long for sparkling, clean waters, healthy land and people and all living things. We long for the Yarlumar-Ruwe (Sea Country) of our ancestors. Our vision is all people Caring, Sharing, Knowing and Respecting the lands, the waters and all living things.*

*Our Goals are:*

- *For our people, children and descendants to be healthy and to enjoy our healthy lands and waters*
- *To see our lands and waters healthy and spiritually alive*
- *For all our people to benefit from our equity in our lands and waters*
- *To see our Ngartjis (special friends) healthy and spiritually alive*
- *For our people to continue to occupy and benefit from our lands and waters*
- *To see all people respecting our laws and living in harmony with our lands and waters*

In conjunction with the Ngarrindjeri Nation Yarlumar-Ruwe Plan (2006), Ngarrindjeri apply Yannarumi (Ngarrindjeri Speaking as Country) philosophies to assess and guide management of Ngarrindjeri Ruwe. These philosophies were used to develop the 2016 Ngarrindjeri Ratalang Cultural Heritage Management Plan.

As described in the Ngarrindjeri Ratalang Cultural Heritage Management Plan, all Ruwe/Ruwar is of cultural significance to Ngarrindjeri. Ratalang in particular falls within the travels of two important Ngarrindjeri Creation Ancestors, Ngurunderi and Kondoli (the Whale Creation Ancestor). The values and principles articulated in the narratives of these Creation Ancestors give Ngarrindjeri the knowledge to properly care for this country. The Ratalang area is also a place where the connectivity between freshwater, the sea and the land is readily apparent, and it is due to this special status, that it is often chosen as a place for the intergenerational transfer of cultural knowledge. Priority Ngarrindjeri concerns as expressed in the Ngarrindjeri Ratalang Cultural Heritage Management Plan (2016) have been integrated into the body of this Report.

# Chapter 1

## Introduction

### 1.1 Consultant Team

ASPECT Studios has been engaged by Alexandrina Council to prepare an updated Master Plan for the Ratalang Basham Beach Conservation Reserve located on the coastal strip between Port Elliot and Middleton, South Australia.

Ratalang is of significant importance to the region as a landscape with numerous cultural, environmental and recreational assets. In direct response to these values, ASPECT Studios has sought services of an Environmental and Cultural Heritage Consultant, Geoffrey Bishop and a Recreation Planning Consultant, Tredwell Management to assist in the preparation of the Master Plan.

### 1.2 Governance and Purpose

The Ratalang Basham Beach Conservation Reserve is owned by the State Government and leased to Alexandrina Council. A Section 41 committee of Council (the Ratalang Basham Beach & Horseshoe Bay Advisory Committee) provides Council with advice and input into the development and maintenance of Ratalang. The Advisory Committee consists of councillors, council staff, an NRA representative and committed community members with passionate and historical links to the reserve.

While council provide the primary care and maintenance of Ratalang, they were until recently assisted through the contribution of a dedicated group of volunteers, known as the Friends of Bashams Beach, co-ordinated by members (both past and present) of the Advisory Committee. The Adelaide & Mount Lofty Ranges NRM Board has also funded past weed control, revegetation, hooded plover, community and indigenous programs within the reserve.

The original Master Plan for Ratalang (then known as Basham Beach Regional Park) was prepared in 1995 by Rust PPK. An audit of progress against the original Master Plan containing additional recommendations for action was undertaken QED in 2000.

The purpose of this Master Plan is to provide Council with a guiding document to inform the ongoing management and development of Ratalang into the future based on an account of current conditions and issues, and informed by engagement with key stakeholders and the general public.



Image: Basham Beach from 'The Gap'

### 1.3 Study Process

Due to the known importance of Ratalang it has been vital to undertake a high level of consultation with Key Stakeholders during the Master Plan Process (particularly with members of the Advisory Committee and the Ngarrindjeri Regional Authority).

The study process began with an assessment of existing site conditions through numerous site visits, a review of the existing planning documents and discussions with Council and Key Stakeholders.

Parallel with this, a series of meetings have been undertaken with representatives from the following Key Stakeholders:

- Alexandrina Council
- Ratalang Basham Beach and Horseshoe Bay Advisory Committee
- Ngarrindjeri Regional Authority
- Local Ngarrindjeri / Ramindjeri Elders
- Natural Resources Adelaide & Mount Lofty Ranges
- Basham Family
- Port Elliot Caravan Park
- The Friends of Basham Beach

These meetings have been instrumental in identifying key issues and opportunities for future improvement within Ratalang and resulted in a Preliminary Issues and Opportunities Report which was issued to Council and Key Stakeholders for further review.

Following the feedback on this preliminary report, a Draft Master Plan Report was developed and issued to Council in June 2013 for further engagement with the above stakeholders and the Ngarrindjeri Regional Authority (NRA).

In August 2016, the NRA finalised the Ngarrindjeri Ratalang Cultural Heritage Management Plan (CHMP). The CHMP is designed to sit alongside and inform Council's management documents and maintenance protocols for Ratalang. Key elements of the CHMP have been incorporated into the final Master Plan.

The Draft Master Plan was released for public consultation in mid-2017. Feedback received during the consultation period was reviewed by Council staff and the Advisory Committee and agreed changes have been incorporated into this final Master Plan which has been prepared for Council endorsement.



Figure 1: Study Process

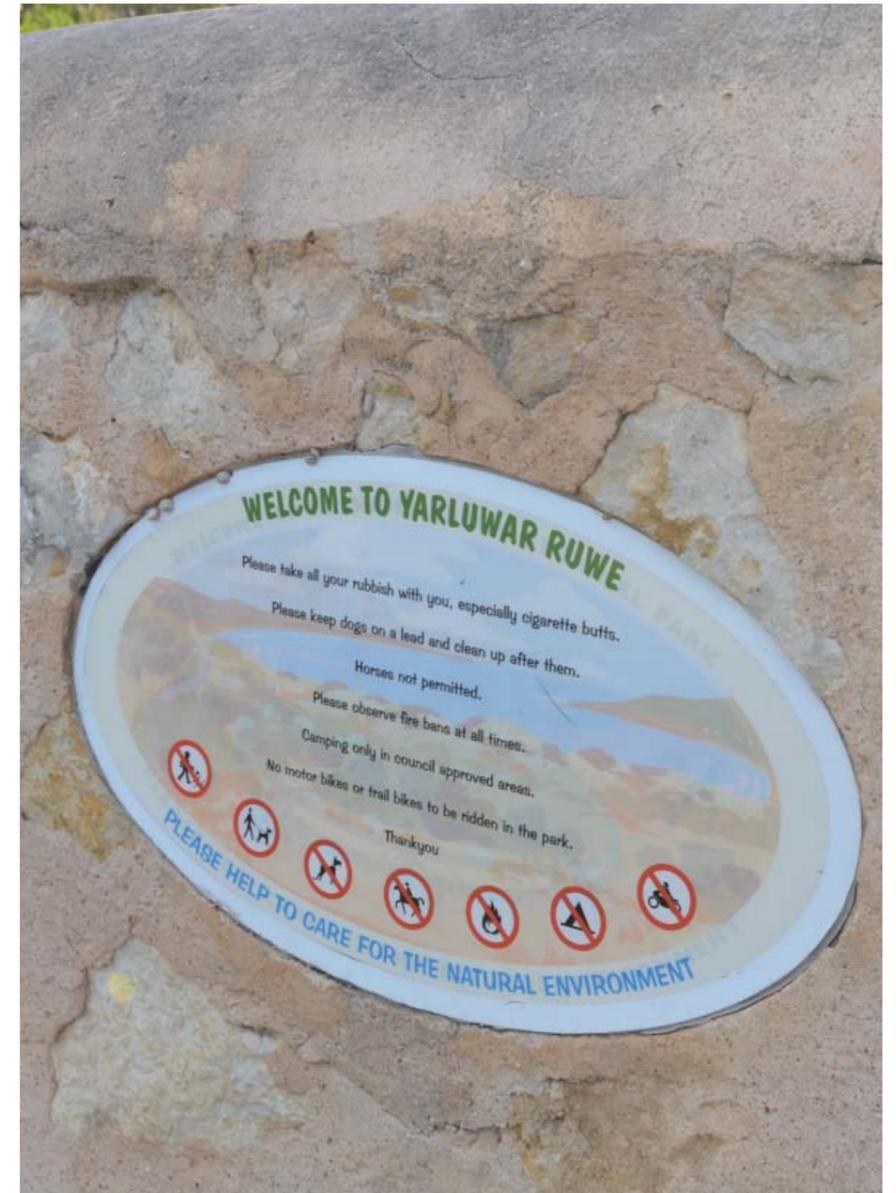


Image: Current Entry Signage (to be updated)

### 1.4 Site Location & History

Ratalang Basham Beach Conservation Reserve is located on the Fleurieu Peninsula in South Australia. Stretching from Horseshoe Bay in Port Elliot to the edge of Middleton, Ratalang provides an important visual and natural buffer between the two townships.

Ratalang encompasses the long, sandy Basham Beach, the coastal dunes and heathland stretching back to the railway line and the rocky coastland, headland and bays around to Commodore Point.

Ratalang Basham Beach Conservation Reserve was formerly known as Basham Beach Regional Park. The name change was endorsed by Council in April 2017.

The land now contained in Ratalang was acquired by the State Government in 1976. Ratalang came under the care and control of Council in 1981 and is subject to a 99 year lease.

Further details about the Ngarrindjeri and European cultural heritage of the site are contained in section 3.2 of this report.

### 1.5 Background & Existing Conditions

Ratalang can be divided into a series of distinct localities or character types which, when combined, provide a unique and highly valued coastal reserve which caters to a diverse range of interests and activities.

The diagram shown on this page identifies 8 key zones adapted from the 1995 Master Plan.

#### Zone 1: Horseshoe Bay

Includes high quality family beach, formal grassed recreation reserve and revegetated foredunes.

#### Zone 2: Port Elliot Caravan Park

Includes caravan and camping sites, cabins, office and kiosk buildings, car parking, public conveniences, shelters and recreation facilities.

#### Zone 3: Commodore Point

An elevated calcrete/granite headland with high quality coastal views to Horseshoe Bay, Freeman’s Knob and Pullen Island. Includes informal walking trails and heathland revegetation.

#### Zone 4: Crockery Bay

Small sheltered bay surrounded by rocky headlands. Includes Crockery Creek outlet, shelter with indigenous interpretive mural and informal path connections to Caravan Park and other park zones.

#### Zone 5: Pink Granite Cliffs and Fisherman’s Bay (Sandy Bay)

Entry focus area with mature revegetation, indigenous interpretive shelter, native food garden, toilet facilities and outdoor classroom. A well used walking track leads to Fisherman’s Bay, a sheltered sandy bay good for families, snorkeling and fishing. Natural walking trails lead to an elevated exposed calcrete/ pink granite headland with high quality coastal views, extensive heathland revegetation, interpretive signage and historic quarry site.

#### Zone 6: Main Park Entry

Main Park entry zone including entry road, main carpark, Port Elliot Caravan Park overflow carpark, coastal heathland and open native grass meadows.

#### Zone 7: Basham Beach and Dunes

Long sandy beach backed by coastal dunes with significant revegetation. Common activities include walking, whale watching and fishing.

#### Zone 8: Basham Beach Hinterland

Coastal plain with significant areas of heathland and grassland revegetation. Includes historic ruins and farm buildings, wetland, interpretive signage, cycle and walking paths. Some areas still used for livestock agistment.



#### KEY

- 1 Horseshoe Bay and Commodore Reserve
- 2 Port Elliot Caravan Park
- 3 Commodore Point
- 4 Crockery Bay
- 5 Pink Granite Cliffs
- 6 Fisherman’s Bay and Main Park Entry
- 7 Basham Beach and Dunes
- 8 Basham Beach Hinterland

Figure 2: Site Zoning

### 1.6 Key Site Features

Since the inception of Ratalang in the 1980's, extensive revegetation work has been carried out to re-create a truly unique coastal ecosystem supported by visitor amenities and an extensive network of walking trails.

In addition to the considerable overall scenic, cultural, recreation and biodiversity value of Ratalang, there are many individual sites of interest throughout the reserve. These features range from farming and mining remnants such as the existing dairy and farm ruins, to natural features such as the coastal cliffs and 'seal' rock blowhole, as well as a range of recreation and education facilities which have been implemented over the last 30 years.

Key site features and points of interest are outlined on the map on this page.

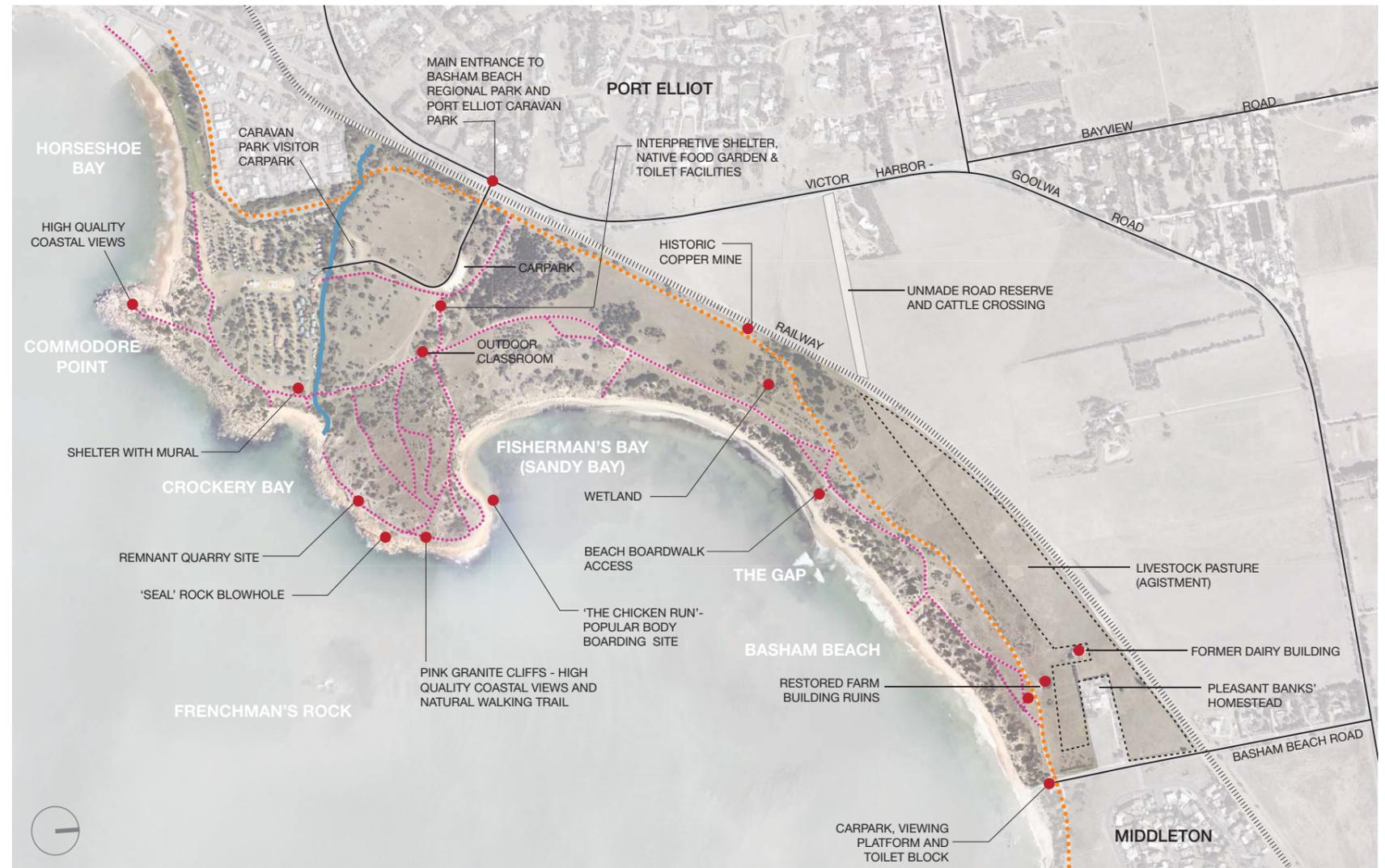


Figure 3: Key Site Features

### 1.7 Landscape Structure

The Ratalang Basham Beach Conservation Reserve can be seen to exhibit four distinct landscape character types which are critical to understand in terms of the ongoing management framework to be adopted for Ratalang. The identified landscape character types are as follows;

- Town - Port Elliot Caravan Park and Horseshoe Bay
- Headland - Commodore Point, Crockery Bay, Fisherman's Bay and the Main Park Entry
- Dunal - The foredune system and hinterland immediately on and behind the beach
- Rural - The wedge of land adjacent to the Cockle Train line, primarily still used for pasture



Figure 4: Landscape Structure

## Chapter 2

# Vision and Guiding Principles

### 2.1 Vision

Drawing from the intent of the original Master Plan, the vision for the Ratalang Basham Beach Conservation Reserve can be summarised as follows:

**“The Ratalang Basham Beach Conservation Reserve provides a rich and diverse educational, environmental and cultural resource for the local community and visitors to the region. It will be managed and maintained in collaboration with Ngarrindjeri to protect its key assets whilst catering for increased visitor usage.”**



Image: Basham Beach Hinterland

## 2.2 Guiding Principles

Building on the objectives and direction set in the 1995 Master Plan, the following principles will provide the basis for the current Master Plan into the future:

- Protect and enhance the unique natural coastal character of the site
- Respect and acknowledge important cultural connections to the site, particularly those of the Ngarrindjeri / Ramindjeri people
- Protect all Ngarrindjeri / Ramindjeri heritage areas of cultural significance
- Protect areas of European farming heritage including the Pleasant Banks homestead, remnant farm buildings, old quarry and mine site
- Endeavour to further raise the cultural health (Yannarumi status) of the area by the continued incorporation of Ngarrindjeri philosophies in the care and maintenance of the Park into the future
- Continue to improve Park biodiversity through additional revegetation, native habitat creation and protection, and appropriate land management
- Maintain existing recreational opportunities and explore options for additional formal and passive recreational activities which are consistent with the natural coastal character and strong cultural and biodiversity values of the site
- Acknowledge and maintain the significant educational aspects of Ratalang and provide additional passive and formal educational opportunities
- Enhance linkages and wayfinding opportunities both within Ratalang and connecting to the Port Elliot and Middleton townships
- Acknowledge and support Park funding sources including the Port Elliot Caravan Park
- Endeavour to achieve a sustainable balance between recreation, tourism, education and conservation
- Exclude commercial and other development which is not compatible with the natural coastal character and strong cultural and biodiversity values of the site



Image: Coastal Cliff Walking Trail

## Chapter 3

# Master Plan Issues and Opportunities

### 3.1 Introduction

In the process of consultation with key stakeholders, a number of key issues and opportunities have been identified, which are expanded on in the following categories:

- Cultural Heritage
- Biodiversity & Environmental Threats
- Access & Circulation
- Visitor Facilities & Infrastructure
- Wayfinding & Signage
- Education & Tourism

Each of these items have been described in detail below and are complemented by the Master Plan drawings in Chapter 4.



Image: Historic farm building

## 3.2 Cultural Heritage

### 3.2.1 Ngarrindjeri Heritage

The significance of Ratalang for Ngarrindjeri people is described in detail in the Ngarrindjeri Ratalang Cultural Heritage Management Plan.

The land holds important stories about creation, and is an important point along the journey of Ngurunderi in the great ancestral dreaming story of the region. The story tells of Ngurunderi, who chases his two wives from the Murray River to Cape Jervis, forming many of the local landforms and features along his way. Ngurunderi, stops at Basham Beach where he throws, “a huge tree into the sea to make a seaweed bed. Here he hunted and killed a seal; its dying gasps can still be heard among the rocks.”<sup>1</sup>

Ratalang is one of the first places where Ngarrindjeri saw European sailing boats pass by. It was here that Ngarrindjeri had their first contact with Europeans (including sealers and whalers) and it was here that Ngarrindjeri began to feel the social dislocation and pain that was to result from European invasion and colonisation of their lands and waters.

In the late 1980s sites of Ngarrindjeri significance were identified within Ratalang and are registered under the Aboriginal Heritage Act 1988 (SA) (AHA). Whilst all of Ratalang is of cultural significance to Ngarrindjeri, these and other non-registered sites must be treated sensitively and fully protected.

Ratalang has been used as a key site for teaching through various indigenous school programs including the TAFE SA Aboriginal Ranger Program. External funding has also enabled various revegetation programs to be run involving local Aboriginal children, including establishment of the food and medicine garden. The construction of a Ngarrindjeri interpretive shelter at the main entrance and the mural painted on the walls of the shelter at Crockery Bay also make a valuable contribution to the educational values of Ratalang.

Due to its natural character and significant Ngarrindjeri heritage, Ratalang provides a sanctuary for local indigenous people and is used consistently as a meeting point for Ngarrindjeri and Ramindjeri Elders and family groups. Cultural gatherings in Ratalang include get-togethers with Elders from many language groups, smoking ceremonies, corroborees and overnight camps teaching Aboriginal children traditional dances, stories and culture with many generations of families involved.

It is vital that any future infrastructure works within Ratalang are responsive and respectful of the significant indigenous heritage it contains and the consistent use of Ratalang for cultural gatherings.

### Ngarrindjeri Cultural Interpretation and Heritage Protections

A number of opportunities for further interpretation of Ratalang's Ngarrindjeri values and heritage exist and should be explored. As an example, any future paved paths have the potential to include interpretive etching or inlays celebrating Ngarrindjeri culture. The NRA has also advised that development of positive cultural and education programs would support the healing of Ratalang.

As detailed in the NRA Cultural Heritage Management Plan, visitor management works are needed in a number of locations to address NRA concerns regarding public access to culturally sensitive areas. This Master Plan also anticipates that at some future time, the NRA may wish to set aside areas for reburials of Old People and/or the construction of ceremonial grounds.

All ground disturbing activities within Ratalang must occur in accordance with Ngarrindjeri heritage processes given their potential to unearth or otherwise disturb Ngarrindjeri sites, objects or Old People. This includes all revegetation, fencing and other infrastructure works. The process for obtaining heritage clearance and for responding to finds of cultural heritage materials is included as an Appendix to this report.



Image: Ngarrindjeri Food and Medicine Garden



Image: Walking trail around Pink Granite Cliffs

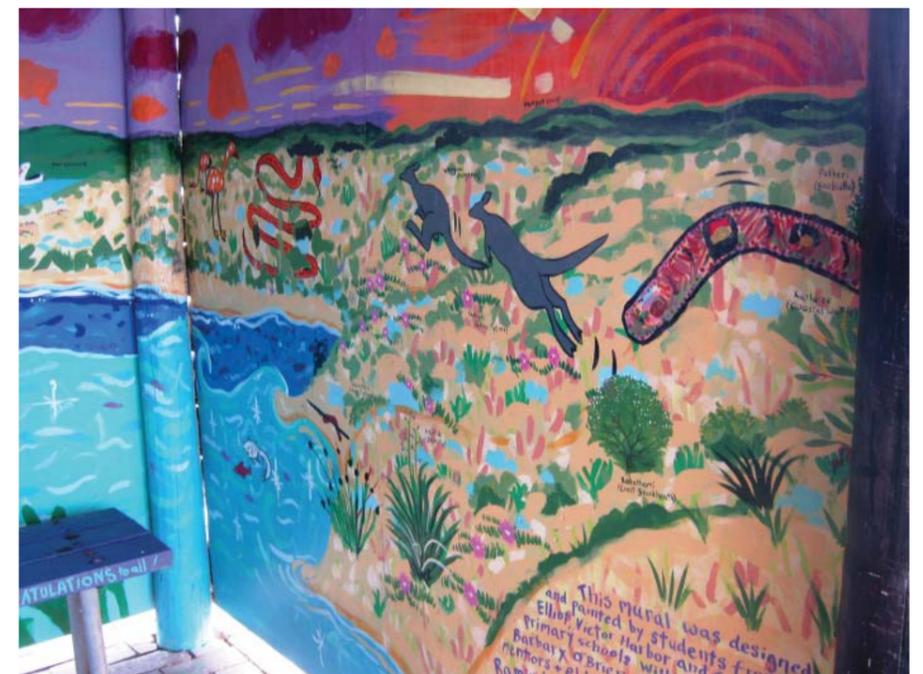


Image: Mural at Crockery Bay

<sup>1</sup> Ngarrindjeri Regional Authority, 'Ngurunderi – Dreaming of the Ngarrindjeri', *Ngarrindjeri Regional Authority*, 2010, <http://www.ngarrindjeri.org.au/about-us/ngurunderi-dreaming-of-the-ngarrindjeri/> (accessed 10 May 2013)

### 3.2.2 European Heritage

The European heritage of Ratalang dates from the 1850's and is closely associated with the Basham family.

William Basham (1800-1886) came to South Australia from Launceston, Tasmania in 1839 and in 1841 took up farming land on the South Coast at Hindmarsh Valley. Whilst William and his wife, Louisa Eliza, worked the farm, their sons William John (1821-1892) and Charles Abraham (1826-1907) became successful businessmen in Adelaide operating a cabinet-making business in Hindley Street and later in Rundle Street. They also became involved in real estate.

In December 1856 Charles Abraham Basham leased Sections 2303 and 2317 from the Crown for a period of 30 years. The Basham family named the property 'Pleasant Banks', which is believed to be after a locality in northern Tasmania. Charles Basham purchased the property in June 1865.

Basham family lore relates that when the Bashams came to Pleasant Banks the land was relatively open with a vegetative cover of grasses and low shrubs with scattered patches of trees, eucalypts and Drooping Sheoaks. The land was subsequently cleared and developed for livestock grazing and cropping.

The Bashams were both industrious and creative, developing other activities to support local farmers. William Basham Snr was a founding proponent for the construction of the Port Elliot Steam Flour Mill (1852) and in 1866 commissioned the construction of the steamer Jolly Miller (ON55610) which engaged in the cargo trade on the River Murray. This was the first iron steamer built in South Australia, as distinct from those imported in sections from overseas.

The flour mills operated over a period of 20 years before being destroyed by a boiler explosion in January 1974. It was not rebuilt. William Basham's sons William and Charles subsequently established Basham Bros Dairy Factory at Port Elliot in 1892, primarily to process local dairy produce for butter manufacture. William Jr. was also associated with the hotel business, once owning the original Port Elliot & Royal Family hotels.

Pleasant Banks passed to Charles Basham's son Charles William Hussey Basham (1863-1958) in 1886. He continued the cropping activities, growing wheat for grain and hay, oats for hay and barley for grain. Crop rotation was practiced with legumes (peas) being sown after a cereal crop to restore soil nitrogen content. Yields were generally good, up to three tons of oaten hay per acre and 40 bushels of wheat per acre, depending on the season. Pastures were improved by the sowing of medics, clovers, lucerne and pasture grasses. All were grown without irrigation; ground water was naturally too saline for irrigation use. Livestock included cattle, horses (riding and work), pigs, poultry, geese and sheep. Fat lambs were produced to supply meat to local butchers. Sheep did not do as well as cattle due to the prevalence of 'Coastal Disease' caused by a deficiency of copper and cobalt in coastal soils.

Charles began a milking herd and by the 1890s was milking up to 70 cows by hand. This building on the flats below the homestead has now been partially restored.

A new dairy was established in 1920-27 in what were formerly stables for their draught horses. An expansion in their dairy business occurred in 1927 when Charles Basham purchased some stud Guernsey cows from Yarraview Stud, Lilydale, Victoria and established the Pleasant Banks Guernsey Stud. The stud was continued by his sons, Phillip and Bernard (known as Bun), trading as Basham Bros. Phill Basham was a foundation member and first Secretary of the South Australian Branch of the Guernsey Society in 1933.

The cows produced high quality milk with high butterfat content. The dairy was licenced by the Metropolitan Milk Board and the milk was taken daily to Adelaide for human consumption or processed for cheese at the Victor Harbor Cheese Factory. The partnership was dissolved in 1952 and Phill Basham started a new stud under the name Merside Guernsey Stud. The Basham family successfully exhibited their cows at local agricultural shows and the Royal Adelaide Show.

With the division of the property in 1952, Phill retained the section of Pleasant Banks on the seaside of the railway line (including the original homestead) and Bun took the northern section. Dry seasons combined with his declining health forced Phill to sell Pleasant Banks in 1972 (the family retained the homestead block); he died in 1976. As a result of a concerted community campaign strongly opposing residential development on the land, the State Government compulsorily acquired the property in 1976 and subsequently established Basham Beach Regional Park. The Park came under the care and control of Council in 1981 and is subject to a 99 year lease.

In April 2017, Council endorsed a renaming of the Park to Ratalang Basham Beach Conservation Reserve to acknowledge both the European and Ngarrindjeri heritage of the land and to reflect the predominant use of the land as a conservation reserve.

The Basham Family still retain two parcels of land immediately north of the railway line as well as a Council-issued grazing licence over the north-eastern portion of the Reserve immediately south of the railway line and adjacent Pleasant Banks homestead. The unmade road reserve to the north of the railway line is used to move cattle between the privately owned land to the north and the licensed land to the south.

#### European Cultural Interpretation

The European settlement & farming heritage of the area will continue to be recognised via retention of an open farming landscape at the Middleton end of the Reserve adjacent Pleasant Banks homestead. There is potential to develop a suite of interpretive signage around the existing ruins at the Middleton end of Ratalang, which could tell the story of Pleasant Banks from 1856 to 1976 including the involvement of the Basham family with both the property and the Port Elliot district and, on a broader scale, the Basham family involvement with the development of the Guernsey dairy cattle breed, which is significant on a national scale. Various images are available for use on these signs.



Image: Existing Dairy Building



Image: Example of Interpretive Signage

### 3.2.3 Key Opportunities

- Incorporate interpretive etching or inlays celebrating indigenous culture in any future paved paths
- Ensure all ground disturbing activities within Ratalang occur in accordance with Ngarrindjeri heritage processes.
- Collaborate with Ngarrindjeri to implement measures managing public access to sensitive cultural heritage areas.
- Install viewing platforms along cliff edge to protect areas of high cultural significance to Ngarrindjeri.
- Remove all current signage that is inset into granite rock and overturn rocks.
- Update signage throughout Ratalang to adequately reflect Ngarrindjeri people and culture.
- Enable Ngarrindjeri management of burial sites including the repatriation of Old People from the Ratalang area.
- Manage adjacent Council-owned lands in accordance with the same Ngarrindjeri principles and values espoused for Ratalang.
- Develop a suite of interpretive signage around the existing ruins at the Middleton end of Ratalang focusing on the Basham family and European farming heritage of the region
- Enable continued grazing of land immediately south of railway line via a Council-issued grazing licence and continued access to unmade road reserve north of railway line.
- Review suitability of grazing licence at the end of each 5-year term to determine whether any areas should be reclaimed for revegetation and/or experimental native pasture/crops.
- Remove fire pit at Fowl Shed and maintain 10m fuel break around Pleasant Banks and associated ruins & outbuildings during Fire Danger Season to reduce risk of fire impacting upon European heritage assets.



Image: View across Ratalang from headland

### 3.3 Biodiversity & Environmental Threats

#### 3.3.1 Prior Condition

Prior to the formation of the Ratalang Basham Beach Conservation Reserve and the commencement of revegetation projects, the land had been cropped and grazed by the Basham Family for over 100 years. Mixed farming on the property commenced in 1856 and a Guernsey cattle stud was established in 1927. Before the Basham family came to area, the site was predominantly coastal heathland with a vegetative cover of grasses, low shrubs and scattered patches of trees, including Eucalypts and *Allocasuarina verticillata*. The land was extensively cleared for farming and grazing was also conducted on the coastal dunes. Sections of the dunes were cleared and flattened over 90 years ago for growing dry-land lucerne. This was not successful and the dunes were later colonised by couch grass and other introduced grass species.



Image: Established wetland

#### 3.3.2 Rehabilitation Work

Over the past 30 years, extensive native revegetation work has been undertaken within Ratalang by a dedicated group of local volunteers and as a result of Council investment in both staff and contractor time. Planting efforts have been largely concentrated in the coastal zone and hinterland towards the Port Elliot end of Ratalang and have included the reintroduction of coastal heathland and native grass meadows as well as the creation of a wetland. Recent plantings include an indigenous food/medicinal garden and increased planting at the Middleton end of Ratalang. Much of the replanting has been undertaken in association with indigenous and local school groups.

A wide range of local native plant species (tree, shrub and understorey species) have been used in the revegetation work with the seed being sourced from remnant native vegetation in the general area. The plantings have been successful with some trees (including copses of Drooping Sheoak, *Allocasuarina verticillata*) now mature and providing a seed source for future revegetation.



Image: Mature grove of Sheoaks (*Allocasuarina verticillata*) with native grass meadow

#### 3.3.3 Biodiversity Considerations

The Ratalang Basham Beach Conservation Reserve forms an integral part of a near continuous band of native coastal vegetation and habitat that extends from The Bluff to Goolwa. The 2007 Southern Fleurieu Coastal Action Plan provides a baseline assessment of biodiversity values and threats and continues to guide management actions within the reserve, particularly with respect to weed control. Due to the dedicated revegetation program, the Ratalang Basham Beach Conservation Reserve now has a diversity of native vegetation not found in many other sites along this coastline. This is a valuable biodiversity asset for the region and provides a haven for native species, both flora and fauna, in a region that has otherwise been cleared of native vegetation for many years. Local observers report an increase in the number of bird species and numerous generations of birds that are largely resident in Ratalang, however issues of pest management including weed species, feral animals and unauthorised off-leash dog use continue to threaten the native flora and fauna in Ratalang and present an ongoing management issue. These issues are addressed in sections 3.3.5 and 3.3.6.



Image: Coastal heathland diversity

### 3.3.4 Existing Vegetation Zones

The map to the right indicates the key vegetation types which currently exist across the site.



#### KEY

	Established coastal scrubland/grassland		Granite cliff heathland		Educational/interpretive planting
	Recent revegetation/grassland		Coastal dune		Formal landscaped recreation/tourism
	Native coastal grasslands		Wetland & riparian ecology		Agricultural pasture

Figure 5: Existing Vegetation Typologies

### 3.3.5 Pest Plants

Pest plant species listed under the Natural Resources Management Act and other invasive species, occur both in the coastal dunes and on the hinterland within Ratalang. Despite weed control efforts running concurrently with the revegetation program, the control of weed species still poses a significant and ongoing issue within Ratalang.

Control of pest plants within Ratalang is governed by a 5-year Weed Management Plan & Mowing Regime which contains objectives, methods, a prioritised control & revegetation calendar and mowing regime for weed management within Ratalang.

Targeted control of woody weeds such as African Boxthorn (*Lycium ferocissimum*) and Olive (*Olea europaea*) (both listed species) is ongoing and will require follow up in future years as new infestations will occur as both species are growing on other land in the vicinity. Other weeds of concern include Scabiosus (*Scabiosa atropurpurea*), False Caper (*Euphorbia terracina*), Cock's Footed Grass (*Dactylis glomerata*), Sea Spurge (*Euphorbia paralias*), Gazania (*Gazania hybrids*) and False Sow Thistle (*Reichardia tingitata*). Three-cornered Jack (*Emex australis*) is another weed of concern however this species is largely confined to the agricultural land.

Grass weeds remain an issue within many of the revegetation areas and certainly occur across the land that is still grazed. Species such as Perennial Veldt Grass (*Ehrharta calycina*), Barley Grass (*Hordeum leporinum*), Jabbers/Kingston Grass (*Bromus diandrus*) and Dog's Tail Grass (*Lagurus ovatus*) are widespread and all have low palatability. In parts, native grasses, particularly Wallaby Grass (*Austrodanthonia spp*) and Spear Grass (*Austrostipa spp*), and some Kangaroo Grass (*Themeda australis*), have been successfully used to replace weedy grasses by the use of appropriate management practices. This practice shows good promise as a means of long-term weed control.

Early plantings, particularly in the vicinity of the caravan park, used some non-local species, one of which –Western Coastal Wattle (*Acacia cyclops*) has naturalised and is outcompeting native species. Removal of these plants, some quite large, has commenced and should be continued with the aim of eradication.

### 3.3.6 Pest Animals and Dogs

There are a number of pest animals within the reserve which pose an ongoing threat to the biodiversity value of Ratalang. The most evident pest species are rabbits and foxes, both of which are declared pest species under the Natural Resources Management Act. The impact of rabbits is most noticeable in revegetation areas where they will eat young seedlings and ring-bark immature Sheoaks. Monitoring of rabbit populations should be undertaken by observing the

numbers of animals seen, especially in the early morning or at dusk, and by noting warren activity. Control measures should be undertaken as required and may include baiting or warren fumigation. Warren ripping is not an appropriate control method due to the cultural sensitivity of the area. Foxes are currently controlled by den fumigation.

Due to the close proximity to Port Elliot township, feral cats are also a significant problem within Ratalang. Cats are very efficient hunters and can wreak havoc on native birds, lizards and insects. Feral cats are very difficult to detect or trap but a program of trapping would be useful to determine what numbers might be living in the reserve, particularly in the dunes.

In the past, dogs let loose within the reserve have been observed causing damage to wildlife and vegetation. At a state level, dogs are not usually permitted in Conservation Parks due to the negative impact they have on wildlife, either by taking or disturbing animals with their barking and running around in an uncontrolled manner.

New by-laws adopted by Council in late 2017 require dogs to be on-leash at all times within Ratalang. On the beach adjacent the reserve, dogs must be on leash between 10am and 6pm from 1 December – 30 April and under effective control at all other times. Dogs must also be kept on-leash at all times within 50m of active Hooded Plover nesting areas. Active nests are marked with temporary fencing and clearly visible. These requirements are clearly signed but an increased compliance presence would assist in ensuring that residents & visitors are aware of and comply with the dogs on-leash requirements.

### 3.3.7 Climate Change & Coastal Erosion

In recent years, there has been increased awareness of the implications of climate change especially within the coastal areas where predictions of sea level rise may cause significant change to coastal ecologies. Given the low-lying nature of Basham Beach, particularly those areas immediately behind the frontal dune, consideration needs to be given to avoiding extensive erosion of the foredune system and inundation of low-lying infrastructure such as boardwalks. To mitigate these impacts, extensive revegetation of the foredune system has been undertaken with relatively high success. Future revegetation strategies should reinforce these planting efforts. In addition, other strategies could include beach pole monitoring, the installation of tiers of dune erosion fencing and the upgrading of low-lying infrastructure to withstand inundation.

In 2018, Alexandrina Council will prepare a Coastal Adaptation Strategy which will consider recommended adaptation options for managing coastal erosion at Ratalang.



Image: Ongoing maintenance issue of widespread couch grass outcompeting new revegetation



Image: Weed species including Gazania and Euphorbia terracina

### 3.3.8 Pathway Erosion

Due to the increase in visitor usage of Ratalang in recent years, there has been a notable increase in erosion of trails, particularly in those areas where vantage points to views of the sea are best.

There is potential to upgrade key sections of path in some locations, provided that the materials used are reflective of the natural coastal environment.

Future strategies should be focused on the provision of clearly identifiable paths of travel with the physical closure of routes considered unsustainable and likely to cause impacts to sensitive cultural and vegetation sites. In addition, key vantage points should be identified for the development of robust but site appropriate viewing platforms to further cater for peak periods of visitor usage (i.e. during the whale-watching season).

### 3.3.9 Fire Management

Fire prevention activities are an important part of reserve maintenance. The main threat of fire to the reserve and adjacent Pleasant Banks homestead is from the north and north-west. Council undertakes a mowing regime within the reserve in compliance with its obligations under the Fire & Emergency Services Act SA (2005). In addition, the licensee of the grazing area is required to maintain a fuel break along the internal perimeter of the licensed area which assists in protecting the Pleasant Banks homestead and associated ruins & outbuildings. Public fires are not permitted within the reserve except for Ngarrindjeri/Ramindjeri cultural heritage purposes with the prior written permission of Council.



Image: Primary dune erosion has been severe



Image: Dunal erosion along Basham Beach



Image: Erosion to path at Fisherman's (Sandy) Bay



Image: Erosion to main walking track to Fisherman's Bay

### 3.3.10 Key Opportunities

- Demark planted areas and areas where natural regeneration of native grasses is occurring to prevent damage by visitors and maintenance workers.
- Identify the location & extent of future revegetation being mindful of potential fire risk to Pleasant Banks homestead at the very eastern end of Zone 8.
- Continue to engage community volunteers, indigenous and school groups in the revegetation programme, in seed collection, plant propagation and planting, to reinforce the feeling of ownership of Ratalang within the community.
- Initiate a wetland revegetation program along the extent of Crockery Creek for increased biodiversity and improved water quality.
- Construct protective dune fencing as needed on Commodore Point to limit access and protect delicate areas of revegetation.
- Ensure Ngarrindjeri heritage processes occur in relation to all future revegetation at Ratalang.
- Continue to implement and update the 5-year Weed Management Plan & Mowing Regime.
- Consider undertaking GPS mapping of pest plant locations within Ratalang.
- Continue ongoing rabbit monitoring program and initiate control measures as required to manage rabbit numbers.
- Establish a comprehensive feral animal management plan separate to this Master Plan which includes consideration of feral and domestic cats.
- Ensure local residents & visitors are made aware of the policies regarding dog access and increase compliance presence within Ratalang to monitor & police dogs off leash.
- Initiate realignment and surface upgrades to selected key walking paths if necessary to improve erosion problems, safety and access. Ensure the current natural coastal aesthetic is maintained with appropriate material and surfacing selections.
- Undertake coastal hazard assessment and develop site-specific adaptation plans in response to current and projected climate change impacts (i.e. beach erosion).
- Explore potential to create scaled wetland basin and stormwater harvesting and reuse within caravan park site.



Image: Native grass meadows establishing near the main entry



Image: Crockery Creek - long term opportunity to revegetate and establish wet lands for water improvement



Image: Limit pedestrian access at Commodore Point to protect vegetation and sensitive cultural heritage areas



Image: Native grass meadows and heathland plantings are beginning to dominate the more established zones of Ratalang

### 3.4 Access and Circulation

#### 3.4.1 Introduction

Ratalang is well serviced in terms of provision of access and circulation with two main vehicular entries off Victor Harbor – Goolwa Road and at the end of Basham Beach Road. Secondary access points are provided off Basham Parade at Horseshoe Bay. A sealed car park at the end of Basham Beach Road has capacity for approximately 40 vehicles but is currently not line-marked. Visitor parking areas provided at the immediate entry to the Caravan Park and at the trail head to Fisherman's Bay were sealed in 2017.

A network of unsealed pedestrian tracks are located throughout Ratalang and a two metre wide bitumen sealed path provides a critical link through the site as part of the Encounter Bikeway.

#### 3.4.2 Key Issues

- Some unsealed trails, particularly those in high use and on steeper grades at Fisherman's Bay and around the headland at Crockery Bay and Commodore Point are eroding.
- The Encounter Bikeway is poorly defined beyond the southern extent of Ratalang. As a result, many cyclists use the main unsealed trail from Fisherman's Bay around the Port Elliot Caravan Park to Commodore Point and Horseshoe Bay. This is causing some trail user conflict and is putting additional wear on the established unsealed trail network.
- The main visitor car park at the Caravan Park regularly overflows in peak season with vehicle parking by the roadside back to the Cockle Train line.
- The large car park at the rear of the Caravan Park at the end of Basham Parade is poorly used due to its hidden location.
- The Basham Beach Road car park regularly overflows in peak whale watching seasons (late July – end September) with cars parking along Basham Beach Road back to the Cockle Train line.
- Lack of direct path connections to Port Elliot town centre and Frenchman's Drive residential area.
- During consultation, the community strongly objected to a number of draft car-parking proposals at the Middleton end of Ratalang emphasising the need to protect the natural character of the landscape and minimise the footprint of any additional car parking areas.
- A number of unsealed paths on the northern part of the headland to the east of Fisherman's Bay have exposed midden material and enable public access to culturally sensitive areas.
- Unauthorised access tracks across the dunes can cause erosion and damage to vegetation. Ongoing revegetation of the dunes makes it more difficult for unauthorised access points to be created/used
- There is a strong desire to retain the informal nature of the unsealed path network due its perceived compatibility with the natural coastal form and conservation



#### KEY

- |  |  |  |   |  |  |
|--|--|--|---|--|--|
|  | Main Road                                  |  | Major Walking Path (unsealed)           |  | Unauthorised access tracks identified by the NRA |
|  | Road Link                                  |  | Minor Walking Path (unsealed)           |  |  |
|  | Encounter Bikeway Shared Use Path (sealed) |  | Link Path to Beach (unsealed/duckboard) |  |  |

Figure 6: Existing Access and Circulation

focus of the reserve.

### 3.4.3 Key Opportunities

- Consider trail upgrades at key locations to manage erosion issues. Trails should be upgraded in line with current best practice approaches to trail design ensuring materials used are reflective of the natural coastal environment.
- Improve path alignment and wayfinding signage to provide more legible pedestrian and cycle links between Horseshoe Bay and Ratalang. Encourage cyclists to use Encounter Bikeway rather than unsealed path network.
- Formalise path link to Port Elliot town centre including railway crossing
- Create a link path in existing unmade road reserve to connect residents of Frenchman’s Drive area to Ratalang whilst not restricting use of road reserve for cattle movements between paddocks.
- Investigate potential for a bus drop-off/turnaround point adjacent existing carpark.
- Improve connection between Caravan Park and Encounter Bikeway by formalising existing link path and providing new pedestrian bridge.
- Improve signage for carpark at end of Basham Parade to encourage greater use and reduce parking congestion elsewhere.
- Line mark sealed car park at end of Basham Beach Road to improve efficiency.
- Consider installing a roll-over kerb on southern side of Seaview Avenue, subject to formal assessment of parking needs for whale-watching season.
- Upgrade boardwalk (duck board) and limit dune access at existing dune crossings.
- Minimise the web of walking tracks within the northern headland area to the east of Fisherman’s Bay (via closure and revegetation) and provide a more clearly defined and sign-posted track over the top of the headland.
- Relocate dutch ladder providing access to Sandy Bay and consider wayfinding signage discouraging access to northern part of headland.
- Patrol dunes for creation of new unauthorised access points and deter access via revegetation as and when required.
- Undertake a formal assessment of car-parking needs at the Middleton end of Ratalang which takes into account peak whale-watching season plus desire for minimal disturbance within Ratalang and adjacent Council reserves.
- Paint cyclist warning signs on intersections between Encounter Bikeway, Basham Beach Road and Caravan Park Access Road as per Australian Standards.



Image: Unsealed walking path



Image: Boardwalk at ‘The Gap’



Image: Encounter Bikeway sealed path



Image: Carpark has recently been ressealed

### 3.5 Visitor Facilities and Infrastructure

#### 3.5.1 Introduction

Numerous visitor facilities have been provided within Ratalang over the years to improve the amenity of Ratalang for use by a wide range of people. These elements include:

- Considerable improvements and expansion of facilities with the Port Elliot Caravan Park
- Whale watching platform at Middleton car park
- Boardwalk across low lying area at 'The Gap'
- Outdoor classroom (amphitheatre)
- Interpretive signage and Park maps
- Shelters (adjacent to the main entry car park at Fisherman's Bay and at Crockery Bay)
- Composting toilets (main entry and Basham Beach Road entrance)
- Network of walking trails and a link in the Encounter Way Bikeway

#### 3.5.2 Key Issues

While many of the existing facilities are considered satisfactory, the following issues relating to visitor amenity have been identified;

- Lack of DDA compliant access to key site features including outdoor classroom, Fisherman's Bay, Commodore Point, visitor car park access to Caravan Park, the ruins, viewing platform and toilets.
- Few rest areas (seats and picnic settings) incorporating shade and weather protection
- Trail alignments and locations of facilities are necessarily restricted due to numerous sites of Aboriginal significance
- Limited infrastructure to manage increased numbers of visitors in whale watching season meaning damage can occur in fragile areas on headlands due to unregulated access
- Lack of toilet facilities at Crockery Bay, which is a regular site for indigenous gatherings
- There is a strong desire for furniture, shelter and facility materials and treatments to be compatible with the distinct natural coastal character of the site.
- The caravan park lessees have expressed concern over the lack of irrigated lawn area within the caravan park. The use of sub-surface recycled water is not appropriate in this location so an alternative supply of water for irrigation purposes is required.
- Drainage of flows through Crockery Creek from the north and the risk of flooding near the upstream end of the Caravan Park were identified as key issues to be addressed in the 2015 Port Elliot Stormwater Management Plan.



Image: Informal Picnic Site in Old Ruins



Image: Amphitheatre



Image: Composting Toilet Facilities

**3.5.3 Key Opportunities**

- Upgrade Park entrances and parts of the path network to allow for DDA compliant access to main facilities and key site features.
- Develop additional resting places along the path network that take advantage of key site assets and views and which provide opportunities for a broader spectrum of the public to enjoy Ratalang. Consideration of shade and weather protection sympathetic to the distinct natural coastal character of the site should be included.
- Investigate alternative water sources for irrigation supply to the Caravan Park. Options include stormwater harvesting, storage and reuse from the urban catchment upstream from Crockery Creek (possible scaled wetland at the upper end of the creek adjacent to the Cockle Train Line).
- Integrated management plan for Crockery Creek as identified in the Port Elliot Stormwater Management Plan which identifies works required to manage flooding and improve water quality, biodiversity & cultural heritage outcomes.
- Rationalise access to sensitive cultural heritage areas at Commodore Point. Potential to create path loop and low key timber viewing platform to protect large midden site.
- Construct a low key whale watching platform in a clear location on headland between Crockery Bay and Commodore Point
- Improve facilities at Crockery Bay including timber platform seating, interpretive signage and new public toilet.
- Introduce small scale timber platforms at strategic locations for informal seating and whale watching.
- Increase facilities around existing ruins including additional picnic tables and potential shelter.



Image: Beach Access at Middleton



Image: Interpretive information shelter at Main Entry



Image: Cliff-top walking trail near Fisherman's Bay



Image: The car park at the end of Basham Beach Rd. (Middleton) is heavily used during whale watching season

### 3.6 Wayfinding and Signage

#### 3.6.1 Introduction

Considerable effort has been made to develop signs that assist in wayfinding and which also interpret the many unique attributes of Ratalang. Specifically, signage elements include:

- Main Entry Sign at the Port Elliot Caravan Park entrance
- 'Trail Head' Signage at Commodore Point, the main entrance at Fisherman's Bay and the Middleton end (at the Basham Beach Road Car Park).
- A suite of smaller maps and interpretive signs located at key site features throughout Ratalang.
- An Information Shelter located at the main entrance that interprets the importance of the site to the local Aboriginal people (Ngarrindjeri and Ramindjeri)

#### 3.6.2 Key Issues

- The main entrance to Ratalang off the Victor Harbor – Goolwa Road at Port Elliot is misinterpreted by many tourists to the region as being an entry to the Caravan Park only.
- The intersection of Victor Harbor – Goolwa Road and Basham Beach Road has no identifying signage relating to Ratalang's existence
- The existing interpretive and wayfinding signs located within Ratalang require regular replacement due to exposure to the harsh coastal climate
- Ratalang is lacking clear trail head and wayfinding signage identifying key trails and destinations.
- 2017 name change from Basham Beach Regional Park to Ratalang Basham Beach Conservation Reserve not yet reflected in signage
- Current signage does not adequately reflect Ngarrindjeri people and culture and in some instances contains inappropriate terminology.

#### 3.6.3 Key Opportunities

- Develop major Park Entry signs at the 2 key vehicular accesses off Victor Harbor – Goolwa Road (Port Elliot and Middleton).
- Consider an alternative more durable material for any future signs and upgrades (e.g. vitreous enamel)
- Improve wayfinding signage for the Encounter Bikeway to provide a more legible link from Horseshoe Bay to Basham Beach.
- Develop a suite of wayfinding signs and markers that identify the various trails and destinations within Ratalang.
- Introduce park signage facing railway line to raise awareness of Ratalang to Cockle train passengers
- Update all signage to reflect name adopted in 2017: "Ratalang Basham Beach Conservation Reserve".
- Remove all current signage that is inset into granite rock and overturn rocks to protect cultural health of Ratalang.
- Update signage throughout Ratalang to adequately reflect Ngarrindjeri people and culture and to discourage public access to sensitive cultural heritage areas.



Image: Point of unclear journey along Encounter Bikeway at Middleton



Image: Entry statement at Middleton entrance of Ratalang



Image: Interpretive signage at the indigenous food and medicine garden



Image: Main entry sign - Port Elliot Caravan Park

### 3.7 Education and Tourism

#### 3.7.1 Introduction

Due to its unique natural location, a successful ongoing revegetation program and a rich cultural history (Indigenous and European), Ratalang has very strong tourism and educational assets.

Ratalang, particularly the Encounter Bikeway, beaches and headland walking trails, is very popular with both locals and visitors and is used for a range of activities including walking, whale watching, fishing, swimming, cycling, body boarding and surfing.

The site already features strong educational elements including a network of interpretive signage, an indigenous interpretive shelter, an outdoor classroom (amphitheatre) and a native bush food garden.

Current education programs include an ongoing cultural program with Ngarrindjeri and Ramindjeri children as well as regular visits from school groups for tree planting and environmental/cultural education. The Natural Resource Management Board (NRM) also conducts training field trips to Ratalang.

Due to its successful revegetation programme, Ratalang provides a valuable source as a seedbank, particularly from the native grass meadows.

#### 3.7.2 Key Issues

- Lack of knowledge and way-finding signage to direct visitors to Ratalang from the Victor Harbor – Goolwa Road, Horseshoe Bay and Caravan Park
- Lack of on site training facilities or on-site accommodation for school groups

#### 3.7.3 Key Opportunities

- Introduce educational walking tours during tourist season which could have an environmental and/or cultural focus.
- Develop an on-site education centre dedicated to Ratalang. A feasibility report for such a centre has already been undertaken.
- Explore using the old dairy as a low-key education facility/on-site classroom. Consider providing vehicle access to dairy education facility from Basham Beach Road. Location of access track should minimise disturbance to Pleasant Banks.
- Introduce eco-tourism accommodation for larger school/university groups as an extension to the Caravan Park
- Improve visitor facilities including wayfinding/interpretive signage, shelters, seating and path condition
- Restore historic copper mine for improved safety and educational benefit.
- Explore the introduction of experimental native grass seed crops in the existing agricultural zone
- Reinststate windmill at Middleton end of the Park for water harvesting and education subject to environmental authority approval.
- Introduce low-key meandering pathways through new revegetation catering for less able park visitors. Include interpretation of local vegetation and landscape character.



Image: The reserve can be used to educate people about the fragile coastal ecosystem



Image Historic Copper Mine Shaft



Image: Outdoor classroom/amphitheatre

# Chapter 4

## Master Plan Proposals

### 4.1 Master Plan Intent

Ratalang Basham Beach Conservation Reserve is a landscape of significant importance to the South Coast region with numerous environmental, cultural and recreational assets. The purpose of this Master Plan is to provide Council with a clearly articulated, guiding document to inform the ongoing management and development of Ratalang with a key priority being the protection of Ratalang's natural and cultural assets, while also providing a sustainable growth strategy for recreation, tourism, and education.

As a result of the study process, which included consultation with key stakeholders, detailed site analysis and review of the existing 1995 Master Plan and 2000 Master Plan Audit, a number of key recommendations have been made as follows. These recommendations have been developed in line with the Vision and Guiding Principles established through extensive initial consultation.

### 4.2 Key Recommendations

#### 4.2.1 Introduction

The following section provides details of the key Master Plan recommendations, on a zone by zone basis. (Refer to Figure 2 on Page 9 of this report for the zone map.) Recommendations have been rated according to priority as per the following guide:

- High: 0-2 years
- Medium: 2-10 Years
- Low: 10-20 Years
- Ongoing – these actions are considered to be of highest priority hence their ongoing nature

#### 4.2.2 Zone 1: Horseshoe Bay

##### Description

This zone includes Commodore Reserve and the northern section of Horseshoe Bay, a popular family friendly beach. The zone also includes remnant foredunes between the beach and the Caravan Park where significant revegetation effort has been made over the last 30 years.

Generally Commodore Reserve is in good condition, with a number of facilities provided including a large irrigated turf area, picnic shelters, bins, an amenities block and a playground.

##### Recommendations

Recommendation	Priority
Continue conservation efforts in foredunes and monitor beach access paths through the dunes, providing dune protection fencing if required.	Ongoing
Create a link path through Commodore Reserve from the carpark to the Caravan Park. Consider in conjunction with any future Masterplanning for Horseshoe Bay.	Medium

#### 4.2.3 Zone 2: Port Elliot Caravan Park

##### Description

This zone encompasses the Port Elliot Caravan Park and all its associated facilities including caravan and camping sites, cabins, office and kiosk buildings, car parking, public conveniences, shelters and recreation facilities.

##### Recommendations

Recommendation	Priority
Improve alignment and wayfinding signage for the Encounter Bikeway at the Basham Parade carpark to provide a more legible link from Horseshoe Bay to Basham Beach.	High
Investigate alternative water sources for irrigation supply to the main turf activity areas of the Caravan Park. Options include stormwater harvesting, storage and re-use from the urban catchment upstream from Crockery Creek (possible scaled wetland at the upper end of the creek adjacent to the Cockle Train Line).	High



Image: Port Elliot Caravan Park



Image: Views from Commodore Point

#### 4.2.4 Zone 3: Commodore Point

##### Description

This zone encompasses Commodore Point headland extending to the Caravan Park boundary and Crockery Bay. Commodore Point is an elevated calccrete/granite headland which forms a significant vantage point with high quality views to Horseshoe Bay, Freemans Knob, Pullen Island and Middleton and includes informal walking trails and heathland revegetation. Due to the quality views, the headland is a popular point for whale watching during winter, which can lead to mass crowds, and subsequent erosion and damage to the fragile cliff-top ecology. This whale viewing area is situated at the centre of a large midden and installation of a viewing platform is urgently needed in this location to protect cultural heritage material from continued degradation.

##### Recommendations

Recommendation	Priority
Continue revegetation and weed control program.	Ongoing
Restrict access to sensitive cultural heritage areas at Commodore point. Install timber viewing platform to focus whale watching activity in designated areas and provide signage to educate and deter visitors from wandering further onto Commodore Point.	High
Install whale watching platform in clear grassed location on headland between Commodore Point and Crockery Bay.	Medium
Realignment and surface upgrade the main walking path from Crockery Bay to Commodore Reserve as necessary to improve safety and access. Ensure the current natural coastal aesthetic is maintained with appropriate material and surfacing selections.	Medium

**4.2.5 Zone 4: Crockery Bay**

This zone encompasses the extent of Crockery Bay including the small sheltered bay and surrounding rocky headlands, dunes and flat grassed recreation zone. The zone also includes the Crockery Creek outlet, a shelter with indigenous interpretive mural and informal path connections to Commodore Point, the Caravan Park, the Pink Granite Cliffs and Main Park Entry.

**Recommendations**

Recommendation	Priority
Continue revegetation and weed control program with potential to introduce additional trees for shade.	Ongoing
Integrated management plan for Crockery Creek as identified in the Port Elliot Stormwater Management Plan which identifies works required to manage flooding and improve water quality, biodiversity & cultural heritage outcomes.	High
Undertake riparian revegetation along Crockery Creek to improve water quality and increase biodiversity.	High
Improve facilities including timber platform seating, interpretive signage and bins.	Medium
Upgrade existing creek crossing.	Medium
Realignment and surface upgrade the main walking path from Commodore Point to improve safety and access. Ensure the current natural coastal aesthetic is maintained with appropriate material and surfacing selections.	Medium



Image: Opportunity for platform seating and additional trees at Crockery Bay



Image: Fisherman's Bay

**4.2.6 Zone 5: Pink Granite Cliffs and Fisherman's Bay (Sandy Bay)**

This zone includes the Port Elliot Park entry focus area, Fisherman's (Sandy) Bay and the Pink Granite Cliffs and headland to Crockery Bay. This zone has many key features including mature revegetation, an indigenous interpretive shelter, a native food and medicine garden, toilet facilities and outdoor classroom. Fisherman's Bay provides a sheltered sandy bay good for families, snorkeling and fishing, while the natural walking trails along the Pink Granite cliffs feature high quality coastal views, extensive heathland revegetation, interpretive signage and historic quarry site. 'The Chicken Run' a granite spit at Fishermans Bay, provided a popular bodyboarding spot.

This zone is of particular cultural significance to the Ngarrindjeri and Ramindjeri people and includes a number of sites of importance including middens and the 'Seal' rock blowhole, which forms part of the dreamtime story of Ngurunderi.

The various walking tracks are well used however the main walking track to Fisherman's Bay has become eroded in sections.

**Recommendations**

Recommendation	Priority
Continue revegetation and weed control program.	Ongoing
Retain natural, informal character and form of existing headland walking trails.	Ongoing
Minimise the web of walking tracks within the northern headland area to the east of Fisherman's Bay (via closure and revegetation) and provide a more clearly defined and sign-posted track over the top of the headland.	High
Relocate dutch ladder providing access to Fisherman's Bay and consider wayfinding signage discouraging access to northern part of headland.	High
Develop adaptation strategies to prevent trampling of vegetation on dune above Fisherman's Bay at high tide.	High

Realignment and surface upgrade of the walking path from main entry to Fisherman's Bay and Crockery Bay (as shown on Master Plan drawing) as necessary to improve safety and access. Ensure the current natural coastal aesthetic is maintained with appropriate material and surfacing selections.	Medium
Introduce small scale timber platforms at strategic locations near Fisherman's Bay for informal seating, picnics and whale watching. Ensure sites are selected so no damage is caused to existing revegetation.	Medium

**4.2.7 Zone 6: Main Park Entry**

This zone encompasses the Main Park Entry at Port Elliot including the entry road, main carpark and Port Elliot Caravan Park overflow carpark as well as coastal heathland and open native grass meadows. This zone also contains the majority of Crockery Creek which runs through the site and is currently in a degraded, weedy condition.

**Recommendations**

Recommendation	Priority
Continue revegetation and weed control program.	Ongoing
Formalise path link to Port Elliot town centre including safe railway crossing.	High
Initiate a wetland revegetation program along the extent of Crockery Creek for increased biodiversity and improved water quality.	High
Improve Crockery Creek crossings for pedestrians and cyclists.	High
Improve connection between Caravan Park and Encounter Bikeway by formalising existing unsealed link path and providing new pedestrian bridge.	Medium
Improve park signage at the main Port Elliot entry point on the Victor Harbor-Goolwa Road.	Medium
Investigate potential for a future bus turnaround/drop off zone adjacent main carpark.	Low
Retain open grassed site to the South West of the entry road for future caravan park extension including accommodation for educational tour groups.	Low

**4.2.8 Zone 7: Basham Beach and Dunes**

This zone encompasses the extent of Basham Beach, a long sandy beach backed by coastal dunes with significant revegetation and biodiversity value. It includes three existing beach access paths through the dunes.

**Recommendations**

Recommendation	Priority
Continue revegetation and weed control program.	Ongoing
Upgrade boardwalk at 'The Gap' to address structural issues.	High
Provide low-key resting place including shelter and seating at 'The Gap'.	High
Close and revegetate unauthorised walking tracks through the dunes and introduce signage to direct visitors onto approved beach access points.	High

**4.2.9 Zone 8: Basham Beach Hinterland**

This zone encompasses the coastal plain behind the Basham Beach dunal system and features significant areas of heathland and grassland revegetation. The zone includes historic ruins and farm buildings, a wetland, interpretive signage and rustic seating spots, as well as a network of cycle and walking paths. Some areas of this zone are still used for livestock agistment.

**Recommendations**

Recommendation	Priority
Continue revegetation and weed control program.	Ongoing
Retain natural character of existing walking paths with regular maintenance to ensure adequate fire track access.	Ongoing
Undertake a formal assessment of car-parking needs at the Middleton end of Ratalang.	High
Establish a new low-key educational / interpretive centre at the old dairy.	Medium
Establish new walking trails for less abled and younger children within newly revegetated areas near the carpark.	Medium
Reinstate windmill for water harvesting and education subject to environmental authority approval.	Medium
Create a link path in existing road reserve to connect residents of Frenchman's Drive area to Ratalang.	Medium
Upgrade dilapidated stock fencing to Pleasant Banks in rural style.	Medium
Increase facilities and interpretive material adjacent existing ruins including additional picnic tables, potential shelter and Interpretive material.	Medium
Restore historic copper mine for improved safety and educational benefit.	Medium
Explore the introduction of experimental native grass seed crops in existing agistment paddocks.	Low
Introduce park signage facing railway line to raise awareness of Ratalang to Cockle train passengers.	Low

**4.2.10 Overall Park Recommendations**

**Description**

The following recommendations apply to Ratalang as a whole and include wayfinding signage strategies and overall management opportunities

**Recommendations**

Recommendation	Priority
Continue to engage community volunteers, indigenous and school groups in the revegetation programme, in seed collection, plant propagation and planting, to reinforce the feeling of ownership of Ratalang within the community.	Ongoing
Continue to implement and update the 5-year Weed Management Plan & Mowing Regime and consider undertaking GPS mapping of pest plants.	High
Investigate an alternative more durable material for any future signs and upgrades (e.g. vitreous enamel).	High
Ensure continual protection of all sites of Aboriginal significance	High
Consider options for demarking planted areas and areas where natural regeneration of native grasses is occurring to prevent damage by visitors and maintenance workers.	High
Develop a suite of wayfinding signs and markers that identify the various trails and destinations within Ratalang.	High
Continue ongoing rabbit & fox monitoring program and initiate control measures as required.	High
Establish a comprehensive feral animal management plan separate to this Master Plan.	High
Ensure local residents & visitors are made aware of policies regarding dog access and increase compliance presence within Ratalang to monitor and police dogs off leash.	High
Review Development Plan zoning to ensure it most appropriately reflects conservation focus of reserve.	High
Introduce educational walking tours during tourist season which could have an environmental and/or cultural focus.	Medium
Improve park signage at major entry points from the Victor Harbor-Goolwa Road.	Medium
Undertake coastal hazard assessment and develop adaptation plans in response to climate change impacts.	Medium



Image: Existing Dairy Building



Image: Existing boardwalk at The Gap

**4.3 Site Master Plan**

The site Master Plan can be found on the following page.



**KEY**

- |   |   |   |   |   |
|---|---|---|---|---|
| 01. Improve park signage at major entry points from the Victor Harbor-Goolwa Road.  | 08. Existing carpark recently formalised. Consider planting and public art to emphasise entry.  | 15. Potential whale watching platform in clear location on headland.  | 22. Introduce park signage facing railway line to raise awareness of the park to Cockle train passengers.   | 29. Convert existing dairy building into a low-key education facility including outdoor classroom. Possible storage for park maintenance equipment if necessary.              |
| 02. Introduce wayfinding signage at key nodes/ trail heads. Include additional seating and shelter areas at key node points.  | 09. Potential future bus turnaround/drop off zone adjacent main carpark.  | 16. Improve facilities at Crockery Bay including timber platform seating, interpretive signage and new public toilet.   | 23. Create a link path in existing road reserve to connect residents of Frenchman's Drive area to the park.   | 30. Introduce new path link to Education Centre.  |
| 03. Formalise path link to Port Elliot town centre including safe railway crossing.   | 10. Potential site for future caravan park upgrade including accommodation for educational tour groups.   | 17. Undertake riparian revegetation along Crockery Creek to improve water quality and increase biodiversity. Explore potential to create scaled wetland basin and stormwater harvesting and reuse within caravan park site. | 24. Restore historic copper mine for improved safety and educational benefit.   | 31. Introduce low key meandering pathways through new revegetation catering for less abled park visitors. Include interpretation of local vegetation and landscape character. |
| 04. Formalise pedestrian/cycle route (sealed path) and improve connection to caravan park with new pedestrian bridge.   | 11. Existing Caravan Park overflow carpark recently formalised.   | 18. Improve creek crossings for pedestrians and cyclists.   | 25. Retain rural pasture adjacent Pleasant Banks. Review area of grazing licence at the end of each 5 year term. Potential to explore the introduction of experimental native grass seed crops. | 32. Line mark carpark at end of Basham Beach Road and undertake formal assessment of parking needs at Middleton end of Ratalang.  |
| 05. Realignment and surface upgrades to key walking paths if necessary to improve safety and access. Ensure the current natural coastal aesthetic is maintained with appropriate material and surfacing selections. | 12. Improve signage for carpark at the end of Basham Parade to promote greater use and reduce parking congestion in nearby areas.   | 19. Minimise web of walking tracks within the northern headland area and discourage public access to sensitive areas.   | 26. Upgrade dilapidated stock fencing to Pleasant Banks in rural style.   |   |
| 06. Retain natural character of existing hinterland walking paths ensuring adequate fire track access.  | 13. Maintain Commodore Reserve recreation area including dune rehabilitation. Consider creating sealed path link in conjunction with any future Masterplanning for Horseshoe Bay. | 20. Potential to introduce small scale timber platforms at strategic locations for informal seating and whale watching.   | 27. Increase facilities and interpretive material around existing ruins including additional picnic tables and potential shelter.   |   |
| 07. Retain natural character and form of existing headland walking trails.  | 14. Rationalise access to fragile areas at Commodore Point by creating path leading to viewing platform.  | 21. Upgrade boardwalk and limit dune access at  | 28. Reinstate windmill for water harvesting and   |   |

**LEGEND**

- Wayfinding signage at key node points
- Encounter Bikeway (Shared Use Path)
- Existing walking path
- Existing natural walking trail
- Proposed sealed path (bitumen)
- Proposed unsealed walking path
- Upgraded path
- Native coastal heathland revegetation
- Native grassland
- Rural Pasture/ Grazing
- Irrigated turf
- New rural fencing

**Ratalang Basham Beach Conservation Reserve | Master Plan Renewal**

ASPECT Studios™

**NOTE:** This plan is based on an aerial image meaning scale is indicative only

Client: **Alexandrina Council**

Drawn: **AD**  
Checked: **TC**

Scale: **1:3000@A1**  
Date: **January 2018**



Dwg no.: **12043-SK01**  
Rev: **D**

**Landscape Master Plan**

## Chapter 4 **Master Plan Proposals**

### **4.4 Detail Plans**

The following pages contain Detail Plans highlighting two specific focus areas;

- Commodore Point and Crockery Bay
- Middleton (Eastern) Park Entry



### KEY

- |  |  |  |
|--|--|--|
| 01. Introduce 'National Park' style wayfinding signage at key nodes/ trail heads. Include additional seating and shelter areas at key node points.   | 04. Create low key timber viewing platforms at key locations to consolidate and channel whale watching activity.   | 08. Undertake riparian revegetation along Crockery Creek to improve water quality and increase biodiversity and cultural health. |
| 02. Realignment and surface upgrade to key walking path to improve safety and access. Ensure the current natural coastal aesthetic is maintained with appropriate material and surfacing selections. | 05. Potential larger timber whale watching platform in clear location on headland.   | 09. Improve creek crossing for pedestrians and cyclists.   |
| 03. Rationalise access to fragile areas at Commodore Point by creating an unsealed (compacted rubble) path leading to viewing platform and installing protecting dune fencing where necessary.       | 06. Improve facilities at Crockery Bay with new public toilet near existing shelter and additional tree planting.  | 10. Retain natural character and form of existing headland walking trails.   |
|  | 07. Introduce small scale timber platforms for informal seating and whale watching. Potential to incorporate interpretive material as part of platforms. | 11. Revegetate areas of Commodore Point to protect Aboriginal heritage and discourage public access outside of path network.     |

### LEGEND

-  Wayfinding signage at key node points
-  Existing natural walking trail
-  Proposed unsealed walking path
-  Upgraded walking path
-  Native coastal heathland revegetation
-  Native grassland
-  Irrigated turf

## Ratalang Basham Beach Conservation Reserve | Master Plan Renewal

ASPECT Studios™

NOTE: This plan is based on an aerial image meaning scale is indicative only

Client: Alexandrina Council

Drawn: AD  
Checked: TC

Scale: 1:750@A1  
Date: January 2018



Dwg no.: 12043- SK02  
Rev: D

## Landscape Detail Plan - Commodore Point & Crockery Bay



**KEY**

- 01. Introduce wayfinding signage at key nodes/ trail heads. Include additional seating and shelter areas at key node points.
- 02. Retain natural character of existing hinterland walking paths ensuring adequate fire track access.
- 03. Retain rural pasture adjacent Pleasant Banks. Review area of grazing licence at end of each 5-year term. Potential to explore introduction of experimental native grass crops in the long term.
- 04. Upgrade dilapidated stock fencing to Pleasant Banks in rural style.
- 05. Increase facilities and interpretive material around existing ruins including additional picnic tables and potential shelter.
- 06. Reinstate windmill for water harvesting and education subject to environmental authority approval.
- 07. Convert existing dairy building into a low-key education facility including outdoor classroom. Possible storage for park maintenance equipment if necessary.
- 08. Introduce new path link to Education Centre.
- 09. Introduce low key meandering pathways through new revegetation catering for less abled park visitors. Include interpretation of local vegetation and landscape character.
- 10. Introduce line marking to carpark at the end of Basham Beach Road.
- 11. Undertake formal assessment of parking needs at Middleton end of Ratalang. Consider rollover kerb on southern side of Seaview Avenue.
- 12. Retain heritage Fig Trees planted in 1800's.
- 13. Introduce cyclist warning signs to Basham Beach Rd at bikeway crossing as per Australian Standards.

**LEGEND**

- Wayfinding signage at key node points
- Encounter Bikeway (Shared Use Path)
- Existing walking path
- Proposed unsealed walking path
- Existing natural beach access path
- Native coastal heathland revegetation
- Native grassland
- Rural Pasture/ Grazing
- New rural fencing



### 4.5 Materials and Precedents

#### MATERIALS



Local stone (Limestone)



Recycled hardwood timber



Corten steel

#### WAYFINDING SIGNAGE



Natural style wayfinding signage



#### PATH TREATMENT



Exposed aggregate concrete



Informal compacted rubble path



Coloured bitumen

#### VIEWING PLATFORMS



Timber viewing platforms



#### CARPARK TREATMENT



Native planting, limestone boulders and timber posts



#### INTERPRETIVE SIGNAGE & PATH INLAYS



Vitreous enamel interpretive signage



Interpretive path inlays



Rural style interpretive signage



Interpretive sculpture

#### FURNITURE



Timber platform



Recycled timber log seat (on site)



Recycled timber shelter

#### FENCING



Timber post and wire stock fencing

#### CREEK REVEGETATION



Indigenous wetland revegetation

### 4.6 Recommended Revegetation Species Lists

#### 4.6.1 Introduction

The following species lists are based on plant species considered suitable by the NRA for Ratalang.

#### 4.6.2 Primary Dune Revegetation Species

Plant Species	Common Name
<b>Understory</b>	
<i>Acacia cupularis</i> (prostrate form)	Prostrate Wattle
<i>Actites magalocarpus</i>	Dune Thistle
<i>Carpobrotus rossii</i>	Pigface
<i>Ficinia nodosa</i>	Knobby Club-rush
<i>Leucophyta brownii</i>	Coast Cushion Bush
<i>Kunzea pomifera</i>	Muntries
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum
<i>Pimelea serpyllifolia</i>	Thyme Rice Flower
<i>Senecio pinnatifolius</i>	Variable Groundsel
<i>Spinifex hirsutus</i>	Rolling Spinifex
<i>Threlkeldia diffusa</i>	Coast Bonefruit
<b>Midstory</b>	
<i>Acacia longifolia</i> var. <i>sophorae</i>	Coastal Wattle
<i>Atriplex cinerea</i>	Coast Saltbush
<i>Myoporum insulare</i>	Boobialla
<i>Olearia axillaris</i>	Coastal Daisy Bush
<i>Ozothamnus turbinatus</i>	Coast Everlasting
<i>Rhagodia candolleana</i>	Coastal Ruby Saltbush
<i>Scaevola crassifolia</i>	Cushion Fanflower)

#### 4.6.3 Secondary Dune Revegetation Species

Plant Species	Common Name
<b>Understory</b>	
<i>Acacia cupularis</i> (prostrate form)	Prostrate Wattle
<i>Actites magalocarpus</i>	Dune Thistle
<i>Adriana quadripartita</i>	Coast Bitter Bush
<i>Atriplex semibaccata</i>	Berry Saltbush
<i>Billardiera cymosa</i>	Sweet Apple-berry
<i>Carpobrotus rossii</i>	Pigface
<i>Dianella brevicaulis</i>	Peeintuck
<i>Disphyma crassifolium</i>	Round Leaf Pigface
<i>Einadia nutans</i>	Climbing Saltbush
<i>Enchylaena tomentosa</i>	Ruby Salt Bush
<i>Ficinia nodosa</i>	Knobby Club-rush
<i>Geranium solanderi</i>	Native Geranium
<i>Goodenia amplexans</i>	Clasping Goodenia
<i>Kennedia prostrata</i>	Scarlet Runner
<i>Kunzea pomifera</i>	Muntries
<i>Leucophyta brownii</i>	Coast Cushion Bush
<i>Lotus australis</i>	Austral Trefoil
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum
<i>Pelargonium australe</i>	Austral Stork's Bill
<i>Pimelea serpyllifolia</i>	Thyme Rice Flower
<i>Poa poiformis</i>	Coast Tussock Grass
<i>Pomaderris paniculosa</i>	Pomaderris
<i>Scaevola albida</i>	Pale Fanflower
<i>Senecio pinnatifolius</i>	Variable Groundsel
<i>Spinifex hirsutus</i>	Rolling Spinifex
<i>Tetragonia implexicoma</i>	Bower Spinach
<i>Threlkeldia diffusa</i>	Coast Bonefruit
<b>Midstory</b>	
<i>Acacia cupularis</i>	Cup Wattle
<i>Acacia ligulata</i>	Umbrella Bush
<i>Acacia longifolia</i> var. <i>sophorae</i>	Coastal Wattle
<i>Atriplex cinerea</i>	Coast Saltbush
<i>Leucopogon parviflorus</i>	Coast Beard-heath
<i>Myoporum insulare</i>	Boobialla
<i>Olearia axillaris</i>	Coastal Daisy Bush
<i>Ozothamnus turbinatus</i>	Coast Everlasting
<i>Rhagodia candolleana</i>	Coastal Ruby Saltbush
<i>Scaevola crassifolia</i>	Cushion Fanflower)
<b>Overstory</b>	
<i>Exocarpus syrticola</i>	Native Cherry

#### 4.6.4 Creek Revegetation Species

Plant Species	Common Name
<b>Understory</b>	
<i>Apium prostratum</i>	Sea Celery
<i>Cyperus gymnocaulos</i>	Spiny Flat Sedge
<i>Cyperus vaginatus</i>	Flat Sedge
<i>Einadia nutans</i>	Climbing Saltbush
<i>Ficinia nodosa</i>	Knobby Club-rush
<i>Frankenia pauciflora</i>	Common Sea Heath
<i>Ghania filum</i>	Thatching Grass
<i>Geranium solanderi</i>	Native Geranium
<i>Goodenia amplexans</i>	Clasping Goodenia
<i>Goodenia varia</i>	Hop Goodenia
<i>Juncus kraussii</i>	Sea Rush
<i>Kennedia prostrata</i>	Scarlet Runner
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum
<i>Pimelea serpyllifolia</i>	Thyme Rice Flower
<i>Samolus repens</i>	Creeping Brookweed
<i>Senecio pinnatifolius</i>	Variable Groundsel
<i>Threlkeldia diffusa</i>	Coast Bonefruit
<b>Midstory</b>	
<i>Bursaria spinosa</i>	Christmas Bush
<b>Overstory</b>	
<i>Melaleuca halmaturorum</i>	Saltwater Paperbark

4.6.5 Wetland Revegetation Species

Plant Species	Common Name
<b>Understory</b>	
<i>Apium prostratum</i>	Sea Celery
<i>Cyperus gymnocaulos</i>	Spiny Flat Sedge
<i>Cyperus vaginatus</i>	Flat Sedge
<i>Einadia nutans</i>	Climbing Saltbush
<i>Ficinia nodosa</i>	Knobby Club-rush
<i>Frankenia pauciflora</i>	Common Sea Heath
<i>Ghania filum</i>	Thatching Grass
<i>Juncus kraussii</i>	Sea Rush
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum
<i>Pimelea serpyllifolia</i>	Thyme Rice Flower
<i>Samolus repens</i>	Creeping Brookweed
<i>Senecio pinnatifolius</i>	Variable Groundsel
<i>Threlkeldia diffusa</i>	Coast Bonefruit
<b>Midstory</b>	
<i>Myoporum insulare</i>	Boobialla
<b>Overstory</b>	
<i>Melaleuca halmaturorum</i>	Saltwater Paperbark

4.6.6 Inland Species

Plant Species	Common Name
<b>Understory</b>	
<i>Acacia cupularis (prostrate form)</i>	Prostrate Wattle
<i>Acaena novae-zelandiae</i>	Bidgee-widgee
<i>Adriana quadripartita</i>	Coast Bitter Bush
<i>Atriplex semibaccata</i>	Berry Saltbush
<i>Austrostipa flavescens</i>	Coastal spear grass
<i>Billardiera cymosa</i>	Sweet Apple-berry
<i>Carpobrotus rossii</i>	Pigface
<i>Correa reflexa</i>	Common Correa
<i>Dianella brevicaulis</i>	Peeintuck
<i>Dianella revoluta</i>	Black-anther Flax Lily
<i>Disphyma crassifolium</i>	Round Leaf Pigface
<i>Einadia nutans</i>	Climbing Saltbush
<i>Enchylaena tomentosa</i>	Ruby Salt Bush
<i>Ficinia nodosa</i>	Knobby Club-rush
<i>Goodenia amplexans</i>	Clasping Goodenia
<i>Goodenia varia</i>	Hop Goodenia
<i>Kennedia prostrata</i>	Scarlet Runner
<i>Kunzea pomifera</i>	Muntries
<i>Lomandra effusa</i>	Scented mat rush
<i>Muehlenbeckia gunnii</i>	Coastal Climbing Lignum
<i>Pimelea glauca</i>	Smooth Rice Flower
<i>Pimelea serpyllifolia</i>	Thyme Rice Flower
<i>Pomaderris paniculosa</i>	Pomaderris
<i>Rytidosperma setacea</i>	Bristly Wallaby Grass
<i>Scaevola albida</i>	Pale Fanflower
<i>Senecio pinnatifolius</i>	Variable Groundsel
<i>Tetragonia implexicoma</i>	Bower Spinach
<i>Themeda australis</i>	Kangaroo Grass
<i>Vittadinia gracilis</i>	Woolly New Holland Daisy
<i>Vittadinia blackii</i>	Narrow leaf New Holland Daisy
<b>Midstory</b>	
<i>Acacia cupularis</i>	Cup Wattle
<i>Acacia dodonaefolia</i>	Sticky Wattle
<i>Bursaria spinosa</i>	Christmas Bush
<i>Dodonaea viscosa</i>	Sticky Hop Bush
<i>Myoporum insulare</i>	Boobialla
<i>Olearia axillaris</i>	Coastal Daisy Bush
<i>Rhagodia candolleana</i>	Coastal Ruby Saltbush
<i>Solanum laciniatum</i>	Cut-leaf Kangaroo-apple, Mookitch
<b>Overstory</b>	
<i>Allocasuarina verticillata</i>	Drooping Sheoak
<i>Banksia marginata</i>	Silver Banksia
<i>Banksia ornata</i>	Desert Banksia
<i>Eucalyptus fasciculosa</i>	Pink Gum
<i>Hakea mitchellii</i>	Desert hakea
<i>Melaleuca lanceolata</i>	Dryland Tea Tree
<i>Melaleuca halmaturorum</i>	Saltwater Paperbark

# Appendix A: Ngarrindjeri Heritage Committee Inc. (NHC) - Risk Management Protocols

## Ngarrindjeri Heritage committee Inc. (NHC) - Risk Management Protocols

For proposed activities that involve earth disturbance within the *Ngarrindjeri and Others Native Title Claim* area the following risk management procedures are carried out by the NHC.

1. The organisation proposing the works is asked for all maps and plans pertaining to the works.
2. The plans and maps are analysed, advice is sought from the appropriate Ngarrindjeri Elders and an inspection of the area is carried out by representatives from the NHC and the Ngarrindjeri Native Title Management Committee Inc.
3. Information derived from both the survey and discussion with Elders is then used to decide whether or not monitors are needed to oversee the proposed activities in order to lower the risk of damage, disturbance or interference to Ngarrindjeri cultural heritage. If the NHC considers the activities will have a low chance of damaging or disturbing cultural heritage, occasional visits by the heritage specialist and/or cultural rangers to the work site are usually considered adequate. However if there is thought to be a medium to high chance of damage or disturbance, monitors will be recommended and the NHC will attempt to further lower the perceived danger to cultural heritage by suggesting alterations to the design or alignment of the works.
4. At the first sign of any damage or disturbance or imminent damage or disturbance to cultural heritage during the earth disturbing works, the monitors stop the relevant excavation machine and alert the manager of the works, the manager of the NHC and the heritage specialist.
5. The NHC manager and or heritage specialist then visits the site as soon as possible to ascertain whether or not cultural heritage materials are indeed in danger of damage disturbance or interference.
6. If cultural heritage has been encountered (but is not human remains) the location is flagged off and discussions are held between the proponent and NHC reps as to the best way forward while protecting the cultural heritage from further disturbance. The Department of State Development, Aboriginal Affairs and Reconciliation SA (DSD-AAR) is contacted and kept up to date with the situation as it develops.
7. If it is found the works have damaged or disturbed Ngarrindjeri Old People, protocols stipulated by DSD-AAR are immediately adhered to:
  - The location of the Old People is flagged off and supervised to ensure there is no disturbance to what may turn out to be a crime scene.
  - SAPOL and DSD-AAR are instantly informed of the situation by the manager of the NHC, the heritage specialist or the works manager.
  - SAPOL and Forensics SA will then visit the scene and assess whether or not the human remains are indeed Ngarrindjeri Old People.
  - If the remains are Old People, the NHC takes control of their recovery (if required) and subsequent reburial.

**Note:** If cultural heritage is disturbed, the NHC will attempt to provide solutions to the works continuing as soon as practical. These solutions typically include, supporting realignment or relocation of the works or suggesting and supporting other variations to the planned works.

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