



Council Management Plan

Middleton Beach (Including Emu Point Foreshore)

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Revision Status

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PART 1: EXECUTIVE SUMMARY

1.1 Introduction

This management plan outlines the background and issues relevant to the Middleton Beach and Emu Point Reserves and provides a framework for the future management, in particular, the sustainability and environmental protection of the area. The actions identified by this plan can be summarized as follows;

- Protect and enhance the nature conservation values of the Reserves
- Maintain existing recreational uses of the foreshore
- To enhance the ecological value of the Reserve (and vegetation corridor value)
- Recognise and protect heritage value
- Retain the value of the area as Albany's Premier Tourist destination.

It must be noted that this plan is an environmental management plan and the City of Albany acknowledges that there are many larger issues such as the sea wall and groyne, the loss of seagrass and planning elements that are outside the scope of this document. Each of these issues requires specialist advice that will be dealt with through other technical reports.

1.2 Financial Summary

Funding for the implementation of this plan is principally provided through the City of Albany annual operational budgets although there are a number of external funding opportunities that may be used for one off individual projects. These opportunities include Coastwest Grants, Lotteries West, Caring For Our Country Grant Programmes, Royalties for Regions and South Coast Natural Resource Management Grants. These funding opportunities are subject to evaluation from various Western Australian Government Bodies.

1.3 Strategic Context

The City's Strategic Plan 'Albany Insight – Beyond 2020' sets out the vision for Albany to 2025. The City plans to sustainably manage its Reserve network to achieve the following strategic objectives;

Item 1 – Lifestyle & Environment

Albany will be western Australia's regional City of first choice offering a diverse range of healthy and active lifestyle opportunities, with energy efficient housing and development that respects our environment.

Albany will be a City where...

- *Recreational facilities provide a diverse range of sporting and exercise opportunities*

Development...

- *Responds to our unique historical and environmental values;*
- *Incorporates healthy lifestyle activities and access to green space.*

- *The long term problems of climate change ... have been recognised and responded to.*

Item 4 – Governance

The City of Albany will be an industry leader in good governance and service delivery.

- *Manage our municipal assets to ensure they are capable of supporting our growing community*

To ensure this objective, the Reserves network must be maintained in an environmentally sensitive and sustainable manner to ensure that;

- The City delivers an excellent community asset
- The City provides an area for healthy living
- The City protects areas with biodiversity value.

There are many State and Federal legislative requirements that the City of Albany must take into consideration as a part of this management plan and its recommended actions. The legislation particularly relevant to this plan includes:

- Aboriginal Heritage Act, 1972
- Agriculture and Related Resources Protection Act, 1976
- Commonwealth Environment Protection and Biodiversity Conservation Act, 1999
- Fisheries Management Act, 1991
- Land Administration Act, 1997
- Wildlife Conservation Act, 1950.

1.4 Acknowledgements

The following groups and individuals have played important roles in the development and production of the Middleton Beach Management Plan. It is also recognised that this plan has been partly funded by a Coastwest funding grant.

Key Stakeholders	Role
Western Australian Planning Commission – Coastal Management Plan Assistance Program (CMPAP)	Provided part funding for the development of the plan
Council – City of Albany	To set vision and approve budgets
Asset Management and City Services Policy and Strategy Committee	Review details of plan, provide community feedback and provide guidance
Department of Environment and Conservation	Custodian of Crown Land Reserves
City of Albany – Bushcare Team	Provide environmental input/comment
City of Albany – Reserves Officers	Create plan and monitor performance
Frederickstown Progress Association	An active community group that provided guidance and feedback
Middleton Beach Group	An active community group that provided guidance and feedback
Friends of Emu Point	An active community group that provided guidance and feedback
General Public	Providing submissions on the draft document

PART 2: BACKGROUND

2.1 Purpose of the Middleton Beach Management Plan

This management plan covers the premier foreshore areas from Ellen Cove continuing East along Middleton Beach and Emu Point to the Boat Harbour at the end of Swarbrick Street. This document has been prepared as a result of the need to manage Albany's premier foreshore areas in a more strategic and coordinated manner. The aim of strategic management plans is to provide guidelines to ensure that any development and recreational uses are managed in ways that are ecologically sustainable and protect our environmental heritage for future generations.

Some impacts in foreshore areas can include vegetation loss, weed invasion and in particular, erosion. Remnant vegetation in the foreshore contains flora of regional importance and should be protected.

The City recognises that the management goals recommended within the management plan will not suit all interested parties. However, the City has a duty of care to both the environment and the public users of the foreshore reserve.

2.2 Location and Tenure

Middleton Beach and Emu Point are the City of Albany's premier beach locations and are located a short 3.5 km and 5 km drive east of the centre of Albany, accessible via Middleton Beach Road and Emu Point Drive (sealed) as shown in Figure 1.

This Management Plan covers the foreshore areas from Ellen Cove, continuing east long Middleton Beach and Emu Point to the boat marina at the end of Swarbrick Street.

For the purpose of this management plan, there are a total of eight 'c' class reserves vested with the City of Albany that have potential to impact on the foreshore areas. All Reserves are defined in Table 1 and Figure 1.

Land to the north and northwest of Middleton Beach is bounded by a mixture of Crown reserves vested 'parklands and recreation'. In particular, Lake Seppings is a natural 'water table lake'. Land to the northeast is a mixture of reserves vested 'protection of Boronia, recreation and marine purposes' as well as a caravan park and private housing. The Southern end of the foreshore reserve is bounded by Mount Adelaide.

Table 1: Details of Reserves at Middleton Beach

RESERVE NUMBER	RESERVE PURPOSE	AREA (HECTARES)	MANAGEMENT AUTHORITY
14789	Recreation	30.1	City of Albany
22698	Business Areas / Recreation	27.2	City of Albany
26149	Recreation	2.8	City of Albany
27629	Recreation / Golf Links	70.25	City of Albany
36319	Pedestrian Access Way	0.11	City of Albany
36320	Camping / Caravan Park	2.3	City of Albany
41267	Community Purpose	1.69	City of Albany
44750	Public Access way	0.042	City of Albany

2.3 Physical Environment

2.3.1 Climate

Middleton Beach and Emu Point experiences mild summers and cool wet winters with an average minimum temperature of 8.1 degrees Centigrade typically in July and an average maximum temperature of 22.9 degrees Centigrade in February. The average annual rainfall is 923 mm with the majority falling between May and August (Australian Government Bureau of Meteorology, 2008).

2.3.2 Landforms, Geology and Soils

Middleton Beach is a long, flat, sandy beach between a rocky headland to the west and Oyster Harbour inlet to the east. The beach is an area of low lying (<5 mAHD) dunes and intervening swales consisting of pale brown calcareous sands (AGC Woodward-Clyde, 1991). Except for areas of isolated disturbance, the dunes are vegetated with stable, mature and permanent coastal plant species. Topography of the area is shown in Figure 2.

The acid sulphate soil risk maps published by the Western Australian Planning Commission in conjunction with the Department of Environment and Conservation (DEC) indicate that the site is located within an area defined as 'low to no risk of actual and potential acid sulphate soils occurring at depths of generally greater than 3m'.

2.3.3 Native Vegetation

Middleton Beach dunes form an important link in the coastal vegetation corridor, effectively linking the bushland of Mount Clarence and Mount Adelaide near Princess Royal Harbour to the vegetation surrounding Oyster Harbour. The coastal corridor link across the south coast of Western Australia (from Walpole East across the region to the South Australian border) is the strongest east-west almost unbroken vegetation link in southern Australia and has national and international significance (Department of Conservation and Land Management, 2003). Therefore, this foreshore vegetation is significant on a regional scale and should be conserved.

The Albany Regional Vegetation survey project aims to formally classify all vegetation communities within the Albany area and determine the degree of representativeness of different vegetation communities, but unfortunately was not available at the time of this plan preparation. The results, when available, will be reviewed by the City and incorporated into any future management actions.

2.3.4 Native Fauna

Information on native fauna often gives a valuable snapshot of the health and vitality of a reserve. Unfortunately, the fauna of the coastal reserve is generally not well studied with no specific studies of the area available at the time of this plan preparation.

As a part of an earlier study of an adjacent area by Ellen Hickman (2005) opportunistic sightings of Bandicoots (*Isoodon obesulus*), Motorbike Frogs (*Litoria moorei*), Tiger Snakes and Bobtails (*Tiliqua rugosa*) were recorded. Due to the similar nature in vegetation associations and the fact that they are linked, it is likely that these species also reside in the Middleton Beach foreshore vegetation area.

Due to the good nature of the coastal peppermint thickets, it is likely that the Western Ringtail Possum (*Pseudocheirus occidentalis*) is a potential inhabitant of the area. The Western Ringtail Possum is a gazetted rare species and in need of special protection under the provisions of the Wildlife Conservation Act 1950. It is also a trigger species under the Commonwealth Environment Protection and Biodiversity Conservation Act (1999), where it is listed as vulnerable. Due to habitat destruction, this species is now restricted to the southwest of WA, in particular small parts of jarrah forest and coastal forests and woodlands, so any remaining populations are very important to retain.

Whilst Lake Seppings is out of the scope of this plan it is worth noting that there is a known population of the Western Long-Necked Turtle (*Chelodina oblonga*) that resides within the Lake. A study by Veld (2007) provides evidence that the species nest on the fringes of the Albany Golf Course. It is therefore important to acknowledge the turtles and how any future management decisions may impact on the species.

2.4 Human Activities

2.4.1 Aboriginal History

This management plan area is considered to be part of the Menang country which incorporates Albany and surrounding districts.

Details of Aboriginal history prior to European settlement are unclear and anecdotal. As a part of the Kinjarling report (Brad Goode, 2005), Ms Knapp reported that the area all the way from North Road to Emu Point through to Middleton Beach encompassing Lake Seppings, North West to Mt Melville was a traditional camping ground for Noongar people. In his journals, D'Urville in 1826 described 12 permanent huts located approximately 800 metres inland from Middleton Beach that appeared to be the dwellings of the tribes that lived along the coast during the warmer months. Coastline areas were preferred locations for camps in the warmer summer months, where Noongar could fish, trade etc and then move further inland during the winter months to hunt for Kangaroos and other sources of food.

Burials in other regions of the Southwest of WA are often found in the soft sands of the dunes along the coast (Corsini, 2003), so predictably, burials may have occurred within the Middleton Beach area. Unfortunately, a lack of data for the Albany region makes this prediction only speculative (Goode, 2005). As coastal sand dunes are extremely mobile and vulnerable to natural processes such as erosion and inundation, it is likely that any archaeological assemblages have constantly undergone a process of concealment and exposure and there is likely to be very little evidence left. However, liaison with the Department of Indigenous Affairs (DIA) and the local Aboriginal community will be required if any works are proposed to be carried out in the Middleton Beach foreshore area as it is an offence to disturb or conceal an Aboriginal site.

Places associated with or significant to Aboriginal people are classified as sites and are protected under the Aboriginal Heritage Act (1972). This protection applies to all sites, regardless of whether or not they have been officially listed in the DIA Register of Aboriginal Sites. It is possible that sites may exist that have not yet been entered on the Aboriginal Sites Register.

2.4.2 European History

Middleton Beach itself was named after Captain Middleton, who landed here in 1834. It was a popular alternative port at the time, as some of the boats were too large to use the main port of Princess Royal Harbour.

Ellen Cove and Middleton Beach have been an important recreational focal point of Albany since colonial settlement. The Jetty at Ellen Cove was originally built in 1899 but due to fire and sea storms has had to have been rebuilt several times since (Heritage TODAY, 2001). The dunes of Middleton Bay, in the proximity of the existing caravan park, were purported to be popular for camping since very early times. The impact of this unmanaged camping is most likely the original cause of natural coastal vegetation loss in the area.

The Esplanade Hotel, built in 1896, and licensed in 1898 added to the attractions for tourists to the area. In the same year, construction of Marine Drive was completed and became renowned as one of the most beautiful tourist drives in Australia, a reputation it still retains for its superb views across King George Sound. In the same year the nine hole Albany Links Golf Course was established. The course was later extended to 18 holes in 1963 to ensure it remained a competitive course. Being one of the last true 'links' course in the state, it is now registered on the interim state register of heritage places.

In the early twentieth century bathing boxes were built on Middleton Beach for the comfort of beachgoers. At the same time many holiday houses were built in the area by wealthy Perth businessmen as the perfect place to holiday in the summer months. This attraction as a premier tourist spot has continued till present day.

2.5 Recreational Uses and Facilities

2.5.1 Recreational Uses

The close proximity to Albany and the spectacular beauty of the coastline makes Middleton Beach and Emu Point foreshore extremely popular for use by local residents, as well as tourists. It is an integral part of the central coastal recreation and tourism precinct of Albany and provides many economic and social benefits to the community.

The Albany Surf Life Saving Club provides a service to beachgoers from December to April and also provides important water based recreational outlet for members year round. The beach is a popular area for sightseeing, whale watching (in Winter), family outings, picnics, swimming, beach volleyball, surfing and walking. Many schools also use the beach and foreshore areas for educational visits throughout the year. There are lovely grassed areas at both Emu Point and Middleton Beach for family picnics with the area supported by retail food outlets.

The Albany Links Golf Course is well patronised by both tourists and locals and has a superb outlook over King George Sound. Tourism is a major part of Albany and the peak seasons are Christmas, Easter and school holidays. There are many Caravan and Holiday Parks situated near the foreshore. Figures 3 and 4 show the two recreation nodes in greater detail.

2.5.2 Animal Exercise Areas

There is a specific, gazetted animal exercise area between Surfers Beach and just north of Griffith Street. Within this area, dogs are allowed to be exercised at all times off the lead and the training/swimming of all horses is acceptable at designated times. Figure 5 shows the animal exercise areas.

2.5.3 Walking

A dual use pathway runs the length of Middleton Beach from Surfers Beach to Emu Point. This pathway is part of a larger path system that allows walkers/bikers to traverse from the Albany Port area through to Emu Point on a fully bituminised dual use pathway which is also suitable for wheelchair access. A number of seats and lookouts are located along the pathway and are a good place to spot whales and lookout onto King George Sound as well as interpretation signage of the area. There are many minor access tracks through the sand dunes along this pathway that allow for people to access the beach, with major access points at Surfers Beach, Dillon St, Griffith St and Medcalf Parade.

2.5.4 Recreational Fishing

The area is also popular for recreational fishing, offering both beach and jetty fishing experiences. Recreational fishing is regulated under the Fisheries Management Act (1991), which is administered by the Department of Fisheries.

2.6 Environmentally Sensitive Areas

2.6.1 Phytophthora Dieback

Commonly referred to as dieback disease, *Phytophthora cinnamomi*, is an introduced soil borne pathogen that has the potential to kill about one third of the flora in the South West of Western Australia. The impact of *P cinnamomi*, on the native vegetation varies according to the species present, but the disease is known to attack at least 1000 plant species from many different families. Locally native species that are most commonly affected belong to four families; Proteaceae, Epacridaceae, Papilionaceae and Myrtaceae.

In 2008, a visual study of dieback within the foreshore reserve was conducted by Simon Watkins (*pers comm*). This study revealed that the area had most likely been infected with dieback for a substantial period of time already due to the lack of healthy susceptible vegetation within the reserve and the level of unrestricted movement throughout the reserve.

2.6.2 Declared Rare Flora

A search on the DEC Declared Rare Flora Database revealed one known Priority One flora, *Austrofestuca littoralis*. This particular tufted grass only grows on littoral sand and fore dunes in limited areas along the South Coast. As this colony is one of only a few populations known in the South West and is considered under threat, an effort must be made to conserve and protect it.

A previous study by Ellen Hickman in 2005 located various pockets of the threatened flora, *Adenanthos cunninghamii* within the study area. This species is also limited to coastal dunes and is a Priority Four species. It was found in a Peppermint thicket which runs along the beach behind the dunes. A Priority Three threatened flora, *Andersonia auriculata*, was also located within the study area and similarly survives in sandy areas.

2.7 Community Involvement

The role of the community is an integral component to maintaining important reserves within the City. There is a small volunteer group of Bushcarers who work closely with the City of Albany's Bushcare Assistants and have been responsible for weeding along the dual use pathway and local reserves over a number of years. There is also the Frederickstown Progress Association, The Middleton Beach Group and the Friends of Emu Point who do valuable work in maintaining and improving the local area.

PART 3: MANAGEMENT ISSUES AND ACTIONS

A number of management issues have been identified at Middleton Beach

3.1 Tenure and Purpose of Reserves

With the recent demolition of some Department of Planning and Infrastructure (DPI) houses along the foreshore at Emu Point there is now a need to incorporate these lots into the surrounding foreshore reserve with the vesting to the City of Albany so that the lots can be cleaned up and rehabilitated.

There is a development proposal for the Western end of the golf course that will include holiday apartments. Any exclusions or changes of reserve boundaries will be dealt with as a part of the larger development proposal.

Action:

- **Incorporate Lots 980, 981, 983 and 984 into foreshore reserve R22698 with the purpose of Recreation & Associated Businesses**

3.2 Protection of Aboriginal Heritage Sites

Many of the City's reserves are culturally important to the Noongar people because these areas are generally the least disturbed in the landscape. It is inappropriate for specific site information to be presented within this management plan, but all care will be taken to protect registered sites. All registered heritage sites throughout the City of Albany are protected under the Aboriginal Heritage Act 1972. The City of Albany has particular responsibilities under this Act as land managers and will refer to the Noongar community as necessary when undertaking management works.

Complementary to this, the City of Albany Aboriginal Accord (City of Albany, 2006) has identified joint-naming of reserves as a specific strategy to improve recognition of the traditional and cultural links that Aboriginal people have with the land and to ensure that those links continue. One element of this is the development of the Kinjarling stories project undertaken by Albany Maritime Foundation and the Department of Indigenous Affairs. This project aims to complete a strategic plan that will assist in implementing Aboriginal and European cultural interpretive pathways along the shores of Oyster and Princess Royal harbours and King George sound.

Action:

- **Prior to any new development being constructed, the Department of Indigenous Affairs will be consulted**

Action:

- **Cross-reference all on-ground management activities in the foreshore reserves with the Department of Indigenous Affairs Aboriginal Heritage Sites GIS database and if necessary ensure a Noongar representative is present during the works**

Action:

- **Support the recognition of the Kinjarling trail and associated Aboriginal cultural signage through the foreshore reserves**

3.3 Animal Exercise Area

There is an extensive area along the foreshore of Middleton Beach where dogs and horses are able to be freely exercised. No significant damage is caused to the beach by this process, although horse manure may contribute to the introduction of weeds into the area and dog manure left on the beaches can become a nuisance to the general public. Therefore, these issues need to be managed appropriately. Currently the City Rangers provide 'doggy bags' at Surfers Beach and multiple bins for appropriate disposal of waste. Due to various cases of vandalism that result in all the 'doggy bags' being removed, the City does encourage people to bring their own bags when walking their dogs.

The access way for horses from Griffith Street to the foreshore is shared with pedestrians as a part of a bituminised access point from the dual use pathway. This can be a potentially dangerous situation for pedestrians sharing the pathway if confronted with a horse coming the other way. For this reason the City will encourage swimmers to enter the beach from the access path at the very eastern end of Griffiths street, whilst horses continue to use the western entrance, where there is adequate parking for trailers.

Action:

- **Funding to be maintained to allow the City Rangers to continue to monitor the affect of animals on the beach**

Action:

- **Funding to be maintained to allow the City Rangers to continue to patrol animal excrement and enforce any violations**

Action:

- **Maintain signage regarding appropriate animal exercising in area**

Action:

- **Continue to provide 'doggy doo' bags and disposal points along the beach**

3.4 Facilities

There are many recreational users of the foreshore area with this pressure increasing significantly during school holidays and weekends. Many of the recreation pastimes undertaken in the area are of a passive nature and therefore require limited facilities.

There are three main recreational nodes, being the foreshores at Middleton Beach and Ellen Cove, Surfers Beach area and Emu Point foreshore area. These three areas are where many of the existing facilities are provided. Toilet facilities are considered adequate with multiple facilities (including change areas) available at Ellen Cove, the Albany Surf Lifesaving Club, Surfers Beach and Emu Point.

The recreation facilities along the beach reserves include multiple benches and picnic tables, gas barbeques, waste bins and recycling bins, playground areas for children and swimming nodes. The facilities at all locations are popular with visitors and locals and are well used, although there is the need to upgrade some of them. Such upgrades may include more reliable bbq facilities, expanding the lighting in some areas, additional benches and barbeques as well as upgrades and active recreational facilities at Surfers Beach.

As a part of the funding received from Western Australian Planning Commission, the City of Albany commissioned a set of concept design drawings in 2006 for Middleton Beach and Surfers Beach nodes. These drawings can be seen in figures 6a, 6b, 6c and 7. Whilst these figures offer a good starting point, it must be remembered that they are only concept and not final designs and the City does not agree with all components in the drawings. However, many of the components in the drawings that the City agrees with have been finalised since, including increasing the car park bays, extending the dual use pathway to Middleton Road, installation of dual composting toilets and bicycle rails at Surfers Beach. The City in general does not endorse the extensive use of concrete paving to replace existing grassed areas at Surfers and Middleton Beach due to financial implications and the loss of recreation areas for families. It also must be kept in mind that the development of the Esplanade Hotel site in the future will play a large role in any future development of the Middleton Beach foreshore area.

Action:

- **Funding maintained to allow for the ongoing maintenance of existing facilities**

Action:

- **Ensure all recreational facilities are designed to harmonise with the setting and provide adequate lighting for patrons safety**

3.4 Access

Vehicle access to the Middleton Beach foreshore reserve and Ellen Cove reserve is via Flinders Parade and the existing car park. This car park quickly fills up, especially in the Summer months, and there will be a need to investigate additional car parking with the development of the new Esplanade Hotel. Vehicle access is also available to Surfers Beach via the eastern end of Flinders Parade, with adequate car parking available.

Vehicle and foot access is available at the end of Griffith street.

Vehicle access to Emu Point is via Cunningham St, Mermaid Ave or Roe Pde. Along with the formal car parking areas at the Point, visitors currently park ad hoc on the grassed areas along these three streets. For safety reasons, there is a need to formalise this parking by the installation of bollards. There is also a need to formalise the car parking at the roundabout at the end of Cunningham St, with a disabled access ramp down to the beach. An important link to this will be the development of a pathway that runs along the grassed picnic areas from the shops at the Point to the Boat Ramp at the end of Swarbrick St.

Vehicle and foot access is available at the end of Griffith street which primarily services the small local community of Griffith and Hope streets and allows access to the beach for horses and their trainers. It is also recognised that there is a future Landcorp development planned for Lots 3000 and 1523 which will impact significantly on the existing access points. Whilst the City does not support any new access points there may be the need to assess upgrades in conjunction with the new developments.

Both Middleton Beach and Emu Point are serviced by the public bus facility.

Foot access to the reserves is available from both east and west directions along the dual use pathway that runs from the Albany Port area, through Middleton Beach to Emu Point. There is a large gap in the pathway in an easterly direction as it currently ends at the start of the groyne on Firth St at Emu Point. The City of Albany's 'Asset Management Strategy for Pathways' (June 2009) recommends an extension of this shared pathway from Cunningham St along the foreshore to join up to the shops at the Point. This pathway once complete will be an important asset to the City linking multiple premier locations and providing an uninterrupted dual use path from the Port through to Oyster Harbour. The pathway would also present a further opportunity to showcase the area and provide education through the use of showcasing artwork and informative signage.

There is currently an unconstructed pedestrian access way (Reserve 44750) between Wollaston Rd and Flinders Parade. This access way is already being extensively used by local residents to access Surfers Beach by foot. The option exists to formalise this path which will allow for easy and safe access to Surfers Beach by foot and reduce pressure on the area for car parking.

There are numerous access trails through the sand dunes to the beach from the dual use pathway. Many of these are well worn and have been in use for many years. These existing paths currently provide ample access points to the beach from housing and parking nodes along the foreshore. Therefore, no additional access points should be considered to ensure the health and stability of the dunes and their associated vegetation and the fauna that rely on that vegetation.

Action:

- **Review car parking requirements following the development of the new Esplanade Hotel to increase the number of car parking bays**

Action:

- **Formalise car parking along Cunningham St, Mermaid Ave, Roe Pde and the roundabout on the Point and build a pathway from the Point to the Boat Ramp.**

Action:

- **Continue to maintain the dual use pathway and beach access tracks as required**

Action:

- **Extend the dual use pathway along the foreshore at Emu Point**

Action:

- **Construct a formal pathway through Reserve 44750**

Action:

- **No further access points to the beach from the dual use pathway will be supported by the City**

3.5 Flora and Fauna

The beauty of the Albany region in part is due to the natural richness in flora and fauna populations of the region, many of which carry a special status. Without urgent intervention, these species may become extinct in the wild. As the land managers, the City has a responsibility to protect and maintain viable populations of all existing species which occur within the reserve, especially those with a special status.

There are three threatened species of flora surveyed with the foreshore reserves. It is inappropriate to detail the specific location of these species within this management plan so as to continue their protection. However, great care will be required when undertaking weed or rehabilitation programs and any physical developments in the future to ensure their survival and enhancement.

Whilst they have not been formally surveyed, it is likely that the Western Ringtail Possum (*Pseudocheirus occidentalis*) is a potential inhabitant in the area due to pristine coastal peppermint thickets between Griffith st and Medcalf pde. The Western Ringtail Possum is a gazetted rare species and in need of special protection under the provisions of the Wildlife Conservation Act 1950. Under state legislation, the habitats of declared rare and threatened fauna must be protected. Any development must therefore be carried out to ensure it does not impact on numbers of these species.

Action:

- **Minimise disturbance to flora and fauna of special interest from visitors and management issues**

Action:

- **City of Albany database to be updated to ensure all management and development activities avoid disturbance or intrusion to Declared Rare or Priority flora**

Action:

- **Liaise with the Department of Environment and Conservation to monitor and protect the health of the existing special status flora**

3.6 Phytophthora Dieback

As the area has been deemed to be infected with the dieback disease (*Phytophthora cinnamomi*) there are no management actions to be implemented. However the City of Albany does have an Environmental Code of Conduct (2006) that provides guidelines for works on council controlled lands. This document states that if dieback is present (either known or suspected), no infected soil is to be removed and transported to dieback free areas. There is also the requirement that machinery and vehicles be cleaned down prior to leaving an infected site to reduce the risk of spreading the disease unnecessarily.

3.7 Environmental Weeds

Where the native vegetation is intact within the reserves, there are generally very few weeds. Weeds generally occur in disturbed parts of the foreshore, particularly along paths. The current good condition of the foreshore vegetation can only be maintained with ongoing weed control, revegetation and public education, particularly if large subdivisions are further planned.

There have been no formal weed surveys recently completed for the area. However, numerous species have been reported and controlled by the City's Bushcare Team and volunteers. These include, Victorian Tea Tree, Pines and Watsonia. Victorian Tea Tree is of particular concern, as it is a prolific seeder and can spread very quickly and dominate native species.

At the eastern end of the foreshore reserve near the rock walls at Emu Point, there has also been Golden Dodder recorded. Golden Dodder is a declared weed under the Agriculture and Related Resources Protection Act, 1976, and therefore, must, by law, be controlled. There are also many common household weed species that have spread onto the foreshore areas at Emu Point that require controlling.

Middleton Beach, as a part of the larger area of Lake Seppings to Emu Point, is listed as a high priority area for weed management in the City of Albany's Environmental Weed Strategy (2005). The City of Albany, through the Bushcare Team, has already invested substantial time into controlling weeds in the area and this investment should be built on.

Kikuyu is also a common weed along the fringes of pathways, adjacent to residential properties and encroaching onto fragile dunes in high traffic areas.

The potential for weed invasion is often greatest after fire. Therefore, weeds must be taken into consideration in any fire management activities.

Table 3: Weeds at Middleton Beach and priority for removal

Weed	Threat	Area found	Priority for removal
Golden Dodder (<i>Cuscata campestris</i>) *Declared plant		Emu Point near rock walls	High priority Legislation requires the City to control populations on their land (<i>Agriculture and Related Resources Protection Act 1976</i>)
Sydney Golden Wattle	Prolific seeders which can outcompete natives very quickly and dominate an area	Near the Griffith st development	High Priority Considered a serious environmental weed by CoA
Victorian Tea Tree (<i>Leptospermum laevigatum</i>)	Prolific seeders which can outcompete natives	Emu Point end along roads	High priority Considered a serious environmental weed by CoA
Watsonia (<i>Watsonia bulbifera</i>)	Plant grows from corms and has orange, pink or white flowers. Crowds out other plants.	Along Emu Point Drive	High priority Considered a serious environmental weed by CoA

Weed	Threat	Area found	Priority for removal
Pines (<i>Pinus radiata</i>)	Vigorous seeder that invades large areas of native bushland	Surfers beach carpark end of DUP	Medium priority Considered a serious environmental weed by CoA
Kikuyu (<i>Pennisetum clandestinum</i>)	Prolific spreader that can take over large areas of bushland and reduce conservation values	Fore dunes at Surfers Beach and encroachment into remnant vegetation around residential properties	Medium priority

Action:

- Funding to be maintained to allow the Bushcare Team to continue to control the declared weeds as a priority

Action:

- Conduct weed control programs in conjunction with rehabilitation programs and post wild fires

Action:

- Support and facilitate community group and individual involvement in weed management and seek to continue to undertake weed awareness and management training

3.8 Signage

Signs are necessary to offer information about the reserve and to help advise visitors of appropriate behaviour during their stay and therefore enhance visitor enjoyment.

There are a number of different styles of signs already in use in the area, many of which do not follow a standard. To reduce confusion of information and detract from the visual amenity of the area it is important to ensure that there is uniform and relevant signage and where possible the use of individual signs should be reduced and increase the level of information on concise signage panels.

Signage should be used to explain:

- Interpretive signs eg. Ecology, history
- Animal exercise areas
- Appropriate use of the reserve (eg along Dual Use Pathway).

A sign plan has been developed for the area (Appendix 1).

Action:

- **Conduct an audit of all City of Albany signs in the area and ensure all signs contain up-to-date information, are uniform and follow the correct City of Albany signage standard**

Action:

- **Produce and install signs as per the sign plan in Appendix 1**

3.9 Climate Change

One of the most significant and dynamic elements that needs to be managed within coastal areas is climate change. This will result in direct impacts on the coastline at Middleton Beach and Emu Point including increased sea level and potential increases in the frequency of storm events. Emphasis needs to be given to the importance of dune retention and of setting facilities far enough back that dunes and foreshore vegetation are retained. Foreshore setbacks are designed to protect urban development from the elements and maintain a stable coastal dune system.

Schedule one of the State Coastal Planning Policy 2.6 sets a range of guidelines for development setbacks in regards to coastal physical processes. The policy takes into consideration the annual rate of erosion of the shoreline, the impact of a 1 in 100 year storm event and predicted global sea level rises. In making assessments it must be remembered that factors other than physical processes may influence the minimum setback distance and need to be considered for each individual case. Such non-physical factors may include ecological values, landscape, seascape, visual amenity, indigenous and cultural heritage, public access, recreation and safety to lives and property. Although there are generic recommendations for setbacks on sandy shoreline beaches in the policy it is important that each proposal is assessed individually using the principles within Schedule One of State Planning Policy 2.6 to ensure all future development is appropriately located and therefore protected into the future. This policy is presently under review and once complete will form the basis for any future development guidelines. As a result of the latest reports from CSIRO and IPCC it is expected that an increase in the predicted global sea level rise in the coming century from 0.38m to 0.9m will form the basis of a proposed amendment. This will obviously dramatically alter any recommended setback distance.

Action:

- **Ensure any new foreshore developments maximise recommended setbacks from the horizontal setback datum (HSD) as guided by principles in the State Coastal Planning Policy 2.6**

3.10 Fire Management

Fire will always be a threat to all City of Albany reserves and has caused extensive damage over the years. In particular, in coastal areas, once a fire has moved through the area and burnt the natural covering of native vegetation, erosion will often readily occur.

The most recent fires in the area include;

- A fire in summer of 2008 at Surfers Beach which was deliberately lit
- A fire in summer of 06/07 200m east of Surfers car park.

Fires can originate from a variety of sources, including cigarette butts dropped on the ground, lightning strikes during storms or being deliberately lit.

Middleton Beach and Emu Point is within the area covered by Fire and Rescue. In the event of a fire, Fire and Emergency Services (FESA) take control of co-ordinating involvement and the development of fire fighting strategies. The City of Albany assists with this process under direction from FESA.

The primary focus of fire management in the Middleton coastal reserves is to protect life and property, with a secondary, but no less important focus of bushland preservation. As the greatest risk to life and property is apparent around the peripheral boundaries of the reserves where homes are in close proximity, these areas will be given priority fire management attention. Fire breaks and emergency access points will remain as primary access points.

Highest risk homes and streets are:

- Barry Court
- Dillon Close
- Griffiths Street
- Hope Street
- Medcalf Street
- Firth Street.

Fire prevention planning within the study area falls within the City of Albany role as current land managers. Currently there is no fire management plan for the foreshore area. However, strategic access points are adequate in the event of a fire and anyone caught on the walking path during a fire has easy access to the beach for safety. In developing a fire management plan potential impacts on Declared Rare Flora and Fauna must be considered.

Action:

- **Develop a fire management plan for the Middleton Beach area in conjunction with FESA**

PART 4 IMPLEMENTATION

It is expected that the final document will be implemented in the following ways:

- The City of Albany formally endorse the management plan and implement its recommendations and actions;
- Other relevant agencies to be advised of the management plan and the need to comply with its recommendations through their endorsement;
- Funds to be provided over a 5 year period for implementation of the management plan from the City of Albany and relevant external funding to be sought to assist in the implementation of the plan;
- Wider community involvement to be encouraged in the implementation of the management plan;
- A programme of implementation to be established each year by the City of Albany based on priorities in the plan;
- A formal review of the Plan to take place in 5-7 years.

4.1 Key Action Plan

This table summarises all the actions recommended in the Management Plan. It also provides guidance for expenditure and responsibilities for each action to be implemented. These cost estimates will be assimilated into the City of Albany Reserves Master plan and be prioritised for implementation according to that plan.

1. Append foreshore reserve R22698 to include cleared land	
Timeframe	December 2009
Cost	Staff time
Resources	Reserves Officer
Officer	Manager City services

2. Consult DIA before any new construction work within reserve	
Timeframe	Ongoing
Cost	Staff time
Resources	Planning Officers & City of Albany Environmental Code of Conduct pre-works checklist
Officer	Executive Director Development Services

3. Cross reference all on-ground works with DIA Aboriginal Heritage sites GIS database	
Timeframe	Ongoing
Cost	Staff time; <i>nominal fee if Noongar representation is required on site</i>
Resources	Reserves Officer
Officer	Manager City Assets

4. Support recognition of Kinjarling trail and associated signage	
Timeframe	Ongoing
Cost	Staff time
Resources	Reserves Officer
Officer	Manager City Assets

5. Monitor affect of animals on beach	
Timeframe	Ongoing
Cost	Staff time
Resources	Rangers
Officer	Executive Director Development Services

6. Patrol animal exercise areas	
Timeframe	Ongoing
Cost	Staff time
Resources	Rangers
Officer	Executive Director Development Services

7. Provide appropriate signage, doggy doo bags and disposal points along foreshore and regularly remove rubbish	
Timeframe	Ongoing
Cost	Council Operational budget
Resources	Rangers and Cleanaway services
Officer	Executive Director Development Services

8. Maintain existing facilities within the Reserves	
Timeframe	Ongoing
Cost	Asset maintenance budget
Resources	Parks maintenance
Officer	Executive Director Works and Services

9. Ensure all recreation facilities are designed to harmonise with the setting and provide sufficient lighting for safety	
Timeframe	Ongoing
Cost	Staff time
Resources	Engineers
Officer	Manager City Assets

10. Review car parking requirements at Middleton Beach and Emu Point	
Timeframe	June 2010
Cost	Dependant on results
Resources	Engineers
Officer	Manager City Assets

11. Formalise car parking and roundabout within Emu Point precinct and build pathway from the Point to Boat Ramp	
Timeframe	December 2009
Cost	\$218,000 (Royalty for Regions Funding)
Resources	City Project Team
Officer	Manager City Assets

12. Maintain the dual use pathway and beach access tracks	
Timeframe	Ongoing
Cost	Council Operational budget
Resources	Parks maintenance
Officer	Executive Director Works and Services

13. Extend dual use pathway along Emu Point foreshore to Swarbrick Street	
Timeframe	2017
Cost	\$131,000
Resources	Engineers & City Asset Management Plan Pathways (2009)
Officer	Manager City Assets

14. Construct a formal pathway within Reserve 44750 between Wollaston Rd and Flinders Parade	
Timeframe	2015
Cost	\$40,000
Resources	Engineers & City Asset Management Plan Pathways (2009)
Officer	Manager City Assets

15. Not support any development of further access points to the beach	
Timeframe	Ongoing
Cost	Staff time
Resources	Planning Officers
Officer	Executive Director Development Services

16. Update CoA GIS threatened flora database regularly and cross reference information to development projects	
Timeframe	On going
Cost	Staff time
Resources	Reserves Officer
Officer	Manager City Assets

17. Liaise with DEC to monitor and protect threatened flora populations	
Timeframe	On going
Cost	Staff time
Resources	Reserves Officer
Officer	Manager City Assets

18. Continue targeting problematic environmental weeds	
Timeframe	On going
Cost	Staff time & \$300 chemicals annually
Resources	Bushcare Officer
Officer	Executive Director Works & Services

19. Conduct weed control programs in conjunction with rehabilitation programs	
Timeframe	On going
Cost	Staff time
Resources	Reserves Officer & Bushcare Officer
Officer	Manager City Assets

20. Education of community regarding weed species and their effective control	
Timeframe	Ongoing
Cost	\$500 CoA Environmental Weed Strategy Brochures & Staff time
Resources	Bushcare Officer & Reserves Officer
Officer	Manager City Assets

22. Conduct a sign audit to ensure all signage is uniform, easy to read & necessary. Also address any old signage that is causing confusing	
Timeframe	June 2010
Cost	Staff time & any costs associated with audit outcome
Resources	Reserve Officer
Officer	Manager City Assets

23. Produce and install signs as per signage plan (see Appendix 1)	
Timeframe	June 2010
Cost	\$3000
Resources	Works & Services
Officer	Manager City Assets

23. Ensure any new foreshore developments maximise recommended setbacks from the horizontal setback datum (HSD) as guided by principles in the State Coastal Planning Policy 2.6	
Timeframe	On going
Cost	Staff time for compliance
Resources	Planning Officers
Officer	Executive Director Development Services

25. Develop a fire management plan	
Timeframe	January 2011
Cost	Staff time
Resources	Emergency Management Co-ordinator, Reserves Officer & FESA
Officer	Executive Director Development Services

TOTAL ESTIMATED COST:	\$392,800
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3.1 Review of Management Plan

A major review of the plan will be undertaken five (5) years from adoption by Council to determine if the actions have been completed and the plan is still relevant, whilst annual audits will be undertaken to assess progress.

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**APPENDIX 1
SIGN MANAGEMENT PLAN**

ACTION NO	ACTION	LOCATION
1	Install standard reserves signs with location name, do's, don'ts and warnings	Emu Point carpark on Mermaid Ave, Surfers Beach and Middleton Beach carpark along Flinders Pde
2	Relocate the existing animal exercise area sign 50m south to the entrance of the pathway	Pathway to beach from Surfers Beach carpark
3	Maintain sign shelters along the dual use pathways	Surfers Beach, Griffith St and Firth st
4	Install signage along Griffith street to redirect swimmers to enter beach at Eastern end and horse trainers to enter beach from Western end	Eastern and Western ends of Griffith street



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 Adoption Reference: 15.3.1
 Review Date: March 2015
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**Figure 4
Emu Point
Recreational Node**


Legend

- Dual Use Pathway
- Roads
- * BBQ
- + Bike Rack
- o Gazebo
- ⊗ Picnic Table
- ⚡ Playground Equipment
- Shower
- Toilet
- S Swimming Area
- CoA Reserves
- Reserve 22698
- Lot Boundaries

Scale 1:2,500



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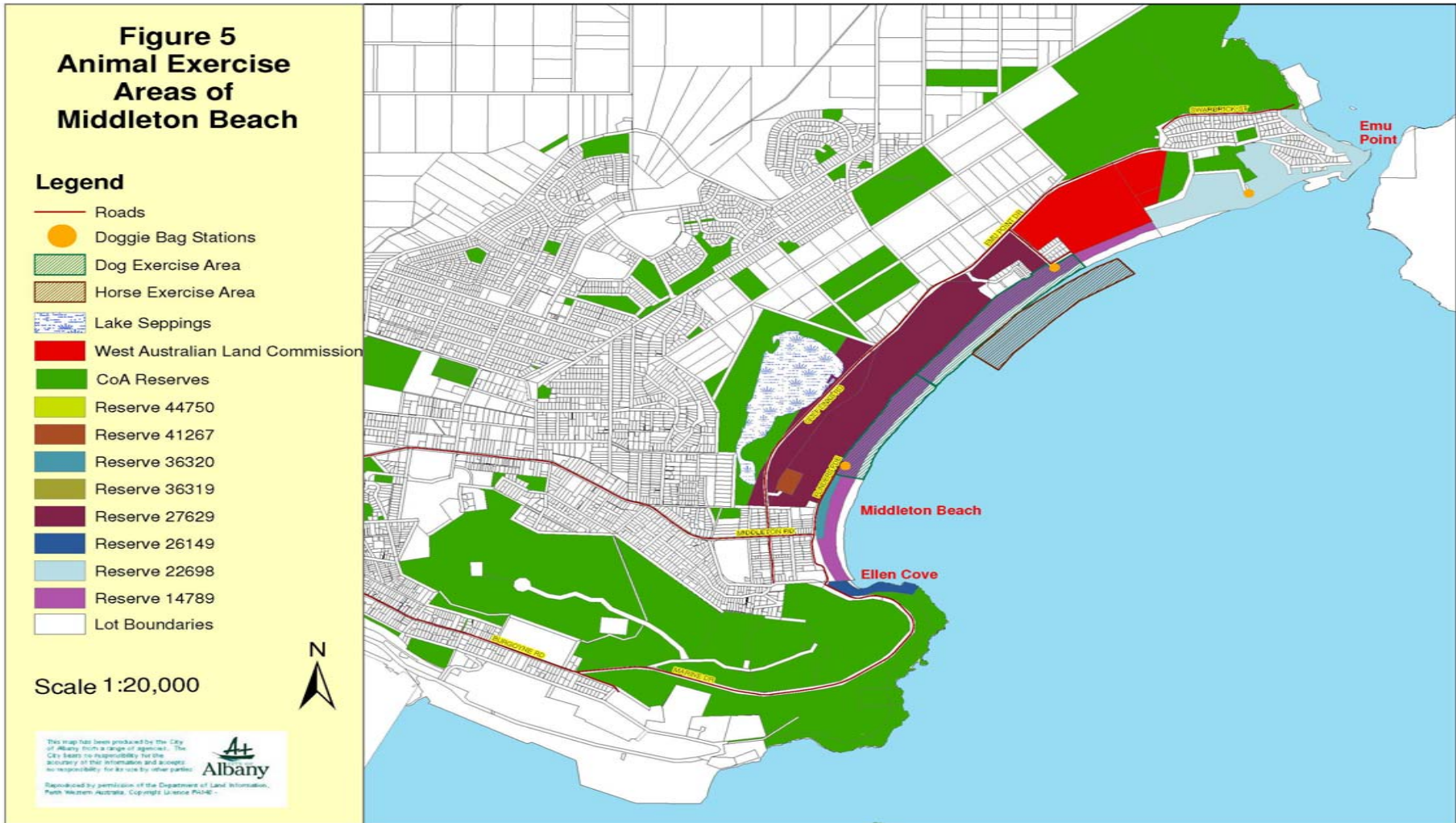


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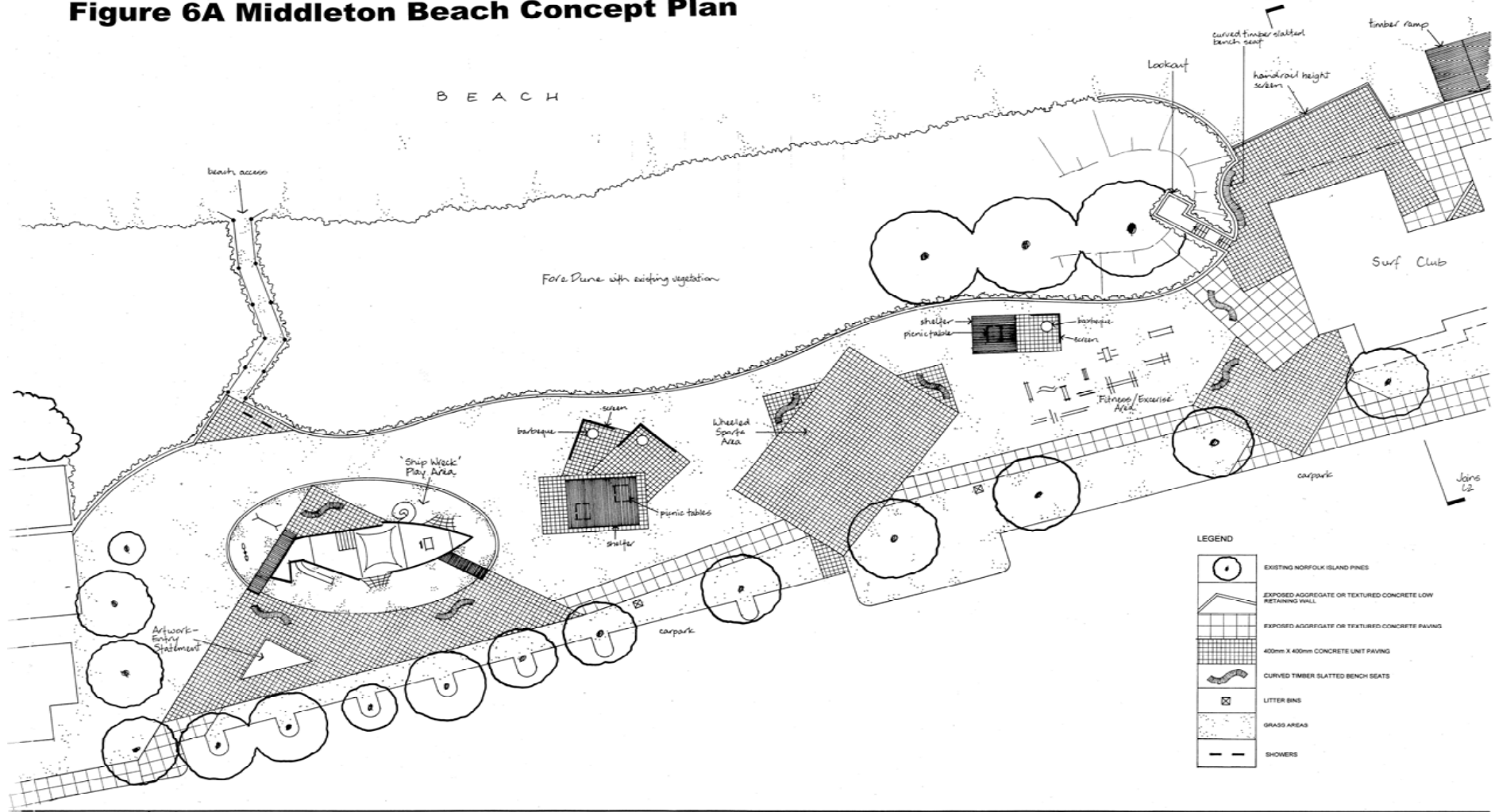
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Figure 6A Middleton Beach Concept Plan



**MIDDLETON BEACH
CONCEPT DESIGN**

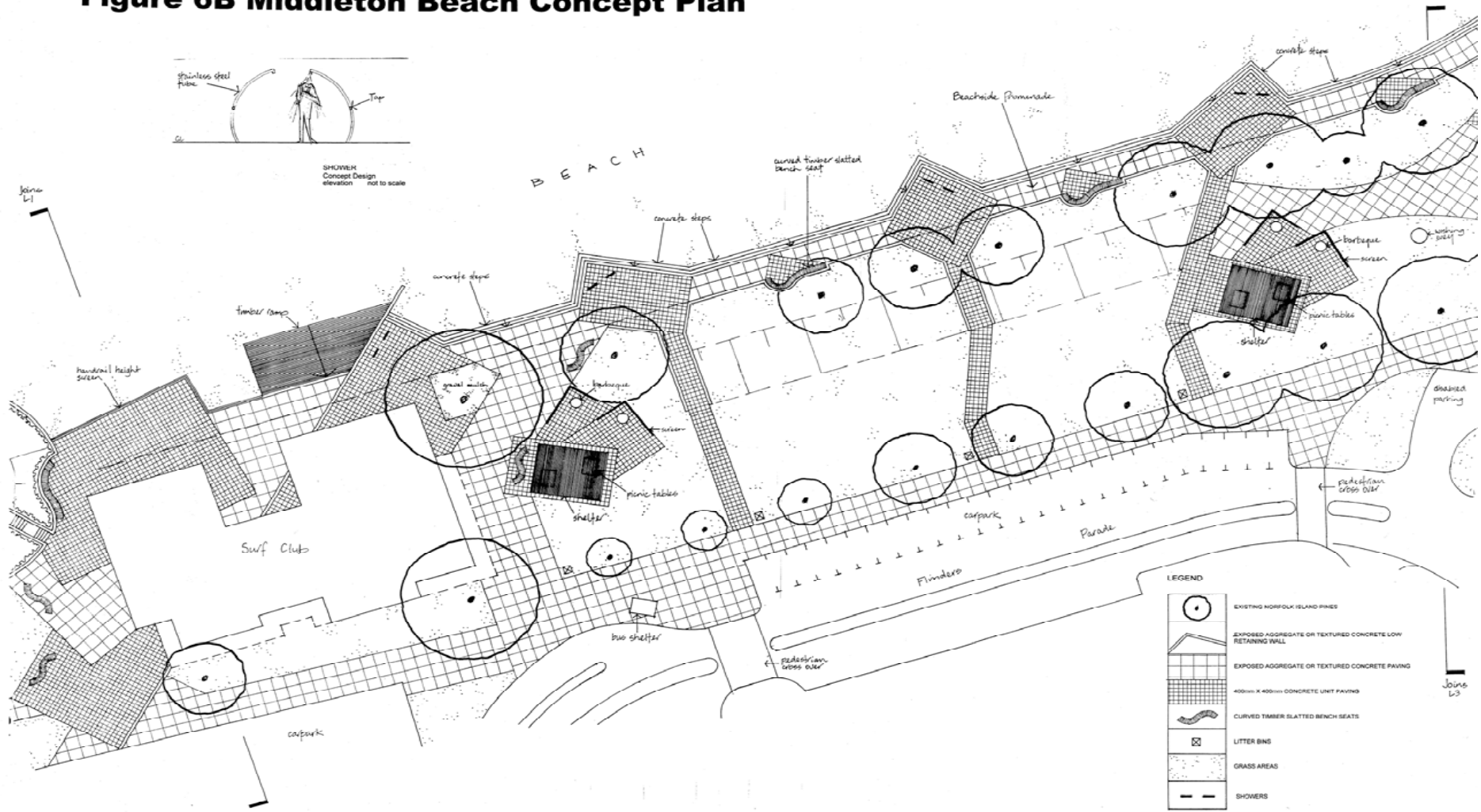
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SCALE: 1:200 APRIL 2006
DRAWING NO. **L1**

Adoption Date: 16 March 2010
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Figure 6B Middleton Beach Concept Plan



**MIDDLETON BEACH
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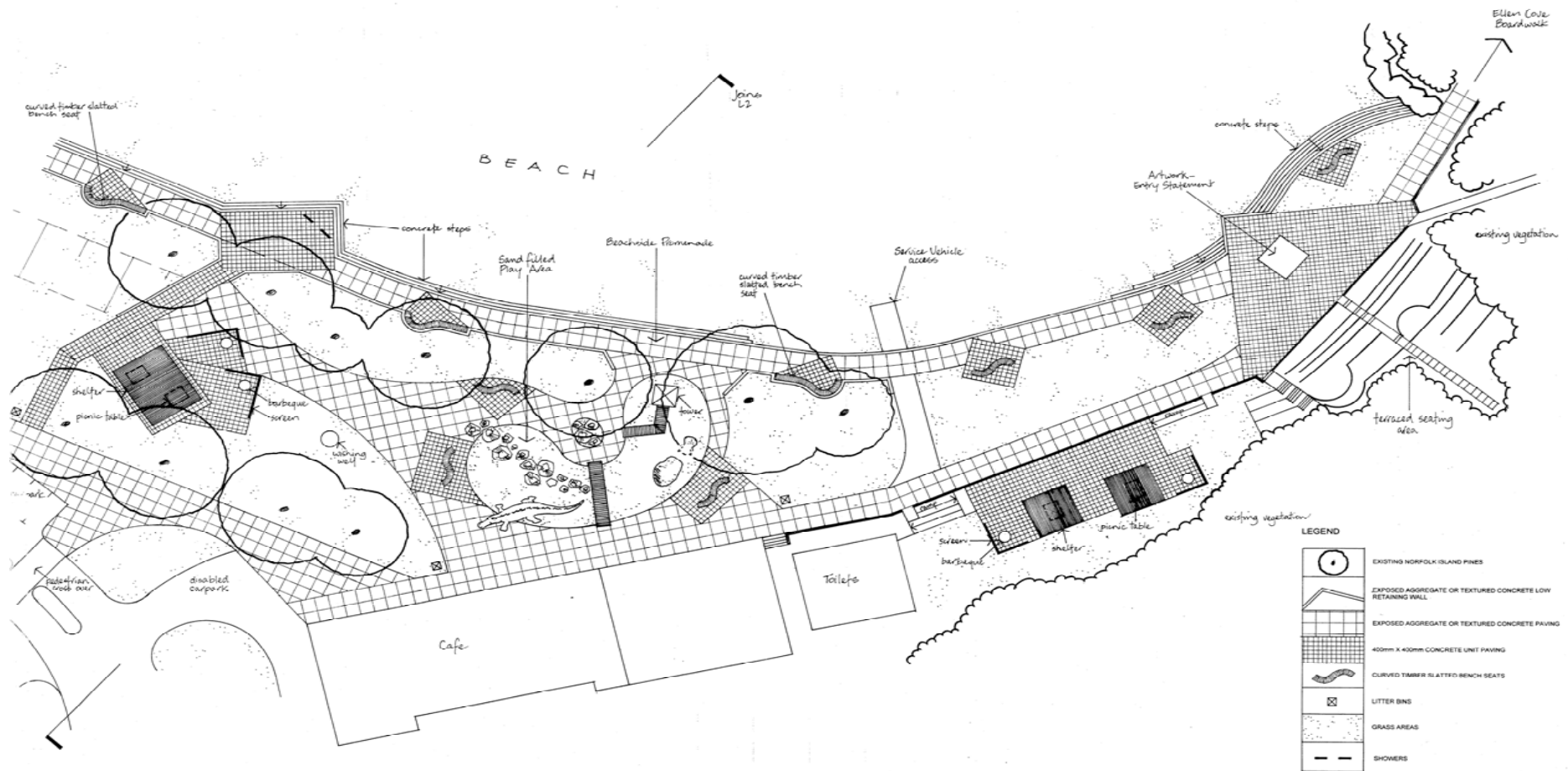
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Figure 6C Middleton Beach Concept Plan



LEGEND

	EXISTING NORFOLK ISLAND PINES
	EXPOSED AGGREGATE OR TEXTURED CONCRETE LOW RETAINING WALL
	EXPOSED AGGREGATE OR TEXTURED CONCRETE PAVING
	400mm X 400mm CONCRETE UNIT PAVING
	CURVED TIMBER SLATTED BENCH SEATS
	LITTER BINS
	GRASS AREAS
	SHOWERS



**MIDDLETON BEACH
CONCEPT DESIGN**

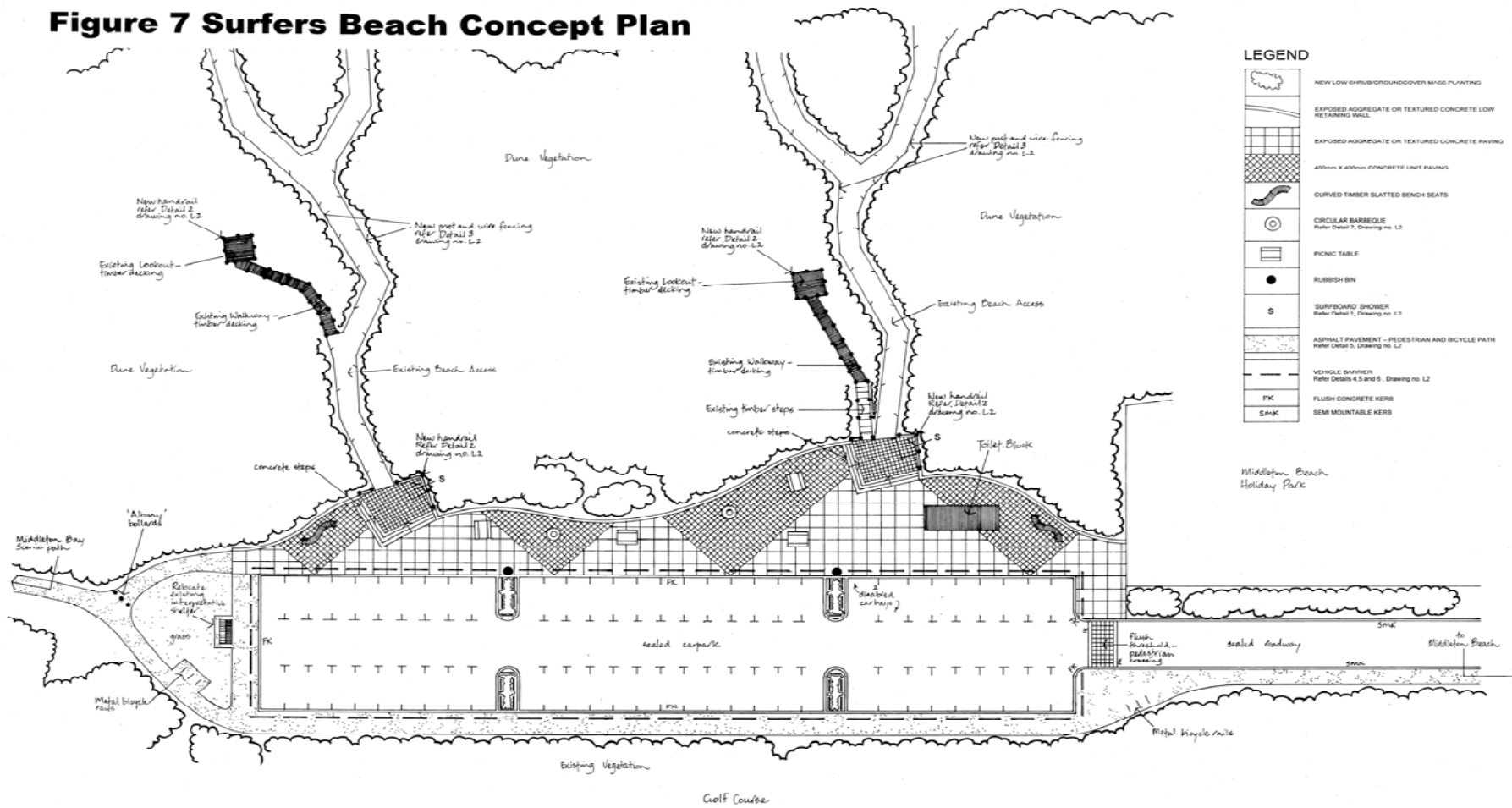
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Figure 7 Surfers Beach Concept Plan



LEGEND

	NEW LOW SHRUB/GROUNDCOVER MASS PLANTING
	EXPOSED AGGREGATE OR TEXTURED CONCRETE LOW RETAINING WALL
	EXPOSED AGGREGATE OR TEXTURED CONCRETE PAVING
	400mm X 400mm CONCRETE UNIT PAVING
	CURVED TIMBER SLATTED BENCH SEATS
	CIRCULAR BARBECUE Refer Detail 7, Drawing no. L2
	PICNIC TABLE
	RUBBISH BIN
	SURFBOARD SHOWER Refer Detail 1, Drawing no. L2
	ASPHALT PAVEMENT - PEDESTRIAN AND BICYCLE PATH Refer Detail 5, Drawing no. L2
	VEHICLE BARRIER Refer Details 4.5 and 6, Drawing no. L2
	FLUSH CONCRETE KERB
	SEMI MOUNTABLE KERB



SURFERS BEACH CONCEPT PLANS

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