



ATTACHMENTS

Development and Infrastructure Services Committee Meeting

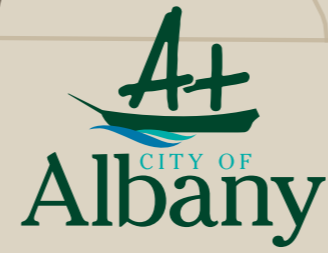
7 November 2018

6.00pm

City of Albany Council Chambers

TABLE OF CONTENTS

Attachment	Report No.	Description	Page No.
B		Development & Infrastructure Services Committee	
	DIS132 (A)	DOG EXERCISE AREA MAP	1
	DIS132 (B)	DOG EXERCISE POLICY – COMMUNITY ENGAGEMENT RESULTS	2
	DIS132 (C)	DOG EXERCISE, PROHIBITED & RURAL LEASHING AREAS POLICY (DRAFT)	73
	DIS134	MIDDLETON BEACH FORESHORE MANAGEMENT PLAN	78
	DIS135	KALGAN HARVEST SUMMER FAIR:- 1. Site Plan 2. Engineers report 3. SAT orders 4. Recommended conditions should the proposal be supported	332



REPORT ITEM DIS132 REFERS

YES to dogs.



DOG EXERCISE AREA

YES to dogs on leash.

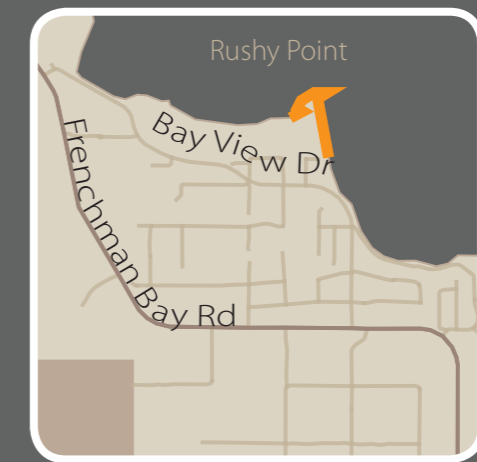
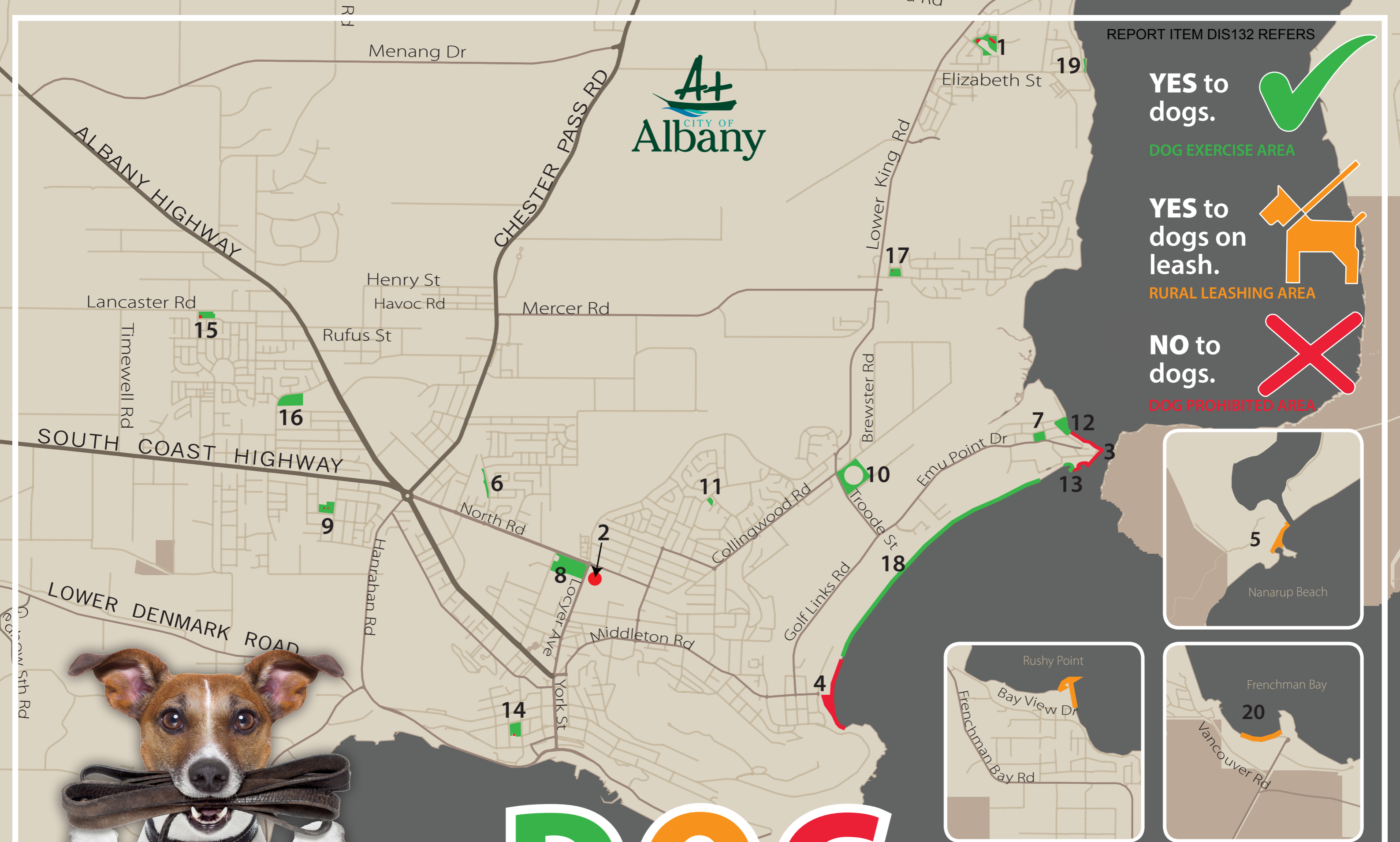


RURAL LEASHING AREA

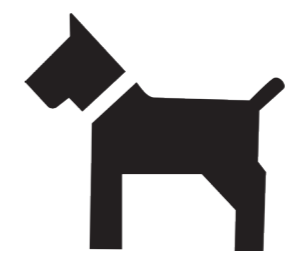
NO to dogs.



DOG PROHIBITED AREA



DOG EXERCISE AREAS



At all other locations within the City boundaries including on paths and trails through City reserves dogs must be restrained on a leash or under control at all times.



Proposed Dog Exercise, Prohibited & Rural Leashing Areas Policy

Community Engagement Results - September 2018.



Contents

EXECUTIVE SUMMARY 3

1. Project Overview 3

1.1 Community Engagement & Participation..... 4

2. Comments Received..... 5

2.1 General Comments..... 5

2.1.1 Need for more “Poo Bags” stations and bins 5

2.1.2 Need for more enforcement of rules and Ranger presence 5

2.1.3 Need for improved public education around the responsibilities of dog owners. 6

2.1.4 Large dogs should be on a leash everywhere and wire retractable leashes should be banned. 6

2.1.5 Dogs should be allowed off leash in all native bush reserves. 6

2.1.6 Reduce the availability of plastic Dog Poo bags or replace with paper bags to reduce plastic in the environment..... 7

2.1.7 More beaches and natural areas should be made Dog Prohibited areas to protect shore birds and other environmental values 7

2.1.8 Need for an enclosed dog park. 8

2.2 Comments on Proposed Dog Prohibited Area 8

2.2.1 Cape Riche Camp Ground 8

2.2.2 Emu Point Beaches 8

2.2.3 Ellen Cove – Middleton Beach 8

2.2.4 Nanarup Beach (west of mouth of Taylor Inlet) 9

2.2.5 Stidwell Bridle Trail 9

2.2.6 Goode Beach 10

2.2.7 Cheynes Beach 10

2.2.8 Whalers Beach..... 10

2.2.9 Little Grove Rushy Point..... 11

2.3 Comments on Proposed Dog Exercise Areas 11

2.3.1 Barnesby Drive Reserve (R35088) 11

2.3.2 Centennial Park..... 11

2.3.3 Clifton Street Park (R25356)..... 12

2.3.4 Collingwood Park 12

2.3.5 Emu Point Marina Beach..... 12

2.3.6 Emu Point Western Swimming Beach..... 13

2.3.7 Middleton Beach (Surfers Beach– Firth Street) 13

2.4 Comments on Proposed Rural Leashing Areas 14

2.4.1 Frenchman Bay Picnic Area and Beach..... 14

3. Summary..... 15

4. Overall recommendation to Council..... 15

Appendix 1: Full Submissions from individuals & groups..... 18

Appendix 2: Combined Community Comment – Dog Prohibited and Exercise Areas 23 [to 71](#)

EXECUTIVE SUMMARY

Formal community consultation/comment regarding the draft City of Albany Dog Exercise, Prohibited & Rural Leashing Areas Policy has been carried out from 27 August to 28 September 2018.

During the period, a total of 89 individual submissions were made and one petition relating to a request for a fenced Dog Exercise Area was received.

The submissions were very diverse in nature with many cases of submission from one individual being directly opposed to the submission from another individual.

Each submission was analysed to identify key points and suggestions which were grouped and then considered by internal stakeholders. This report summaries the key themes of the submissions, responses from internal staff stakeholders and recommendations on how each theme can be best addressed.

1. Project Overview

In 2013, the *Dog Amendment Act 2013* made various amendments to the *Dog Act 1976*.

This amendment removed the power for local government to make local laws “specifying” places where dogs are prohibited or allowed.

Therefore, Council:

- Adopted the City of Albany Dog Local Law 2017; and
- Adopted an interim policy position based on what previously existed in Schedules 2 and 3 of the City of Albany Animals Local Law 2001 (now repealed).

As a result of the amended *Dog Act 1976*, dog exercise and prohibited areas are determined by Council.

The prescribed process dictates that the Council Policy position must:

- seek public comment;
- advertised for a minimum period of 28 days; and
- be adopted by an absolute majority.

The draft Dog Exercise, Prohibited & Rural Leashing Areas Policy was advertised for public comment on 27 August 2018. This report summarises the engagement process, responses and recommendations to Council.

1.1 Community Engagement & Participation

Advertising for community comment on the Policy commenced in the last week of August and finished on 28 September 2018. The City of Albany advertised the public comment period through the following channels;

- Local papers;
- Several social media Facebook pages managed by the City of Albany;
- City of Albany website;
- Direct emails to known community interest groups (dog clubs, sporting clubs, progress associations, vets, etc.);
- Direct posting on the “My Community Directory” online community platform; and
- Distribution of below posters at strategic locations with known high use by dog walkers.



2. Comments Received

The following is a summary of the comments into themes that were received during the public comment period, with a full copy of the comments included as Appendix 1.

The comments have been considered by a committee of internal City of Albany staff including representatives of the recreation, reserves, parks, health and ranger teams, with their responses and recommendations relating to each summarised comment included.

This section of the report will group comments into broad themes with a recommendation to address each theme.

2.1 General Comments

2.1.1 Need for more “Poo Bags” stations and bins

Although this is not directly related to the Policy, it was one of the most common themes received from respondents. For example, there were numerous different locations suggested including requests for bins to be reinstated at 100-200 metre intervals along Middleton Beach.

Recommendation 1: To finalise the designated dog exercise areas prior to considering future locations of the “Poo Bags” stations and bins.

There is a significant cost associated with the installation and ongoing maintenance of each bag dispensing station and bin. Once Council has finalised the approval of the Designated Dog Exercise Areas, a review of the current and future strategic locations will be determined taking into account budget constraints and priority areas identified.

In relation to Middleton Beach bins. These were removed from the beach approximately 3 years ago as the current contractor would not service bins on the beach due to a range of Occupational Safety and Health issues. These were associated with driving on the beach and moving bins that were often partly covered in wind swept sand. Audits at the time indicated that the bins were also very poorly used (often empty). A significant increase in the current budget would be required to reinstate and manage the bins.

2.1.2 Need for more enforcement of rules and Ranger presence

Comments within this theme related to the enforcement of rules and Ranger presence at numerous locations, but were mostly associated with Middleton Beach. The respondents stated a need to enforce rules around dogs being kept under control and people being responsible for picking up after their own dog.

Recommendation 2: To investigate an education program and signage to assist dog owners to be responsible and follow the rules when walking their dog, and for the City to consider priority areas for Ranger patrols within the current resourcing constraints.

Staff acknowledge this concern and agree that a higher Ranger presence on Middleton Beach and other locations mentioned such as Emu Point, Ellen Cove Board Walk and trails in natural reserves would play an important part in improving issues around uncontrolled dogs, and their owners not picking up after dogs. The current level of resourcing of the Ranger team is constrained to budget and is unlikely to be significantly

increased in these areas in the short term. As an alternative, staff are currently looking at education programs and signage that can be used to assist/educate dog owners.

2.1.3 Need for improved public education around the responsibilities of dog owners.

This theme related to numerous locations but were most commonly associated with the Middleton Beach area.

Recommendation 3: To prepare a promotional plan to improve community education on the responsibilities of dog owners. The program to include a brochure for Rangers to use on patrols, and to adapt effective signage used in other local government areas for Albany locations.

Staff acknowledge this concern by respondents and agree that there is a need to improve public education. A brochure promoting the location of dog exercise areas and dog prohibited areas, which also includes information about responsible dog management, has been drafted and will be finalised after the adoption of the Policy.

Staff have also been consulting with other local governments and have identified some possible additional signage options that may be modified for use in Albany.

2.1.4 Large dogs should be on a leash everywhere and wire retractable leashes should be banned.

This theme was mainly associated with Middleton Beach and the Board Walk areas.

Recommendation 4: The education program for dog owners to include an awareness of the perceived risk to personal safety which people feel when being approached by large dogs, and safety issues associated with dogs on wire retractable leashes.

Staff acknowledge these concerns by respondents but under current legislation, the City of Albany does not have the remit to implement these suggestions.

The City is able to increase awareness with dog owners on the perceived risk to personal safety which people feel when being approached by large dogs and dogs on wire retractable leashes.

2.1.5 Dogs should be allowed off leash in all native bush reserves.

This theme was mainly relating to the Albany Heritage Park (AHP) and Mt Melville.

Recommendation 5: That areas of native bush inside the City boundary are not designated as dog exercise areas and that the City continues to promote the Share the Trail message including encouraging dogs on leash.

Staff acknowledge that residents currently regularly walk dogs in these reserves off leash and that this has at times resulted in some complaints from other trail users.

These reserves have been identified as having some significant environmental values (Endangered Western Ringtail Possum, etc) and dogs are known to have impacts on many native species (predating or leaving scent which effects animal behaviour) as pointed out by several other community members in their submissions.

Safety issues associated with uncontrolled dogs interacting with walkers or riders on trails in the AHP was also identified in a recent LGIS assessment of visitor risk on the trails. This resulted in the City actively promoting a Share the Trail message including encouraging dog owners to keep their dogs on leash.

Technically from a legal perspective in these areas (like all public areas not designated as Dog Prohibited), dogs can be off leash but must be under control. However, it is recommended that the City does not designate these areas as Dog Exercise Areas, and continues to encourage people to keep their dogs on leash to improve visitor safety and meet the expectation of other community members around protecting environmental values.

2.1.6 Reduce the availability of plastic Dog Poo bags or replace with paper bags to reduce plastic in the environment

This theme was mainly associated with Middleton Beach and the number of plastic bags (with or without dog poo) being left on the beach or in the car park.

Recommendation 6: To finalise the designated dog exercise areas prior to considering future removal of “Poo bag” stations and bins.

Staff acknowledge that community members are making considerable efforts to reduce plastic waste in the environment and this is an especially important issue in the aquatic environment.

As part of any future education programs targeting owners picking up their dog waste, the City will actively promote the availability of biodegradable dog bags. However, current investigations have found that the cost of these bags in commercial quantities is three times higher than the bags currently provided.

Currently, no suitable paper bags that are fit for purpose have been identified.

2.1.7 More beaches and natural areas should be made Dog Prohibited areas to protect shore birds and other environmental values

This theme was largely associated with beaches that have significant value for migratory shore birds and bush areas with value to native species such as Western Ringtail Possum.

Recommendation 7: That in educational material produced during the roll out of the implementation of the policy, information is included on the need to control dogs near shore birds and in native bush to reduce impacts on conservation values.

Staff acknowledge that dogs have the potential to impact significantly on environmental values especially where they are not controlled or on leash.

The comments associated with this theme were in direct opposition to those from other submissions that felt more areas and especially beaches should be designated as Dog Exercise Areas.

Currently, a large number of beaches and areas of native vegetation surrounding Albany are under the control of Department of Biodiversity, Conservation and Attractions (DBCA) in National Parks where dogs are prohibited for conservation reasons.

2.1.8 Need for an enclosed dog park.

A petition was received indicating the desire for some community members for the City to construct and manage a specific dog exercise park. The proposal was also mentioned in several other individual submissions

This is outside the scope of the current policy and is more aligned with the development of a specific recreational facility for a user group and should therefore undergo the normal planning process associated with developing a recreation facility.

Recommendation 8: That Council considers its position on the development of an Enclosed Dog Park.

2.2 Comments on Proposed Dog Prohibited Area

2.2.1 Cape Riche Camp Ground

One comment was received from a respondent who believed that dogs should be allowed at the Cape Riche Camp Ground

Recommendation 9: Retain Cape Riche Campground as a Dog Prohibited area.

Cape Riche Campground has been a Dog Prohibited Area for many years. The other five campgrounds managed by the City of Albany currently allow dogs, ensuring there are adequate opportunities for campers who wish to camp with their dogs at other sites.

2.2.2 Emu Point Beaches

This area is defined as being the area from the south-facing beach opposite the corner of Burgess Street/Cunningham Street to Hunter Street/Roe Parade including the grassed area near the Emu Point café and around the playground.

Comments in this theme revolved around the opinion that the grassed area around/in front of the café and playground should not be dog prohibited areas.

Recommendation 10: Retain the Emu Point Beaches area currently described in the draft policy as Dog Prohibited to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Emu Point.

Staff acknowledge that there is a growing community of people who take their dogs with them when visiting cafes and desire to be able to do this at Emu Point. It should be noted dogs are still permitted to traverse the area on the paths.

A similar number of submissions included comments regarding the need for Rangers to do more to enforce the “No Dog” rule currently in place in this area. There was also significant opposition to some areas at Emu Point currently designated Dog Prohibited being removed and allocated as Dog Exercise Areas (area near marina and west facing beach – see 2.3.4 & 2.3.5)

2.2.3 Ellen Cove – Middleton Beach

This area is defined as being the beach between the Ellen Cove Jetty and the southern walk track access from Surfers Beach car park to the beach.

This includes all grassed areas and the beach fore dunes between the beach and Flinders Parade under the control of the City of Albany. It should be noted dogs are still permitted to traverse the area on the paths.

Comments in this theme revolved around the opinion that the grassed area around/in front of Three Anchors and the Surf Club should not be dog prohibited areas.

Recommendation 11: Retain the Ellen Cove – Middleton Beach area currently described in the draft policy as Dog Prohibited to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Middleton Beach.

Staff acknowledge that there is a growing community of people who take their dogs with them when visiting cafes and other public spaces and desire to be able to do this at Ellen Cove.

A similar number of submissions included comments regarding the need for Rangers to do more to enforce the “No Dog” rule currently in place in this area were received. There was also a significant number of comments associated with wanting more of Middleton Beach to be Dog Free.

2.2.4 Nanarup Beach (west of mouth of Taylor Inlet)

Comments in this theme were associated with the perception that this area was currently open to dogs (as opposed to the actual situation that it is a Dog Prohibited Area), and the feeling that the City does not have the resources to implement this area as a Dog Prohibited Area.

Recommendation 12: Change the proposed designation of Nanarup Beach west of the mouth of the Taylor Inlet to the Lagoon to a Rural Leashing area.

Staff acknowledge that for some time signage has been missing at Nanarup Beach. Also, due to resource constraints, the Rangers have been unable to regularly patrol this area resulting in significant dog use of the area. This is likely to continue going forward.

However, there have also been a significant number of submissions seeking access to beaches where people can go without dogs or where dogs are well controlled. Designation of the area as a Rural Leashing Area would allow people to take their dogs to this site but require them to be kept on leash, ensuring they are not disturbing other users and minimising impacts to environmental values.

2.2.5 Stidwell Bridle Trail

The current draft policy proposes to allocate the parts of the trail that are Horse Only (not open to 4WD vehicles or motor bikes) as Dog Prohibited Areas.

Comments in this area were around the wish of horse owners to be able to ride with their dogs.

Recommendation 13: Change the draft policy to remove the Stidwell trail as a Dog Prohibited Area.

All of the submissions plus verbal contact between City staff and horse riders indicated that many horse riders like to take their dogs with them when riding. As the dogs are familiar with horses, this is not a safety concern.

2.2.6 Goode Beach

Currently, the draft policy has removed Goode Beach from the list of Dog Prohibited Areas.

Submissions relating to this area were evenly spread from being fully supportive of removing the restrictions on dogs in this area, to submissions seeking for the area to be retained as Dog Prohibited or at least part of the beach being retained in this way.

Recommendation 14: Retain the position in the current draft policy with Goode Beach not designated as a Dog Prohibited Area. (or 'with Goode Beach being designated as a Dog Exercise Area??')

Although Goode Beach is currently designated as a Dog Prohibited Area, it is known that the area is regularly used by local residents as an area to walk with or exercise their dogs, and there have been few issues with this occurring.

Due to the nature of the site, it is not regularly patrolled by Rangers and therefore enforcement is not practical if this is retained as a Dog Prohibited Area.

2.2.7 Cheynes Beach

Currently at Cheynes Beach, there is a short section of beach between the boat ramp and main 4WD access to the beach which is designated and sign posted as a Dog Prohibited Area. This area includes the section of beach in front of the commercial fisherman's lease/facilities and the day use picnic area.

The submission received relating to this area was strongly opposed to removal of this Dog Prohibited Area due to the perception that there is a need for a dog free area at Cheynes Beach. The rest of the beach is available to dogs and the area is used for swimming lessons during summer holidays.

Recommendation 15: Retain the position in the current draft policy with Cheynes Beach not designated as a Dog Prohibited Area.

Although part of Cheynes Beach is currently designated as a Dog Prohibited Area, it is known that the area is regularly used by local residents and visitors as an area to walk with or exercise their dogs. There have been few issues with this occurring.

Due to the nature of the site, it is not regularly patrolled by Rangers and therefore enforcement is not practical if this is retained as a Dog Prohibited Area.

Temporary signage encouraging dog owners to keep their dogs on leash during the swimming lessons could be trialled.

2.2.8 Whalers Beach

Currently, Whalers Beach (just east of Whale World) is designated as a Dog Prohibited Area but the area is known to be regularly used by dog owners to exercise their dogs.

Submissions relating to this beach recommended either that the beach be retained as Dog Prohibited or changed to allow off leash use on half the beach only.

Recommendation 16: Retain the position in the current draft policy with Whalers Beach not designated as a Dog Prohibited Area.

Although Whalers Beach is currently designated as a Dog Prohibited Area, it is known that the area is regularly used by local residents and visitors as an area to walk with or exercise their dogs. There have been few issues with this occurring.

Due to the nature of the site, it is not regularly patrolled by Rangers and therefore enforcement is not practical if this is retained as a Dog Prohibited Area.

Adjacent beaches such as Misery Beach and Salmon Holes in the National Park are available for residents or visitors who wish to access a beach where dogs are prohibited.

2.2.9 Little Grove Rushy Point

This area is not currently or proposed to be a Dog Prohibited Area.

However, several submissions identified this site as being significant to shore birds and bird watchers, and the preference is for this area to be a Dog Prohibited Area or at least a Rural Leashing Area.

Recommendation 17: Modify the draft policy to include a Rural Leashing Area at Rushy Point.

The City has previously invested in infrastructure at Rushy Point based on its significance to shore birds. Dogs are known to have a significant impact on feeding and nesting birds when off leash. However, the area is also important to local residents wanting to walk their dogs. The area is currently sign posted as a “Dog on Leash Area”

2.3 Comments on Proposed Dog Exercise Areas

2.3.1 Barnesby Drive Reserve (R35088)

This area has been specified as a Dog Exercise Area for some time and the draft policy is not proposing to change this.

One submission was received opposed to the retention of this area due to its proximity to children walking to the nearby school and seniors who regularly walk her to see birds, etc.

Recommendation 18: Retain the position in the current draft policy with part of Barnesby Drive Reserve designated as a Dog Exercise Area.

Staff consider this reserve is the most appropriate location for a Dog Exercise Area in Yakamia.

2.3.2 Centennial Park

The draft policy proposes to significantly increase the area available in Centennial Park for dog exercise to include all green fields and parklands within the Centennial Park Sporting Precinct when not in use for sporting events, with the exception of Centennial Oval (AFL Stadium).

A large number of submissions were received relating to this area. Several submissions were received supporting the additional areas available for dog exercise. However, a large number of submissions, including those from most of the sporting groups using this area, were opposed to the extension of the areas available for dog exercise.

Recommendation 19: Modify the area proposed in the draft policy to designate only the grassed areas and parklands in the central precinct of Centennial Park (between Sanford Road and Lockyer Avenue) as a Dog Exercise Area.

Staff acknowledge that for several years the City has received regular complaints about dog waste on the playing field due to owners not cleaning up after their dogs. Installation of additional Dog Bag Dispensers and bins have done little to address this.

Staff observations and feedback from other users indicates that dogs off leash contribute significantly to this issue.

All the sporting clubs reported having to spend time prior to matches removing dog waste from the playing surfaces to ensure health standards for players.

2.3.3 Clifton Street Park (R25356)

This area has been specified as a Dog Exercise Area for some time and the draft policy is not proposing to change this.

One submission was received opposed to the retention of this area and recommending that it should be a Dog Prohibited Area.

Recommendation 20: Retain the position in the current draft policy with Clifton Street Park designated as a Dog Exercise Area.

Staff consider this reserve is the most appropriate location for a Dog Exercise Area in this suburb.

2.3.4 Collingwood Park

The draft policy proposes that the grassed oval area is designated as a Dog Exercise Area outside of times it is in use for sporting events.

The Football Club for which Collingwood Park is the home ground made a submission opposed to the oval/playing surface being a designated Dog Exercise Area due to ongoing issues with dog waste left on the grounds that is required to be removed prior to games commencing. The submission was supportive of the areas surrounding the oval being used as a Dog Exercise Area but not the playing surface.

Recommendation 21: Modify the area proposed in the draft policy to designate only area surrounding the playing surface at Collingwood Park as a Dog Exercise Area.

Staff acknowledge that for several years the City has received regular complaints about dog waste on the playing field due to owners not cleaning up after their dogs.

Staff observations and feedback from other users indicates that dogs off leash contribute significantly to this issue.

The sporting clubs reported having to spend time prior to matches removing dog waste from the playing surfaces to ensure health standards for players.

2.3.5 Emu Point Marina Beach

The draft policy defines this beach area as being between Hunter Street and Swarbrick Street, near the Emu Point Marina.

A number of submissions were received for this area. They ranged from support for establishing this area as a dog exercise area, to strong opposition to this being made a dog exercise area and support for it being retained as a Dog Prohibited Area.

Recommendation 22: Retain area for Emu Point Marina Beach currently described in the draft policy as Dog Exercise Area to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Emu Point.

Although this area of Emu Point is currently designated as a Dog Prohibited Area, it is known that the area is regularly used by local residents and visitors as an area to walk with or exercise their dogs, and there have been few issues with this occurring. The area is used by dog owners who wish to swim with their dogs or launch kayaks/stand up paddleboards with their dogs in an area where there are no waves and access doesn't require community members to walk through deep loose sand.

The proposed Dog Exercise Area is alongside a Dog Prohibited Area, therefore giving community members who do not want to share the beach with dogs equal opportunity.

2.3.6 Emu Point Western Swimming Beach

The draft policy defines this beach area as facing west between the rock wall and groyne, opposite the corner of Boongarrie Street and Cunningham Street.

A number of submissions were received for this area. They ranged from support for establishing this area as a dog exercise area, to strong opposition to this being made a dog exercise area and support for it being retained as a Dog Prohibited Area.

Recommendation 23: Retain area for Emu Point Western Swimming Beach currently described in the draft policy as Dog Exercise Area to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Emu Point.

Although this area of Emu Point is currently designated as a Dog Prohibited Area, it is known that the area is regularly used by local residents and visitors as an area to walk with or exercise their dogs and there have been few issues with this occurring. The area is used by dog owners who wish to swim with their dogs in an area where there are only small waves but access to deep water.

The proposed Dog Exercise Area is alongside a Dog Prohibited Area, therefore giving community members who do not want to share the beach with dogs equal opportunity.

2.3.7 Middleton Beach (Surfers Beach– Firth Street)

This area is defined as the beach north from the Surfers Beach Car Park to rock wall just south of Firth Street as signposted.

The proposal extends the current designated area available for dog exercise but is consistent with the current/historical use of the beach as the City's major dog exercise area.

This area received by far the most number of submissions with a wide range of opinions expressed.

Submissions included requests for:-

- A large area of the beach to be designated Dog Prohibited;
- Separate areas to be designated for small and large dogs;
- Designation of the carparks and first 100m of beach to be “on leash” areas to address issues in these areas;
- Implementation of a 1 dog per person rule; and
- Significant increase in enforcement and education around dog rules.

Recommendation 24: Retain area of Middleton Beach currently described in the draft policy as Dog Exercise Area to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Middleton Beach.

Staff acknowledge there have been a range of issues associated with inappropriate dog behaviour regularly reported at Middleton Beach and that this is a high use site.

New signage and draft educational material is currently awaiting the outcome of Council’s determination of this policy before it can be produced, installed and distributed. Staff have also been consulting with other local governments and have identified some possible additional signage options that may be modified for use in Albany

Under the current legislation, Council does not have the remit to implement these suggestions around large and small dogs, and any attempt to do so would be extremely difficult to define (eg. What is a large dog?).

2.4 Comments on Proposed Rural Leashing Areas

2.4.1 Frenchman Bay Picnic Area and Beach

This area is defined as beach area and day use sites at Frenchman Bay from Frenchman Bay Road to the rocky headland opposite St Georges Crescent.

Several submissions were received relating to this area. The majority were supportive of a Rural Leashing Area at this location but felt that the area should be restricted from the Picnic Area to the Boat Launching site, with the rest of the beach (or ‘being off leash?’) not restricted to dogs being on leash.

Recommendation 25: Modify the area proposed in the draft policy to designate only the area from the Frenchman Bay Picnic site west along the beach to the boat launching site as a Rural Leashing Area

As the primary reason for this area being a Rural Leashing Area is around public safety and enjoyment in the high use area surrounding the picnic site and parking areas, the suggestions to reduce the proposed Rural Leashing Area to reflect this seems to have merit.

The area can easily be defined and sign posted as recommended.

3. Summary

The level of community engagement in the development of the policy has been high, with 89 formal submissions received expressing widely-varied community opinions.

It is acknowledged that dogs and their owners are happier and healthier when they have regular exercise and the City wishes to encourage this.

However, as was expressed in the submissions that there are also many community members who wish to be able to enjoy their time in City-managed parks, reserves and beaches either without any dogs or without feeling threatened/unsafe from uncontrolled dogs.

It is considered that the draft policy with the recommended modifications presents a balanced approach to the needs of all community members.

4. Overall recommendation to Council

That the Council notes the community comments and the following recommendations when it considers the adoption of the Dog Exercise, Prohibited & Rural Leashing Areas Policy.

Recommendation 1: To finalise the designated dog exercise areas prior to considering future locations of the “Poo Bag” stations and bins.

Recommendation 2: To investigate an education program and signage to assist dog owners to be responsible and follow the rules when walking their dog, and for the City to consider priority areas for Ranger patrols within the current resourcing constraints.

Recommendation 3: To prepare a promotional plan to improve community education on the responsibilities of dog owners. The program to include a brochure for Rangers to use on patrols, and to adapt effective signage used in other local government areas for Albany locations.

Recommendation 4: The education program for dog owners to include an awareness of the perceived risk to personal safety which people feel when being approached by large dogs and safety issues associated with dogs on wire retractable leashes.

Recommendation 5: That areas of native bush inside the City Boundary are not designated as dog exercise areas and that the City continues to promote the Share the Trail message including encouraging dogs on leash.

Recommendation 6: To finalise the designated dog exercise areas prior to considering future removal of “Poo Bag” stations and bins, mainly at Middleton Beach?.

Recommendation 7: That in educational material produced during the roll out of the implementation of the policy, information is included on the need to control dogs near shore birds and in native bush to reduce impacts on conservation values.

Recommendation 8: That Council considers its position on the development of an Enclosed Dog Park.

Recommendation 9: Retain Cape Riche Campground as a Dog Prohibited area.

Recommendation 10: Retain the Emu Point Beaches area currently described in the draft policy as Dog Prohibited to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Emu Point.

Recommendation 11: Retain the Ellen Cove – Middleton Beach area currently described in the draft policy as Dog Prohibited to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Middleton Beach

Recommendation 12: Change the proposed designation of Nanarup Beach west of the mouth of the Taylor Inlet to the Lagoon to a Rural Leashing Area.

Recommendation 13: Change the draft policy to remove the Stidwell trail as a Dog Prohibited Area.

Recommendation 14: Retain the position in the current draft policy with Goode Beach not designated as a Dog Prohibited Area.

Recommendation 15: Retain the position in the current draft policy with Cheynes Beach not designated as a Dog Prohibited Area.

Recommendation 16: Retain the position in the current draft policy with Whalers Beach not designated as a Dog Prohibited Area.

Recommendation 17: Modify the draft policy to include a Rural Leashing Area at Rushy Point.

Recommendation 18: Retain the position in the current draft policy with part of Barnesby Drive Reserve designated as a Dog Exercise Area.

Recommendation 19: Modify the area proposed in the draft policy to designate only the grassed areas and parklands in the central precinct of Centennial Park (between Sanford Road and Lockyer Avenue) as a Dog Exercise Area.

Recommendation 20: Retain the position in the current draft policy with Clifton Street Park designated as a Dog Exercise Area.

Recommendation 21: Modify the area proposed in the draft policy to designate only the area surrounding the playing surface at Collingwood Park as a Dog Exercise Area.

Recommendation 22: Retain area for Emu Point Marina Beach currently described in the draft policy as Dog Exercise Area to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Emu Point.

Recommendation 23: Retain area for Emu Point Western Swimming Beach currently described in the draft policy as Dog Exercise Area to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Emu Point.

Recommendation 24: Retain area of Middleton Beach currently described in the draft policy as Dog Exercise Area to ensure there is a balance between areas where people can take their dogs and areas where people can enjoy the area dog free at Middleton Beach.

Recommendation 25: Modify the area proposed in the draft policy to designate only the area from the Frenchman Bay Picnic site west along the beach to the boat launching site as a Rural Leashing Area.

Appendix 1: Full Submissions from individuals & groups

Dog Exercise Area Key Points from individual submissions	
Synergy Ref	Comments
EF18313698 EF18315557	Not supportive of removal of prohibited dog area at Cheynes Beach - considers at least part of beach needs to be dog free
EF1885755	Would it be possible to create a safe zone on Middleton beach where it's safe to walk with dogs and children.
EF18317158	More dog poo bags and better dog control enforcement
EF18313799	Dogs on leash at all time near soccer grounds more dog poo bags and bins
EF18317159	DOGS - Can there be signs that dogs are prohibited from the area when sport is being played or training is occurring. The area is a great place for dog walkers especially with the increased pedestrianised areas however they can pose quite a problem when they run onto the fields during play and steal the ball or chase the children. If it is not possible to prohibit them from the area would it be possible for signage to clearly show that they must be on a lead at all times.
EF18313857	Prohibited areas near Emu Point Café and 3 Anchors should be on leash areas rather than prohibited areas. ANZAC Peace park should be dog exercise area. Need to better define and promote Dog On Leash message for rest of city areas.
EF18313860 &	Goode Beach should not have to have dogs on leash - supportive of proposal
IG18313869	Big dogs should be on leash anywhere in public Wire leashes should be banned Need more enforcement of dog poo picking up Goode beach should be off leash area.
EF18313938	Need for Dog Free zone on Goode Beach also Mistaken Island end would be a better area for dog exercise
EF18314009	very pleased at the proposed dog exercise areas Reservations at dogs being allowed off leash at Map Ref 13 - Emu Point Western Beach
EF18314107	Like to see bins for dog poo disposal every 200m along the dog exercise beach
EF18314162	Considers the rural leasign area at Frenchman bay should be reduced to southern half of beach (to boat launching site) Would like playing surfaces in Centennial Park to be dog free areas (Prohibited) and the dog exercise areas as the green areas between Lockyer and Sanford Rd
EF18314209	Policy seems fine Need to include the dog prohibited area at Little Grove as one of the prohibited areas

REPORT ITEM DIS132 REFERS

EF18314209	More enforcement and/or signs to encourage people to pick up dog poo near sporting grounds	
	Supportive of proposal	
EF18314244	Would like something done about people using retractable dog leads which are a safety issue for other users.	
	Dogs should at all times be leashed in the Eastern Precinct	
	Dogs should not be permitted on sporting fields at any time	
EF18314247	Sports volunteers should not have to clean up faeces - having bins and bags doesn't solve the issue	
EF18315276		
EF18314483	Supportive but would like to see more education about dog owners responsibilities to keep their dogs under control.	
	Playing arena at Collingwood Park shouldn't be a dog exercise area	
	- Collingwood Park is located in close proximity to the designated dog beach	
	- There is sufficient area around the Collingwood Park Oval to exercise a dog without the need to enter the playing arena	
	- Dogs on the oval can and will create potential health issues as some dog owners do not clean up after their dogs (unfortunately)	
	- The arena is used throughout the year for Australian Rules (both senior and junior games), Touch Rugby and senior and junior cricket. The ground is also used periodically by the Vikings veterans Sporting Club.	
EF18314485		
	Dog owners on Middleton Beach should control their dogs better	
EF18314593	Supportive of horses on beach	
	Owners need to control their dogs better on Middleton Beach	
EF18314594	Change rule so only one dog per person	
EF18314596	Supportive of proposal	
	Feels there should be more extensive consultation including public meetings and surveys of community members	
	Would like to see stats on injuries caused by dogs at Middleton Beach	
	Would like to see segregated areas for small dogs and also areas on Middleton beach with no dogs	
	Very extensive summary of what she believes the issues are	
EF18314597		
	Takes her dogs to beach - should be able to do so without feeling guilty	
EF18314600	If people don't like dogs they shouldn't go to that beach (Middleton)	
EF18314602	Supportive of program but thinks more rangers needed for enforcement.	

REPORT ITEM DIS132 REFERS

EF18314669	Supportive but would like to see more ranger patrols to enforce rules around picking up dog poo.
EF18314757	At Frenchmans Bay Dogs should only have to be on leads up to boat launching location and should be allowed off lead from there.
EF18170140	Would like Park run participants to be allowed to start and finish on beach near volleyball nets at Middleton Beach (Ellen Cove) with their dogs on leash
EF18170598	Both sides of argument regarding Middleton beach from ban dogs to ban people without dogs
EF18314761	Believes dogs should be allowed off leash in all areas of native bush
EF18314762	Fully supportive
EF18314764	Fully supportive of retaining Middleton Beach as a dog beach
EF18315001	Perhaps change the dog area at Middleton Beach to between Griffiths Street and the northern access point at surfer's beach
EF18315016	Opposed to all of Centennial Park being a dog exercise area. Believes only the area between Lockyer and Sanford Roads should be dog exercise area.
EF18315051	Believes area around Centennial Park AFL node should not be an exercise area as will also be a cycling area. Believes Emu Point area should be on leash not prohibited dog area.
EF18315052	Believes area around Centennial Park AFL stadium and proposed cycle tracks should be dog free for safety reasons
EF18315053	Keep Middleton Beach the same and build a fenced dog exercise area.
EF18315079	Would like to see all new and existing dog zones and rules strictly enforced
EF18315556	Goode Beach should stay as dogs off leash but under control Whalers Beach should be part on leash and part off leash Need more dog waste bins and bags
	Not supportive of dogs off leash on sporting grounds in Centennial Park wants more enforcement of pick up after your dog rule.
EF18315555	Not supportive of dogs off leash in areas around Centennial Park playing fields due to safety concerns for cyclists etc.
EF18317152	Not supportive of dogs off leash near Little Athletics areas due to dog poo issue.
EF18315554	Request for fenced exercise area for small dogs
EF1815551	Believes tracks in natural reserves should be available for dogs off leash
EF18315552	Believes tracks in natural reserves should be available for dogs off leash
EF18315553	Supportive

REPORT ITEM DIS132 REFERS

EF18315599	Supportive especially of Middleton beach and Centennial Park Supportive of Ellen Cove remaining prohibited to dogs Supportive of Emu Point areas being prohibited to dogs Would like to see Frenchmans Bay Picnic area and beach made prohibited to dogs. Clifton St Park to be prohibited to dogs Would like to see Weerlara Park prohibited to dogs ANZAC park and beach at bottom of Yorkk St should be a rural leashing area.
EF18315708	
EF18315758	Believes that should be able to take dog to camp at Cape Riche
EF1886546	Dogs should be allowed off lead in Eyre Park before 9am
EF18315819	Supportive especially of Middleton beach
	exercise. <ul style="list-style-type: none"> • Suggest stiffer penalty for dog/ horse owners not picking up dog/ horse droppings. • Suggest a document outlining new approved areas and reinforcing dog owner responsibilities be sent to all registered dog owners. Perhaps a form that the owner acknowledges reading and signing be returned to COA. • More Dog Bags be made available near car park areas in the Centennial Park Area. • More rubbish bins be made available around the Centennial Park Area.
EF18315958	
EF18316043	I have read the copy of the dog exercise and think it is very fair.
EF18316110	Supportive
	Re-instate bins on the beach a couple of 100 metres from either entry point. Most dogs need to relieve shortly after beginning exercise if they haven't done so already. People would dispose of correctly if given some assistance. Provide paper bags for disposal rather than plastic. This strategy would fit with community expectation to reduce plastic use. Also it is in line with a reduction in plastic contamination of marine environments which the Albany community also supports.
EF18316225	
	Emu Point is a very special area for families and young children and toddlers and I don't think that dogs are compatible with this group
EF1886735	More ranger patrols needed
EF18316226	Rules shouldn't be made for a minority of irresponsible dog owners ads most dog owners are responsible.

REPORT ITEM DIS132 REFERS

EF18316269	I think it looks fine
	Need to include more beaches Pipeline route on Mt Clarence should be off leash Open grassed area west of Lake Seppings should be off leash area
EF18316270	Disappointed City has not allowed more off leash areas especially on beaches
	Need more beaches included as off leash Pipeline route on Mt Clarence should be off leash Suggest implementing a 100-200m on leash rule at Middleton Beach between the car park and beach to address conflict in this
EF18316273	area and make dog owners more accountable for dogs defecating on the beach
EF18316274	Not supportive of Prohibited area on Nannarup Beach as believe the rule is unenforceable and will just be disrespected.
	Love the proposal Rangers need to do more enforcement
ICR18316409	Pit bulls etc should be on leash at all times
	Not supportive of extended dog exercise areas near Emu Point. Believes these areas should remain dog prohibited
EF18316588	
	Concerns about impact of dogs on beaches where there are Shore Birds - would like to see more Birds dog free including Anvil Beach, Torbay Inlet mouth and adjacent beach, Rushy Point, Frenchman Bay beaches, Oyster Harbour, Emu Point (northern bay) and Betty's, Norman's and Cheyne's beaches.
EF18317039	
EF18317044	Believes Barnesby Drive should not be a dog exercise area as to near school & seniors walking route and along side road plus environmental values of the creek.
	Would like to see a large fenced area for use during winter away from the beach
EF1887072	Thinks Lange Park could be an exercise area.
EF18317052	Believes that dogs should be allowed on the Stidwell Bridal Trail
	Need for more Dog Prohibited sites to protect shore birds Morley Beach (Wilson Inlet) <ul style="list-style-type: none"> • Rushy Point (Princess Royal Harbour) • area between Yakamia Creek and Emu Point Boat Harbour (Oyster Harbour) • Oyster Harbour at Lower King Esplanade between causeway and jetty (Oyster Harbour) • King River north of causeway (adjacent Oyster Harbour)
EF18317255	<ul style="list-style-type: none"> • Kalgan river estuary mudflats (Oyster Harbour)
EF18317255	<ul style="list-style-type: none"> • Kalgan river estuary mudflats (Oyster Harbour)
	Nannarup beach shouldn't be Dog Prohibited Need some areas where it is a requirement to have dogs on leash (not just under control - doesn't happen)
EF18317382	Need more Ranger patrols & enforcement
EF18317383	Dogs should be allowed on Stidwell Trail
ICR18317461	Petition for Enclosed Dog Area
	Need to have more enforcement of rule and education
EF183175520	Supportive of Enclosed Dog Area as long as done well.
ESD18317523	Believes dogs should be allowed on Stidwell Bridle Trail
	Need for more enforcement of dog rules especially Middleton Beach
EF18317525	Middleton Beach should be dogs on leash from November to June
EF18317528	Believes dogs should be allowed on Stidwell Bridle Trail
EF18317529	Believes dogs should be allowed on Stidwell Bridle Trail
EF18317530	Believes dogs should be allowed on Stidwell Bridle Trail
EF18317531	Believes dogs should be allowed on Stidwell Bridle Trail
	Supportive of new areas Supportive of a fenced exercise area
EF18317632	Need to do something about bike riders going to fast near Middleton Beach
EF18317633	Believes dogs should be allowed on Stidwell Bridle Trail
EF18317634	Believes dogs should be allowed on Stidwell Bridle Trail
EF18317636	Believes there are many more areas that could be made in to Dog Exercise Area
EF18317639	Dogs shouldn't have to move off playing fields just because someone else wants to play on them.
	Supportive of Centennial Park and extensions of Middleton beach exercise areas.
EF18317642	Believes dogs should be off leash on Mounts

Appendix 2: Combined Community Comment – Dog Prohibited and Exercise Areas

EF1885755

This afternoon (August 10th) I decided to go for a walk at the dog beach with our small chihuahua cross and 4 month old baby who I had in a carrier strapped to me. We live around the corner and love coming down in the afternoon but sadly will not be any more because of an incident with a large black Labrador.

We were walking back when 2 dogs approached us (blonde and black labs) they were playing with our dog then things started to get a bit serious, I could tell our dog was no longer having fun but very scared as these dogs were tumbling her and nipping at her. She sounded in pain. I called at the guy walking away "can you please call your dogs" twice, he finally turned and said they weren't his. The dogs were getting more physical and started to bark and run around me all while I was holding my baby in case they tried to jump up on me. My dog begged me to pick her up which I did, then I felt fearful the dog would jump up while I had the baby.

In the distance walking parallel the lady owner came strolling along the beach, she definitely saw I was in distress but made no attempt to call her dogs and when I approached her she didn't believe her dogs were being rough. Even if they were playing she should have had her eye on them and then when seeing I was in distress call them back to her.

I'm so sad I can't go walking on my home town beach anymore but this sort of thing has happened too many times down there now I can't risk it.

It seems there are many dog walkers at Middleton Beach who believe it is their right to let their dogs run free, regardless of others who may be fearful of their dogs' behaviour, even when children, babies or other small dogs are involved. I feel as if the onus is on beach walkers to keep out of the way of potentially dangerous dogs.

Would it be possible to create a safe zone on Middleton beach where it's safe to walk with dogs and children.

EF1886546

We are seeking clarification on the revision to the council's dog exercise policy. The revision states a blanket ban for dogs at all playgrounds. Presumably this means that owners cannot walk by / through parks such as Eyre park with their dogs? Or is it just the actual area where playground equipment is situated? With regards to Eyre park specifically, does the ban include the grassed area along side the water near the intersection of Adelaide Cres and Middleton Rd? If the ban does extend to areas around playgrounds, including paths that scooters / bikes will use (as stated on council's web site), then how will dog owners access the Ellen Cove board walk path without passing directly next to the playground outside 3 Anchors – using the same walkway that bikes / scooters use? Banning dogs from areas around playgrounds considerably restricts people's options to enjoy green space as opposed to built areas when out walking their dogs (on lead).

We have 3 small children and a dog, we frequently use playgrounds and the grassed areas around them (Eyre park and Vancouver park, and the board walk) to exercise both the children and the dog. We would encourage council to consider setting aside a portion of Eyre park where people can walk their dogs, traversing the park from one to other with dogs on lead. Another alternative would be to consider allowing dogs off lead at specific times of the day (e.g. before 9am) in areas where they would otherwise be banned.

EF1886735

I attended the Friends of Emu Point meeting last night where the proposed dog exercise areas were presented and discussed.

I live in Hunter Street and walk around the area regularly. I have been concerned for some time about the dogs' owners that flout the current signs. Much of the time the dogs are unleashed, are running around the grassed areas and are being allowed in the water at the main swimming area. I rarely see the town rangers at Emu Point. A few owners wait until the risk of being caught is lower and use the whole area for their dog's exercise – even local residents. When I have spoken to people about their dogs, I have been abused including being told where they come from dogs are allowed everywhere.

I am concerned that the new area proposed Hunter Street to Swarbrick Street, will not be limited to that section and again I doubt that it will be enforced. I am not against having another specified area as I realise that the current area is not accessible to all dog owners. But Emu Point is a very special area for families and young children and toddlers and I don't think that dogs are compatible with this group.

I was at Eyre Park Middleton Beach recently when a large unleashed dog was racing around the around the playground. It peed on one of the children's seats. It was a bit of karma when the owner's daughter was the next to sit on the seat!

EF18170598

Following are comments from Albany dog walkers and non-dog walkers about Middleton Beach. As you can see, there is quite a big misconception about the beach designation with quite a few believing it's a dogs only beach and that others with children, babies or small dogs should stay away for their own safety.

I think there needs to be a change to the culture at Middleton Beach, perhaps the dog beach needs a re-think ... or a re-education! At present it is a place where many Albany residents won't go due to the scary dog culture they find when they walk there.

Right now, I think there needs to be more rangers on the beach to let people know when they are not obeying the law, as clearly, many do not understand the rules. The sign at the beach has only very small print about dogs needing to be under control.

If you would like to see my responses to these comments on Facebook, please visit the Find Albany Facebook Page where you will see this post in full.

EF18313698

There is not mention of Cheynes Beach that I can see. I really do think that you need to have Cheynes Beach added as there is confusion of where people can and cannot have their dogs here. You do not have a rural map, I think there should be one of these also.

At Cheynes Beach there is currently a dog free area, so I do think it needs to be on the map and not taken away from Cheynes Beach. Reading your response, does this mean that Cheynes Beach is proposed to be dogs allowed anywhere on the beach?

Ok, so we do not agree with this, there needs to be a dog free area for people to enjoy the beach without having to deal with dogs. The beach gets extremely busy in summer and allowing dogs with little kids etc, particularly if they are not leashed, does not show a great duty of care

by the council. This is something that I think the council needs to reconsider. There is kilometres of beach at Cheynes that dogs are allowed on, we need a section that is dog free.

EF18313857

My comments on the map, proposed zones etc for leashing and exercising of dogs is that zone 3 Emu Point and zone 4 Ellen cove are both problematic, both have areas that dog owners walk to cafes, on boardwalks which extend through these areas or to access the allowable dog areas on either side of the prohibited areas. I believe that zone 3 and 4 should be deemed leash only areas and not a blank prohibition of dogs. Historically both these areas have cafes which promote dog owners, with water bowls, tie up areas and tables outside encouraging dog owners to stop and eat. Both sites are located next to parks and boardwalks frequented by walkers and dog owners and I feel the full prohibition of dogs in these areas is unmanageable and unenforceable due to the historical ongoing use of both areas by dog owners. I would encourage that these two areas not be leash free, but feel that they be deemed and signed as leash only areas.

In addition the colour map showing the zones of 'green yes off leash' 'orange on leash' and 'red no access' does not appear to show any orange areas (except the inset map of Goode Beach), so it is confusing, as the detailed listed areas corresponding to the three colour system, have prohibited as yellow, okay as pale green and leashed as red, which doesn't reflect the graphic map and needs work.

The 'leash only' area needs to also list areas, which may appear obvious but often see unleashed dogs, such as York Street and the waterfront walkway near the AEC.

In addition I feel the ANZAC Peace Park needs to be a specific listing in one of the categories as it gets a lot of use by dog owners and the policy does not adequately address this area.

The new parks and walkways at the Oyster Harbour development on Lower King Road need listing too as this is a growth area with a lot of dog owners.

EF18313938

As a member of The Frenchman's Bay Association, I recently received some information regarding the adoption of a draft Dog Exercise Policy.

I would like to see a dog free zone at the Southern end of Goode Beach, similar to the existing zoning at Middleton Beach and Emu Point.

My query is that Goode Beach isn't displayed on your maps. I am a resident of Goode Beach (with small children) and I am forever worried that my children will be bitten by dogs who are mostly not on their leads in this area. As a parent who uses the beach area in Goode Beach, I think it would be wonderful to have a no dog zone between the two separate stair access areas. I also think the area between the North Stair Access and Mistaken Island would be more suitable as a dog exercise area (but always on leads). I am a dog owner too, but don't feel it is appropriate to bring our dogs to Goode Beach when so many families spend their time picnicking along the beach with small children.

Over the past 13 years my family has been scared by many dogs of all sizes, along the Goode Beach 2.5km stretch of coastline. My daughter has been bitten twice and we are always bringing home dog poo on our feet. It appears that hardly anyone uses leads at Goode Beach so when their dogs come up to strangers, the owners are well behind their dogs and not able to react quickly. Many people walk the 5km beach walk each day; most are elderly and easily knocked over. With the future resort planned at lot 660, I would think this problem of dogs not being on leads would only escalate.

Please can you look at the situation at Goode Beach. Personally, I would love our beach to be completely dog free. As there are no parks or playing areas for young children in the precinct of Goode Beach, the Goode Beach sand area between the rocks and the North Stair Access is the main area many local children can run freely. As a parent, I would like to not be continually

scared of big dogs approaching and to not always be on my guard. It is hard enough trying to keep an eye on children playing near/in the water!

I am very much in favour of Frenchman's Bay Beach being an exercise area for dogs - but always on leads. However, in the Frenchman's Bay Area it would be fantastic to have one dog free area to play in?

EF18314008

Many thanks for the email (via Frenchman Bay Association) regarding proposed areas for exercising dogs on leads. While we currently reside in Perth, we come to Albany frequently, staying in our Goode Beach home. We bring our small Jack Russel dog with us. I would be disappointed to think that I could not walk along Goode Beach (often as the only person doing so during Winter) without having our dog on a lead. I'm not sure how dogs would be able to enjoy themselves in the water if they were also tethered. While I understand the necessity of owners to control their dogs for the benefit of others, especially children in the marked swimming areas, I would hope some freedom for dogs could continue, particularly in more secluded or less popular areas, or during non-peak times when the number of people on the beach can be less than half a dozen. I look forward to the final determination made by Council. Thank you for clarifying, having looked again at the intended map areas if it is the Frenchman Bay picnic area, that is fine and perfectly understandable to have dogs on a leash. I mostly walk on Goode Beach, so that's helpful. Thanks for the prompt response.

EF18314009

Thank you for the opportunity to comment on the new proposed Dog Exercise, Prohibited and Rural Leashing Areas policy forwarded to us by the Secretary of Friends of Emu Point.

By way of background, we own a property at Emu Point that is City of Albany-approved for Short Stay Holiday accommodation. The property is advertised as pet-friendly so many of our guests bring their pets.

We also visit Emu Point about four times a year and always travel with our family dog.

On an initial read of the proposed policy, we were very pleased at the proposed dog exercise areas. A huge bonus for us will be the ability to access the beach at the Firth Street instead of having to negotiate the cyclists (and snakes) on the cycle path before being previously allowed to access the beach at we call 'the dog beach' at Griffiths Street – [Map Ref. 18 Middleton Beach Surfers Beach to Firth Street (Emu Point)].

Our only reservation after much consideration, is that dogs will be allowed 'off leash' at Map Ref. 13 – Emu Point Western Swimming Beach.

This is a very small stretch of beach – only about 100 metres long. Being often protected from the wind, it is frequented by families with very young children and toddlers. There is also nothing to physically prevent dogs who are not supervised while their owners are swimming to transgress to the southern-facing side which is a Dog Prohibited Beach. [Map 3 – Emu Point Beach/Emu Beach (R22698)].

With the opening up of the beach from Firth Street and also Map Ref. 12 - Emu Point Marina Beach, I feel there is ample space to exercise dogs without also requiring the Emu Point Western Swimming Beach area as an "off leash" area.

This is very altruistic on our behalf as we would love to take our very well behaved Labrador down when we go for a swim at this beach, but having experienced dog beaches in Perth, dogs off leash and young families enjoying the beach don't really mix as dogs are often not 'under control' and often their owners do not pick up droppings.

When busy especially at the height of summer a dog beach can be really chaotic with owners throwing balls and dogs barking and we have even witnessed an occasional weeing on other people's belongings if they are left unattended while the owners are out swimming..

On the subject of picking up droppings, will there be more dog bags and disposal units in these areas? For example at the Floreat Beach dog, there is a rubbish bin (set back against the dunes) about every 200 metres.

Again, thank you for the opportunity to comment on the proposed policy. We have holidayed (with the family dogs) at Emu Point for over 60 years and really welcome the opening up of more dog exercise areas , especially the Map Ref. 18 - Middleton Beach Surfers Beach to Firth Street (Emu Point) area as this is where we most enjoy exercising our dog.

EF18314107

Thank you for your call and further explaining the dog off-lead policy. I think I misunderstood the proposal initially. I wish to register my comment that the section of beach on from the end of the dirt track on Frenchman Bay (near the boat ramp) be off-lead to Vancouver Rocks (St George's Cresc end). This is marked area 20 on the map. Thank you for your consideration.

EF18314162

Thanks for your correspondence on the proposed dog areas I assume that the Railways oval comes under centennial park map reference 8 for dog use off leash but under control.

The concern that we have is that we have been having issues with training and game days where our players, generally the juniors have had to deal with dog fecaes on our playing fields during these times.

Notwithstanding the obvious health issues it isn't much fun having to deal with parents and kids in this situation. Not against dogs but from our clubs point of view we would prefer that at least the playing area was a dog free zone especially when there is ample green space along north road that we feel would be a more appropriate for unleashed dogs.

While most people with dogs are responsible the minority who let their dogs run free and don't pick up after them are creating an issue we would probably rather not have.

EF18314209

I had a quick look over the Policy and all seems fine. As a resident of Little Grove, I believe there is a bird area that states no dogs allowed - you might want to include this.

As a mum of sporting children, I would love to see in the policy about dog owners being responsible for the removal of fecal matter. Players are constantly trying to dodge piles and a few times my kids have trodden in it accidentally while walking between grounds at the soccer and hockey. I know this would be difficult to police, however some well-placed signs around the sporting precinct might publicly shame them into picking up their dogs poo!

EF18314244

This all looks OK to me as recently bereaved dog owner. My issue is with these long retractable leashes on shared paths like the boardwalk as you safely pass people on your bike ringing your bell someones dog can cross in front of you with the long lead creating a hazard. THis has happened once causing a minor accident. Long leashes are for dog owners who can't or wont control their dogs.

The "LOve me Love my dog brigade" may have some gripes ithink it's OK.

EF18314247

Thank you for including us and the opportunity to provide feedback regarding dogs on Eastern Precinct.

Dogs should at all times be leashed in the Eastern Precinct, having had personal experience of the aggressive nature of some dogs and lack of any caring from the owners.

Dogs should not be permitted on sporting fields at any time as faeces provide a health risk to sportspeople.

Sports volunteers should not have to clean up faeces before competition commences on any day.

It is our experience that some dogs owners do not collect faeces left by their dogs even where bags and bins are provided and where faeces are bagged, on some occasions those bags are left in garden beds and downpipe grates.

EF18314483

On review of the documents on the City of Albany website pertaining to proposed dog exercise areas, it is pleasing to see, as a dog owner, a relaxation and increase in the areas available for dog exercise.

This reflects positive encouragement for the community to increase physical activity participation and wellness.

My only concern is the number of dog owners who aren't able to control their animals in public areas and spoil the outdoor experience for others and potentially put others at risk of injury.

It would be useful to increase dog owners awareness of their responsibilities for their animals in these areas. In other words – keep them on a leash.

Thank you for the opportunity to comment and support these proposed changes.

EF18314485

As President of the xxxxxxxx I would like to comment on the proposed Dog Exercise Policy.

We would prefer if the playing arena located at Collingwood Park was removed from the dog exercise area for the following reasons:

- Collingwood Park is located in close proximity to the designated dog beach
- There is sufficient area around the Collingwood Park Oval to exercise a dog without the need to enter the playing arena
- Dogs on the oval can and will create potential health issues as some dog owners do not clean up after their dogs (unfortunately)
- The arena is used throughout the year for Australian Rules (both senior and junior games), Touch Rugby and senior and junior cricket. The ground is also used periodically by the Vikings veterans Sporting Club.

I also acknowledge that the oval accommodates 2 dog shows each year, however these events are held outside the normal football season (being in November & February), and the participants in these 2 events are very responsible dog owners. I also personally know that the organiser (Danny) ensures the ground is left clean.

EF18314593

I have two dogs, one I can take to the dog beach off leash or anywhere on a leash. I also have another dog who I don't take as he isn't that friendly & I won't put anyone's dog or owner in a situation that they are scared or could get hurt. Owners should be responsible for their dogs and if they can't be trusted they shouldn't take them.

Middleton Beach dog/horse beach should be left for people who enjoy walking their dogs off leash as it has always been. There are a lot of other walks around Albany for people who don't

like sharing their space with our four legged friends. I also don't see why people want the horses to be banned as that is part of the charm of Middleton Beach.

EF18314594

My problem with our dog beach is when dogs are off the lead they are usually not under the control of there owner and the owner is miles behind .How can the owner control it's dog if they are not together many owners just do not care I always put my dog on the lead when I see people coming just to be courteous as she does jump up on others as a puppy she gets excited .I do not go to the beach very often as most people that are down there have no control over their dogs and some are walking two dogs both off the lead how can they control them as they both run in different directions .

It is honestly safer to take my dog for a walk in residential area on a lead .

And also then you do not have to dodge dog poo .

Maybe head down to the beach and you will understand what I mean most owners say Don't worry my dog will not hurt you but my 5 year old child was pushed over by a great Dane as the owner had no control and was miles behind now she is frighten of other dogs.

The owner just laughed I was not impressed and said to her you need to control your dog ,rudely she just laughed and did not care and just called her dog and kept walking .

Maybe change the dog beach rules that one dog off a lead at a time if you have two dogs or one dog per person if you wish to walk your dog off there lead.

So people have control and are responsible for there dogs.

Just a suggestion.

EF18314596

We frequently take our Labrador down to the dog section of Middleton Beach to walk her. It would be very restrictive and certainly not much exercise if she had to remain on a leash She also enjoys swimming and fetching which is impossible and a leash. She is of course well behaved. If people do not like dogs there is plenty of other dog free space they can use at the beach. I assume, (not always correctly!) that dogs that are not friendly or well behaved are kept on a leash. I have used the dog section of the beach for many years and never had a problem

EF18314597

I would like to offer some feedback about the Middleton Dog Beach area where off-leash dogs roam free. Even though the law says that people should keep their dogs under control, its not unusual to see dogs bounding up to unsuspecting people, jumping on people, children and small dogs while their owners stand by. On these occasions, I so often observe owners exclaiming to the terrified beach walker being intimidated: "he's just being friendly" or "wouldn't hurt a fly" or "he's just saying hello" .

In my experience, dog owners who allow their off-leash dogs to bound up to unsuspecting walkers are in the minority, whereas the majority are caring and respectful of others space. However, its still not out of the ordinary to be intimidated by an off-leash dog, especially at Middleton Dog Beach because there are often times just so many people out walking their dogs.

THE ISSUE

When a dog owner is out walking their dog off-leash, and is passing an unknown person (or another dog walker), I believe the onus should be upon that dog owner to restrain their dog, or have it under their close control at heel, while passing.

It is my view that the longstanding "culture" at Middleton Dog Beach is that dog owners believe it is their right to allow their unrestrained dogs to bound up to walkers and that the onus is upon beach walkers to protect themselves from others' dogs (or don't go there) rather than the onus being upon the dog owner to restrain their dogs when passing others.

It seems very unfair to me that dogs have taken over the space, making it unsafe or too frightening for many of us to enjoy walking on the beach between Middleton Beach and Emu Point, especially when alone or with small children or small dogs.

In Albany, I have spoken with people who have had their small dogs either mauled or killed in different incidents at the Middleton Dog Beach. These incidents involve either one large dog or a gang of large dogs together.

When a few dogs get together to "play" it can turn nasty, especially if the object of their "play" is a small dog, or worse, a child. I have also spoken with a woman who was bitten by a dog at the beach.

My daughter and I were walking at Middleton Dog beach, she with her baby in a sling and small dog alongside, when a large dog bounded up to us, jumped up on my daughter and her baby, and terrified the life out of us. Her small dog was sent whimpering and she couldn't pick it up due to having the baby in a sling. This has happened to my daughter and her baby and pet on a second occasion in the past month, this time with 3 dogs involved. On this occasion, a nearby dog owner saying his dog was "just saying hello", but taking no action to restrain the marauding dog. As a result, my daughter will no longer walk on Middleton Beach, nor will I, unless in other adult company.

I am interested to know if there are statistics on file at the City of Albany pertaining to dog attacks at Middleton Dog Beach. Or if there is correspondence from other citizens with similar concerns. You have indicated that the data is too much to trawl through to locate where dog bites have taken place. I hope it will be possible for you to make use of the data you have collected to assist in making decisions about Middleton.

Since the dog beach was first established, possibly more than 40 years ago (since I have been here all this time and I remember people walking down there during this time with their dogs), it is possible that the needs of our citizens and attitudes to dogs have changed. Our town population has grown enormously and more people than ever before are exercising and walking for fitness. These facts point to two things:

1. There may be a desire by a majority of Albany residents to have the beach (or part of the beach) designated for human only use for long and enjoyable walks to Emu Point.
2. The margin for potential people/dog interaction and conflict is now greater due to more people, more dogs, and more frequent exercising.

In view of these changes to our city population and habits, it may be time to re-think the space, rather than to continue on in the same vein.

THE PROCESS

I understand the City of Albany is asking for public comment in regard to existing and planned new dog exercise areas.

I think it would be beneficial to the public interest that before public comment is completed, the issue be fully aired, outlining the potential for conflict, changing attitudes to exercise and fitness and population growth etc. Also there should be a clear outline of some potential alternative options that would make the beach more accessible to the general public.

Since many people may have long ago given up ever again walking on the beach between the Surf Beach and Emu Point, due to their fear of being charged by a dog, there may be only limited feed-back unless more briefing is presented to the public.

SOME SUGGESTED BRIEFING

Some suggestions of proposals for public consideration to elicit meaningful feed-back could be as follows:

1. Do you think larger signage should be erected at the entrance to the dog walking areas, specifically outlining dog walking courtesy in relation to other passing walkers?
2. Do you think the City of Albany should initiate a Dog owner awareness campaign on social media, in print & on air, outlining best practice when passing others in public places, and especially when a dog is off-leash.
3. Do you think the Middleton Dog Beach off-leash dog exercise area should remain the same as it is now.
4. Do you think Albany should offer a segregated area on Middleton Dog Beach where small dogs and families can play freely?
5. Do you think off-leash dogs should be banned from the Middleton Beach between the Ellen Cove Jetty up to Griffiths Street?
6. Do you think the City of Albany should make available a record of previous dog attacks, intimidation and incidents occurring on Middleton Dog Beach.

SUMMARY

If the public are fully informed of the choices and potential for safe family enjoyment or alternatively for the continuation of the status-quo, they will be better informed to give their feedback.

I believe this step should have been taken prior to releasing the plan that indicates to keep the status quo with no alternative option to have a change. It is a vital step that has been missed.

Would it be possible for the City of Albany to encourage some comment from local beach-goers about injuries inflicted by dogs to either themselves, their family or to other dogs.

Importantly, I think it would also be useful to establish if there are members of the public who are choosing not to walk on the dog beach due to their fear being intimidated by off-leash dogs.

I believe that, at the very least, a change to the longstanding existing dog culture at Middleton Beach needs to be initiated by the City of Albany through social media, signs at the beach, print and local radio. Dog walkers need to be educated about how to behave when passing others on the beach with their off-leash dog.

Alternatively, a segregated beach walk should be established so that small dogs, children, parents and people who just want to walk alone or without a dog may do so safely and without the threat of being approached or intimidated by off-leash dogs.

After all, Middleton Beach is the premier walking beach in our town and at present I believe many people are discouraged from taking their daily walk on that beach due to the risks. Not to mention unwitting tourists who may happen to venture onto the beach, only to be confronted by marauding dogs.

I appreciate your attention to this matter and I look forward to your suggestions about next best steps to have this issue raised with the public through the appropriate channels.

EF18314600

Thank you for asking for comments.

I have a Lab who is 2 years old . He loves swimming and running after a ball.
I am lucky that he is a well behaved happy friendly dog who prefers to run after a ball and swim than bother people when he is off leash .

When he was a puppy he was big and I used to put him on the lead to pass people until they said it was ok .

The City provide bags thank you and if everyone used them there would be no problem with mess.

If I didn't like dogs I would not go on that beach . It should be a pleasure for dog owners to enjoy their pets off leash without feeling guilty, like in Denmark at Lights beach .

I think it is sad to have to spend time and money on a policy.

EF18314602

In regards to your invitation to comment on the new proposed dog exercise areas, I have a couple of comments to make.

Firstly I am all for increasing the number of dog exercise areas. I commend the council o this. More and more people are buying smaller blocks and need an appropriate place to freely exercise their dogs without disturbing others.

I am a dog owner, lucky enough to live on a fairly large block in which I can exercise my dog in the containment of my own yard if I so choose, however, when I am out enjoying myself with my young family I do not wish to have other people's dogs come and exercise/play near us in a dog restricted area or dog on leash area when they are not on a lead. I was at Middleton over the weekend and saw a couple with two dogs wandering on the beach right In front of 3 anchors.

Which brings me to my second comment. Who will be policing these areas? The Rangers? I am aware that the city currently has 5 rangers to ensure compliance in approx 4000m2 shire, not just the dog/cat local law but bush fire compliance, camping and parking, just to name a few other compliance areas. With the increase of restricted areas and off leash areas are the current staff of rangers able to "police" with the demand which the rate payer will expect them to?

I would be interested in seeing the policy for public comment with sees the ranger staffing increased to keep in line with the extra work they will be given, to ensure the public are complying with these new areas, and something which the rate payers would expect them to do.

EF18314669

I personally agree with the attached map and rules. I will ask our secretary, , to send it out to MBG members, but not likely to have a meeting to discuss it within the timeframes.

However, I do need to make a further comment re dog poo. Having returned to Middleton Beach to live recently, I am again walking each morning on Surfer's Beach with my dog. Regrettably I find I am picking up about a kilo of dog poo each morning – over and above my little dog's contribution!

Picking up other dogs' poo isn't a nice practice, but I feel it is necessary in order to keep our beach clean and to ensure that we swim in water free of excess dog excrement at Midds.

Can we possibly have more warden patrols – perhaps once a week at each dog area at random times, so that people get used to the possibility of being caught if they do not pick up their dog's business. I am sure some of the culprits are runners who forget to check if their dogs are leaving business, because they are running ahead, and the other culprits possibly walk at night when there is little chance of being caught.

Anyway, the issue needs ongoing attention.

I applaud the City's provision of plastic bags and for the last year or so they have been regularly available – so that problem has been sorted. Thank YOU.

EF18314757

At Frenchmans Bay, I think dogs should only be on a leash from the picnic area to approx the boat launching ramp.

I think the rest of the beach, they should only need to be under control. That seems to work okay now

EF18314761

I do not understand why dogs and their owners should be restricted to such a degree within the many natural reserves of Albany. Dog owners in general are caring pet owners who walk their dogs off the lead in order for their pet to get good exercise. The dog owners who are demonstrating this level of commitment for their pet invariably have their dog lead with them and are quick to put their dog on a lead when they meet other dogs, or people. They do this to protect their own dog from unknown dogs and also as a courtesy for fellow users of the area. Other users such as bike riders tear around the tracks at speed and appear very fast with little sound to warn walkers. This can be alarming and cause walkers to be shocked and even possibly stumble.

The reserves should be available for all users and no one group, riders, walkers, dog walkers, joggers should be able to dictate terms of use or restrict another groups use. They are large reserves with space for everyone.

I walk native reserves every day with my dog off the lead and rarely meet other people so cannot understand the need for such a restriction to be imposed.

I completely support the other areas such as public parks and areas of children's play parks. However, the natural reserves should be areas for people and their pets to use demonstrating common courtesy to each other as they are now.

I would like to know the reason behind this proposal. I am not aware of any incidents that would warrant such a strong reaction from the City of Albany

EF18314762

A public open space is important to everyone because it provides opportunity for dogs and their owners for socialization and exercise.

With a strong personal interest in the (centennial park area no.8) I would like to see the newly proposed dog off leash exercise area policy implemented so that everyone is inclusive and that the city of albania has my full support, thankyou

EF18315001

Thank you for the opportunity to respond to a survey regarding dog exercise areas.

I regularly visit both Middleton Beach and Foundation Park with dog in tow. I find most dog owners are very responsible and pick up after their dogs, even after other dogs if excrement has obviously been left. Dogs on leads at the beach are generally the ones that are an issue in my view. They possibly feel threatened as other dogs are free.

Perhaps change the dog area at Middleton Beach to between Griffiths Street and the northern access point at surfer's beach. This would give a little more at each end for walkers who prefer not to share with dogs. Surfers can also then have access without having to share with dogs.

There are plenty of spaces for people to walk so they can avoid dog exercise areas. I have been a non-dog owner and accepted this.

EF18315016

I would strongly oppose having the grounds at Centennial Park available as a dog exercise area whether the dogs are on a leash or not.

The service paths surrounding the Junior playing fields and Centennial Stadium are being developed to provide pathways for cycle racing and training.

The node being built at the old soccer ground site will have storage facilities for the Albany Cycle Club (ACC), this new facility will finally establish a base for the ACC.

This is something that has been decades in the making, these facilities will be the envy of many and should not be jeopardized by allowing dogs to exercise in the area with the potential of serious injury to either / both cyclist and dog.

Dogs on the loose and cyclist travelling at relatively high speed is a recipe for disaster.

Personally, I have run over dogs twice, and was tangled up in one that was on a lead.

The ACC and the City of Albany (CoA) have invested a lot of time and money planning and preparing an area that can be used for the development of junior cyclist.

Also, this area is planned to be used for cycle training and events. It is imperative that for this to be successful that the public are aware and acknowledge this area as a safe closed circuit for cyclists.

This would mean that at certain times the area would not be suitable for pedestrians or dogs as the risk to injury would increase to an unacceptable level.

The ACC originally approached the CoA to develop the area north of the Centennial Stadium, on the corner of Lockyer Avenue and North Road as a criterion track as it was a space that was underutilized and central. The response was that this area was to be left for dog exercise area and when things such as the circus comes to town to prevent damage to the grounds around the stadium.

As somebody who has had dogs I believe that the area north of the Centennial Stadium and adjacent to the Railways Football club would be the most appropriate area for dogs to exercise. There is a sizeable area for them to run around, with plenty of distractions and things of interest. Additionally, there is already park benches and seating around the lake. All that is needed are some disposal bins for the responsible dog owners to take care of any dog poo.

Unfortunately, not all dog owners are responsible and having a dog exercise area on children's spot fields, from personal experience, does not always result in the most pleasant outcome.

The fields and pathways surrounding Centennial Stadium is an area where junior cyclists will be able to learn how to ride without the worry or concern of traffic. To replace the traffic with dogs, on a leash or otherwise, does not seem to be a logical conclusion to the planning and expense that has already been undertaken in this area.

EF18315051

As a cyclist, veterinarian, dog owner and rate payer I wish to make a couple of comments on the recently proposed policy on dog exercise areas.

1. I have concerns about the use of fields and grounds within the Centennial Park Sporting Precinct - in Particular that area of those grounds bordered by Campbell Rd, North Rd and Lockyer Ave as an off leash area. The Albany Cycle Club has been in discussion with the City of Albany with a view to using the paths in this precinct for cycle racing and the potential for conflict between cyclists and unleashed dogs is significant and dangerous. I acknowledge that the policy does not allow dogs to be unleashed during a sporting event but would note that members of the public may not be as "tuned in" that a cycle race is occurring as they would a football match for example, and inadvertently wander onto the course. The speed at which cyclists can be travelling means that a member of the public may seem to be alone at one point on the course before encountering a rush of cyclists within moments. A person can respond to calls from the cyclists and will usually behave in a relatively predictable manner but the reaction of a dog in such situations is quite unpredictable and may be disruptive (race has to stop while the dog is brought under control) or even dangerous (collision with a cyclist).

I would also note that giving the public "options" ie unleashed when no sporting event but leashed when there is a sporting event can cause confusion.

2. I do not understand why the Emu Point foreshore should be a dog's prohibited area. I would agree that dogs should be controlled and on a leash at all times and certainly prohibited from the playground and perhaps the immediate vicinity of the swimming jetty / baths, but the area in front of the Emu Point Cafe and the beach in front of Roe St should in my view be leashed

areas. They are locations where there is the potential for positive interactions between dog owners and the non-dog owning public (rather than keeping dog owners and other members of the public separated) and the beach area in front of Roe St and adjacent to the Marinas is also an excellent place for dogs with various musculo-skeletal problems to rehabilitate - they can walk belly deep in calm water which takes pressure off joints and cool water can help reduce inflammation.

Thank you for the opportunity to provide feedback and please do not hesitate to contact me should my comments require further clarification

EF18315052

It has come to attention that the city is proposing new dog exercise areas within the boundaries of the city of Albany.

I commend the council for this move as I am a dog lover with 2 dogs that needs exercise and having some closer to home is welcomed by myself.

After studying the proposed sites, I do wish to object to one area in particular. This is the area of Centennial oval around the AFL Stadium. My reason is that a Cycle track is being built here for junior training and Criterion racing.

I read in the proposal that dog owners cannot exercise their dogs while sporting events are on. So when the criterion is being raced the area should be clear of dogs, but not during training times, where some individuals may want to hone their skills. Again this is a great place where juniors can train and learn cycle skills. Bikes and dogs are not the best mix and therefore I request that this area be removed from the proposal.

Another reason for this area to be exempt, is that the Albany Cycle Club is building a storage facility adjacent to the stadium, where, at any time club members would want to feel safe and not 'hassled' by dogs chasing wheels.

Please consider adjusting the proposal, make the change and keep this area free from dogs. Regards and wishing you wisdom in your decision making in this matter,

EF18315079

I would to see all the new and existing dog zones strictly enforced.

So often I cannot enjoy a walk in non dog zones such as Middleton Beach without being harrassed or attacked by off leash dogs.

I wrote a detailed submission on this when this proposal was first made public.

People increasingly ignore that zones are no dogs. Please like Bunbury put up signs with penalty \$100 or \$200 for breaches and enforce.

Also this will protect wildlife in these areas such the shore birds at Middleton Beach.

People with dogs off leash have no concept that they need to be able to control them, and often dont collect their dog poop such as the Barnesby Drive area.

Albany Council needs to seriously enforce no dog zones with signs including financial penalties

EF18315276

Just following up on my previous response.

"It is our experience that some dogs owners do not collect faeces left by their dogs even where bags and bins are provided and where faeces are bagged, on some occasions those bags are left in garden beds and downpipe grates. "

The photos attached emphasise the issues we have around dog owners reluctance to attend to collection of faeces.

Too lazy to lift the faeces 1 metre into the bins.

Leash or no leash makes no difference with this matter.

Your initiative to review the Dog Policy is a golden opportunity to separate sporting precincts from constant contamination

EF18315551

I am writing to you with regards to the proposed Dog Exercise, Prohibited & Rural Leashing Areas Policy.

I live on Serpentine Road, Mount Melville, at the Hanrahan Road end. I own two dogs with different exercise needs. They are currently walked everyday, off lead, through the tracks in the reserves between Serpentine Road and the tip between 7am and 8am (or earlier) for a distance of about 4km. I throw a ball for the younger, more energetic dog to make sure she gets the exercise she needs. Obviously this is very convenient for me, being literally across the road, and being off lead allows both dogs to get the exercise they need across the hour. Additionally, the tracks are set well back from, and are not visible from (or to) the road - providing a measure of security similar to fencing. This also doubles as my daily exercise. I am aware of other dog owners who use this area, as well as the occasional walker and cyclist.

Under the proposed policy, the area I use would fall under "all other locations" and would require leashing at all times. Although this wouldn't necessarily impact my older dog, my younger dog would not get the exercise she needs, or would require additional walks, or would require me to seek out one of the designated dog exercise areas. I work, so additional time matters to me.

The closest designated dog areas to me are:

- Clifton Street Park - 1km, across Hanrahan Road.
- Centennial Park - 1.3km across Albany Highway
- Foundation Park - 2.6km

Walking, ignoring navigating main roads with two on lead dogs, reduces the off lead time from 50% to 0%. Driving adds time, increases road traffic and parking requirements, not to mention the environmental effects. Two of the above are quite small, requiring three or four laps - which isn't stimulating for myself or the dogs. All are surrounded by roads, clearly visible with limited physical barriers to.

Apart from distance, not all designated dog exercise areas suffer from the above issues. I occasionally take the dogs to Middleton Beach, which provides a long stretch of walk-able area free from the distraction or worry of roads.

I have no issue with the desire or need for a policy. I understand it is my choice to own dogs. However, no one likes the rules changing out from under them. I worry about the side effects of impediments to dog (and owner) exercise - mainly the reduction or removal of said exercise and the knock on health issues. Obviously the most ideal solution for me would be the addition of the reserve between Serpentine Road and Hanrahan Road. However, I would ask you to consider opening more areas, specifically tracks in reserves, to the designated dog exercise areas. Even if these were time limited (say before 9am Monday - Friday) this would be better than nothing.

EF18315552

Regarding the proposed exercise areas, we'd prefer if there were more off leash areas made available - specifically some of the larger areas of bush reserve around. We live opposite the Mount Melville reserve (the area of bush near the Albany tip) and we walk our dogs there every day. It is convenient, quiet, far from major roads (once you're inside the reserve), not a major thoroughfare, large and beautiful to walk through during every season. Under the proposed dog areas this would be a leash only area. This would be problematic to us because our dogs would not get enough daily exercise on lead. We throw a ball for our dogs while we walk which allows them to run and get extra exercise during our 45 minute walk, as well as enjoying the scents along the path as we go at their own pace. According to your map, the nearest off leash area would require us to take our car to get there (our older dog walks quite slowly) thus increasing our carbon footprint, it is much smaller, bounded by streets on all sides so not nearly as quiet or

remote or peaceful or beautiful as the bush, and takes ten minutes to walk around at most. We'd have to do several laps which would be boring for us and the dogs.

In conclusion, we don't have an issue with the idea of these proposed dog exercise areas, but we would very much prefer if large areas of bush reserve (especially the Mount Melville reserve) were added to the off leash dog exercise areas. The current proposed areas aren't close enough to be usable (daily), and the closest one to us is not suitable for daily walks of the length our dogs require.

EF18315553

Thanks for inviting comment on dog exercise areas in Albany. weveNow been holiday Ina in Albany more than anywhere else in the past 4 years and bought a house there with the intention of a permanent move or at least part of the year there. The biggest attraction on of the town for me has been the amazing' daily walks with the' dog round the tracks at Mt Melville, Mt Clarence, The Luke Pen walk and the various recommended beaches.

I must have walked hundreds of km in your shire with the current and previous dog. We've been following that excellent little book " 20 ways of walking naturally in Albany" and we just love it People have been very sensible about dog behaviour and well aware of keeping them away from stock and wildlife.

so you scored a ratepayer by being dog friendly!

It really adds to the charm.

I have often offered fellow dog owners poo bags- they do seem to run out frequently at your parks.

Dog poo is seriously un-charming...

We wee down last week and loved it all over again.

EF18315554

My name is XXXXX and I live in McLeod Street, Mira Mar. I am a retiree and the owner of 2 small dogs – as are very many residents of this area !

It is great to see that the Council is planning adequate areas for dogs to be exercised. Albany, as you know, is home to many older residents and many of them have small dogs.

Unfortunately the existing and proposed dog exercise areas are not really safe for small dogs, given the number of large dogs using those areas. Many large dogs have a tendency to chase and attack small dogs and there have been many incidents of this in the past. There was a bad attack on a little Maltese in Eyre Park last year, I believe.

I would respectfully ask the Council to fence off a small grassed area for the use of small dogs only – perhaps in Eyre Park or in the park on Parade Street ?? This would allow owners of small dogs to let their dogs exercise off the leash in complete safety. I understand there are such areas in Brisbane and they work very well. I have attached a photo of one in Brisbane, located next to a children's playground area. You will see that there is a double-door at the entrance (left-hand side of photo) and inside a 3-tier dog bowl stand. Of course a bin would also have to be provided for waste which brings me to another request: could the Council please install a bin in the small park on Lake Seppings Drive for dog and other waste – otherwise it is a long way to carry it to one of the bins in Eyre Park !! Thank you for your consideration.

EF18315555

I am deeply concerned at the proposed dog exercise area in the grounds around Centennial Stadium. I strongly oppose the use of this space as a dog exercise area on the basis that dogs and bicycles do not mix. There is an increase of risk to myself and other riders who use the cycle path from roaming and often untrained canines.

The chance of being chased, attacked and seriously injured by dog/s will be greatly increased if this becomes a dog exercise area.

EF18315599

Thank you for the opportunity to provide feedback on the City of Albany's proposed 'Dog exercise, prohibited and rural leasing area policy'.

I am glad to see that the Council recognises the importance of dog walking facilities. These areas not only provide an opportunity to exercise dogs and their owners but also have a strong social aspect for both.

I fully support the proposal, in particular providing access to a larger proportion of Middleton Beach as well as opening Centennial Park to dog walkers. Dual usage areas such as these need strong commitment from both users and Council.

EF18315758

I am a dog owner. I exercise my dog on Middleton Beach every day and I have done so for sixteen years.

I appreciate the proposal to increase in dog exercise areas along Middleton Beach and at Emu Point, however I am not happy about the introduction of a no dogs policy at Cape Riche. There are very few bush campsites where dogs can be taken, mainly because of national park restrictions which is an appropriate restriction. As far as I understand Cape Riche is not a national park. I assume the planned restriction is because of the proximity to the campsite of agricultural and particularly sheep grazing areas.

Can you tell me please why the restriction at Cape Riche is planned?

And if it is necessary to restrict the movement of dogs at Cape Riche can I suggest that requiring dogs to remain on the leash at all times would be preferable to banning them all together

EF18315819

I would like to thank the City of Albany for the wonderful Middleton Beach Dog exercise area.

My dog, Loki, and I love it! There are many reasons why!

1. It is on one of the most beautiful beaches i have ever seen and I have seen lots in many different countries!
2. We moved here in 2000 and in all that time I have only witnessed one nasty encounter between two dogs.
3. Its a great place to meet fellow dog owners and to make friends! You might not know all the Dog owners but you know all the Dogs' names!
4. One gentleman we know has lived and worked in Albany for many years and has recently retired. He now has a dog and says his friendship group has doubled in number!
Everyone is friendly and that can really lift everyones' spirits!
5. Since the availability of Poo Bags there has been a very noticeable improvement in the number of droppings on the beach. I carry a couple of extra bags and either offer them to folk or pick up the droppings .
6. The beach not only is great exercise for the dogs, especially now that many homes do not have large areas for dogs to play but also it gets the Dog Walkers out and about and helps blow their cobwebs away!
7. Dogs need to learn to socialise from when they are pups and always being on a lead does not help this. Being able to run freely and play with other dogs works very well! Plus they come home and sleep!

In a nutshell: many, many thanks for our wonderful Dog Beach area! We are so lucky to have it and Loki and I thank you very, very much!

EF18315958

As responsible dog owners for many years we would like to fully support the proposed changes in the dog exercise area policy.

We exercise our dog daily and the only gazetted areas at the moment are Parade St park, Middleton Beach and the so called off leash area on the western corner of North Road and Lockyer Avenue. The area on the corner of North Road is totally unsuitable in winter as it is water logged and recently the Moscow Circus being on it for a week has turned it into a complete quagmire and unusable.

We are currently exercising our dog on the North Road sporting complex during week days and at times when there are no sporting activities or other groups using the areas.

This area is largely unused during the week between 7am – 4pm. Sometimes there is soccer training during week nights which is normally on a Wednesday/ Thursday and later on in the evening under lights.

If there is sporting activity at one end then we have occasionally used areas at the opposite end or well away from them without any issues.

Our experience has shown that our dog, who is a ball chaser, can run after the ball around the whole area off the leash during most week days, and normally there are only a couple of other dogs somewhere in the area during most week days and Sundays.

We use dog bags to clean up after our dog and always bring him under control and put him on the lead if it looks like there are aggressive dogs.

Unfortunately we have noticed that some dog owners are not cleaning up after their dog which are mainly near the asphalt walkway down the middle.

There is also a lot of other rubbish being left on the playing areas, some of which is glass, cans, plastic drink bottles and many other items. I'm not sure what playing groups are doing before games but I'd suggest that an inspection of playing areas should be done prior to starting any game and also after the game to do a general clean up.

Also recently during a Under 14 football game on the AFL grounds near Cockburn Road we observed what we think was a needle being identified and picked up during a game which is concerning.

We also use the Griffith Street – Surfers Middleton beach area. Normally we park at Griffiths Street and walk down towards Surfers. Often there is horse crap on the walk track from the car park down to the beach and this also needs to be addressed. The proposed change to walk towards Emu Point is a sensible approach.

The red areas at Middleton Beach and Emu Point need clarification or better description as at the moment it indicates dogs are totally prohibited on walkways near the foreshore even on a leash?

We would also like to make the following comments/ suggestions.

- Include grass areas in Yakamia at Baltic Ridge Park (Baltic Ridge) and Wicket Park (Callistemon View) for off leash exercise.
- Suggest stiffer penalty for dog/ horse owners not picking up dog/ horse droppings.
- Suggest a document outlining new approved areas and reinforcing dog owner responsibilities be sent to all registered dog owners. Perhaps a form that the owner acknowledges reading and signing be returned to COA.
- More Dog Bags be made available near car park areas in the Centennial Park Area.
- More rubbish bins be made available around the Centennial Park Area.

- Are beach areas in Mistaken Island – Goode Beach and on the harbour side available for off leash exercise?
 - No mention of Cheyne Beach, Mutton Bird Island - Cosy Corner beach as off leash exercise?
 - No areas identified in Little Grove for off leash exercise on map. Suggest grass areas Mill Park, Gull Park, foreshore beach area east of Stubbs Road north to bird sanctuary area and the oval between the Little Grove Progress Hall and Little Grove Volunteer Fire Brigade. (See attached)
-

EF18316043

I have read the copy of the dog exercise and think it is very fair

EF18316225

Thank you for the opportunity to give feedback on the proposed dog exercise areas within the Albany City areas.

I am pleased to see that the main dog exercise area for off lead use at Middleton Beach is being retained, even extended to Firth St Emu Point. My main comment is that it is evident when looking at the map across the City that there are very few dog exercise areas in built areas in proximity to where people and dogs live.

Are there additional areas that could be added and even promoted as dog exercise?

My additional concerns relate to the provision of dog waste bins at a couple of points along Middleton Beach, as used to be the case some years ago. In recent years these have been removed. As a regular dog walker on Middleton Beach I am dismayed that there are not more bin options for dog owners to use. Most dog owners use the plastic bags provided but a large number of plastic bags filled with dog waste are left on the Beach because people are not comfortable to carry this as they continue the walk along the Beach. People leave waste filled bags with the intention of picking them up on their return. Many forget and subsequently leave their filled waste bag on the beach. Mostly this is unintentional but it creates a greater littering problem because it introduces plastic into the marine environment.

Solutions:

- 1 Re-instate bins on the beach a couple of 100 metres from either entry point. Most dogs need to relieve shortly after beginning exercise if they haven't done so already. People would dispose of correctly if given some assistance.
- 2 Provide paper bags for disposal rather than plastic. This strategy would fit with community expectation to reduce plastic use. Also it is in line with a reduction in plastic contamination of marine environments which the Albany community also supports.

As a member of the Albany community with a strong interest in the environment, and knowledge of what is necessary to encourage responsible dog ownership I am happy to discuss with you at any time.

EF18316226

I am just looking at your new policy and wanted to clarify section C rural leashing area I live in the Little Grove area. Does this come under the policy of a dog must be on a leash at all times ? As it is not very clear what the city boundaries are.

As feedback, I do understand the need for rules for in built up areas, but most of us are responsible dog owners and live in the country for some freedom. Rules should be made for majority not the minority, in our neighbourhood most of us have dogs , everyone is considerate of each other. We live near the water so that our dogs and children have some freedom to play. I hope that this can remain the same

EF18316269

Thanks for the opportunity to comment on this. We have passed the detail along to all FBA members, too. This comment is my personal opinion.

I think it looks fine. Am I correct in assuming that the declaring of Whalers Beach as a rural leash area replaces the gazetted corner of Goode Beach? It would make sense to do so.

EF18316270

I would like to make the following comments on the advertised City of Albany dog exercise areas.

1. It has been established by research that dog ownership provides positive benefits to a community. Exercising dogs provides physical and mental benefits to their owners as well as to the dogs. Also it builds community networks. Importantly, dogs require off leash exercise to remain healthy, and to learn to engage successfully with other dogs (on leash areas do not do this). These positive benefits of dog ownership, and the need to cater for off leash dog exercise areas, should be recognised in the City of Albany's policy (they presently are not).

2. Off leash dog exercise areas need to be extended to include more beaches and large areas close to human populations to address demand. The city of Albany's policy identifies only one beach (Middleton beach) that can be used for off leash dog exercise. Yet presently many beaches are used for this purpose. Beaches such as Ledge Beach, Nananup Beach, Mutton Bird Beach and Cosy Corner Beach all have very popular off leash dog use at present. If this use is stopped, residents would have to drive instead to Middleton beach, causing more congestion at this central beach and creating the need for needless car journeys. Likewise, the City of Albany's policy has no sizeable off leash dog exercise areas near the major urban growth areas of Bayonet Head and Lower King, or to the north west or west of the City centre.

No major exercise areas are shown for Little Grove or Frenchmen Bay. Again, the policy would require residents to drive from outlying areas and rural areas to Middleton Beach or areas along North Road for off leash exercise. This is simply not workable, let alone desirable.

The lack of off leash sites is a major concern, does not reflect present use of many sites, does not address community (and dog) needs, and would be impossible to enforce. If residents were fined for walking their dogs in such areas there would be a huge negative reaction. Off leash areas need to be expanded to include those sites presently being used, but particularly-

Ledge Beach

Nananup Beach

Cosy Corner Beach

Mutton Bird Beach

Goode Beach and Inner and Outer Brambles Beaches

Pipeline route on Mt Clarence

Open grassed area to west of Lake Seppings

Other areas need to be included near the Lower King and Little Grove areas.

Other cities have a far more positive attitude towards off leash dog exercise areas. For example, Geraldton has the majority of its beaches shown as suitable for off leash exercise. To limit off leash areas in the City of Albany to only 2-3kms, when there is such an extensive coastline is simply not recognising the needs of dog walkers and ignoring present use. The majority of coastline should be made available (with dogs excluded from popular swimming or other use areas, such as Ellen Cove).

I expect many other dog walkers to be making the same comments, and am disappointed the City of Albany has not considered their needs in the preparation of this policy

EF18316273

The xxx thanks the City of Albany for requesting comment on the above policy. The xxx has circulated details of the policy to encourage individual submissions. Time does not allow a

survey of all residents or members, but the executive would like to provide the following comments on the draft policy.

1. The City of Albany's expansion of off leash dog exercise areas is supported, but it is noted there are only two large areas to be provided – along North Road and along Middleton Beach. No significant areas are provided near the main urban expansion area of Bayonet Head and Lower King, McKail or outlying suburbs. Importantly no other beaches are shown as off leash exercise areas, despite many being popularly used at present (such as Goode Beach, Ledge Beach, Mutton Bird Beach, Cosy Corner beach and Nanarup Beach). It is of concern to the MBG that people presently living in outlying areas of Albany and presently using other beaches will need in the future to drive to Middleton Beach and put further pressure on this area. It is preferable that off leash areas are provided at the above beaches to cater for existing demand and to address the needs of outlying suburbs (noting each of the above beaches could also have sections where dogs are not allowed to minimise conflict with other users, as proposed at Nanarup Beach). In addition, it is requested the large open grassed area to the west of Lake Seppings, also popularly used at present for off leash dog exercise, is included as such in the new policy. Similarly, it is requested one off leash exercise area be provided on the Mounts, given its popular present day use for such exercise. The 'pipeline track' is proposed as this has excellent visibility, low cycle use, wide track, distance, ease of access and present use. The MBG feels that the positive benefits of having off leash dog exercise areas needs to be recognised, for residents and tourists (as well as the dogs!). More off leash exercise areas need to be shown given the present and growing demand. To limit coastal off leash exercising to only Middleton Beach, when its facilities such as car parking are already fully stretched, is considered inappropriate.
 2. Secondly, the expansion of the off leash dog exercise area on Middleton beach to Emu Point is supported, but it is suggested dogs should be required to be kept on leash for an initial distance from Surfers Car Park (for say 100-200 metres). This is proposed as a means of reducing conflict with other users. Dogs leaving the car park presently pose an issue with cyclists using the DUP. Swimming, bodyboarding and surfing are all popular just in front of the car park, and to have dogs on a leash when going through this area would be beneficial. In addition, it would make dog owners more accountable for dogs defecating on the beach as this commonly occurs here as dogs enter the beach. Dog owners would also be required to have a lead with them if an initial leash area was used. Having a leash exercise area would provide a 'buffer' between the dog exclusion area to the south and the off leash area to the north.
 3. The MBG is supportive of the continued dog exclusion designation for Ellen Cove, and other main swimming and play areas.
 5. When the new regulations are implemented, we encourage Council to inform dog owners of the changes by letter.
-

EF18316274

I am responding to the proposed Dog Exercise, Prohibited and Rural Leashing Areas Policy. I do not think it is practical or beneficial to ban dogs on Nanarup Beach (Portion R 45631) west of the mouth of Taylor inlet. I use the beach regularly for surfing and general exercise as do most of the regular users. I take my dog with me when visiting for company and exercise while surfing that area.

Over the past several years I have noticed an increasing number of off road vehicles driving on the western beach to the lagoon. I have reported this on several occasions to the ranger but it appears the law cannot enforce the vehicle ban. I believe that if a law cannot be enforced it should not exist. No disrespect to the rangers as I believe you have a lot to cover and Nanarup is a distance out of the way.

Its clear that a dog ban will be as disrespected as the vehicle ban on portion R 45631 and will only antagonise the regular users of the beach with dogs. I have seen first hand near misses

with vehicles and children on that part of the beach and believe dogs go unnoticed in comparison. The regular users of this portion of beach respect and use it with common sense.

EF18317150

The xxxx would like to support two policies for the sport grounds we play and train on:

1. No smoking policy except in designated areas if there needs to be such areas.
 2. Dogs must be on leashes at all time and can the city please provide poo bags and bins for dog owners
-

EF18317152

Okay with all except for the Little Athletics sports oval on North Road, the introduction of dogs on the loose doing their business anywhere and particularly in the long jump pits may render this venue unpleasant and un-hygienic for many. I'm sure most dog owners will go and pick up after their pets but many will not; just my opinion.

EF18170140

As we discussed this morning, Mt Clarence parkrun takes place from the path outside the toilet block at Middleton Beach, along the length of the boardwalk and onto the beach at the level of the volleyball nets. parkrun's policy allows for a runner or walker (unless he/she has a pram) to have one dog on a short leash whilst participating in parkrun. It would be of great benefit to us if we were able to continue to allow this practice at Mt Clarence parkrun

EF18315556

As I am going on holiday soon, I will not have time to put in a 'proper' submission on the 'doggy' proposal, so I hope this email will suffice.

Goode Beach

- It is not obvious to me what future (dog) status of Goode Beach is being proposed. The first 100m or so at the south end has always been gazetted a 'no dog' area. The remainder of the beach is currently 'off-lead, but under control'.
- Are you proposing to maintain this status?
- This beach should NOT become an 'always on the lead' area. It should remain 'off-lead, but under control', as the current status has not caused any major problems to residents, visitors or tourists, since I have been around (11 years).

Whalers Beach

- I would like this beach to be divided into two doggy parts.
 - The eastern 100m or so (in front of picnic area) would be dogs 'always on the lead'.
 - The remainder of the beach should be 'off-lead, but under control'.
 - Is there a dog waste bin at Whalers Beach? The City (kindly) did install a couple of new bins in our area a couple of years ago, but I can't remember whether Whalers Beach was one of the spots. I think so.
 - If not, this beach needs a dog waste bin.
-

EF18317158

On behalf of the xxx FC we would like to offer our support in principle to having the Centennial Sporting Complex made a smoke free zone. I would like to see sensible designated smoking areas with butt bins to accommodate smokers away from the main buildings and high use areas.

We also would like to have some sort of dog control in this area as well as we are getting a lot of dog faeces. One of the main areas I have noticed is on the walk way and cycle path in front of our facilities. It's not a good look when people turn up to use the complex and the grass areas besides the paths are covered in dog faeces. Supplying dog bags may fix this or at least limit the extent of the problem. I intend to pick some of this up myself as its all part of keeping our facilities looking good.

EF18317159

It was good to see you the other day regarding the City's update on the continued development of the Centennial Precinct.

Would it be possible for me to ask if the City would give consideration to implementing the following throughout the CP area:

1) SMOKING - Can the grounds be a designated 'no smoking area' when being used for sporting / organised recreational use? I understand that there would need to be signage / wording / designated areas but our main focus would be for smoking to be prohibited around the pitches / clubrooms / canteen when sport is being played

2) DOGS - Can there be signs that dogs are prohibited from the area when sport is being played or training is occurring. The area is a great place for dog walkers especially with the increased pedestrianised areas however they can pose quite a problem when they run onto the fields during play and steal the ball or chase the children. If it is not possible to prohibit them from the area would it be possible for signage to clearly show that they must be on a lead at all times.

We receive quite a few complaints from parents regarding the above two matters each week and it is often hard for us, as an Association and as individuals, to try and stop people from doing it. The stock response is 'well, there's no signs to say I can't' which leaves us quite helpless to act.

If this could be looked into by the City and supported we would greatly appreciate it.

EF18317160

I am a dog owner and have absolutely no issues with dogs being off a leash. However what I do have an issue with is dog's mess and the failure of owners to clean up after their dog. Further more it appears that it is completely unenforceable.

I assist in running the junior soccer association and every Saturday morning I have to clear up dog mess which is left on playing fields by irresponsible dog owners. The owners may not even be irresponsible as if the dog is off the leash they may be unaware the dog has been to the toilet in the middle of a goal area where a 6 year old kid is about to play soccer the next day.

Unfortunately it doesn't get my vote. Not because I don't want dogs to be off a lead but because I don't feel the City of Albany will do anything to enforce a policy of 'clean up after your dog'

EF1887072

I'm pleased to see proposed areas for exercising dogs clearly on the map .

My question is this does not mean dogs on leash only eg Lange park Bayonet head ?

If adopted would this policy be open for review after a period of use ?

An enclosed large field area would be of benefit especially in winter when the beach is wild . I'm not sure I can suggest an area

EF18316588

Dog Exercise areas: Map Reference 12 & 13

1. I feel that letting dogs onto the beach at Emu Point between the boat harbour and the bollards at the end of Hunter would be a hazard to the number of adults and children that play and swim in this area.

2. I was down at the beach on Saturday and there was a number of people enjoying the beauty of the area having picnics and playing in the park and beach a unique part of Emu point.

3. Dog owners do not always pick up the dog poo and they wee on the grass and sand where families picnic this is a health hazard to all concerned.

4. I have noticed on a number of occasions where dogs are not kept on their leash in areas that they are suppose.
5. As there are other beaches for dogs to have there freedom on I would like to see this area of beach being dog free.
6. It is lovely that people can drive their vehicles on the beach and launch canoes and paddle boards from there. If dogs were allowed to run on this beach there would be the ones that also venture along the beach further towards the café and playground.
7. I am attaching a couple of photos of the area for you to see how people enjoy this beautiful spot without having to contend with free roaming dogs.
8. Map reference 13 at the Boongarrie and Cunningham streets between the groins also have many swimmers young and old and they do not need any hazard of dogs running between them whilst walking along the beach.

I am asking if you would give the above points consideration before making any decision on the Dog Policy at Emu Point. Please forward to all Councillors. Thank You

EF18317039

Some comments that should be considered in the City of Albany's review of the dog exercise policy :

1. Our concerns are centred on the conflict between dogs and shorebird and seabird sites which does not appear to be addressed in the draft policy.
2. There are a number of shorebird and/or seabird sites on foreshores within the City's boundaries that are highly sensitive to dog exercising activities whether the dogs are on-leash or off-leash.
3. "Sensitive" here means impacts from disturbance, disruption and predation to the bird's activities of feeding, roosting (resting) and breeding.
 4. "Disturbance" is when these birds are distracted, on high alert and are diverted from focusing on what they need to be doing i.e feeding, roosting, breeding. These activities are essential to their survival and for migratory shorebirds they are critical if they are to obtain the food and rest they need to make the long (12000km) return journey to the arctic regions of the northern hemisphere.
 5. "Disruption" can occur when birds are forced by dog exercising (or their owners) to fly "somewhere else" when the "else" does not necessarily offer them the same resources and important energy reserves are consumed unnecessarily. It can also cause resident shorebird and seabird nests to be abandoned and eggs and young to be predated upon by either dogs or other birds or be exposed to excessive heat or cold.
6. Studies in other Australian states that can be cited have shown that dogs are seen as predators by shorebirds from at least 100m distance and are disturbed by their presence and people from at least 50m distance.
7. Sites of concern include Morley Beach (Wilson Inlet), Anvil Beach, Torbay Inlet mouth and adjacent beach, Rushy Point, Frenchman Bay beaches, Oyster Harbour, Emu Point (northern bay) and Betty's, Norman's and Cheyne's beaches.
8. In terms of on-leashing or off-leashing , again there are studies to show that leashing has very poor compliance (around 20%) even when there are signs stating leashing is required. >From our observations no better compliance can be expected here. A City ranger presence at these sites to encourage better compliance is not likely to be feasible at the frequency required.

9. As the City should be aware, these birds are required to be protected under the Federal EPBC Act 1999 and also our Wildlife Conservation Act 1950.

10. Amongst other strategies and policies endorsed by local governments on the south coast, SCMG's "Southern Shores 2009-2030" lists a key concern as the protection of shorebirds and has a strategic objective of prohibiting animal exercising (and vehicles) in key shorebird habitat.

The City is therefore urged to give full consideration to dogs, on-leash or off-leash, being prohibited from these sites and any other sites where such conflict with birdlife can occur.

EF18317044

I wish to voice my objection to the proposed dog exercise area along Barnesby Drive for the following reasons.

1 At least twice a day for 40 weeks of the year, this area is a school access area. A considerable number of children aged from 4 years to 12 years cross this piece of land to attend Yakamia Primary School. Children of that age are often quite apprehensive of dogs and I think the idea of mixing children who are often unaccompanied with unleashed dogs could invite disaster. The area is also used by the school as a cross-country exercise area for the children.

2 Yakamia, while having a considerable number of young families, also has a large number of elderly residents who enjoy taking their daily walks along Barnesby Drive, enjoying a little bit of nature and listening to the birds. The elderly are also quite apprehensive when it comes to unleashed dogs and not all dog owners are able to, or care to control their pets.

3 Friends of Yakamia Creek and the Albany City Council have gone to great lengths and some expense to make this area a lovely nature strip to be enjoyed by cyclists, walkers, nature lovers and dog owners who walk their dogs on leads. The planting of native plants has encouraged back many different species of birds, several who forage around on the ground. These will disappear if domesticated animals are allowed to roam freely disturbing their habitat.

4 The proposed area is a very narrow strip of land, meaning the dogs are exercising between the creek and the cycleway/Barnesby Drive which is quite a busy road with traffic often travelling at quite a speed (yes, the speed limit is supposed to be 50 or 40). I am concerned that as there is no fence restricting the animals the likelihood of accidents, either with cyclists and dogs or vehicles and dogs is a strong possibility.

5 I use this walkway at least once a day and pass numerous dog owners exercising their pets, generally on a lead although not always. I find that generally these owners are responsible when it comes to cleaning up

after their pets but I can also see where on numerous occasions, people turn a blind eye and with unleashed dogs, this problem will only escalate. As I have stated, this area is utilised extensively by children and walkers.

I would ask the Council to reconsider their proposal. Many people are going to considerable effort to make this a lovely little strip of nature which is only going to become more beautiful as the planted natives grow and provide more food and shelter for our native birds and maybe small mammals. Please leave this little piece of land to be utilised and enjoyed by the school children, the elderly and nature lovers. It is just way too small to also be used as an exercise area of unleashed dogs.

Thanks for the opportunity to comment on the proposed dog exercise area policy.

I am writing to express my concern at the proposed prohibiting of dogs on the Stidwell Bridle trail as I currently regularly horse ride with my dog on these trails.

Horse riding with dogs is a great way to exercise the dogs and horses together and it would be a real shame to not be able to do this anymore, both for local and visiting riders.

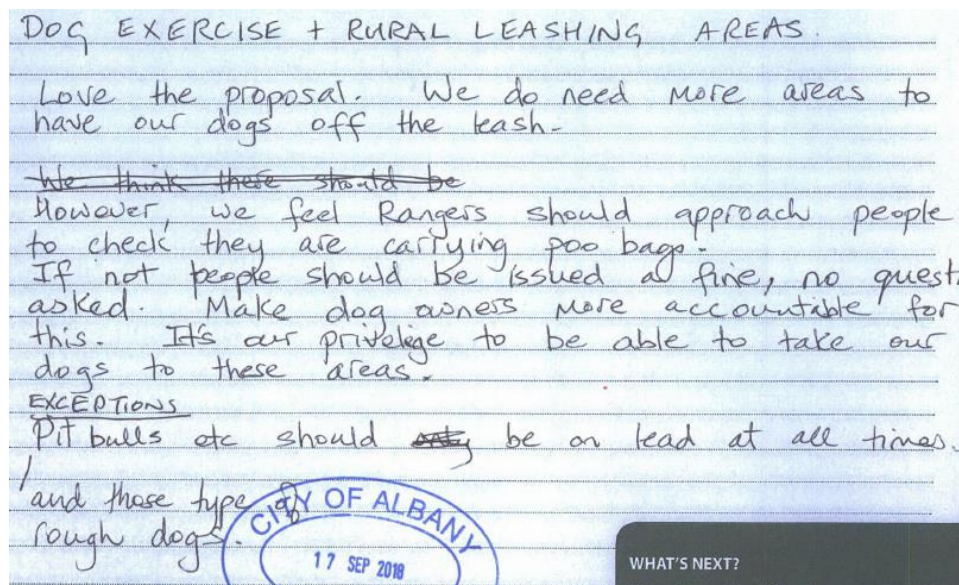
Usually any dog that is on the Stidwell trails is familiar with being around horses and is unlikely to cause any issues for other trail users. Given the distance that horses cover the types of dogs exercising with the horses tend to be working dogs such as kelpies, collies or similar that are very intelligent and well trained off the lead and responsive to commands.

I can understand not wanting dog walkers on the trails but as the trails are mostly soft sand they are not an inviting area to generally exercise dogs.

If the basis of banning dogs is for environmental concerns then I suggest it would be better to exclude the four wheel drives and motorbikes from the area as they cause far more damage to the environment .

As the trails are used by a relatively small user group the proposed dog ban will have an disproportionately large impact on the overall user group of the trails and it will force horse riders to exercise elsewhere with their dogs.

ICR18316409



EF18317255

Many members of the Albany Bird Group and the local BirdLife branch are also dog owners and as such welcome that the City of Albany intends to set up designated dog exercise areas.

As you would be aware the City of Albany has two areas within its municipal boundaries which are internationally significant for migratory shorebirds - Wilson Inlet and Albany Harbours. These areas are used by birds protected under both the EBPC Act and state legislation as well as international treaties. Some of these shorebirds such as the Great Knot are also listed as critically endangered. The City of Albany has an obligation to protect these birds.

To ensure the protection of these birds we urge the City to also include areas important for shorebirds as Dog Prohibited Areas. Significant migratory shorebird areas within the City of

Albany include:

- Morley Beach (Wilson Inlet)
- Rushy Point (Princess Royal Harbour)
- area between Yakamia Creek and Emu Point Boat Harbour (Oyster Harbour)
- Oyster Harbour at Lower King Esplanade between causeway and jetty (Oyster Harbour)
- King River north of causeway (adjacent Oyster Harbour)
- Kalgan river estuary mudflats (Oyster Harbour)

Allowing dogs to exercise freely on beaches also has an impact on shorebirds that are not migratory, such as Hooded Plover and Pied Oystercatcher for example, and nest on beaches of our region.

Hooded Plovers are already listed as threatened in the Eastern States due to lack of breeding success. Dogs have been implicated as a major threat to the successful breeding of these birds as the disturbance of the nesting birds has led them to abandon their nests and or chicks for lengthy periods of time often resulting in their predation or chicks dying from exposure.

Nanarup Beach east of Taylor Inlet is one of the beaches where Hooded Plovers were regularly found in the past and probably not an ideal place for an off-leash dog exercise area.

We hope the City will consider the welfare of protected species when putting its dog exercise policy in place. We are happy to provide further information if required.

EF18317383

Thanks for the opportunity to comment on the proposed dog exercise area policy.

I would like to request that dogs are not prohibited on the Stidwell Bridle trail as my friends and I regularly horse ride with my dog on these trails.

Horse riding with dogs is a great way to exercise the dogs and horses together and it would be a real shame to not be able to do this anymore, both for local and visiting riders. Usually, dogs ridden with horses are familiar with being around horses and unlikely to cause any issues for other trail users.

EF18317382

I am writing in response to the new proposal for dog exercise areas in Albany.

Overall I think that the proposal looks good.

I am pleased to see the inclusion of the ovals near ALAC and Centennial stadium as off lead areas, as well as the number of other new areas. I believe that these will be a valuable asset to the Albany dog community.

However, the change of the lagoon at Nannarup beach to an area where dogs are prohibited, I believe will cause a problem with local beach users. This area has allowed dogs for as long as I can remember and I believe that if this proposal goes ahead, many regular beach users will simply ignore the changes and continue to take their dogs there.

Also, I am aware that any areas not listed as dog exercises areas dogs must be kept on lead. However, I would like to see some areas specifically listed as dogs on lead only and patrolled by rangers. I often see popular areas where dogs are off lead and not under control by their owners. Areas that I found are problematic in this regard include the ANZAC peace park and foreshore, Middleton Beach Boardwalk, Lake Seppings birdwalk, Eyres Park and Lakeside Park in McKail.

Many of my friends and clients, as well as myself, have dogs that do not do well when there are other dogs off lead around them. This may be because they are elderly, sore, nervous, fearful or

potentially aggressive. I believe these dogs and their owners have as much right as anyone else to be enjoying the lovely walks and parks that Albany has to offer. This becomes very difficult when these people take their dogs specifically to areas where dogs must be kept on lead, and there are people who are not abiding by the law.

Understandably, rangers cannot control this all of the time, but I believe that regular and random patrols of these areas, as well as specifically listing them on the proposal will go a long way to help all dog owners in Albany be able to walk their dogs safely and comfortably.

ICR18317461

Please find enclosed the petition papers in favour of an Enclosed Dog Park in the Albany area.

Over the last month, I have had petitions available at 3 veterinary offices, as well as pet food supply shops. I have gained 675 signatures in support of this matter. I also ran an online petition on facebook, gaining 97 signatures from locals.

I am aware of the exercise areas within the City of Albany, but feel that an enclosed dog park would allow dogs to safely run and play, with no danger of traffic or children playing. I myself find it hard to take my dogs to the beach because of a back injury, as I'm sure other people do, even on the dog beaches people will always complain that the dogs are in their way of their running etc... even though my dogs are docile, I for one do not like taking them for a free run where childrens play areas are.

I am hoping that a dog park will enable everyone, especially seniors to sit and watch their dogs freely run and play, this will also be a chance for seniors to socialize with others at the same time. Dogs are a great conversation starter, so all dog owners attending the park will always have someone to chat to. This would be one more way of bringing the Community together.

It is hoped that 'special meetings' for different breeds of dogs would be held for maybe 2 hours at a time on certain days . .e.g. Retriever groups, Staffy groups, Shih Tzu groups, Kelpie groups. I myself would be happy to advertise these meet-ups.

-2-

In Perth many suburbs have enclosed dog parks with play equipment just for dogs, such as tunnels, ropes for tug of war, very shallow puddle areas for dogs to splash in (these are usually about 9 or 10cm deep) slides, jumps, sand pits, ramps etc, as well as a drinking tap/fountain for the dogs.

Thank you for accepting the petition, I hope some further thought will be given to this issue.

EF18317520

As far as I can tell, there are no changes between the existing and the proposed exercise, prohibited, and rural leashing areas.

As a veterinarian, the biggest issue I see in public areas is a lack of understanding of dog body language and normal behaviour. People who walk their dogs with companions often miss cues their dogs give them that would circumvent potential dog-dog or dog-human conflict. There is often also this notion that if one dog is friendly, it is okay if it approaches anyone or any dog at all, and this is not the case. The importance of evidence-based training for a solid recall as a prerequisite for being off leash cannot be overstated. Aversive or dominance-based training is not in line with current scientific thinking and should be avoided.

On the whole, as a dog-owner in Albany, and also as someone who has dogs who don't enjoy having strange dogs rushing up towards them, there are many responsible dog-owners in town. Where there is failure of responsibility (unattended faeces) I think it is largely due to ignorance than malice, hence the importance of keeping an eye on what your dog is doing rather than sitting and having a chat a long way away.

There will always be a minority who don't care for the rules but overall I hope that dogs and humans can continue to coexist relatively happily in this lovely city.

In relation to the current petition circulating about a fenced dog exercise area, and existing fenced areas like Centennial Park, if an off-leash area is to be fenced, I strongly recommend spacious double gates to prevent escapes, and multiple entry/exits to avoid congestion.

Signage at entries to indicate guidelines would be immensely helpful and go a long way towards owner education. An example of a guideline would be to remove aversive gear such as choke chains or electric collars due to the injury risk.

Fences should have wide curves rather than corners to avoid dogs getting backed into a corner. Visual separation (e.g. hedge along fenceline) to separate on- and off-leash areas can help to prevent barking or other reactive behaviours towards people and dogs outside the off-leash area.

Walking paths and trails within off-leash areas to encourage human traffic flow. Seats tend to encourage sedentary humans, which in turn encourages dogs to congregate. Again, congestion leads to conflict and altercations. There are far fewer kerfuffles between dogs when owners are aware and moving.

Trees, hedges, or other forms of visual breaks/barriers are also useful in heading off early canine conflict if a dog wishes to avoid another.

If space allows, a separate section for small dogs would be ideal as a significant size differential can mean injury even in friendly play.

Interactive equipment like short tunnels and static ramps can encourage dog-owners to train their dogs, rather than assuming that letting them zoom around top speed is appropriate socialisation or exercise.

Any play equipment built for dogs should be low enough that large dogs cannot fit underneath, but high enough that smaller dogs can hide from larger dogs.

ESD18317523

I'm a user of the Stidwell bridle trail and have recently been informed that dogs are to be banned on the trail.

I'm not a dog owner and I don't have any issue with people taking dogs on the trail. It's a pretty lovely way to spend a few hours and it would be a pity for people to miss out.

EF18317525

The dog exercise areas on Middleton Beach (ref 18) and Emu Beach (ref 12 & 13) where dogs may be off leash:

1. This is our top tourist beaches for Albany do we want it littered with doggy droppings and a percentage of uncontrolled dogs BECAUSE their owners can't be trusted to control their dogs.
2. I had my hand ripped open by a friendly dog that wanted just to meet and greet me
3. I love dogs when they are under control, on a leash. There are long retractable running leads that people can use for their pets. Please can we keep our most popular beach safe for everyone.
4. I don't believe there are enough rangers in Albany to monitor irresponsible dog owners, perhaps we need bigger signs and a red card system to warn people of the consequences of their irresponsible actions.
5. Public notice boards at Emu Point, Griffiths St, Surfers Beach and Middleton Beach could give further reading material to promote best practises including Poo collection especially as a lot of the poo is deposited as the dogs arrive at the beach walkways Some clever signage might help
6. Minimum recommendation for me dogs on leash during period from November to June irresponsible owners to be given a red card warning for dog poos not collected or unleashed dogs 3strikes and either fines or no dog on beach.

I do support the idea of having more than one fenced off Parks for dogs with responsible owners.

EF18317528

I wish to provide comment on the proposed Dog Policy before the City of Albany.
 I live in Mt Barker but regularly visit Albany with my dogs and horses to exercise them on some of the great bush trails in Robinson, including the Stidwell trails.
 I would hope that all these tracks are kept available for dogs and horses, especially as there aren't many places you can go where you can ride freely with your dogs. The dogs are low impact on the tracks and get to enjoy long runs. I have never had any issues keeping dogs under control or away from other riders.

EF18317529

I object to the lobby to ban dogs on stidwell

trail I think that most dog owners are courteous and have control over their dogs to ban all for the mistakes of a few is foolish and detrimental to the way of life most want. I would like to think that those that do not abide by common laws and dare I forbid to mention common sense would be given fines hefty enough to cause them to re think their actions?

EF18317530

It has been brought to my attention that the council is planning to prohibit dogs from the Stidwell trails in Robinson

I am having trouble understanding why the council would want to do this, our property backs onto the trail and we walk our dogs here daily, we have done this for the last 5 years without issue.

On the other hand, I very rarely take my horses onto the trail because of the large number of motorcyclists that use the track, seemingly without regard for any other users, that cause far more potential for harm than dogs.

I am urging you to reconsider your stance on this matter

EF18317531

I am writing to you as a keen horse rider. I regularly ride on the stidwell trails with my dog Bella, a lab kelpie cross I am very concerned about the proposal to ban dogs on the trails as I will no longer be able to take Bella with me to do what we both really love ❤️

Pls can you consider amending the policy to allow dogs on the trails when accompanying horse riders

EF18317632

Writing to say I totally agree with the proposed off lead dog walking areas. I still feel an area, fenced or time for people to walk their dogs with out non dog people (eg between 6am and 10 am between 4am 7pm. Would be less stressful for both parties. Non dog owning people need to be educated about how to behave around dogs ie, not run through the middle of a dog walker, slow down when passing, give warning. Dog owners do their best but when people come up behind them, no warning old people with hearing problems have not heard and have been knocked over. We can do our bit having our dogs under control but it is a 50/50 responsibility as well. Children run towards a dog, no idea how to behave around them.. It's stressful. Trying to avoid cars as well, constant stress. I have trained my dogs, owned 16 over

my life time, trained, showed, done obedience, agility etc. so not a novice. I love the idea of being able to walk my dogs in the areas proposed. And yes I go with dog bags, dog whistle, leads and balls. While on the subject of dogs can something be done about the bike riders at middleton beach. Old people and children existing off the beach onto a bike path (who's idea was that) they do not slow down and it is only a matter of time before an accident occurs. I have had to resort to yelling at many, it is very obviously they are not doing 15k an hour. Many thanks and I am hopeful that the dog areas will be excepted.

EF18317633

Ive recently heard of the new policy up for comment in regards to dogs on the Stidwell Tracks.

I wish to object on the potential ban on this as I use these tracks regularly for exercising my extremely energetic kelpie. Im training for Kokoda Track and try and take my dog where ever i can in my training sessions, given he needs to exercise to. There are areas around Albany im too scared to walk near houses because of agressive dogs, so i find the tracks very refreshing.

Id ask you to reconsider your position on this as there would be many upset dog owners in Albany.

EF18317634

I just wanted to make a submission as part of the Dog Exercise Policy currently being considered by the City of Albany, with regard to the Prohibited Areas listed.

In particular, I have noted that parts of the Stidwell Bridle Trail are listed as prohibited to dogs - those areas which are for horses only.

I like the idea that parts of the Bridle Trail are for horses only as I ride those trails a couple of times every week. But, the reality is, that there are no areas where off-ride bikes won't go, and I have often found myself confronted by multiple riders or even 4WD drivers on those designated tracks whilst on horseback. With this in mind, I don't think it's practical to prohibit dogs from these parts of the trail. Many horse riders using the trails take their dogs with them (me included) and this represents a great opportunity for long exercise routes for active dogs.

I know many Robinson locals walk their dogs on all parts of the trails and think it's great for people to be out using them in this way. Most dogs on the trails belong to horsey people anyway.

What would be beneficial is to include some information about the risks to dogs on the trails (ie. Snake bite, getting lost in the bush) and remind dog owners of their responsibility to keep dogs in check (ie. Don't let dogs chase Roos). The new signage installed at Roberts Rd trailhead would be good for that. I think having a place where dogs and horses can go is such a great attraction. Just this week I had a friend from Manjimup travel over to Albany with her horses and dog, who stayed at the AEC specifically so she could take both animals out on the trails with her daughter over the school holidays. Where else can you do that?

Anyway, I think it would be a big loss to prohibit dogs from the Stidwell trail. It would be efforts better spent to prohibit motor vehicles/bikes from the horse only areas first!

EF18317636

First off, dogs do need to be let off the lead for running and playing. If your plan does go ahead, that will severely restrict the areas in which they can do that.

Even at North Road..if a group of people decide to pull up and start playing, are the dogs have to be removed?

What about Erye Park? My dog loves that park. Granted there is a playground there but surely the end can be fenced off for dogs!

It appears that unless you actually live in town itself, then you have drive into town to exercise your dog properly.

What about Haz Bernz? The cafe on the foreshore allows owners and obedient dogs to dine there. As a public building, it will be closed to dogs.

How about the small bush near the skate park on Hay Street? Would I be fined even if there is no one there at the time?

How about Conki Park?

My dog loves the area and as a responsible owner, I always pick up after my dog and keep my dog under control. Do you dislike dogs? Are you wanting to change Albany?

How about the ANZAC Centre area?

How about Leach Street?

The lake area of Lake Seppings?

How about the area near Orana?

I can imagine dog owners and their dogs being kicked off when a group of people wish to use the areas. Hence not entirely happy with what I perceive as a system that has the potential to be open to abuse by others.

EF18317639 (same respondent as EF18317636 – above)

Although in the majority of the population in this city, (as in the number of dog owners), I have experienced first hand some individuals not controlling their dog(s) nor picking up after the dog.

It leads me to the conclusion that the small minority spoil it for the rest.

I am fearful of taking my dog off the leash only to have a group of people 'move in' and kick us off - just because they feel like playing in the area where we are. Or worse, being fined say, a thousand dollars.

All groups need to be considered. Lake Seppings has an excellent area where they can run free but was not mentioned for example. Is that area marked for something else like high rise buildings

EF18317642

In response to the above policy statement I welcome the addition of Centennial Park adjacent to North Road as an off-leash dog area under conditions. However being adjacent to a busy road this should require substantive fencing to safeguard dogs from venturing into the traffic. Foundation Park, which is used for dog training, should also be fenced off for the same reason.

I also welcome the extension of the leash free dog area from Griffith Street towards Emu Point and this is a sensible move as this is not the most used part of the beach. With more restrictive urban environments dogs need places to exercise & run free to decrease misbehaviour from them which they could cause when cooped up in back yards, such as digging & barking & being aggressive to passers-by. It is good for them to learn to socialise with other dogs & other people.

The Mounts are viewed as a great asset by the local residents. That is one of the reasons why they chose to live there & exercising not only benefits their dogs but the owners as well. As retirees my wife & I frequently exercise by walking our dog around Mount Adelaide/Clarence & Melville but I do not agree with the restrictive rules for dogs in these areas. A more reasonable approach would be to put the onus on dog owners to act responsibly as is the case with mountain bikers. The policy should be that dogs are kept under effective control. That they respond to commands; remain close to their owners at all times; do not damage the flora/fauna; & do not threaten or act aggressively to other people or animals. Therefore dogs should be permitted to be off-leash on the Mounts where there are well defined wide tracks which allow the dogs to be observed by their owners & seen by bikers.

It is commendable that the Council is looking at the issue of dog exercise areas as there is an Australian & world-wide trend to better cater for the needs of dogs which in turn increases social interactions among residents and makes for healthy & happier pets & their neighbours.

EF18317705

I am writing to advise Southern District Junior Football Association's view on the above in relation to Centennial Park precinct. Please accept my apologies for the lateness in this email.

We would ask that dogs not be allowed to use the playing fields during football season. This season there was a lot of dog feces on our ovals before games and we would notice it when walking around during the games. As volunteers we do not have the time to comb oval surfaces clearing all of this.

I am concerned that a child playing junior football could swallow a mouth full of this and the possible contamination that could occur (and it would be a pretty horrible experience). Even when people playing both football and soccer are kicking there is an issue of dog feces being flung around.

Personally having to watch where I walked to avoid stepping in dung was frustrating and in wet conditions even worse.

We do have spectators who take their dogs to games and as there is nothing in place from the City both parties are powerless to control number or police this. Are dog owners technically allowed to let their dogs exercise when games are being played? It may seem obvious to you or I but could it potentially happen that someone does allow their dog to roam and we can't do anything.

EF18317706

I'm not sure if it's too late to send this but I only found out about it today, and I would like to comment in favour of the the proposed Dog Exercise Areas Policy.

Many of the off-leash dog exercise areas currently available are fairly small which can make it difficult to throw a ball and can also be overwhelming when there are a lot of dogs using the space. Most of them are also unfenced and close to traffic which is another concern when throwing a ball, or in the case of Le Grande Drainage Reserve - overgrown and unusable.

Places like Centennial Park, particularly the western end, and Middleton Beach are ideal for exercise areas as they are large enough to accommodate multiple people and dogs without it feeling cramped and like you're on top of each other, as well as being away from roads and/or are fenced.

I'm sure many dog owners would be appreciative of more options to exercise their dogs off-leash and would feel much safer knowing they have places away from potentially busy roads.

EF18317707

Whilst opening up additional parks for dog owners to exercise their dogs off-lead is probably a welcome development for such owners, the needs and preference of families, especially those with young children, should be ascertained before implementing such regulations. Parks and beaches are the main public areas where children are currently able to play safely and without fear, whether justified or not, of animals.

My main objection to the proposed new regulations, however, concerns the proposal to make all dog walking on Mounts Adelaide, Clarence and Melville lead-only dog walking. For as long as I have been in Albany (38 years) these Mounts have been popular with both walkers and dog-walkers (mostly off-lead) alike. I have been the owner of two dogs over this time span, and have walked them regularly (both on and off-lead) on the Mounts, without incident.

All dogs, but especially the larger breeds, need to be let off the lead in order to exercise properly. They need the freedom and the space to be able to do this. Dog owners also need exercise, and this is generally combined with walking their dogs, preferably in natural surroundings like the bush, parkland or beach.

Until the recent increase in mountain-biking on the Mounts, people were able to go for their bush-walks and dog-walks in serenity and safety. This is no longer possible. Every single bush track on the Mounts, no matter how narrow and formerly secluded, is now used by bikers. At any moment they can and do appear, usually at considerable speed, suddenly around corners, from behind, or above. Walking is increasingly becoming unsafe for all walkers, but particularly for the more elderly, and for children and family groups, and this is reflected in the decrease in such groups walking on the Mounts. Whilst walkers currently have priority when meeting bikers on the tracks, in my experience it is invariably the walkers who have to move aside or leap out of harm's way, whilst bikers continue on their trajectory.

At the community planning meetings held to plan trails on the Mounts, walkers were promised there would be a series of 'walkers only' trails, to avoid just such problems mentioned above. When the plans came out a very few (extremely short) tracks were designated 'walkers only', most being tracks of the existing Heritage Trail. Now even those have disappeared, with Council officers claiming that the City is unable to designate tracks for a single purpose - unless the single purpose is, for some strange reason, for mountain biking.

It would appear, then, that the proposed new regulations on the Mounts for leash-only dog walking is a result of the need for mountain bikers to be able to conduct their activity with minimal impediments from other users. Whilst I can see the dangers of mixing dogs, walkers and bikes on some of these tracks (though I don't necessarily believe anyone would be safer with dogs on a lead on the narrow tracks, or on those winding bush tracks where one cannot see what is round the corner), I do not see the necessity of keeping dogs on a lead on the many open, broad and relatively flat tracks on the Mounts.

To reiterate, there have been no known problems with walkers and dogs for the past 40 (probably one hundred) years; if problems are emerging now, it can only be on account of mountain bike usage. So a solution should be found that accommodates walkers and dog walkers needs, as well as bikers.

One solution would be to have designated **times of day** for just bikers, or just walkers/dogs, or designated **days of the week**. If this can be done on Middleton Beach for horses, it can be

done also for bikers/walkers/dogs. Another would be to allow dogs off the leash on the above-mentioned broad, open tracks. All of the above could quite simply be accommodated by appropriate signage.

Finally, I believe some dog walkers are increasingly using Middleton Beach rather than the Mounts because of the potential danger of biking incidents. The beach as a result is becoming very crowded at times, and very dirty and smelly - especially on warmer/hot days. Retaining the Mounts as a suitable and safe alternative would reduce this pressure on the beach.

EF18317711

I have read the proposal with great interest and think it is very good and give it my full support. Congratulations.

I have 2 dogs and exercise them off lead twice a day, mostly on the beach but now also on the sporting grounds.

Couple of comments

1. All areas need to have bags and bins to save complaints. There is so much more dogs litter, both in and out of bags since the bins were removed from the beach. Maybe some collection and removal system could be developed. It is not necessary to have large rarely emptied bins as before. Small is better!
 2. In the future it might be possible to allow small dogs only between the dog entrance at Surfers and the swimming beach. This area is underutilised at present
 3. Access to the beach is very challenging for many dog walkers especially on the return journey and could do with some research and action.
-

EF18317715

Re:Public comment dog exercise, prohibited and rural leashing areas

My wife and I have two small dogs. We have read the above policy and we are very happy with Parts A and B. Very good!

However we are not happy that dogs have to be leashed on tracks in Mounts Adelaide, Clarence and Melville. We have been walking our dogs in these areas most days for more than 15 years. We do leash the dogs for most of the walks, but we unleash them where the tracks are wide. We keep a close eye to stop them from entering the bush and hunting. They know the routine and stay on the track. They have never killed any fauna.

Perhaps suitable stretches of these walks could allow dogs off the leash. With a stern condition that they are prevented from entering the bush.

EF18317718

Thank you for including us in your request for feedback.

The proposal will allow owners to use more space closer to town to exercise their dogs. I think this will benefit a lot of local residents. I hope the new proposal will bring with it more 'policing' of the areas. The feedback I get from a lot of my trainers, local dog owners and personal experience, is that people fail to respect the 'dogs on lead' areas. The lack of some individuals understanding of the rules and regulations are causing magority of the problems in the dog areas.

Some people choose to take their dogs to designated dogs on lead areas for a reason. They could be working through their own dog's behaviours (their own training and exercising without the worry of dogs running up to them out of control) or a combination of both. We as a club are trying to teach the community the correct dog etiquette so they know and abide by the City's legislations.

The last thing I would like to comment on is the petition circulating around town about a fenced area. While we think an enclosed dog exercise area is a great idea, the proposed location of Foundation Park, we strongly disagree with. We have a hard enough time asking people to put their dogs on lead to prevent them interfering with the dogs at training (during our allocated training times). Having any part of the Park as a fenced area would increase the amount of off lead dogs to contend with during class that aren't in control of their owners.

Thank you again for taking the time to read through our feedback

EF18317798

Preamble

Although this draft policy has been advertised in the media and on the City website, in situ publicity at some key dog walking areas has been very poor. This is a particular problem in the case of the Albany Heritage Park within the City Mounts reserves. Only two notices advising of the draft policy appear to have been erected and both are located in the glass fronted tourist information displays at the Saddle and the Apex Drive (toilet area) car parks. Once read, these tourist displays are not likely to be re-visited by locals and they are not located on the main dog walking trails.

By contrast there are about 15-20 major pedestrian entry points to the reserve used by local residents and other regular dog walkers who arrive by car. Casual enquiries with these users have revealed in the past two weeks that only about 1 in 4 were aware of the proposed lack of any leash-free areas or trails within the Park. Furthermore, the notices at the two tourist car parks do not explain the proposed 'Rural Leashing' policy and associated complete lack of leash-free areas on trails within the Park.

As indicated in more detail below, there are at least 1000 residents/ratepayers adjacent to or living within a very short distance from the park boundary and the Park is essentially their historical local public open space. Many residents in this zone, including the more elderly, keep dogs partly for security and where possible they exercise their dogs along nearby wide peripheral firebreaks, power lines and water supply easements in areas with good sight distances thus enabling other users to be sighted well in advance.

It is therefore recommended that the leash-only proposals for this Park and for any other similar proposed Rural Leashing Areas should not be considered further by Council until neighbourhood dog owners have been better advised about the changes being proposed. This will require signage on pedestrian entry points and ideally backed up by residential mail drops ... plus a time extension for them to consider the full ramifications and comment accordingly.

Background

Apparently local councils in Western Australia are constantly updating and adding to their lists of leash-free dog exercise areas, and trialling new ones. The City of Albany is

currently proposing an increase of such areas by including a large area of playing fields and parklands as a new 'dog exercise area' along North Road.

This may be an improvement for some nearby residents but the area has limited relevance and attraction to the vast majority of other ratepayers and to visitors. It is flat and adjoins one of Albany's busiest roads. There is also limited shade available and it is very exposed to wind and rain.

By contrast, leash-free areas and sections of trails in natural bushland elsewhere would provide far greater benefits for both owners and their dogs. For dogs, they would offer the freedom of exercising and sniffing along verges without direct constraint, also allowing them to interact or socialise with other dogs and their minders that may be encountered in the immediate vicinity or along the way. For dog owners they would provide an opportunity and encouragement to also get *regular rhythmic* exercise, without constant 'stop/starts' caused by a leashed dog, and thereby contributing more to their own personal health and well-being... also in a safer shady and much more sheltered environment.

In Albany we are fortunate to have some excellent areas of largely natural & scenic bushland within our urban areas, in particular the larger 'Mounts' reserves. Furthermore, these areas are the historical neighbourhood public open space for several thousand local residents who live adjacent or in very close proximity. Their more natural attributes are already popular with many other ratepayers who drive from other suburbs to enjoy the bushland, the added challenge and exercise in hilly terrain, the fresh air, circuit walks and the inspiring views.

According to the City of Bunbury, every dog, regardless of breed or age, should be walked at least on a daily basis. Even keeping a dog in a large yard is not considered adequate to ensure that the dog is kept stimulated and happy. Many problems such as digging and incessant barking often arise because dogs are restless or bored. Generally such problems can be solved simply by giving dogs more leash-free exercise, indeed twice daily if possible, and hence the City of Albany should provide more opportunity for this in nearby natural areas provided dogs respond to commands given by the owner and the dog remains under effective control and in reasonable proximity to the owner.

Whilst Middleton Beach provides a suitable essentially natural dog exercise area, it requires vehicle transport for most people and it has limited car parking. The beach is especially crowded during high tides, weekends and public/school holiday periods. Also, many older ratepayers do not have their own transport to reach the beach access car parks.

For consideration

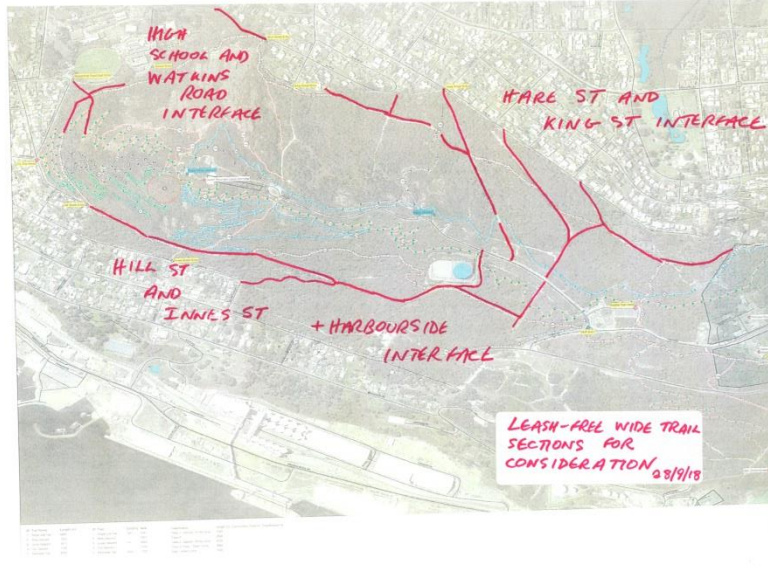
A number of leash-free areas or sections of trail should be identified in the Albany Heritage Park. These would be wide and have good sight distances. Approaches to officially established bike-only trail intersections (original Down Hill Trail and Pilot/Demonstration Trail) would require dogs to be put back on leash – however, these bike trails already instruct their users to give way to pedestrians at such crossings, hence a 'leash up' zone extending 20m either side of the intersection should be more than adequate.

The key areas for leash-free opportunities for neighbourhood access are:

- Hare Street, Burt Street east and King Street interface

- Burt Street west, High School and Watkins Road sector
- Hill Street and Innes Street zone interface

Selected examples of some suitable leash-free sections for consideration are indicated



below:

Hare Street & King Street interface



Hill Street & Innes Street ... & Harbourside interface



High School & Watkins Road interface



Time zoning

Ideally these leash-free sections should be available to dog owners at all times, but if that is not supported then time scheduled leash-free use could be considered.

A time zoning approach is already in place at Middleton Beach where horses effectively have beach precedence over dogs which must be kept on a lead from dawn to 9.00 am. Some WA local authorities also use time zoning for leash-free dog exercise use, typically dawn or 6.00am to 9.00 am and again from around 4.00pm to 6.00pm. This is designed to allow those who work to still exercise both themselves and their dogs off-leash twice a day... which is even more important for dogs left 'home alone' for most of the day.

Time zoning can also be used for delegated leash-free **days** eg Monday, Wednesday, Friday and Sunday and ideally then remain permissible all day.

Other users

No doubt the introduction of formalised biking in the Mounts reserves has been a significant factor on the dog exercise restrictions now being proposed. This is most unfortunate as the planning for the City Mounts trails clearly promised '*World class walking and biking trails*'. Regrettably, not only have no new walkers-only trails been considered but those indicated to remain as such in the Draft Trails Strategy have now been completely ignored and re-classified as 'dual use' with bikers by Council officers without transparency or public consultation.

It is also regrettable that several sections of illegally cleared biking trails, in one case (immediately reported to Council officers) as recently as within the past 12 months, have now been signposted for public use instead of immediate closure and rehabilitation. If a range of 'walk only' trails was available as initially promised, and subsequently proposed in the Draft Trails Strategy, had occurred, there would also have been the possibility of limited leash-free dog use on some of the narrower and more attractive trails as well.

In summary

Expansion of leash-free dog walking options should include some areas or wide trails within larger City bushland reserves, in particular within the Albany Heritage Park which is the historical public open space for surrounding neighbourhood communities lying in close proximity.

Provision could be made by area/trail section zoning, by time zoning (as per past strategies for horses and dog exercise at central Middleton Beach)... or a combination of both.

Residents & ratepayers of these neighbourhoods should have been better informed of the proposed leash-only dog exercise status and given more time to consider & provide broader community feedback.

The above comments on the proposals are based on 30+ years as a near neighbour to the Albany Heritage Park which have included dog ownership and almost daily walking in the reserve over the past ~ 20 years without any negative dog incidents occurring.

There may well be other potential leash-free natural bush areas similar to Mt Clarence/Adelaide elsewhere in the urban part of the City on a more localised scale - and further afield there may also be valid cases particularly in coastal areas.

Thank you for the opportunity to comment on this matter. I look forward to continuing to work more closely with Council, especially with regard to the Albany Heritage Park and other City Mounts

ICR18317132

We are concerned mainly with dogs at Middleton Beach from Ellen Cove to Emu Point .

As this is the only beach for Albany residents and visitors , the area and conditions for dogs to exercise needs to be clearly understood , appropriately signed and patrolled by rangers initially .

1. From Ellen Cove to the end of the caravan park **No Dogs**
2. From the end of the caravan park to the large sign approx. halfway to Griffiths Street , dogs must be on a lead .

Dogs are creatures of habit and usually dump as soon as they arrive at the beach, usually before their owners catch up to them

Owners would be fully aware of their dogs defaecating .

This area is used by Granny Grommets and by surfers and families watching. They need to be safe from frolicking dogs .

I have personally been knocked down by a boisterous friendly dog , and small kids are terrified of them.

3. From the big sign to Griffiths Street dogs **run free** .

From Griffiths Street back to the sign dogs **run free**

4. From Griffiths Street to Emu Point **dogs on lead.**

This gives people entering from Griffiths Street safety for their dogs and themselves .

We urge the City of Albany to consider more areas for dogs to exercise including Mutton Bird , Goode Beach , Ledge Beach , Nanarup and particularly the large grassed area along Lake Seppings .

FaceBook Comments

Find Albany
30 August at 12:09 · 🌐

If you love dogs, you might want to know that the City of Albany has asked for public feed-back about some proposed & existing off-leash dog walking areas, including Middleton Dog Beach. You may be amongst the responsible dog owners who love walking their dog off-leash there, and who always keep their dog under control. However if you have ever walked on Middleton Dog Beach, with or without a dog, you might have experienced something different. What are your views about off-l... [See more](#)



PUBLIC COMMENT ON COUNCIL POLICY DOG EXERCISE, PROHIBITED & RURAL LEASHING AREAS

Council is considering the adoption of the draft Dog Exercise, Prohibited & Rural Leashing Areas Policy, which seeks to provide guidance to the community relating to dog ownership responsibilities associated with exercising dogs.

Before finalising this Policy, Council is seeking feedback from the community.

The document can be viewed on the City's website at

Shaun Welsh and 13 others · 29 Comments 8 Shares

Like Comment Share

Oldest ▾

Amanda Reddell Allison Marie Irish  1
Like · Reply · 3d

Cindy Ballard Which beach is available to just dogs and their walkers?
Like · Reply · 3d

Find Albany Hi Cindy, see below as Jo has posted the map, the section marked 18 is the section for dogs to walk off-leash. That section is also for use by anybody who wishes to walk, so its not off limits to anyone.
Like · Reply · 3d

Jo Grace



Like · Reply · 3d



Sue Bennett-ng Leave the dog beach alone! Put up a sign saying if you are scared/don't like dogs do not enter!!

...

Like · Reply · 3d



Find Albany Hi Sue, you might want to check with the City about the correct way to undertake exercise with your dog off-leash. It may not be as you have assumed. I love dogs, but I would like owners to bring their pets to heel when they are passing me, so that I will feel safe. I hope that sounds fair to you 😊

Like · Reply · 2d



Sue Bennett-ng Find Albany of course! And yes I do know the etiquette!

Like · Reply · 2d



Write a reply...



Zoe Butler Leave middleton dog beach alone. There are lots of places to walk with out a dog. Few to let you have an exercise place with your dogs. If you don't like dogs walk some where else. There are many elderly people who walk their dogs there. It's healthy,social and good for both dogs and owners.

Like · Reply · 3d



Marlene Ross All dogs should be on a Leash, however good they may appear, somtimes something can set them off...Be responsible...I know Dog lovers think their pets are well behaved hoowever they have to be open minded about other people and dogs..

Like · Reply · 3d



Maria Whitfield SIMPLE! Leave the dog beach for the people that enjoy using that area to excercise their dogs. People that can't deal with animal behavior, have the choice to walk else where.

Like · Reply · 3d



Find Albany Hello Maria, problem here is that it's not actually a Dog Beach, this is a misunderstanding, it's for everyone to enjoy. But yes, dogs off-leash and under control are also welcome 👍🐕

Like · Reply · 1d



Shaun Welsh If we are going to have some control over the dogs, why can't we get the horses off the beach?

Like · Reply · 3d





Sandy Bishop I guess it's only a matter of time before the pressure of increasing population squeezes dog owners off our lovely beach but for now it's amazing to be able to walk our dogs somewhere so beautiful. And I like the horses too- just put your dog on the lead when they're around.

...

Like · Reply · 3d 5



Marion Carter Leave dog beach alone! Plenty of other choices to walk if u don't like dogs. Some people are just so selfish.....all abt me me me !

Like · Reply · 3d 3



Find Albany Hey Marion, it's not a Dog Beach it's an Everyone Beach 🇺🇸

Like · Reply · 1d



Marion Carter its a designated dog exercise beach area.

Like · Reply · 1d 2



Zoe Butler Find Albany it's a dog beach designated area. People with out dogs need to respect our space as we respect theirs.

Like · Reply · 12h 1



Write a reply...



Katy Steed I found the tone of this post bias, with the leaning being towards those who do not agree with the current situation, seen in the use of emotional language like 'bounding around' , 'it's a shame' and 'terrifying'. I don't think that a page such as this should be showing any bias, especially when your post is supposedly promoting feedback to the City of Albany.

Like · Reply · 3d · Edited 5



Find Albany Find Albany Hi Katy, Jo Sharp here yes, this article is a bit biased, I agree. I am looking to raise awareness in the community about the longstanding culture at the Middleton dog beach which is causing many locals to avoid walking there. If you ... See more

Like · Reply · 2d 3



Amber Wirth I agree with Katy regarding the bias & tone. I think you should be focusing on those who are not responsible dog owners. The ranger could patrol this area and harsher penalties or bans for repeat offenders. My dog is very well behaved and responsive bu... See more

Like · Reply · 2d 1



Katy Steed Hi Amber and Jo. I can totally see the points that both of you are making. It is important to be respectful of all people who enjoy the beach- it's there for everyone. Albany council could lay out correct procedure for off leash dogs, to reinforce this to the small proportion of people who do not behave as sensible dog owners.

Like · Reply · 1d 1



Write a reply...





Rita Quayle I used to really enjoy walking my small dog regularly with my 5 month old baby on the dog beach until a number of incidents occurred and I now feel too unsafe to walk by myself. While being pregnant, and also while having a baby carrier on, I have had large dog/dogs jump up on me and bark and play roughly with my dog to the point she yelps to be picked up which has happened a number of times. On all these occasions the owner has just said they are playing, even though I clearly look distressed and they have not been able or tried to control their dog/dogs at all.

Like · Reply · 3d



Jenni Westwood I have no issues with people walking their dogs off leash in any off leash area as long as they remain in control of the dog. I have had issues when dogs, luckily friendly, have come rushing over to make friends with mine. Sometimes the owner is way a... See more

Like · Reply · 2d



Andrea Deegan Isn't the operative words in this, "off-leash area?" Dogs DO bound around, and leap, and run and generally tear around! It (Middleton Beach Dog Beach,) is well-marked as a dog exercise area, so people should be aware they are likely to meet exuberant animals on a free animal beach! So don't take tiny babies there yet, use the restricted area to the south. If everyone were more tolerant of each other, and show respect for the differences we might all be much happier. I don't go to the horse end of the beach as I am scared of them, but I don't think they should be restricted either.

Like · Reply · 2d



Marion Carter well said 👍

Like · Reply · 2d



Find Albany Hi Andrea, If you take a look at the meaning of off-leash dog exercise area, you will see that the onus is upon the dog owner to keep their dog under control at all times. There has been a pervading culture at Middleton Beach to allow dogs to bound aro... See more

Like · Reply · 2d



Write a reply...



Selena Pinchen We could ban unaccompanied humans from the dogbeach

Like · Reply · 2d



Kerri Bond There are not enough area's where you can walk your dogs...there are plenty of areas for families with small children to walk...if it is a dog beach and it is signed posted..then those who choose to walk along it ..choose to do so with out complaint. 😊

Like · Reply · 2d



Find Albany Hi Kerri, Seems you have misunderstood the meaning of off-leash exercise for your dog. You might want to call the ranger and ask for some clarification on this point, or read my other posts 😊

Like · Reply · 2d





Find Albany Sounds like there might be some misunderstanding from dog owners about the section of Middleton Beach where dogs are allowed to exercise off-leash. The rule does not say that dogs can be off leash and out of control. The law states (and the sign at the beach states) that dogs must be under the control of their owners at all times. They are free to be off-leash while they are not interfering with others. If there is a risk that they may interfere with others, they should be called to heel or put on a leash by their owner. This misunderstanding has led to a situation where dog owners let their dogs run unheeded along the beach, often out of range of their owners. It is this misunderstanding by dog owners that has led to a situation where members of the public feel unsafe to walk at that beach. Its not a question about whether or not the beach is for people or dogs, or if its only for people who love dogs, its a question about how people behave with their dogs. If dog owners were considerate of all others on the beach there would be no problem for all to share the beach in harmony. It may not be obvious to dog owners that whilst they know their dog is safe around people and other dogs, others may have no idea if their dog is safe. A way of interpreting the law is that if, as a dog owner, you do not know if an approaching person will feel intimidated by your dog "saying hello" to them, then you should put your dog on a leash, or call it to heel, until you have passed by the unknown person. That way the person passing will feel safe. Its just a fair way of treating others in any public space, beach or otherwise. This rule should also apply to passing other dogs, but in particular, small dogs, especially if your dog is large. As a courtesy to others dog owners of small dogs, you can put your larger dog on a leash when passing smaller dogs. On the other hand, if you are familiar with other people or dogs at the beach and you know what their reaction will be, then there is no need to put your dog on a leash when passing. Simple. And this way, we can all use and enjoy the wonderful walk along Middleton Beach to Emu Point ... yay!!



Like · Reply · 2d



1



Zoe Butler And people who don't like dogs which is often the case walking on a " dog beach" could also walk some where they are not going to run into dogs. We have precious,few places to walk our dogs down here. And yes my dogs are under control. Some are not and... See more

Like · Reply · 2d



1



Find Albany Hi Zoe, its really lovely to hear that the dog walking community down at Middleton are self regulating. Thanks for your positive comment. To say though that people should walk elsewhere is to overlook the fact that we all love our town beach which is close and handy for a walk and that long stretch along Middleton to Emu Point is precious. I would like to feel safe walking there, but at present I do not.

Like · Reply · 2d



Amber Wirth I think consideration of others is the key point here. How do you teach that to adults? In Germany, people are seen taking their dogs everywhere, in the city or towns. Shopping malls, restaurants, pubs! But they were always on leash and very well behaved.

Like · Reply · 2d · Edited



1




Find Albany Hi Amber, its been suggested that the Ranger visit the beach on a regular basis, at least for a while, to remind some people about the off-leash rules. I think that with some public awareness raising we will see some improvement on beach.


Like · Reply · 20h




Zoe Butler Find Albany I would be more happy if they made people pick up their dog poo. Instead of harassing dog owners who are doing the right thing generally,and to Amber there are plenty of places to walk why choose a dog beach 😞 dogs need a free run not always on a lead.

 **Zoe Butler** Find Albany I do obey Jo and I am a very seasoned dog walker, trainer and have walked my dogs for some 60 plus years (not always at middleton) walking my dogs is like any sport I have my leads, whistle, treats throw toy etc, I have seen it all and i be... See more






Like · Reply · 31m


 **Zoe Butler** Find Albany also I am not asking them to stop walking there but to be equally considerate. Some of them need educating as well.


Like · Reply · 30m


 **Zoe Butler** Find Albany hi Jo don't know if you are a private person or work for the council so while we are on the beach who's idea was it to put a bike track on the side that people coming off the beach are. Many and I mean many do not adhere to the 15k an h... See more


Like · Reply · 16m


 Write a reply...    


 **Amanda Reddell** Most dogs that are off lead are well behaved, I have a dog (greyhound) that by law has to be on lead at all times when outside my property. This I can live with but would like some respect from dog owners that have troublesome dogs in regards to keeping their dogs from hassling my dog who is at a disadvantage courtesy of the dog laws! Most are well behaved but I get fed up with people who think they have to right to hassle me and my dog, it's not hard to be courteous. And please pick up your dog shit!!!! 😞


Like · Reply · 2d  5


 **Find Albany** Hi, its Jo Sharp here. I am the owner of the Find Albany Website. And yes, I have initiated this thread because I, and a good number of other Albany residents I have spoken with, are not feeling relaxed walking along Middleton Beach to Emu point. Its a wonderful resource we have, close to town, and we should all be able to enjoy it. It seems there are misunderstandings by dog owners about how the beach is intended to be used when dogs are off-leash. Please read the above and comment.

Like · Reply · 2d  2

 **Trish Murphy** I personally love this beach walk and I don't have a dog, but really love watching all doggies interact and play. Please don't ban dogless owners! 😊

Like · Reply · 2d  2

 **Peta Stephensen** I'd much rather bounding dogs than the rank land mines that are left laying around!! Pick up your dog shit !!

Like · Reply · 2d  2



Peta Stephensen I'd much rather bounding dogs than the rank land mines that are left laying around!! Pick up your dog shit !!



Like · Reply · 2d



Marini Nettle I have a giant dog. He is on lead at all times in public. He has been attacked several times by small off leash dogs who have approached him, and lucky for them he is very easy going with other dogs and doesn't even react. In a dogs world it is rude and threatening for an unknown dog to come bounding up and invading personal space. By all means have your dog off leash but ONLY if you have complete control at all times. This means your dog ALWAYS obeys your commands and never approaches anyone uninvited. It's common courtesy and would make for a more pleasant and safe experience for everyone.



Like · Reply · 2d



Zoe Butler Does this have anything to do with the upcoming development on the non dog area getting ready to ban dogs all together or make them stay on a lead? I have seen it all before in Perth. Non dog owners who have plenty to say and plenty of places to walk, try and take away the joy dog people have because THEY want to walk there? Just wondering.

Like · Reply · 2d



Find Albany Hi Zoe, in my view it's about dog owners being more aware of others on the beach. It's not about banning dogs 🐕🐕🐕



Like · Reply · 2d



Zoe Butler Find Albany thank you I have the info from the council and thank you I see the areas we can take our dogs has been extended. Thank you for that. And just as an aside it would be good to educate non dog people how to behave around dogs. It works both ways.

Like · Reply · 12h



Find Albany Hi Zoe, what should I do if two big dogs run up to me and one jumps up on me, with no dog owner in sight and I'm very afraid?

Like · Reply · 1h · Edited



Write a reply...





Leanne Prior We dont walk there anymore with our large dog on his lead. Too many owners do not have enough control over their unleashed dogs and we dont want to take the risk of him eating or hurting a fluffball who rushes up to play or say hello.

Like · Reply · 2d



Pamela Felton The times I've heard, "Don't worry. My dog's friendly..."

Like · Reply · 1d



Find Albany Pamela Felton I think its a shame people are giving up on walking this beach because of unruly dogs, its a wonderful for a lengthy walk, close to nature and close to town.

Like · Reply · 1h



Leanne Prior Find Albany maybe the city could offer some dog training classes. Like 'Unleash your dog - with control'

Like · Reply · 54m



Write a reply...



Ian Gätjens



Like · Reply · 2d



Fiona Vanderbyl Karina Dryden Brogmus

Like · Reply · 1d



Karina Dryden Brogmus There's another whole end of the beach for your kids.

Like · Reply · 1d



Natasha Berger Frank Figliomeni

Like · Reply · 12h



Brett Ward Brenda Ward

Like · Reply · 10h



Write a comment...



Dog Exercise, Prohibited & Rural Leashing Areas Policy

Objective

The purpose of this policy is to:

- determine
 - Dog Prohibited Areas
 - Dog Exercise Area
 - Rural Leashing areas
- Inform and educate the community relating to dog ownership responsibilities and exercising of dogs.

Policy Statements

Council in accordance with Council's Community Strategic Plan, the City of Albany's Dog Local Law 2017 and applicable legislation:

- Supports the designation of public land to create a welcoming, safe environment for exercising and socialising of dogs.
- Promotes the regulated use of recreational areas by dogs and their handlers to ensure the community is safe.

A. Dog Prohibited Areas (All dogs, exempt: Registered Companion Dogs)

Pursuant to section 31(2B) of the *Dog Act 1976* and section 8 of the *Dog Act 1976* and section 66J of the *Equal Opportunity Act 1984*: *the following areas are established as dog prohibited areas:*

Area/Reserve	Location
All Public Buildings	All
All Playgrounds, Basketball Courts & Skate Parks	All
Becker Park (Reserve 32523)	Areas of bushland in the reserve.
Cape Riche Camp Ground	Areas actively managed for purpose of camping at Cape Riche.
Centennial Oval – AFL Stadium	The main AFL Oval associated with the Stadium at the corner of North Rd and Lockyer Avenue.

Area/Reserve	Location
Emu Point Beach/Emu Beach (R22698)	Being the area from the southerly facing beach opposite the corner of Burgess St/Cunningham St to Hunter St/Roe Parade.
Middleton Beach (R14789)	Being the beach between the Ellen Cove Jetty and the southern walk track access from Surfers Beach Car Park to the beach. Including all grassed areas and the beach fore dunes between the beach and Flinders Parade under the control of the City of Albany.

B. Dog Exercise Areas

Pursuant to section 31(3A) of the *Dog Act 1976*, the following areas are established as dog exercise areas:

Area/Reserve	Location
Barnesby Drive Reserve (R35088)	Area west of Barnesby Drive and 10m east of creek between Anuaka Rd and Target Rd.
Becker Park (R352523)	Grassed parkland area accessed from Baker St North in Lower King, excluding the bushland.
Bovell Park/Square	Parkland surrounded by Jackson St, Mermaid Ave, Bedwell St and Miller St at Emu Point.
Centennial Park	All green fields and parklands within the Centennial park central sporting precinct between Lockyer Avenue and Sanford Rd when not in use for sporting events.
Clifton St Park (R25356)	Parkland bounded by Admiral St, Clifton St and Humphreys St in Lockyer exclusive of the playground areas.
Collingwood Park	Areas surrounding but not including the grassed oval area. Not including times when the area is in use for sporting events.
Eco Park	Grassed areas of Eco Park at corner of Reidy Drive and Warden Ave in Spencer Park.
Emu Point Marina Beach	Beach area between Hunter St and Swarbrick St near the Emu Point Marina.

Area/Reserve	Location
Emu Point Western Swimming Beach	Beach area facing west between rock wall and groyne opposite corner of Boongarrie St and Cunningham St.
Foundation Park	Parkland bounded by Mills St, Vancouver St and Parade St exclusive of the playground areas.
Lancaster Rd Drainage Basin	Grassed area bounded by Lancaster Rd, Pegasus Blvd. and Orion Ave exclusive of the playground and lake areas.
Le Grande Drainage Reserve (R36517)	South of Le Grande Ave between Valencia Cl and Salvado Rd.
McGonnell Park (R33006)	Parkland bounded by Bayonet Head Rd, Evans Rd, Purdie Rd and Sinclair St Bayonet Head exclusive of the playground areas.
Middleton Beach – Surfers Beach to Firth St (Emu Point)	Areas of beach north from the Surfers Beach Car Park to rock wall just south of Firth St as signposted.
The Esplanade	Grassed area east of The Esplanade north of Elizabeth St to the boat launching ramp.

C. Rural Leashing Areas

In all areas not described above (Policy Statements A & B), within the City of Albany boundaries (as gazetted) including all tracks/paths in natural reserves dogs must be exercised on leads or under control at all times.

Outside of the City of Albany boundaries pursuant to section 31(1) of the *Dog Act 1976*, the following areas are established where a dog must be on a leash at all times;

Area/Reserve	Location
Frenchmans Bay Picnic Area and Beach	Beach area and day use sites at Frenchman Bay from Frenchman Bay Rd to the boat launching area at the end of the access road.
Nanarup Beach (Portion R 45631)	Beach west from the mouth of the Taylor Inlet to the Lagoon.
Rushy Point	The areas of foreshore reserve adjacent to Princess Royal Harbour at Little Grove from Rushy Lane to Marine Terrace

Scope

This Policy identifies where dogs are prohibited and where dogs are permitted to exercise either on a leash or off-leash within the City of Albany Local Government Area.

This policy does not apply to registered companion dogs as specified in the *Disability Discrimination Act 1992* and *Equal Opportunity Act 1984* or persons engaged in the training of companion dogs.

Legislative and Strategic Context

This policy complies with the requirements of the:

- *Dog Act 1976,*
- *Local Government Act 1995,*
- *Disability Discrimination Act 1992,*
- *Equal Opportunity Act 1984,*
- *Health (Miscellaneous Provisions) Act 1911;*
- *Environmental Protection Act 1986;* and
- *City of Albany Dog Local Law 2017.*

Review Position and Date

This policy and procedure is to be reviewed by the document owner every three years.

Definitions

- ***Sporting event*** – for the purpose of this policy a sporting event is defined as an activity involving physical exertion and skill that is governed by a set of rules or customs and is often undertaken competitively. It is organised by a sporting association or club. Training for these activities falls under the definition of sporting event.
- ***Playground*** – an area designed and constructed to encourage children’s outdoor play including facilities suitable for the riding of bikes, scooters, skate boards basketball courts etc.
- ***Grassed area*** – an area of grass maintained by the City of Albany for use by the community for a range of purposes.
- ***Bushland*** – areas covered in trees, shrubs or other natural vegetation.

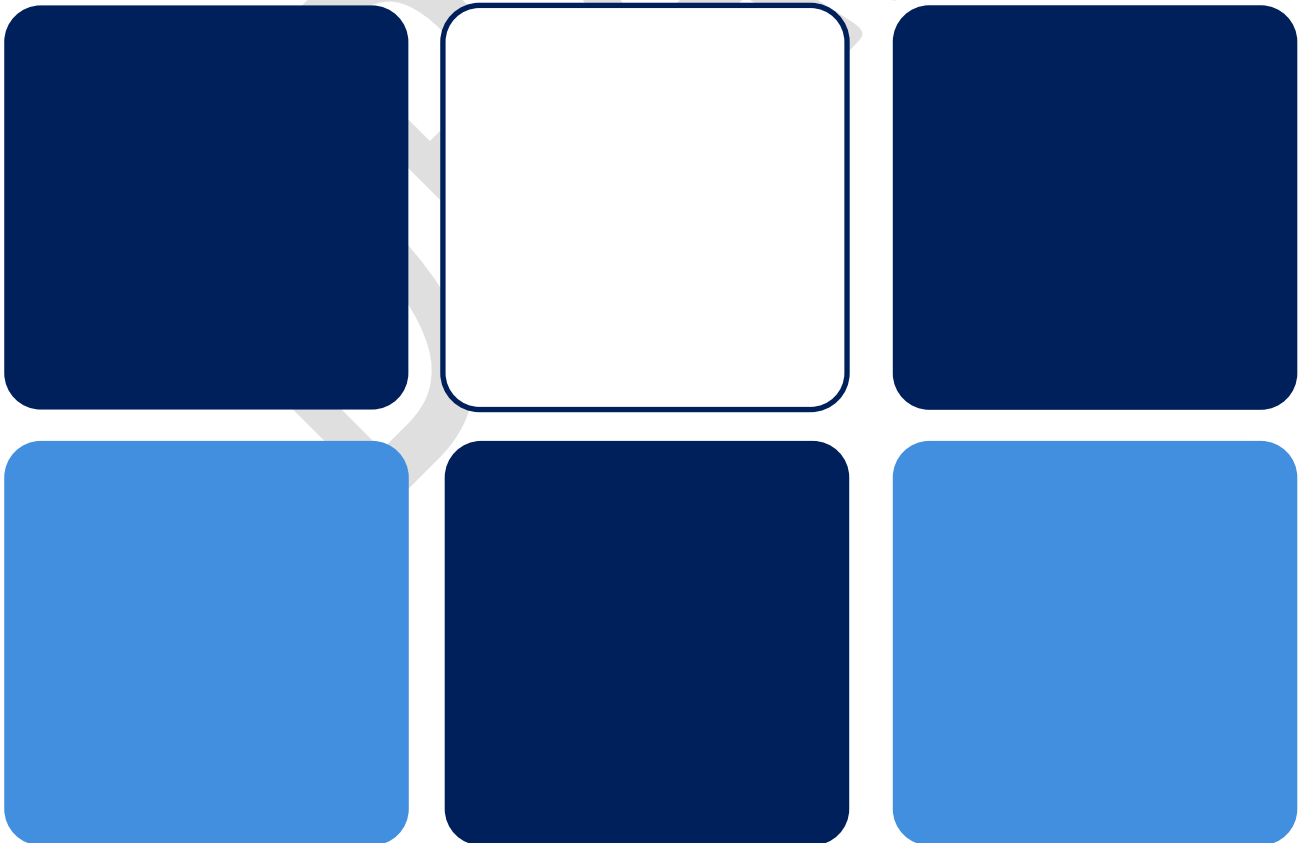
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0.3	Reserves Officer	Final Draft – Amended post Community Consultation. Detailed at Report DIS132 – Attachment 2.	31/10/2018



FORESHORE MANAGEMENT PLAN
Middleton Beach

Prepared for **LandCorp and the City of Albany**

20 MARCH 2018



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Approval for Issue of Final Report

Name	Signature	Date
		20.03.18

Contents

- ACKNOWLEDGEMENTS1**
- SUMMARY2**
 - Middleton Beach Foreshore Management Area.....2**
 - Purpose of the Foreshore Management Plan.....2**
 - Future Foreshore Planning and Environmental Approvals3**
 - FMP Implementation and Responsibility4**
 - Implementation.....4
 - Responsibility4
- 1.0 INTRODUCTION1**
 - 1.1 Background1**
 - 1.2 Site Details1**
 - 1.2.1 Location1
 - 1.2.2 Site Description and Tenure1
 - 1.3 Purpose.....2**
 - 1.4 Objectives2**
 - 1.5 Statutory Requirements3**
 - 1.5.1 Approval Process.....4
 - 1.6 Middleton Beach Foreshore Landscape Management Plan4**
- 2.0 STATUTORY AND POLICY CONTEXT5**
 - 2.1 City of Albany Local Planning Scheme5**
 - 2.1.1 Improvement Plan No. 405
 - 2.1.2 Amendment No. 15
 - 2.2 City of Albany Activity Centres Planning Strategy.....5**
 - 2.3 Middleton Beach Activity Centre Local Structure Plan.....5**
 - 2.4 State Planning Policy 2.6: State Coastal Planning Policy6**
 - 2.5 State Planning Policy 2.9: Water Resources.....6**
 - 2.6 Albany Regional Vegetation Survey6**
 - 2.7 Middleton Beach Tourist Precinct.....7**
 - 2.8 Council Management Plan, Middleton Beach7**
 - 2.9 Future Foreshore Planning and Environmental Approvals7**
- 3.0 MIDDLETON BEACH CONTEXT8**
- 4.0 EXISTING ENVIRONMENT9**
 - 4.1 Topography9**
 - 4.2 Geology9**
 - 4.2.1 Soils9
 - 4.3 Groundwater.....9**

- 4.3.1 Aquifers9
- 4.3.2 Groundwater Levels 10
- 4.4 Flora and Vegetation.....10**
 - 4.4.1 Albany Regional Vegetation Survey 10
 - 4.4.2 Flora and Vegetation and Fauna Review 11
- 4.5 Terrestrial Fauna11**
 - 4.5.1 Flora and Vegetation and Fauna Review 11
 - 4.5.2 Database Records 12
- 4.6 Coastal Processes12**
 - 4.6.1 Coastal Hazard Risk Management and Adaption Plan 12
- 4.7 Land Use History13**
- 5.0 FORESHORE DESIGN AND FUNCTION14**
 - 5.1 Design Philosophy14**
 - 5.2 Structural Elements14**
 - 5.2.1 Landscaping Coastal Protection Elements 14
 - 5.2.2 Drainage and Water Quality 15
 - 5.2.3 Passive Amenity 15
 - 5.2.4 Place Activation 16
 - 5.2.5 Access and Linkages 16
- 6.0 COASTAL HAZARD RISK MANAGEMENT AND ADAPTATION17**
 - 6.1 Coastal Hazard Risk.....17**
 - 6.1.1 Consideration of SPP 2.6 17
 - 6.2 Management and Adaptation Planning.....17**
 - 6.2.1 Coastal Management Strategy 18
 - 6.3 Consultation with Department of Planning, Lands and Heritage and Department of Transport.....18**
 - 6.4 Coastal Inundation Risk Management19**
 - 6.5 Coastal Erosion Risk Management20**
 - 6.5.1 Coastal Protection Design 20
 - 6.5.2 Future Shoreline Monitoring and Management 21
- 7.0 FORESHORE REHABILITATION24**
 - 7.1 Revegetation Strategy24**
 - 7.1.1 Weed Management..... 24
 - 7.1.2 Surface Preparation 24
 - 7.1.3 Revegetation 24
 - 7.1.4 Scheduling 25
 - 7.1.5 Watering 25
 - 7.1.6 Seed Treatment and Direct Seeding 25

7.1.7	Site and Plant Protection	25
7.1.8	Post Instalment Management	26
7.1.9	Site Maintenance	27
7.2	Drainage	27
8.0	IMPLEMENTATION AND RESPONSIBILITY	29
8.1	Implementation.....	29
	Responsibility	29
9.0	REFERENCES	36

Tables

(contained within report text)

	Page
Table 1: Coastal Processes Summary	12
Table 2: Revegetation and Weed Management Key Actions	26
Table 3: Revegetation and Weed Management Contingency Measures	27
Table 4: Implementation Schedule.....	31

Figures

(contained within report text)

	Page
Figure 1: Middleton Beach Sea Wall Structure Staging Plan.....	5
Figure 2: Middleton Beach Sea Wall Structure Staging Section.....	6
Figure 3: Middleton Beach and Surrounding Environments	1
Figure 4: Existing Middleton Beach Foreshore Environment.....	8
Figure 5: Herbland/Grassland Vegetation Association within Middleton Beach Foreshore.....	10

(compiled at rear of report)

- Figure A: Site Location
- Figure B: City of Albany Local Planning Scheme No 1
- Figure C: Middleton Beach Activity Centre Local Structure Plan
- Figure D: Coastal Hazard Assessment
- Figure E: Topography
- Figure F: Geology
- Figure G: Groundwater Monitoring Locations
- Figure H: Flora Search Results
- Figure I: Fauna Search Results
- Figure J: Future Revegetation Works
- Figure K: Esplanade Hotel Sea Wall Structure Staging Plan

Appendices

Appendix A	City of Albany Council Resolution 19 December 2017
Appendix B	Coastal Hazard Risk Management and Adaption Plan
Appendix C	Middleton Beach Coastal Management Strategy
Appendix D	Middleton Beach Landscape Management Plan
Appendix E	Government Gazette
Appendix F	Foreshore Assets
Appendix G	Weed Control Methods
Appendix H	Revegetation Species
Appendix I	Landscape Management Items

Acknowledgements

This Foreshore Management Plan (FMP) has been prepared for LandCorp and the City of Albany (CoA). This FMP has been prepared in collaboration with the CoA and is based upon the following key studies:

1. City's Middleton Beach Foreshore Landscape Management Plan prepared by AECOM; and
2. Technical coastal engineering studies including a Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) for the Middleton Beach Activity Centre and Middleton Beach Coastal Management Strategy prepared by MP Rogers and Associates.

Summary

Middleton Beach Foreshore Management Area

The Foreshore Management Plan (FMP) area covers the existing Middleton Beach foreshore reserves adjacent to the Middleton Beach Activity Centre site (Figure A).

The FMP area is generally situated:

- west of the Southern Ocean
- south of the Big4 Middleton Beach Holiday Park
- east of the Middleton Beach Activity Centre site
- north of Mount Adelaide.

The FMP area contains a formal landscape area containing Norfolk pine trees, established grasses areas, the Albany Surf Lifesaving Club and the Three Anchors restaurant (Figure A). The existing foreshore reserve is comprised of Reserves 14789 and 26149, which are managed by the City of Albany (CoA) for Recreation purposes (CoA 2010).

Purpose of the Foreshore Management Plan

LandCorp is developing the Middleton Beach Activity Centre site and as a condition of implementing this development is required to undertake a FMP. This FMP has been prepared in collaboration with the CoA who separately have engaged AECOM to prepare a Landscape Management Plan for Middleton Beach. The Middleton Beach Activity Centre site is located within and adjacent the City's broader Landscape Management Plan boundary (Figures A and B). This FMP document, in accordance with the advice from the CoA, Department of Planning, Lands and Heritage (DPLH), includes:

- an adaptation plan for the development site which commits to interventions in relation to Coastal Protection over the next 100 years on a staged basis.
- The City's long term vision and proposed infrastructure for Middleton Beach as defined in the Middleton Beach Foreshore Landscape Management Plan (AECOM 2018).

The City identified the following benefits of an integrated approach to coastal protection to the LandCorp development and the Middleton Beach foreshore:

- Coastal protection requirements are met for at least 50 years;
- High quality community amenity improvements on the dilapidated foreshore;
- Removal of drainage that currently flows directly onto the beach;
- Creation of a new beach promenade over the buried seawall.

This FMP has been prepared to be in accordance with the CoA's Local Planning Scheme (LPS) No.1, State Planning Policy (SPP) 2.6: *State Coastal Planning Policy* (Western Australian Planning Commission [WAPC] 2013a) and the State Coastal Planning Policy Guidelines (WAPC 2013b) to outline the foreshore location, detail the proposed foreshore infrastructure and depict the extent of revegetation works.

This report also includes:

- City of Albany - December 19th 2017 Ordinary Council Meeting resolution (Appendix A)
- Coastal Hazard Risk Management and Adaptation Planning (CHRMAP) for the Middleton Beach Activity Centre (Appendix B; MP Rogers and Associates 2015) has been prepared to be in accordance with State Planning Policy (SPP 2.6) and the Coastal Hazard Risk Management and Adaption Planning Guidelines (WAPC 2014).

- Middleton Beach Coastal Management Strategy (Appendix C; MP Rogers and Associates 2018) outlines the future requirements for the management of the coast within the FMP area and includes details on both the requirement for coastal management as well as the proposed foreshore management approach.
- The Middleton Beach Foreshore Landscape Management Plan (Appendix D; AECOM 2018) details of the key structural elements of the foreshore design and has been developed having regard for the foreshore's local and regional context, social and environmental characteristics, and a range of practical management requirements (e.g. access, tree retention).
- The design approach can be summarised as follows
 - > retention of the Norfolk Pine trees, established grasses areas, grassed terraces and Ellen Cove Jetty to maintain the foreshore area's existing usage and character
 - > path connections through the vegetated sand dunes to be formalised allowing direct pedestrian access to the beach, with accompanying revegetation works implemented
 - > upgrades and improvements to the Albany Surf Lifesaving Club
 - > dual use and primary use path network to allow for pedestrian and cycle access throughout the foreshore area
 - > foreshore promenade to provide an activation interface between the beach and landscaped foreshore environments
 - > additional grassed terraces to create an amphitheatre overlooking the beach environment.

Future Foreshore Planning and Environmental Approvals

The CoA is currently undertaking a CHRMAP process for the broader Emu Point to Ellen Cove regional as required by the State as part of long term planning for coastal communities. This CHRMAP process shows the Middleton Beach foreshore and associated infrastructure is at risk within an approximate 20 year time frame. The CoA is required as part of the long term CHRMAP process to prepare an adaptation plan for the coastal areas at risk. LandCorp will contribute funding towards a portion (Stage 1) of the coastal protection for the Middleton Beach Activity Centre and adjacent foreshore area. The CoA acknowledges this FMP also presents an opportunity to appropriately define all the coastal protection works along Middleton Beach and to incorporate the coastal requirements into a larger integrated foreshore plan.

The benefits of an integrated approach to coastal protection to the LandCorp development and the Middleton Beach foreshore include:

- coastal protection requirements are met for at least 50 years
- high quality community amenity improvements for the dilapidated foreshore
- removal of drainage that currently flows directly onto the beach
- creation of a new beach promenade over the buried sea wall (CoA 2017).

This FMP has been prepared in consultation with the CoA. Post public advertising and adoption of the FMP by the CoA, the management plan will require endorsement from the WAPC. Post approval of the FMP, by the WAPC, future proposed development (e.g. in accordance with the Middleton Beach Foreshore Landscape Management Plan [Appendix D; AECOM 2018]), within the existing foreshore reserve, requires the approval of the CoA.

The development works will be subject to the following planning and environmental approvals:

- Development Applications (CoA)
- engineering / landscape construction design drawings (CoA)
- Purpose Permit clearing application approval (Department of Water and Environment Regulation [DWER]).

FMP Implementation and Responsibility

Implementation

LandCorp will contribute \$1.15 million (excl. GST) towards the Middleton Beach Activity Centre coastal infrastructure.

In February 2018, the CoA resolved the following in regard to the funding and responsibility for implementation of the Middleton Beach Activity Centre coastal infrastructure (Appendix A):

- that the CoA will undertake works in timed stages to protect the Middleton Beach Foreshore, associated infrastructure and the Middleton Beach Activity Centre (Figures 1,2 and K). The staging plan shows
 - > Stage 1 - Construction of buried sea wall and culvert within 5 years
 - > Stage 2 - Construction of promenade and seating/deflection wall within 10 years
 - > Stage 3 - Construction of foreshore improvements within 25 years
 - > Stage 4 - Assessment and possible construction of coastal protection additions after 50 years
- that the CoA will accept the funding contribution from LandCorp for the purpose of implementing the works required in the Middleton Beach Activity Centre FMP - Adaptation Plan
- the CoA will seek State and Federal funds to complete works on the Middleton Beach Foreshore
- the CoA will approve the advertisement of the completed Draft Middleton Beach Activity Centre FMP (which includes the agreed Adaptation Plan) for the purpose of public consultation (CoA 2018).

Responsibility

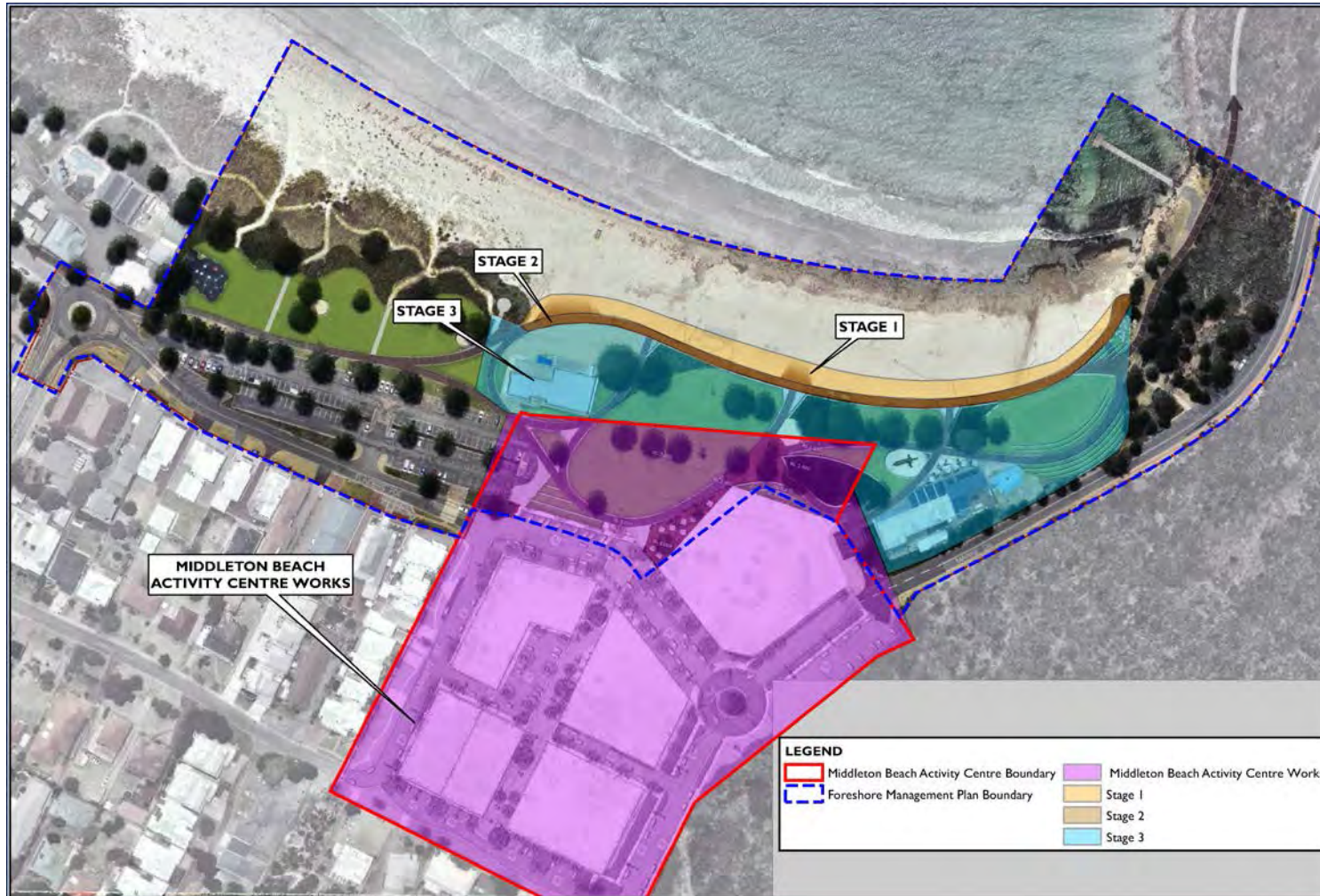
The responsibility for the implementation of the staging plan has been defined in consultation with the CoA as outlined below:

- The CoA and LandCorp will jointly be responsible for Stage 1 (buried sea wall to 1.1m AHD and drainage culvert installation) to be completed within 5 years. The CoA will be responsible for Stages 2, 3, and 4.
- The CoA and LandCorp will be jointly responsible for the detailed design and project management for construction of Stage 1 works. The CoA will be solely responsible as project manager for construction of future stages as required.
- The CoA and LandCorp will be jointly responsible for any maintenance requirements for a period of 5 years following the Practical Completion of Stage 1 construction. Maintenance costs will be apportioned on the basis of the original funding contribution made by each party.

It is anticipated that the cost of the coastal protection structure, which would extend along the entire length of the FMP area, would be in the order of \$4.2 million (excl. GST). This excludes the implementation of the Middleton Beach Foreshore Landscape Management Plan, which is estimated to cost an additional \$4.5 million (Appendix D; AECOM 2018).

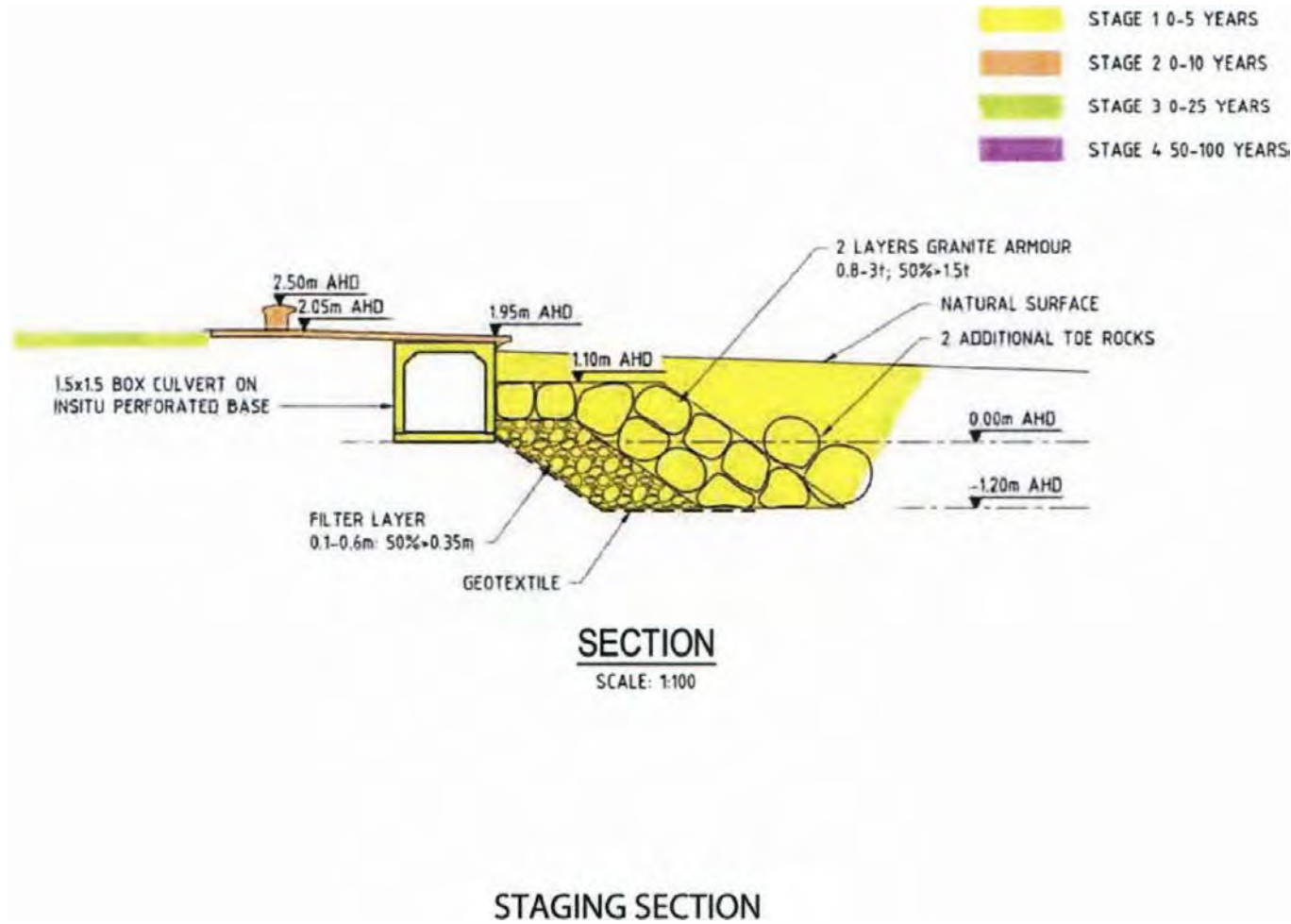
With the exception of the \$1.15 million (excl. GST) contributed by LandCorp towards the construction of the coastal protection structure, the remaining FMP budget is planned to be sourced from State and Commonwealth Governments.

An implementation schedule, which includes management responsibilities and detailed cost estimation for this FMP is provided in Table 4. The timing for the implementation of the FMP will commence with the construction of the buried sea wall in accordance with the CoA council staging and funding resolution (Figures 1 and 2).



(Source (Staging Plan) – City of Albany 2018)

Figure 1: Middleton Beach Sea Wall Structure Staging Plan



(Source City of Albany 2018 – based on MP Rogers Design)

Figure 2: Middleton Beach Sea Wall Structure Staging Section

1.0 Introduction

1.1 Background

Located on the site of the former Esplanade Hotel, the Middleton Beach Activity Centre development will create a mixed-use centre with tourist facilities, restaurants, cafés, shops, holiday and short stay accommodation and permanent residential apartments. Covering approximately 3.29 ha, the activity centre development will provide around 295 dwellings, as well as mixed use and hotel lots.

The Middleton Beach Activity Centre Local Structure Plan (LSP) (LandCorp 2016) was adopted by the CoA in 2016 and endorsed by the WAPC in 2017.

The foreshore interface between the Middleton Beach Activity Centre site and the Southern Ocean is a critical component for the activity centre development and needs to be designed and managed to preserve and enhance its unique community attributes for future generations.

1.2 Site Details

1.2.1 Location

The FMP area is generally situated:

- west of the Southern Ocean
- south the Big4 Middleton Beach Holiday Park
- east of the Middleton Beach Activity Centre site
- north of Mount Adelaide.



Figure 3: Middleton Beach and Surrounding Environments

(Source: AECOM 2017)

1.2.2 Site Description and Tenure

The FMP area is an approximately 6.21 ha parcel of coastal land and includes the existing Middleton Beach foreshore reserve adjacent to the Ellen Cove Jetty stretching north to the caravan park. The foreshore reserve contains Norfolk pine trees, established grasses areas, the Albany Surf Lifesaving Club and Three Anchors restaurant (Figure 3).

The existing foreshore reserve is comprised of Reserves 14789 and 26149, which are managed by the CoA for Recreation purposes (CoA 2010).

1.3 Purpose

LandCorp is developing the Middleton Beach Activity Centre site and as a condition of implementing this development is required to undertake a FMP. This FMP has been prepared in collaboration with the CoA who separately have engaged AECOM to prepare a Landscape Management Plan for Middleton Beach. The Middleton Beach Activity Centre site is located within and adjacent the City's broader Landscape Management Plan boundary (Figures A and B). This FMP document, in accordance with the advice from the CoA, Department of Planning, Lands and Heritage (DPLH), includes:

- an adaptation plan for the development site which commits to interventions in relation to Coastal Protection over the next 100 years on a staged basis.
- The City's long term vision and proposed infrastructure for Middleton Beach as defined in the Middleton Beach Foreshore Landscape Management Plan (AECOM 2018).

LandCorp is developing the Middleton Beach Activity Centre site and is required to undertake a FMP in consultation with the CoA. This FMP has been prepared to be in accordance with the CoA's LPS No.1, and State Planning Policy (SPP) 2.6: *State Coastal Planning Policy* (WAPC 2013a), which requires the following assessment to protect Middleton Beach and associated developments from coastal processes across a 100-year period:

- consideration of coastal hazards and to evaluate their likelihood and the consequence for specific assets
- identification of realistic and effective management and adaptation responses to those risks
- prioritising management and adaptation responses.

This FMP in accordance with the Coastal Hazard Risk Management and Adaption Planning Guidelines (WAPC 2014) outlines the existing foreshore location and development context, details the proposed coastal infrastructure and depicts the approximate foreshore areas for revegetation works (Figure J).

This report also includes:

- City of Albany - December 19th 2017 Ordinary Council Meeting resolution (Appendix A)
- Coastal Hazard Risk Management and Adaptation Planning (CHRMAP) for the Middleton Beach Activity Centre (Appendix B; MP Rogers and Associates 2015) has been prepared to be in accordance with State Planning Policy (SPP 2.6) and the Coastal Hazard Risk Management and Adaption Planning Guidelines (WAPC 2014).
- Middleton Beach Coastal Management Strategy (Appendix C; MP Rogers and Associates 2018) outlines the future requirements for the management of the coast within the FMP area and includes details on both the requirement for coastal management as well as the proposed foreshore management approach.
- The Middleton Beach Foreshore Landscape Management Plan (Appendix D; AECOM 2017) details of the key structural elements of the foreshore design and has been developed having regard for the foreshore's local and regional context, social and environmental characteristics, and a range of practical management requirements (e.g. access, tree retention).

1.4 Objectives

The overall aim of this FMP is to retain and enhance the key recreational and amenity values of the Middleton Beach foreshore environment, whilst ensuring its ongoing protection from coastal hazards.

Aligned with this aim, the following key objectives have been established:

- Site definition. Define the Middleton Beach foreshore area, which includes a broader precinct adjacent to the Middleton Beach Activity Centre and specifically focus upon the foreshore area between the existing boardwalk and the Albany Surf Lifesaving Club, which enables the CoA's broader aspirations for the Middleton Beach foreshore environments to be realised.

- Strategy development. Develop integrated strategies for servicing essential infrastructure, engineering and coastal adaptation and protection, inclusive of defining the risk to existing and future infrastructure from coastal hazards over the 100-year planning horizon and the development of specific mitigation measures to address SPP 2.6.
- Staged approach. Implementing a short, medium and long-term approach to the design and planning of the Middleton Beach foreshore centred around coastal adaption, urban growth, transport, infrastructure, climate change and implementation factors to support the development of the Middleton Beach Activity Centre in accordance with CoA's strategies, plans and policies.
- Public realm. Integrate design strategies for high quality public spaces and facilities for all users which are safe, accessible, attractive, comfortable, flexible (event capability), well connected and long lasting.
- Community focus. Build on the objectives established by the by community engagement undertaken for the Middleton Beach Activity Centre and the Coastal Parks Strategy and engage and inform the local community.
- Partnerships. Work in partnerships with key stakeholders throughout the process, taking a collaborative approach to design, planning, implementation and management decisions.
- Economic viability. Support the development aims and investment strategy of the Middleton Beach Activity Centre and the broader foreshore precinct.
- Sense of place. Protect, enhance and communicate the culture and heritage values of the locale, create memorable, diverse and authentic experiences which express civic pride and encourage repeat visitation.

This FMP guides management actions and outlines the proposed design response to the following issues within the Middleton Beach foreshore reserve:

- coastal inundation and erosion hazards
- pedestrian access to Middleton Beach
- tree retention and environmental rehabilitation.

The FMP in addressing the above issues has been set out in the following sections:

- Statutory and Policy Context (Section 2.0)
- Middleton Beach Context (Section 3.0)
- Existing Environment (Section 4.0)
- Foreshore Design and Function (Section 5.0)
- Coastal Hazard Risk Management and Adaptation (Section 6.0)
- Foreshore Rehabilitation (Section 7.0)
- Implementation and Responsibility (Section 8.0).

1.5 Statutory Requirements

The requirement to prepare and implement an agreed FMP was established through the Minister for Planning's approval of Amendment No. 1 to the CoA's LPS No.1.

Planning approval required that Special Performance Criteria were incorporated into the Schedule 4 – Special Uses Zones of LPS No. 1. The Special Performance Criteria required that foreshore protection and management measures be implemented, specifically:

1. Development within the Hotel/Mixed Use precinct and/or creation of the Hotel/Mixed Use Precinct and/or creation of the Hotel/Mixed Use Lot will be subject to satisfactory arrangements for the

implementation and ongoing management of coastal adaptation and protection measures consistent with State Planning Policy 2.6, including but not limited to:

- a. Public advertising, adoption and implementation of a Foreshore Management Plan that includes the existing foreshore reserve adjacent to the Special Use zone, prepared in conjunction with the City of Albany in accordance with SPP 2.6 Sub-Clause 5.10 Coastal Strategies and Management Plans and endorsed by the WAPC.
- b. Notification on Title stating that the lot within a Vulnerable Coastal Area.

1.5.1 Approval Process

Informed by the above Special Performance Criteria, it is envisioned that the approvals process for this FMP would generally include the following stages:

1. Adoption of the draft FMP by CoA for the purpose of advertising / public consultation.
2. Commencement of the advertising / public consultation period.
3. Review and respond to any submissions received by the CoA.
4. FMP to be updated (this stage would be undertaken on an 'as required' basis).
5. Final adoption of the FMP by CoA.
6. Submission of FMP to WAPC for endorsement.

1.6 Middleton Beach Foreshore Landscape Management Plan

The Middleton Beach Foreshore Landscape Management Plan (Appendix D; AECOM 2018) provides details of the key structural elements of the foreshore design and has been developed having regard for the foreshore's local and regional context, social and environmental characteristics, and a range of practical management requirements (e.g. access, tree retention).

The design approach can be summarised as follows:

- retention of the Norfolk Pine trees, established grasses areas, grassed terraces and Ellen Cove Jetty to maintain the foreshore area's existing usage and character
- path connections through the vegetated sand dunes to be formalised allowing direct pedestrian access to the beach, with accompanying revegetation works implemented
- upgrades and improvements to the Albany Surf Lifesaving Club
- dual use and primary use path network to allow for pedestrian and cycle access throughout the foreshore area
- foreshore promenade to provide an activation interface between the beach and landscaped foreshore environments
- additional grassed terraces to create an amphitheatre overlooking the beach environment.

The FMP area is planned to operate as an interface between the Middleton Beach Activity Centre development and Middleton Beach. The FMP area will provide opportunities for active and passive recreation whilst responding to the cultural and ecological sensitivities within the existing foreshore reserve and the surrounding Middleton Beach and Mount Adelaide environments.

2.0 Statutory and Policy Context

A range of plans, strategies and policies provide the context for the future conservation, development and use of the Middleton Beach foreshore. The following provides a summary of those statutory and policy mechanisms applicable to the subject land, noting key issues/requirements of relevance to this FMP.

2.1 City of Albany Local Planning Scheme

The LPS zonings and reservations, as an outcome of Amendment No.1, for the Middleton Beach Activity Centre are shown in Figure B. The foreshore area subject of this FMP is primarily reserved for "Parks and Recreation", with an approximate 0.5 ha portion being zoned Special Use Zone SU25', under the LPS No. 1.

2.1.1 Improvement Plan No. 40

Improvement Plan No. 40 set out future planning, development and land uses by establishing the strategic intent for the Middleton Beach Activity Centre. Improvement Plan No. 40 was gazetted and came into operation in October 2014. However, in February 2015 the DPLH subsequently recommended that traditional Local Planning Scheme Amendment and Structure Plan mechanisms should be followed for the statutory planning of the site rather than an Improvement Scheme.

2.1.2 Amendment No. 1

LPS Amendment No. 1 proposed to rezone part of Lot 8888 Flinders Parade, Middleton Beach from 'Hotel/Motel' and 'Tourist Residential' zones, Lots 660 and 661 Marine Terrace, Middleton Beach from 'Tourist Residential' zone and portions of Adelaide Crescent, Marine Terrace, Barnett Street, Flinders Parade and Marine Drive from 'Priority Road' and Local Road Reserves to 'Special Use Zone SU25'.

On 23 December 2017, the Minister for Planning approved Amendment No. 1 to the CoA LPS No. 1 Public notice was provided by way of Government Gazette on 24 January 2017 (Appendix E).

2.2 City of Albany Activity Centres Planning Strategy

The objectives of the Activity Centres Planning Strategy (CoA 2010) are:

1. Promote and facilitate the provision and responsive evolution of a viable, convenient, and attractive network of activity centres to serve the retail, other commercial and socio / cultural needs of the regional and local population.
2. Encourage and facilitate the provision of more localised business and employment opportunities.
3. Preserve and where possible enhance the local character and amenity of residential neighbourhoods.

The CoA (2010) identifies Middleton Beach as an Activity Centre (Local Centre).

2.3 Middleton Beach Activity Centre Local Structure Plan

The LSP was prepared in support of Amendment No. 1 to guide future subdivision and development of the Middleton Beach Activity Centre (Figure C).

The LSP was adopted by the WAPC on 04 January 2017, following endorsement by the CoA on 13 June 2016. It comprises the 3.29 ha parcel of land that was subject to Amendment No. 1 and is situated between Flinders Parade, Adelaide Crescent, Marine terrace and Barnett Street. The LSP project area includes the site of the former Esplanade Hotel. It provides a detailed framework for the provision of at least 295 residential dwellings, three mixed use lots, one hotel lot and public open space.

Approximately 0.5 ha of foreshore public open space is provided for in the LSP, which is situated adjacent to the existing Middleton Beach foreshore reserve. Development in the combined foreshore reserve is to be for public use infrastructure and designed to limit disturbance while allowing people to experience the asset. Public to the access is to be controlled via a designated and signposted path linking to the development from the west to the foreshore and beach.

2.4 State Planning Policy 2.6: State Coastal Planning Policy

SPP 2.6 establishes the requirement for setting coastal reserves in Western Australia through using a site-specific assessment. The Policy requires the area of foreshore reserve be sufficient to provide an allowance for coastal processes, protection of ecological values, landscape, visual amenity, indigenous and cultural heritage, public access, recreation and safety.

SPP 2.6 provides guidance for the assessment of coastal processes through consideration of the following key components:

- S1 Erosion: Allowance for the current risk of storm erosion
- S2 Erosion: Allowance for historic shoreline movement trends
- S3 Erosion: Allowance for erosion caused by future sea level rise
- S4 Inundation: Allowance for the current risk of storm surge inundation.

M P Rogers and Associates (2015) defines the physical processes allowance area consistent with the SPP 2.6 requirements. The identified coastal hazard lines for the Middleton Beach Activity Centre are presented in Figure D.

2.5 State Planning Policy 2.9: Water Resources

SPP 2.9: *Water Resources* (WAPC 2006) provides guidance for development abutting water resources or potentially impacting on water resources.

The objectives of SPP2.9 are to:

1. Protect, conserve and enhance water resources that have been identified as having significant economic, social, cultural and/or environmental values.
2. Assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources.
3. Promote and assist in the management and sustainable use of water resources.

SPP 2.9 seeks improved outcomes such as reduction in nutrient export and improved water quality. Requirements for design and development proposals include:

- measures to achieve effective total water cycle management and integrated urban water management
- management of site constraints and hazards including slope stability and erosion hazards
- measures to manage and restore vegetation cover.

2.6 Albany Regional Vegetation Survey

The Albany Regional Vegetation Survey (ARVS) (Sandiford and Barrett 2010) provides a local and regional overview of the native flora and vegetation species present within the greater Albany area. Assessments of the extent, rarity, diversity and reservation status of vegetation units, their status as wetland / streamline / estuarine or coastal dune vegetation and threats to vegetation units are provided to assist in determining the local and regional conservation significance of the vegetation (EPA 2017).

The native vegetation to the east of the existing landscaped foreshore reserve and in close proximity to the Middleton Beach Activity Centre is mapped by the ARVS as Beach Herbland / Grassland.

2.7 Middleton Beach Tourist Precinct

The objectives of the CoA's Middleton Beach Tourist Precinct Policy are to:

1. Create a high quality and vibrant beachside tourist precinct.
2. Encourage the provision of a wide range of facilities and services to serve both visitors and the local community.
3. Encourage a more diverse range of housing and tourist accommodation.
4. Establish appropriate height limits for development within the precinct.

The Middleton Beach Activity Centre development and foreshore reserve is situated within The Beach Strip, which is described as an active beach front urban edge comprising restaurants, cafes, tourist accommodation and residential apartments.

2.8 Council Management Plan, Middleton Beach

The Council Management Plan, Middleton Beach (CoA 2010) provides the framework for the management and environmental protection of the Middleton Beach foreshore reserve.

Threats to conservation values are listed with proposed management strategies to address them. Key identified threatening processes are:

- physical disturbances including trampling and track creation
- environmental weeds.

Recommendations for management include constructing a formal pathway and conducting weed control programs in conjunction with rehabilitation programs.

2.9 Future Foreshore Planning and Environmental Approvals

Any proposed development, as part of the implementation of the Middleton Beach Foreshore Management Plan, requires the approval of the CoA.

The development works will be subject to the following planning and environmental approvals:

- Development Application (CoA)
- engineering / landscape construction design drawings (CoA)
- Purpose Permit clearing application approval (DWER).

3.0 Middleton Beach Context

Middleton Beach is Albany's primary swimming and recreational beach and is considered to be one of the CoA's premier coastal destinations Figure 4. The surrounding Middleton Beach suburb comprises of a mixture of primary residences as well as including an assortment of holiday accommodation, ranging from a caravan park to motels and independent 'bed and breakfasts' and private holiday houses.

The Middleton Beach foreshore serves as a popular destination for Albany's local and broader communities, whilst functioning as a tourism destination for visitors to the Great Southern region.



(Source: AECOM 2017)

Figure 4: Existing Middleton Beach Foreshore Environment

The social, environmental, personal and economic value of the Middleton Beach coastline has been considered by the CoA's Study of Coastal Values and Character Emu Point to Middleton Beach (Greenskills 2013). This document identifies the Middleton Beach coastal environment is highly valued by the local community for walking, swimming and reading, whilst the local cafes and restaurants provide local meeting points.

The development of the Middleton Beach Activity Centre will create a mixed use centre with tourist facilities, restaurants, cafés, shops, holiday and short stay accommodation and permanent residential apartments. Whilst the planned upgrades to the FMP area will ensure that the cultural and environmental attributes of Middleton Beach foreshore are maintained and enhanced to support the delivery of an outstanding foreshore precinct for the Albany's local and broader communities.

4.0 Existing Environment

4.1 Topography

The Middleton Beach foreshore is situated on beach and dune deposits consisting of lacustrine deposits including lakes, playas and fringing dunes. The foreshore topography is generally flat with limited variation, ranging in elevation from a maximum height of approximately 2.6 metres Australian Height Datum (m AHD) to 0 m AHD along the coast (Figure E).

4.2 Geology

The 1:50,000 Environmental Geology Series identified the Middleton Beach foreshore consists predominantly of S2 (SAND) – white, medium to coarse-grained, moderately well sorted, quartz and shell debris (Gozzard 1989; Figure F).

4.2.1 Soils

A geotechnical investigation has been completed for the Middleton Beach Activity Centre by Golder Associates (2015) and confirmed the soil profile to consist of the following:

- SAND (topsoil): fine to coarse grained sand, grey to yellow, with some plasticity silt, loose to medium dense, extending to depths of 0.2 metres (m) and 0.4 m overlying
- SAND (SP): fine to medium grained, sub-rounded to sub-angular, carbonate, pale yellow-white becoming grey, with trace shells and shell fragments at about 2.5 m depth, medium dense to dense, extending to depths of between 5.5 m and 6.9 m, overlying
- Sandy CLAY/Clayey SAND (C1/SC): medium plasticity, dark grey, fine grained sand, firm to stiff, typically 0.5 m to 1.5 m thick and extending to depths of 6.8 m and 7.6 m, overlying
- SAND (SP): medium dense to dense, variable thickness from 0.5 m to 11 m thick, extending to depths of between 7.2 m and 18.5 m, overlying
- Clayey SAND/Sandy CLAY (SC/CL): medium dense to dense, inferred extremely weathered to highly weathered granite, extending to a maximum depth investigated of 22.2 m.

The geotechnical assessment included drilling four boreholes to a depth of 6.0 m, with two of these (BH01 and BH04) being developed as groundwater monitoring bores. The locations of the boreholes are shown on Figure G. Permeability testing by the inverse auger hole method was also completed at two locations at a depth of 1 m and found that the soil permeability was approximately 40 m/day and 60 m/day (Golder Associates 2015).

4.3 Groundwater

Groundwater flows is in an easterly direction towards the coast, discharging to the Southern Ocean.

4.3.1 Aquifers

The Middleton Beach foreshore lies within the Karri groundwater area and the Karri sub-area. The DWER's Hydrogeological Atlas has classified the area as having local fractured and weathered rock aquifers of low permeability (Department of Water 2017).

The aquifers within the Karri groundwater sub-area include the Bremer West Superficial, Bremer West Sedimentary and the Bremer West Fractured Rock Aquifers.

The Bremer West Superficial Aquifer occurs in sand and calcarenite dunes along the coast with the salinity ranging from fresh to brackish, overlying salt water that connects to the ocean. The Bremer West Sedimentary Aquifer occurs in Pallinup Siltstone and Werillup Formation and is typically brackish or saline, although freshwater is present in high recharge areas. The underlying Bremer West Fractured Rock Aquifer consists of granite and gneiss, and has been identified to be low yielding with high salinities. There is limited information on water availability in these aquifers.

4.3.2 Groundwater Levels

A groundwater monitoring program for the Middleton Beach Activity Centre commenced in August 2015 to inform the preparation of the Urban Water Management Plan (UWMP) (RPS 2017).

Groundwater pressure transducers were installed in the two shallow monitoring bores, which were set to log every 15 minutes commencing in September 2015 until they were removed in January 2017 (Figure G). Groundwater levels measured from the loggers ranged from 0.848 m AHD (11/04/2016) to 1.805 m AHD (09/10/2016) from BH01 and from 0.591 m AHD (11/04/2016) to 1.307 m AHD (05/10/2016) from BH04, with the shallowest depths to groundwater occurring in October 2016.

The Maximum Groundwater Level (MGL) for the Middleton Beach Activity Centre was 1.307 m AHD for BH04 and 1.805 m AHD for BH01. The MGL decreases from west to east across the foreshore reserve to be 0 M AHD at the coast.

4.4 Flora and Vegetation

4.4.1 Albany Regional Vegetation Survey

The Middleton Beach foreshore is mapped by the ARVS as Beach Herbland/Grassland vegetation association '...a colonising unit that occurs on beaches above the high-water mark and on some foredunes. This unit is transitional, subject to erosion by storm wave action or invasion by secondary successional species and changing to Coastal Limestone Heath. The unit varies from an open herbland to a closed grassland with most species present introduced. Common species include *Spinifex hirsutus*, *Lepidosperma gladiatum*, **Spinifex sericeus*, **Ammophila arenaria*, **Lagurus ovatus*, *Ficinia nodosa*, **Cakile maritima*, **Arctotheca calendula*, *Carpobrotus* sp., **Pelargonium capitatum* and **Euphorbia paralias*. Occasional shrubs may be present. Species present are salt tolerant and many were only recorded in this unit.' (Sandiford and Barrett 2010; Figure 5).

The ARVS notes that this vegetation association has high numbers of introduced species and is widespread along beaches in south-west Western Australia (Sandiford and Barrett 2010).



(Source: AECOM 2017)

Figure 5: Herbland/Grassland Vegetation Association within Middleton Beach Foreshore

Bushland extents associated with Mount Clarence A Class Reserve (2682) in the south of the FMP area are inferred as a mixture of Jarrah Woodland and Coastal *Banksia ilicifolia*/Peppermint Low Woodland vegetation associations.

The Jarrah Woodland vegetation association 'is relatively open with *Banksia ilicifolia* and *Corymbia calophylla* occasionally present. The understorey is often a *Taxandria parviceps* tall shrubland above one or two lower open shrub layers, an *Anarthria scabra*/*Hypolaena exsulca* Sedgeland and mixed open herbland dominated by *Dasyopogon bromeliifolius*, and/or *Patersonia umbrosa* and *Pteridium esculentum*. Common understorey shrubs include *Pultenaea reticulata*, *Melaleuca thymoides*, *Acacia pulchella*, *Bossiaea praetermissa*, *Leucopogon rubricaulis*, *Xanthosia rotundifolia* and *Boronia crenulata*'.

The Coastal *Banksia ilicifolia*/Peppermint Low Woodland vegetation association 'A canopy of *Banksia ilicifolia* and *Agonis flexuosa* is characteristic of this unit with *Banksia attenuata* and *Allocasuarina fraseriana* co-dominant in some areas. The understorey species include *Jacksonia horrida*, *Pultenaea reticulata*, *Melaleuca thymoides*, *Adenanthos cuneatus*, *Leucopogon obovatus*, *Acacia pulchella*, *Astroloma baxteri*, *Bossiaea praetermissa*, *Hibbertia racemose*, *Anarthria scabra*, *Anarthria prolifera*, *Schoenus caespititius*, *Lyginia barbata*, *Mesomelaena gracilipes*, *Cyathochaeta equitans*, *Dasyopogon bromeliifolius* and *Amperea ericoides*.

4.4.2 Flora and Vegetation and Fauna Review

A Flora and Vegetation and Fauna Review was undertaken by RPS to support the Middleton Beach Activity Centre LSP (RPS 2015). Flora database searches were undertaken using a 5 km buffer, whilst a field investigation was undertaken to review the vegetation within the Middleton Beach Activity Centre site.

4.4.2.1 Threatened and Priority Flora

Poa billardiarei (Priority 3) was recorded within the existing Middleton Beach foreshore reserve to the north of the FMP area (Figure H).

4.4.2.2 Threatened and Priority Ecological Communities

The following two Threatened Ecological Communities (TECs), listed under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act), were recorded within 5 km of the FMP area:

- Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia
- subtropical and temperate Coastal Saltmarsh.

The key diagnostic characteristics of these TECs are not representative of the ARVS' description of the Beach Herbland/Grassland, Jarrah Woodland or Coastal *Banksia ilicifolia*/Peppermint Low Woodland vegetation associations.

4.5 Terrestrial Fauna

4.5.1 Flora and Vegetation and Fauna Review

Database searches, a desktop habitat assessment for conservation fauna and field investigation was undertaken for the Middleton Beach Activity Centre site (RPS 2015).

The Blue-billed duck (Priority 4) was recorded within the Middleton Beach Activity Centre site by the database searches. Additionally, Hutton's Shearwater, a listed marine species under the EPBC Act, and southern brown bandicoot (Priority 5) were also recorded within the existing Middleton Beach foreshore reserve to the north of the FMP area by the data base searches (Figure I). No native fauna was recorded within the Middleton Beach Activity Centre site by the field investigation (RPS 2015).

4.5.2 Database Records

The Blue-billed duck is likely to be a resident in the wetland environments of the Lake Seppings Nature Reserve. The recording within the Middleton Beach Activity Centre site is likely to be representative of an individual traversing the local Middleton Beach landscape as there is no habitat with the site upon which the Blue-billed duck would be reliant upon to maintain a local population (RPS 2015).

Hutton’s Shearwaters travel from their breeding grounds in New Zealand across the Southern Ocean south of Australia and up the west coast to spend the non-breeding season in the Kimberly before retracing this flight path before the next breeding season (Birdlife Australia 2017). The recording within the existing Middleton Beach foreshore is representative of an individual migrating between New Zealand and the Kimberly.

Southern brown bandicoot is likely to be resident within the Mount Clarence environments and landholdings the adjacent the existing Middleton Beach foreshore reserve (Lots 3000 and 1523 Emu Point Drive) (RPS 2015; EPA 2011). The Middleton Beach foreshore reserve may serve as a linkage between these key habitats and it is likely that this recording is representative of an individual traversing from one of these surrounding habitats.

There is limited habitat for native fauna species within the portion of the Middleton Beach foreshore subject to this FMP. Given the substantial extent of coastal habitats available in Albany, and the broader Great Southern region, the risk of a significant impact occurring to any native fauna species as a result of the proposed development of the Middleton Beach foreshore is considered to be low.

4.6 Coastal Processes

The potential future vulnerability of the coastline and the subsequent risk to the community, economy and the environment, needs to be considered for the Middleton Beach foreshore area. In particular, temporal changes to the risk profile need to be understood to ensure that appropriate decisions can be made, and steps taken, to respond to this changing risk – particularly in response to potential climate induced change.

Effective management of coastal processes requires assessment of the asset specific risk exposure, identification of risks that require management and development of suitable management practices and adaptation techniques that the management authority considers to be acceptable in response to the present and future risks.

4.6.1 Coastal Hazard Risk Management and Adaption Plan

The CHRMAP assesses the coastal processes potentially affecting the Middleton Beach foreshore environments over a 100 year planning period in accordance with SPP 2.6 requirements (Appendix B; MP Rogers and Associates 2015).

This work has identified the coastal processes allowance line over 25, 50, 75 and 100 year planning increments, to provide an understanding of potential coastal hazard risk over the 100 year planning period (Table 1).

Table 1: Coastal Processes Summary

Time Period	S1 – Allowance Severe Storm Erosion (m)	S2 Allowance Historic Shoreline Movement (m)	S3 – Climate Change (m)	Factor of Safety	Total Coastal Processes Allowance
25 years	15	-10	12	5	23
50 years	15	-20	33	10	41
75 years	15	-30	60	15	62
100 years	15	-40	90	20	85

MP Rogers and Associates (2015) identifies that it is possible for the existing foreshore reserve to be impacted by coastal erosion within 50 years. It is almost certain that the Albany Surf Lifesaving Club, Three Anchors restaurant, Flinders Parade Car-park and Middleton Beach Activity Centre will be impacted by coastal erosion after 100 years, should no prior management action(s) be implemented to mitigate this risk (Figure D).

Additionally, MP Rogers and Associates (2015) identifies that it is possible for coastal inundation to impact the existing foreshore reserve over the 100 year timeframe, whilst it is almost certain that the Three Anchors restaurant will also be impacted by coastal inundation over the same planning timeframe.

The potential coastal hazard risk management actions identified by MP Rogers and Associates (2015) to protect the existing foreshore reserve, associated infrastructure and the Middleton Beach Activity Centre were:

1. Accommodate the risk of coastal erosion and inundation by increasing the elevation of the beach.
2. Protect valuable infrastructure with a coastal protection structure.

The long-term coastal processes are considered further in Section 6.0 of this FMP, having regard for proposed community infrastructure and the risk management approach to be employed.

4.7 Land Use History

A review of the historical aerial images reveals that the existing Middleton Beach foreshore reserve, adjacent to the Middleton Beach Activity Centre, has remained consistent in its extent and land use since at least 1954. The construction of the Ellen Cove jetty and early Norfolk pine plantings are visible from 1954 with the construction of the present-day alignment of Flinders Parade, the Albany Surf Lifesaving Club and Three Anchors restaurant occurring between 1961 and 2001.

Within the Middleton Beach Activity Centre, the demolition of the Esplanade Hotel is observable between 2004 and 2007.

5.0 Foreshore Design and Function

The Middleton Beach Landscape Management Plan (Appendix D; AECOM 2018) has been completed to ensure the Middleton Beach foreshore provides the required level of amenity for Albany's local and broader communities. In particular, the Landscape Management Plan has also sought to address existing issues that are currently experienced with the foreshore, such as windblown sand and stormwater drainage.

The CoA will be responsible for the implementation of the Landscape Management Plan which is expected cost in the order of \$4.5 million (excl. GST) excluding any contingencies and maintenance.

5.1 Design Philosophy

The Landscape Management Plan design philosophy is underpinned by the following key principles:

1. Establish a strong connection to the previous geomorphology and ecological histories of the foreshore and surrounding environments and in this way establish an urban ecology within the foreshore precinct.
2. Where appropriate, create a uniform 'shared public domain' where the distinction between trafficable and pedestrian spaces is only subtly defined.
3. Provide a public domain that responds to the climate conditions of Albany through the provision of shaded and comfortable areas.
4. Ensure that there is seamless integration between interior and exterior spaces, expressed primarily through ground plane materiality, texture, colour and pattern.
5. Ensure that there is a strong connection to the broader Middleton public domain through the connection of view lines and selection of details, material and vegetation.
6. Integrate art work consistent with landscape themes.
7. Provide flush pedestrian oriented surfaces.

5.2 Structural Elements

A key component of the Middleton Beach Landscape Management Plan (Appendix D; AECOM 2018) is the protection of the existing foreshore area through the construction of a coastal protection structure. Section 6.5.1 provides further detail on the coastal protection structure, whilst the following Sections 5.2.1 to 5.2.5 provide a high order description of the remaining key structural elements of the foreshore design.

5.2.1 Landscaping Coastal Protection Elements

5.2.1.1 Vegetation Protection

Strategically placed, isolated pockets of suitable planting will enable an additional layer of subsurface strength to the foreshore's edge. Networks of interlaced root systems will provide a subsurface adhesive assisting the rock armour barrier, hardscape and sacrificial sand layer.

5.2.1.2 Surface Treatments

Hardscape surface treatments, including the promenade walkway, provide an additional layer of strength to the coastal protection armoury. Whilst transitioning the grade change from the adjacent activity nodes, landscape wall terracing systems will assist the stabilisation of the foreshore during coastal storm events.

5.2.1.3 Retained Levels

Intentionally retaining and protecting the existing, forged ground levels will add further structural stability to the foreshore's edge. The retention of adjacent levels will also provide stability to tree health and assist the vegetative protection component via maintained subsurface root systems.

5.2.2 **Drainage and Water Quality**

A high level description of drainage structural controls in the FMP area has been provided below. These elements have been addressed in greater detail in the UWMP for the Middleton Beach Activity Centre (RPS 2017).

5.2.2.1 Channel System

Utilising the existing subsurface stormwater infrastructure, the proposed channel system, via the use of a 1,200 millimetre (mm) high concrete box culvert, conceals, stores, and disperses the collective discharge from the existing system's outlets during heavy rain events. Water volumes are initially stored within the culvert system before filtering through a drainage media of limestone rock particles. Stormwater is then dispersed into the groundwater.

5.2.2.2 Groundwater

Excess groundwater will be controlled by the proposed channel system via the granite/limestone rock filter media and drainage channel system. Within its current condition, surface water is distributed onto the beach foreshore, causing erosion, hazardous pollutant deposits and potential safety risks to the public. The proposed channel system will remove the risk of pollutant exposure to beachfront users.

5.2.2.3 Water Quality

The structural rock armouring and box culvert will retain, filter and redistribute excess ground and surface water into the wider water table system. Strategic planting and existing tree vegetation will benefit from enhanced filtration of groundwater, whilst the augmentation of the vegetative layer will provide further filtration to the groundwater system.

5.2.3 **Passive Amenity**

5.2.3.1 Promenade Treatments

Varied surface material treatments to the promenade walkway will enhance visual amenity, activate activity and enhance the overall landscape user experience. Utilising a material palette sympathetic to the vernacular surroundings, the promenade will offer a variety of passive and active recreational; usages through consolidated furniture fittings and equipment suite. This suite will integrate concrete and timber surface treatments of the promenade.

5.2.3.2 Seating Wall

Seating opportunities will be offered along the western edge of the promenade, allowing for passive surveillance of the surrounding pathways and open spaces. Utilising a selection of concrete and timber, the seating nodes will offer views either side of the promenade, either out to Ellen Cove or back towards the Middleton Beach Activity Centre.

5.2.3.3 Tree Retention

The retention and augmentation of the existing tree structure will soften the proposed hardscape treatments, and complement and enhance the user experience the user experience through shade and visual connections to the surrounding landscape and proposed urban tree canopy.

5.2.3.4 Environmental Rehabilitation

Environmental enhancements such as tree structure and coastal re-vegetation and rehabilitation will form a key component of the proposed landscape scheme. These enhancements will assist in coastal protection, water quality, user comfort and visual amenity, but also provide ecological enrichment through the expansion and protection of habitat.

5.2.4 **Place Activation**

5.2.4.1 Event Spaces

Proposed open grassed spaces situated along the promenade's western edge will be designed not only to offer opportunities for both passive and active recreation, but also for the facilitation of larger community events. Assisted by the wind and sun protection the existing and enhanced tree structure, activated events spaces will instil a 'strong sense of place' through positive experiences assisted by the optimised landscape surroundings.

5.2.4.2 Active Edge

The promenade edge will encourage a variety of passive and active recreational opportunities. Passive recreation such as picnicking, gathering and seated surveillance will be assisted by strategically placed furniture situated under existing shade trees. Spaces for dynamic activities including jogging, walking and cycling will be offered along the promenade, as well as group fitness activities within the event spaces and activity nodes.

5.2.4.3 Beach

The foreshore enhancements will enable further encouragements of beach side activities such as swimming, volleyball, and picnicking, lending to a more memorable experience for the Albany community and tourists.

5.2.5 **Access and Linkages**

5.2.5.1 Pedestrian Access

Within the wider pedestrian circulation network, the promenade walkway will encourage circulation away from Flinders Parade and Marine Drive and redistribute pedestrians into adjacent Middleton Beach urban surroundings. The promenade, in association with further pathways and pedestrian connections, will aid accessibility to all existing adjacent facilities including car parking facilities and the Albany Surf Lifesaving Club.

5.2.5.2 Public Transport

The enhanced pedestrian circulation network will assist the proposed prioritisation of public transport connections the foreshore and surrounding areas. Currently positioned within the northern surface carpark, the prioritised bus stop will distribute users from a wider town loop distribution route. The continuation of the promenade will collect these users, allowing for an uninterrupted approach toward the beach and adjacent activity nodes.

5.2.5.3 Vehicular Circulation

The promenade and collective shared pathway networks will be designed to facilitate vehicular traffic such as maintenance, delivery and emergency vehicles. Adjacent facilities such as the Albany Surf Lifesaving Club will receive operational benefit from enhanced hard paved connections (pedestrian and vehicular), stemming from the Flinders Parade carpark.

6.0 Coastal Hazard Risk Management and Adaptation

6.1 Coastal Hazard Risk

The CHRMAP assesses the coastal processes potentially affecting the Middleton Beach foreshore environments over a 100-year planning period in accordance with SPP 2.6 requirements (Appendix B; MP Rogers and Associates 2015).

This work identifies coastal hazard vulnerability over 25, 50, 75 and 100 year planning increment to provide an understanding of potential coastal erosion and inundation risk over the 100 year planning period. The projected long term coastal hazard, as measured from the established Horizontal Setback Datum, is summarised as follows:

- 25 years – 23 m
- 50 years – 41 m
- 75 years – 62 m
- 100 years – 85 m.

The projected long term coastal hazard, at each of these interval periods, is illustrated with respect to the FMP area and the Middleton Beach Activity Centre site in Figure D.

6.1.1 Consideration of SPP 2.6

SPP 2.6 incorporates a justifiably conservative methodology to ensure that the siting of future development or assets is cognisant of potential future hazards, even those with a very low likelihood of occurrence. As a result, it is important to understand that the coastal hazard lines provided in MP Rogers and Associates (2015) are not predictions of the future shoreline location. In this regard, the full requirements for maintaining the coastal reserve will need to be informed by ongoing coastal monitoring.

This coastal monitoring will inform both the requirements for the maintenance of the beach in front of the Middleton Beach Activity Centre, as well as the requirements of the ongoing protection of the landscaped foreshore area behind the coastal protection.

6.2 Management and Adaptation Planning

SPP 2.6 outlines a hierarchy of risk management measures and adaptation options available in the coastal planning process. There are four broad categories of management/adaptation approaches, generally described as follows:

- Avoid – locating development to avoid coastal hazards and risks. Planned or Managed Retreat – locating low-cost / sacrificial public infrastructure within the physical processes allowance area, which can be removed/demolished as they become at risk of coastal hazards over time.
- Retreat – the relocation or removal of assets within an area identified likely to be subject to intolerable risk of damage from coastal hazards.
- Accommodate – The use of regulatory tools (notifications, easements on title), evacuation plans and/or a variety of physical measures to best accommodate physical processes on privately owned properties.
- Protect – the use of hard infrastructure/physical works (e.g. sea walls, groynes) to defend and protect public/private land from physical processes.

6.2.1 Coastal Management Strategy

In consideration of the identified coastal hazard risk, the CoA, as the authority responsible for the current and future management of the Middleton Beach foreshore, has undertaken an assessment of the future requirements for the FMP area. This assessment highlighted that the Middleton Beach foreshore reserve represents a significant community asset within an important coastal precinct within the greater Albany area.

In recognition of these above key factors, the CoA has determined that the significant recreational and amenity values of the foreshore reserve require future protection from the identified coastal erosion and inundation hazards.

Coastal management strategies for the Middleton Beach Activity Centre need to be sensitive to the constraints associated with the development of the foreshore. The significance of the Norfolk Pines and the requirement for them to be retained limits what can be done in terms of increasing the elevation of the foreshore. Furthermore, the requirement for a high aesthetic value and for a continuous access to the beach that isn't interrupted by an emergent and cumbersome coastal protection structure limits the available coastal protection options. The requirement to be able to assist in the management of windblown sand also needs to be considered.

Consistent with the Middleton Beach Coastal Management Strategy (MP Rogers and Associates 2018), the approach proposed in this FMP to protect the foreshore reserve, and Middleton Beach Activity Centre, comprises the following key elements:

- staged construction of an overall coastal protection structure that predominately provides protection against coastal erosion
- increasing the elevation of the foreshore area (where possible) and finished floor levels of new development to minimise the future risk of inundation
- ongoing management of beach levels and windblown sand to prevent significant adverse impacts from windblown sand on the foreshore area
- importing beach nourishment material to replenish the beach if needed in the future.

These management requirements can be spilt into two categories, those that are capital requirements and those that are operational or maintenance requirements. Construction of the coastal protection structure and the increase in the elevation of the foreshore are capital requirements, while the management of the beach and windblown sand and the potential requirement for beach nourishment are both operational or maintenance requirements.

The proposed approach to coastal management responds to potential risks associated with coastal erosion and inundation hazards over at least the next 50 years. Thereafter, a retrofit of the coastal protection could provide protection for the ensuing period. Using this approach the usefulness of the foreshore, and the more intimate relationship with the beach and ocean, is maximised in the short, medium and long term. This approach also provides the necessary level of protection for the proposed development (for the Middleton Beach Activity Centre and the Middleton Beach foreshore) in response to coastal hazard risk.

6.3 Consultation with Department of Planning, Lands and Heritage and Department of Transport

The Middleton Beach Coastal Management Strategy (Appendix C; MP Rogers and Associates 2018) was presented to the DPLH and Department of Transport (DoT) in March 2017 for review.

The following comments were received:

- Middleton Beach Coastal Management Strategy should form part of the overall FMP for the Middleton Beach Activity Centre

- FMP was required to be prepared in accordance with and addressing all relevant matters as set out in CoA's LPS No.1, SPP 2.6: State Coastal Planning Policy (WAPC 2013a), State Coastal Planning Policy Guidelines (WAPC 2013b) and inclusive of the key landscape and foreshore enhancement works undertaken for the Middleton Beach Landscape Management Plan (Appendix D; AECOM 2018) and the coastal hazard risk analysis provided in MP Rogers and Associates (2015)
- proposed coastal protection structure will have a design life of approximately fifty years and accommodate fifty year (2065) coastal vulnerability
- design of the proposed coastal protection structure is adequate and will support future augmentation, as required beyond 2065
- inundation diagrams accurately demonstrate that inundation impacts to future hotel site over 100 year planning horizon have been avoided.

The key points to be addressed in the FMP were:

- identification of the party responsible for the coastal protection structure and funding mechanism for their construction, ongoing care, control and maintenance
- inclusion of suitable plans and drawings indicating what augmentation the coastal protection structure will need and what they will look like between 2065 and 2115
- inclusion of an indicative cost and timing of the augmentation works and identification of the party responsible for their implementation
- inclusion of an indicative cost and timing of the future beach nourishment works, identification of the party responsible for their implementation, the amount of sand required for the beach nourishment works and the location where the sand will be reliably sourced from
- inclusion of a detailed coastal monitoring framework for Middleton Beach, in order to determine the actual sediment volumes required to maintain the beach level and coastal protection structure integrity after large storm events
- identification of the portion of Middleton Beach to be subject to the beach nourishment works and determination of the timeframe for the beach nourishment works over the 100 year planning horizon.

The information presented in Section 6.5 (below) addresses the identified key points.

6.4 Coastal Inundation Risk Management

To overcome the risk associated with coastal inundation, the elevation of the foreshore area will be increased to minimise the potential for inundation. Nevertheless, this increase in the foreshore elevation is limited by the elevation of the Norfolk Pines. Therefore, proposed development areas, such as the hotel site will be increased to a level beyond what is possible for the foreshore to meet the requirements of SPP 2.6 for inundation.

Whilst this strategy means that the foreshore area will have a higher risk of inundation than would ideally be achieved based on SPP 2.6 requirements, the potential for inundation will still be quite low, with only small areas of the foreshore potentially inundated during the 0.2% Annual Encounter Probability event in 2065.

This is considered to be an acceptable outcome, as short-term inundation of the foreshore area is not expected to result in any significant issues. Furthermore, over the course of the coming half a century, it is anticipated that the foreshore would be upgraded again and such an upgrade would provide an opportunity to further increase the elevation, particularly since the areas surrounding the Norfolk pines may have naturally increased in level, as has been observed historically.

6.5 Coastal Erosion Risk Management

Management of the foreshore is required to mitigate the risk of future coastal erosion. The management requirements are twofold. First, there is a requirement to protect the valuable foreshore area from the impacts of erosion – particularly that associated with severe storm erosion. Second, there is the requirement to manage the beach itself so that a recreational beach area can be maintained into the future.

6.5.1 Coastal Protection Design

To provide the best outcome for the foreshore area, a concept design for the coastal protection has been prepared that also integrates stormwater drainage infrastructure and a pedestrian promenade. This innovative design approach incorporates a main vertical wall section along the beach that would be part of a stormwater drainage culvert. This culvert would ultimately seek to divert and/or infiltrate stormwater drainage that would otherwise flow over the beach (subject to detailed design).

Additionally, to minimise the height of the main vertical wall, and promote the relationship with the beach, it is proposed that an initial low level promenade be provided along the top of the culvert which would be backed by a seating wall. This seating wall would double as a small wave deflector that would ultimately help to reduce the extent of wave overtopping. Minimisation of the wave overtopping is important, to minimise the potential for damage to the adjacent foreshore and development areas. This will be the critical issue for the design of the coastal protection given the elevation limitations of the foreshore previously discussed.

The coastal protection design would also incorporate a rock revetment portion of the structure which would be buried under the beach and would provide a last line of defence, akin to an insurance policy, against severe storm erosion and beach scour.

A cross section of the proposed coastal protection structure is presented in Figure 2.

The following are the key elements of the coastal protection design that are to be incorporated into the detailed design:

- The foundation level of the culvert must extend sufficiently below the crest elevation of the coastal protection structure to prevent scour of the foundation.
- The toe of the revetment shall be deep enough to prevent undermining during the design event.
- The seating/wave deflector wall shall have an appropriate foundation to prevent overturning if exposed to wave impact.
- The pathway section from the culvert to the seating/wave deflector wall must form a continuous defence against wave action.
- All reinforced concrete products need to meet the durability requirements as outlined in the relevant Australian Standards for the expected design life of the structure.

An added benefit of the proposed coastal protection structure is that the vertical wall adjacent to the beach and the seating wall at the rear of the promenade would both assist in the management of windblown sand from the beach.

The responsibility for the implementation of the staging plan is proposed in the following way:

- The CoA and LandCorp will jointly be responsible for Stage 1 (buried sea wall to 1.1m AHD and drainage culvert installation) to be completed within 5 years. The CoA will be responsible for Stages 2, 3, and 4.
- The CoA and LandCorp will be jointly responsible for the detailed design and project management for construction of Stage 1 works. The CoA will be solely responsible as project manager for construction of future stages as required.
- The CoA and LandCorp will be jointly responsible for any maintenance requirements for a period of 5 years following the Practical Completion of Stage 1 construction. Maintenance costs will be apportioned on the basis of the original funding contribution made by each party.

Preferably, funding could be obtained to complete a large project incorporating Stages 1 to 3 within the next 5 years. This would bring the foreshore to the standard desired to attract a 5 star hotel. It is anticipated that the cost of the coastal protection structure, which would extend along the entire length of the FMP area, would be in the order of \$4.2 million (excl. GST) including contingencies (CoA 2018).

It is not anticipated that any maintenance would be required in the short to medium term, given that it is expected to remain buried. Nevertheless, it may be prudent to allow for maintenance works to be completed after 30 and 40 years in case the wall is exposed. Based on MP Rogers and Associates recent experience with other similar structures, the cost of these maintenance works is estimated to be around 5% of the capital cost per occasion (Appendix F).

6.5.2 Future Shoreline Monitoring and Management

6.5.2.1 Beach Nourishment Requirements

The Middleton Beach shoreline within Ellen Cove is a modified shoreline. The natural dune system has been removed in this area and an artificially wide flat section of beach has been created. As a result of this modification to the natural beach profile, active management of this area is required to maintain its elevation.

The portion of Middleton Beach shoreline which is currently under active management is identified in Figure D.

It is important to ensure that the elevation of the beach is maintained to:

- Ensure an adequate level of sand cover over the buried revetment wall.
- Minimise the increase in the level of the beach against the vertical wall to prevent significant increases in windblown sand over the initial vertical wall.
- Ensure that the elevation difference between the top of the vertical wall and the beach does not reach a point where the fall is so great that a handrail would be required along the edge of the vertical wall.

It is noted that the above points are conflicted in terms of there being requirements to both increase and decrease the elevation of the beach depending on which aspect is being considered. The corollary of this is that a balanced outcome must be achieved. The future management of the beach will therefore need to maintain the beach elevation within a range that is deemed acceptable.

As part of this ongoing maintenance of the beach level, it is noted that, in the future, there may be the requirement for nourishment of the beach to occur in response to shoreline erosion. Presently, as outlined in MP Rogers and Associates (2015), the shoreline within Ellen Cove and the area to the north has experienced a chronic accretion trend. The CoA has therefore been using beach material from this area to nourish the Emu Point Beach, which has been eroding.

In light of the approval of the Middleton Beach Activity Centre Development, it is recommended that the practice of extracting sand from Ellen Cove for the nourishment of Emu Point be reviewed, as continued extraction may impact the stability of the Ellen Cove shoreline in the medium to long term. This is on the basis that the shoreline is expected to begin to erode in response to sea level rise, so the greater the buffer (i.e. the wider the beach) that can be formed before sea level rise may become more of an issue, the less future management will be required.

6.5.2.2 Coastal Monitoring Framework

The requirement for beach nourishment will ultimately be informed by beach monitoring. Beach monitoring is already completed by the CoA on a quarterly basis at selected profiles along the coastal compartment between Middleton Beach and Emu Point. Analysis of this monitoring will enable the early identification of changes in beach widths that can be used to determine when remedial actions may be required. The locations of the CoA's current Middleton Beach monitoring transects are presented in Appendix C.

Nevertheless, the number of beach monitoring transects within Ellen Cove should ideally be increased to monitor the area immediately in front of the Middleton Beach Activity Centre. An additional 4 profiles should be monitored within Ellen Cove, using around 50 m spacing between transects. Ideally, monitoring of these additional profiles should begin prior to the commencement of the foreshore works in order to establish a baseline.

If sand nourishment is to be completed, the nourishment material should be assessed to ensure that it is of sufficient size and character to prevent it being eroded more readily than the native material. The aesthetics of the nourishment material should also be consistent with the natural environment. Placement of the material should also be completed in a manner that ensures minimisation of any losses due to reworking.

With regard to beach nourishment, the extent of nourishment that could be required in the future is impossible to predict with any certainty. The SPP 2.6 assessment methodology provides a justifiably conservative assessment of potential shoreline erosion so that future risks to assets can be avoided and/or managed. However, this is very different to a prediction of future shoreline location. As such, whilst the coastal protection would provide protection to the assets, the requirement for sand nourishment will be informed by the observed shoreline response, together with the CoA's appetite to maintain a beach in this area. Beyond the identification of potential sources for the nourishment (to confirm that they are available) and provision of details regarding monitoring requirements, it is not considered practicable to provide further details with regard to potential sand nourishment at this stage. Any future decision on sand nourishment sources should be made after completion of a multi-criteria assessment that considers the unit cost of the material relative to the overfill factor (an estimate of the volume of nourishment material required to replace a unit of the native beach material) for the respective grain size. Other factors such as material colour and aesthetics should also be considered within the assessment.

6.5.2.3 Coastal Protection Structure Augmentation

The future augmentation of the coastal protection structure, beyond 2065, may be required to increase the crest elevation of the structure in order to account for potential sea level rise. It is expected that this increase in the crest elevation would occur in unison with an increase in the elevation of the foreshore. Such an increase may be required to reduce the frequency and severity of inundation beyond 2065 due to rising sea levels. In this regard, the details of the future augmentation of the structure will be intimately linked to the future changes to the foreshore area. As a result, it is considered impractical to provide an augmented design at this stage, as to do so may reduce potential opportunities for future foreshore enhancement. Therefore, rather than being prescriptive in terms of the design of future augmentation, key design element (akin to a performance specification) have been outlined below and should be followed in future design processes to ensure that adequate future protection of the foreshore is achieved.

The design of future coastal protection structures must achieve the following:

- Provide inundation protection for the foreshore area to achieve a level of risk mitigation that is acceptable to the CoA.
- Review the current and potential future exposure of the foreshore to severe storm erosion and ensure that the design adequately accounts for potential changes in the shoreline profile.
- Ensure the design wave conditions used for the coastal protection structure design considers the impacts of sea level rise and changes to the beach profile over the expected design life of the structure.
- Use the design wave height and water level in the design of all elements of the coastal protection (rock armour, filter layers, vertical walling, etc.).
- Ensure the overtopping levels associated with the structure are suitable to enable all of the proposed uses in the foreshore and to prevent damage to existing and proposed infrastructure.
- Ensure the structure will help to manage issues associated with windblown sand.

Regardless of when the future augmentation of the structure occurs, there will be an ongoing requirement to monitor and maintain the coastal protection structure in perpetuity. Monitoring of the structure would need to include an annual review of the structural condition, noting that this would relate mainly to the vertical wall (culvert) and the small seating/overtopping wall at the rear of the promenade. The focus would be on these areas as the coastal protection structure is likely to remain buried for a significant period of time, meaning that inspections and maintenance would not be required.

Annual inspections would be completed by the CoA, however it may be prudent to allow for one detailed review per decade. It is anticipated that the cost for these inspections would total around \$15,000 (excl. GST) per decade (assume \$1,000 (excl. GST) per annual inspection completed by the CoA and \$5,000 (excl. GST) for each more detailed inspection) (Appendix F). Provision should also be made for maintenance of these emergent structures.

The CoA and LandCorp are jointly responsible for any maintenance requirements for a period of 5 years following the Practical Completion of Stage 1 construction. Maintenance costs will be apportioned on the basis of the original funding contribution made by each party (CoA 2018). Given these structures will be either precast concrete or masonry structures and would be designed to a high standard, it is not anticipated that there would be significant maintenance requirements other than those caused by vandalism. As a result, it is recommended that around \$25,000 (excl. GST) per decade be allowed, noting that this does not account for the effects of vandalism, or works associated with the management and cleaning of drainage infrastructure (Appendix F).

7.0 Foreshore Rehabilitation

Rehabilitation of natural dunes and bushland areas within the FMP area will assist in protecting the foreshore from wind and unintended foot traffic erosion. Reinforcing surrounding natural areas with full vegetative cover will not only improve amenity, it will improve potential for habitat to support biodiversity, help guide people to their destinations and assist in controlling weeds to improve ecological values associated with this iconic tourism precinct generally.

7.1 Revegetation Strategy

The Revegetation Strategy has been based on the Albany Regional Vegetation Survey (Sandiford and Barrett 2010) and will be implemented by the CoA. The indicative locations to be subject the Revegetation Strategy are presented in Appendix D.

7.1.1 Weed Management

Weed management is an important component for the establishment of native vegetation. However, in some locations weeds are also providing stabilisation functions, and selective management will be required to balance site stability with revegetation. In other sections, weed control will be achieved through herbicide application. Herbicides will be selected for the target species, taking into account the surrounding environment and the constraints this may present. Amongst remnant native vegetation, selective herbicides (i.e. grass or broadleaf-specific) will be favoured over general knockdown herbicides, to keep off-target damage to a minimum. To ensure that off-target damage is minimised, herbicide spraying operators will only be engaged if they:

- are appropriately qualified and licensed in herbicide application
- have demonstrated experience in the ability to identify, and distinguish between, native and weed species
- are familiar with the most appropriate control measures, timing, herbicides, and application rates for the target species.

The approach to controlling the weed species likely to be encountered in the FMP area is provided in Appendix G.

7.1.2 Surface Preparation

Compacted vehicle tracks will be ripped to a depth of approximately 40 centimetres to loosen the soil. This will optimise moisture infiltration rates, and allow for faster and easier root development of planted seedlings.

7.1.3 Revegetation

7.1.3.1 Species Selection

Planting and seeding are the key methods to be employed in the revegetation areas within the FMP area. Selection of appropriate species is the key to reaching a successful outcome for the revegetation works. Revegetation species have been carefully selected based on the existing floristic community type(s), topography and hydrology to ensure species are located in the areas in which they are most likely to survive in both short and long-term. The indicative revegetation sites as shown in Figure J are based upon AECOM's Enhancement Plan (within the Landscape Management Plan – Appendix D).

Revegetation species have been subdivided into 3 areas and 6 subcategories (Figure J):

1. Dunal Revegetation (Beach Herbland / Grassland vegetation association).
 - a. Beach grasses and herbaceous species adopted for the most exposed locations.
 - b. Semi-stable dune colonisers adapted to partially protected areas.

- c. Set back / less-exposed dunal situations and swales.
2. Bushland Revegetation (Jarrah Woodland and Coastal *Banksia ilicifolia*/Peppermint Low Woodland vegetation associations).
 - a. Low growing colonisers adapted to more exposed areas. (Lower slopes).
 - b. Plants of protected well stabilised and vegetated areas. (Upper slopes).
3. Mass Planting.
 - a. Re-established planting areas throughout the parkland requiring higher density planting and irrigation.

The proposed dunal and bushland revegetation species are listed in Appendix H, with the suite of revegetation species used for the mass plantings being derived from the dunal list.

7.1.3.2 Planting Method

Seedlings will be directly planted using planting tubes, which negates the need for repeated bending for excavation of planting holes. Seedlings will be watered before delivery to site on the day of planting to reduce the potential for transplant shock, and provided the soil is moist no other watering is considered necessary.

7.1.4 **Scheduling**

Tube stock used in the revegetation program will be sourced from local accredited nurseries.

Planting will be carried out from May – July when the soil moisture content is high enough for optimum seedling growth, without irrigation, and after the existing weeds have germinated and have been sprayed. Each tube stock will be planted with a plastic guard to prevent rabbits feeding on plant stock and to protect from strong winds. Tube stock will be planted at a density of 1, 2 or 4 plants per m² (area and species dependent) for rehabilitation.

Rabbit guards will be used (where required) for tube stock in the revegetation areas.

7.1.5 **Watering**

Some tube stock will be planted with tablets / water crystals during planting to help improve survival rates. The coastal plant species to be used in the revegetation of the foreshore area are typically drought tolerant and therefore it is not anticipated these coastal natives will require irrigation or extensive hand watering.

7.1.6 **Seed Treatment and Direct Seeding**

All seed to be utilised will be pre-treated prior to seeding to break dormancy factors. This will include aerosol smoke treatment, mechanical scarification, or hot water treatment as appropriate to individual species. Seed will then be combined with a bulking agent to facilitate even distribution across the site. Clean yellow sand provides good mixing and distribution properties for this purpose. Hand broadcasting will be the application technique as this will permit even dispersal of all seed sizes, which can be an issue with some types of mechanical spreaders.

7.1.7 **Site and Plant Protection**

All planted seedlings will be initially protected with corflute tree guards held in place with hardwood stakes. Once the plants are large enough to survive without the guards, they will be removed.

A rabbit control program may also be initiated to provide longer term protection to seedlings if required. This will include a combination of warren destruction, rabbit haemorrhagic disease virus release. Pindone baiting is not recommended given domestic pets may be affected by this approach. Virus release will only be undertaken during certain times of year relating to weather and animal growth stages where these treatments are effective. Warren destruction will be employed between these periods.

A proportion of the revegetation works will be undertaken on current access tracks. These tracks are to be blocked at both ends using immovable objects like logs and boulders to prevent future access in these areas. Some tracks will be left open and fenced where necessary to allow access through the area, discouraging users from creating new access tracks. Where erosion is limited temporary protective fencing will not be placed around the revegetation areas as they are already deemed to be suitably protected thus minimising visual impact.

7.1.8 Post Instalment Management

To ensure longer-term project success, the site will be monitored and maintained by local coast care groups following initial installation, to ensure the completion targets are met and will continue to be met in the future.

7.1.8.1 Completion Criteria and Success Targets

The key actions / target completion criteria to monitor the success of the revegetation efforts are specified in Table 2. Revegetation efforts will be undertaken and monitored for a period of two years from the commencement of the revegetation plantings. If the completion criteria are not met, further action will be undertaken to improve the condition to the required standards.

Table 2: Revegetation and Weed Management Key Actions

Year After Planting	Year 1	Year 2
Survival of planted seedlings	75%	90%
Minimum plant diversity (% of original number of planted species in project area that have survived)	70%	70%
Plant coverage (% area of visual ground cover measured by a botanist/revegetation consultant)	25%	50%
Weeds coverage	20% cover	10% cover

7.1.8.2 Vegetation Monitoring and Performance Criteria

At the end of the installation, a report will be provided detailing the actual quantities of seedlings installed and seed broadcast, and any variations from the original revegetation plan. This will be used as baseline data for comparison in future monitoring assessments.

The revegetation areas will be formally monitored biannually (includes weed monitoring) each spring and autumn, for a two year period after installation. A monitoring report will be prepared by / provided to the CoA following each formal monitoring event, to assess if there are any issues requiring attention. The season has been nominated rather than a specific month, as the timing of these assessments should be related to plant growth cycles, which in turn is influenced by the weather conditions at the time.

One monitoring plot of 5 m × 5 m will be established per revegetation area as well as one permanent photograph reference point at each monitoring plot. Photographic records will be captured prior to construction and annually to qualitatively assess density, diversity and weed cover. The first assessment in spring will assess the developing threats, the stabilisation of each area and the short-term survival of the seedlings and weed cover. Any problems will be identified early so that comprehensive treatment(s) of the issue can be undertaken and additional seedlings propagated if required. The second assessment in the following autumn will determine if there are any losses over the dry summer period, and this will form the basis for the maintenance winter program. The first summer is the expected period of greatest mortality, and plants that survive this period are generally hardy and more likely to survive in the longer term. The emergence of summer weeds will also be assessed, so that control can be scheduled as required.

After the third and subsequent assessments, the long term success of the revegetation operation will be indicated. This will determine whether any further remedial works are required. This may include:

- additional revegetation works
- weed management
- other general maintenance activities
- additional monitoring requirements.

Informal assessments will also be undertaken between formal assessments. The purpose of these assessments is to visually monitor progress, and to identify and counter emerging issues before they have a chance to become significant. Timing of the assessments will be adjusted to the appropriate stages of plant growth, which are influenced by annual weather conditions. The results of each monitoring assessment will be compared to determine germination and establishment rates and provide a quantitative measure of progress. The final monitoring inspection will be held to certify that the completion criteria have been met.

7.1.9 Site Maintenance

If planting success falls below 90% of original numbers in two consecutive monitoring events, contingency measures will be implemented to increase the success of the revegetation program. The monitoring program will identify issues to any plant success rates so they can be dealt with in an appropriate and timely manner.

Maintenance activities may include:

- re-brushing
- ongoing weed management
- re-planting in areas
- tree guard repair / replacement
- undertake fence, sign and pathway maintenance (as required).

All the contingency measures listed in Table 3 will be reviewed if the target completion criteria fall below 90% in two consecutive events.

Table 3: Revegetation and Weed Management Contingency Measures

Item	Issue	Contingency Action
Plants	Plant death, Storm/wind damage Vandalism	Plant additional tube stock in subsequent plantings.
Weeds	Excessive weeds in revegetation areas	Undertake weed control measures. e.g. weed spraying.
Erosion	Erosion, Storm damage	Apply brushing, hydromulch (with no seed) and/or matting over the surface of any eroded areas.
Revegetation Success	Plant survival does not meet completion criteria	Replant seedlings and replace plant guards.

7.2 Drainage

Drainage management is important to protect infrastructure, prevent erosion, protect rehabilitation and prevent the spread of weeds. In particular, design for stormwater management is a critical factor in protecting dune vegetation and coastal infrastructure. Water sensitive design measures focus on the effective and improved management of drainage of stormwater from paths, car parks, hardstand areas around building and roadsides.

Drainage design elements considered in design for redevelopment of the foreshore are based on principles including:

- use of Water Sensitive Urban Design (WSUD) elements to support local infiltration and recharge as well as slowing the flow of stormwater
- use of bio-filtration areas to assist erosion control, maintain soil infiltration, restrict water flows and remove particulate and soluble pollutants.

These principles have been addressed in greater detail in the UWMP for the Middleton Beach Activity Centre (RPS 2017).

8.0 Implementation and Responsibility

Life cycle/asset management indicative cost estimate for the works proposed in this FMP have been provided in Appendix F, whilst Appendix I indicates the spatial extent of the various maintenance elements.

8.1 Implementation

LandCorp will contribute \$1.15 million (excl. GST) towards the Middleton Beach Activity Centre coastal infrastructure.

In February 2018, the CoA resolved the following in regards to the funding and implementation of the Middleton Beach Activity Centre coastal infrastructure (Appendix A):

- that the CoA will undertake works in timed stages to protect the Middleton Beach Foreshore, associated infrastructure and the Middleton Beach Activity Centre. The staging plan shows
 - > Stage 1 - Construction of buried sea wall and culvert within 5 years
 - > Stage 2 - Construction of promenade and seating/deflection wall within 10 years
 - > Stage 3 - Construction of foreshore improvements within 25 years
 - > Stage 4 - Assessment and possible construction of coastal protection additions after 50 years
- that the CoA will accept the funding contribution from LandCorp for the purpose of implementing the works required in the Middleton Beach Activity Centre FMP - Adaptation Plan
- the CoA will seek State and Federal funds to complete works on the Middleton Beach Foreshore
- the CoA will approve the advertisement of the completed Draft Middleton Beach Activity Centre FMP (which includes the agreed Adaptation Plan) for the purpose of public consultation (CoA 2018).

An implementation schedule, which includes management responsibilities and detailed cost estimation for this FMP is provided in Table 4. The timing for the implementation of the FMP will be dependent upon when the external government funding is realised, however it is anticipated that the foreshore works will be completed prior to 2028.

Responsibility

The responsibility for the implementation of the staging plan has been agreed between the CoA and LandCorp:

- The CoA and LandCorp will jointly be responsible for Stage 1 (buried sea wall to 1.1m AHD and drainage culvert installation) to be completed within 5 years. The CoA will be responsible for Stages 2, 3, and 4.
- The CoA and LandCorp will be jointly responsible for the detailed design and project management for construction of Stage 1 works. The CoA will be solely responsible as project manager for construction of future stages as required.
- The CoA and LandCorp will be jointly responsible for any maintenance requirements for a period of 5 years following the Practical Completion of Stage 1 construction. Maintenance costs will be apportioned on the basis of the original funding contribution made by each party.

It is anticipated that the cost of the coastal protection structure, which would extend along the entire length of the FMP area, would be in the order of \$4.2 million (excl. GST) including contingencies.

The CoA will be responsible for the implementation of the Middleton Beach Foreshore Landscape Management Plan (Appendix D; AECOM 2018), which is expected to cost in the order of \$4.5 million (excl. GST) excluding any contingencies and maintenance.

With the exception of the \$1.15 million (excl. GST) contributed by LandCorp towards the construction of the coastal protection structure, the remaining FMP budget (approximately \$7.6 million [excl. GST]) is planned to be sourced from State and Commonwealth Governments.

Should the additional \$3.08 million (excl. GST) of funding not be forthcoming by 2048 to complete the coastal protection structure, LandCorp proposes to utilise the \$1.15 million to construct an appropriate structure to protect the hotel lot within the Middleton Beach Activity Centre site as shown in Figure K - Esplanade Hotel Sea Wall Structure.

Table 4: Implementation Schedule

Objective / Parameter	Description	Pre-construction Implementation	Construction Implementation	Post-construction Implementation	Responsibility
Legislation and Policy Context					
Comply with the purpose of the reserve under the LPS No. 1		<ul style="list-style-type: none"> ■ Preparation of a detailed FMP that reflects the following objectives <ul style="list-style-type: none"> > The approved Middleton Beach Activity Centre. > The requirements under Schedule 4 – Special Uses Zones of LPS No. 1. > Objectives of the “Parks and Recreation” Reserve under the LPS No. 1. > Development Applications to demonstrate design life of the Middleton Beach Landscape Management Plan’s key assets. 	<ul style="list-style-type: none"> ■ Installation approved Middleton Beach Landscape Management Plan key assets in accordance with approved Development Applications. ■ Implement UWMP actions, where applicable to FMP area, and Revegetation Strategy. 	<ul style="list-style-type: none"> ■ Monitoring and reporting on Revegetation Strategy. ■ Review integrity of Middleton Beach Landscape Management Plan key assets as per the Development Application approval. ■ Implement CHRMAP. 	CoA, LandCorp*
Comply with the objectives and requirements of SPP2.6		<ul style="list-style-type: none"> ■ Preparation of a detailed FMP that reflects the CHRMAP and requirements of the requirements of the State Coastal Policy, SPP2.6. ■ Development Applications to demonstrate design life of the Middleton Beach Landscape Management Plan’s key assets. 	<ul style="list-style-type: none"> ■ Installation approved Middleton Beach Landscape Management Plan key assets in accordance with approved Development Applications. ■ Implement Revegetation Strategy. 	<ul style="list-style-type: none"> ■ Monitoring and reporting on Revegetation Strategy. ■ Review integrity of Middleton Beach Landscape Management Plan key assets as per the Development Application approval. ■ Implement requirements of the CHRMAP / FMP inclusive of the following elements <ul style="list-style-type: none"> > Construction of the Coastal Protection Structure. > CoA to review the practice of extracting sand from Ellen Cove for the nourishment of Emu Point. 	CoA, LandCorp*

Objective / Parameter	Description	Pre-construction Implementation	Construction Implementation	Post-construction Implementation	Responsibility
				<ul style="list-style-type: none"> > CoA to continue with the current Middleton Beach monitoring program and increase the monitoring transects in Ellen Cove. > CoA's abridged Middleton Beach monitoring program to inform the requirement for beach nourishment. > Ongoing monitoring and maintenance of the coastal protection structure. > A review, and update if required, to this CHRMAP should be completed on approximately five yearly intervals. 	
Middleton Beach Landscape Management Plan					
Support public recreational uses of the foreshore	<ul style="list-style-type: none"> ■ Improve public facilities and recreational amenity. ■ Provide facilities to support public recreational uses for all ages. ■ Provide for safe visitor experiences. 	<ul style="list-style-type: none"> ■ Master planning and detailed design stages will ensure design for a range of recreational activities including zones for active sports and play, event spaces, beach promenades and lookouts, picnic and barbecue areas, and facilities for beach users. ■ Development Applications to demonstrate design life of the Middleton Beach Landscape Management Plan's key assets. ■ Civil engineer to implement Construction Management Measures to the satisfaction of the CoA. ■ Construction fencing of the foreshore subject to the engineering works areas. ■ Signage to ensure pedestrians are warned not to enter the construction areas. 	Installation approved Middleton Beach Landscape Management Plan key assets in accordance with approved Development Applications.	<ul style="list-style-type: none"> ■ Ensure that construction fencing and signs are removed. ■ Undertaken beach monitoring in accordance with this FMP. ■ Update the CHRMAP (MP Rogers and Associates 2015) every five years, inclusive of a reassessment of the coastal risks. 	CoA

Objective / Parameter	Description	Pre-construction Implementation	Construction Implementation	Post-construction Implementation	Responsibility
Access management	<ul style="list-style-type: none"> ■ Provide safe, user friendly and controlled access to and across the foreshore. ■ Provide appropriate signage in accordance with CoA requirements. 	<ul style="list-style-type: none"> ■ Establish safe beach access pathways to the beach for the duration of the construction period. The access pathways are to be focused on using existing cleared tracks. ■ Development Applications to demonstrate design life of the Middleton Beach Landscape Management Plan's key assets. ■ Civil engineer to implement Construction Management Measures to the satisfaction of the CoA. ■ Construction fencing around the area subject to the engineering works. ■ Signage to ensure pedestrians are warned not to enter the construction area. 	<ul style="list-style-type: none"> ■ Installation approved Middleton Beach Landscape Management Plan key assets in accordance with approved Development Applications. ■ Regularly inspect signage. Replace signage if vandalised or removed. ■ Place appropriate signs at key beach access points. 	<ul style="list-style-type: none"> ■ Ensure that construction fencing and signs are removed. ■ Update the CHRMAP every five years, inclusive of a reassessment of the coastal risks. 	CoA
Coastal Processes					
Coastal hazards	Design redevelopment so assets are not at risk of coastal hazards over their design life.	The CHRMAP assesses the risks to coastal assets from coastal hazards and proposes suitable management responses. This FMP has been developed in accordance with the CHRMAP.	Installation approved Middleton Beach Landscape Management Plan key assets in accordance with approved Development Applications.	<ul style="list-style-type: none"> ■ Implement requirements of the CHRMAP / FMP inclusive of the following elements <ul style="list-style-type: none"> > Construction of the Coastal Protection Structure. > CoA to review the practice of extracting sand from Ellen Cove for the nourishment of Emu Point. > CoA to continue with the current Middleton Beach monitoring program and increase the monitoring transects in Ellen Cove. 	CoA, LandCorp

Objective / Parameter	Description	Pre-construction Implementation	Construction Implementation	Post-construction Implementation	Responsibility
				<ul style="list-style-type: none"> > CoA's abridged Middleton Beach monitoring program to inform the requirement for beach nourishment. > Ongoing monitoring and maintenance of the coastal protection structure. ■ A review, and update if required, to this CHRMAP should be completed on approximately five yearly intervals. ■ Apply a proposed staged plan for the implementation of the Coastal Protection Structure (CoA 2018) <ul style="list-style-type: none"> > Stage 1 - Construction of buried sea wall and culvert within 5 years > Stage 2 - Construction of promenade and seating/deflection wall within 10 years > Stage 3 - Construction of foreshore improvements within 25 years > Stage 4 - Assessment and possible construction of coastal protection additions after 50 years. 	<p>CoA, LandCorp</p> <p>CoA</p> <p>CoA</p> <p>CoA</p>

Objective / Parameter	Description	Pre-construction Implementation	Construction Implementation	Post-construction Implementation	Responsibility
Stabilisation and erosion control	Stabilisation of foreshore areas requiring restoration to limit wind-blown sand and degradation of the foreshore area.	<ul style="list-style-type: none"> Establish rehabilitation and weed management areas in the FMP area to inform the preparation of the Revegetation Strategy. Establish safe beach access pathways to the beach for the duration of the construction period. The access pathways are to be focused on using existing cleared tracks. 	<ul style="list-style-type: none"> Installation approved Middleton Beach Landscape Management Plan key assets in accordance with approved Development Applications. Revegetation will be undertaken as detailed in the Revegetation Strategy. 	<ul style="list-style-type: none"> CoA to continue with the current Middleton Beach monitoring program and increase the monitoring transects in Ellen Cove. CoA's abridged Middleton Beach monitoring program to inform the requirement for beach nourishment. Ongoing monitoring and maintenance of the coastal protection structure. Update the CHRMAP (MP Rogers and Associates 2015) every five years inclusive of a reassessment of the coastal risks. Revegetation and monitoring will be undertaken as detailed in the Revegetation Strategy. 	CoA
Vegetation Management					
Revegetation	Restore vegetation condition in defined areas of foreshore.	<ul style="list-style-type: none"> Map the revegetation and weed management areas. 	Revegetation will be undertaken as detailed in the Revegetation Strategy.	Revegetation and monitoring will be undertaken as detailed in the Revegetation Strategy	CoA
Weed management	Manage the introduction, spread and concentration of weed species.	<ul style="list-style-type: none"> Weed management will be undertaken as part of revegetation activities. 	Weed management will be detailed in the Revegetation Strategy.	Revegetation and weed monitoring will be undertaken as detailed in the Revegetation Strategy.	CoA

*LandCorp has provided assistance to the CoA in preparing this FMP.

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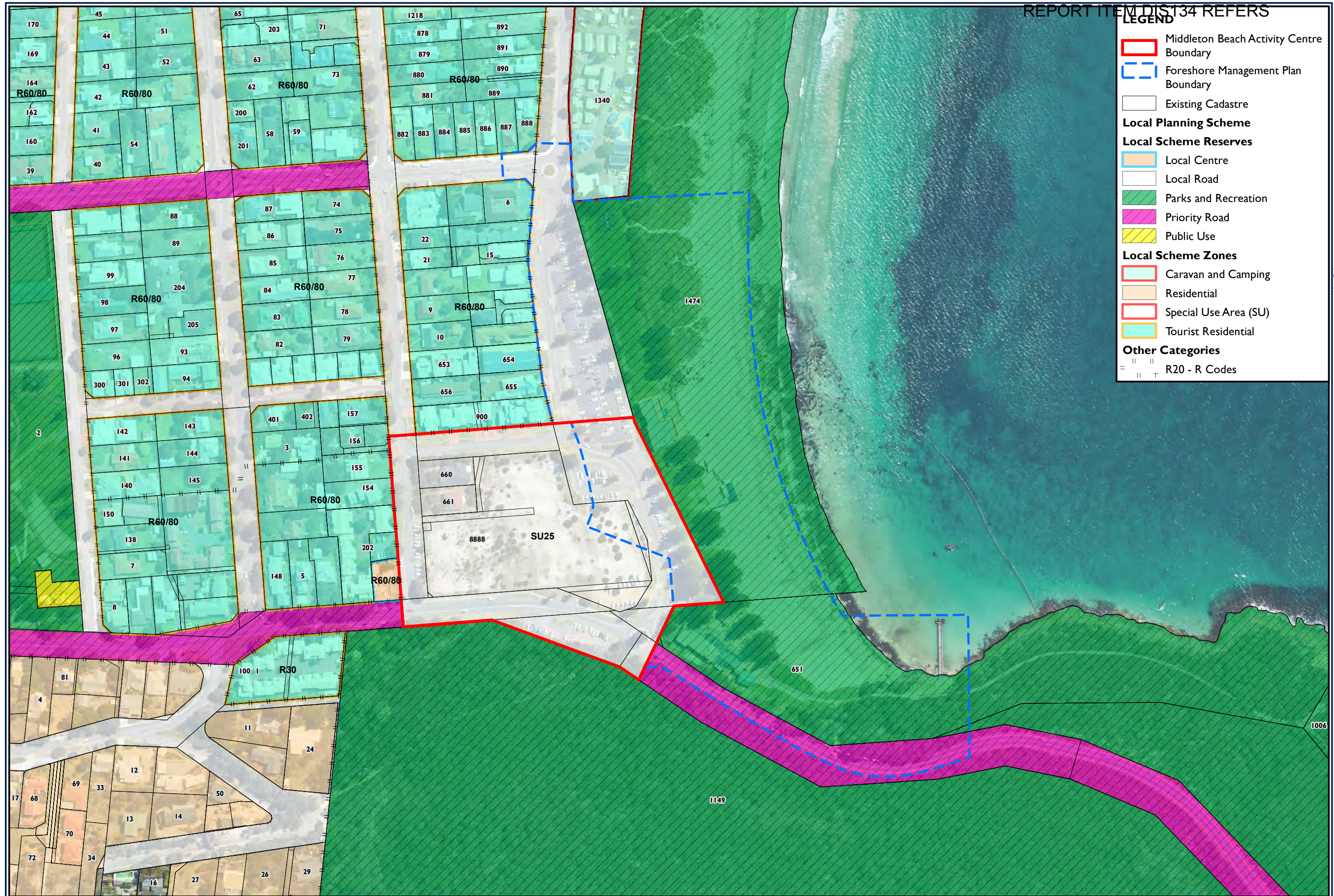
Figures

REPORT ITEM DIS134 REFERS



LEGEND

-  Middleton Beach Activity Centre Boundary
-  Foreshore Management Plan Boundary
-  Existing Cadastre
- Local Planning Scheme**
- Local Scheme Reserves**
-  Local Centre
-  Local Road
-  Parks and Recreation
-  Priority Road
-  Public Use
- Local Scheme Zones**
-  Caravan and Camping
-  Residential
-  Special Use Area (SU)
-  Tourist Residential
- Other Categories**
-  R20 - R Codes



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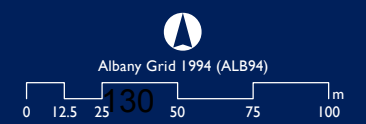


Figure B
City of Albany
Local Planning Scheme No 1

LEGEND

- Structure Plan Boundary
- Lot Boundary
- Precincts:
- Hotel/ Mixed Use
- Mixed Use
- Residential
- Edge

- Public Open Space
- High Street
- Public Access Way
- Pedestrian Priority Access
- Green Pedestrian Link
- Pedestrian Cross Walk
- / Primary Activity Node
- Primary Active Frontage
- Secondary Active Frontage
- Public Parking
- Parking Entry/Exit (Indicative)
- Bush Fire Prone Area Boundary (100m from base of Mount Adelaide)
- Middleton Beach Activity Centre Boundary
- Foreshore Management Plan Boundary







LEGEND

- Middleton Beach Activity Centre Boundary
 - Foreshore Management Plan Boundary
 - Cadastre
- Coastal Vulnerability**
- Current Horizontal Setback Datum (HSD)
 - 25YR Vulnerability
 - 50YR Vulnerability
 - 75YR Vulnerability
 - 100YR Vulnerability



LEGEND

-  Topographic Contours (mAHD)
-  Foreshore Management Plan Boundary
-  Middleton Beach Activity Centre Boundary
-  Cadastre

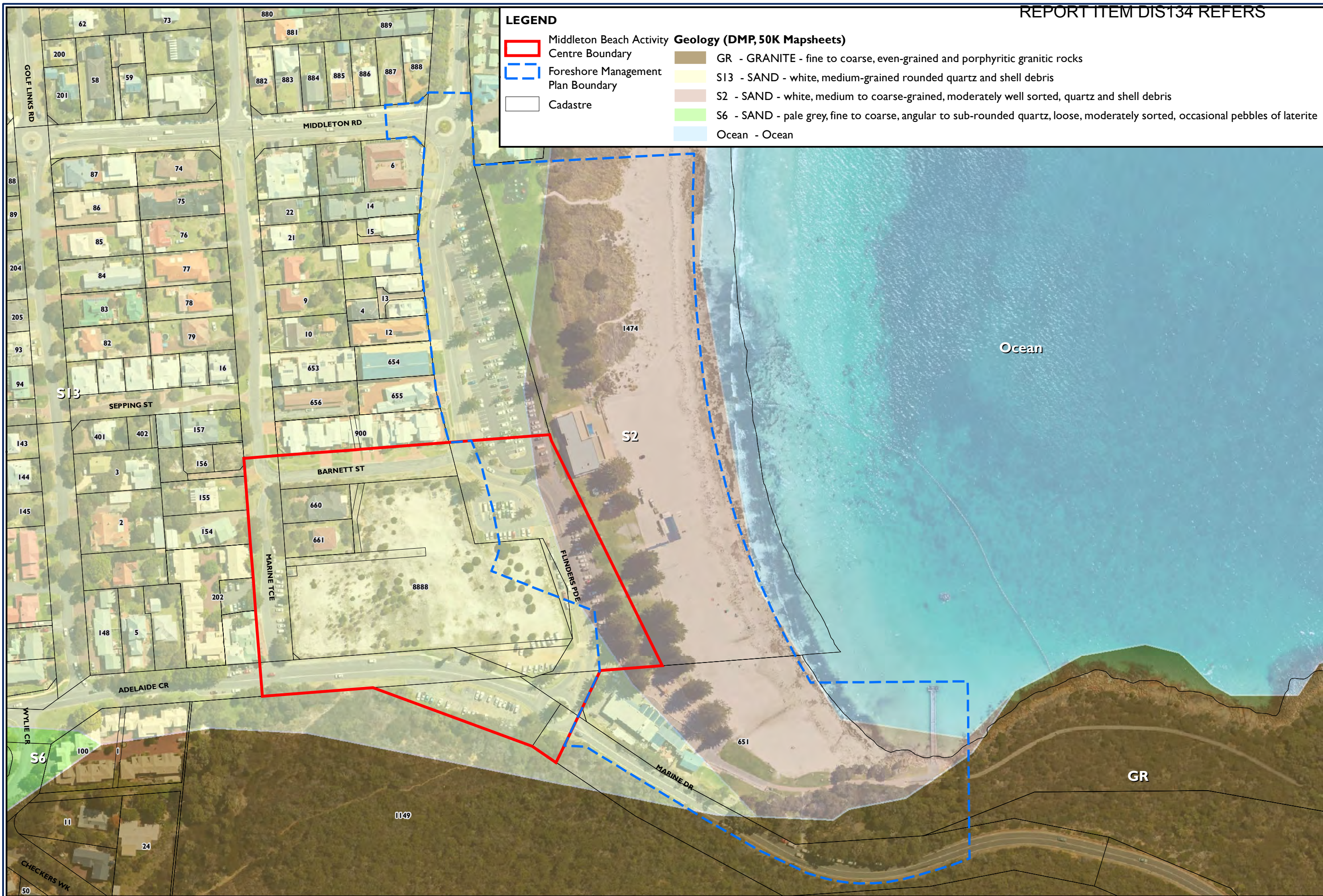


LEGEND

- Middleton Beach Activity Centre Boundary
- Foreshore Management Plan Boundary
- Cadastre

Geology (DMP, 50K Mapsheets)

- GR - GRANITE - fine to coarse, even-grained and porphyritic granitic rocks
- S13 - SAND - white, medium-grained rounded quartz and shell debris
- S2 - SAND - white, medium to coarse-grained, moderately well sorted, quartz and shell debris
- S6 - SAND - pale grey, fine to coarse, angular to sub-rounded quartz, loose, moderately sorted, occasional pebbles of laterite
- Ocean - Ocean



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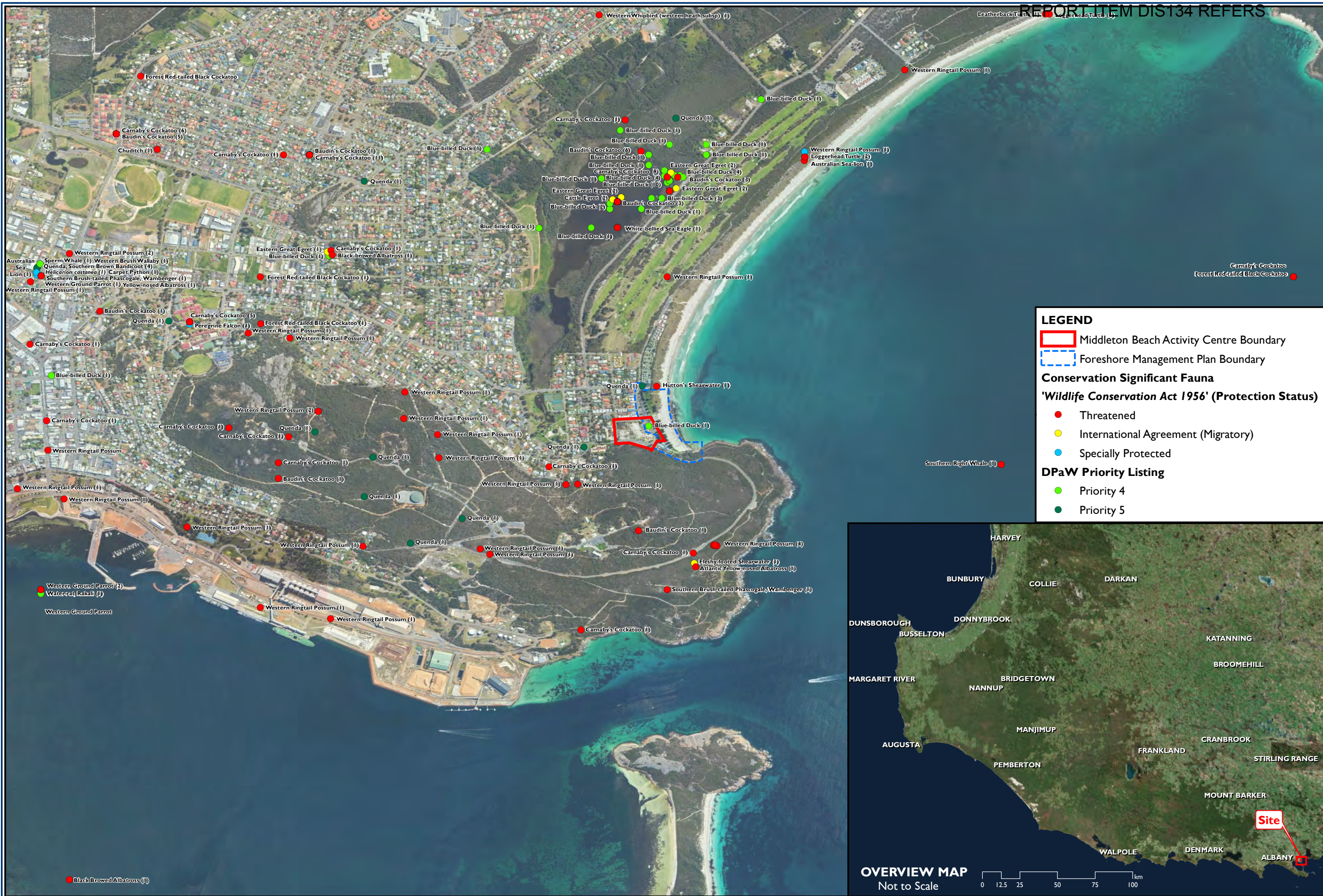
LEGEND

- Borehole
- ⊕ Monitoring Bore
- Middleton Beach Activity Centre Boundary
- Foreshore Management Plan Boundary
- Cadastre

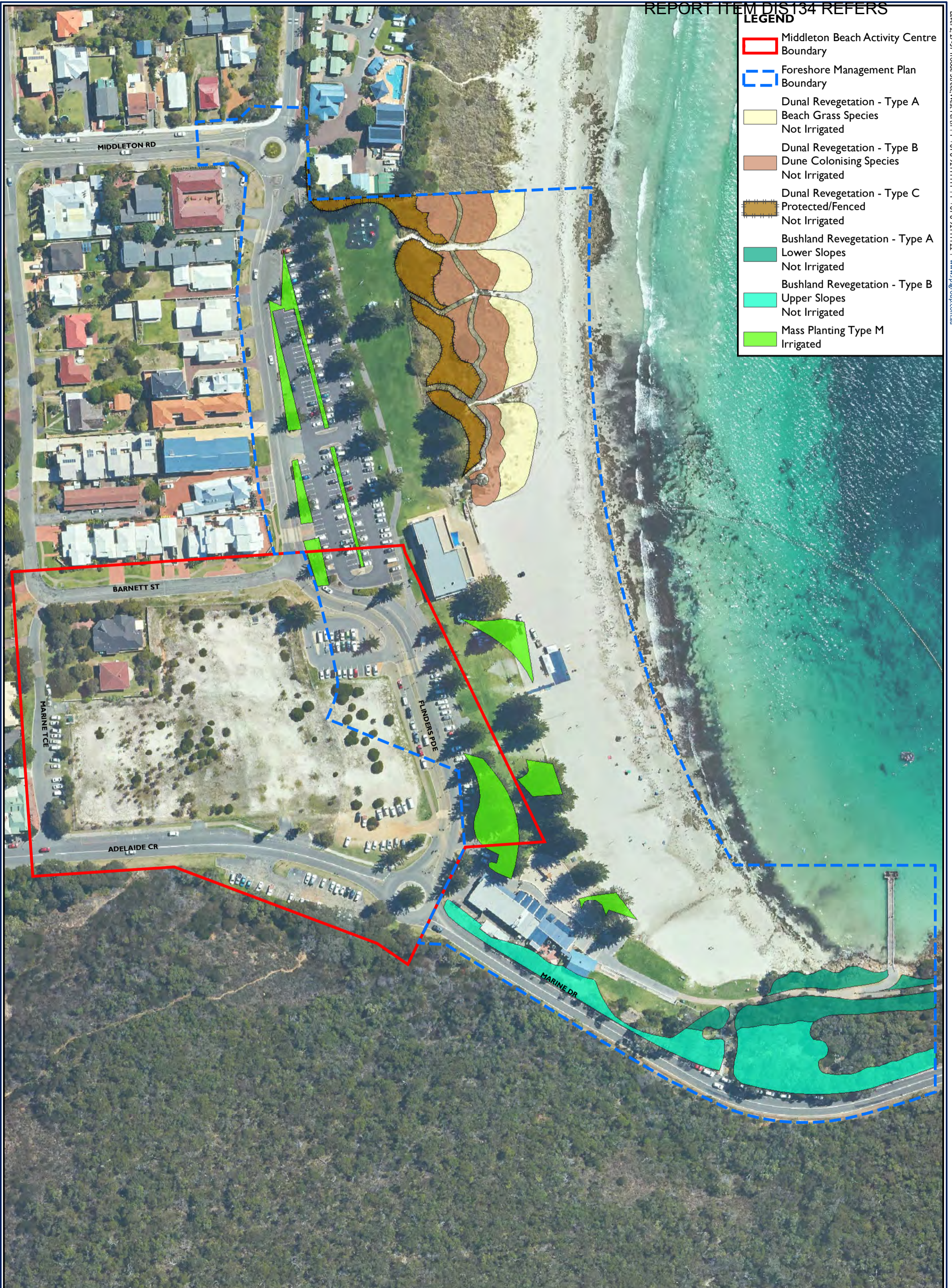


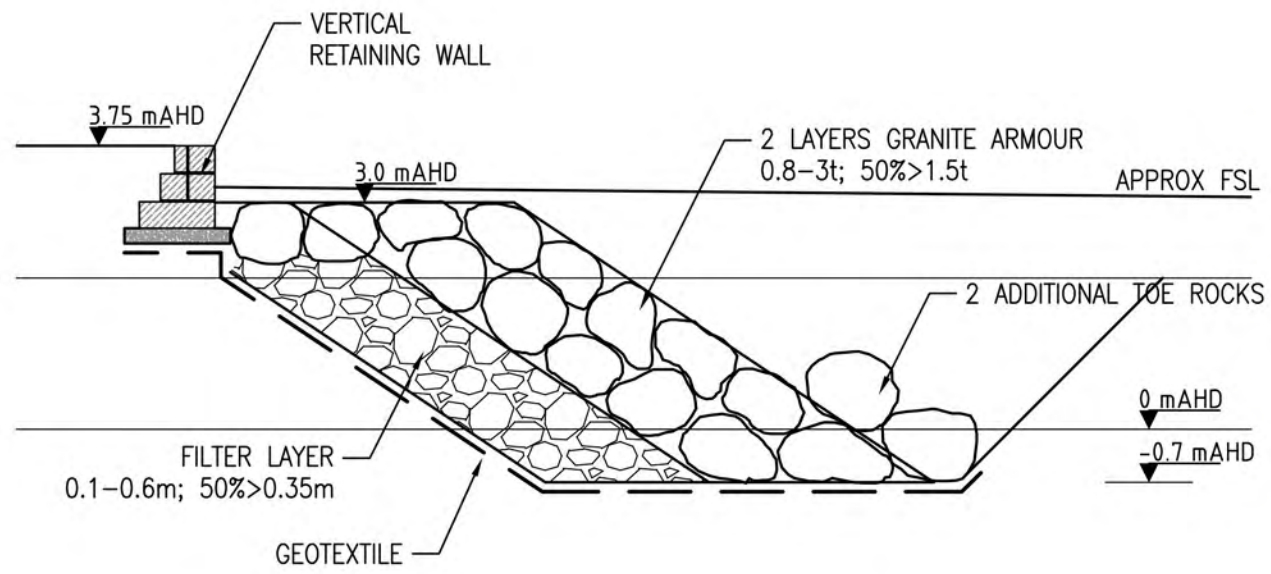
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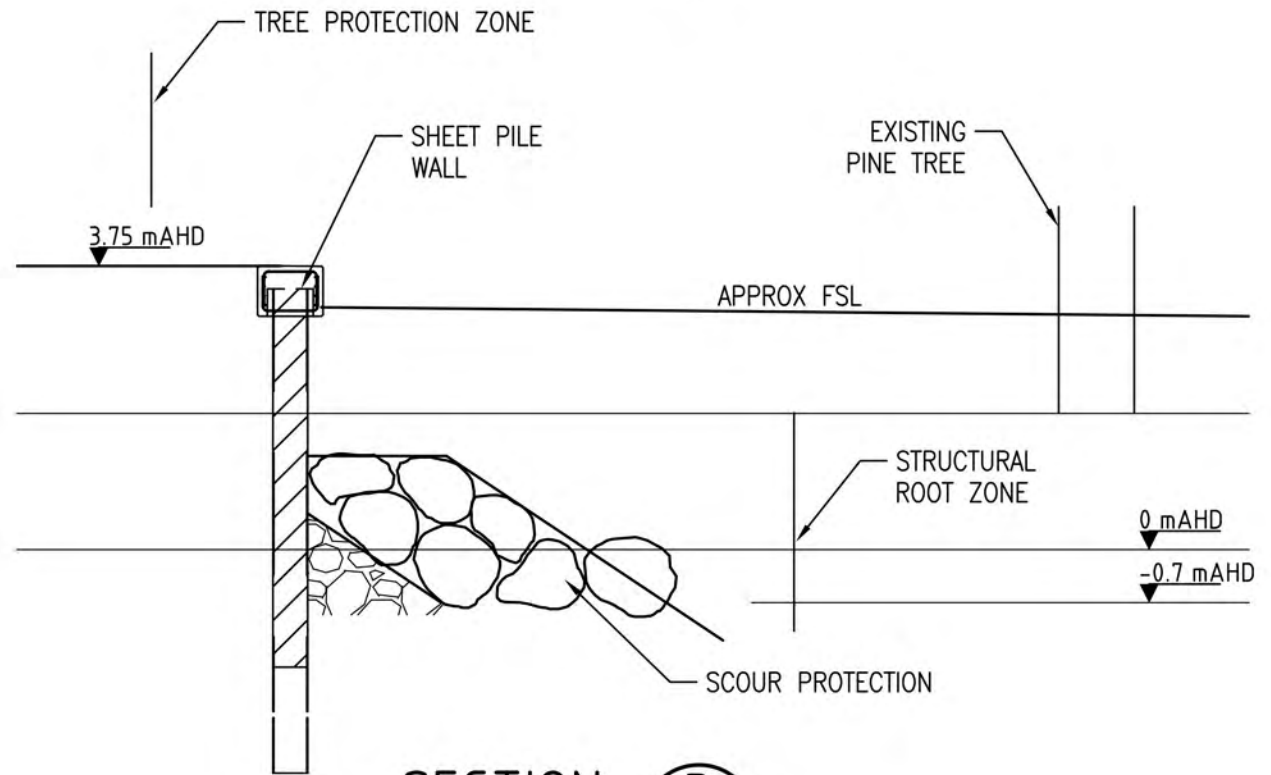


- Middleton Beach Activity Centre Boundary
- Foreshore Management Plan Boundary
- Dunal Revegetation - Type A
 Beach Grass Species
Not Irrigated
- Dunal Revegetation - Type B
 Dune Colonising Species
Not Irrigated
- Dunal Revegetation - Type C
 Protected/Fenced
Not Irrigated
- Bushland Revegetation - Type A
 Lower Slopes
Not Irrigated
- Bushland Revegetation - Type B
 Upper Slopes
Not Irrigated
- Mass Planting Type M
 Irrigated





SECTION A
1:100



SECTION B
1:100



Appendix A

City of Albany Council Resolution 19 December 2017

DIS065: MIDDLETON BEACH FORESHORE – FORESHORE MANAGEMENT PLAN

Land Description	: Lot 1474 Flinders Parade, Middleton Beach on deposited plan 219850 comprised in Certificate of Title Volume 3111 Folio 83
Owner	: City of Albany (Management order or vest crown land)
Attachments	: Commercial in Confidence: Middleton Beach Foreshore Briefing Note – Proposed Staging Plan.
Report Prepared By	: Executive Director Development Services (P Camins)
Responsible Officers:	: Executive Director Development Services (P Camins)

STRATEGIC IMPLICATIONS

1. This item relates to the following elements of the City of Albany Strategic Community Plan or Corporate Business Plan informing plans or strategies:
 - a. **Key Themes:**
 - 2. Smart, Prosperous & Growing
 - 3. Clean, Green and Sustainable
 - 4. Community Health and Participation
 - 5. A Connected and Built Safe Environment
 - b. **Strategic Objectives:**
 - 2.1 To strengthen and grow our region's economic base.
 - 2.3 To develop and promote Albany as a unique and sought-after visitor location
 - 3.1 To protect and enhance our natural and built environment in a changing climate
 - 3.2 To build, maintain and renew City assets sustainably
 - 4.2 To create interesting places, spaces and events that reflect our community's identity, diversity and heritage.
 - 5.2 To advocate, plan and build friendly and connected communities.
 - c. **Community Priorities:**
 - 2.1.1 Work with business and other stakeholders to attract investment; diversify the economy; create jobs and support small business growth.
 - 2.3.1 Encourage, support and deliver significant events that promote our region and have a positive economic and social benefit.
 - 3.1.2 Sustainably protect and enhance our iconic coastline, reserves flora and fauna by delivering projects and programs that reflect the importance of our coastline and natural reserves.
 - 3.2.1 Deliver environmentally & financial sustainable long term planning for infrastructure via a forward capital works program that meets the needs of our community.
 - 4.2.2 Maintain infrastructure and deliver programs that promote Albany's unique heritage, engender civic pride and leave a lasting memory.
 - 5.2.2 Create infrastructure and connected streetscapes that are consistent and reflect our unique heritage.

Maps and Diagrams:



In Brief:

- LandCorp is developing the Middleton Beach Activity Centre (MBAC) site and is required to undertake a Foreshore Management Plan (FMP) in conjunction with the City of Albany.
- The Foreshore Management Plan document required for the LandCorp development must also include an adaptation plan for the development site. This plan has to commit to some interventions in relation to Coastal Protection over the next 100 years (i.e. coastal adaptation pathway). It is unlikely that any adaptation plan for the entire foreshore could be achieved without additional funding from the City.
- The FMP must meet the requirements of State Planning Policy 2.6 including the requirement to protect the development from coastal processes for 100 years
- The City of Albany is currently undertaking a CHRMAP (coastal hazard risk management and adaptation planning) process for Emu Point to Ellen Cove that is required by the State for Coastal Communities.
- The CHRMAP process shows that the Middleton Beach Foreshore and associated infrastructure will be at risk within a 20 year time frame. The City will have to prepare an adaptation plan as part of this process for the areas that are at risk.
- Whilst LandCorp have some funding available for coastal protection it would be an opportune time for the City of Albany to commit to protection works to incorporate their requirements into a larger integrated plan.
- The City of Albany has previously and will continue to advocate for state and federal funds to complete works on the Middleton Beach Foreshore.
- The benefits of an integrated approach to coastal protection to the LandCorp development and the Middleton Beach foreshore include:
 - Coastal protection requirements are met for at least 50 years;
 - High quality community amenity improvements on the dilapidated foreshore;
 - Removal of drainage that currently flows directly onto the beach;
 - Creation of a new beach promenade over the buried seawall.

RECOMMENDATION

**DIS065: RESOLUTION (ALTERNATE MOTION BY COUNCILLOR STOCKS)
VOTING REQUIREMENT: SIMPLE MAJORITY**

**MOVED: COUNCILLOR STOCKS
SECONDED: COUNCILLOR HAMMOND**

THAT Council:

- 1. NOTE** the proposed Adaptation Plan will require that the City of Albany undertake works in timed stages to protect the Middleton Beach Foreshore, associated infrastructure and the Middleton Beach Activity Centre.
- 2. ACCEPT** the funding contribution from LandCorp for the purpose of implementing the works required in the Middleton Beach Activity Centre Foreshore Management Plan – Adaptation Plan (in accordance with the confidential briefing note).
- 3. Further to (2) above, request** the Chief Executive Officer to **NEGOTIATE** further with LandCorp for an additional contribution to support protection and enhancement of the Middleton Beach Foreshore.
- 4. Continue to ADVOCATE** for State and Federal funds to complete works on the Middleton Beach Foreshore.
- 5. APPROVE** the **ADVERTISEMENT** of the completed Draft Middleton Beach Activity Centre Foreshore Management Plan (which includes the agreed Adaptation Plan) for the purpose of public consultation.

CARRIED 13-0

Councillor Reason:

The amendment to item 2 and addition of item 3 allows the CEO some flexibility in negotiating for additional land or cash contribution from LandCorp to assist in supporting the implementation of the important foreshore development to benefit the MBAC, economic development and the community.

Officer Comment (Executive Director Development Services):

We are supportive of this amended motion as it provides scope for the Chief Executive Officer to negotiate a better outcome.

**DIS065: COMMITTEE RECOMMENDATION
VOTING REQUIREMENT: SIMPLE MAJORITY**

THAT Council:

- 1. NOTE** the proposed Adaptation Plan will require that the City of Albany to undertake works in timed stages to protect the Middleton Beach Foreshore, associated infrastructure and the Middleton Beach Activity Centre.
- 2. ACCEPT** the funding contribution from LandCorp for the purpose incorporating a Middleton Beach Activity Centre Foreshore Management Plan – Adaptation Plan (*in accordance with the confidential briefing note*) and continue to advocate for State and Federal funds to complete works on the Middleton Beach Foreshore.
- 3. APPROVE THE ADVERTISEMENT** of the completed Draft Middleton Beach Activity Centre Foreshore Management Plan (which includes the Landcorp Adaptation Plan) for the purpose of public consultation.

DIS065: COMMITTEE RECOMMENDATION

MOVED: COUNCILLOR HAMMOND
SECONDED: COUNCILLOR SUTTON

THAT the Responsible Officer Recommendation be ADOPTED.

CARRIED 11-0

DIS065: RESPONSIBLE OFFICER RECOMMENDATION

THAT Council:

1. NOTE the proposed Adaptation Plan will require that the City of Albany to undertake works in timed stages to protect the Middleton Beach Foreshore, associated infrastructure and the Middleton Beach Activity Centre.
2. ACCEPT the funding contribution from LandCorp for the purpose incorporating a Middleton Beach Activity Centre Foreshore Management Plan – Adaptation Plan (*in accordance with the confidential briefing note*) and continue to advocate for State and Federal funds to complete works on the Middleton Beach Foreshore.
3. APPROVE THE ADVERTISEMENT of the completed Draft Middleton Beach Activity Centre Foreshore Management Plan (which includes the Landcorp Adaptation Plan) for the purpose of public consultation.

BACKGROUND

2. LandCorp is developing the old Esplanade Site. The Structure Plan and Scheme Amendment have been completed and conditional subdivision approval has been obtained. The development is known as the MBAC.
3. LandCorp have committed funding to complete Stage 1 of the works, which will realign Flinders Parade and tie it into Adelaide Crescent.

DISCUSSION

Development Conditions

4. A number of conditions have been applied within the planning instruments for the Middleton Beach Activity Centre. Relevant to this item are condition 5 from the Scheme Amendment and condition 18 from the subdivision conditions. These are repeated below:

Local Planning Scheme 1 Condition:

“Foreshore Protection and Management

5. Development within the Hotel/Mixed Use Precinct and/or creation of the Hotel/Mixed Use Lot will be subject to satisfactory arrangements for the implementation and ongoing management of coastal adaptation and protection measures consistent with State Planning Policy 2.6, including but not limited to—

- *Public advertising, adoption and implementation of a Foreshore Management Plan that includes the existing foreshore reserve adjacent to the Special Use zone, prepared in conjunction with the City of Albany in accordance with SPP2.6 Sub-Clause 5.10 Coastal Strategies and Management Plans and endorsed by the WAPC; and*
- *Notification on Title stating that the lot is within a Vulnerable Coastal Area.”*

Subdivision Condition:

“18. Prior to the commencement of subdivision works on Lot 'DA6' and any Public Open Space depicted on the approved plan of subdivision, a foreshore management plan in accordance with Condition 5 of Special Use Area 25 in Albany's Local Planning Scheme No. 1 is to be prepared and approved for the installation and ongoing management of coastal adaptation and protection measures, to the satisfaction of the Western Australian Planning Commission.”

Proposed Staging of the Integrated Approach

5. It is expected that the independent CHRMAP process being undertaken for the City of Albany will indicate a higher likelihood of risk of inundation and/or erosion and a requirement for earlier intervention, than the CHRMAP prepared only for the Ellen Cove Foreshore Management Plan (by Landcorp). This is particularly so in regards to the Foreshore and Albany Surf Life Saving Club.
6. An integrated solution as recommended by the City of Albany incorporates coastal protection structures built further out on the foreshore / beach edge as part of a wider foreshore protection plan inclusive of the development which will include drainage infrastructure and landscaping works as well as the seawall.
7. A staging plan has been proposed for the implementation of the coastal protection works.

GOVERNMENT & PUBLIC CONSULTATION

8. The Middleton Beach Working Group consists of representative from Department of Planning, Lands and Heritage, GSDC, City of Albany and LandCorp. This group has been meeting regularly for more than 2 years and has had an input into and provided comment on the draft document.
9. The Coastal Parks Enhancement Plan prepared in 2014 involved significant community consultation. The landscaping and amenity elements associated with this updated plan will remain consistent.
10. SPP2.6 includes a requirement for community consultation ;
” Ensure that the coastal planning strategy or foreshore management plan is developed in consultation with the broad community and relevant public authorities, and achieve the approval of the local land manager and the WAPC if appropriate.”
11. The Foreshore Management Plan will therefore be updated in accordance with the guiding principles (Should Council endorse them).The plan will then be advertised for public comment where after it will be presented to Council at another OCM for final endorsement.

STATUTORY IMPLICATIONS

12. Section 143 (1)(c) of the *Planning and Development Act 2005* allows WAPC to approve a subdivision with conditions. LandCorp are required to comply with the subdivision requirements including preparation of and commitment to a Foreshore Management Plan.
13. State Planning Policy No. 2.6 State Coastal Planning Policy and associated Guidelines is the most pertinent policy to inform and guide decision-making for coastal planning; including managing development and land use change; establishment of foreshore reserves; and to protect, conserve and enhance coastal values.
14. The most relevant section of the policy is section 5.5 and deals with Coastal hazard risk management and adaptation planning.
15. The Foreshore Management Plan and any solution needs to meet/address the requirements of this policy.

POLICY IMPLICATIONS

16. Nil

RISK IDENTIFICATION & MITIGATION

17. The risk identification and categorisation relies on the City's Enterprise Risk and Opportunity Management Framework.

Risk	Likelihood	Consequence	Risk Analysis	Mitigation
Property <i>Risk: There is a risk that doing nothing will result in damage to the foreshore and infrastructure.</i>	<i>Possible in the short term</i>	<i>Moderate in the short term</i>	<i>High</i>	<i>Undertake precinct-wide coastal protection works</i>
Financial <i>Risk: There is a risk that doing nothing will result in damage to the foreshore and infrastructure.</i>	<i>Possible in the short term</i>	<i>Severe</i>	<i>Extreme</i>	<i>Undertake precinct-wide coastal protection works</i>
Reputation <i>Risk: There is a risk that by protecting only the hotel site the City will be criticised by the community.</i>	<i>Possible in the short term</i>	<i>Major</i>	<i>High</i>	<i>Undertake precinct-wide coastal protection works</i>
Opportunity: <i>There is an opportunity to receive a contribution from LandCorp for a precinct-wide protection strategy.</i>				

FINANCIAL IMPLICATIONS

18. LandCorp have nominal funding available for the construction of a seawall around the hotel site.
19. LandCorp are prepared to make these funds their contribution to a precinct-wide protection strategy.
20. A commitment to the funding arrangements as discussed in the attached briefing paper.

LEGAL IMPLICATIONS

21. Nil

ENVIRONMENTAL CONSIDERATIONS

22. Nil.

ALTERNATE OPTIONS

23. That the City not commit to develop the Middleton Beach Foreshore and allow LandCorp to find alternate means to protect the Middleton Beach Activity Centre. Note that this would lose any contribution available to achieve a precinct-wide solution.

CONCLUSION

24. A decision on providing a commitment within the Foreshore Management Plan is required to complete the Draft Plan for advertising. Officers recommend that the benefits of a precinct-wide proposal being implemented in a staged approach over appropriate time-frames will give the City some time to advocate for funding to complete this important project.

Consulted References	:	<i>Local Government Act 1995, Planning and Development Act 2005. State Planning Policy No. 2.6 State Coastal Planning Policy and Guidelines and Local planning Scheme 1</i>
File Number (Name of Ward)	:	Frederickstown
Previous Reference	:	Nil



Appendix B

Coastal Hazard Risk Management and Adaption Plan

R684 Rev 0

November 2015

RPS / LandCorp

**Middleton Beach Activity Centre
Coastal Hazard Risk Management & Adaptation Plan**

marinas

boat harbours

canals

breakwaters

jetties

seawalls

dredging

reclamation

climate change

waves

currents

tides

flood levels

water quality

siltation

erosion

rivers

beaches

estuaries

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K1265, Report R684 Rev 0

Record of Document Revisions

Rev	Purpose of Document	Prepared	Reviewed	Approved	Date
A	Draft for MRA & Client review	T Harding	C Doak	C Doak	16.10.15
0	Issued for Client use	T Harding	C Doak	C Doak	13.11.15

Form 035 18/06/2013

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Table of Contents

1.	Introduction	6
2.	Context	9
2.1	Purpose	9
2.2	Objectives	9
2.3	Scope	9
2.4	Key Assets	11
2.5	Success Criteria	12
3.	Hazard Identification	13
3.1	Severe Storm Erosion (S1 Allowance)	13
3.2	Historical Shoreline Movement (S2 Allowance)	20
3.3	Sea Level Rise (S3 Allowance)	25
3.4	Storm Surge Inundation (S4 Allowance)	27
3.5	Coastal Hazard Mapping	30
4.	Risk Analysis	31
4.1	Likelihood Rating	31
4.2	Consequence Rating	35
5.	Risk Evaluation	40
5.1	Risk Evaluation Matrix	40
5.2	Risk Assessment	40
6.	Risk Adaptation & Mitigation Strategies	43
6.1	Potential Mitigation Strategies	43
6.2	Option 1 – Increased Beach Elevation	45
6.3	Option 2 – Seawall	47
6.4	Risk Mitigation Triggers	50
7.	Monitoring & Review	51
7.1	Aerial Photography	51
7.2	Shoreline Movement Data	51
7.3	Beach Profile Data	52
7.4	Beach Photography	52
7.5	Analysis & Reporting	52

8. Conclusions	53
9. References	55
10. Appendices	58
Appendix A Coastal Hazard Mapping – Current HSD	59
Appendix B Coastal Hazard Mapping – Increased Beach Elevation	60

Table of Figures

Figure 1.1	Location Plan (Nearmap, 2014)	7
Figure 1.2	Proposed Development Plan	8
Figure 2.1	Risk Management & Adaptation Process Flowchart	10
Figure 3.1	100 Year ARI South Easterly Storm	14
Figure 3.2	Wave Conditions Recorded During South to South Easterly Storm on 1 August 2014	16
Figure 3.3	SBEACH Profile – Nearshore Alignment	17
Figure 3.4	SBEACH Severe Storm Erosion – 100 year ARI	18
Figure 3.5	Location of Horizontal Shoreline Datum (HSD)	19
Figure 3.6	Shoreline Movement Chainages – Middleton Beach to Emu Point	21
Figure 3.7	S2 Allowance Assessment Profile (Nearmap, 2014)	22
Figure 3.8	Historical Shoreline Movement Relative to 1943 Baseline	23
Figure 3.9	Shoreline Movement Rates	23
Figure 3.10	Historical Shoreline Movement Time History	24
Figure 3.11	Recommended Sea Level Rise Allowance (DoT 2010)	25
Figure 3.12	Storm surge components	27
Figure 3.13	Albany Water Level Analysis	28
Figure 6.1	Risk Management & Adaptation Hierarchy	43
Figure 6.2	Indicative Flowchart for Assessment of Coastal Hazard Response	44
Figure 6.3	Existing Retaining Wall	46
Figure 6.4	Concept Layouts for both Seawall Layout Alternatives	48
Figure 6.5	Example of a GSC Seawall (Top) and a Rock Seawall (Bottom)	49

Table of Tables

Table 2.1	Key Assets within the Middleton Beach Activity Centre Area	12
Table 3.1	Wave Recording Device Locations	15
Table 3.2	S1 Erosion Allowances	20
Table 3.3	S2 Allowances	25
Table 3.4	Sea Level Rise Allowances	26
Table 3.5	Allowances for Shoreline Recession Due to Sea Level Rise (S3)	26
Table 3.6	500 year ARI inundation levels for each of the planning timeframes	29
Table 3.7	Summary of Vulnerability Allowances Coastal Processes	30
Table 4.1	Scale of Likelihood	31
Table 4.2	Assessment of Likelihood of Coastal Erosion Impact	32
Table 4.3	Assessment of Likelihood of Coastal Inundation Impact	34
Table 4.4	Scale of Consequence	35
Table 4.5	Assessment of Consequence of Coastal Erosion Impact	36
Table 4.6	Assessment of Consequence of Coastal Inundation Impact	38
Table 5.1	Risk Matrix	40
Table 5.2	Risk Tolerance Scale	40
Table 5.3	Preliminary Assessment of Risk Levels	42
Table 6.1	Hotel Site – Likelihood of Coastal Erosion Impact (Increased Beach Elevation)	46
Table 6.2	Hotel Site – Preliminary Assessment of Risk Levels (Increased Beach Elevation)	47
Table 6.3	Preliminary Assessment of Risk Levels (Seawall)	50

1. Introduction

The proposed Middleton Beach Activity Centre is to be located on what is known as the “Esplanade Hotel” site, situated adjacent to Middleton Beach approximately 4 km to the east of Albany’s Central Business District (refer Figure 1.1).

Planning for the development of the Middleton Beach Activity Centre is currently underway. The proposed development of the area is being led by LandCorp, who acquired the site in 2014. The current development plan is shown in Figure 1.2.

As part of the planning process, there is a requirement to understand the potential risks posed to development by coastal hazards. Specialist coastal and port engineers M P Rogers & Associates Pty Ltd (MRA) were engaged by LandCorp, as a sub-consultant to RPS, to complete a Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) for the Middleton Beach Activity Centre. The requirements and framework for a CHRMAP are established within SPP2.6, but are outlined more specifically in the *CHRMAP Guidelines* (WAPC, 2014).

This CHRMAP has been completed in accordance with the requirements of these documents and covers the following key items.

- Establishment of the context.
- Coastal hazard assessment.
- Risk analysis and evaluation.
- Risk management and adaptation planning.
- Monitoring and review.

Details regarding each of these items will be provided in this report.



Figure 1.1 Location Plan (Nearmap, 2014)

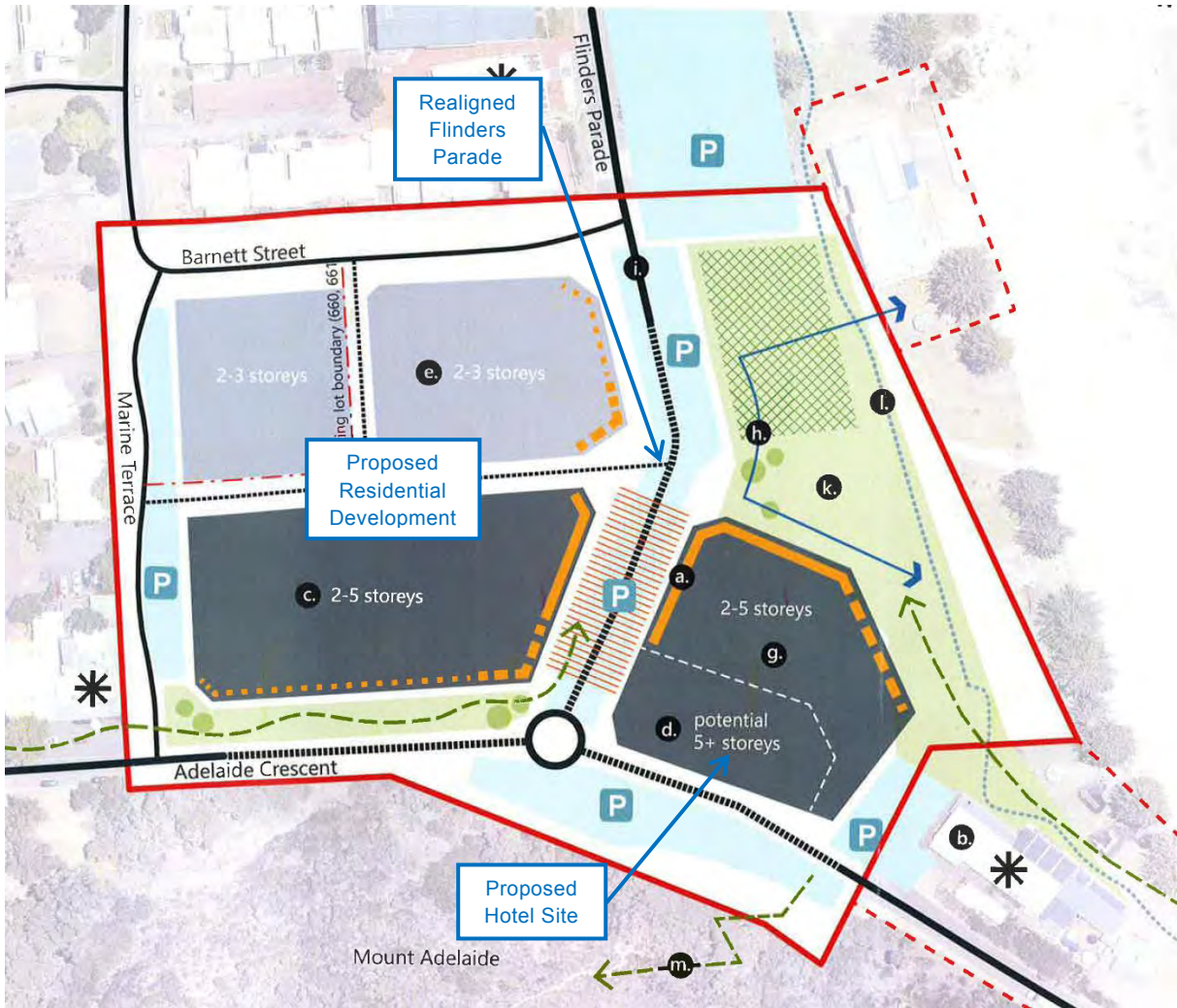


Figure 1.2 Proposed Development Plan

2. Context

2.1 Purpose

The potential future vulnerability of the coastline and the subsequent risk to the community, economy and the environment needs to be considered for the development of the proposed Middleton Beach Activity Centre. A key component of this risk analysis will be to identify any escalation of this risk over time, particularly in response to potential climate induced change.

Preparation of this plan is consistent with the requirements of SPP2.6, which requires that a CHRMAP be prepared by/for the responsible management authority to cover areas where existing or proposed development could be at risk from coastal hazards over the planning timeframe. The main purpose of a CHRMAP is to define areas of the coastline that could be vulnerable to coastal hazards and to outline the preferred approach to the monitoring and management of these hazards where required.

A CHRMAP can be a powerful planning tool and help to provide clarity to existing and future developers, users, managers or custodians of the coastline. This is done by defining levels of risk exposure, management practices and adaptation techniques that the management authority considers to be acceptable in response to the present and future risks posed by coastal hazards.

Specifically, the purpose of this CHRMAP is as follows.

- Confirm the potential extent of coastal hazard impact surrounding the proposed Middleton Beach Activity Centre.
- Outline the risks associated with the proposed development and how this risk may change over time.
- Establish the basis for present and future risk management and adaptation.
- Provide guidance on appropriate management and adaptation planning for the future, including monitoring.

2.2 Objectives

The key objective of this plan is to assess the risks associated with the development of the Middleton Beach Activity Centre and how these risks may change over time. Once these risks have been assessed, adaptation strategies can be developed, where necessary, to help mitigate the risks. However, consideration of the risks posed to the proposed development need to be considered in the context of the risks posed to existing assets in the area, as future risk mitigation strategies for existing assets could impact the proposed development.

Whilst the risks of coastal hazards are to be considered for different timeframes, the future behaviour of the shoreline could be variable for a variety of reasons. As a result, the requirement to consider the implementation of future adaptation strategies should be informed by an ongoing coastal monitoring regime. A recommended monitoring regime is included within this report.

2.3 Scope

The 2014 WAPC *CHRMAP Guidelines* provide a specific framework for the preparation of a CHRMAP. Figure 2.1 presents a flowchart for the risk management and adaptation process, as outlined within the *CHRMAP Guidelines*.

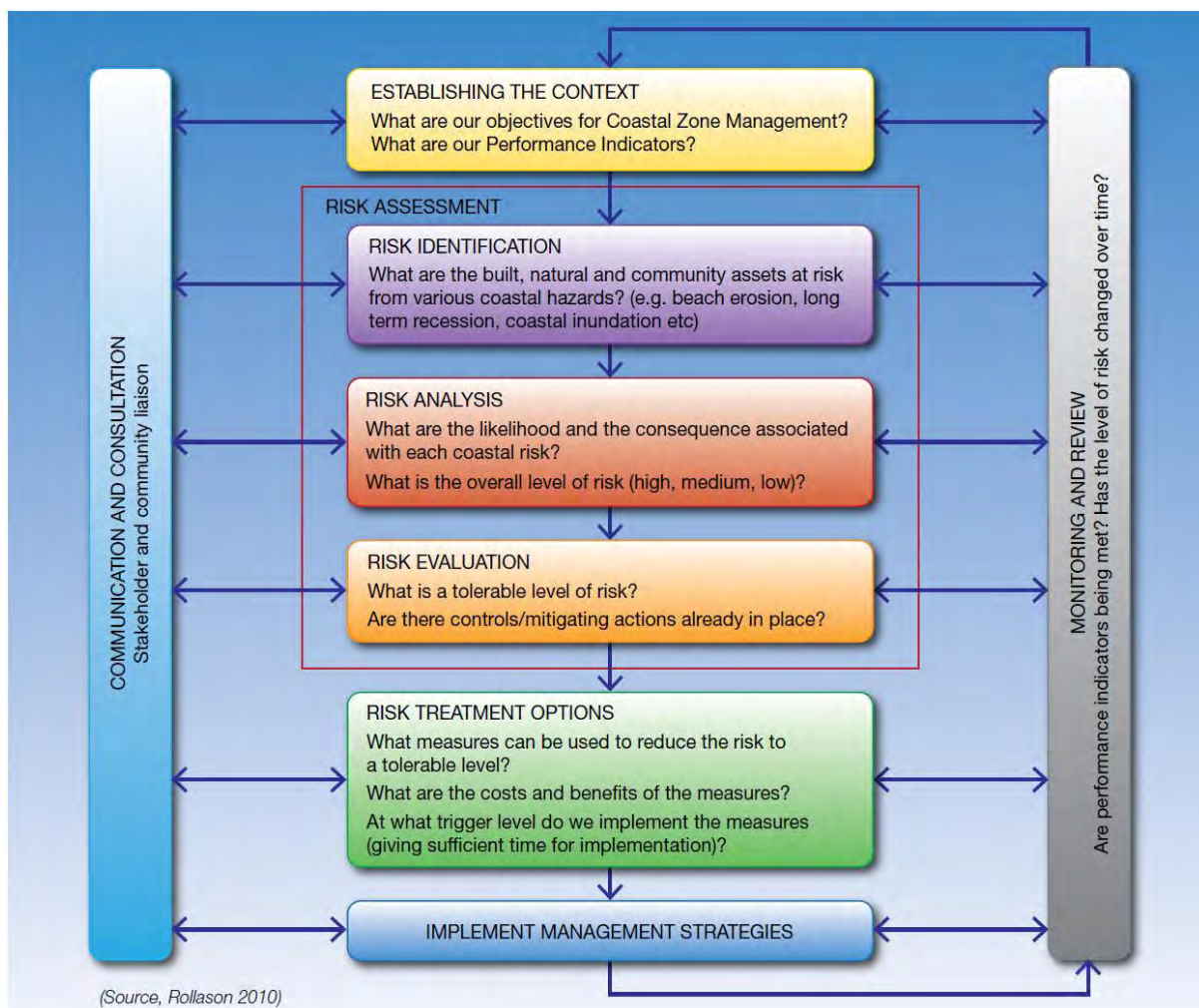


Figure 2.1 Risk Management & Adaptation Process Flowchart

As presented in the flowchart, the process for the development of a meaningful CHRMAP requires a number of fundamental inputs. These inputs enable the assessment and analysis of risk to help shape the subsequent development and any required adaptation strategies. This process should ultimately be informed by input received from key stakeholders and the community. Members of the Middleton Beach Working Group will be the key stakeholder in this initial process, with wider community consultation having previously occurred, with further consultation proposed in the future. The Working Group includes the following key stakeholders.

- Department of Planning.
- City of Albany.
- Great Southern Development Commission.
- Department of Lands.
- LandCorp.

To properly assess the risk posed by coastal hazards, an assessment of the potential vulnerability of the shoreline will need to be completed. Assessment of the coastal vulnerability and the

resultant coastal hazard mapping is to be completed in accordance with the general requirements of Schedule One of SCPP. This schedule provides a framework for the assessment of the potential impacts of coastal hazards on the shoreline for a variety of coastal forms.

The extent of impacts caused by coastal hazards will vary with the coastal form and geomorphology, however for the general case the following factors need to be considered.

- (S1 Erosion) Allowance for the current risk of storm erosion.
- (S2 Erosion) Allowance for historic shoreline movement trends.
- (S3 Erosion) Allowance for erosion caused by future sea level rise.
- (S4 Inundation) Allowance for the current risk of storm surge inundation.

The results of this assessment will form the basis of this assessment of coastal hazard risk.

This CHRMAP will consider the potential risks posed by coastal hazards over a range of timeframes covering a 100 year planning horizon. Intermediate planning horizons will be considered in order to assess how risk profiles may change in the future. Intermediate planning horizons that will be considered include 25, 50 and 75 year horizons.

Based on the results of the risk assessment, risk mitigation strategies will be developed, where required, in order to provide a framework for future management. However, it is important to realise that the risk assessment will be based on the outcomes of the coastal vulnerability assessment, which, by their nature, are justifiably conservative. As a result, the framework for future risk management strategies should be considered to be a guide of future requirements.

The actual requirement for implementation of these management actions should ultimately be informed by a coastal monitoring regime. The purpose of this coastal monitoring regime would be to identify changes in the shoreline or sea level that could alter, either positively or negatively, the risk exposure of the proposed infrastructure. A recommended coastal monitoring regime has been provided within this plan.

2.4 Key Assets

Key assets within the Middleton Beach Activity Centre area and surrounds have been summarised in Table 2.1. The risk assessment will focus on these assets in order to identify their vulnerability and consequently the requirement for risk management. For this type of assessment it is not considered necessary to break down this list of assets any further into their component parts, as it is the vulnerability of the overall assets that is the important factor.

Table 2.1 Key Assets within the Middleton Beach Activity Centre Area

Key Assets
Environment
Middleton Beach
Social
Middleton Beach Foreshore Park
Albany Surf Life Saving Club
3 Anchors Restaurant
Flinders Parade Car-Park
Residential Development (Existing)
Residential Development (Proposed)
Economic
Flinders Parade (Realigned)
Hotel Site (Proposed)

2.5 Success Criteria

The success criteria for the CHRMAP will ultimately be as follows.

- To determine appropriate allowances for the future action of coastal processes and inundation.
- To understand the potential/likelihood of infrastructure within and surrounding the Middleton Beach Activity Centre being impacted by coastal hazards over each planning horizon.
- To understand the consequences of infrastructure being exposed to the different coastal hazards.
- To determine total risk ratings for each item of infrastructure.
- Development of an acceptable risk management and adaptation strategy for the proposed development whilst considering the reasonable likelihood of protection for existing infrastructure.
- Development of a coastal monitoring strategy to review the actual changes in risk levels over time.

3. Hazard Identification

An understanding of potential future coastal hazards and risks is critical for the assessment and determination of management and adaptation actions.

SPP2.6 provides guidance on the assessment criteria and methodology required to determine the potential extent of coastal hazard impacts, whilst incorporating a level of conservatism deemed appropriate for coastal planning. This assessment methodology seeks to incorporate allowances for landform stability, natural variability and climate change over the proposed planning period. Specifically, the following items are considered in order to assess the appropriate allowances for coastal processes and climate change over the proposed planning timeframes.

- Severe storm erosion (S1 Allowance).
- Historical shoreline movement (S2 Allowance).
- Climate change induced sea level rise (S3 Allowance).
- Storm surge inundation (S4 Allowance)

These criteria are discussed in further detail in the following sections of this report. This coastal hazards assessment has been completed for a 100 year planning horizon in accordance with SPP2.6 requirements. Interim planning horizons of 25, 50 and 75 years have also been considered in order to assess the changes to coastal vulnerability over time.

3.1 Severe Storm Erosion (S1 Allowance)

SPP2.6 outlines that the S1 allowance should provide an adequate buffer to accommodate the potential erosion caused by a storm with an annual encounter probability (AEP) of 1%. This is equivalent to a 100 year average recurrence interval (ARI) storm.

In order to estimate the S1 Allowance at the Middleton Beach Activity Centre site, design wave and water level conditions were analysed for use in the beach profile evolution model, SBEACH. The following sections detail the design conditions used and the modelling and calibration procedures undertaken to determine the S1 Allowance.

3.1.1 Previous Wave Modelling

MRA has developed a sophisticated wave model capable of properly modelling the changes in wave conditions as waves travel from deep water to the shore. This model is called 2GWave, and is a modified version of Prof Ian Young's ADFA1 model. The modifications to ADFA1 ensure that 2GWave properly accounts for the complex changes in wave conditions caused by reefs, banks, seagrass meadows, nearshore bathymetry and atmospheric input.

Since the development of the 2GWave model for the Perth Metropolitan Region, MRA has set up numerous models along the Western Australian coastline. In 2006 a model was developed for King George Sound and the surrounding Albany region. The details of this model are presented in MRA (2011).

An analyses of extreme events showed that storms from a south easterly direction propagate the largest waves to the Middleton Beach Activity Centre site. Modelling results of the 100 year ARI wave event are presented in Figure 3.1.

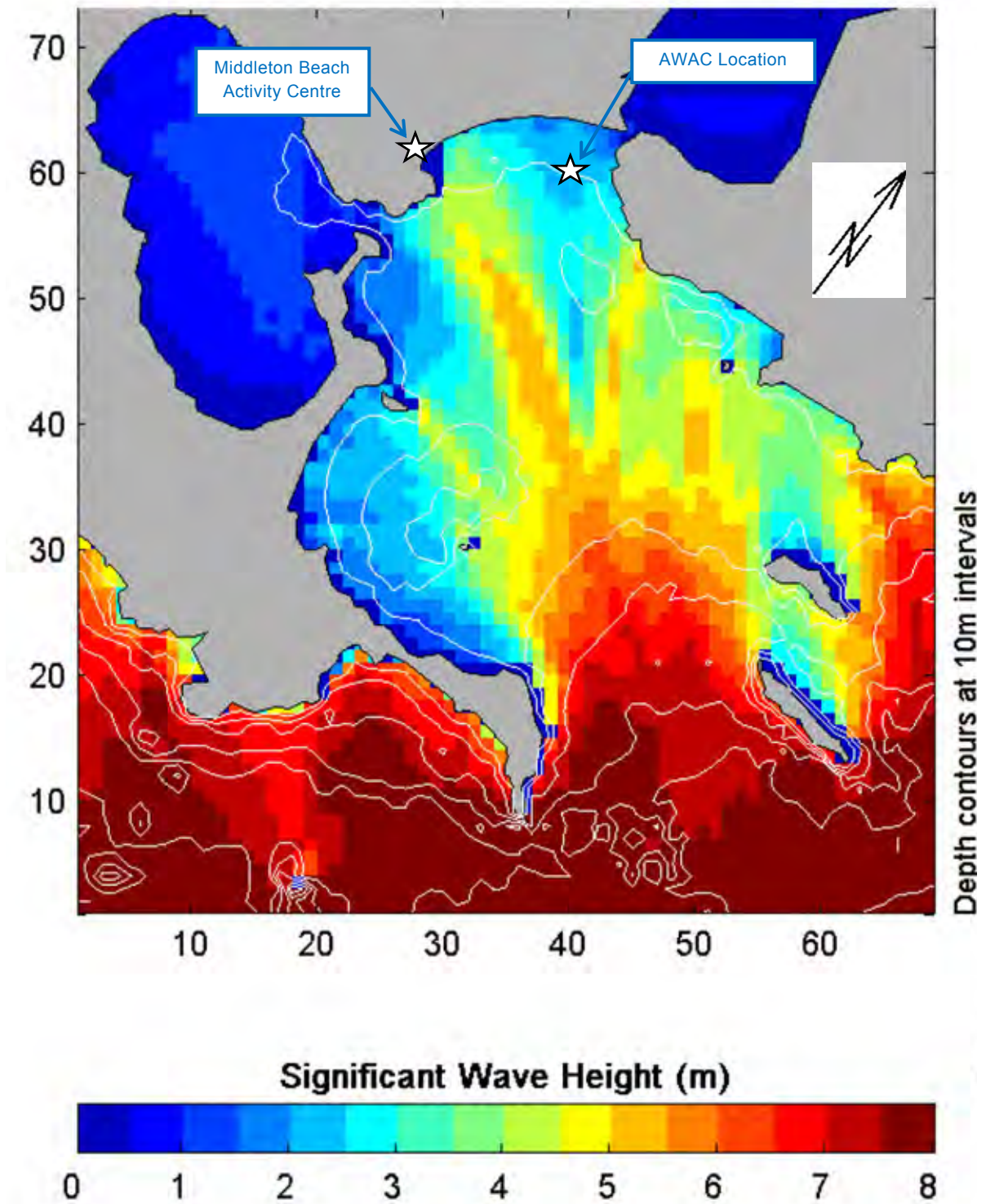


Figure 3.1 100 Year ARI South Easterly Storm

Figure 3.1 shows that, offshore from the proposed activity centre, wave heights in 10 m of water are approximately 50% of the offshore wave heights.

3.1.2 Recent Model Validation

There are two wave recording devices located in the Albany region. The locations and details of these devices are presented in Table 3.1.

Table 3.1 Wave Recording Device Locations

Location	Deployment	Latitude (S)	Longitude (E)	Depth (m)
Bald Head (Wave Rider Buoy - WRB)	June 2005 - present	35°11'53"	117°43'19"	60
Emu Point (AWAC)	December 2013 - present	35°00'39"	117°56'39"	10

Data from December 2013 to September 2015 was sourced from the DoT from both wave recording devices. This data was used to confirm the previous validation of the 2GWave model, as outlined in MRA (2011). Figure 3.2 shows a time history of the significant wave heights and directions during a south to south easterly storm which occurred during this data period.

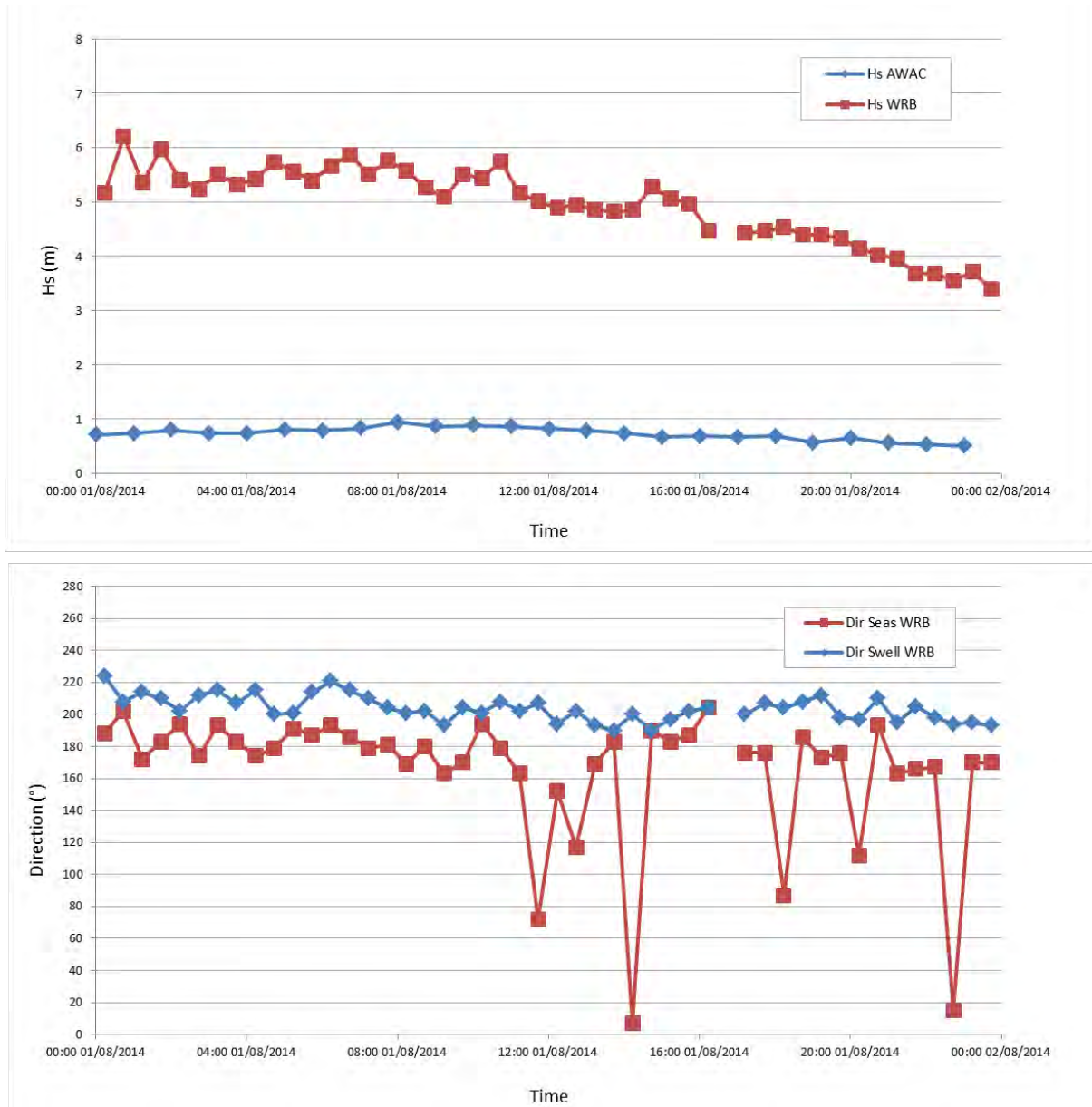


Figure 3.2 Wave Conditions Recorded During South to South Easterly Storm on 1 August 2014

An analysis of the wave measurements show that the significant wave heights at the AWAC are approximately 20% of those experienced offshore, during south to south easterly storms. The 2GWave model predicted waves at the location of the AWAC to have a similar wave attenuation coefficient compared to the offshore wave heights. This result, combined with the previous validation of the 2GWave model, shows that during storm events the 2GWAVE model accurately attenuates wave conditions from offshore to the nearshore area surrounding Middleton Beach.

3.1.3 SBEACH Modelling

The SBEACH computer model was developed by the Coastal Engineering Research Centre (CERC) to simulate beach profile evolution in response to storm events. It is described in detail by Larson & Kraus (1989). Since this time the model has been further developed, updated and verified based on field measurements (Wise et al 1996, Larson & Kraus 1998, Larson et al 2004).

MRA has validated SBEACH for use on sandy coasts in Western Australia (Rogers et al 2005). This validation has shown that SBEACH can provide useful and relevant predictions of the storm induced erosion, provided the inputs are correctly applied and care is taken to ensure that the model is accurately reproducing the recorded wave heights and water levels. Primary inputs include time histories of wave height, period and water elevation, as well as pre-storm beach profile and median sediment grain size.

The input beach profile for the model was taken from a land survey completed by Harley Dykstra in 2015 and a hydrographic survey undertaken by the Department of Transport (DoT) in 2014 out to approximately 500m offshore. The profile was then extended to 10 m of water using nautical charts of the area. The nearshore alignment of the profile is shown in Figure 3.3.

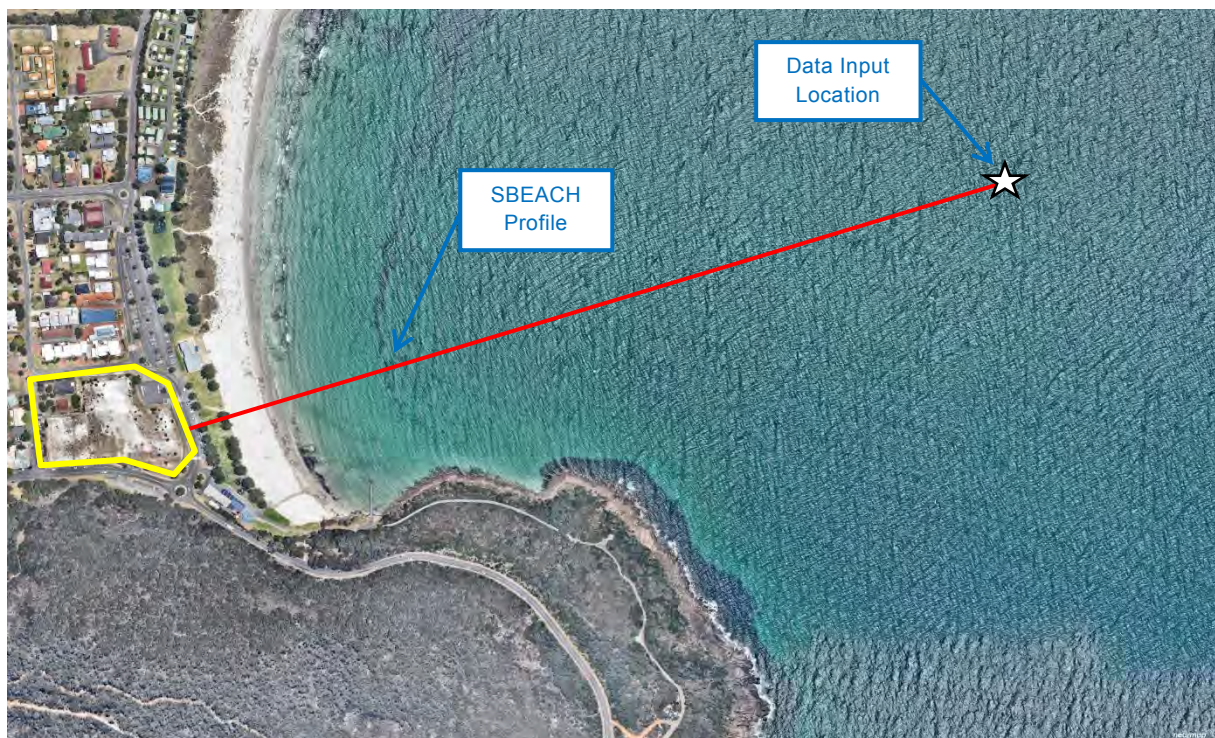


Figure 3.3 SBEACH Profile – Nearshore Alignment

It is common practise in Western Australia to use three repeats of the severe storm sequence experienced in the south west of Western Australia during July 1996 to represent the 100 year ARI beach erosion event. This event had a duration of approximately 111 hours, as a result, three repeats of this storm have a total duration of 333 hours. The full duration of this storm sequence was used in this modelling study and is believed to conservatively represent the 100 year ARI event for beach erosion for the southwest of Western Australia.

The attenuation factor previously discussed was used to scale the nearshore conditions for input into the SBEACH model. These wave conditions, combined with the water levels recorded during the July 1996 event, were used to simulate the erosion that could occur in front of the Middleton Beach Activity Centre during the 100 year ARI storm erosion event. The result of this simulation is shown in Figure 3.4. The Figure shows the initial and final beach profiles, peak water levels and peak wave heights.

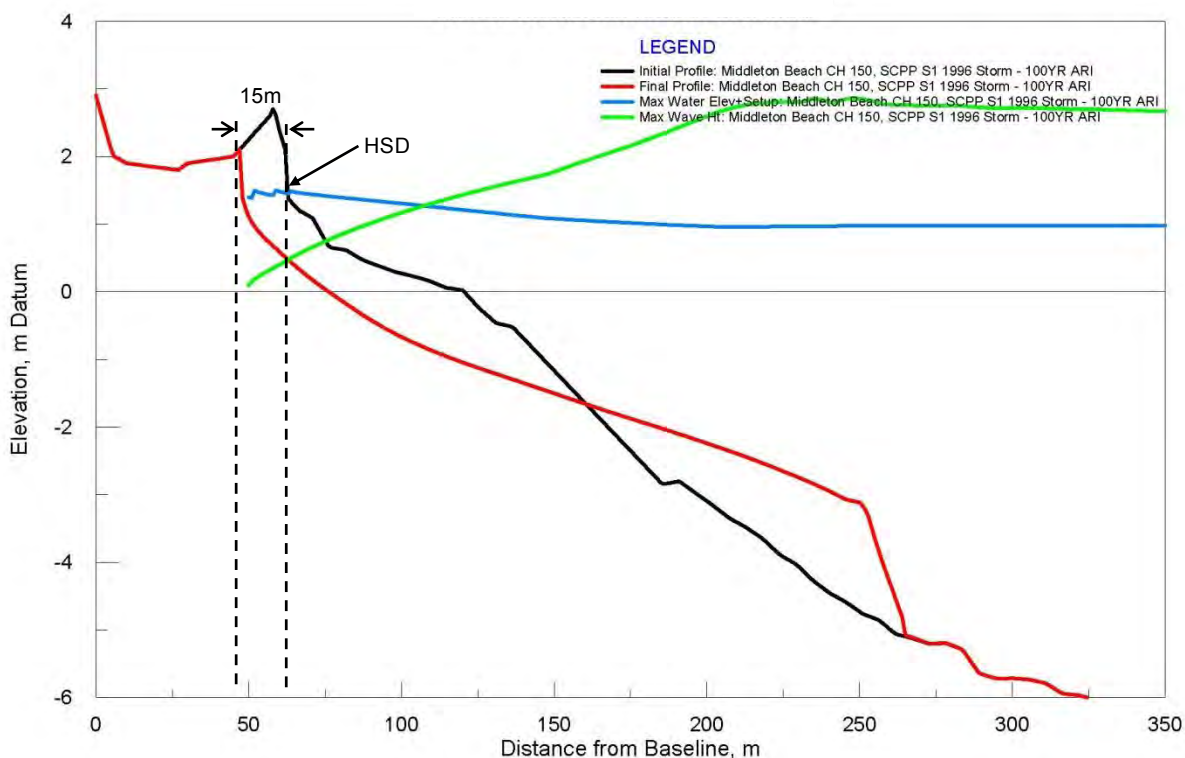


Figure 3.4 SBEACH Severe Storm Erosion – 100 year ARI

The severe storm erosion allowance is determined as the extent of erosion behind the Horizontal Shoreline Datum (HSD). The HSD corresponds to the seaward shoreline contour representing the peak steady water level of the modelled event. In this instance, the HSD is located at the base of the existing retaining wall at the rear of Middleton Beach as shown in Figure 3.5. The fact that the HSD is located at the base of the retaining wall and is not simply a continuation of the alignment on the beach and dunes to the north is an artefact of the artificial beach management that occurs in this area and results in a lower beach elevation. This beach management (discussed in further detail in Section 3.2) is therefore having an effect on the vulnerability of the shoreline and adjacent assets in this area.

No design information or as-constructed drawings of the existing retaining wall are available. Without further investigation of its extent and current condition, there is no compelling evidence that suggests the existing retaining wall is founded adequately to be able to withstand the design severe storm event. Therefore, it has been assumed that the existing retaining wall does not provide any protection during the event.



Figure 3.5 Location of Horizontal Shoreline Datum (HSD)

The results of the SBEACH modelling show that the severe storm erosion allowance for the Middleton Beach Activity Centre should be 15 m behind the HSD. This estimate includes a maximum avalanching slope of 30° to the horizontal. To put this result in context, a severe storm from the south east was experienced in Albany in 1984. This storm caused up to 35 m of erosion on the section of Middleton Beach approximately 2 km north east of the site, however at the proposed Activity Centre site the erosion was less than around 10 m. An allowance of 15 m for the 100 year ARI event therefore seems appropriate.

3.1.4 S1 Allowances

The S1 Allowances for each of the planning timeframes are presented in Table 3.2. It should be noted that the same allowance has been allocated to all planning timeframes as SPP2.6 specifies that the design storm should have an AEP of 1%, therefore the storm severity is the same, regardless of the timeframe being considered.

Table 3.2 S1 Erosion Allowances

Planning Timeframe	S1 Allowance (m)
Present day (2015)	15
2040	15
2065	15
2090	15
2115	15

3.2 Historical Shoreline Movement (S2 Allowance)

Historically, changes in shoreline positions occur on varying timescales from storm to post storm, seasonal and longer term (Short, 1999). The severe storm erosion allowance accounts for the short term storm induced component of beach change. The long term trends allowed for in the Historical Shoreline Movement (S2) Allowance account for the movement of the shoreline that may occur within the planning timeframes. To estimate the S2 Allowance, long term historical shoreline movement trends are examined and likely future shoreline movements predicted.

Historical vegetation lines dating back to 1943 were provided by DoT. The accuracy of the position of these vegetation lines is believed to be in the order of ±5 m, depending on the resolution of the aerial photographs and the rectification process. An additional vegetation line from 2014 aerial imagery was also mapped by MRA in accordance with DoT’s methodology and specification for mapping coastal demarcation lines (DoT, 2009).

Review of the local geomorphology shows that the section of shoreline extending from Middleton Beach to Emu Point is essentially a closed sediment cell, with minimal sediment exchange, if any, expected to occur past the rocky shorelines to the east and west. As a result, consideration of the changes in the historical shoreline position should be considered in the context of changes observed over the entire beach. Using the vegetation lines, the position of the shoreline was determined at 100 to 200 m intervals across the sediment cell. Figure 3.6 shows the chainages assigned for this assessment.



Figure 3.6 Shoreline Movement Chainages – Middleton Beach to Emu Point

When considering the historical changes to the shoreline it is important to understand any anthropogenic influences or management actions that could have had an impact on the behaviour of the beach. The City of Albany has provided information regarding the management of the beach in front of the proposed Middleton Beach Activity Centre. The City and the Surf Life Saving Club remove seaweed and vegetation from the beach on a regular basis. Additionally, sand that builds up against the base of the existing retaining wall at the rear of the beach is removed. Such management procedures can influence the assessment of historical shoreline movement trends at the location of the managed area. In particular, the cleaning of the beach and removal of vegetation makes assessment of the historical changes in beach location (usually measured by reviewing the location of the ephemeral vegetation line) impossible.

Furthermore, the City of Albany has also advised that sand nourishment completed at Emu Point during May 2014 was sourced from the beach in front of the proposed Middleton Beach Activity Centre. A total of 10,000 m³ was extracted from the area. The removal of this volume of sand would affect the position of the shoreline. Additionally, to reach equilibrium sediment from further along the beach would migrate into the extraction area. This would therefore cause recession of the vegetation line, or at least narrowing of the beach on the adjacent shoreline.

In order to combat the influence of these management procedures and gain an understanding of the likely historical shoreline movement at the site if no management was undertaken, the S2 Allowance was assessed at the location shown in Figure 3.7. It is noted that the extraction of the 10,000 m³ of material would have influenced the beach in this location, however it is expected that the impact on the ephemeral vegetation line would have been minimal in the context of the overall assessment.

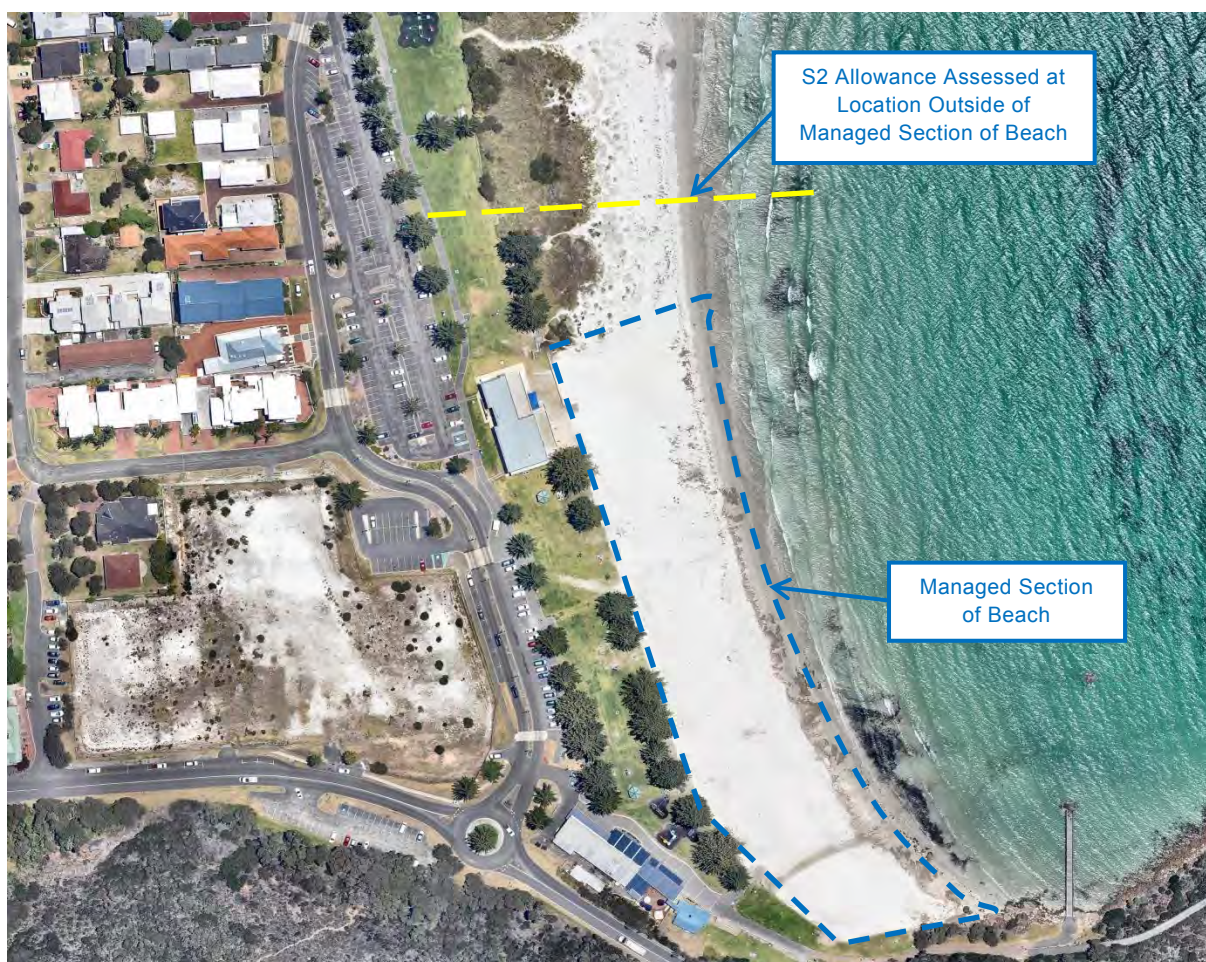


Figure 3.7 S2 Allowance Assessment Profile (Nearmap, 2014)

Remaining mindful of the beach management works, the shoreline movements, relative 1943, are presented in Figure 3.8.

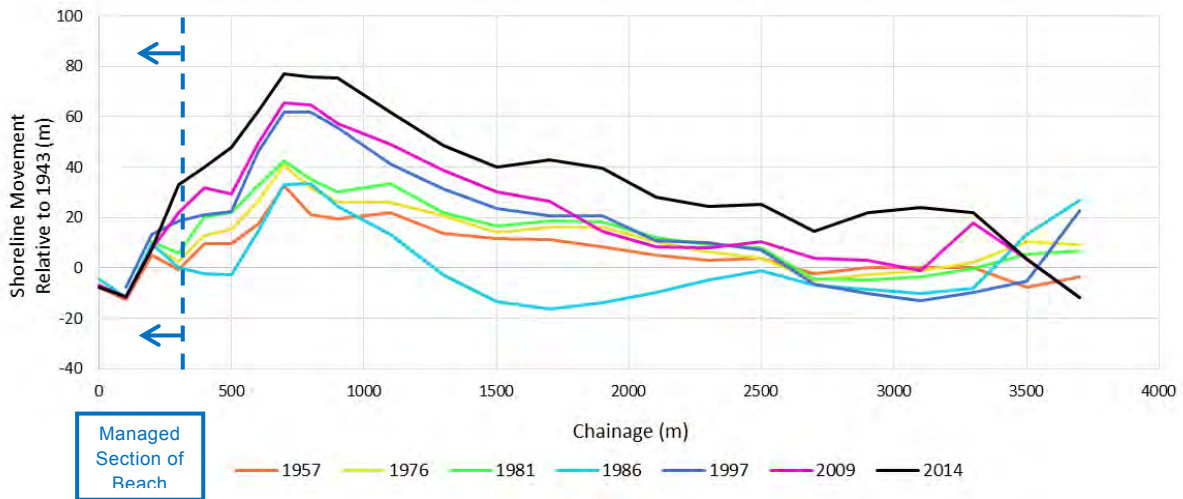


Figure 3.8 Historical Shoreline Movement Relative to 1943 Baseline

The results of this analysis shows that Middleton Beach generally accreted between 1943 and 2014. The rate of shoreline movement over this period has been determined from these shoreline movement measurements and is presented in Figure 3.9. For the purposes of comparison of shoreline movement rates throughout the period the rate of shoreline movement between 1976 and 2014 has also been included.

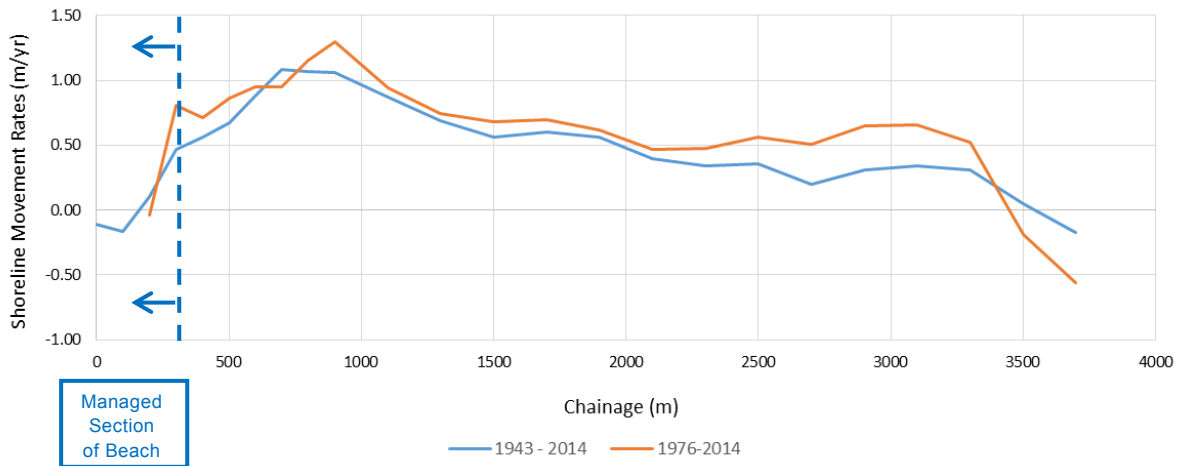


Figure 3.9 Shoreline Movement Rates

The shoreline movement and shoreline movement rate plots both show that almost the entire shoreline within the sediment cell has accreted over the longer term. The obvious exception to this is the shoreline at Emu Point, which has experienced erosion and is subject to ongoing coastal protection works. Interestingly, the accretion rates appear to be higher towards the south western end of the beach, however they apparently decrease at the very south western end. This is expected to be the result of the beach management works that occur in this area and is therefore not considered to be representative of the overall sediment dynamics.

The fact that almost the entire shoreline has accreted at an average rate of between 0.5 to 1 m per year over the long term means that the shoreline must be fed by a source of sediment. The source of this sediment is difficult to determine without further, more detailed investigation, however the expectation is that this sediment could be deposited on the shoreline as a result of

sediment outflow from Oyster Harbour or through onshore feed of sediment driven by persistent swell energy, or a combination of the two. Regardless of the actual source, given the persistence of this trend it is considered unlikely that the source will dissipate within the foreseeable future.

More specifically for the Activity Centre, an analysis of the historical shoreline movement at the profile location shown in Figure 3.6 shows a general accretion trend since 1943, however a more significant accretion trend is observed since 1976. The accretion of the shoreline at the profile analysed can be seen in the time history plot in Figure 3.10.

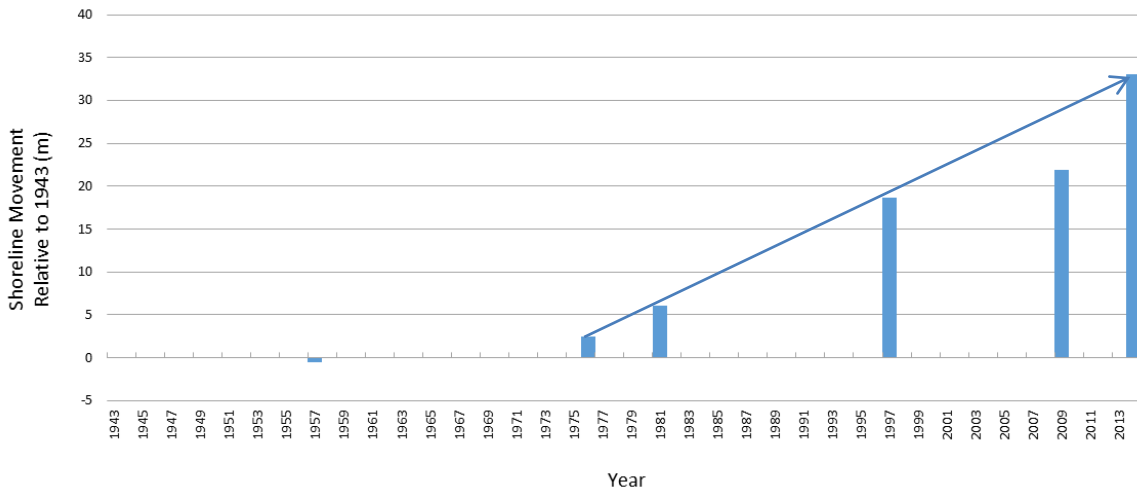


Figure 3.10 Historical Shoreline Movement Time History

The time history plot shows that there has been sustained accretion since 1976 with accretion rates of the vegetation line in the order of 0.8 m/yr. This is slightly less than the long term accretion rates observed on the beach to the north east (refer Figure 3.8) that are outside of the management area. Peak shoreline accretion rates in these areas are between 1.0 to 1.3 m/yr.

The SPP2.6 states that if there is compelling evidence that accretion is likely to continue into the future for a period of at least 50 years, then a reduction in the coastal setback distance is warranted. The S2 Allowance can therefore be calculated at a rate of minus 0.5 times the assessed likely future rate of accretion. For this assessment, even though it is likely that the beach management actions are reducing the shoreline accretion rate in front of the proposed Middleton Beach Activity Centre, a future accretion rate of 0.8 m/yr will be adopted. As a result, S2 Allowances will be determined as -0.4 m/yr for each of the different planning horizons. The resultant S2 Allowances are presented in Table 3.3.

Table 3.3 S2 Allowances

Planning Timeframe	S2 Allowance (m)
Present day (2015)	0
2040	-10
2065	-20
2090	-30
2115	-40

Notes 1. Negative allowances are taken as reductions in coastal setback distances.

3.3 Sea Level Rise (S3 Allowance)

The Department of Transport released recommendations on the appropriate allowances for climate change and sea level rise to be used for coastal planning in Western Australia (DoT 2010). This sea level rise scenario has been adopted within SPP2.6 and is presented in Figure 3.11.

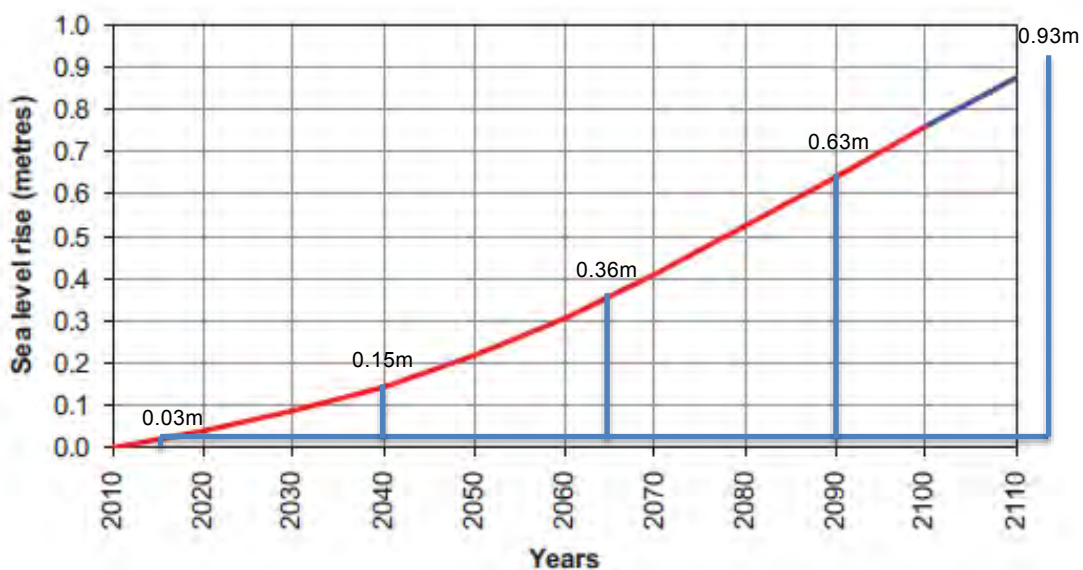


Figure 3.11 Recommended Sea Level Rise Allowance (DoT 2010)

The recommended allowances for sea level rise for each of the planning horizons have been determined based on the graph in Figure 3.11. The sea level rise allowances for each of the planning timeframes are presented in Table 3.4. All values of sea level rise were estimated relative to the predicted 2015 level.

Table 3.4 Sea Level Rise Allowances

Planning Timeframe	Sea Level Rise Allowance
Present day (2015)	0.00 m
2040	0.12 m
2065	0.33 m
2090	0.60 m
2115	0.90 m

The effect of sea level rise on the coast is difficult to predict. Komar (1998) provides a reasonable treatment for sandy shores, including examination of the Bruun Rule (Bruun 1962). The Bruun Rule relates the recession of the shoreline to the sea level rise and slope of the nearshore sediment bed:

$$R = \frac{1}{\tan(\theta)} S$$

where: R = recession of the shore.

θ = average slope of the nearshore sediment bed.

S = sea level rise.

Komar (1998) suggests that the general range for a sandy shore is $R = 50S - 100S$. SPP2.6 recommends that for sandy coasts the recession be taken as 100 times the estimated rise in sea level. Therefore, the recommended allowances for shoreline recession due to sea level rise are presented in Table 3.5 or each of the different planning horizons.

Table 3.5 Allowances for Shoreline Recession Due to Sea Level Rise (S3)

Planning Timeframe	Sea Level Rise Allowance
Present day (2015)	0 m
2040	12 m
2065	33 m
2090	60 m
2115	90 m

3.4 Storm Surge Inundation (S4 Allowance)

With respect to inundation, SPP2.6 requires that development consider the potential effects of an event with an Annual Encounter Probability (AEP) of 0.2% per year. This is equivalent to an inundation event with an Average Recurrence Interval (ARI) of 500 years.

Assessment of the inundation level requires consideration of peak storm surge, including wave setup. A storm surge occurs when a storm with high winds and low pressures approaches the coastline (refer Figure 3.12). The strong, onshore winds and large waves push water against the coastline (wind and wave setup) and the barometric pressure difference creates a region of high water level. These factors acting in concert create the storm surge. The size of the storm surge is influenced by the following factors.

- Wind strength and direction.
- Pressure gradient.
- Seafloor bathymetry.
- Coastal topography.

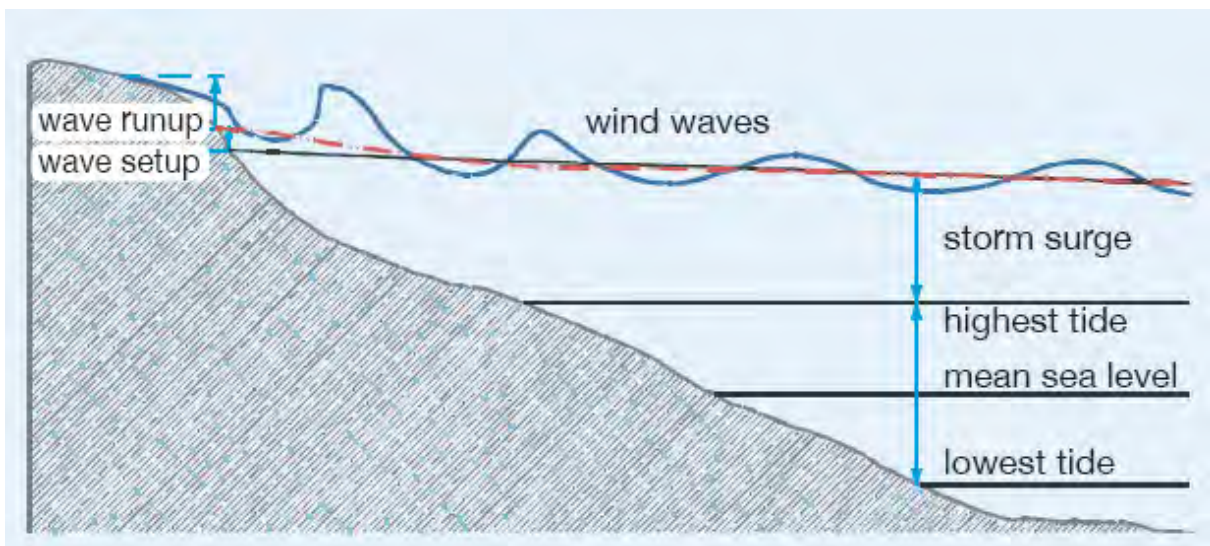


Figure 3.12 Storm surge components

A long term water level record is available for Albany. MRA has previously reviewed this water level record and completed an extreme analysis on the data. MRA used 26 years of data from DoT records to assess the design water levels. These records are considered to be applicable in 10 m of water because of the locations of the tide gauge. An ARI curve of the extreme analysis of the water level data is presented Figure 3.13.

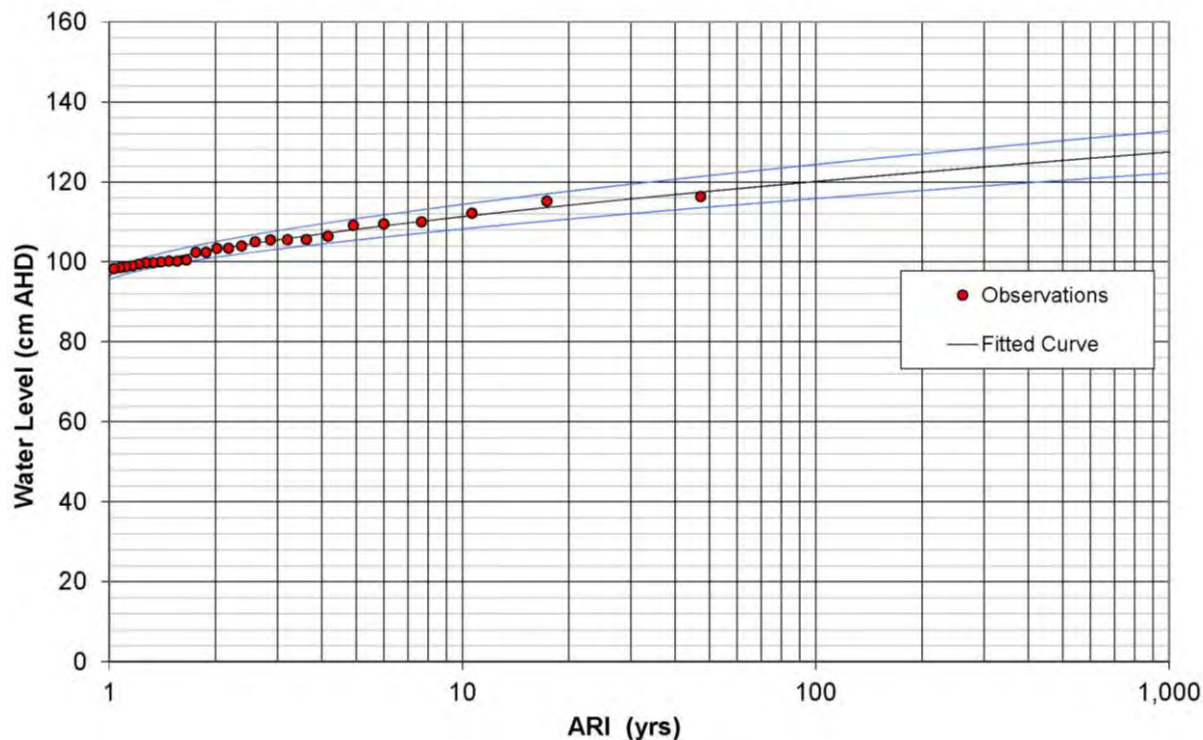


Figure 3.13 Albany Water Level Analysis

This extreme analysis provides an estimate of the peak water levels observed within the Port of Albany; however on an exposed coastline (i.e. Middleton Beach) other processes act to increase the peak steady water level – such as wave setup.

Dean and Walton (2008) provide a comprehensive review of investigations into the extent of wave setup on beaches. The review includes work by Hansen (1978); Guza and Thornton (1981); Holman and Sallenger (1985); Nielsen (1988); Davis and Nielsen (1988); King et al (1990); Yanagishima and Katoh (1990); Greenwood and Osborne (1990); Hanslow and Nielsen (1993); Lentz and Raubenheimer (1999); Raubenheimer, Guza and Elgar (2001) and Stockdon et al (2006). These investigations were completed on a variety of different beach types throughout the world, including in the North Sea, Japan, USA and Australia.

Results from each of the different investigations show varying levels of wave setup for a variety of reasons, including measurement difficulties. However, each of the studies indicated that wave setup does occur in the nearshore area. In particular, findings from many of the studies show that the majority of this setup occurs on the beachface.

Given the findings of the aforementioned investigations show that the majority of wave setup occurs on the beachface, this wave setup is not expected to be included in the water levels that have been recorded within the Inner Harbour. This is due to the fact that the water level records within the Port of Albany have been recorded within waters that are sheltered from wave breaking effects, particularly those on a beachface. As a result, these recorded water levels would not include the nearshore wave effects. The effects of nearshore wave setup should therefore be added to the extreme water level determined from the Port of Albany records to provide a reasonable estimate of the peak steady water levels at the site.

From this assessment, the 500 year ARI water levels in 10 m of water were estimated to be 1.24 mAHD. SBEACH (previously outlined in Section 3.1.1) was used to translate the water levels to the nearshore area to incorporate the effects of nearshore setup. It was found that wave setup in the order of 0.65 m could be expected at the site. As a result, the following potential inundation levels should be considered as part of the coastal hazard risk management and adaptation planning in order to comply with the requirements of SPP2.6. It should be noted that these levels do not include the potential effects of wave run-up, which may need to be considered for infrastructure located close to the beach face.

Table 3.6 500 year ARI inundation levels for each of the planning timeframes

Component	2015	2040	2065	2090	2115
500 yr ARI peak steady water level within Port of Albany (mAHD)	1.24	1.24	1.24	1.24	1.24
Allowance for nearshore setup (wind and wave) (m)	0.65	0.65	0.65	0.65	0.65
Allowance for Sea Level Rise (m)	0.00	0.12	0.33	0.60	0.90
Total Water Level (mAHD)	1.89	2.01	2.22	2.49	2.79

3.5 Coastal Hazard Mapping

The allowances for coastal processes, as determined in the preceding sections are presented in Table 3.7. It should be noted that a 0.2 m/yr allowance for uncertainty has also been included in the total coastal processes allowances as required by SPP2.6. The total vulnerability allowances should be measured from the HSD.

Table 3.7 Summary of Vulnerability Allowances Coastal Processes

Timeframe	Severe Storm Erosion (m)	Historic Shoreline Movement Trends (m)	Recession due to Sea Level Rise (m)	Allowance for Uncertainty (0.2 m/yr)	Vulnerability Allowance (m)
2040	15	-10	13	5	23
2065	15	-20	36	10	41
2090	15	-30	62	15	62
2115	15	-40	90	20	85

Notes: 1.Allowances are relative to the HSD.

The sum of each of the allowances outlined in the above table provides an indication of the areas that could be at risk from erosion over the different planning timeframes. The areas that could be affected relative to the current HSD are shown in the Drawing attached as Appendix A.

4. Risk Analysis

In accordance with WAPC (2014) a risk based approach has been used to assess the potential for coastal hazards to impact existing assets as well as those assets and development areas proposed as part of the Middleton Beach Activity Centre. As coastal hazards are the focus of this assessment, it is the likelihood and consequences of these coastal hazards that need to be considered.

4.1 Likelihood Rating

WAPC (2014) defines the likelihood as the chance of erosion or storm surge inundation occurring or how often they impact on existing and future assets and values. This requires consideration of the frequency and probability of the event occurring over a given horizon.

The probability of an event occurring is often related to the Annual Encounter Probability (AEP) or the Average Recurrence Interval (ARI). The use of the AEP to define impacts of coastal hazards over the planning timeframe assumes that events have the same probability of occurring each year. However, given the potential impact of climate change and sea level rise, which has a large influence on the assessed coastal hazard risk, this is not true. A scale of likelihood has therefore been developed, which follows the Australian Standard Risk Management Principles and Guidelines (AS/NZS ISO 31000:2009). This is presented in Table 4.1.

Table 4.1 Scale of Likelihood

Rating	Description / Frequency
Almost Certain	There is a high possibility the event will occur as there is a history of frequent occurrence 90-100% probability of occurring over the timeframe.
Likely	It is likely the event will occur as there is a history of casual occurrence 60-90% probability of occurring over the timeframe.
Possible	The event may occur 40-60% probability of occurring over the timeframe.
Unlikely	There is a low possibility that the event will occur 10-40% probability of occurring over the timeframe.
Rare	It is highly unlikely that the event will occur, except in extreme / exceptional circumstances. 0-10% probability of occurring over the timeframe.

The likelihood and consequence of coastal hazards is different for erosion and inundation. As a result, the likelihood and consequence of erosion and inundation should be considered separately. The likelihood of coastal hazard impacts are discussed in the following sections.

4.1.1 Coastal Erosion

An assessment of the relative likelihood of each of the identified key assets being impacted by coastal erosion hazards has been completed and is presented in Table 4.2. This assessment was completed using the coastal vulnerability lines presented Appendix A.

Table 4.2 Assessment of Likelihood of Coastal Erosion Impact

Key Assets	Present Day	2040	2065	2090	2115
Environment					
Middleton Beach	Rare	Unlikely	Possible	Almost Certain	Almost Certain
Social					
Middleton Beach Foreshore Park	Rare	Unlikely	Possible	Almost Certain	Almost Certain
Albany Surf Life Saving Club	Rare	Unlikely	Almost Certain	Almost Certain	Almost Certain
3 Anchors Restaurant	Rare	Rare	Likely	Almost Certain	Almost Certain
Flinders Parade Car-Park	Rare	Rare	Rare	Possible	Almost Certain
Residential Development (Existing)	Rare	Rare	Rare	Rare	Rare
Residential Development (Proposed)	Rare	Rare	Rare	Rare	Rare
Economic					
Flinders Parade (Realigned)	Rare	Rare	Rare	Rare	Rare
Hotel Site (Proposed)	Rare	Rare	Rare	Likely	Almost Certain

Key points to note regarding the assessment of likelihood of coastal erosion impact on each of the key assets are summarised below.

- The assessed likelihood of coastal erosion impact on the different items of infrastructure was completed by assessing the potential for impacts caused by longer time shoreline movements (such as the allowances for long term shoreline movement and coastal erosion caused by sea level rise) combined with the likelihood of severe storm erosion. For instance, it was assessed that the longer term shoreline movement allowances would be realised for the respective planning horizons, while the actual probability of a severe storm

event being experienced within that period was used (i.e. there is a 1% chance of the 100 year ARI event being experienced in 2015).

4.1.2 Coastal Inundation

Assessment of the likelihood of coastal inundation is slightly different to that for coastal erosion, for a couple of reasons.

Firstly, the potential for coastal inundation will change in the future as the sea level rises. This means that an area that would only be inundated during a very severe event in the present day could potentially be inundated by a much less severe event in the future. Assessment of the probability of an area being inundated within a given planning horizon therefore needs to consider the changing probability of event occurrence throughout that planning horizon.

As an example, an area with an elevation of 1.89 mAHD would just be inundated by the 500 year ARI event in 2015. However, it would be inundated by approximately the 15 year ARI event in 2040, but by less than the 1 year ARI event in 2070. Combining all of these probabilities of occurrence on an annual basis would mean that the actual chance of an area with an elevation of 1.89 mAHD being inundated over a planning horizon to 2115 would be around 94%. Similar probabilities of occurrence can be determined for other development levels and planning horizons. These probabilities have been used to determine the likelihood of each of the key assets being impacted by inundation for each planning horizon.

It should be noted, that this assessment has been completed on the basis that any new development (the hotel and residential) within the Middleton Beach Activity Centre will be at a level above 3.0 mAHD, as is understood to be required for servicing.

Table 4.3 Assessment of Likelihood of Coastal Inundation Impact

Key Assets	Present Day	2040	2065	2090	2115
Environment					
Middleton Beach	Almost Certain	Almost Certain	Almost Certain	Almost Certain	Almost Certain
Social					
Middleton Beach Foreshore Park (2.2mAHD)	Rare	Rare	Rare	Unlikely	Possible
Albany Surf Life Saving Club (2.5mAHD)	Rare	Rare	Rare	Rare	Unlikely
3 Anchors Restaurant (2.15mAHD)	Rare	Rare	Possible	Almost Certain	Almost Certain
Flinders Parade Car-Park (2.2mAHD)	Rare	Rare	Rare	Unlikely	Possible
Residential Development (Existing) (4.0mAHD)	Rare	Rare	Rare	Rare	Rare
Residential Development (Proposed) (>3.0mAHD)	Rare	Rare	Rare	Rare	Rare
Economic					
Flinders Parade (Realigned) (>3.0mAHD)	Rare	Rare	Rare	Rare	Rare
Hotel Site (Proposed) (>3.0mAHD)	Rare	Rare	Rare	Rare	Rare

4.2 Consequence Rating

The second part of the risk assessment is determining the consequence of the coastal hazards. A scale of consequence has been developed which provides a range of impacts and is generally consistent with the Australian Greenhouse Office (AGO 2006).

Table 4.4 Scale of Consequence

Rating	Social	Economic	Environment
Catastrophic	Loss of life and serious injury. Large long term or permanent loss of services, employment wellbeing, finances or culture (75% of community affected), international loss, no suitable alternative sites exist	Damage to property, infrastructure or local economy > \$20M	Major widespread loss of environmental amenity and progressive irrecoverable environmental damage
Major	Serious injury. Medium term disruption to services, employment wellbeing, finances or culture (<50% of community affected), national loss, limited alternative sites exist	Damage to property, infrastructure or local economy > \$5M to \$20M	Severe loss of environmental amenity and a danger of continuing environmental damage
Moderate	Minor injury. Major short or minor long term disruption to services, employment wellbeing, finances or culture (<25% of community affected), regional loss, many alternative sites exist	Damage to property, infrastructure or local economy > \$500,000 to \$5M	Isolated but significant instances of environmental damage that might be reversed with intensive efforts. Recovery may take several years.
Minor	Small to medium disruption to services, employment wellbeing, finances or culture (<10% of community affected), local loss, many alternative sites exist	Damage to property, infrastructure or local economy > \$50,000 to \$500,000	Minor instances of environmental damage that could be reversed. Consistent with seasonal variability, recovery may take one year.
Insignificant	Minimal short-term inconveniences to services, employment, wellbeing, finances or culture (<5% of community affected), neighbourhood loss, many alternative sites exist	Damage to property, infrastructure or local economy < \$50,000	Minimal environmental damage, recovery may take less than 6 months.

Similar to the assessment of likelihood, the consequence rating has been completed separately for coastal erosion and coastal inundation. The main reason for this is because, typically, the consequences associated with coastal erosion are more significant than those associated with coastal inundation. This arises due to the fact that coastal erosion is generally more permanent and often less easy to overcome than coastal inundation. An example of this would be if the

foundations of a house were undermined by erosion it is likely that the structure would fail, however if a house was inundated, structural failure would reasonably be expected to be less likely.

The consequence ratings for coastal erosion and coastal inundation are outlined below.

4.2.1 Coastal Erosion

The assessed consequences of coastal erosion for each of the planning timeframes are outlined in Table 4.5. As shown in the table, the consequences of erosion vary for some key assets over different timeframes due to the potential effects of increased erosion. For instance, a small amount of erosion could expose the foundation of a house but not cause any significant damage, and would therefore be insignificant, however a larger amount of erosion could undermine this foundation, with the effect being far more severe.

Table 4.5 Assessment of Consequence of Coastal Erosion Impact

Key Assets	Present Day	2040	2065	2090	2115
Environment					
Middleton Beach	Insignificant	Minor	Minor	Minor	Minor
Social					
Middleton Beach Foreshore Park	Insignificant	Minor	Minor	Minor	Minor
Albany Surf Life Saving Club	Insignificant	Moderate	Moderate	Moderate	Moderate
3 Anchors Restaurant	Insignificant	Minor	Moderate	Moderate	Moderate
Flinders Parade Car-Park	Insignificant	Insignificant	Insignificant	Minor	Minor
Residential Development (Existing)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Residential Development (Proposed)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Economic					
Flinders Parade (Realigned)	Insignificant	Insignificant	Insignificant	Insignificant	Moderate
Hotel Site	Insignificant	Insignificant	Minor	Major	Major

Further details regarding the rationale behind the consequence ratings for coastal erosion are provided below.

- The consequence of coastal erosion impact on Middleton Beach has been classified as insignificant where any impact would result only in the migration of the beach (i.e. where

there is sufficient space available for the beach to migrate unimpeded). Where the beach could be lost the classification has been increased to minor. This rating has been used as it is not expected that there would be any significant environmental damage given the total length of this section of beach is small compared to the total length of Middleton Beach. Similarly from a social perspective, many alternative beaches exist.

- The consequence of coastal erosion impact of all infrastructure assets has been assessed as insignificant until they were directly affected by erosion.
- The consequence of erosion to Existing and Proposed Residential Development has been assessed to be insignificant, as the extent of the erosion is unlikely to impact Residential Development.
- The consequences of erosion on the Middleton Beach Foreshore Park and Flinders Parade Car Park have been assessed to be insignificant until they were directly affected by erosion. Thereafter, the consequence has been assessed as minor given that they are relatively small assets with values expected to be less than around \$500,000.
- The consequence of erosion to the Albany Surf Life Saving Club and 3 Anchors Restaurant have been assessed as moderate by 2040 and 2065 respectively, as erosion of the infrastructure would likely require reconstruction, which would be expected to cost more than around \$500,000.
- The consequence of erosion to the realigned Flinders Parade has been assessed as moderate by 2115, as erosion of the road would likely require its reconstruction, which would be expected to cost more than around \$500,000.
- The consequence of erosion to the Hotel Site has been assessed to be minor until 2065 as it is likely that only the promenade infrastructure such as landscaping and pavement would be impacted by erosion. By 2090 the rating could increase to major as potential damage cause by erosion may be greater than around \$5 million.

4.2.2 Coastal Inundation

The assessed consequence of coastal inundation for each of the key assets and each of the planning horizons is presented in Table 4.6.

Table 4.6 Assessment of Consequence of Coastal Inundation Impact

Key Assets	Present Day	2040	2065	2090	2115
Environment					
Middleton Beach	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Social					
Middleton Beach Foreshore Park	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Albany Surf Life Saving Club	Insignificant	Insignificant	Insignificant	Insignificant	Minor
3 Anchors Restaurant	Insignificant	Insignificant	Minor	Moderate	Moderate
Flinders Parade Car-Park	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Residential Development (Existing)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Residential Development (Proposed)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Economic					
Flinders Parade (Realigned)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Hotel Site	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant

Further details regarding the rationale behind the inundation consequence ratings are provided below.

- The consequence of Middleton Beach being inundated is expected to be insignificant. This is because inundation of beaches in itself will not lead to a loss of the asset, as any inundation would be transient and already occurs almost every year.
- The consequence of inundation of the Albany Surf Life Saving Club has been assessed as minor by 2115, as the inundation depths would be small (less than around 0.3 m) and the majority of the ground floor is used for storage of equipment. As a result it is expected that the clean-up may cost slightly in excess of \$50,000, but certainly less than \$500,000.
- The consequence of inundation of the 3 Anchors Restaurant has been assessed by the extent of inundation. For instance by 2065, the consequence has been assessed as minor considering it may only be slightly inundated during this event (less than around 0.1 m) However, by 2090 and thereafter it has been assessed as a moderate consequence due to inundation. This is the case as commercial cooking / cleaning infrastructure could be damaged during the inundation event. Replacement of such infrastructure, and loss of revenue during the clean-up, may cost in excess of \$500,000.

- The consequence of the Middleton Beach Foreshore Park being inundated is expected to be insignificant. This is because inundation of the parklands themselves will not lead to a loss of the asset, as any inundation would be transient. Clean up of this area would be expected to cost less than \$50,000.
- The consequence of the Realigned Flinders Parade being inundated is expected to be insignificant. This is because inundation of the roads will not lead to a loss of the asset, as any inundation would be transient. Clean up of the Realigned Flinders Parade would be expected to cost less than \$50,000.
- The consequence of inundation of the Hotel Site and Existing and Proposed Residential Development has been assessed as insignificant. This is because this infrastructure will be constructed with a finished floor level in excess of 3.0 mAHD.

5. Risk Evaluation

5.1 Risk Evaluation Matrix

The risk rating from a risk assessment is defined as “likelihood” x “consequence.” A risk matrix defining the levels of risk from combinations of likelihood and consequence has therefore been developed for the coastal hazards. This risk matrix is generally consistent with WAPC (2014).

Table 5.1 Risk Matrix

RISK LEVELS		CONSEQUENCE				
		Insignificant	Minor	Moderate	Major	Catastrophic
LIKELIHOOD	Almost Certain	Low	Medium	High	Extreme	Extreme
	Likely	Low	Medium	Medium	High	Extreme
	Possible	Low	Medium	Medium	Medium	High
	Unlikely	Low	Low	Medium	Medium	Medium
	Rare	Low	Low	Low	Low	Low

A risk tolerance scale assists in determining which risks are acceptable, tolerable and unacceptable. The risk tolerance scale used for the assessment is presented in Table 5.2.

Table 5.2 Risk Tolerance Scale

Risk Level	Action Required	Tolerance
Extreme	Immediate action required to eliminate or reduce the risk to acceptable levels	Intolerable
High	Immediate to short term action required to eliminate or reduce risk to acceptable levels	Intolerable
Medium	Reduce the risk or accept the risk provided residual risk level is understood	Tolerable
Low	Accept the risk	Acceptable

The risk tolerance scale shows that the extreme and high risks need to be managed.

5.2 Risk Assessment

The risk assessment for the study area has been completed in accordance with the recommendations of AS5334-2013, which requires a detailed risk analysis to include a vulnerability analysis to thoroughly examine how coastal hazards and climate change may affect the asset. This includes consideration of the adaptive capacity and vulnerability of an asset.

Based on the results of the risk analysis completed previously, Table 5.3 presents the risk levels for each of the identified key assets. The order of the assessed risks in the table has been completed to show the priority risk areas for each planning timeframe at the start of the table, with decreasing risk down the table.

The results of this assessment show that the vast majority of assets have a low risk over all planning horizons. This includes the proposed residential development within the Middleton Beach Activity Centre.

With regard to priorities, the most vulnerable asset within the foreshore is the Albany Surf Life Saving Club. A medium level erosion risk is expected to exist for this asset by 2040, however based on the risk tolerance scale, this level of risk should be tolerable provided steps are taken to manage the risk. Such management would include monitoring the shoreline to track changes and provide an early warning if risks become elevated due to shoreline change. By 2065, this risk could increase to a high risk, which would require management, however this management strategy would need to be determined by the City of Albany. To date it is understood that the City have not considered any potential risk mitigation strategies for this asset.

A number of medium risks also exist by 2065. This includes erosion and inundation risks for the 3 Anchors Restaurant as well as erosion risk for Middleton Beach and the Middleton Beach Foreshore Park. As for the medium risk posed to the Surf Club in 2040, it is expected that these risks would be best managed by a monitoring process, though consideration of the adaptation strategies would need to be considered by the City of Albany who are responsible for the management of these areas.

More significantly, high levels of risk are expected for the 3 Anchors Restaurant (for both inundation and erosion) and the proposed Hotel Site (erosion) by 2090. These high levels of risk would require management action. Looking further forward, the hotel site could be subject to an extreme level of risk by 2115 if management action has not been completed prior to this time.

Further details regarding the management and adaptation options as they relate to the proposed development are provided in Section 6.

Table 5.3 Preliminary Assessment of Risk Levels

Key Asset	Coastal Hazard Description	Assessed Risk Level				
		Present Day	2040	2065	2090	2115
Albany Surf Life Saving Club	Erosion	Low	Medium	High	High	High
3 Anchors Restaurant	Inundation	Low	Low	Medium	High	High
3 Anchors Restaurant	Erosion	Low	Low	Medium	High	High
Hotel Site	Erosion	Low	Low	Low	High	Extreme
Middleton Beach Foreshore Park	Erosion	Low	Low	Medium	Medium	Medium
Middleton Beach	Erosion	Low	Low	Medium	Medium	Medium
Flinders Parade Car-Park	Erosion	Low	Low	Low	Medium	Medium
Residential Development (Existing)	Erosion	Low	Low	Low	Low	Low
Residential Development (Proposed)	Erosion	Low	Low	Low	Low	Low
Flinders Parade (Realigned)	Erosion	Low	Low	Low	Low	Low
Middleton Beach	Inundation	Low	Low	Low	Low	Low
Middleton Beach Foreshore Park	Inundation	Low	Low	Low	Low	Low
Albany Surf Life Saving Club	Inundation	Low	Low	Low	Low	Low
Flinders Parade Car-Park	Inundation	Low	Low	Low	Low	Low
Residential Development (Existing)	Inundation	Low	Low	Low	Low	Low
Residential Development (Proposed)	Inundation	Low	Low	Low	Low	Low
Flinders Parade (Realigned)	Inundation	Low	Low	Low	Low	Low
Hotel Site	Inundation	Low	Low	Low	Low	Low

6. Risk Adaptation & Mitigation Strategies

The SPP2.6 outlines a hierarchy of risk adaptation and mitigation options, where options that allow for a wide range of future strategies are considered more favourably. This hierarchy of options is reproduced in Figure 6.1.



Figure 6.1 Risk Management & Adaptation Hierarchy

These options are generally outlined below.

- Avoid – avoid new development within the area impacted by the coastal hazard.
- Retreat – the relocation or removal of assets within an area identified as likely to be subject to intolerable risk of damage from coastal hazards.
- Accommodation – measures which suitably address the identified risks.
- Protect – used to preserve the foreshore reserve, public access and public safety, property and infrastructure.

The assessment of options is generally done in a progressive manner, moving through the various options until an appropriate mitigation option is found.

6.1 Potential Mitigation Strategies

The decision regarding potential mitigation strategies depends on the key assets in the foreshore and the requirement, or otherwise, to retain a beach in certain areas. Generally, the following flowchart is applicable when considering the potential mitigation strategies.

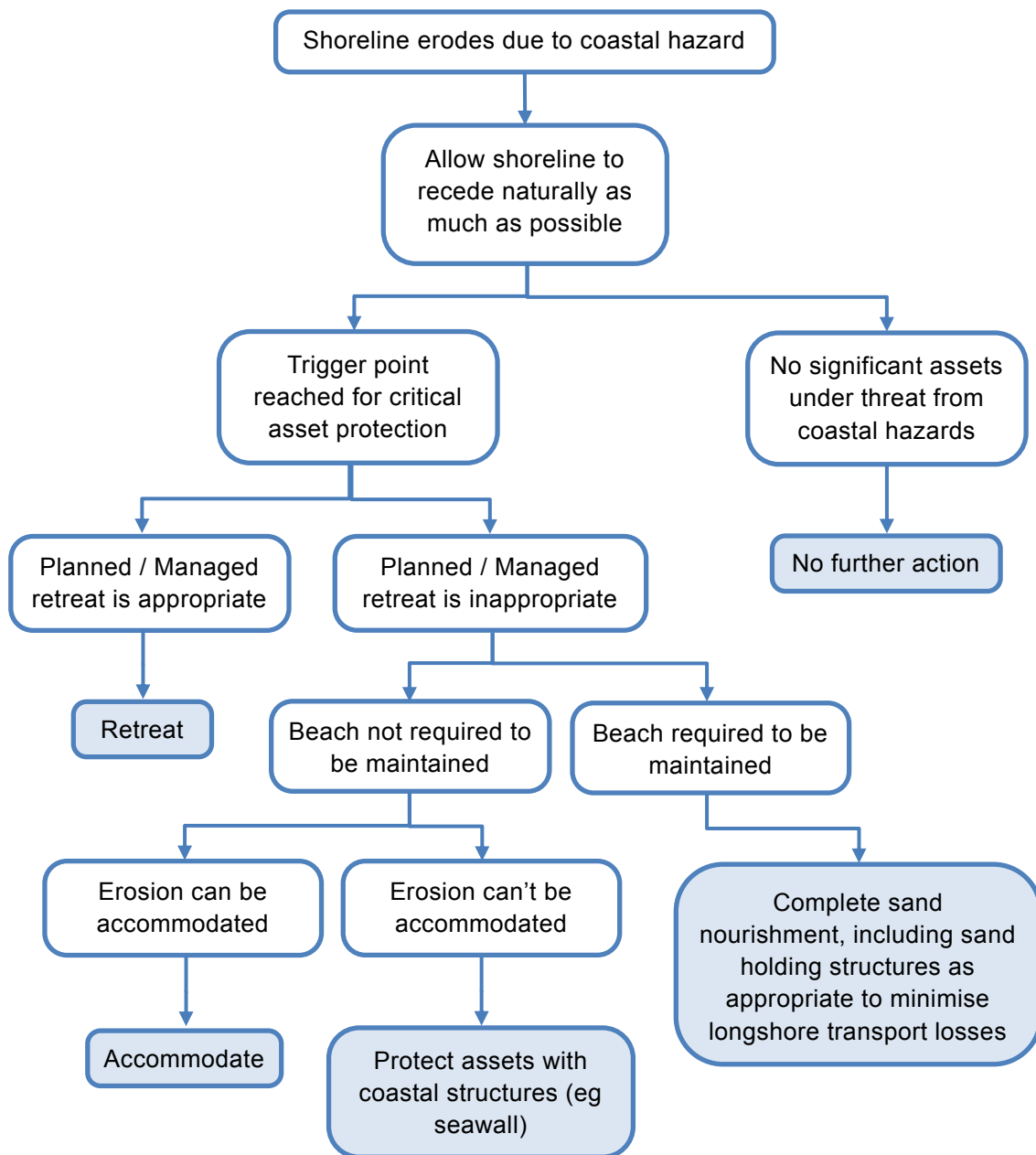


Figure 6.2 Indicative Flowchart for Assessment of Coastal Hazard Response

Potential risk mitigation strategies have been considered for the development proposed as part of the Middleton Beach Activity Centre only, as the risk management for existing assets lies with the City of Albany, who are the entity responsible for the management of these assets. However, it should be noted that any risk management or adaptation proposed for these existing assets could also provide protection to the proposed Hotel Site, which is the most vulnerable portion of the proposed development.

With regard to the risk management and adaptation for the proposed Hotel Site, there are two key adaptation and mitigation strategies that should be considered to reduce the overall risk of coastal erosion. These options are considered, as it is unlikely that a managed retreat option would be acceptable for this level of infrastructure.

- Option 1 – Accommodate the risk of coastal erosion and inundation by increasing the elevation of the managed section of the beach, which is artificially low.
- Option 2 – Protect valuable infrastructure with a seawall to resist the impacts of coastal erosion.

These two options are detailed in the following section.

6.2 Option 1 – Increased Beach Elevation

Section 3.2 previously detailed the existing management procedures undertaken by the City of Albany and the Surf Life Saving Club on the beach fronting the proposed Activity Centre. These are as follows:

- Removal of sand that builds up against the base of the existing retaining wall at the rear of the beach.
- Removal of seaweed and vegetation from the beach.

Such management procedures have the following effects on the beach:

- Reduction in the elevation of the beach.
- Prevention of the development of a natural vegetated dune system.

Both of these reduce the beach's ability to resist storm erosion and inundation. Additionally, the removal of 10,000 m³ of sediment from this area to nourish Emu Beach would have also resulted in a reduction in the level of the beach.

Therefore a way to accommodate the potential risks identified in this investigation would be to increase the level of the beach, above the beach berm, in front of the Middleton Beach Activity Centre. By increasing the beach elevation the HSD could be extended and maintained approximately 30 m seaward of the current HSD. This would be more consistent with the alignment of the HSD on the unmanaged section of shoreline to the north. The extent of the area that could be affected by coastal erosion relative to the proposed HSD and an indicative cross section of the proposed beach profile are shown in the Drawing attached as Appendix B. A critical aspect of this proposal is that the types of beach use on this section of coastline are maintained, albeit, with a slightly increased elevation. This is due to the fact that all this proposal seeks to do is increase the elevation of the beach in this area. Other than the increase in elevation, there should be no impact on the use of the beach, which currently includes beach volleyball, school recreational activities and the like. Nevertheless, there are two aspects of this proposal that require further consideration. These are as follows.

- Increasing the elevation of the beach without also increasing the elevation of the retaining wall at the rear of the beach would be expected to result in an increase in the volume of sand blowing from the beach to the adjacent foreshore park. The current retaining wall is approximately 0.7 m above the level of the beach (refer Figure 6.3). As a result, if a new retaining wall was constructed with a crest level of 0.7 m above the proposed beach level this would maintain the status quo of windblown sand when compared to the current scenario. If an improvement on the current scenario is required, then the crest level of the retaining wall could be increased, or planting immediately adjacent to the wall (either above or below) could assist with the trapping of the sand (noting that if vegetation was used to

trap the sand, the elevation of this area would build up over time and would need to be managed).

- Increasing the elevation of the beach would impact the current drainage outfall locations. The best option to deal with this would be to divert the existing outlets to a less prominent section of the beach.



Figure 6.3 Existing Retaining Wall

By relocating the HSD, as proposed, the initial assessment of the likelihood of the Hotel Site being impacted by coastal erosion hazards can now be reassessed. The updated relative likelihoods for the various planning timeframes based on the proposed HSD can be seen in Table 6.1.

Table 6.1 Hotel Site – Likelihood of Coastal Erosion Impact (Increased Beach Elevation)

Key Assets	Present Day	2040	2065	2090	2115
Hotel Site	Rare	Rare	Rare	Rare	Unlikely

Considering the consequence rating remains unchanged, the updated risk assessment based on the proposed HSD can be seen in Table 6.2.

It should be noted that the proposed beach profile would need to be monitored and maintained for the following risk assessment of the Hotel Site to be valid.

Table 6.2 Hotel Site – Preliminary Assessment of Risk Levels (Increased Beach Elevation)

Key Asset	Coastal Hazard Description	Assessed Risk Level				
		Present Day	2040	2065	2090	2115
Hotel Site	Erosion	Low	Low	Low	Low	Medium

As shown in Table 6.2, the initial ‘extreme’ level of risk by 2115 can be reduced to a medium risk provided the proposed beach profile is sufficiently monitored and maintained. The ‘high level of risk by 2065 and 2090 can be reduced to ‘low’.

The proposed beach profile is able to be constructed by material sourced from the beach itself. As discussed previously in Section 3.2, any deficiency of beach sand caused by the extraction of sand from the current profile would be replaced by sand from further along Middleton Beach over time. It is acknowledged that this area is currently a source of sediment for the nourishment of Emu Point. The modification of the beach, as proposed, would be unlikely to impact this potential extraction of sediment in the future, as the volume of accumulation along the south western portion of the beach should be sufficient for the City to continue with this practice (refer to the shoreline movement rates in this area). Nevertheless, it would be recommended that the City look to extend the extraction zone over the beach up to around chainage 1,000 m. This is important so that the extraction is spread over a larger area of beach and does not inadvertently increase the vulnerability of a portion of the beach if the extraction was focused in one small area. Preliminary cost estimates to construct the proposed beach profile could range between \$150,000 and \$250,000. Following severe storm events additional re-working of the beach profile may be required. Therefore ongoing costs of approximately \$50,000 would be required following severe storms.

6.3 Option 2 – Seawall

The construction of a seawall would provide a last line of defence for the protection of the Hotel Site should it ever be threatened by coastal erosion. There are two different alternatives for the construction of a seawall. The first alternative would be to construct a seawall along the alignment of the existing retaining wall. The benefit of this option would be that it would also provide protection to the other assets in the area, such as 3 Anchors Restaurant and the Foreshore Park, however doing so would also increase the potential for the loss of Middleton Beach in this area at some stage in the future if the shoreline was to erode. The total length of seawall required for this alternative would be around 300 m.

The second alternative would be to construct a seawall around the Hotel Site itself. This option would only provide protection to the Hotel Site, but would reduce the risk of loss of Middleton Beach if the shoreline was to erode. The total length of seawall required for this alternative would be around 150 m.

A concept of the two alternative seawall layouts are provided in Figure 6.4.



Figure 6.4 Concept Layouts for both Seawall Layout Alternatives

The intent of construction of a seawall in either location would be for it to be buried initially and therefore be as unobtrusive as possible. However, should the shoreline erode to the extent that the seawall became exposed, the aesthetics of the wall could be important. As a result the seawall could be constructed out of either Geosynthetic Sand Containers (GSC's) or rock. Examples of both types of seawalls are shown in Figure 6.5



Figure 6.5 Example of a GSC Seawall (Top) and a Rock Seawall (Bottom)

Given the layouts for each of the alternatives, it is expected that the total cost for the alternative 1 seawall would be between \$1.7 to 2.7 million depending on the type of seawall (GSC seawalls are more expensive), while the cost for alternative 2 would be between \$1 to 1.5 million. This cost would cover the initial capital construction cost of the seawall to a standard sufficient to be able to withstand a 100 year ARI event. However, in the event that the seawall is exposed, maintenance

costs for the wall would be applicable and could be estimated to be around 5% of the capital cost per decade.

Provision of an appropriately designed seawall would obviously change the risk profile for the Hotel Site. Provided the seawall was adequately maintained, it is anticipated that the likelihood of the Hotel Site being impacted would be rare for both alternatives for all timeframes. As a result, the erosion risk to the Hotel Site would be low for all timeframes as shown in Table 6.3.

Table 6.3 Preliminary Assessment of Risk Levels (Seawall)

Key Asset	Coastal Hazard Description	Assessed Risk Level				
		Present Day	2040	2065	2090	2115
Hotel Site	Erosion	Low	Low	Low	Low	Low

6.4 Risk Mitigation Triggers

Given the assessed risk exposure for the Hotel Site, there is unlikely to be any requirement for risk mitigation strategies to be implemented until after 2065. However, given the benefit that would be provided to all existing assets and the relatively low cost of the option, it would be recommended that the increase in elevation of the beach level be completed as a matter of course. Implementation of this option would also further delay the potential requirement for the construction of a seawall to protect the Hotel Site (and other assets if the City choose to do so) until after 2090. The requirement for the construction of the seawall could then be informed by coastal monitoring, with a trigger being set for the construction of the seawall if the shoreline gets within around 25 m from the hotel site (15 m allowance for severe storm erosion plus a 10 m factor of safety).

It should be noted that the mitigation priorities outlined above are contingent on an understanding of the shoreline behaviour over time. As outlined above, monitoring of the shoreline is therefore required to understand the changes and when the construction of the seawall would need to be implemented.

7. Monitoring & Review

Coastal monitoring and review is essential in order to track changes to the shoreline over time. Whilst the results of the Hazard Identification provide an indication of the potential changes to the shoreline (and incorporate a justifiable level of conservatism), the system is inherently complex and the actual shoreline response could be different to that presented. Triggers for adaptation should therefore be based on the observed coastal response, but planning and priorities should be guided by the predictions.

There are a number of different monitoring strategies that are available. These strategies are generally complimentary, so the more information that is collected will enable a more thorough review of the observed change. Details of the recommended monitoring processes are provided below.

7.1 Aerial Photography

Aerial photography is generally used to map the location of the coastal vegetation lines or other shoreline indicators (see Section 7.2). However, aerial photographs can also be used to quantitatively assess changes to the shoreline or coastal features.

The State Government (now through Landgate) has historically undertaken aerial photography of the coastline at approximately 5 year intervals. Since approximately 2000, aerial photography has been flown most years. It is expected that aerial photographs will be available annually into the future.

As well as the Landgate aerials, other commercial products are available which capture aerial photographs across the City more frequently. One such product is Nearmap, which has high resolution aerial photographs of the entire City available at varying intervals since 2007. These are useful for assessing general changes to shorelines and seasonal movements.

Collection and review of aerial photographs covering the study area will form a key component of the shoreline monitoring in the future.

7.2 Shoreline Movement Data

DoT has historically mapped the position of the coastal vegetation line at locations around Western Australia at varying intervals. The coastal vegetation line is a commonly used indicator of the shoreline as it provides an approximation of the limit of the active coastal processes. It is much less susceptible to short term changes than other indicators such as the water line or high water mark. Comparison of the position of the coastal vegetation line over time (for areas that have not been prone to beach management) can therefore provide an indication of the shoreline movement.

Regular mapping of the shoreline should be completed as it will allow the following:

- Identification of shoreline movement trends.
- Identification of infrastructure at risk.
- Updates to vulnerability or hazard assessments.

Over a long enough period, shoreline movement mapping will assist in determining the impact of sea level rise on the shoreline.

7.3 Beach Profile Data

Shoreline movement data provides information on the plan-form movement of coastal features. By supplementing this with beach profile data, overall changes to the shoreline can be assessed and volumes of change estimated. This is generally a more cost effective approach to monitoring volumes of change, compared to detailed hydrographic surveys of the entire coastline.

Given the setback to the Hotel Site should see it encounter a low level of risk until after 2065, there is probably little requirement to complete beach profile monitoring in the early years for the Hotel Site, however beach monitoring would be useful to assess the vulnerability of other assets in the area. Initially, the beach response could best be tracked using other techniques, however if the shoreline was receding it would be prudent to commence completing beach profile monitoring when changes to the beach are observed.

When/if beach profile monitoring is to commence, it is recommended that beach profiles are taken every 2 years. The timing of these surveys should be consistent throughout the year in order to reduce the potential for seasonal changes. Generally, it would be recommended that surveys be completed in October in order to provide an indication of the profile at the end of winter. This would also provide an opportunity for action to be taken over the summer period if required.

The beach survey profiles should be completed in three locations as a minimum. One profile should be directly in front of the proposed Hotel Site and the other locations should be approximately 150 and 300 m north of the site. Covering a wider area of beach in this way would enable review of the extent of beach change over the general area, rather than just in front of the Hotel Site.

7.4 Beach Photography

Land based photographs from fixed locations and consistent frames of reference can provide a useful tool for monitoring general changes to beaches. DoT released a guideline on *How to photo monitor beaches* (2012) to normalise photo monitoring as part of coastal monitoring programs. This methodology suggests photography be completed at fixed locations with fixed field of views. This is a relatively low cost monitoring strategy, but can provide very useful results, particularly if completed at regular intervals.

7.5 Analysis & Reporting

The analysis of the monitoring information that is collected should be completed by an experienced coastal engineer to determine any trends in shoreline movement or significant change to coastal processes. Initially, it is recommended that an analysis of the monitoring data is completed approximately every 5 years. The analysis would be reasonably brief unless significant changes were detected. When/if the behaviour of the beach changes to the extent that beach profile monitoring is required it would be prudent to complete the review every 2 years. This reduction in time between analysis and reporting is due to the increased risk that could be associated with a reduced buffer.

The analysis and reporting would summarise movements on beach profiles (if applicable), assessment of shoreline movement and any relevant information on metocean conditions or shoreline works. Should the shoreline movement indicate large changes in key areas (particularly erosion) this would be highlighted. Additional investigations to determine the cause of the change would be recommended.

8. Conclusions

Review of the potential coastal hazards and associated risks for existing and proposed assets within and around the proposed Middleton Beach Activity Centre shows that there are some coastal risks that will need to be managed in the future. The most pressing of these risks appear to be associated with existing infrastructure, including the Albany Surf Life Saving Club and the 3 Anchors Restaurant. These assets are managed by the City of Albany, however to date no information is available regarding the potential management strategies that the City may look to complete to ameliorate any coastal hazard risks associated with these assets. Should the City choose to defend these assets from coastal hazards in the future, this protection would also be likely to provide protection to the proposed development that forms part of the Middleton Beach Activity Centre.

In the absence of any protection of the City's existing assets, the proposed Hotel Site would be the only part of the proposed development that would be vulnerable to coastal hazards within a 100 year planning horizon. In fact, the proposed Hotel Site could be vulnerable to erosion at some stage before 2090 if the assessed coastal hazards (in accordance with the requirements of SPP2.6) are realised. This would mean that management options would be required for the Hotel Site to reduce the potential risk.

Two options exist to manage the potential coastal hazard risk to the Hotel Site. The first option would be to increase the level of the beach in front of the development area to be more consistent with the natural levels of the beach. This recommendation arises due to the artificially low beach levels fronting the proposed Activity Centre that result from beach management practices and the removal of sediment from the area (that is subsequently used to nourish the beach at Emu Point). Increasing the elevation of the rear portion of the beach, above the beach berm, from its current level to a level of around 1.9 mAHN would reduce the potential impacts of coastal processes and reduce the risks to all assets, including the proposed Hotel Site. Other factors that are relevant to this proposed option are as follows.

- The proposed modification to the beach would still enable all of the same beach uses in this area to continue to occur, all that would change would be the elevation of the beach.
- Increasing the elevation of the beach would also require the crest level of the retaining wall behind the beach to be increased to minimise windblown sand issues. The current retaining wall is approximately 0.7 m above the beach level. As a result, to maintain the levels of windblown sand associated with the current beach configuration the crest of the retaining wall would need to be increased to be 0.7 m above the proposed beach level. If further reduction in windblown sand was required the crest level could be increased further, or vegetation could be used adjacent to the wall to trap sand.
- The existing drainage outlets that flow through the retaining wall would need to be diverted if the beach elevation was increased. It is expected that the best option would be to divert them to a less prominent beach area.
- The removal of sediment from this section of beach to renourish Emu Point could continue to occur in the future even if this option was implemented, as the volume of sediment accumulating on the south western portion of the beach is significant (as shown by the shoreline movement plots). However, it is recommended that the extraction area be extended out to chainage 1,000 m so that the extraction is spread over a larger area of beach and does not inadvertently increase the vulnerability of any area, which could occur with a more focused sediment extraction zone.

It is recommended that this option be implemented as a matter of course given the increase in protection that it provides to all infrastructure within the area. The total capital cost of this option is expected to be between \$150,000 and \$250,000, but could also require expenditure of up to \$50,000 after very severe storms. Implementation of this option would reduce the risk to the proposed Hotel Site to acceptable levels for the 100 year planning horizon.

The second option to manage the coastal hazard risk at the Hotel Site would be to construct a seawall. The seawall could be constructed along the entire foreshore (along the alignment of the existing retaining wall) or could be constructed only around the proposed Hotel Site. Costs associated with these options would be between \$1.7 to \$2.7 million and \$1 and \$1.5 million respectively depending on the type of wall that is chosen, with maintenance costs in the order of around 5% of the capital cost per decade. For either option, the intention is that the wall would be buried, at least initially, so that it is less obtrusive. Construction of a seawall would reduce the coastal hazard risk to acceptable levels throughout the 100 year planning horizon. It should be noted that the construction of a seawall would only likely be required in the later stages of the 100 year planning horizon. The exact timing of the construction of the seawall would be identified by the coastal monitoring program.

It should be noted, that whilst the assessment of the risk outlined above has been based on the required methodology outlined in SPP2.6, these vulnerability allowances are justifiably conservative. As a result, the outcomes of this study should be used to guide future management actions, but ultimately the implementation of these actions, particularly the construction of the seawall, should be triggered by the monitoring regime outlined within this document.

9. References

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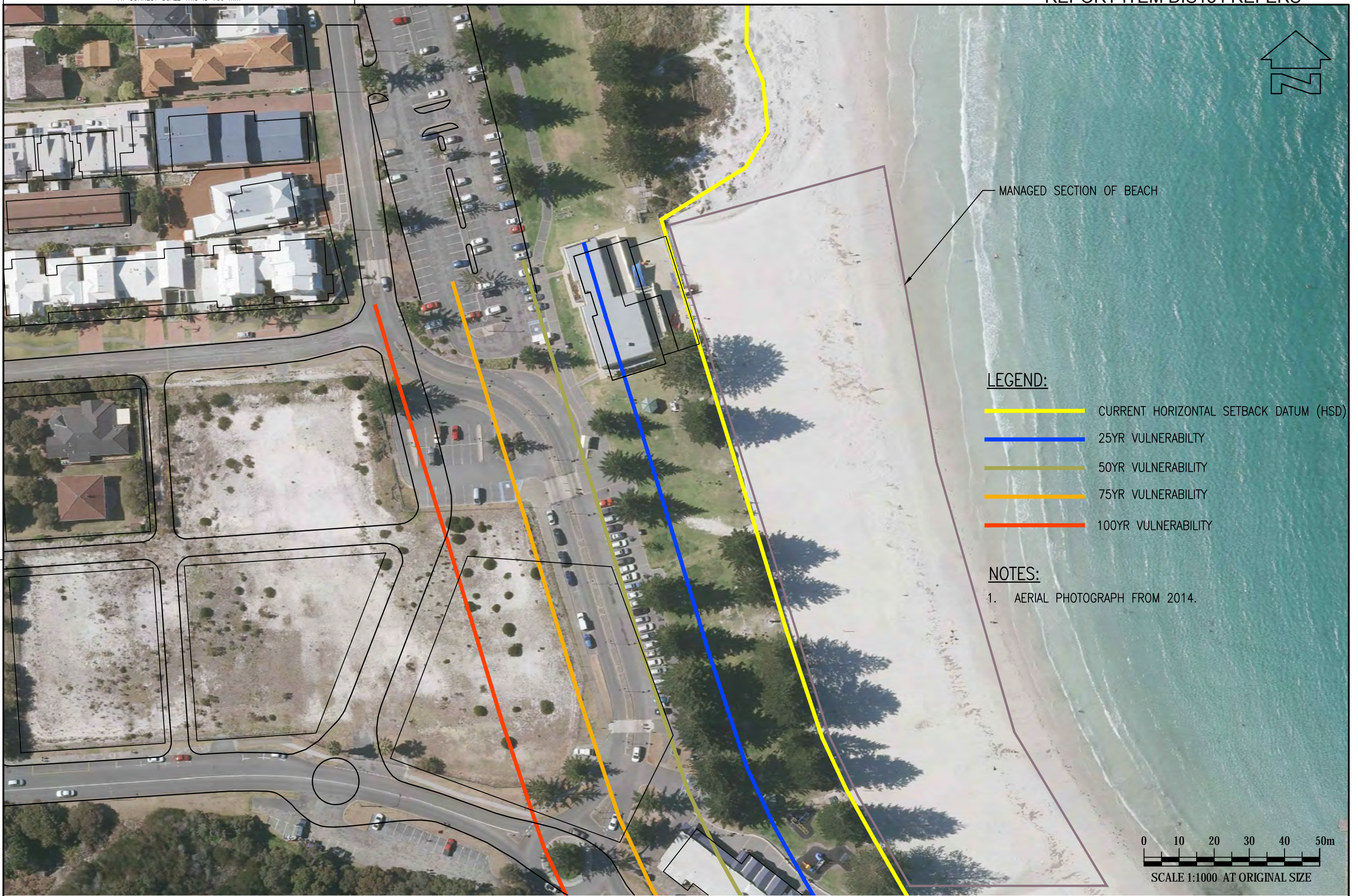
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10. Appendices

Appendix A Coastal Hazard Mapping – Current HSD

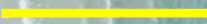
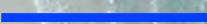
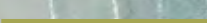


Appendix B Coastal Hazard Mapping – Increased Beach Elevation

Appendix A Coastal Hazard Mapping – Current HSD



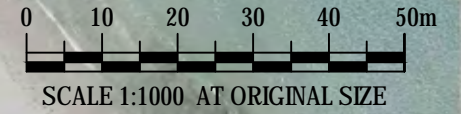
MANAGED SECTION OF BEACH

LEGEND:

-  CURRENT HORIZONTAL SETBACK DATUM (HSD)
-  25YR VULNERABILITY
-  50YR VULNERABILITY
-  75YR VULNERABILITY
-  100YR VULNERABILITY

NOTES:

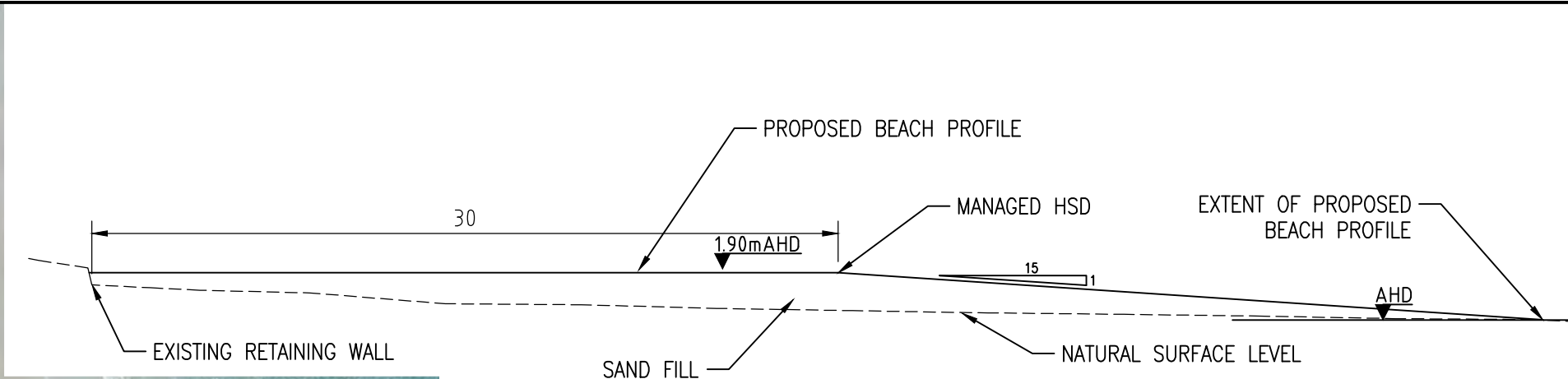
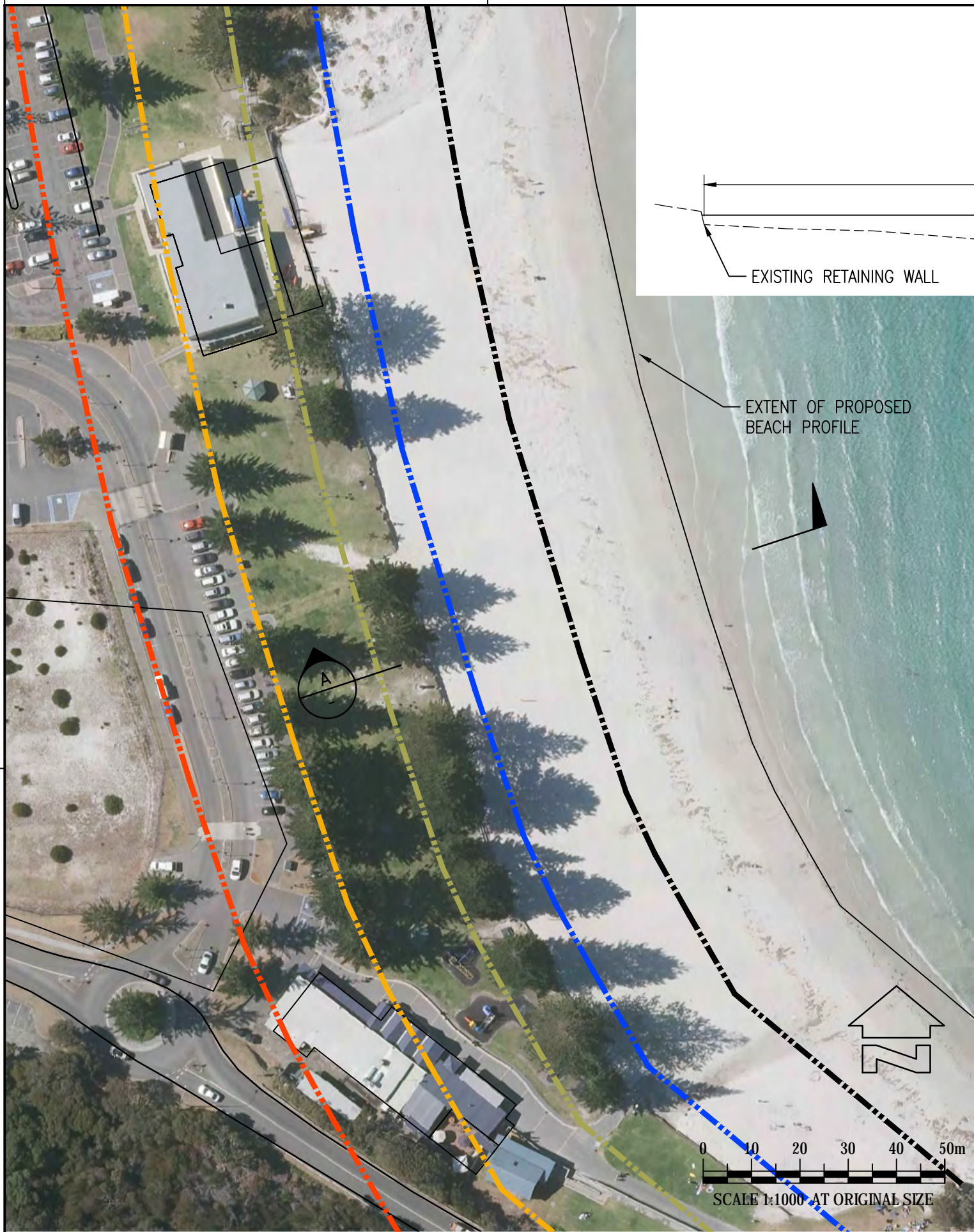
1. AERIAL PHOTOGRAPH FROM 2014.



AT CORRECT SCALE THIS IS 100 mm

Appendix B Coastal Hazard Mapping – Increased Beach Elevation

AT CORRECT SCALE THIS IS 100 mm



SECTION A
1:250

LEGEND:

- MANAGED HSD
- 25YR VULNERABILITY – MANAGED HSD
- 50YR VULNERABILITY – MANAGED HSD
- 75YR VULNERABILITY – MANAGED HSD
- 100YR VULNERABILITY – MANAGED HSD

NOTES:

1. AERIAL PHOTOGRAPH FROM 2014.
2. THE PROPOSED BEACH PROFILE WOULD NEED TO BE MONITORED AND MAINTAINED IN ORDER FOR THE SHOWN VULNERABILITY LINES TO BE VALID.

AT CORRECT SCALE THIS IS 100 mm

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Appendix C

Middleton Beach Coastal Management Strategy

R833 Rev 2

March 2018

LandCorp

**Middleton Beach
Coastal Management Strategy**

marinas

boat harbours

canals

breakwaters

jetties

seawalls

dredging

reclamation

climate change

waves

currents

tides

flood levels

water quality

siltation

erosion

rivers

beaches

estuaries

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K1265/1, Report R833 Rev 2 Record of Document Revisions

Rev	Purpose of Document	Prepared	Reviewed	Approved	Date
A	Draft for MRA review	C Doak	M Rogers	C Doak	5/12/16
B	Draft for Stakeholder review	C Doak	M Rogers	C Doak	9/12/16
0	Issued for Client use	C Doak	M Rogers	C Doak	11/8/17
1	Proposed foreshore sections updated	C Doak	T Hunt	C Doak	6/9/17
2	Minor updates incorporated	C Doak	T Hunt	C Doak	9/3/18

Form 035 18/06/2013

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Table of Contents

1. Introduction	4
2. Requirement for Coastal Management	5
2.1 Maintaining the Coastal Reserve	5
3. Proposed Foreshore Management Approach	7
3.1 Response to Coastal Inundation Risk	7
3.2 Response to Coastal Erosion Risk	10
4. Conclusion	18
5. References	19
6. Appendices	20
Appendix A Proposed Foreshore Sections	21

Table of Figures

Figure 2.1	Proposed Foreshore Plan	6
Figure 3.1	Potential Inundation Extents for each planning horizon based on current concept	9
Figure 3.2	Concept Design of Coastal Protection	11
Figure 3.3	City of Albany Beach Monitoring Profiles	16

Table of Tables

Table 3.1	500 year ARI inundation levels for different planning timeframes	8
Table 3.2	Relevant Overtopping Rate Limits (EurOtop 2016)	12
Table 3.3	Calculated Overtopping Rates at the Coastal Protection Structure for Safety of Infrastructure	13
Table 3.4	Calculated Overtopping Rates at the Coastal Protection Structure for Public Safety	13

1. Introduction

The development of Middleton Beach Activity Centre seeks to further enhance the amenity of the Middleton Beach Foreshore, within Ellen Cove, through the development of a hotel combined with commercial and residential development. The enhancement of the foreshore landscaping is a significant aspect of this development, in order to ensure that the overall amenity of the area befits that of a regional destination and is appealing to locals and tourists alike.

The development of a foreshore landscaping plan has been led by the City of Albany, together with consultant landscape Architects from AECOM. Some of the key objectives of this plan are as follows.

- Retain the Norfolk Pines as they are considered a key part of the identity of the area.
- Enhance the connection between the foreshore area and the beach.
- Minimise, where possible, the impacts of windblown sand on the foreshore area.
- Ensure an activated foreshore is retained into the future.

Specialist coastal and port engineers M P Rogers and Associates Pty Ltd (MRA) were engaged by LandCorp to provide input during the preparation of the landscape plans, with particular emphasis on the coastal engineering aspects. Further to the assistance provided on the preparation of the landscaping plans, MRA were also engaged to prepare a coastal management strategy to outline the future requirements for the management of the coastline in this area. This strategy includes details on both the requirement for coastal management, as well as the proposed foreshore management approach. It is intended that this coastal management strategy will ultimately form part of an overall foreshore management plan for the area, which will also consider other items such as flora and fauna issues.

2. Requirement for Coastal Management

The requirement for coastal management within Ellen Cove is born from the results of the coastal hazard assessment as outlined in MRA (2015). The coastal hazard assessment, completed in accordance with the requirements of SPP2.6, highlighted that the foreshore area could be at risk of impact from coastal erosion and/or inundation over the coming 100 years.

In consideration of this risk, the City of Albany, as the authority responsible for the current and future management of the foreshore, together with relevant stakeholders, have undertaken an assessment of the future requirements for this area. This assessment highlighted that the Middleton Beach Foreshore within Ellen Cove represents a significant community asset that is seen by many to be the preeminent coastal precinct in the greater Albany region. The development of the Activity Centre, as proposed, would further enhance this status.

Given the above, AECOM have completed foreshore landscape planning in consultation with the City of Albany. This planning has been completed to ensure the foreshore provides the level of amenity required for such an asset. In particular, the foreshore plan has also sought to address existing issues that are currently experienced with the foreshore, such as windblown sand and stormwater drainage.

The proposed foreshore plan for the foreshore fronting the Middleton Beach Activity Centre is provided in Figure 2.1. Preliminary cross sections through the foreshore are attached in Appendix A.

As shown in the preliminary cross sections, which incorporate coastal protection, the decision has been made that the foreshore area requires protection to ensure the recreational and amenity values of the foreshore are preserved into the future.

2.1 Maintaining the Coastal Reserve

Maintenance requirements for the coastal reserve will ultimately depend on the future behaviour of the coastline. The assessment of the potential coastal hazards presented in MRA (2015) was completed in accordance with the requirements of SPP2.6.

SPP2.6 incorporates a justifiably conservative methodology in order to ensure that the siting of future development or assets is cognisant of potential future hazards, even those with a very low likelihood of occurrence. As a result, it is important to understand that the coastal hazard lines provided in MRA (2015) are not predictions of the future shoreline location. In this regard, the full requirements for maintaining the coastal reserve will need to be informed by ongoing shoreline monitoring. This monitoring will inform both the requirements for the maintenance of the beach in front of the Middleton Beach Activity Centre, as well as the requirements of the ongoing protection of the landscaped foreshore area behind the coastal protection. Further details on both of these aspects are outlined in the following section.



LEGEND			
	PRECINCT BOUNDARY		GRASSING
	ASPHALT PATH		GRASSED WALL TERRACES
	DECKED PROMENADE ACTIVITY NODE		PLAY ACTIVITY NODE PLAYSAND UNDER
	DECKED RAMP ACCESS TO BEACH		FORMALISED DUNAL PATHWAY & ASSOCIATED FORESHORE FENCING
	STORMWATER BIO-RETENTION SWALE MASS PLANTING		SEATING WALL 500 HIGH TYPICAL
	INSITU CONCRETE PAVING		EXISTING / RELOCATED PLAY STRUCTURE PLAYSAND UNDER
	EXISTING TREES TO BE RETAINED + PROTECTED TRANSLOCATE SELECT SPECIMENS		

Figure 2.1 Proposed Foreshore Plan
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3. Proposed Foreshore Management Approach

Any foreshore management strategy that is developed for Middleton Beach needs to be sensitive to the constraints associated with the development of the foreshore. The significance of the Norfolk Pines and the requirement for them to be retained limits what can be done in terms of increasing the elevation of the foreshore. Furthermore, the requirement for a high aesthetic value and for a continuous access to the beach that isn't interrupted by an emergent and cumbersome coastal protection structure limits the available coastal protection options. The requirement to be able to assist in the management of windblown sand also needs to be considered.

The above factors ultimately limit the potential design response, however all these factors have been considered throughout the development of the coastal management strategy.

The proposed approach to the management of the foreshore will consist of a number of different elements and actions. Specifically, the coastal management strategy will comprise the following key items.

- Construction of an overall coastal protection structure that predominately provides protection against coastal erosion.
- Increasing the elevation of the foreshore area (where possible) and the finished floor levels of new development to minimise the future risk of inundation.
- Ongoing management of beach levels and windblown sand to prevent significant adverse impacts from windblown sand on the foreshore area.
- Importing beach nourishment material to replenish the beach if needed in the future.

These management requirements can be spilt into two categories, those that are capital requirements and those that are operational or maintenance requirements.

Construction of the coastal protection structure and the increase in the elevation of the foreshore are capital requirements, while the management of the beach and windblown sand and the potential requirement for beach nourishment are both operational or maintenance requirements.

The capital requirements of the management strategy have been captured in the foreshore plan at a concept level. This plan was presented in Figures 2.1 and Appendix A.

3.1 Response to Coastal Inundation Risk

To overcome the risk associated with coastal inundation, the foreshore concept plans identify an increase in the elevation of the foreshore area. Nevertheless, this increase in the foreshore elevation is limited by the elevation of the Norfolk Pines. Therefore, proposed development areas, such as the hotel site will be increased to a level beyond what is possible for the foreshore to meet the requirements of SPP2.6.

SPP2.6 requires that commercial and residential development be located above the level expected during a 500 year Average Recurrence Interval (ARI) inundation event at the end of a 100 year planning horizon (2115). For foreshore areas the onus is on the responsible management authority to determine the elevation requirements based on the acceptable level of risk for the assets provided within the foreshore.

Due to the effects of sea level rise, the potential for coastal inundation changes over time. As outlined within MRA (2015) the estimated 500 year inundation level at Middleton Beach increases from 1.89 mAHD in 2015 to 2.79 mAHD in 2115 (refer Table 3.1).

Table 3.1 500 year ARI inundation levels for different planning timeframes

	2015	2040	2065	2090	2115
Total Water Level (mAHD)	1.89	2.01	2.22	2.49	2.79

Given the increase in the potential inundation levels associated with sea level rise, it follows that the potential for inundation of the foreshore will also change over time. The proposed foreshore concept plan has therefore been annotated to show the extent of inundation that would be possible during the 500yr ARI event at each of the different planning timeframes. These extents of potential inundation are shown in Figure 3.1.

The plots of the potential inundation areas show that the proposed development areas would not be impacted by coastal inundation. For the remainder of the foreshore, it is arguable that even in 2065 the potential impacts of inundation would be largely insignificant given the 500 year ARI event has an annual probability of occurrence of only 0.2%.

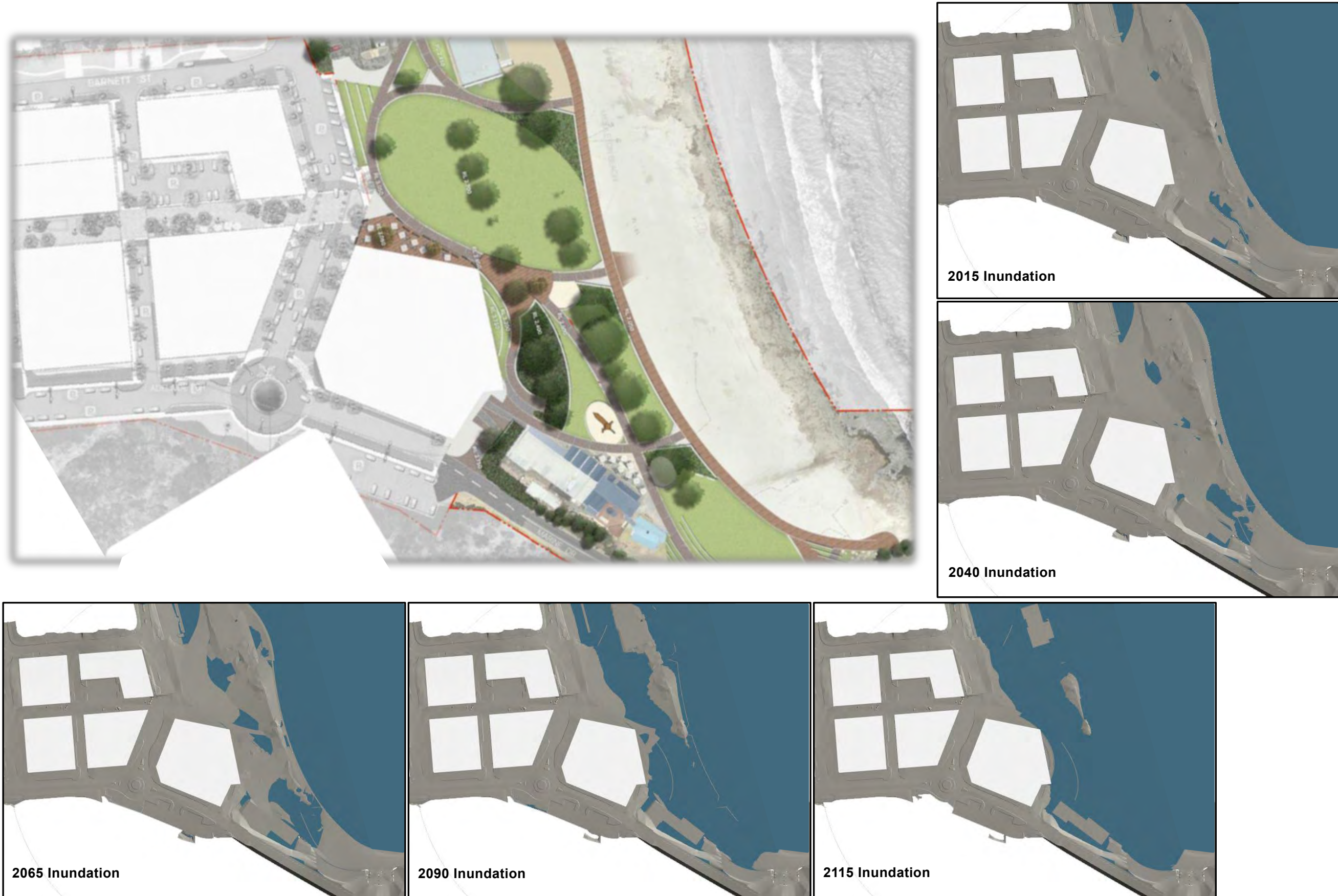


Figure 3.1 Potential Inundation Extents for each planning horizon based on current concept

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3.2 Response to Coastal Erosion Risk

Management of the foreshore is required to mitigate the risk of future coastal erosion. The management requirements are twofold. First, there is a requirement to protect the valuable foreshore area from the impacts of erosion – particularly that associated with severe storm erosion. Second, there is the requirement to manage the beach itself so that a useful beach area can be maintained into the future.

3.2.1 Concept Design of Coastal Protection

Given the constraints outlined previously, the design of the coastal protection needs to be as unobtrusive as possible. Whilst the ultimate design of the coastal protection will be determined at the detailed design stage, it is anticipated that this design will be consistent with the general requirements outlined within this foreshore management strategy. It is expected that the coastal protection will be comprised of the following key elements.

- A buried rock revetment to prevent toe scour.
- A vertical wall component to increase the crest level of the structure to limit wave overtopping and to catch windblown sand.
- A generous setback distance to significant infrastructure to limit the potential for damage as a result of wave overtopping.

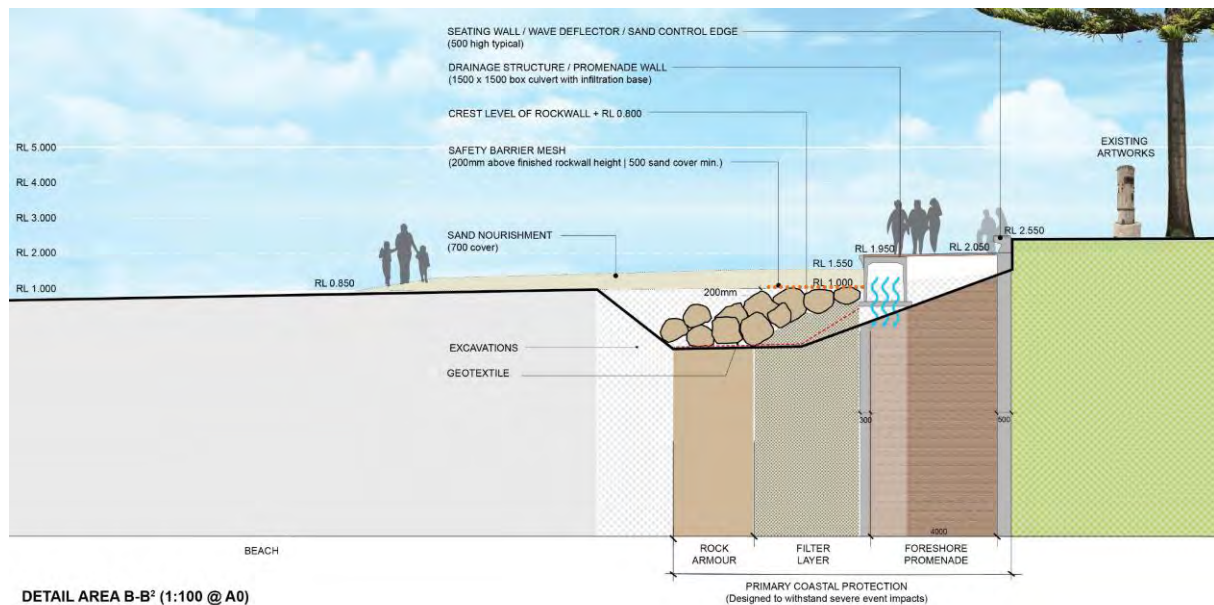
The impact of sea level rise on the design of the coastal protection structure is something that also needs to be considered, however given the sensitivity regarding changes in the elevation of the foreshore, it is not considered practical to respond to the full extent of sea level rise in the present day. Instead, it is proposed that the design of the foreshore protection be completed for a 50 year planning horizon, with the opportunity to retrofit the design thereafter to account for additional sea level rise. This methodology will help to ensure that there is a more seamless connection between the beach and foreshore in the short to medium term. Furthermore, it is expected that the design of the foreshore area will be modified, if not revised over the coming 50 years. As a result, retrofitting of the coastal protection could be completed at these times, particularly since retrofitting the coastal protection may only require the addition of another layer of armour rock and an increase to the elevation of the promenade and/or the seating wall.

Whilst a 50 year planning horizon has been specified for the initial design of the coastal protection, it should be noted that the structure must still be designed to be able to withstand a 100 year ARI design event. This is a requirement of SPP2.6.

The coastal protection design shown in Figure 3.2 has been developed in consultation with AECOM. This cross section illustrates the generally seamless relationship between the foreshore and beach that results from the proposed design. Essentially, the main premise of the design is that the rock revetment portion of the structure would be buried under the beach and would provide a last line of defence, akin to an insurance policy, against severe storm erosion.

An innovative design approach has also been adopted whereby the main vertical wall section would form part of a culvert that would ultimately seek to divert and/or infiltrate stormwater drainage that would otherwise flow over the beach (subject to detailed design). Additionally, to minimise the height of the main vertical wall, and promote the relationship with the beach, it is proposed that an initial low level promenade be provided which would be backed by a seating wall. This seating wall would double as a small wave deflector that would ultimately help to reduce the extent of wave overtopping. Minimisation of the wave overtopping is important, to

minimise the potential for damage to the adjacent foreshore and development areas. This will be the critical issue for the design of the coastal protection given the elevation limitations previously discussed.



The following are the key elements of the coastal protection design that are to be incorporated into the detailed design.

- The foundation level of the culvert must extend sufficiently below the crest elevation of the seawall to prevent scour of the foundation.
- The toe of the revetment shall be deep enough to prevent undermining during the design event.
- The seating/wave deflector wall shall have an appropriate foundation to prevent overturning if exposed to wave impact.
- The pathway section from the culvert to the seating/wave deflector wall must form a continuous defence against wave action.
- All reinforced concrete products need to meet the durability requirements as outlined in the relevant Australian Standards for the expected design life of the structure.

Figure 3.2 Concept Design of Coastal Protection

Wave Overtopping

When considering the potential for wave overtopping there are two key factors that need to be assessed. First is the potential for structural damage during the design event. Second is the safety of the public during wave overtopping events. However, an important distinction in the case of public safety, is that it is highly unlikely that pedestrians would be present in the foreshore area during very severe events. The primary reason for this is because it would be physically uncomfortable for them to be there due to the high wind speeds. For instance, the Beaufort Scale (BoM, 2015) states that a person's progress is significantly impeded when wind speeds exceed 63 to 75 km/hour. According to AS1170.2, wind gusts of this magnitude occur in the 1 year ARI event, although sustained wind speeds over a 1 minute period would require around the 5 year ARI event. As a result, the 5 year ARI event should be used to consider public safety.

Wave overtopping calculations are typically completed using the EurOtop (second edition – 2016) method for calculation of wave overtopping. Wave overtopping levels are generally assessed versus tolerable overtopping limits that have been determined based on a number of different investigations and observations. Table 3.2 presents the relevant tolerable overtopping limits as presented in EurOtop.

Table 3.2 Relevant Overtopping Rate Limits (EurOtop 2016)

Hazard Type and Reason	Mean Discharge (l/s per m)
Damage to Grass Covered Area: wave height 1-3 m	5
wave height <1 m	5-10
wave height 0.3 m	No limit
Damage to building structural elements (Wave height 1-3 m)	<1
Damage to equipment set back 5 – 10 m	<1
People at seawall with a clear view of the sea: wave height = 3 m	0.3
wave height = 2 m	1
wave height = 1 m	10-20
wave height = 0.5 m	No limit

In order to prove the suitability of the proposed coastal management strategy, preliminary calculations have been completed to determine the expected overtopping rates. These overtopping rates have been assessed for both the 100 year ARI event, for the assessment of infrastructure protection, and the 5 year ARI event, for the assessment of public safety. Note that for the assessment of public safety, the overtopping rates have been calculated for the both the lower promenade as well as at the rear of the wave deflector wall.

It should be noted that wave overtopping calculations are particularly sensitive to both the wave height and water level. As a result, a sensitivity analysis has been included to assess the impacts of both the design wave event and the design water level event. Based on the joint probability, assessment of, say, the 100 year ARI wave event and the 100 year ARI water level event together would be far more severe than the 100 year ARI event. Therefore a general rule of thumb has been used for this concept assessment which suggests that, from experience, a 5:1 ratio is generally appropriate for event severity. In other words, a 5 year ARI design wave height could be accompanied by a 1 year ARI water level, and so on. The validity of this assumption would need to be reviewed at the detailed design stage.

The results of the initial assessment of the wave overtopping levels are presented in Table 3.3 for the protection of infrastructure, and Table 3.4 for public safety.

Table 3.3 Calculated Overtopping Rates at the Coastal Protection Structure for Safety of Infrastructure

Assessed Condition	Wave Condition	Water Level Condition	Hs at Wall (m)	WL at Wall (mAHD)	Overtopping Rate – Behind Wave Deflector Wall (l/s/m)	Overtopping Rate – At Hotel Site (l/s/m)
Present Day	100 yr ARI	20 yr ARI	0.60	1.86	0.05	0.000
Present Day	20 yr ARI	100 yr ARI	0.66	1.91	0.147	0.002
2065 (0.33m SLR)	100 yr ARI	20 yr ARI	0.85	2.17	2.178	0.036
2065 (0.33m SLR)	20 yr ARI	100 yr ARI	0.88	2.20	2.953	0.049

Table 3.4 Calculated Overtopping Rates at the Coastal Protection Structure for Public Safety

Assessed Condition	Wave Condition	Water Level Condition	Hs at Wall (m)	WL at Wall (mAHD)	Overtopping Rate – Lower Promenade (l/s/m)	Overtopping Rate – Behind Wave Deflector Wall (l/s/m)
Present Day	5 yr ARI	1 yr ARI	0.48	1.64	41.0	0.002
Present Day	1 yr ARI	5 yr ARI	0.41	1.65	29.9	0.000
2065 (0.33m SLR)	5 yr ARI	1 yr ARI	0.72	2.01	191.2	0.414
2065 (0.33m SLR)	1 yr ARI	5 yr ARI	0.65	1.99	159.3	0.159

Based on this concept level investigation, the wave overtopping calculations show the following.

- Overtopping levels to 2065 should not reach a level that causes damage to grassed areas behind the wave deflector wall as a direct consequence of the overtopping action.
- Overtopping levels to 2065 would not have any impact on the proposed hotel development location.

- It would not be safe for the public on the lower promenade during the 5 year ARI event. This would need to be managed to ensure that users of the area are aware of the risks during severe events, despite the fact that they are unlikely to be there during such an event.
- Overtopping levels to 2065 for the area behind the wave deflector wall would be safe for pedestrians during the 5 year ARI event.

It should be noted that the above outcomes are on the basis that the detailed design of the coastal protection structure ensures that the rock revetment, main vertical wall and wave deflector wall are all appropriately designed to withstand the expected wave loading. This will be a crucial element of the detailed design for these structures.

Future Maintenance Requirement of Coastal Protection Structure

Coastal protection structures require maintenance to ensure that they continue to provide the requisite level of protection. The extent of maintenance required generally depends on the exposure of the structure. If a structure is constantly exposed to conditions that are similar to those that it was designed for, then the extent of maintenance will generally be comparatively larger than for a structure exposed to conditions that are less severe.

The exposure of the proposed coastal protection structure is not expected to be severe at least in the short to medium term. This is due to the fact that the structure will be located at the rear of the beach, with a large portion of the structure buried under the beach. As a result, maintenance requirements due to the action of the ocean are not expected to be significant.

The requirement for any maintenance to be completed should be informed by monitoring of the structure. After any severe storm event that exposes the structure an inspection should be completed. This inspection should focus on the overall condition of the structure, noting any departures from the design. This could include displacement of armour rocks from the revetment, or settlement of the vertical (culvert) wall, etc. Any such defects should be noted and reviewed by a qualified coastal engineer to determine the requirements for repair and maintenance.

3.2.2 Future Shoreline Management Requirements

The Middleton Beach shoreline within Ellen Cove is a modified shoreline. The natural dune system has been removed in this area and an artificially wide flat section of beach has been created. As a result of this modification to the natural beach profile, ongoing management of the area is required, particularly with regard to windblown sand.

Given the above, there will be an ongoing requirement for management of the shoreline into the future given that this artificially wide section of beach is to be maintained as part of the proposed foreshore design. As a result, windblown sand will need to be regularly managed, both from the beach interface with the vertical wall, as well as from the lower promenade area.

Throughout this management of the windblown sand, it will be important to ensure that the elevation of the beach is also maintained. This will be important for the following reasons.

- To maintain an adequate level of sand cover over the buried revetment wall.
- To minimise the increase in the level of the beach against the vertical wall to prevent significant increases in windblown sand over the initial vertical wall.

- To ensure that the elevation difference between the top of the vertical wall and the beach does not reach a point where the fall is so great that a handrail would be required along the edge of the vertical wall.

It is noted that the above points are conflicted in terms of there being requirements to both increase and decrease the elevation of the beach depending on which aspect is being considered. The corollary of this is that a balanced outcome must be achieved. The future management of the beach will therefore need to maintain the beach elevation within a range that is deemed acceptable.

As part of this ongoing maintenance of the beach level, it is noted that, in the future, there may be the requirement for nourishment of the beach to occur in response to shoreline erosion. Presently, as outlined in MRA (2015), the shoreline within Ellen Cove and the area to the north has experienced a chronic accretion trend. The City has therefore been using beach material from this area to nourish the Emu Point Beach, which has been eroding.

In light of the proposed foreshore development it is recommended that this practice of extracting sand from Ellen Cove for the nourishment of Emu Point be reviewed, as continued extraction may impact the stability of the Ellen Cove shoreline in the medium to long term. This is on the basis that the shoreline is expected to begin to erode in response to sea level rise, so the greater the buffer (ie the wider the beach) that can be formed before sea level rise may become more of an issue, the less future management will be required.

Ultimately however, the requirement for beach nourishment would be informed by beach monitoring. Beach monitoring is already completed by the City of Albany on a quarterly basis at selected profiles along the coastal compartment between Middleton Beach and Emu Point (at the locations shown in Figure 3.3). Analysis of this monitoring will enable the early identification of changes in beach widths that can be used to determine when remedial actions may be required. Nevertheless, the number of beach monitoring transects within Ellen Cove should ideally be increased to monitor the area immediately in front of the proposed foreshore development. It is recommended that an additional 4 profiles should be monitored within Ellen Cove, using around 50 m spacing between transects. Ideally, monitoring of these additional profiles should begin prior to the commencement of the foreshore works in order to establish a baseline.



Figure 3.3 City of Albany Beach Monitoring Profiles

If sand nourishment is to be completed, the nourishment material should be assessed to ensure that it is of sufficient size and character to prevent it being eroded more readily than the native material. Within the Albany region, there are two known sources that could be suitable for use as beach nourishment. The first source is a white quartzite sand that is currently used for compaction sand. It is understood that this material is extracted from a terrestrial sand dune. The grain size of this material is reasonably fine, however it may be possible to selectively target areas with a larger grain size in order to achieve a better outcome.

The second option for the nourishment material would be to use a lime sand. This material has a much larger grain size than the native beach material, and is also a slightly more yellow colour, however the increased grain size, depending on the density of the grains, could promote stability of the nourishment and may therefore be beneficial. The colour difference between this material and the native beach material would also be less of an issue after the material is reworked by the waves and mixed with the native material.

Whilst these two options are known, it is expected that other options could be offered as part of any tender process to procure nourishment material. As such, any tender process should require samples of the proposed material to be provided with the submission, together with particle size distributions so that the suitability of the material can be assessed. In this regard, it is not appropriate at this stage to provide limitations on potential grain sizes for nourishment material. Assessment of the best nourishment source should be made based on a multi-criteria assessment that considers the unit cost of the material relative to the overfill factor (an estimate of the volume of nourishment material required to replace a unit of the native beach material as defined within USACE, 2006) of the respective grain size. Other factors such as material colour and aesthetics should also be considered within the assessment.

When it comes to the placement of the beach nourishment, the material should be placed in a manner that best matches the natural beach profile and alignment. This minimises the amount of reworking of the nourishment, which reduces the loss of material, but also reduces potential safety issues associated with the creation of steep erosion scarps within the nourishment, which can become unstable. Throughout this process, allowance should be made for the reasonably rapid loss of nourishment initially as the material is reworked. The extra volume of material required to achieve the desired outcome will need to be determined based on the type of material that is used, the timeframe for placement and the overall geometry of the placed material.

4. Conclusion

This coastal management strategy has been prepared to form part of the overall Foreshore Management Plan for the Middleton Beach area. The strategy provides details on the proposed approach for the ongoing management and protection of the foreshore area. This is on the basis that the foreshore area is considered to be a valuable regional community asset that the City of Albany, as the responsible management authority, have chosen to protect. To augment this protection, management actions will also need to be completed, in particular those to manage and maintain the beach that fronts the activity centre.

The proposed approach to coastal management responds to potential risks associated with coastal erosion and inundation hazards over at least the next 50 years. Thereafter, a retrofit of the coastal protection could provide protection for the ensuing period. Using this approach the usefulness of the foreshore, and the more intimate relationship with the beach and ocean, is maximised in the short, medium and long term. This approach also provides the necessary level of protection for the proposed development (the hotel, commercial and residential development) in response to coastal hazard risk. The risk to pedestrians and public safety is also managed, however it is noted that under severe storm conditions where waves are impacting the vertical wall, the lower promenade along the beach could be unsafe for pedestrians due to wave action. This risk should be acknowledged by the City and others, with steps taken to notify users of the risks during these events.

5. References

MRA, 2015. *Middleton Beach Activity Centre – Coastal Hazard Risk Management & Adaptation Plan*. Report 684 Rev 0 prepared for RPS/ LandCorp.

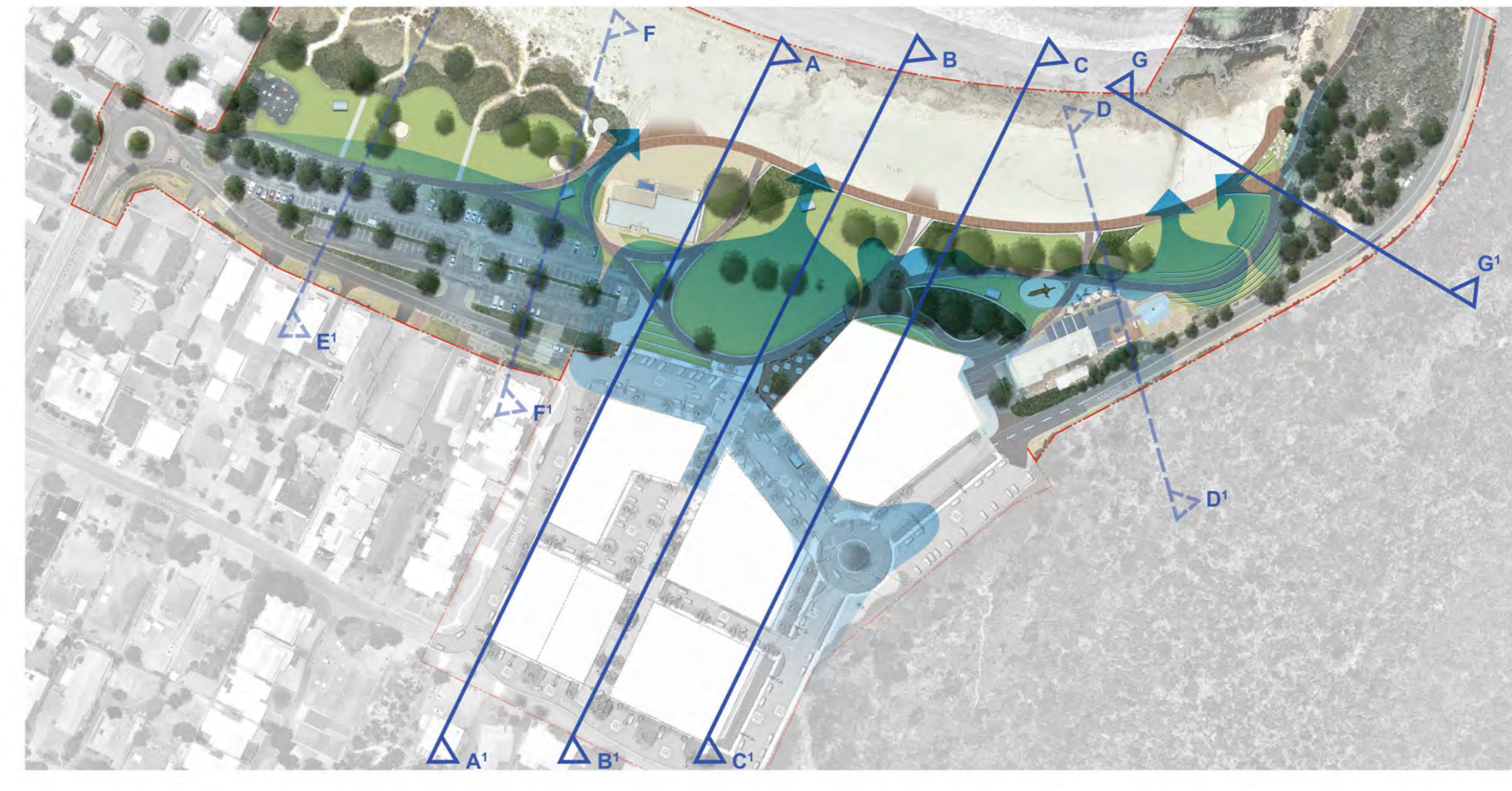
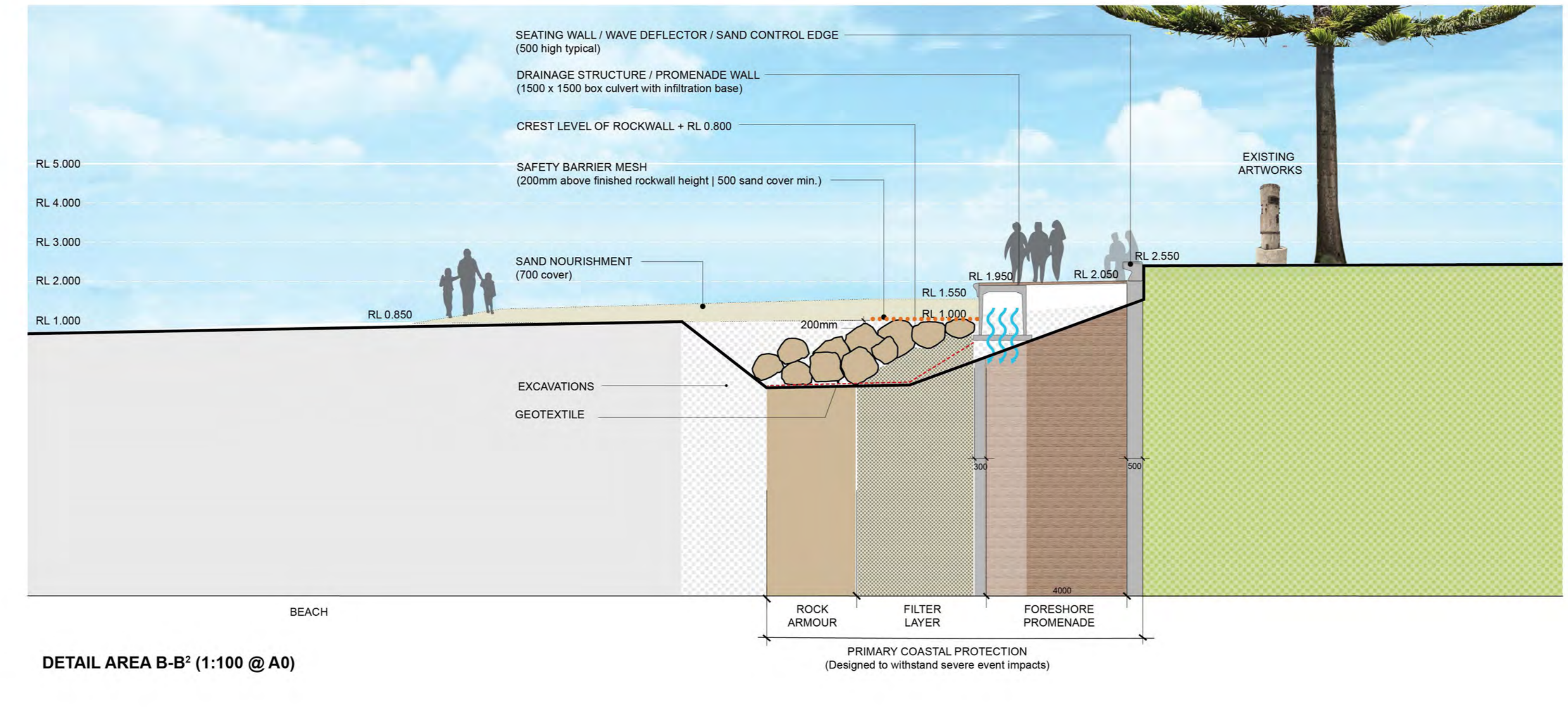
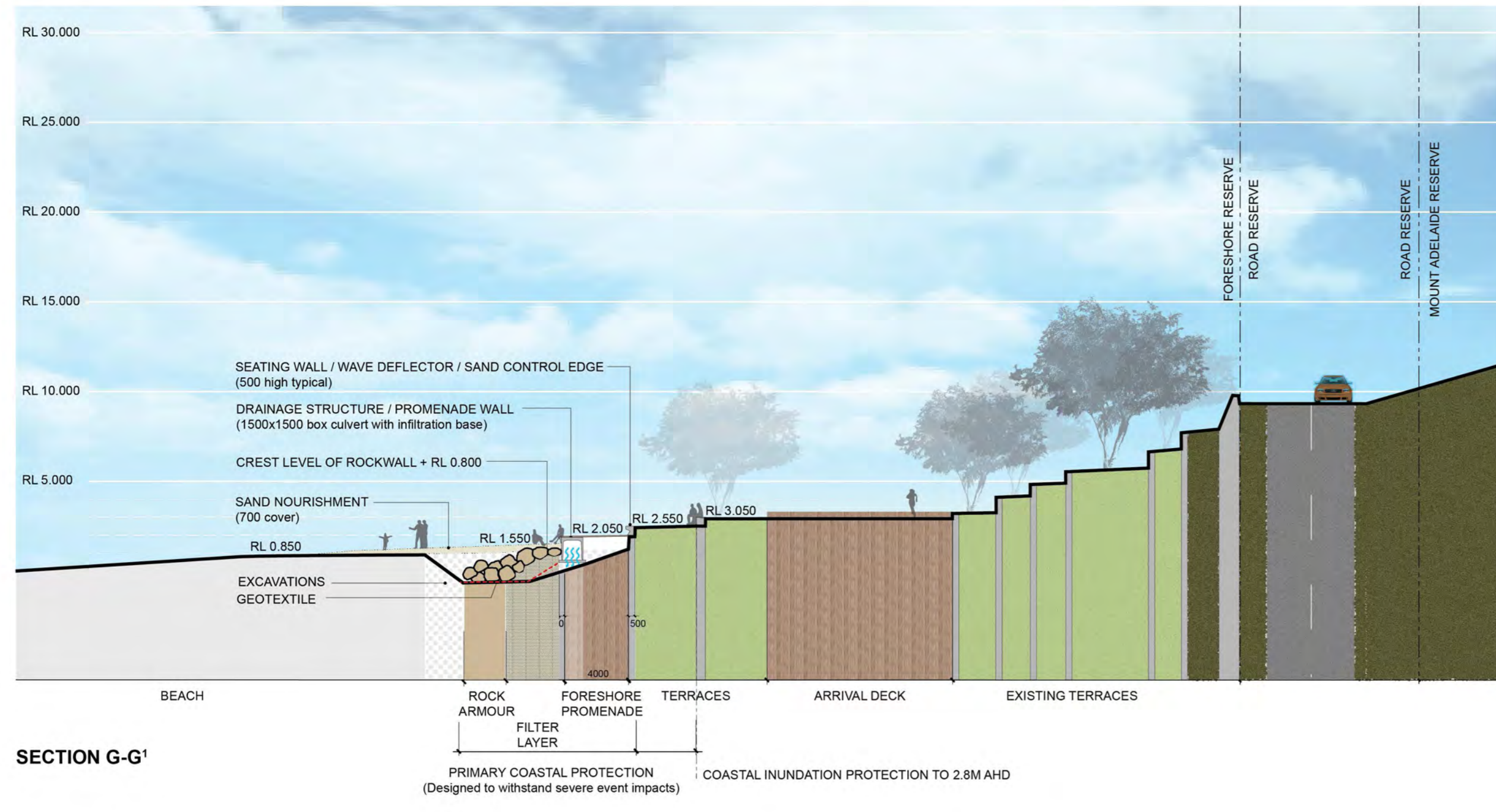
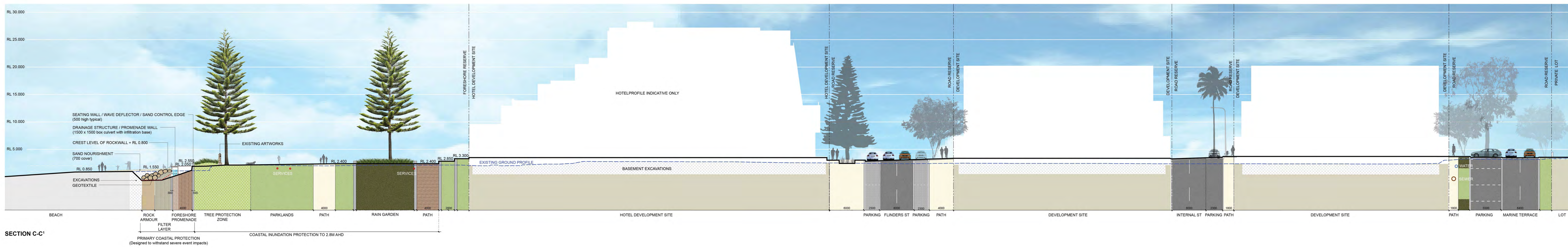
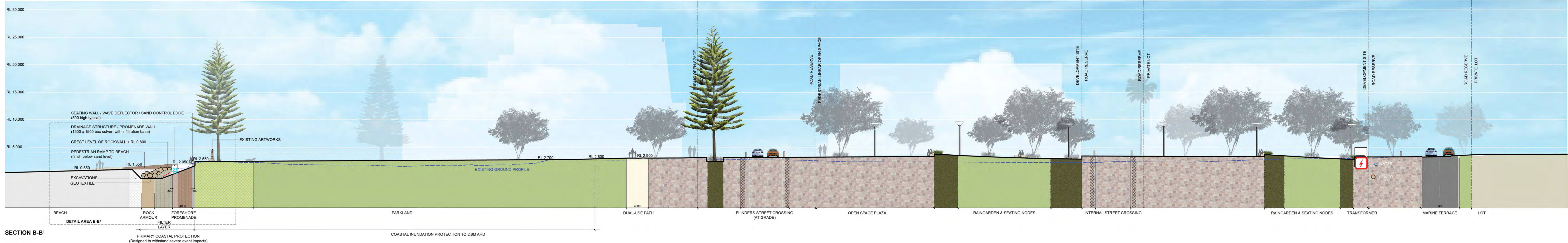
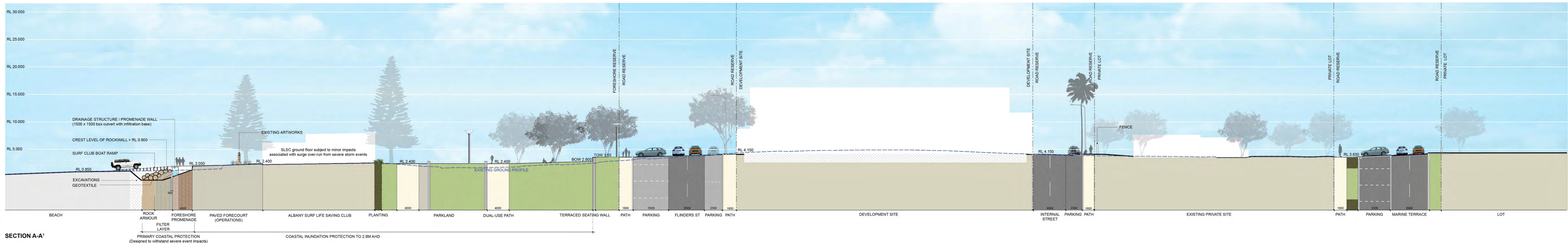
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6. Appendices

Appendix A Proposed Foreshore Sections

Appendix A Proposed Foreshore Sections



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Appendix D

Middleton Beach Landscape Management Plan



MIDDLETON BEACH FORESHORE

LANDSCAPE MANAGEMENT PLAN

15.03.2018

Albany | Western Australia

Prepared for:

City of Albany

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Document: Middleton Beach Landscape Management Plan

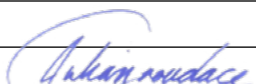

Reference: P:\604X\60444998\6. Draft Docs\6.1 Reports\ Middleton Beach LMP Report.indd

Date: 21/9/2016

Prepared by: Ting Liu & Max Marshall

Reviewed by: Julian Croudace

Verified by: Faron Mengler

REVISION	DATE	NAME	SIGNATURE	NAME	SIGNATURE
V1	21 September 2016	Julian Croudace		Faron Mengler	
V2	04 October 2016	Julian Croudace		Faron Mengler	
V3	16 August 2017	Julian Croudace		Faron Mengler	
V4	13 March 2018	Julian Croudace		Faron Mengler	

Contents

Introduction	4
Implementation Extents	5
Aerial Perspective East	7
Aerial Perspective South	9
Context and Linkages	10
Purpose and Objectives	12
Existing Conditions	19
Existing Conditions Imagery	21
Opportunities Activation Precincts	23
Site: Existing	24
Precinct Master Plan	25
Enhancement Plan	27
Illustrative Renders	29
Stormwater Management	33
Illustrative Site Sections	35
Hardscape Materials	43
Furniture Suite	45
Shelters & Decks	47
Artworks, Play & Interpretation	49
Planting Palette Trees	51
Planting Palette Understorey	53
Lighting Event Support	55
Appendix A Materials Construction Details	56

Introduction

CONTEXT

Middleton Beach is a coastal suburb of Albany, Western Australia. Located approximately 4km east of the city centre, the Middleton Beach Foreshore serves as a popular destination for the people of Albany and surrounding communities.

Middleton Beach is bounded by Wollaston Road and the Albany Golf Course to the north, King George Sound to the east and Heritage Park to the west and south. It's coast is protected by King George Sound, therefore the Southern Ocean's waves do not usually reach these sheltered waters. The foreshore precinct possesses one of Albany's few flat, green public open spaces for unstructured use.

The foreshore beachfront is highly valued for swimming, walking, sunbathing, reading and exercising amenity, whereas inland of the foreshore, activities such as play, cafe and dining as well as cycling. The wide active beachfront offers large areas of setback and shaded quiet places with existing facilities. The landscape environment varies, from the calm refuge of Ellen Cove to the active surfing banks to the north - there is something on offer for all that visit.

General population growth within the Great Southern (Western Australia), coupled a senior age migration from Perth and surrounds, emphasises the potential for Albany to develop its brand and grow as a première regional and tourism centre. Tourist activity has gained momentum with the recent launch of the ANZAC Centenary Commemorations and infrastructure upgrades upon the adjacent Mt. Clarence and Mt. Adelaide, as well as the newly reconstructed lookout at the Gap situated within the Torndirrup National Park. These award-winning bodies of landscape architectural, cultural and tourism work is drawing more visitors to explore Albany and its environs annually.

Landcorp's recent land acquisition and proposal for the Middleton Beach Activity Centre will create a mixed-use activity node directly adjacent to the Middleton Beach Foreshore precinct. The proposal, when considered alongside the Middleton Beach Foreshore site potential, offers a unique opportunity to plan, design and enhance the two collective spaces within a cohesive methodology in order to deliver a world-class Foreshore Precinct to further promote Albany's community engagement and tourism economy.

PROJECT OVERVIEW

The City of Albany requires an Enhancement Plan for the Middleton Beach Foreshore which incorporates the Activity Centre development. The plan will guide current and planned investment in civil, coastal and public realm infrastructure within the precinct, and integrate landscape management strategies across both projects to maximise community benefit.

The plan defines urban design, place development and landscape management outcomes that will set a strong strategic direction for the Middleton Beach Foreshore Precinct. A key to the success of the plan will be maintaining its unique landscape character and natural assets, whilst enhancing lifestyle, tourism and increased patronage. This project will form the initial part of a wider Foreshore Management Plan that the City of Albany is positioning as part of a long-term vision and management framework for this part of the coastline.

SITE APPRECIATION

A key naturalistic feature of the site is the rugged near-coastal topography of the Mounts Precinct bushland. This superb, natural and cultural quality provides a dramatic backdrop to the site but also presents bushfire, wayfinding and access challenges within developing management strategies. Conversely, these challenges present opportunities to innovatively connect and integrate with adjacent assets and reinforce the activation of the foreshore.

The open lawn areas and large mature Norfolk Island Pine trees form integral features of the foreshore's character. Landscape management strategies for the public areas establish both the overall integrity of the precinct as well as its fine grain details, unifying the often disparate influences that have enabled the site to evolve over time. Using sustainable materials and methods, our strategies will help to enhance the unique character of the place, its arrival points, streetscape contribution, major gathering areas, spaces for quiet reflection, recreational pursuits and scenic vistas.



Implementation Extents





Aerial Perspective East



A. SHIPPING LANE INTERPRETIVE TRAIL
Heritage and arts interpretation | shared-use boardwalk | scenic connection to city centre & King George Sound | tourist attraction | education highlight

B. CHARLES DARWIN INTERPRETIVE WALK
Heritage interpretation | accessibility audit | wayfinding signage | maintenance improvements

C. ELLEN COVE JETTY
Heritage interpretation | accessibility audit | wayfinding signage | maintenance improvements

D. PROMENADE TERMINUS LOOKOUT
Heritage interpretation | conceals drainage outfall to rocky headland | wayfinding signage | sheltered passive recreation | seating | weddings venue

E. GRASSED TERRACES
Flexible and sheltered events space | local geology and heritage interpretation | picnic facilities

F. OPEN GRASSED AREAS
Flexible, open, sheltered, sunny parkland | events capacity | informal recreation | kick-about space | open vistas

G. THREE ANCHORS CAFÉ & PLAYSPACE
Retain key play elements | improved interface with outdoor activity area | improved drainage | storm surge protection | shared disabled parking space | convenient drop off | shared path connection

H. FORESHORE PROMENADE
Wide boardwalk covering drainage culverts | improved access to beach | surge and storm protection | integrated seating

I. HOTEL INTERFACE
walk up alfresco terrace | elevated beach views | shared path connections

J. ACTIVITY CENTRE INTERFACE
Seamless integration | views to ocean | universal access | connected cycling network | natural way finding | interpretive features | artwork

K. FLEXIBLE OPEN GRASSED AREAS
Open, shady parkland | events capacity | informal recreation | kick-about space | open vistas | picnic facilities

L. SURF CLUB FORECOURT
Extended operational lay down area | activated alfresco | multi-vehicle ramp | expanded surf boat storage

M. SURF CLUB FORECOURT
Extended operational forecourt | activated alfresco | multi-vehicle ramp |

N. SURF BOAT STORAGE
Earth sheltered surf boat storage | Dune lookout | Interpretive signage | play features | connected to dune path network | dune revegetation | integrated seating deck | skateable features

O. NATURE TRAIL NETWORK
Controlled beach access | weed management | dune revegetation | stabilisation | improved habitat and diversity | art and interpretive features

P. PICNIC FACILITIES
BBQs | seating | shelters | beach showers | kick about space | play features | universal access

Q. EXERCISE & PLAY EQUIPMENT
Integrate existing play facilities | exercise equipment | seating | shade | picnic facilities | kick about space

R. ARTIFICIAL SURF REEF ACCESS
Controlled beach access | weed control | dune revegetation | stabilisation | improved habitat and diversity | artificial surf break | active recreation | beach walk to Emu Point



after

before

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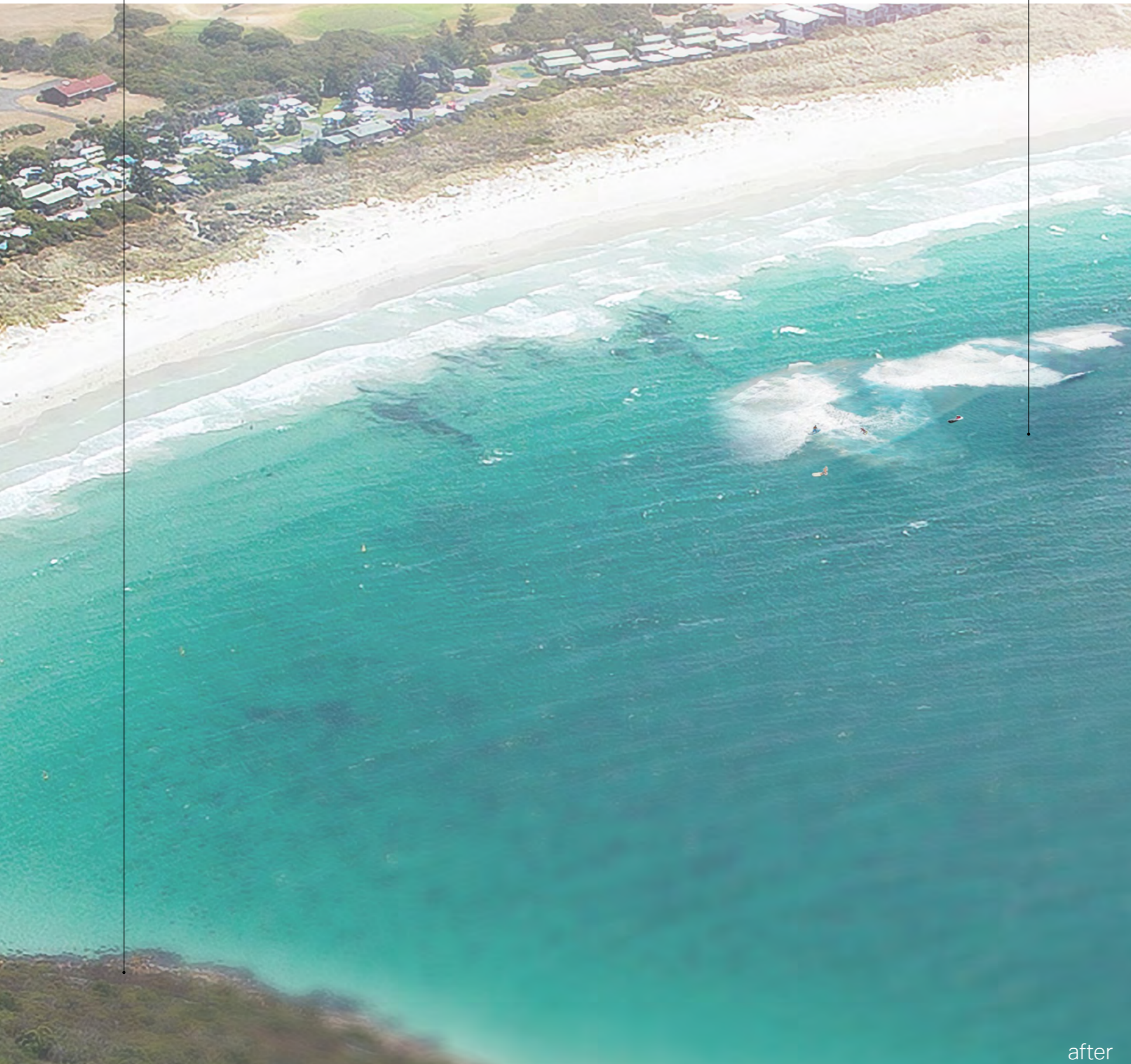
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Aerial Perspective South



A

R

A. SHIPPING LANE INTERPRETIVE TRAIL

Heritage and arts interpretation | shared-use boardwalk | scenic connection to city centre & King George Sound | tourist attraction | education highlight

B. CHARLES DARWIN INTERPRETIVE WALK

Heritage interpretation | accessibility audit | wayfinding signage | maintenance improvements

C. ELLEN COVE JETTY

Heritage interpretation | accessibility audit | wayfinding signage | maintenance improvements

D. PROMENADE TERMINUS LOOKOUT

Heritage interpretation | conceals drainage outfall to rocky headland | wayfinding signage | sheltered passive recreation | seating | weddings venue

E. GRASSED TERRACES

Flexible and sheltered events space | local geology and heritage interpretation | picnic facilities

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Flexible, open, sheltered, sunny parkland | events capacity | informal recreation | kick-about space | open vistas

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Retain key play elements | improved interface with outdoor activity area | improved drainage | storm surge protection | shared disabled parking space | convenient drop off | shared path connection

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after

before

Context and Linkages

HISTORICAL CONTEXT AND LINKAGES

Extending beyond the Middleton Beach Foreshore, the City of Albany exists as Western Australia's first settled town, being founded in late 1826.

During the First World War, the town played a significant role in the ANZAC legend, being the last port of call for troopships departing Australia in the First World War. This has defined the cultural significance of Albany, specifically the adjacent Mt. Adelaide & Mt. Clarence.

A historical Jetty, south of Middleton Beach and within Ellen Cove hosted the departure of Charles Darwin's expedition to Western Australia (1836). West of the Foreshore, the long standing Esplanade (1898) was demolished in 2007. A current proposal (presented by Landcorp to the City of Albany) intends to redevelop the Hotel and museum which will interface with the Middleton Beach Foreshore.

A tourist trail/public transport loop responds to the need to link key tourism sites to maximise public experience & appreciation of site. Middleton Beach, Albany's City Centre, Mt Adelaide & Mt Clarence will define key checkpoints within the proposed route, granting the Middleton Beach Foreshore the potential to become one of WA's premier regional tourism hubs and a regional recreation destinations for residents and visitors alike.

PLANNING CONTEXT

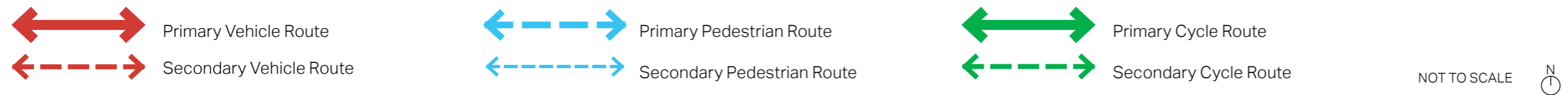
The planning context of the site includes a requirement for coastal protection strategies (under state planning policy SPP 2.6) to be implemented to ensure the development lots created within precinct remain intact, as predicted climate and sea level changes occur over the next 100 years. These protection measures typically involve significant rock-reinforcements (like buried groynes or shore piling) that have profound impacts on the local amenity of the coastline.

In this situation, the impacts may affect some of the historic Norfolk Island Pines that are synonymous with the character of Middleton Beach and central to community values.



- - - - Activity Centre Boundary
- - - - Foreshore Boundary
- ← - - - - → Primary Access Links
- ← - - - - → Secondary Access Links
- Cycle Route

MIDDLETON BEACH ACTIVITY CENTRE - INDICATIVE PLAN



Purpose and Objectives

PURPOSE

For Middleton Beach to be recognised as the region's best regional beachfront destination.

The purpose of the management plan process is to develop comprehensive strategies for the Middleton Beach foreshore area and surrounding precinct that complement and work with the key principles and objectives of the Middleton Beach Activity Centre (Landcorp). The management plan strategies will have a key focus on the foreshore area between the boardwalk and the eastern end of the Surf Life Saving Club (Middleton Rd).

A key objective of the management plan will be to Integrate the work of the coastal hazard risk management and adaption process (Landcorp terms of reference).

TERM

It is anticipated that this process will be undertaken between June – December 2016, understanding the key priorities and time frame of Landcorp processes (i.e. the development of coastal hazard risk management and adaption strategies by end July 2016 and subdivision approval by December 2016).

KEY PARTIES

- City of Albany
- Landcorp
- Specialist Consultants
- Relevant Authorities (DoP, DoT)

OBJECTIVES

The Middleton Beach Foreshore Management Plan sets out to achieve the following objectives:

Site Definition

Define an appropriate site which enables the broader vision to be realised, inclusive of the broader precinct adjacent to the Middleton Beach Activity Centre, with a key focus on the foreshore area between the boardwalk and the eastern end of the Surf Life Saving Club (Middleton Rd).

Technical Resilience

Undertake technical reviews in order to develop integrated strategies for servicing, essential infrastructure, engineering, and coastal adaptation and protection (sea level change). This includes risk to existing or proposed infrastructure resulting from storm surge or sea level rise, with specific measures to address requirements of SPP 2.6.

Strategic Approach

Take a strategic short, medium and long term approach to design and planning around coastal adaptation, urban growth, transport, infrastructure, climate change, and implementation factors; support the planning approval process of the Middleton Beach Activity Centre; and be consistent with previously approved City plans, strategies and policies.

Public Realm

Develop integrated design strategies for high quality public spaces and facilities for all users which are safe, accessible, attractive, comfortable, flexible (event capability), well connected, and long lasting.

Community Focus

Build on the objectives established by community engagement undertaken for the Middleton Beach Activity Centre (Landcorp) and the Coastal Parks Strategy (City); and engage and inform the local community at agreed project milestones.

Partnerships

Work in partnership with key stakeholders throughout the process, taking a collaborative approach to design, planning, implementation and management decisions.

Economic Viability

Support the development aims and investment strategy of the Middleton Beach Activity Centre and the broader precinct (including existing commercial land uses), and use the Enhancement Plan to advocate for funding and implementation support.

Sense of Place

Protect, enhance and communicate the cultural and heritage values of the locale; create memorable, diverse and authentic experiences which express civic pride and encourage repeat visitation.

KEY OUTPUTS

The City of Albany has formed an internal Project Control Group to guide the development and coordination of an integrated Foreshore Management Plan for Middleton Beach which supports the Middleton Beach Activity Centre Improvement Plan led by Landcorp. The Control Group will work with the Steering Committee and Consultant Project Team to establish the project plan and methodology. The Project Control Group will be responsible for the development and adoption of the following outputs, which may be combined:

- Coastal Risk Management Strategy (by end July 2016)
- Technical Review (by end July 2016)
- Foreshore Management Plan (by December 2016)
- Public Realm Landscape Plan (by December 2016)
- Integrated Engineering and Services Plan (by December 2016)

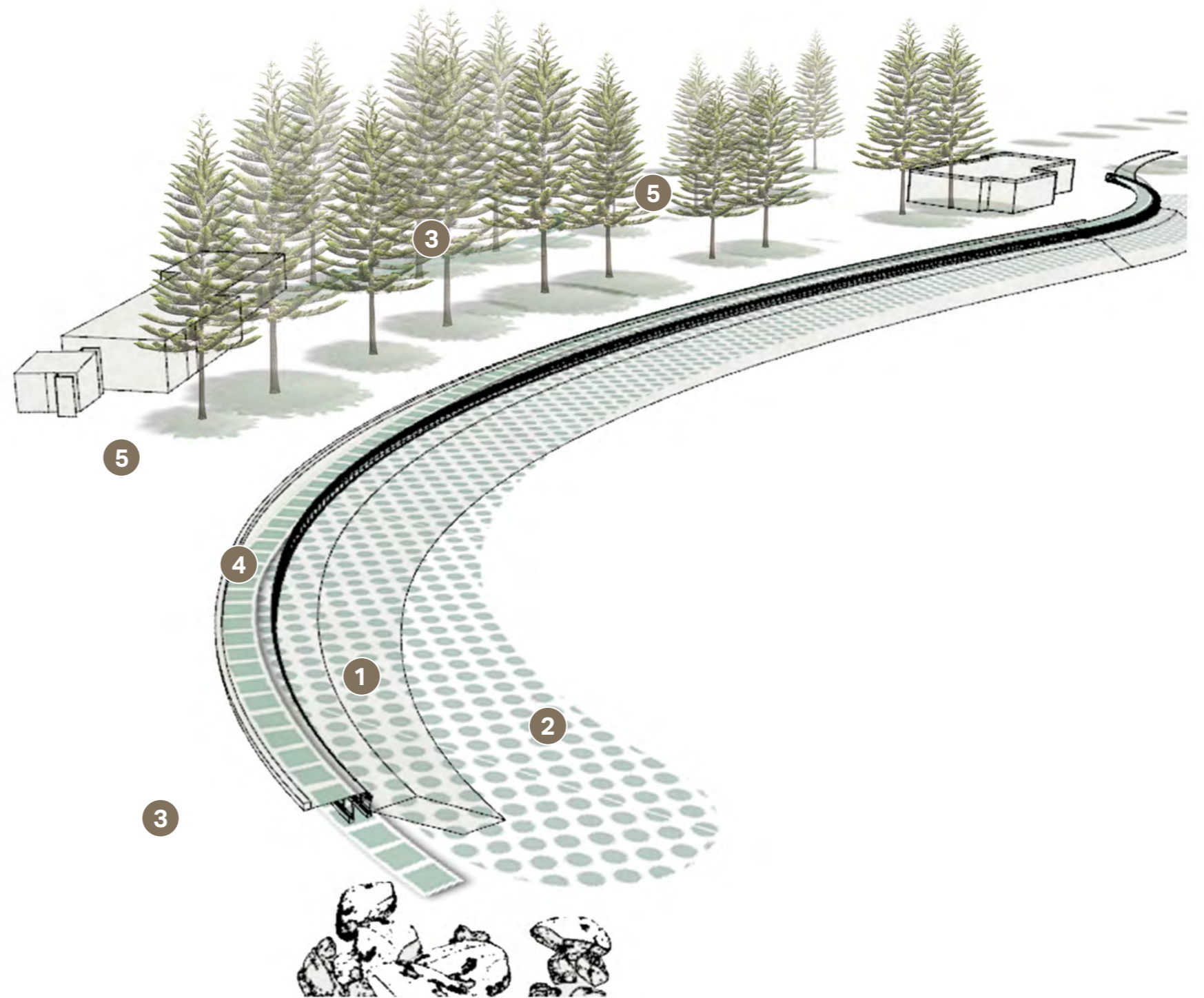
DESIGN AIMS

To achieve the design principles a set of objectives has been identified;

- Establish a strong connection to the previous geomorphological and ecological histories of the site and its context; and in this way establish an 'urban ecology' to the precinct.
- Where appropriate, create a uniform 'shared public domain' where the distinction between trafficable and pedestrian spaces is only subtly defined where appropriate (i.e. Flinders Parade).
- Provide a public domain that responds to the climate conditions of Albany through the provision of shaded and comfortable areas and use of deciduous/ evergreen trees where solar access is desirable.
- Ensure that there is a seamless integration between interior and exterior spaces, expressed primarily through ground plane materiality, texture, colour and pattern.
- Ensure that there is a strong connection to the broader Middleton public domain through the connection of view lines and the selection of details, materials and vegetation.
- Integrate art work consistent with landscape themes.
- Provide flush pedestrian orientated surfaces.

COASTAL PROTECTION

To achieve the design principles the following features have been identified;



1 ROCK ARMOURING

A band of placed granite boulders will provide the protective armour to the Middleton Beach Foreshore.

Extending 4 metres below the layer of sand nourishment (Refer Principle 2), the lineal rock treatment will dissipate wave velocities during surge events as the sacrificial layer of sand is subsumed by the ocean.

2 SAND NOURISHMENT

Sand sourced from the northern accreting dunal system within the Middleton Reserve will be relocated to foreshore's beachfront, creating a sacrificial sand layer over the foreshore's rock armour edge (Refer Principle 1).

Following storm events, the Foreshore's sand layer will be replenished, providing a perpetual visual and physical connection from the promenade to the beachfront.

3 VEGETATION PROTECTION

Strategically placed, isolated pockets of suitable planting will enable an additional layer of subsurface strength to the foreshore's edge.

Networks of interlaced root systems will provide a subsurface adhesive assisting the rock armour barrier, hardscape and sacrificial sand layer (Refer Principles 2, 4 & 5).

4 SURFACE TREATMENTS

Hardscape surface treatments, such as the enlarged promenade walkway, provide an additional layer of strength to the coastal protection armoury.

Whilst transitioning the grade change from the adjacent activity nodes, landscape wall terracing systems will assist the stabilization of the foreshore during coastal storm events.

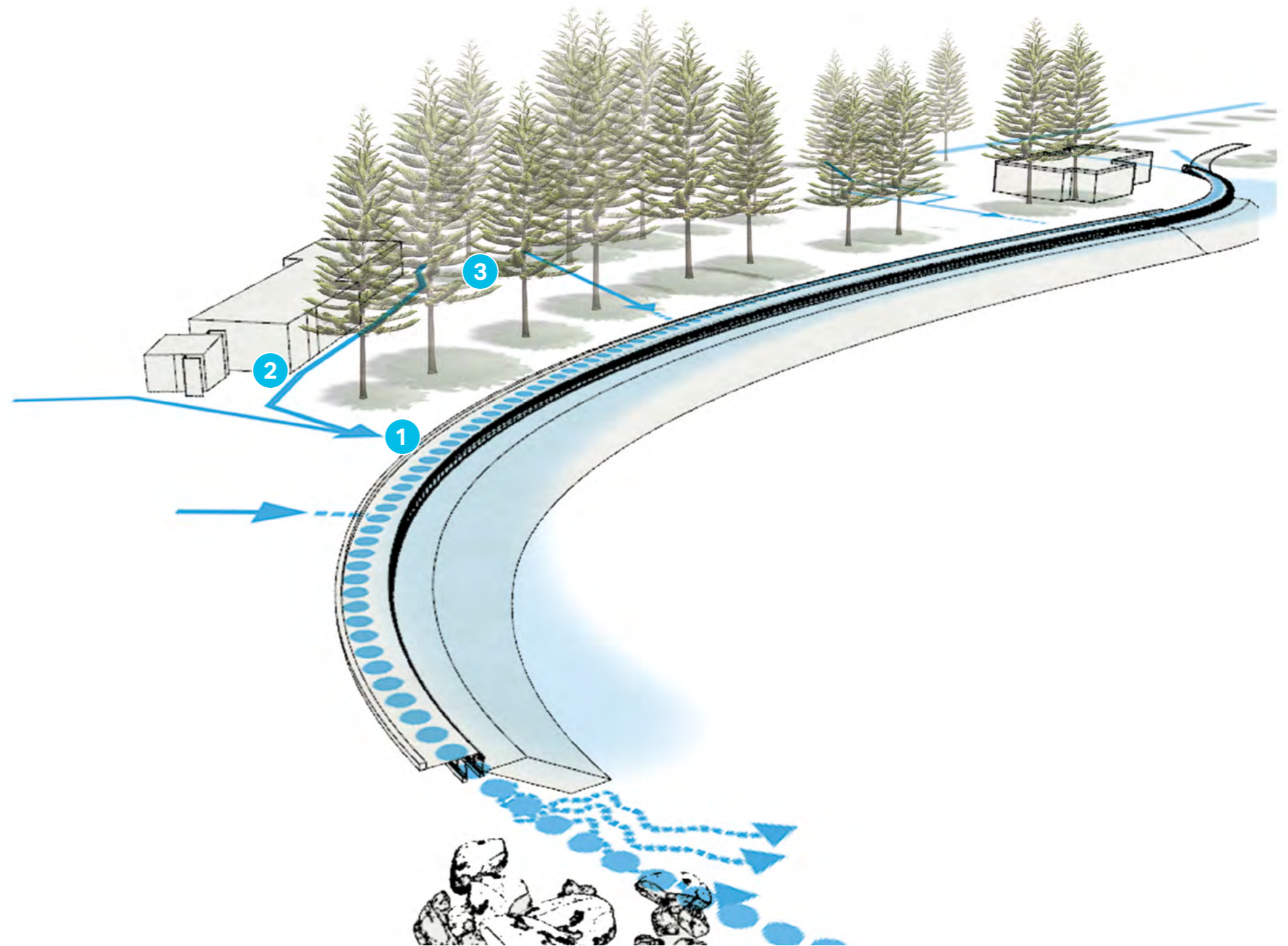
5 RETAINED LEVELS

Intentionally retaining and protecting the existing, forged ground levels will add further structural stability to the foreshore's edge.

The retention of adjacent levels will also provide stability to tree health and assist the vegetative protection component (Refer Principle 3) via maintained subsurface root systems.

DRAINAGE AND WATER QUALITY

To achieve the design principles the following features have been identified;



1 CHANNEL SYSTEM

Utilising the existing subsurface storm water infrastructure, the proposed channel system, via the use of a 1200mm high concrete box culvert, conceals, stores, and disperses the collective discharge from the existing system's outlets during heavy rain events.

Water volumes are initially stored within the culvert system before filtering through a drainage media of limestone rock particles. Stormwater is then dispersed into the groundwater system.

2 GROUND WATER

Excess groundwater will be controlled by the proposed channel system via the granite/limestone rock filter media and drainage channel system (Refer Principle 1).

Within its current condition, surface water is distributed onto the beach foreshore, causing erosion, hazardous pollutant deposits & potential safety risks to the public.

The proposed channel system (Refer Principle 1) will remove the risk of pollutant exposure to beachfront users.

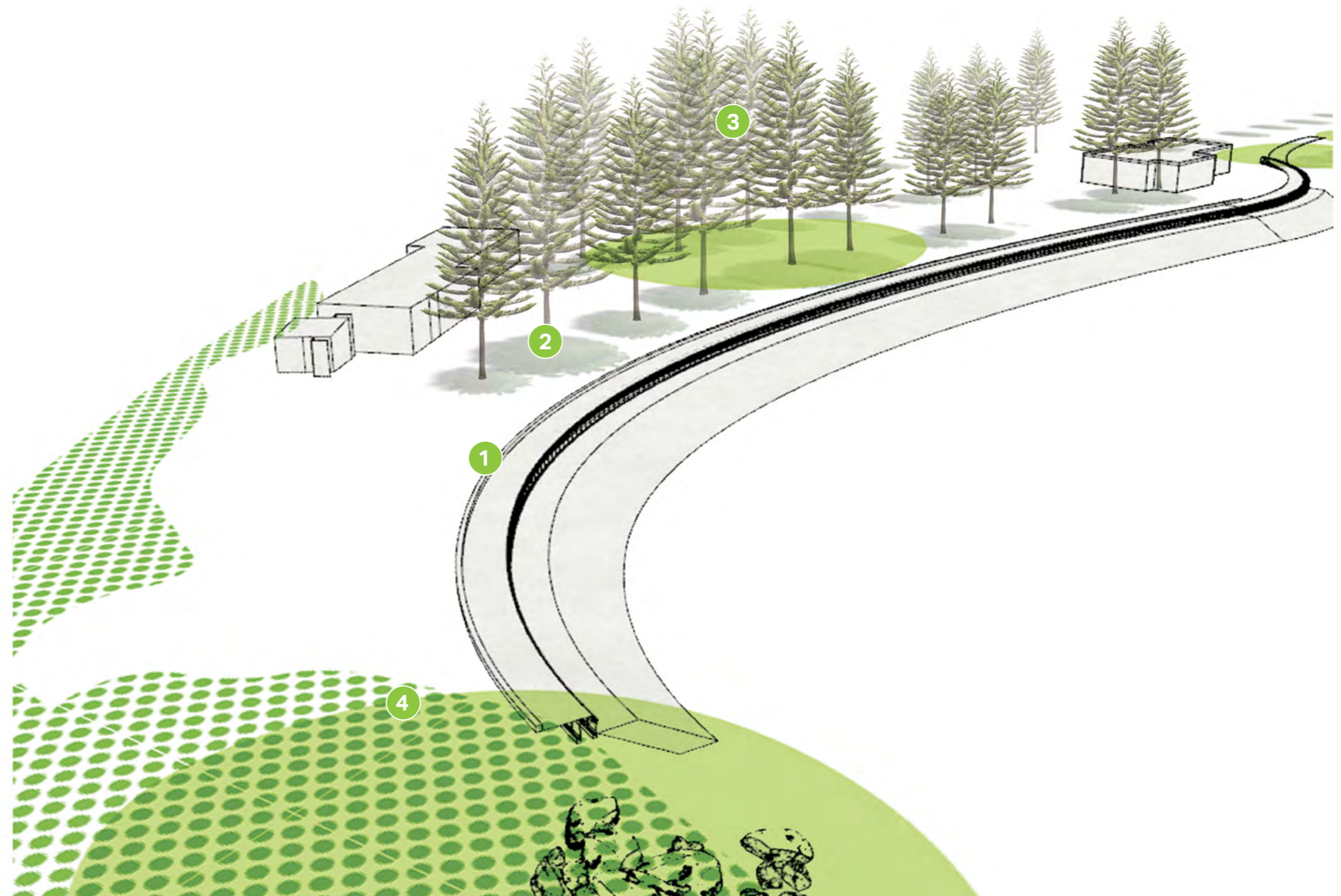
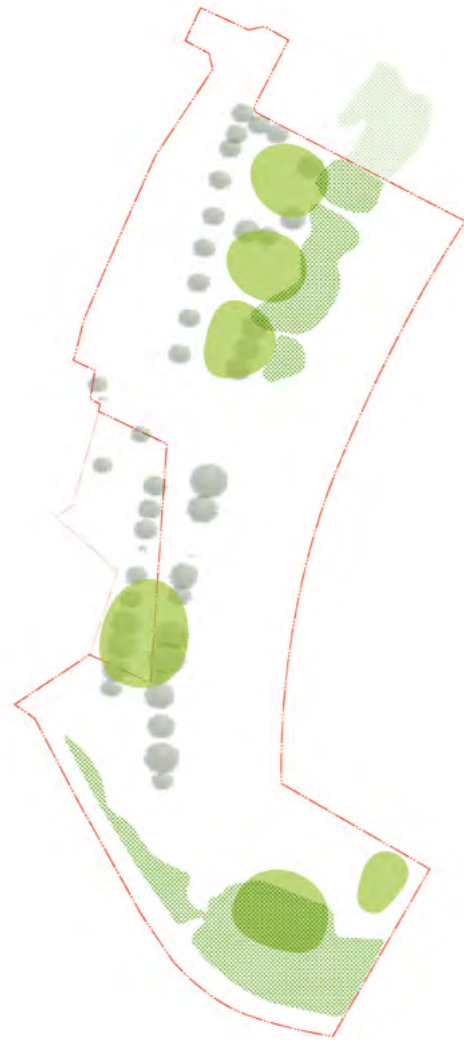
3 WATER QUALITY

The structural rock armouring and box culvert will retain, filter and redistribute excess ground and surface water into the wider water table system.

Additionally, strategic planting and existing tree vegetation will benefit from the enhanced filtration of ground water. In addition, the augmentation of the vegetative layer will provide further filtration to the ground water system.

PASSIVE AMENITY

To achieve the design principles the following features have been identified;



1 PROMENADE TREATMENTS

Varied surface material treatments to the promenade walkway will enhance visual amenity, activate activity and enhance the overall landscape user experience.

Utilizing a material palette sympathetic to the vernacular surroundings, the promenade will offer a variety of passive and active recreational usages through a consolidated furniture fittings and equipment (FFE) suite. This suite will integrate with the concrete and timber surface treatments of the promenade.

2 SEATING WALL

Seating opportunities will be offered along the western edge of the promenade, allowing for passive surveillance of the surrounding pathways and open spaces.

Utilising a selection of concrete and timber, the seating nodes will offer views either side of the promenade, either out to Ellen Cove or back towards the Middleton Beach Foreshore and Activity Centre.

3 TREE CANOPY

The retention and augmentation of the existing tree structure will soften the proposed hardscape treatments, as well as compliment and enhance the user experience through shade and visual connections to the surrounding landscape & proposed urban tree canopy.

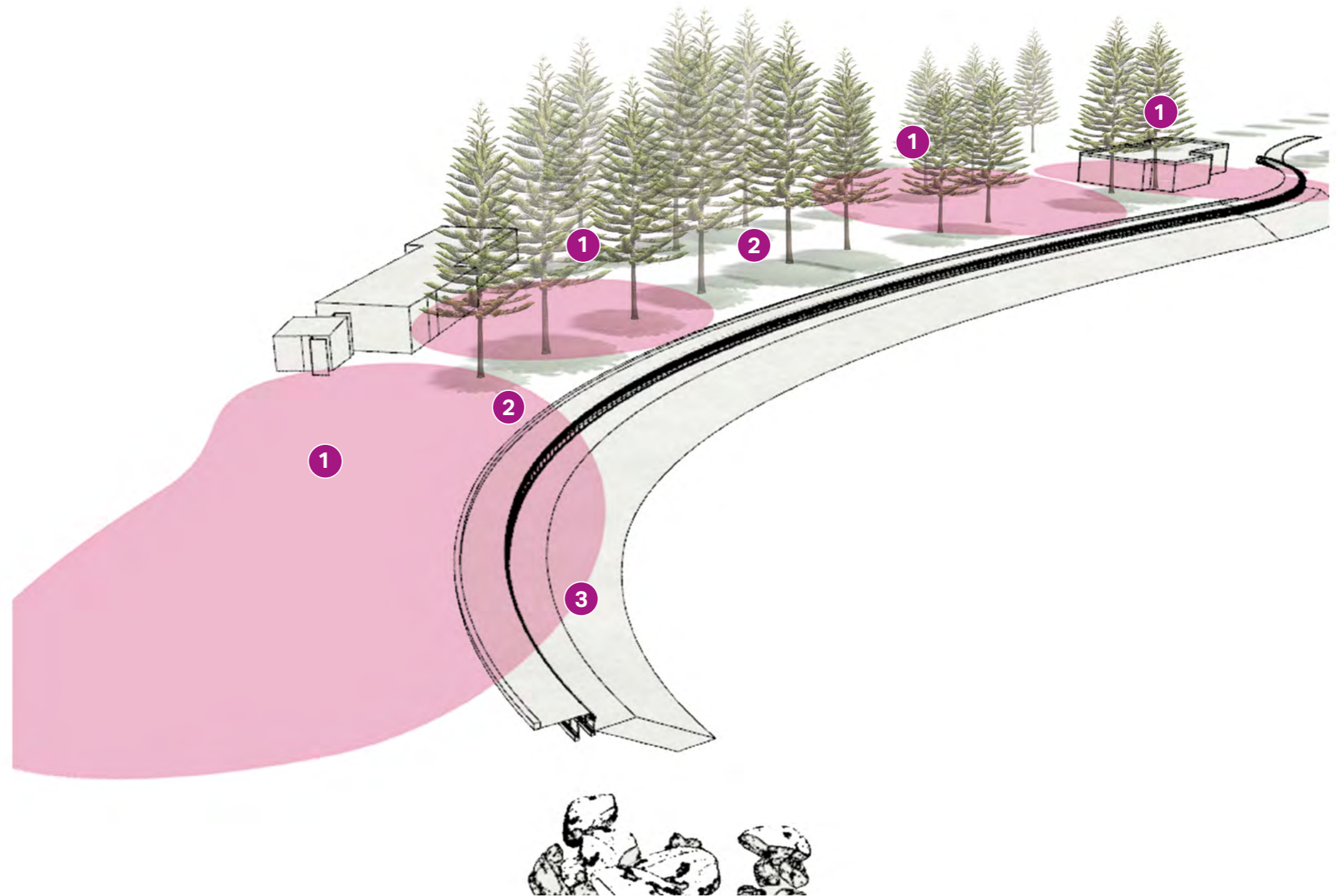
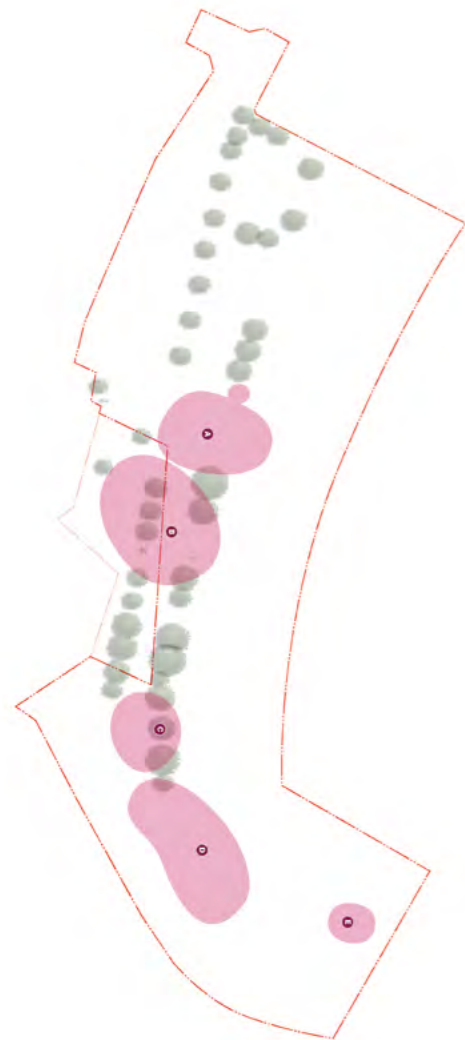
4 ENVIRONMENTAL REHABILITATION

Environmental enhancements such as tree structure and coastal re-vegetation and rehabilitation will form a key component of the proposed landscape scheme.

These enhancements will not only perform aforementioned functions for coastal protection, water quality, user comfort and visual amenity, but also provide ecological enrichment through the expansion and protection of habitat.

PLACE ACTIVATION

To achieve the design principles the following features have been identified;



1 EVENT SPACES

Proposed open grassed spaces situated along the promenade's western edge will be designed not only to offer opportunities for both passive and active recreation, but also for the facilitation of larger community events.

Assisted by the wind and sun protection of the existing and enhanced tree structure, activated event spaces will instil a strong 'sense of place' through positive experiences assisted by the optimised landscape surroundings.

2 ACTIVE EDGE

The promenade edge will encourage a variety of passive and active recreational opportunities.

Passive activities such as picnicking, gathering and seated surveillance will be assisted by strategically placed furniture situated under existing shade trees.

Spaces for dynamic activities including jogging, walking and cycling will be offered along the promenade, as well as group fitness activities within event spaces & activity nodes.

3 BEACH

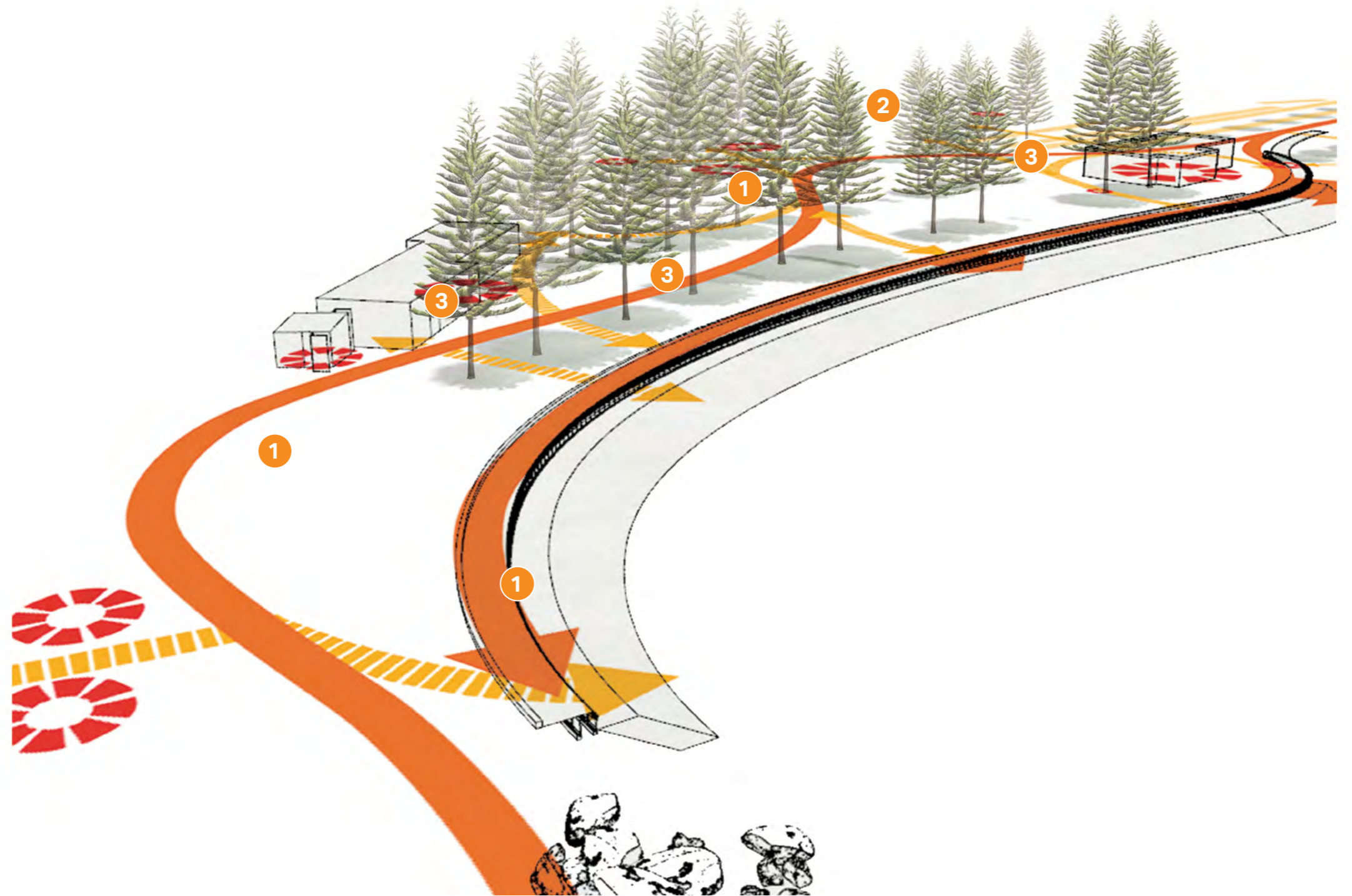
By combining the proposed sand nourishment and storm water discharge strategies, the beach foreshore will offer a much improved beachside experience.

The enhancements will enable further encouragement of beach side activities such as swimming, volleyball, sunbathing and picnicking, lending to a more memorable experience for the community and visitors to Albany.

The existing Surf Club will also benefit from the added public popularity provided by the proposed Middleton Beach Foreshore improvements.

ACCESS AND LINKAGES

To achieve the design principles the following features have been identified;



1 PEDESTRIAN ACCESS

Within the wider pedestrian circulation network, the promenade walkway at the Foreshore's edge will encourage circulation away from Flinders and Marine Drive and re-distribute pedestrians into adjacent Middleton Beach urban environment.

The promenade, in association with further pathways pedestrian connections, will aid accessibility to all existing adjacent facilities, such as the Surf Club and northern surface carpark.

2 PUBLIC TRANSPORT PRIORITY

The enhanced pedestrian circulation network will assist the proposed prioritisation of public transport connections to the Middleton Beach Foreshore and surrounds.

Currently positioned within the northern surface carpark, the prioritised bus stop will distribute users from a wider City loop distribution route. The continuation of the promenade will collect these users, allowing for an uninterrupted approach toward to beach and adjacent activity nodes.

3 VEHICULAR CIRCULATION

The promenade and collective shared pathway networks will be designed to facilitate vehicular traffic, such as maintenance, delivery and emergency vehicles.

Adjacent facilities such as the Surf Club will receive operational benefit from enhanced hard paved connections (pedestrian and vehicular), stemming from Flinders Drive surface carpark.



Existing Conditions



- 01 ACCRETING DUNE SYSTEM INFESTED WITH WEEDS TO WESTERN EDGES
- 02 DEEP SHADE UNDER EXISTING TREES PREVENTS TURF FROM ESTABLISHING REDUCING AMENITY AND EXPOSING ROOTS AT GROUND SURFACE
- 03 LIMITED PASSIVE SURVEILLANCE TO PLAYGROUND
- 04 CARPARK CREATES A PHYSICAL BARRIER TO PEDESTRIAN PERMEABILITY
- 05 LIMITED AND AGING RECREATION FACILITIES
- 06 BARBEQUE AND BUS SHELTERS ARE AGING AND AFFECTED BY CORROSION
- 07 TURFED & ELEVATED VERGES WITH NO STREET TREES
- 08 LOW POINT TO CARPARK SUBJECT TO FLOODING AND LIMITS STORM WATER INFILTRATION
- 09 UNTREATED DRAINAGE OUTFALL TO BEACH PRESENTS PUBLIC HEALTH RISK AND EROSION TO BEACH PROFILE REDUCING AMENITY
- 10 LIMITED ACCESS FOR SURF CLUB OPERATIONS
- 11 LIMITED SHADE AND SCREENING TO CARPARK
- 12 NARROW FRONTAGE LIMITS VISIBILITY OF CYCLISTS
- 13 SAND ACCRETION TO TURF CREATES UNEVEN SURFACES AND BURIES SPRINKLERS CREATING ONGOING MAINTENANCE ISSUES
- 14 SLOPING AREA TRANSITIONING TO PROPOSED DEVELOPMENT FINISHED LEVELS
- 15 PAVEMENTS ARE UNEVEN, CRACKED AND AFFECTED BY HEAVING FROM TREES
- 16 ELEVATED PLAYGROUND EDGING INTERRUPTS OVERLAND DRAINAGE CREATING A DAM EFFECT TO CAFE FRONTAGE
- 17 ROCKS, TREES AND JETTY PROVIDE VISUAL AMENITY
- 18 POPULAR PICNIC DESTINATION DUE TO SHELTER, SHADE AND ELEVATED VISTAS
- 19 WELL ESTABLISHED NATURAL VEGETATION WITH OCCASIONAL WEED INFESTATIONS TO UNDERSTOREY
- 20 MIDDLETON BEACH ACTIVITY CENTRE SITE

From the accreting sand dunes to the north to the Ellen Cove Jetty to the south, the existing condition of the Middleton Beach Foreshore presents strong opportunities for strategic enhancement as suggested by the Enhancement Plan.

NORTHERN DUNES AND OPEN GRASS SPACES

Separated by timber post and rail fencing, the accreting, weed infested dunal formations and sloped grasslands provide a regressed amenity for the broader Middleton Beach precinct. Isolated within the grassland's northern corner, a junior playground serves as a popular play destination due to its detachment from the foreshore precinct and close proximity to the Flinders Parade Carpark.

FLINDERS PARADE CARPARK

The adjacent carpark is exposed to high levels sunlight due to sparse, pine tree planting to the carpark's central islands. Vehicle and pedestrian circulation within the recently re-surfaced carpark is inhibited by a localised trap (low) point which frequently ponds during rain events. The carpark's exposure to the surrounding landscape is furthered by the lack of tree plantings within the adjacent grassed verges to the western side of Flinders Parade.

ALBANY SURF CLUB

Serving as the precinct's active recreational hub, the surf club's functionality is hindered by the restrictive surrounding hardscape composition (Refer Key 10). During times of high usage, surf board users suffer from entry and egress constraints impeded by the shared use path dissecting the club and the Flinders Parade carpark, as well as the spatial tension shared between the northern building face and adjacent dunal batter.

THREE ANCHORS CAFE/RESTAURANT

The long serving cafe and restaurant continues to draw a broad visitor and community scale to Middleton Beach. A poorly sighted play space impedes outlook from within the cafe, creating a pinch point for the shared use path (between the cafe's building face), as well as heavily disrupts the overland flow path stemming from the carpark to the shore.

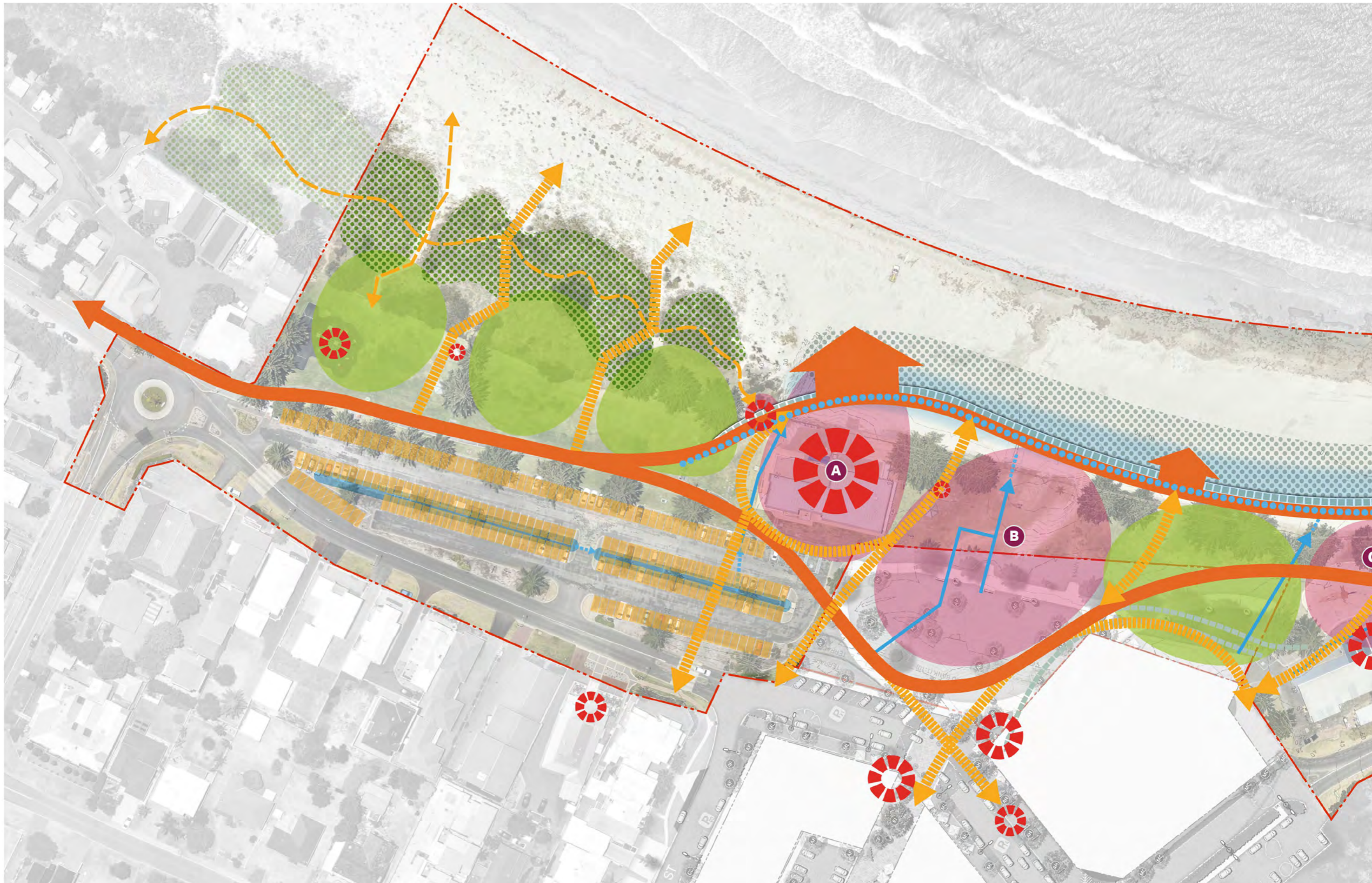
ELLEN COVE BEACH FRONT

The character of the Middleton Beach Foreshore is defined by the scoured shoreline (Refer Key 09) due to the exposed stormwater outlet discharge. South of the beachfront and west of the Three Anchors Restaurant are a series of grassing expanses dissected by the shared use path serving for The Shipping Lane traverse. Varied stone wall treatments combine to form a prominent retaining element required by the topography of Marine Drive. Flanking a staired, pedestrian connection from Marine Drive to the shared use path is a popular passive and active recreational node lending itself to wind and sun protection via a series of grassed and stone wall terraces. The historic Ellen Cove Jetty bookends the project scope despite its detachment from the broader Ellen Cove precinct. Interpretive signage is offered en route via a DDA inaccessible dual use path dedicated to the Shipping Lane traverse (Refer Key 18).



Existing Conditions Imagery





Opportunities Activation Precincts



PLACE ACTIVATION AND CHARACTER PRECINCTS

Providing for a varied, valued and memorable human experience is a key objective of the Middleton Beach Foreshore Management Plan. Measured, strategic, and adaptable design approaches to each unique spatial opportunity are fundamental in successfully responding to the needs of all users groups. These spaces are referred to as 'Character Precincts'.

Significant Character Precincts of the Middleton Foreshore include:

A. NORTHERN DUNES AND ACTIVITY

The open grass space shaded by a cluster of Norfolk Island Pines is a popular destination for community users due to its proximity to the Flinders Parade carpark and wind protection provided by the accreting dunal formations to the south.

Potential opportunities can be realised via the retention of the space's current usage and distinct character, as well as the augmentation of its current facilities. This will therefore enable a broader spectrum of community utilisation.

B. SURF CLUB

The Albany Surf Lifesaving Club is the recreational heart of Middleton Beach. Greatly valued by the community due to its long service as an interactive activity hub, the Surf Club is a key contributor to the Middleton Beach Foreshore's landscape and urban composition.

An assessment of Surf Club's functional performance demands additional capacity for storage, circulation, strengthened beach interface and accessibility improvements between the beach access and adjacent surface carpark.

C. CENTRAL OPEN GRASSED SPACE

The existing open grassed space which envelopes the Norfolk Island Pine structure currently provides a transitional activity gradient interfacing the adjacent infrastructure (i.e. carparks and facilities) and the Middleton beach front.

The Enhancement defines and programmes pockets of individual spaces within the broader grassed tract. Proposed activation strategies will directly relate to those activities surrounding them, therefore the grassed activity nodes will offer flexible opportunities for both passive and active recreation, whilst also holding the capacity to facilitate larger community forums and events.

D. THREE ANCHORS CAFÉ/RESTAURANT & PLAYSACE

The Three Anchors Café/Restaurant has delivered the experiential essence of Middleton Beach to the community and passing tourist alike.

LEGEND

	PRECINCT BOUNDARY		STORMWATER DETENTION (PASSIVE INFILTRATION)		ACTIVATION ZONE ACTIVITIES + EVENTS
	COASTAL PROTECTION ROCK ARMOURING & SAND NOURISHMENT (BELOW GROUND)		PRIMARY STORMWATER COMPENSATION STRUCTURE		SURF CLUB OPERATIONS + EVENTS
	PRIMARY SHARED PATH CYCLISTS + PEDESTRIANS (4m WIDE)		STORMWATER PIPE OUTFALL		CENTRAL OPEN SPACE FLEXIBLE SPACE LARGE SCALE EVENTS
	SECONDARY PATHWAY CYCLISTS GIVE WAY (3m WIDE)		AMENITY ZONE PASSIVE RECREATION		THREE ANCHORS ALFRESCO FORECOURT + PLAYSACE
	NATURE TRAIL PASSIVE WALKING ONLY (1M WIDE)		SIGNIFICANT VEGETATION RETAIN + REHABILITATE + PROTECT		SHELTERED PICNIC POCKET ACTIVE OPEN SPACE + POP-UP EVENTS
	PUBLIC ACCESS NODE (BUS SHELTER + BIKERACKS)		EXISTING TREES TO BE RETAINED + PROTECTED TRANSLOCATE SELECT SPECIMENS		ELLEN COVE JETTY KEY DESTINATION + AQUATIC ACTIVITY

The opportunity to re-organise and modify the composition of the precinct is crucial to the future functionality of the Middleton Beach Foreshore. Views from the Café/Restaurant through the grassed open space and beach are currently obstructed by the immediate play space. These viewsheds, as well as the pooling created by unsuitable surrounding surface grades would greatly benefit from the relocation of the playspace.

The relocation of the playspace would allow for the potential realignment of the shared use path by separating commuter movement, easing spatial pressure upon the Cafe's frontage.

E. BEACHFRONT

The Ellen Cove Beach front has suffered as the collective outlet for the existing storm water surface collection system. Outlets currently distribute flows underground then onto the beachfront sand surface, causing severe erosion, beach surface fragmentation, as well as a hazardous chemical pollutant trap.

A strategic, hydraulic response would enable the concealment of the existing storm water infrastructure through the consideration of a consolidated yet secluded outlet. This would allow for a unified, uncontaminated, and aesthetically desirable beachfront ocean interface.

F. GRASSED TERRACES

Currently mitigating the grade level change from Marine Drive and Ellen Cove is a series of retaining and terraced walls which combine to form a dramatic landscape feature which characterises Ellen Cove. The sheltered, grassed terraces allows for ideal views to the north of the foreshore, whilst the broad staircase offers a challenging fitness circuit for active users.

The current spatial allocation to the terraces is restrictive; therefore the potential to extend and enhance the terraces along with highlighting the unique, varied stonework of the current retaining wall system will facilitate ideal picnicking and observational vantage points to the beachfront and associated activities and events.

G. ELLEN COVE JETTY

The historic Ellen Cove Jetty offers a key, historic snapshot of Middleton Beach Precinct and the wider City of Albany. The Jetty's narrative is expressed via interpretive signage flanking an uncompliant DDA path dedicated to the broader Shipping Lane historic trail.

The landscape character provided by the jetty, surrounding rock boulder outcrop and associated planting must be retained, yet preserved as a prevalent landscape feature within the composition of the broader foreshore precinct.

Site: Existing











Precinct Master Plan





LEGEND

	PRECINCT BOUNDARY		FORMALISED DUNAL PATHWAY & ASSOCIATED FORESHORE FENCING		INSITU CONCRETE PAVING
	GRASSING		STORMWATER BIO-RETENTION SWALE MASS PLANTING		EXISTING / RELOCATED PLAY STRUCTURE PLAYSAND UNDER
	ASPHALT PATH		SEATING WALL 500 HIGH TYPICAL		EXISTING TREES TO BE RETAINED + PROTECTED TRANSLOCATE SELECT SPECIMENS
	DECKED PROMENADE ACTIVITY NODE		GRASSED WALL TERRACES		PROPOSED TREES TO BE RETAINED + PROTECTED TRANSLOCATE SELECT SPECIMENS
	DECKED RAMP ACCESS TO BEACH		PLAY ACTIVITY NODE PLAYSAND UNDER		BUS / PICNIC SHELTER ANODISED ALUMINIUM CONSTRUCTION SAFETY GLASS ROOF (Immité REG800)



Enhancement Plan



INTRODUCTION

The Middleton Beach Foreshore will conserve and celebrate the cultural and ecological significance of Middleton Beach. The Enhancement Plan will provide flexible settings for recreational opportunities, as well as historical, ecological and economic enhancements which will directly benefit the residents of the Middleton Beach community.

Many of the aesthetically valuable components of the site - The Ellen Cove Jetty, retaining walls and grass terracing, as well as the Norfolk Island Tree Pine structure, open grass areas and sand dunes survive relatively undiminished.

Investment in the Middleton Beach precinct, combined with community stewardship will provide an ideal response to the Foreshore's current state of decline and transform it into the precinct that has been imagined by the local community for decades. The transformation will make the Foreshore more accessible, flexible and treasured for future generations.

Significant character precincts defined by the Middleton Beach Foreshore Enhancement Plan include:

A. NORTHERN DUNES & ACTIVITY

The Enhancement Plan proposes the retention of the space's current usage and character, whilst additional opportunity is presented with the augmentation of its play amenity. Junior play facilities will be retained and enhanced, whilst a broader age group will be stimulated via the introduction of adult outdoor exercise elements sited within the open space amongst the existing pine trees.

Path connections through Middleton Reserve sand dunes will be formalised to allow for direct foot traffic to the beachfront, therefore minimising impacts on dunal vegetation. Dunal re-vegetation will be achieved via appropriate measures described with a Foreshore Management Plan (by others).

B. SURF CLUB

The Enhancement Plan aims to provide the Surf Club with additional capacity for storage, circulation, accessibility improvements between the beach access and adjacent surface carpark. Upgrades and improvements will borrow visual cues and themes from the precinct, therefore preserving the 'sense of place' for both new & regular users.

C. CENTRAL OPEN GRASSED SPACES

Isolated land parcels defined by pathways, terracing and an established tree structure, creates a series of individual spaces within the broad central landscape tract. Proposed activation strategies for these parcels will consider their neighbouring facilities respectively, whilst offering flexible opportunities for specialised recreation, as well as capacity to facilitate larger community forums and events.

D. ACTIVITY CENTRE INTERFACE

Coupled with the adjacent Middle Beach Activity Node development, the Middleton Beach Foreshore Management Plan has highlighted the interface as an opportunity to provide an integrated, cohesive and adaptable response to the anticipated future urban environment.

The interface will perform as an arrival and subsequent distribution point for pedestrians entering from the west (Activity Centre), and the north (Flinders Parade Carpark). Directional signage will help guide the traverse from these entry points.

Treatments will allow users to successfully negotiate the associated level change from the Activity Node's proposed carpark down to the Central Open Grassed Spaces (Refer point C).

E. HOTEL INTERFACE

Forming a large portion of the Middle Beach Activity Node development precinct, the proposed hotel directly interfaces with the Middleton Beach Foreshore. As this development is currently undetermined, the landscape response to this transitional landscape interface has remained largely

flexible, however key elements have been incorporated such as:

- Grassed terracing and alfresco dining from the proposed hotel floor level.
- Decked frontage serving as a collection point of adjoining path series.
- Arrival & distribution zone for adjacent hotel carpark.

F. THREE ANCHORS CAFÉ/RESTAURANT & PLAYSPACE

The re-siting of the exiting play space to a new location within the adjacent Central Open Grassed Spaces (Refer Point C) will create an unobstructed view shed from the Three Anchors Café/Restaurant through to the beach front and King George Sound.

The relocation will also allow for clear overland flow path directing water away from the Café's frontage and into a rain garden filtration system as shown east of the hotel & west of the play space (shown in existing location).

Via revised path alignments, foot and bicycle traffic which currently interrupts the Café's façade will be diverted eastward, allowing for additional capacity for alfresco dining.

The reconfiguration of the path network will assist in the definition of the proposed activity nodes within the Central Open Grassed Space (Refer point C).

G. BEACH FRONT

The formerly fragmented Ellen Cove beachfront is revitalised via the proposed 'channel' system which collects and conceals flows from the existing storm water infrastructure through to a combined outlet, north of the Ellen Cove Jetty. The visually recessed outlet will disperse flows into the existing granite boulder outcrop, north of the Ellen Cove Jetty (Refer point J).

The consolidation of the beach front will further encourage activities such as swimming, volleyball, sunbathing and picnicking, lending to a more memorable experience for the community and visitors to Albany.

H. FORESHORE PROMENADE

The introduction of the Foreshore Promenade will create an 'activation edge', encouraging a variety of passive and active recreational opportunities. Passive activities such as picnicking, gathering and seated surveillance will be assisted by strategically placed furniture situated under existing trees.

Spaces for dynamic activities including jogging, walking and cycling will be offered along the promenade, as well as group fitness activities within the Central Open Grassed Spaces (Refer point C).

I. GRASSED TERRACES

Extending the existing grassed terraces further west will maximise this highly valued recreational precinct. The extension will occupy the base of an existing retaining wall, for which its striking appearance is perceived by the community as a 'geomorphological chronology' of Albany. The extension of the grassed terracing will consolidate as a collective amphitheatre space overlooking the beach and its associated activities.

J. ELLEN COVE JETTY

The Ellen Cove Jetty will be further recognised as a singular component contributing to the historical context of the wider foreshore precinct.

The surrounding rock boulder outcrop will be reserved and improved, whilst the proposed promenade's south-eastern termination point will enable integrative opportunities through the hyperextension of a viewing deck into the existing landscape typology.



Illustrative Renders



after

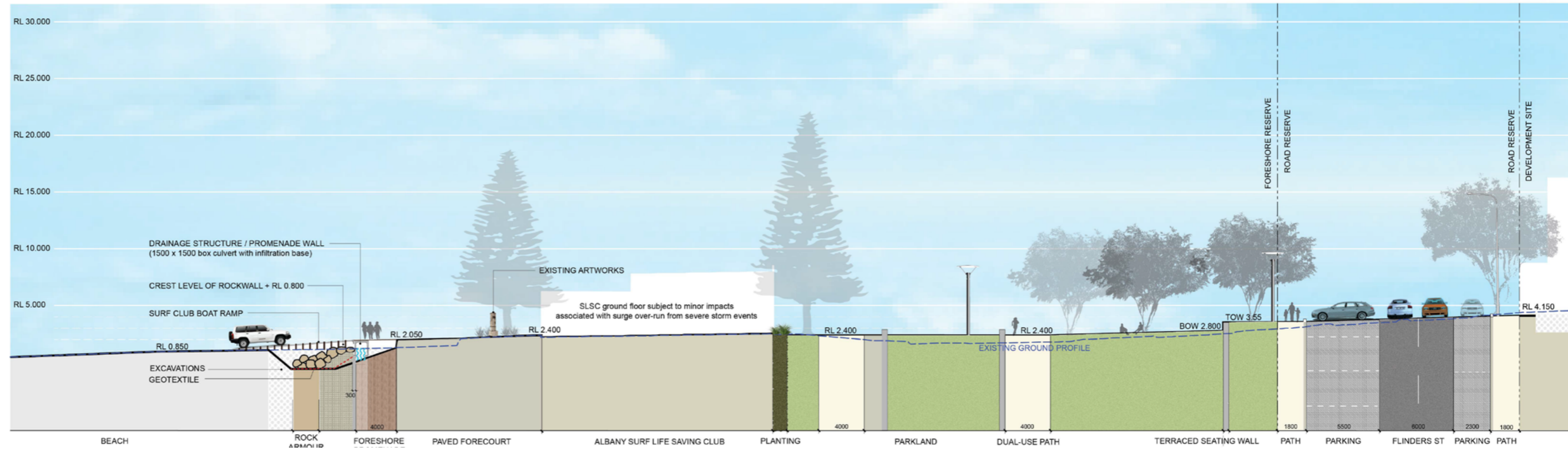




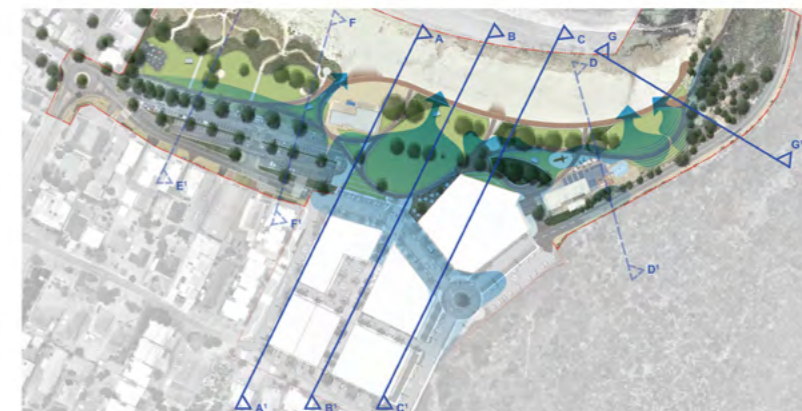
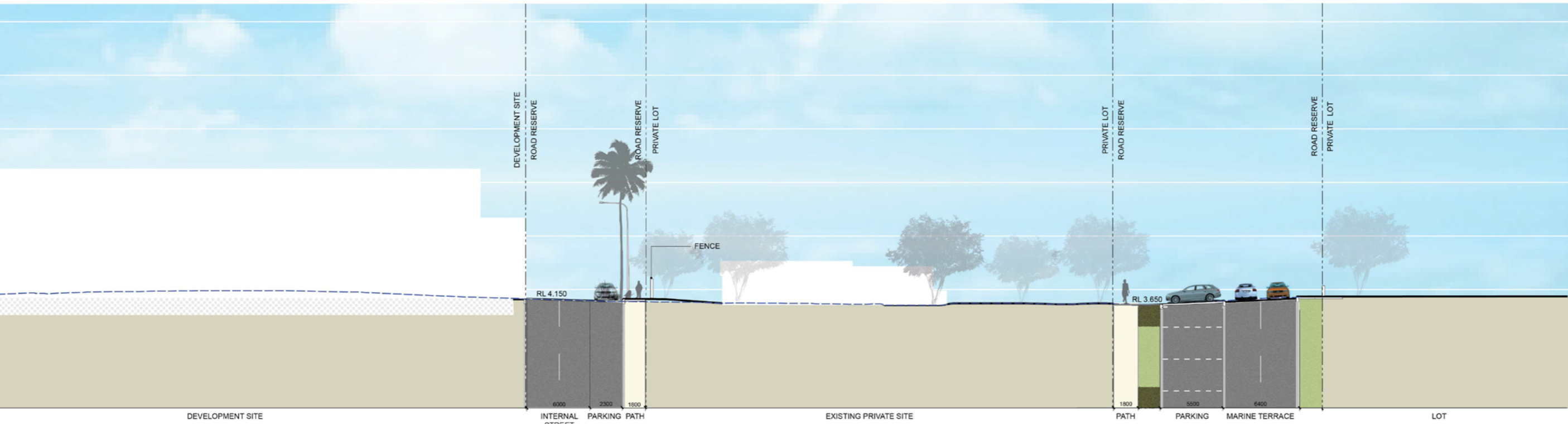




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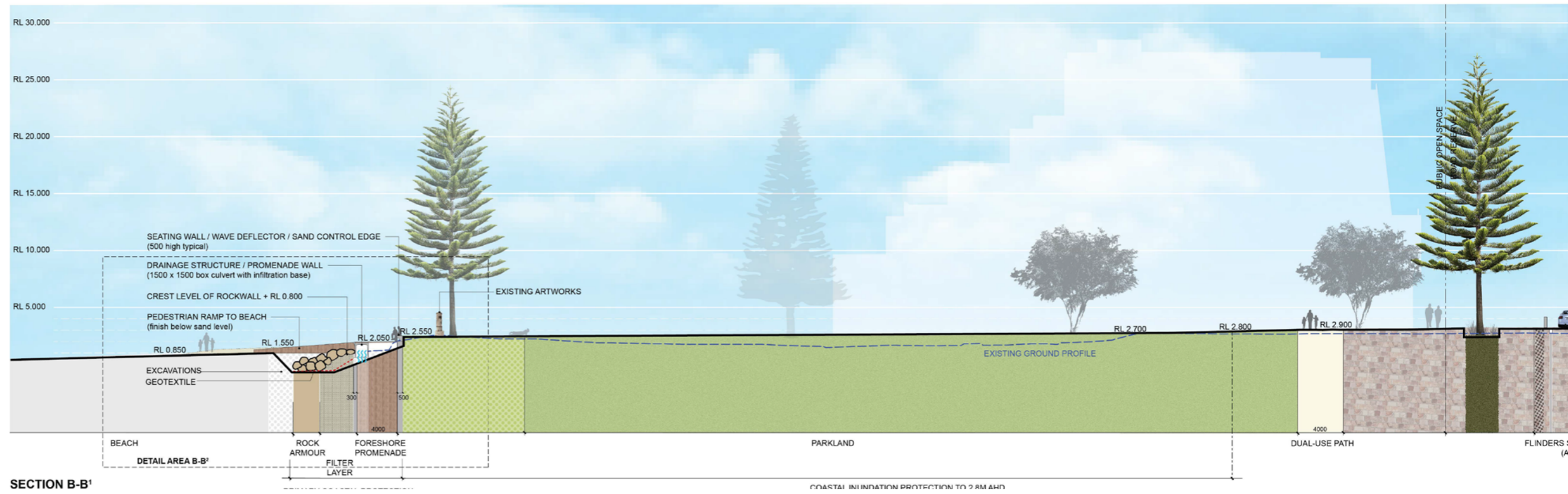


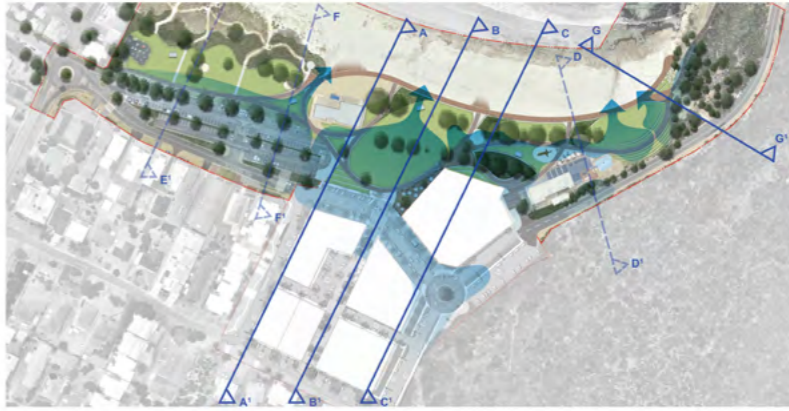
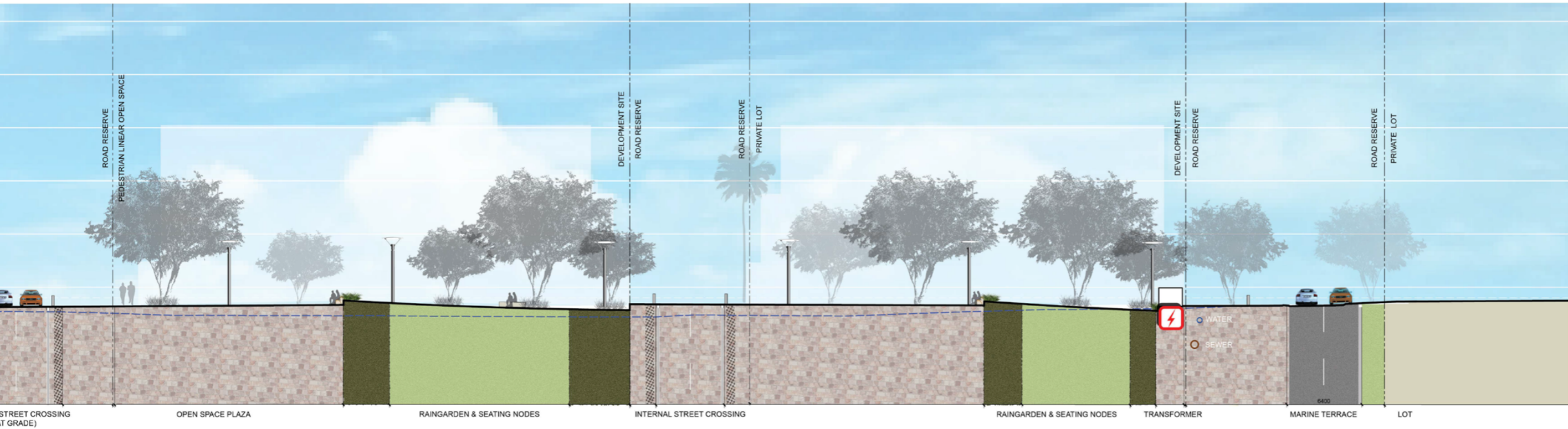
Illustrative Site Sections



KEY PLAN & OVERLAND DRAINAGE (1:500 @ A0)

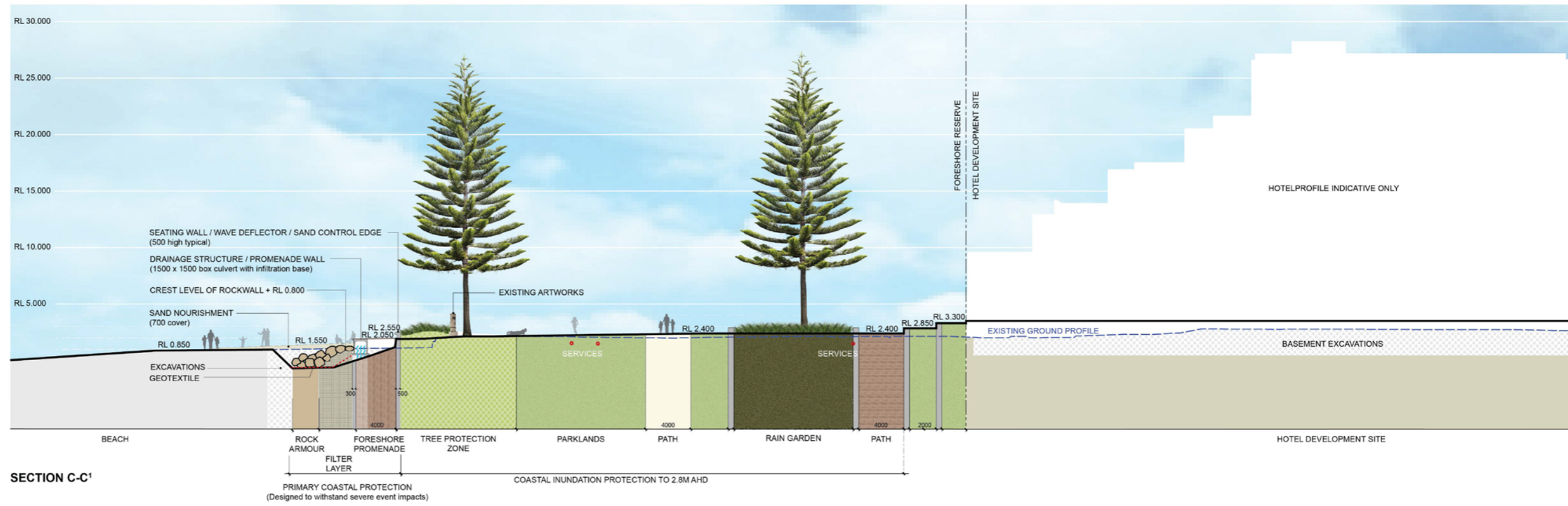
SECTION KEY PLAN (Not to Scale)

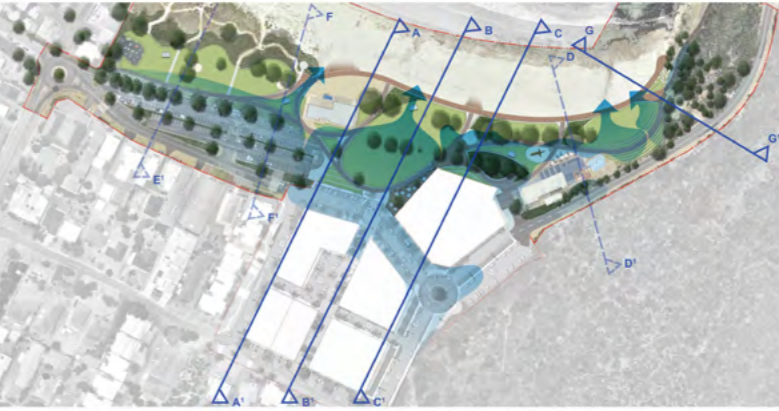
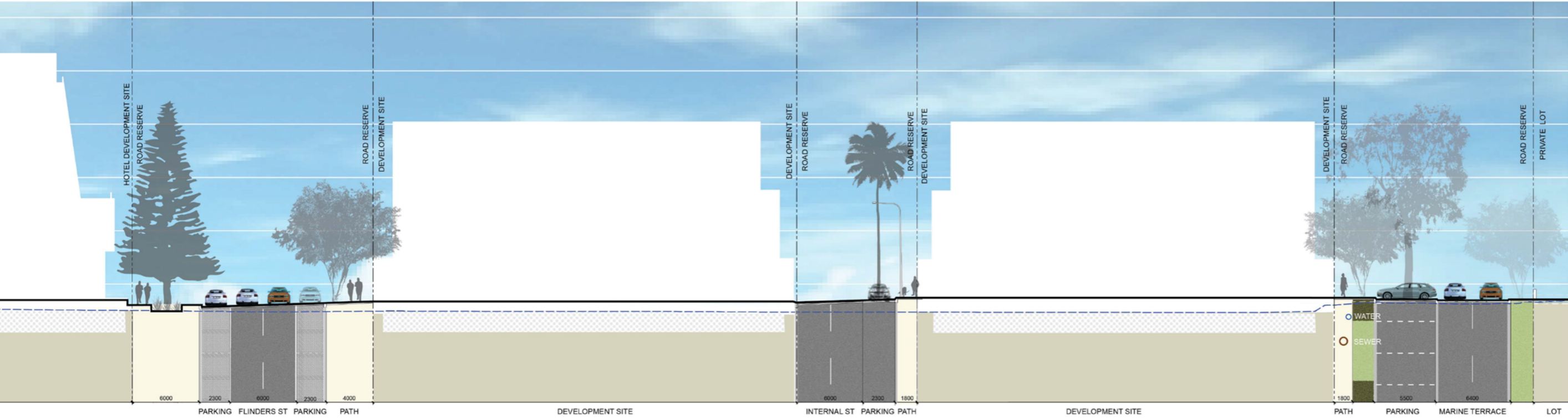




KEY PLAN & OVERLAND DRAINAGE (1:500 @ A0)

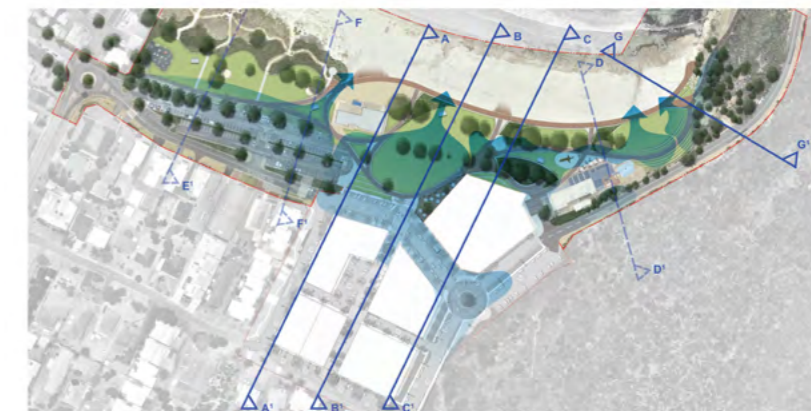
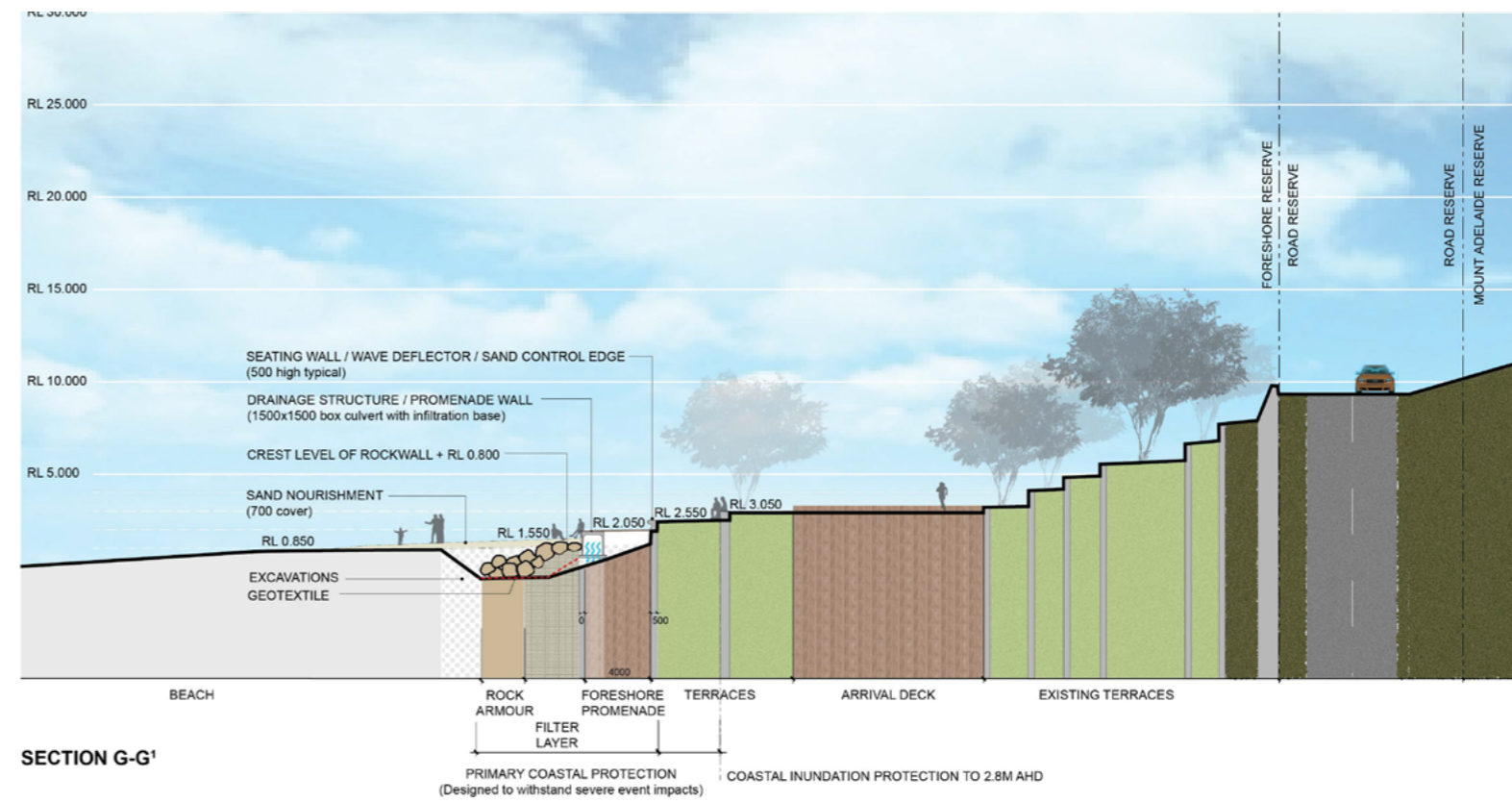
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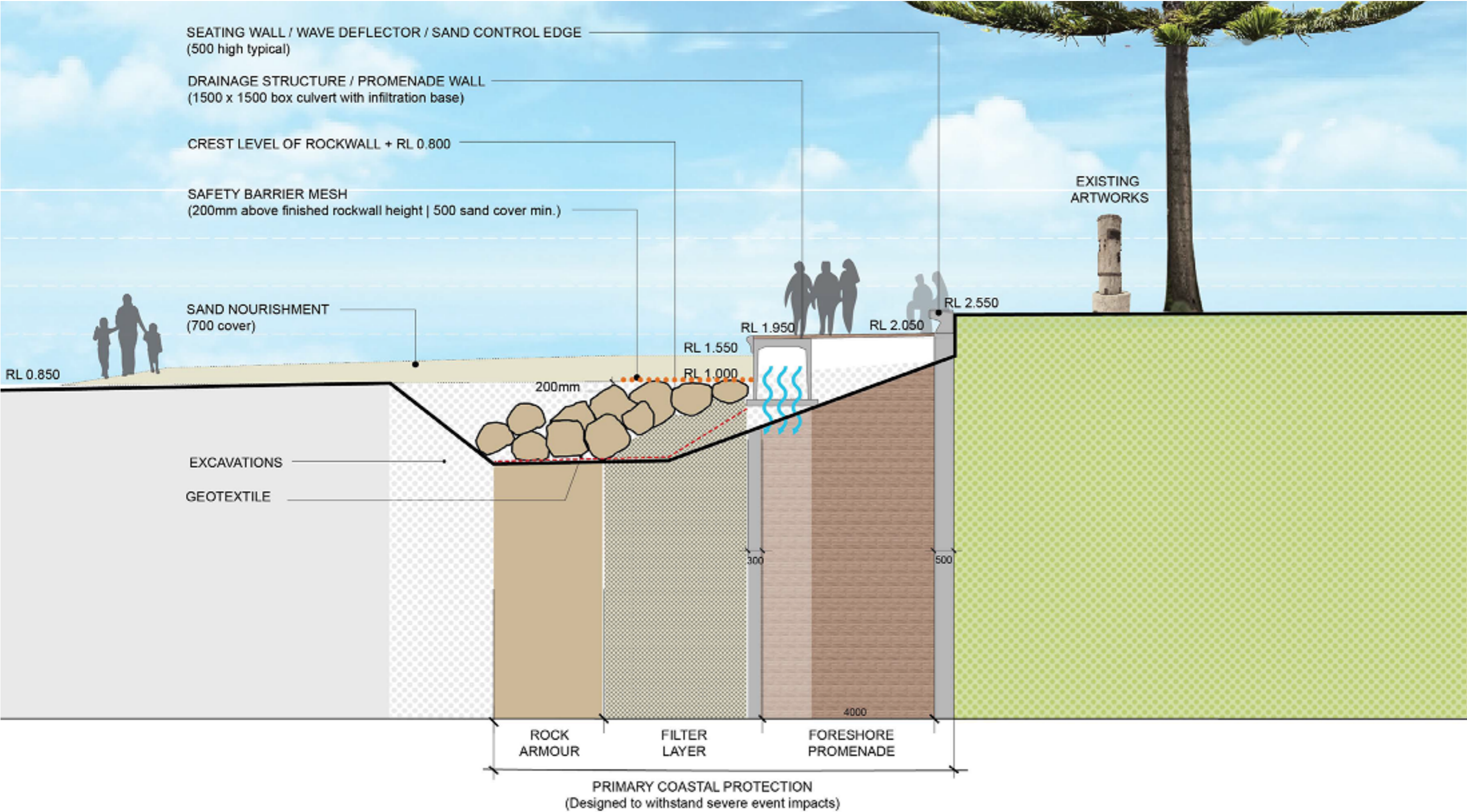
KEY PLAN & OVERLAND DRAINAGE (1:500 @ A0)

SECTION KEY PLAN (Not to Scale)



KEY PLAN & OVERLAND DRAINAGE (1:500 @ A0)

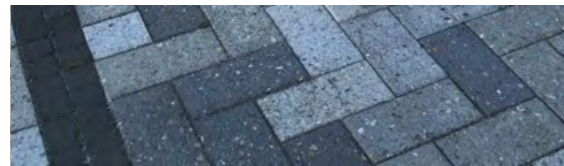
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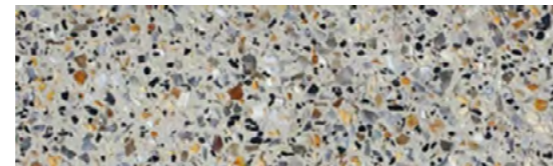
Hardscape Materials

Concrete Unit Paving



Name: Concrete Segmental Pavers
Finish: Exposed aggregate
Colour - Silver, Grey and Charcoal

Path



Name: Insitu Coloured Concrete Path
Finish: Exposed Aggregate



Name: Natural Grey Concrete Path
Finish: Broomed

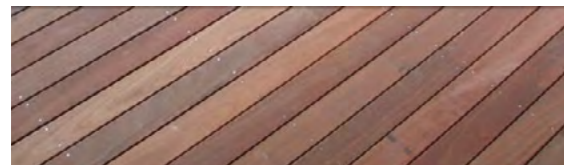
A simple, durable, safe and distinctive palette of hard landscape materials has been selected consisting of coloured and textured concrete, hardwood decking, local stone, stainless steel and corrosion-resistant aluminium.

The materials are arranged to emphasise the hierarchy of public spaces and key pedestrian desire lines across the site. These complementary materials will be installed using simple, coordinated detailing and a high quality of workmanship.

Natural granite has been selected as a signature material making reference to the outcrops along the coast at Ellen Cove. This material also has the sustainability advantages:

- Low embodied energy
- Low water footprint
- High durability (offset against cost)
- Low maintenance requirements
- High recyclability
- Natural local material

Decking



Name: Jarrah Timber Decking
Finish: Dressed and Oiled
Dimensions: 140 x 25 planks

Tactile Paving



Name: Urban Stone - Tactile paving
Finish: Shotblast finish, Colour - Noir
Dimensions: 400 x 300 x 60

Retaining Walls and Planter Walls



Name: Granite Wall (Local Stone)
Finish: Drystone
Dimensions: 450 High Typical

In situ concrete and unit pavers with an exfoliated, nonslip finish have been selected to blend with the existing pavements in the precinct with high contrast tactile pavers selected to be consistent with universal access standards (such as AS1428) for luminance contrast against a variety of finishes.

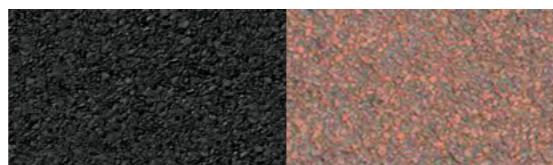
Local hardwood decking will provide a level of warmth and seaside comfort not offered by stone and concrete in Albany's cool wet winters, in reference to the seaside boardwalks and jetties that characterise this coastline.

Feature Items



Name: Granite Boulders
Finish: Local Natural Stone
Dimensions: 1000 - 1500 dia

Road Pavement



Name: Asphalt Road
Colour: Black and red



Name: Hexagonal Paver
Colour: Grey (varying tones)

The use of concrete in the public domain is limited to the use of 'low-heat' cement-base in situ paving, steps, retaining walls and footings to minimise the impact of energy and water input in the production of cement. This product is made up 40% recycled fly ash – a by-product from steel smelting processes. Concrete finishes will be varied from off-form, exposed aggregate broomed and patterned, dependent on its location and relative to the precinct character guidelines and interpretation strategy to be developed in the detailed design.



Furniture Suite



Park Table and Benches - Aluminium batten and frame



Park Bench Seat - Aluminium batten and frame



Sun Lounge Seat - Aluminium batten and frame (Foreshore)

The furnishings for Middleton Beach are selected for maximum durability to withstand in the coastal environs and arranged to encourage a broad range of social interactions. A series of generously dimensioned seating elements are placed strategically at key locations along the Foreshore, Flinders Parade and within the Central Promenade. All furniture will be located in positions that are not obstructive, and will help to guide people through the site. The furniture will be supplemented by planter edges, walls and occasional granite boulders which will act as informal perching spots.

The furniture is formed with a mixture of permanent features and temporary tables and chairs associated with the restaurants and cafes. A series of standard, off-the-shelf street furnishings - including bicycle stands, signage, bins and lighting has also been selected. The manufacturers and model of these street furnishings will be consistent with City of Albany's recently updated street furniture palette and maintenance requirements.



Drinking Fountain - stainless steel + dog bowl



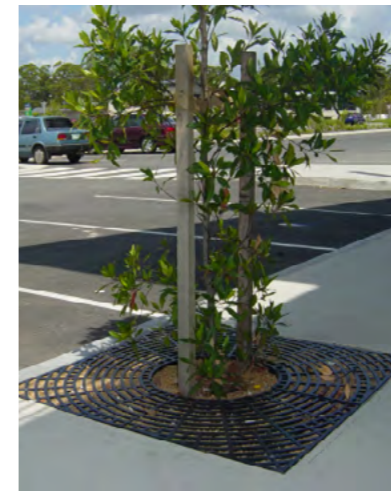
Rubbish Bin - stainless steel



Bollards (Fixed and Removable) - stainless steel



Bike Rack - stainless steel



Tree Grate - cast aluminium



Mass Granite Seat (edges of rain gardens and terraces)



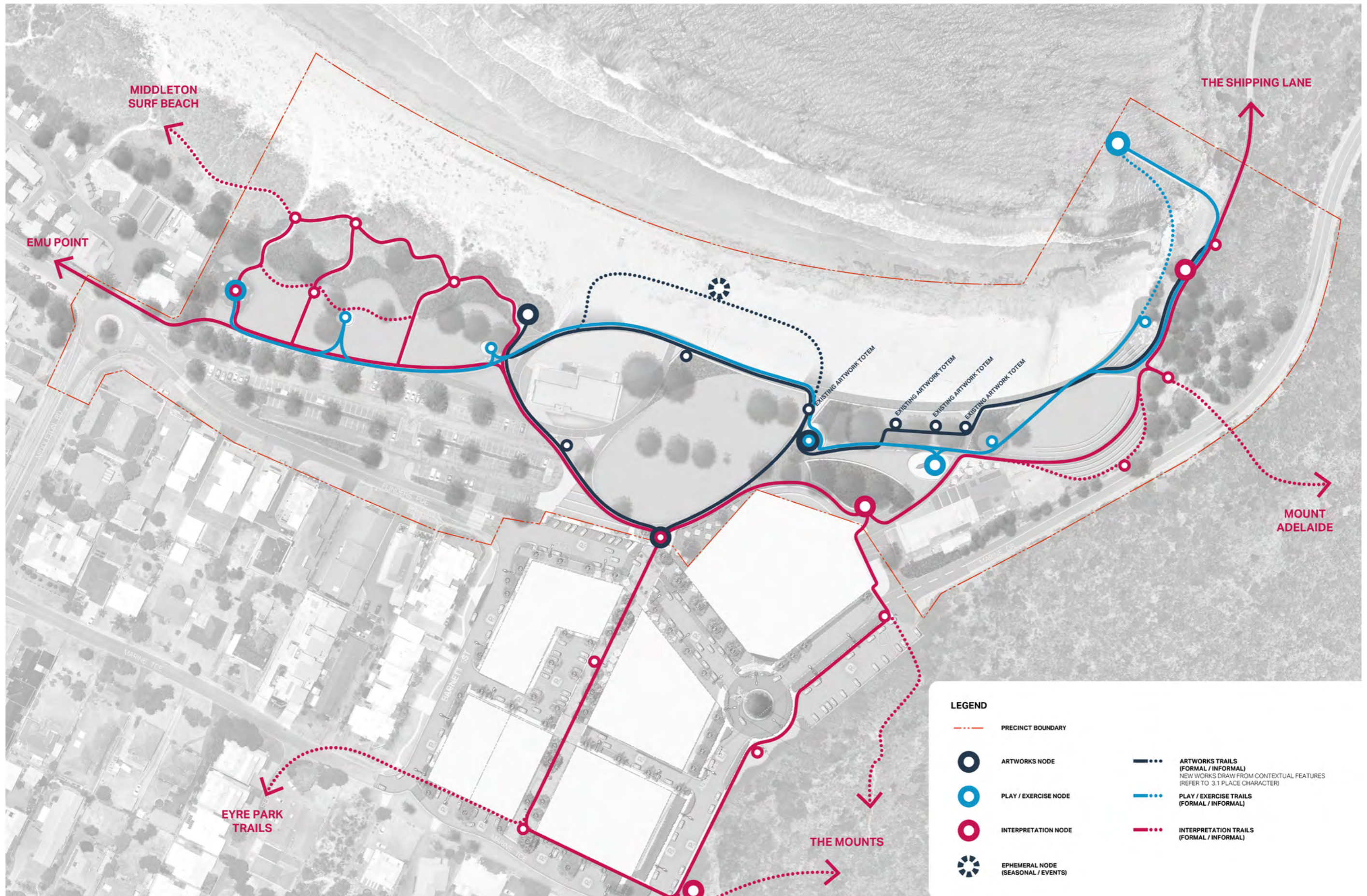
Shelters & Decks

The application of timber furniture and decking throughout the Middleton Beach Foreshore will evoke a sense of warmth, comfort and coastal character.

Timber features in the new multipurpose shelters that are dotted throughout the site, so as to generate a sense of material cohesiveness. These structures serve as picnic areas, bus shelters, and recreational hubs for beach-goers, whilst simultaneously providing community information and interpretation opportunities.

The shelters take cues from the selected furniture suite to further promote a sense of space specific to Middleton Beach. A consideration of the wider context of the foreshore will see shelters strategically placed so as to not obscure views or interrupt the flow of pedestrian traffic. With a minimalist and lightweight construction, these shelters blend into the landscape and remain discreet yet functional and versatile.



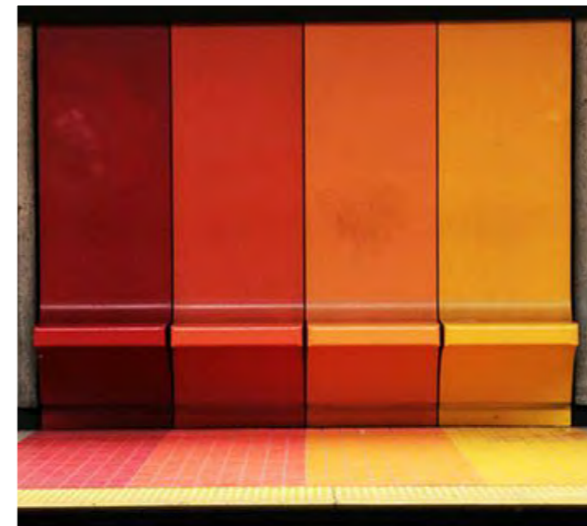
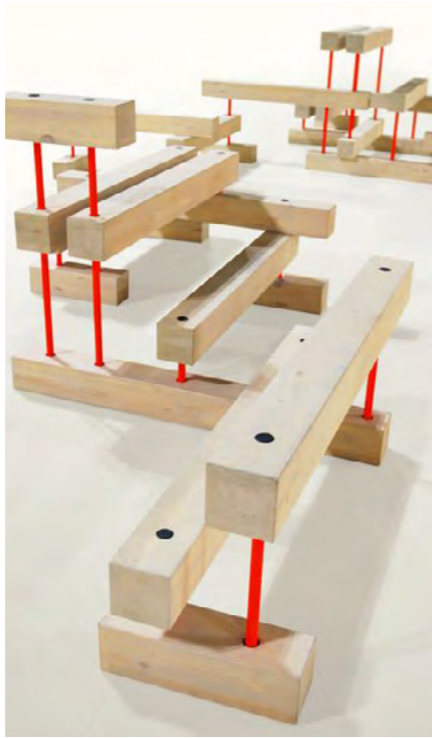


Artworks, Play & Interpretation

The beach and foreshore precinct enhancement offers a unique opportunity for visitors and locals to learn, listen and enjoy the pristine surrounds and rich site history.

An integrated strategy has been developed to creatively deliver a layer of public art, heritage interpretation and interactive play features, which evokes a local narrative.

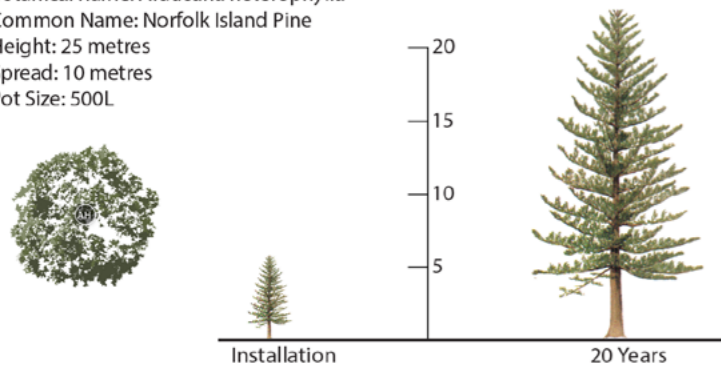
The opportunity for a vibrant mix of local and invited artisans will be explored, with careful consideration to the landscape and architectural design palettes, and new city wide standards of material selection, maintenance and quality finishes.



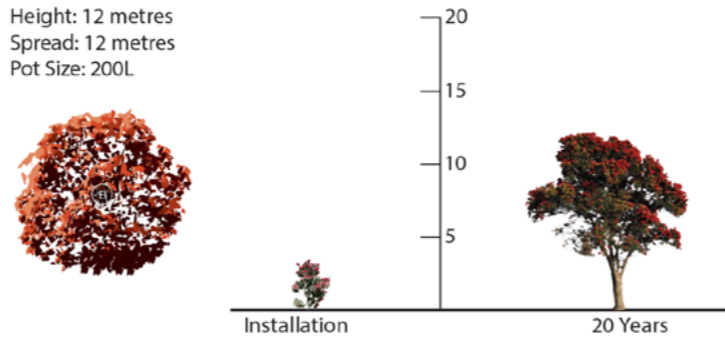


Planting Palette | Trees

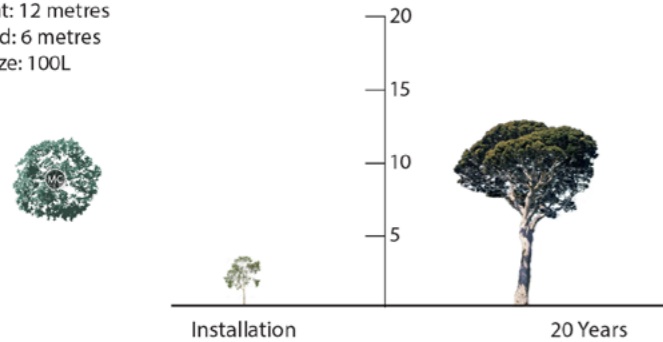
Botanical name: *Araucaria heterophylla*
Common Name: Norfolk Island Pine
Height: 25 metres
Spread: 10 metres
Pot Size: 500L



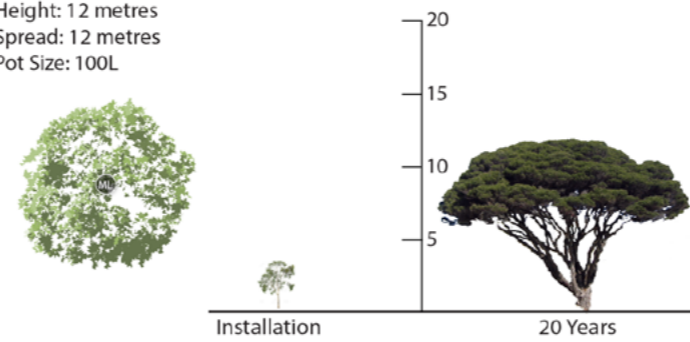
Botanical name: *Metrosideros excelsa*
Common Name: New Zealand Christmas Tree
Height: 12 metres
Spread: 12 metres
Pot Size: 200L



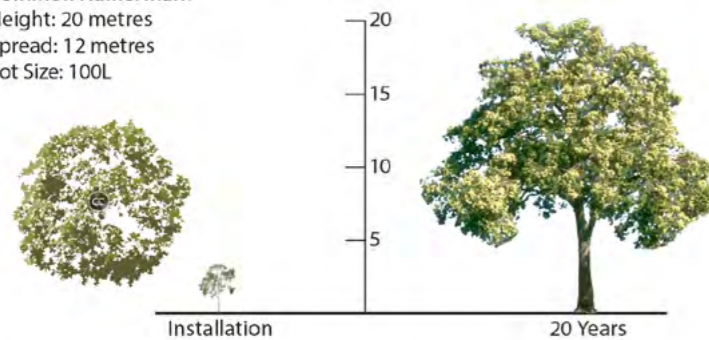
Botanical name: *Melaleuca cuticularis*
Common Name: Salt-Water Paperbark
Height: 12 metres
Spread: 6 metres
Pot Size: 100L



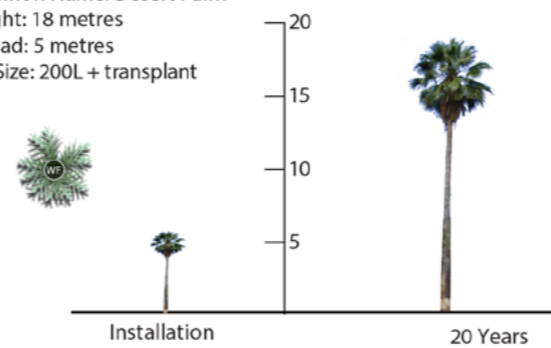
Botanical name: *Melaleuca lanceolata*
Common Name: Rottnest Island Tea-Tree
Height: 12 metres
Spread: 12 metres
Pot Size: 100L



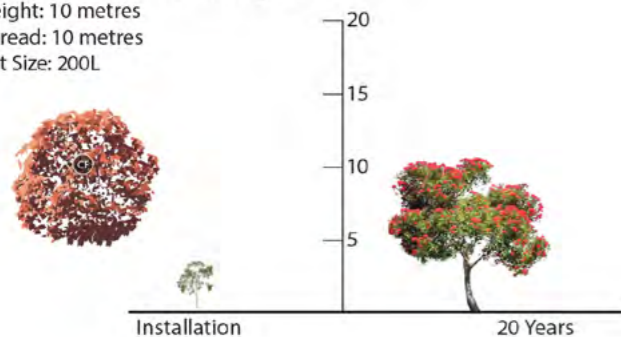
Botanical name: *Corymbia calophylla*
Common Name: Marri
Height: 20 metres
Spread: 12 metres
Pot Size: 100L



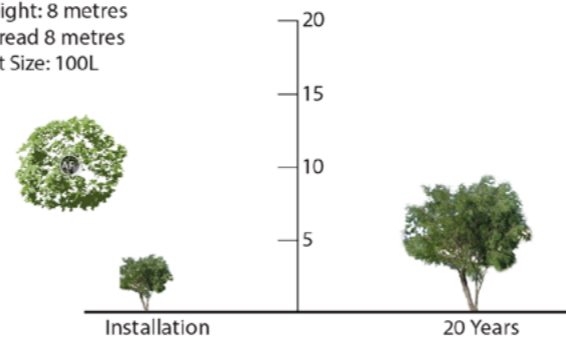
Botanical name: *Washingtonia filifera*
Common Name: Desert Palm
Height: 18 metres
Spread: 5 metres
Pot Size: 200L + transplant



Botanical name: *Corymbia ficifolia*
Common Name: Red Flowering Gum
Height: 10 metres
Spread: 10 metres
Pot Size: 200L



Botanical name: *Agonis flexuosa*
Common Name: WA Peppermint
Height: 8 metres
Spread: 8 metres
Pot Size: 100L



The planting scheme provides a strong landscape structure for the development including advanced tree stock used in select locations to create a landscape that is appropriate in scale to that of the proposed buildings and spaces. The intention is to plant the lower order streets with smaller street trees to maintain the current character of the suburb whilst the public open spaces are characterised by a larger stands of larger specimen trees and deciduous trees where solar access to built form will be enhanced.

Tree planting is used to unify spaces and routes, frame views and highlight desire lines and focal points as well as improve the local environmental conditions and in particular mitigate prevailing winds. Deciduous planting, flowering species and trees with distinct Spring colour have been chosen to provide seasonal change and interest relating back to the local environs and character of the place.

In discussion with City of Albany's landscape architects and urban designers it is agreed that root control devices may adversely affect the health of street trees in the longer term. An acceptable alternative to root barriers will be the use of tree-stock with noninvasive root systems.

All public green infrastructure will be irrigated via a water connection to the irrigation supply at the foreshore parklands. The water connection and meter will be located within a cabinet concealed within the seating on the foreshore or within a below ground pit within the paved public areas dependent on the City's preference for this service location.



Planting Palette | Understorey

The understorey planting design references the geomorphic structure of the landscape that characterises Albany's low-lying coastal heath and the elevated Mt Adelaide bushland and granite outcrops.

Swales and Rain gardens

Lining Adelaide Crescent and the extension of Marine Drive area is a series of vegetated drainage swales. The Promenade includes rain gardens that are sunken garden and turfed areas set into central areas of the reserve. The swales and rain gardens provide retention, filtration, gross pollutant traps and bio-remediation and have been developed to include integrated street furniture and lighting. The dense planting of *Lepidosperma calcicola* and *Meeboldina scariosa* assists in increasing biodiversity, stripping nutrients and binding pollutants into the soil profile.

Streetscapes

The understorey planting within the streetscape is contained within kerbed beds that define the alfresco areas and address the level change between the road and footpath. Mass planting beds will be populated with local ground covers and coastal species that will maintain clear sight lines for traffic and pedestrian crossings.

Where existing streetscapes are currently addressed the existing character of the street will be maintained with minor enhancements and planting at key locations to soften the inclusion of formalised parking bays.

Foreshore Parklands

The foreshore has been defined as an urban green space that provides a high level of public amenity. As such the planting palette is bio-diverse, vibrant, dynamic and seasonally-rich. The understorey planting provides an integrational link between the dunes and rocky outcrops, providing opportunities for the public to interact with nature. Its variety of species and structure will enhance the overall habitat range within the Middleton Beach precinct. The planting will be carefully designed to ensure that there are clear sight lines into and out of the foreshore and will be structured in a relaxed and informal arrangement.

Promenade

The promenade is predominantly paved with parklet-lawn areas providing soft, flexible green space for passive use with contrast and seasonal colour. These green areas will articulate the built form addressing this corridor and complement the flowering trees selections.

Swales and Rain Gardens



Lepidosperma calcicola



Meeboldina scariosa

Streetscapes



Carpobrotus virescens



Dianella revoluta 'Little Rev'



Casuarina glauca 'Cousin it'

Foreshore



Hibbertia scandens



Scaevola crassifolia

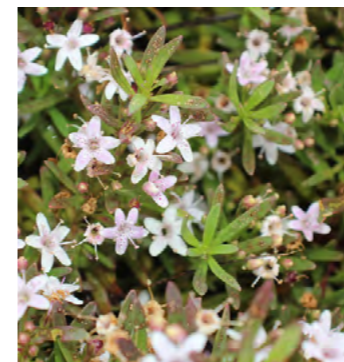
Promenade



Anigozanthos manglesii



Dianella tasmanica TASRED



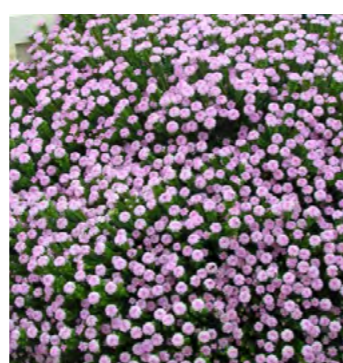
Myoporum parvifolium



Lepidosperma gladiatum



Olearia little smokie



Pimelea ferruginea



Festuca glauca



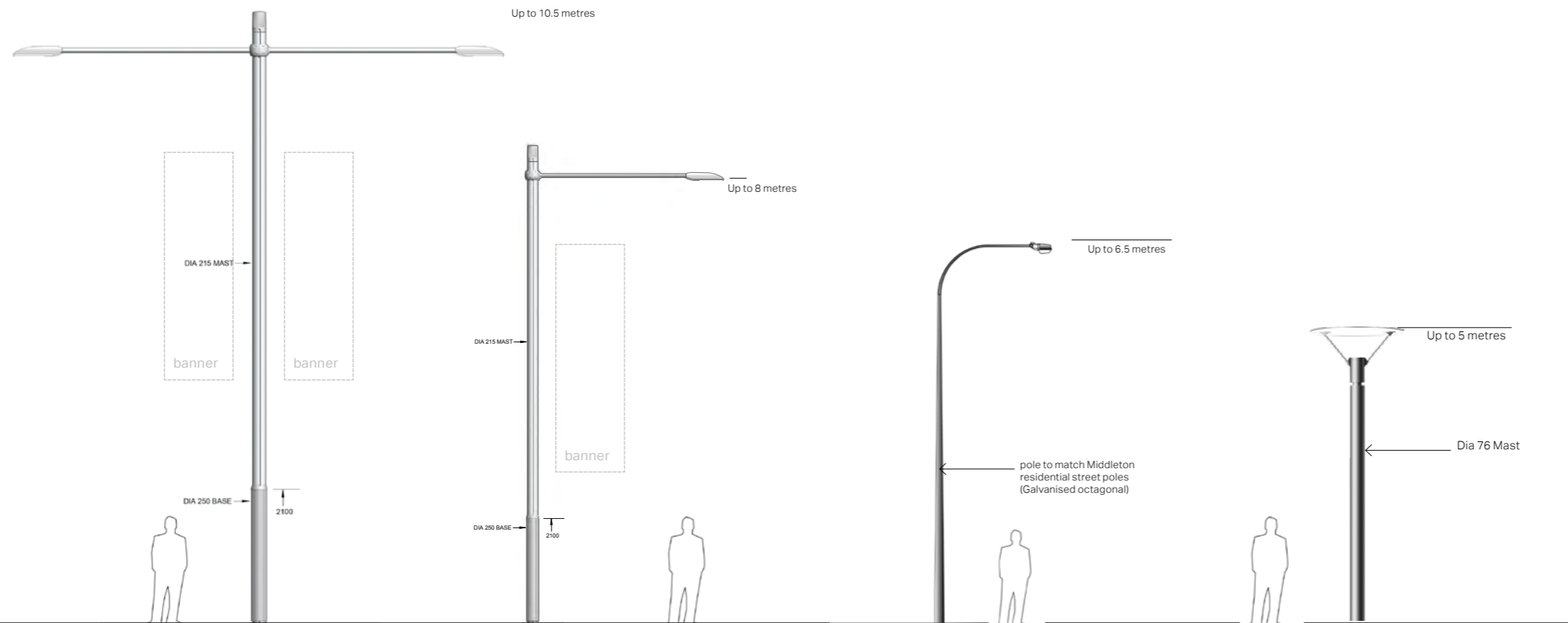
Boronia crenulata



Lighting | Event Support

The lighting strategy aims to create an elegant, multifunctional and aesthetically pleasing experience after dark that enables visitors to safely navigate all the routes and open spaces, whilst creating strong visual character for the site. The lighting also aims to support the various events that will take place and related commercial activities.

The overall lighting for the site is to be achieved from a variety of sources which include column lighting, in-ground up-lighting, soffit lighting and overspill lighting from buildings, together with atmospheric lighting accents to trees, planters and artworks to emphasise key public spaces.



Multi-Function Pole (Double Outreach)

Adelaide Crescent - Marine Drive east arrival point and over flow carpark servicing the beach and mounts parklands precincts

Multi-Function Pole (Single Outreach)

Flinders Parade (west) to accommodate events, accent spotlights and banners or seasonal decals and to shine away from future residences to reduce light pollution.

Western Power Pole (Single Outreach)

Located on all other streets to tie in with existing streetscapes at typical spacings to provide simple, low-maintenance lighting to the street

Parkland Pole (Reflector Panel)

Located on all other streets to tie in with existing streetscapes and provide simple low maintenance lighting to the street



Directional Accent Spot Light

Strategically positioned on multipoles to enhance site features, trees and wayfinding



Up-lighting

We-ef ETC130-GN.

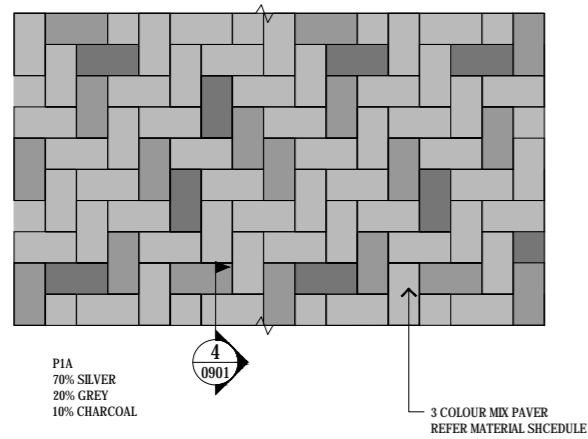
Flush in-ground up-light with directional for focused light distribution

Appendix A Materials Construction Details

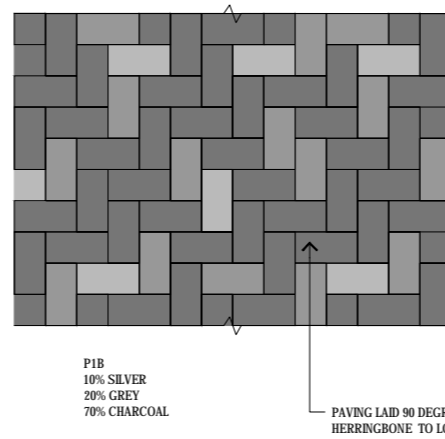
Concrete Unit Paving



Name: Concrete Segmental Pavers
 Finish: Exposed aggregate
 Colour: Silver, Grey and Charcoal



1 PAVING TYPE 1A TYPICAL DETAIL PLAN
 SCALE 1:20

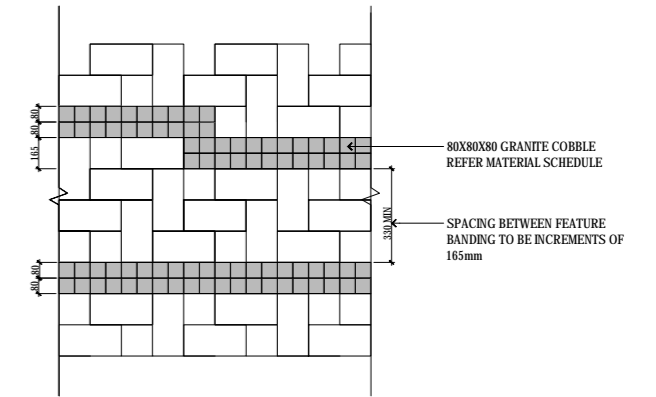


2 PAVING TYPE 1B TYPICAL DETAIL PLAN
 SCALE 1:20

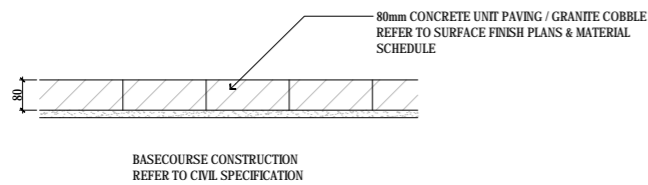
Granite Cobble Paving



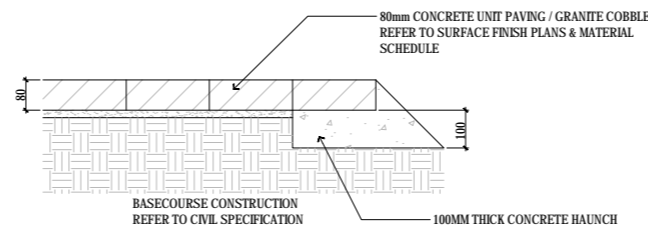
Name: Granite Cobble Unit Paver
 Finish: Milled / Sawn
 Colour: Charcoal



3 TYPICAL PAVING TYPE 1C - FEATURE BANDING
 SCALE 1:20

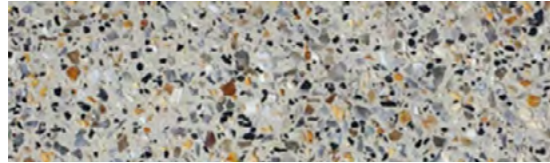


4 TYPICAL TRAFFICABLE UNIT PAVING TYPE P1A/P1B/P1C
 SCALE 1:10



5 TYPICAL UNIT PAVING TO CONCRETE HAUNCH
 SCALE 1:10

Path



Name: Insitu Coloured Concrete Path
Finish: Exposed Aggregate

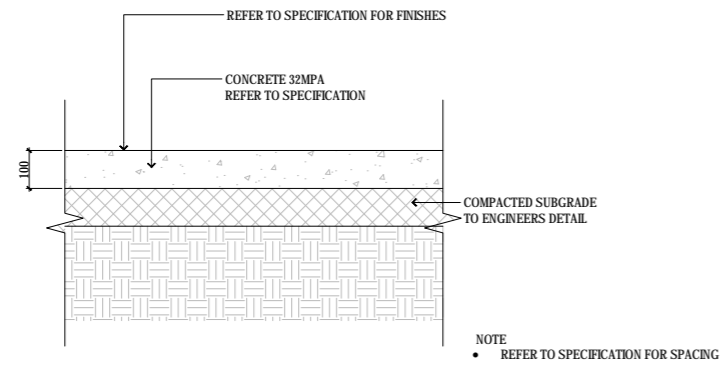


Name: Natural Grey Concrete Path
Finish: Broomed

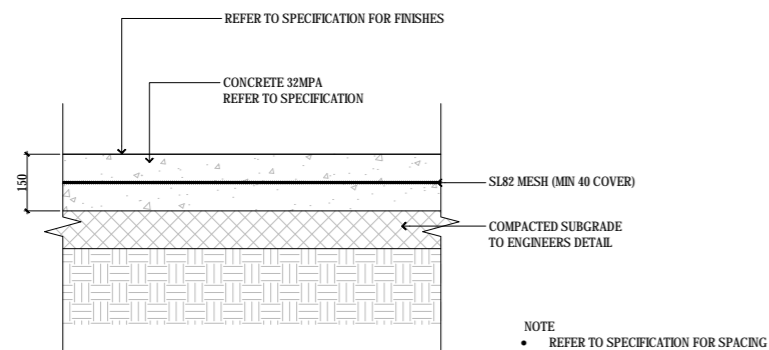
Retaining Walls and Planter Walls



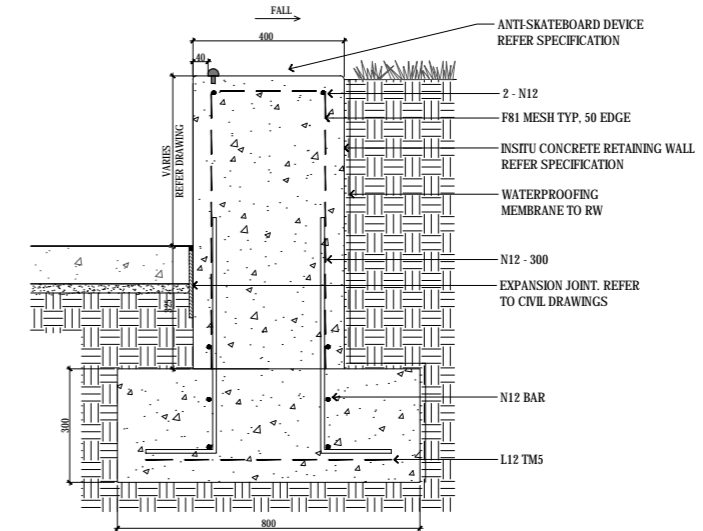
Name: Granite Wall (Local Stone)
Finish: Drystone
Dimensions: 450 High Typical



6 TYPICAL INSITU CONCRETE PATH
SCALE 1:10



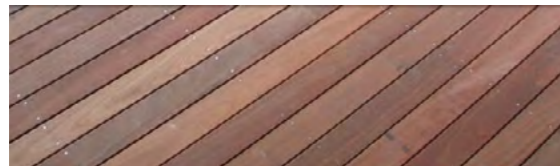
7 TYPICAL TRAFFICABLE INSITU CONCRETE PATH
SCALE 1:10



NOTE:
GRAFFITI COATING TO ALL EXPOSED SURFACES.
REFER TO SPECIFICATION.

5 TYPICAL OFF FORM CONCRETE WALL DETAIL
SCALE 1:10

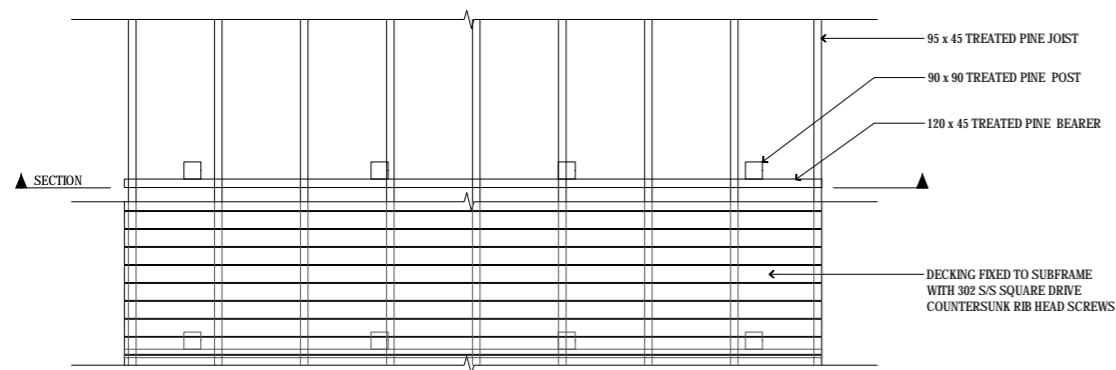
Decking



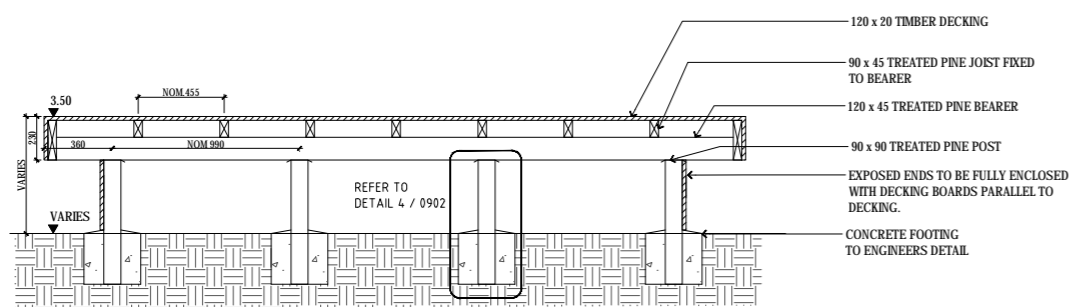
Name: Jarrah Timber Decking

Finish: Dressed and Oiled

Dimensions: 140 x 25 planks



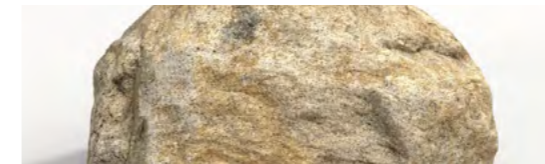
4 TYPICAL TIMBER DECK - PLAN
SCALE 1:20



NOTE:
TIMBER DECK AND SUB STRUCTURE TO BE IN ACCORDANCE WITH AS 1684 TIMBER FRAMING CODE

5 TYPICAL TIMBER DECK RAISED - SECTION
SCALE 1:20

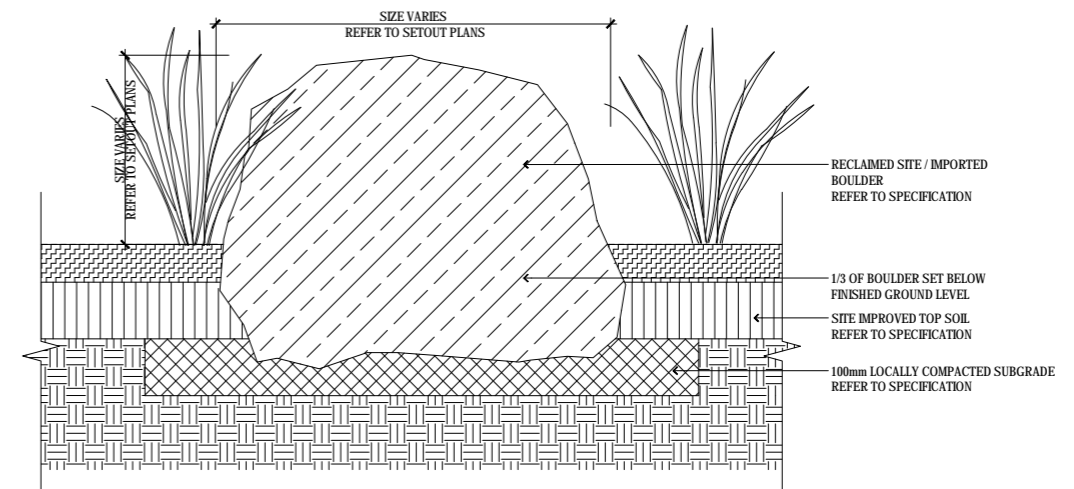
Feature Items



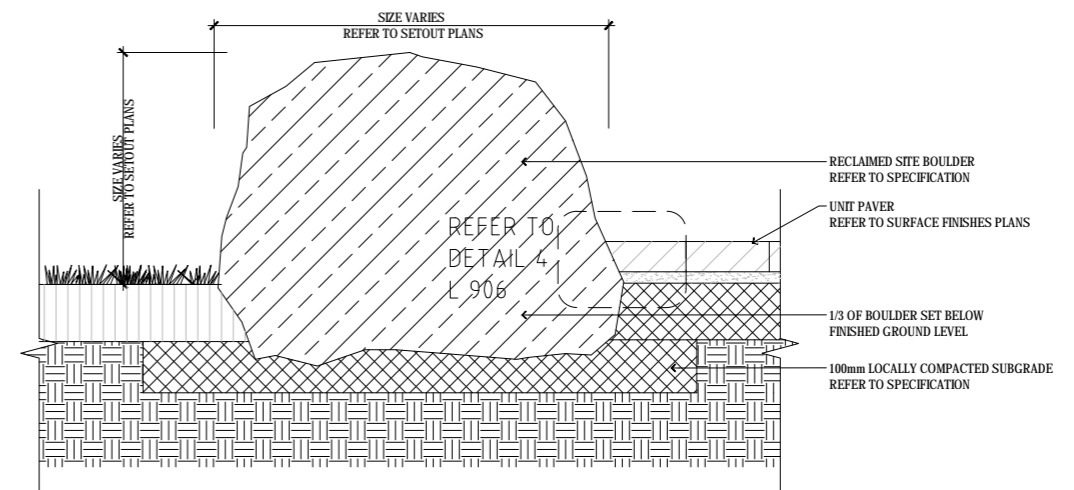
Name: Granite Boulders

Finish: Local Natural Stone

Dimensions: 1000 - 1500 dia



1 BOULDER IN PLANTING LEVEL
SCALE 1:10

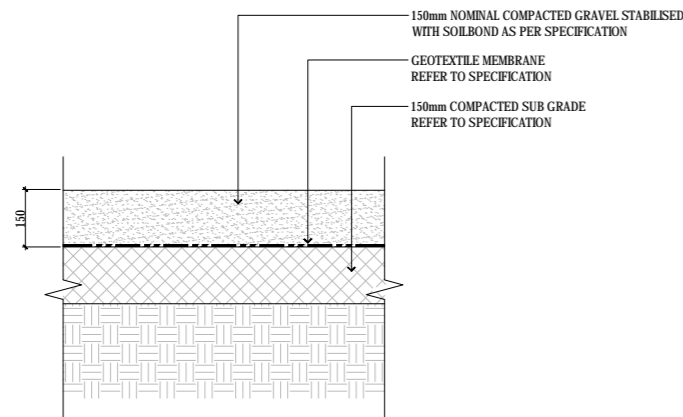


2 BOULDER IN EDGE OF RAINGARDEN
SCALE 1:10

Gravel



Name: Gravel
 Finish: Summerstone Fines
 Dimensions: 1-6mm Nom. particle size
 (30% fines)

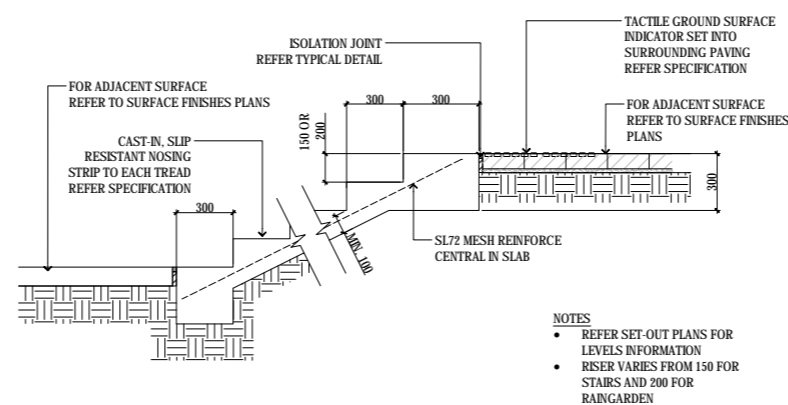


2 GRAVEL TYPE 1
SCALE 1:10

Tactile Paving



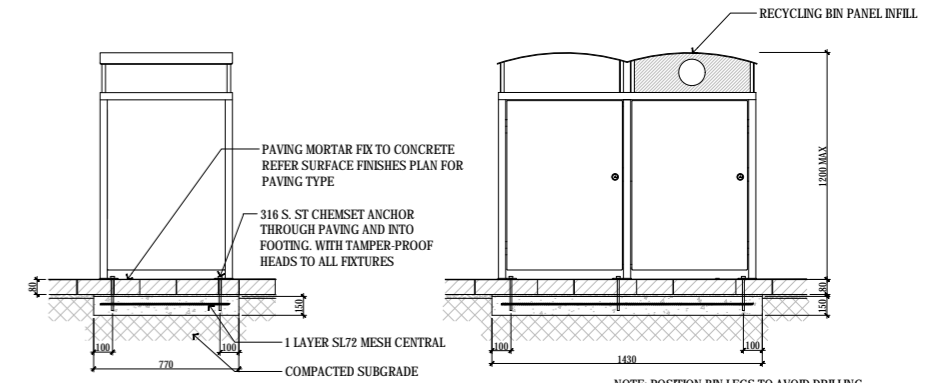
Name: Urban Stone - Tactile paving
 Finish: Polyurethane 10mm Bladed Shaft
 Dimensions: 1200 x 300 x 30



NOTES
 • REFER SET-OUT PLANS FOR LEVELS INFORMATION
 • RISER VARIES FROM 150 FOR STAIRS AND 200 FOR RAINGARDEN

4 TYPICAL STAIRS
SCALE 1:20

Recycling stations | Litter



NOTE: POSITION BIN LEGS TO AVOID DRILLING WITHIN 30MM OF EDGE OF PAVING UNIT. CONCRETE $f_c=25\text{Mpa}$. FIXING TO MANUFACTURERS RECOMMENDATION.

7 TYPICAL DUAL BIN ENCLOSURE FOOTING DETAIL
SCALE 1:20



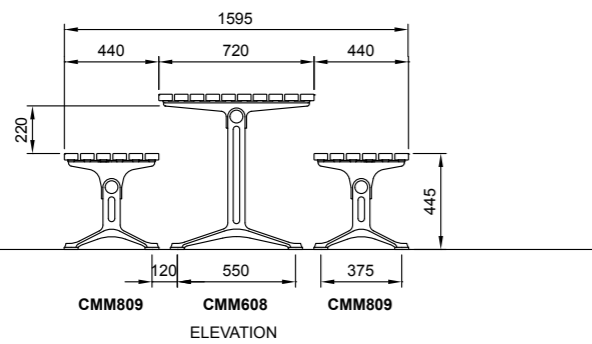
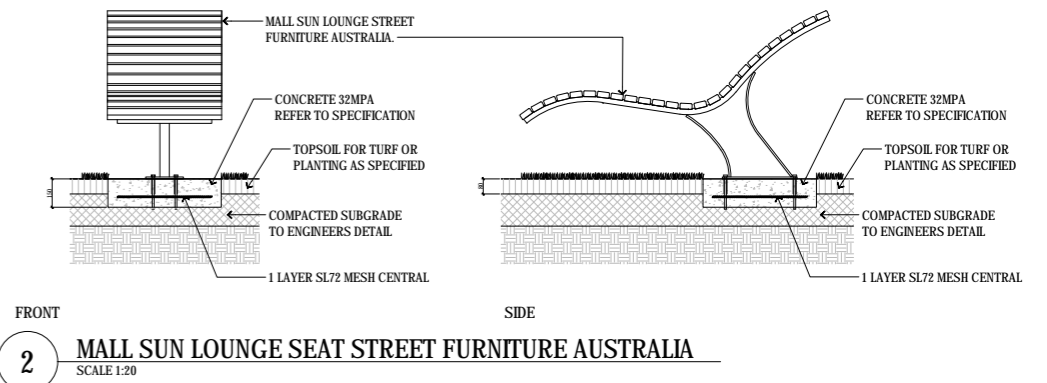
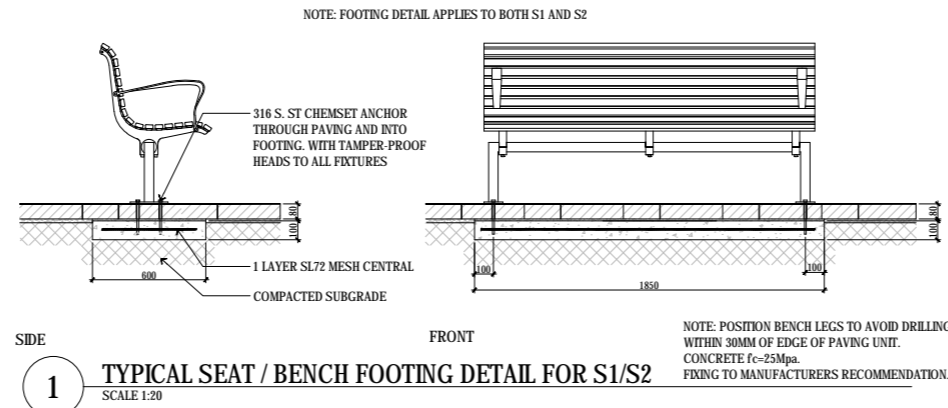
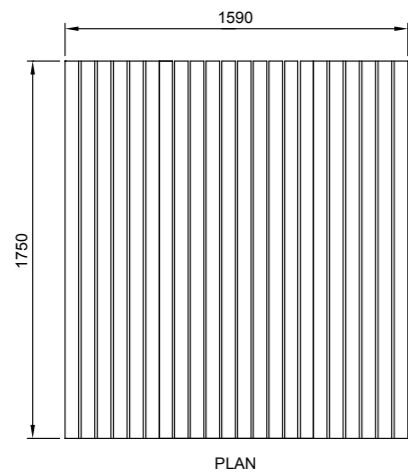
Park Table and Benches - Aluminium batten and frame



Park Bench Seat - Aluminium batten and frame



Sun Lounge Seat - Aluminium batten and frame (Foreshore)





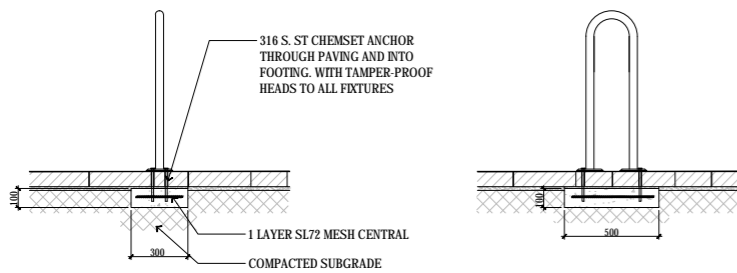
Bike Rack - stainless steel



Bollards (Fixed & Removable) - SFA B3F Flat (Single Collar)

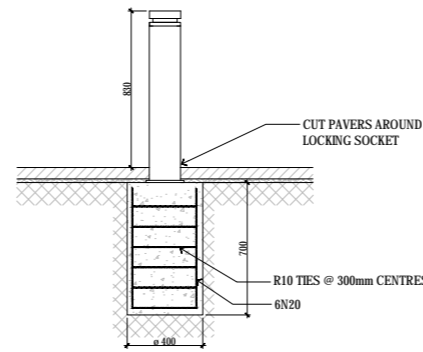


Drinking Fountain - stainless steel + dog bowl

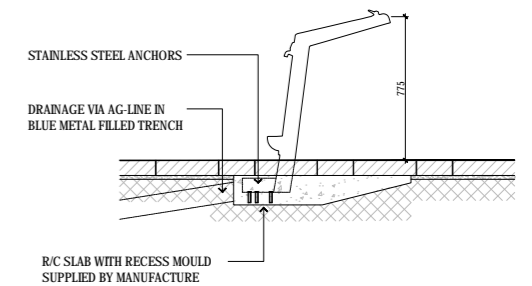


NOTE: POSITION BIKE RACK TO AVOID DRILLING WITHIN 30MM OF EDGE OF PAVING UNIT. CONCRETE $f_c = 25\text{Mpa}$. FIXING TO MANUFACTURER'S RECOMMENDATION.

3 TYPICAL BIKE RACK DETAIL
SCALE 1:20

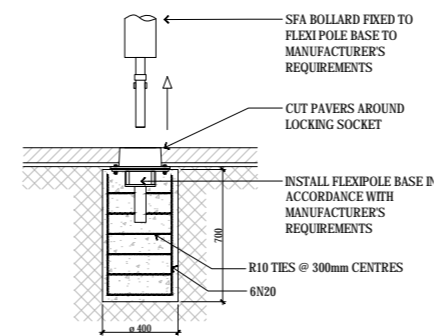


4 TYPICAL FIXED BOLLARD TYPE 1
SCALE 1:20



NOTE: FOUNTAIN BASEPLATE, 1 MANUFACTURER

6 TYPICAL DRINKING FOUNTAIN FOOTING DETAIL
SCALE 1:20



5 TYPICAL FLEXIPOLE BOLLARD TYPE 2
SCALE 1:20



Appendix E

Government Gazette



**WESTERN
AUSTRALIAN
GOVERNMENT
Gazette**

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PRINT POST APPROVED PP665002/00041



PERTH, TUESDAY, 24 JANUARY 2017 No. 20

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CONTENTS

PART 1

	Page
Attorney General Regulations Amendment (Travel Agents) Regulations 2016	744
Dog Amendment Regulations 2017	746
Health (Public Buildings) Amendment Regulations 2017	741
Travel Agents Act 1985 Expiry Notice 2016	741

PART 2

Agriculture and Food	747
Deceased Estates	756
Fire and Emergency Services	748
Justice	748
Local Government	748
Planning	749

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— PART 1 —

CONSUMER PROTECTION

CP301

Travel Agents Act 1985

Travel Agents Act 1985 Expiry Notice 2016

Made by the Minister under the *Travel Agents Act 1985* section 61.

1. Citation

This notice is the *Travel Agents Act 1985 Expiry Notice 2016*.

2. Minister satisfied of matters in section 61(3)

The Minister is satisfied of the matters specified in the *Travel Agents Act 1985* section 61(3).

3. Expiry

The *Travel Agents Act 1985* expires at the end of the day after the day on which this notice is published in the *Gazette*.

M. MISCHIN, Minister for Commerce.

HEALTH

HE301

Health Act 1911

Health (Public Buildings) Amendment Regulations 2017

Made by the Governor in Executive Council.

1. Citation

These regulations are the *Health (Public Buildings) Amendment Regulations 2017*.

2. Commencement

These regulations come into operation as follows —

- (a) regulations 1 and 2 — on the day on which these regulations are published in the *Gazette*;
- (b) the rest of the regulations — on the day after that day or the day after the *Health Regulations Amendment (Public Health) Regulations 2016* Part 19 comes into effect, whichever is the later.

3. Regulations amended

These regulations amend the *Health (Public Buildings) Regulations 1992*.

4. Regulation 3 amended

- (1) In regulation 3(1) delete the definitions of:
AS/NZS 4360
supply authority
- (2) In regulation 3(1) insert in alphabetical order:

AS/NZS ISO 31000:2009 means Australian/New Zealand Standard AS/NZS ISO 31000:2009 - Risk Management - Principles and Guidelines;

5. Regulation 4 amended

In regulation 4(2):

- (a) delete “5 000” and insert:

1 000

- (b) delete “AS/NZS 4360.” and insert:

AS/NZS ISO 31000:2009.

6. Regulation 9 amended

In regulation 9(4)(a) delete “AS/NZS 4360; and” and insert:

AS/NZS ISO 31000:2009; and

7. Regulation 12 deleted

Delete regulation 12.

- 8. Regulation 14 amended**
- (1) In regulation 14(3)(a)(iii) delete “Officer;” and insert:
- Officer.
- (2) Delete regulation 14(3)(b).
- 9. Regulation 17 deleted**
- Delete regulation 17.
- 10. Regulation 19 amended**
- In regulation 19(1) delete “A radiant” and insert:
- An
- 11. Regulation 24 deleted**
- Delete regulation 24.
- 12. Regulation 25 amended**
- In regulation 25 before “telephone” insert:
- fixed-line
- 13. Regulation 26 amended**
- In regulation 26(1a)(b) delete “AS/NZS 4360.” and insert:
- AS/NZS ISO 31000:2009.
- 14. Regulation 30 deleted**
- Delete regulation 30.
- 15. Regulation 33 deleted**
- Delete regulation 33.
- 16. Regulation 34 deleted**
- Delete regulation 34.
- 17. Regulation 38 deleted**
- Delete regulation 38.

- 18. Regulation 40 deleted**
Delete regulation 40.
- 19. Part 5 Division 4 deleted**
Delete Part 5 Division 4.
- 20. Regulation 57 deleted**
Delete regulation 57.
- 21. Part 6 deleted**
Delete Part 6.

K. H. ANDREWS, Clerk of the Executive Council.

JUSTICE

JU301

Criminal Procedure Act 2004
Fines, Penalties and Infringement Notices Enforcement Act 1994
Sentencing Act 1995
State Administrative Tribunal Act 2004

Attorney General Regulations Amendment (Travel Agents) Regulations 2016

Made by the Governor in Executive Council.

Part 1 — Preliminary

1. Citation

These regulations are the *Attorney General Regulations Amendment (Travel Agents) Regulations 2016*.

2. Commencement

These regulations come into operation as follows —

- (a) Part 1 — on the day on which these regulations are published in the *Gazette*;
- (b) the rest of the regulations — when the *Travel Agents Act 1985* expires under section 61 of that Act.

**Part 2 — *Criminal Procedure Regulations 2005*
amended**

3. Regulations amended

This Part amends the *Criminal Procedure Regulations 2005*.

4. Schedule 1A amended

In Schedule 1A delete “*Travel Agents Act 1985*”.

**Part 3 — *Fines, Penalties and Infringement Notices
Enforcement Regulations 1994* amended**

5. Regulations amended

This Part amends the *Fines, Penalties and Infringement Notices Enforcement Regulations 1994*.

6. Schedule 1 amended

In Schedule 1 delete “*Travel Agents Act 1985*”.

Part 4 — *Sentencing Regulations 1996* amended

7. Regulations amended

This Part amends the *Sentencing Regulations 1996*.

8. Schedule 2 amended

In Schedule 2 delete “*Travel Agents Act 1985* s. 41(1)”.

**Part 5 — *State Administrative Tribunal
Regulations 2004* amended**

9. Regulations amended

This Part amends the *State Administrative Tribunal Regulations 2004*.

10. Schedule 1 amended

In Schedule 1 delete “*Travel Agents Act 1985*”.

R. KENNEDY, Clerk of the Executive Council.

LOCAL GOVERNMENT

LG301

Dog Act 1976

Dog Amendment Regulations 2017

Made by the Governor in Executive Council.

1. Citation

These regulations are the *Dog Amendment Regulations 2017*.

2. Commencement

These regulations come into operation as follows —

- (a) regulations 1 and 2 — on the day on which these regulations are published in the *Gazette*;
- (b) the rest of the regulations — on the day after that day.

3. Regulations amended

These regulations amend the *Dog Regulations 2013*.

4. Regulation 19 amended

Delete regulation 19(5) and insert:

- (5) If an unsterilised dog is registered for its lifetime and is sterilised —
 - (a) in the 1st year after it is registered, the owner is entitled to a refund of an amount equal to the difference between the registration fee paid and the lifetime registration fee that would have been payable for a sterilised dog; or
 - (b) in the 2nd year after it is registered, the owner is entitled to a refund of an amount equal to the difference between two-thirds of the registration fee paid and two-thirds of the lifetime registration fee that would have been payable for a sterilised dog; or
 - (c) in the 3rd year after it is registered, the owner is entitled to a refund of an amount equal to the difference between one-third of the registration fee paid and one-third of the lifetime registration fee that would have been payable for a sterilised dog.

R. KENNEDY, Clerk of the Executive Council.

— PART 2 —

AGRICULTURE AND FOOD

AG401

SOIL AND LAND CONSERVATION ACT 1945**CAPEL LAND CONSERVATION DISTRICT (APPOINTMENT OF MEMBERS OF DISTRICT COMMITTEE) INSTRUMENT 2017**

Made by the Commissioner of Soil and Land Conservation.

1. Citation

This Instrument may be cited as the *Capel Land Conservation District (Appointment of Members) Instrument 2017*.

2. Appointment of members

Under section 23(2b) of the Act and clause 5(1) of the *Soil and Land Conservation (Capel Land Conservation District) Order 1993**, the following members are appointed to the land conservation district committee for the Capel Land Conservation District—

- (a) as persons actively engaged in, or affected by or associated with, land use in the district—
delete Mr Michael Norman Norton, Ms Chelsea Rusha and Ms Lynne King. **Insert** Ms Jacqui Granger of Capel.

(*Published in the Gazette of 23 April 1993 at pp.2170-2172 and Amendment Orders approved by Executive Council on 2 July 1996, 13 August 1996 and 1 December 1998 (refer to Department of Agriculture and Food reference: 125219V1)).

3. Term of office

Members appointed to the committee under this instrument will hold office for a term expiring on 18 January 2020.

ANDREW WATSON, Commissioner of Soil and Land Conservation.

Dated this 18th day of January 2017.

AG402

SOIL AND LAND CONSERVATION ACT 1945**SOIL AND LAND CONSERVATION (KATANNING LAND CONSERVATION DISTRICT) AMENDMENT ORDER 2016**

Made by the Governor in Executive Council under Section 23 (2d) of the *Soil and Land Conservation Act 1945* on the recommendation of the Minister for Agriculture and Food.

Citation

1. This order may be cited as the *Soil and Land Conservation Act (Katanning Land Conservation District) Amendment Order 2016*.

Commencement

2. This order will take effect on the day which it is published in the *Gazette*.

Principal Order

3. In this order the *Soil and Land Conservation Act (Katanning Land Conservation District) Order 1990** is referred to as the principal order.

(*Published in the Government Gazette of 6 July 1990 at pp. 3268-3269 and an Amendment Order approved by Executive Council on 11 March 1997 [refer Department of Agriculture and Food Western Australia file reference 881722V02P00 and 153852V01]).

Clause 5 amended

4. Clause 5 of the principal order is amended by—

- (i) Deleting “22” in subclause (1) and substituting the following—“17”;
- (ii) Deleting “16” in subclause (1)(d)(i) and substituting the following—“12”; and
- (iii) Deleting “2” in subclause (1)(b) and substituting the following “1”.

By Her Excellency’s command

R. NEILSON, Clerk of the Executive Council.

FIRE AND EMERGENCY SERVICES

FE401

BUSH FIRES ACT 1954 TOTAL FIRE BAN DECLARATION

Correspondence No. 12080

Pursuant to powers delegated under the *Bush Fires Act 1954*, the Assistant Commissioner of the Department of Fire and Emergency Services, declared under Section 22A of the *Bush Fires Act 1954*, a total fire ban for 15th January 2017 for the local government districts of—

Cranbrook, Broomehill-Tambellup, Katanning, Kojonup, West Arthur, Wagin, Woodanilling, Boddington, Brookton, Cuballing, Narrogin, Pingelly, Wandering, Wickepin, Williams, Armadale, Gosnells, Swan, Chittering, Gingin, Kalamunda, Mundaring, Serpentine-Jarrahdale.

GRAHAM SWIFT, Assistant Commissioner of the Department of Fire and Emergency Services, as a sub-delegate of the Minister under section 16 of the *Fire and Emergency Services Act 1998*.

Dated 14th January 2017.

JUSTICE

JU401

JUSTICES OF THE PEACE ACT 2004 RESIGNATIONS

It is hereby notified for public information that the Minister has accepted the resignation of—

Mrs Gwenda May Pollard of Narembeen

from the Office of Justice of the Peace for the State of Western Australia.

MICHAEL JOHNSON, A/Executive Director,
Court and Tribunal Services.

LOCAL GOVERNMENT

LG401

LOCAL GOVERNMENT ACT 1995 *Shire of Toodyay* (BASIS OF RATES)

This notice, which is for public information only, is to confirm that—

I, Brad Jolly, being delegated by the Minister of the Crown to whom the administration of the *Local Government Act 1995* is committed by the Governor, and acting pursuant to section 6.28 (1) of that Act, hereby, and with effect from 1 July 2017, determined that the method of valuation to be used by the Shire of Toodyay as the basis for a rate in respect of the land referred to in the Schedules are to be the gross rental value of the land;

Schedule A

	Designated Land
UV to GRV	All those portions of land being Lots 521 to 527 inclusive and Lot 534 as shown on Deposited Plan 28494; Lots 101 to 112, Lot 114, Lots 116 to 120 inclusive and Lots 122 to 124 inclusive as shown on Deposited Plan 29054; Lot 5 as shown on Deposited Plan 32196; Lots 125 to 133 inclusive, Lots 136 to 140 inclusive and Lot 142 as shown on Deposited Plan 32527; Lot 601 as shown on Deposited Plan 42855 and Lot 38 as shown on Deposited Plan 62986.

Schedule B

	Designated Land
UV to GRV	All those portions of land being Lot M1978 as shown on Diagram 17554; Lot 1 as shown on Diagram 63264 and Lot 500 as shown on Diagram 90146.

Schedule C

	Designated Land
UV to GRV	All those portions of land being Lot 2, Lot 3, Lot 5 and Lots 7 to 9 inclusive as shown on Plan 10315; Lots 12 to 18 inclusive, Lots 20 to 29 inclusive, Lot 33 and Lot 34 as shown on Plan 22110.

BRAD JOLLY, Executive Director Sector Regulation and Support,
Department of Local Government and Communities.

LG402

SHIRE OF CHITTERING

APPOINTMENTS

It is hereby notified for public information that Bronwyn Southee and Glenn Sargeson have been appointed as an Authorised Officer in accordance with the following and is effective immediately—

Caravan Parks and Camping Grounds Act 1995, Section 17 and 23

Caravan Parks and Camping Grounds Regulations 1997, Regulation 6

All previous authorisations for Matthew Sharpe under the following are hereby revoked effective immediately—

Bush Fires Act 1954, Section 59(3)

Bush Fires Act 1954, Section 38—Fire Control Officer

Caravan Parks and Camping Grounds Act 1995, Sections 17(1), 23(2) and 23(11)

Cat Act 2011, Section 48(1)

Cemeteries Act 1986, Section 64(1)—Issue of Infringement Notices

Control of Vehicles (Off-road Areas) Act 1978 and Regulations

Dog Act 1976 and Regulations

Litter Act 1979 and Regulations

Local Government Local Laws

Local Government Act 1995, Sections 3.39, 9.10, 9.11 and 9.15

Local Government Act 1995, Sections 9.13, 9.16 and 9.17

Local Government Act 1995, Sections 3.28 and 3.29

Local Government Act 1995, Section 3.39

Local Government (Miscellaneous Provisions) Act 1960, Section 449

Updated: 20 January 2017.

ALAN SHERIDAN, Chief Executive Officer.

PLANNING

PL401

PLANNING AND DEVELOPMENT ACT 2005
APPROVED LOCAL PLANNING SCHEME AMENDMENT
City of Gosnells
Local Planning Scheme No. 6—Amendment No. 164

Ref: TPS/1807

It is hereby notified for public information, in accordance with section 87 of the *Planning and Development Act 2005* that the Minister for Planning approved the City of Gosnells Local Planning Scheme amendment on 21 December 2016 for the purpose of—

1. Recoding 303 (Lot 384), 291 (Lot 301) Fraser Road North and 858 (Lot 461) Nicholson Road, Canning Vale from Residential R17.5 to R60.
2. Insert Clause 5.14—Additional site and development requirements into the Scheme text as follows—

5.14 ADDITIONAL SITE AND DEVELOPMENT REQUIREMENTS

(1) Schedule 14 sets out requirements relating to development that are additional to those set out in the R-Codes, an activity centre plans, local development plans or State or local planning policies.

(2) To the extent that a requirement referred to in subclause (1) is inconsistent with a requirement in the R-Codes, an activity centre plan, a local development plan or a State or local planning policy the requirement referred to in subclause (1) prevails.

3. Insert Schedule 14—Additional site and development requirements into the Scheme text as follows—

SCHEDULE 14—ADDITIONAL SITE AND DEVELOPMENT REQUIREMENTS

No.	Description of Land	Requirement
1.	Lot 384 and 301 Fraser Road North, Canning Vale. Lot 461 Nicholson Road, Canning Vale.	Any residential development immediately abutting Fraser Road North shall be a maximum of two storeys, in accordance with building heights as set out in the relevant State planning policy. At subdivision and development application stage, a detailed noise assessment and subsequent noise mitigation measures being undertaken to inform lot layout and building design to the satisfaction of the relevant decision maker (Western Australian Planning Commission or Local Government). No future crossovers will be allowed onto Nicholson Road.
2.	Lot 701 Warton Road (corner Furley Road), Southern River.	Shops and/or Convenience Store limited to a maximum 400m ² net lettable area.
3.	158 (Lot 2) Stalker Road, Gosnells; and Lot 164-168 (Lot 1100) Corfield Street, Gosnells	Lot 2—maximum retail floorspace 420 sq metres; Lot 1100—retail floorspace to comprise a pharmacy only.
4.	Lots 21 (No. 9), 100 (No. 11), Pt Lot 87 (No. 15) and 100 (No. 17) Sydenham Street, Beckenham.	Within the Perth Airport noise exposure zone, a “noise on title” is to be required as a condition of subdivision or planning approval.

4. Modify Schedule 3—Restricted Uses by deleting rows R2, R6 and R8.
5. Amend the Scheme Maps accordingly.

O. SEARLE, Mayor.
I. COWIE, Chief Executive Officer.

PL402

PLANNING AND DEVELOPMENT ACT 2005
METROPOLITAN REGION SCHEME MAJOR AMENDMENT 1270/41
Ocean Reef Marina Redevelopment

Call for Public Submissions

The Western Australian Planning Commission (WAPC) intends to amend the Metropolitan Region Scheme (MRS) for land in the local government of Joondalup and is seeking public comment. MRS Major Amendment 1270/41 seeks to rationalise various zones and reserves, and part of Bush Forever Site 325 to facilitate the redevelopment of the existing Ocean Reef Marina Boat Harbour.

Display locations

Plans showing the proposed change and the WAPC’s amendment report, which explains the proposal, will be available for public inspection from Tuesday 22 November 2016 to Friday 24 February 2017 at—

- Western Australian Planning Commission, 140 William Street, Perth
- J S Battye Library, Level 3 Alexander Library Building, Perth Cultural Centre
- City of Perth, Council House, 27 St Georges Terrace, Perth
- City of Fremantle, Town Hall Centre, 8 William Street, Fremantle
- City of Joondalup, Administration Building, 90 Boas Avenue, Joondalup
- City of Wanneroo, Civic Centre, 23 Dundobar Road, Wanneroo
- Office of the Environmental Protection Authority, The Atrium, 168 St Georges Terrace, Perth

Documents are also available online at www.planning.wa.gov.au/oceanreefmarina.

Submissions

Any person who desires to make a submission to support, object or provide comment on any part of the proposed amendment should do so on a Form 41, which is available from the display locations, the amendment report and online.

Written submissions can be lodged online via *mrs@planning.wa.gov.au* or by post to: Secretary, Western Australian Planning Commission, Locked Bag 2506, Perth WA 6001.

Submissions close 5pm, Friday 24 February 2017. Late submissions will not be considered.

Additional Information

The Environmental Protection Authority (EPA) determined that the amendment should not be assessed, given that a Negotiated Planning Outcome (NPO) is required for the partial loss of Bush Forever site 325 and that the proposal to construct and operate the Ocean Reef Marina is being assessed by the EPA at the level of Public Environmental Review. The EPA's assessment of the proposal and the NPO are required to be finalised, prior to the WAPC making a final determination on the amendment.

Submissions on the Public Environmental Review should be directed to the EPA at *www.epa.wa.gov.au*.

KERRINE BLENKINSOP, Secretary, Western Australian Planning Commission.

PL403

PLANNING AND DEVELOPMENT ACT 2005
APPROVED LOCAL PLANNING SCHEME AMENDMENT
City of Albany
Local Planning Scheme No. 1—Amendment No. 1

Ref: TPS/1785

It is hereby notified for public information, in accordance with section 87 of the *Planning and Development Act 2005* that the Minister for Planning approved the City of Albany Local Planning Scheme amendment on 23 December 2016 for the purpose of—

1. Rezone—
 - a. Lot 8888 Flinders Parade, Middleton Beach from the 'Hotel/Motel' and 'Tourist Residential' zones to 'Special Use Zone SU25';
 - b. Lots 660 and 661 Marine Terrace, Middleton Beach from the 'Tourist Residential' zone to 'Special Use Zone SU25';
 - c. Portions of Adelaide Crescent, Marine Terrace, Barnett Street, Flinders Parade and Marine Drive from 'Priority Road' and Local Road Reserves to 'Special Use Zone SU25';
2. Amend Schedule 4—Special Use Zones by inserting 'Special Use SU25' in the schedule and incorporate provisions relating to Middleton Beach Activity Centre as follows—

No.	Description of Land	Special Use	Conditions
SU25	Middleton Beach Activity Centre Lot 8888 Flinders Parade Lots 660 and 661, Marine Terrace Adjacent road reserves being portions of Adelaide Crescent, Marine Terrace, Barnett Street, Flinders Parade and Marine Drive, Middleton Beach	Land use permissibilities within the precincts shown on the Middleton Beach Activity Centre Precinct Plan are as follows— Hotel / Mixed Use Precinct Car Park 'D' Exhibition Centre 'A' Holiday Accommodation 'D' Hotel 'P' up to 5 storeys [21.5 metres] Hotel 'A' above 5 storeys [21.5 metres] Market 'D' Multiple Dwelling 'D'(1)(2) up to 5 storeys [21.5 metres] Multiple Dwelling 'A'(1)(2) above 5 storeys [21.5 metres] Nightclub 'D' Public Utility 'D' Recreation-Private 'A' Restaurant 'D' Shop 'A' Small Bar 'A' Tavern 'A'	<u>Performance Criteria</u> 1. All development within the Middleton Beach Activity Centre Special Use zone shall comply with the following performance criteria— (a) The Middleton Beach Activity Centre is developed in a co-ordinated manner, recognising its significance for local recreation, organised sporting and cultural events and as a tourist destination; (b) High quality built form and public place design is provided across the Special Use zone and public foreshore reserve interfaces recognise the iconic location and significance of the site to the community; (c) The development of public and private land is integrated to establish a safe, vibrant mixed use centre with an active beach front and urban edge that includes but is not limited to: local and tourist facilities; restaurants, cafes and shops; holiday and short stay accommodation; together with a range of permanent residential uses but excludes detached houses;

No.	Description of Land	Special Use	Conditions
		<p>Mixed Use Precinct</p> <p>Car Park 'D'</p> <p>Consulting Rooms 'D'</p> <p>Convenience Store 'D'</p> <p>Exhibition Centre 'A'</p> <p>Holiday Accommodation 'P'</p> <p>Hotel 'D'</p> <p>Market 'D'</p> <p>Multiple Dwelling 'P' (3)</p> <p>Office 'D'</p> <p>Public Utility 'D'</p> <p>Recreation-Private 'A'</p> <p>Restaurant 'D'</p> <p>Shop 'D'</p> <p>Single Attached Dwelling 'D'(3)</p> <p>Small Bar 'A'</p> <p>Tavern 'A'</p> <p>Residential Precinct</p> <p>Home Office 'D'</p> <p>Multiple Dwelling 'P'</p> <p>Public Utility 'D'</p> <p>Single Attached Dwelling 'P'</p> <p>Edge Precinct</p> <p>Car Park 'D'</p> <p>(1) Means the use is prohibited where it fronts the street at pedestrian level.</p> <p>(2) Means that the use is prohibited if prior or concurrent approval and development of a hotel has not occurred.</p> <p>(3) Means that the use is prohibited where it fronts the street at pedestrian level within the 'Primary Active Frontage' area as depicted on the Precinct Plan.</p>	<p>(d) An effective, efficient, integrated and safe transport network that prioritises pedestrians, cyclists and public transport users is provided;</p> <p>(e) Vehicle parking is efficient and promotes the establishment of shared, reciprocal and common use facilities;</p> <p>(f) Developments incorporate sustainable technologies and design including best practice with regard to energy efficiency, water sensitive urban design and fire safety requirements; and</p> <p>(g) Opportunities for investment and development are facilitated.</p> <p>2. Due regard shall be given to the Activity Centre Structure Plan in accordance with the relevant clauses within the deemed provisions for Local Planning Schemes.</p> <p>3. Development will be compliant with design guidelines that have been prepared, referred to the State Design Review Panel for its advice and recommendations, and adopted by the City of Albany prior to development of the site.</p> <p>4. Notwithstanding that a use is not specifically listed in this schedule, the Local Government may consider the proposed use on its merits as an 'A' use where that use and development complies with the performance criteria set out in Condition 1 and other relevant conditions in this schedule and is compatible with the listed uses in the designated precinct.</p> <p><u>Foreshore Protection and Management</u></p> <p>5. Development within the Hotel/Mixed Use Precinct and/or creation of the Hotel/Mixed Use Lot will be subject to satisfactory arrangements for the implementation and ongoing management of coastal adaptation and protection measures consistent with State Planning Policy 2.6, including but not limited to—</p> <ul style="list-style-type: none"> • Public advertising, adoption and implementation of a Foreshore Management Plan that includes the existing foreshore reserve adjacent to the Special Use zone, prepared in conjunction with the City of Albany in accordance with SPP2.6 Sub-Clause 5.10 Coastal Strategies and Management Plans and endorsed by the WAPC; and • Notification on Title stating that the lot is within a Vulnerable Coastal Area. <p><u>Bushfire Management</u></p> <p>6. The Middleton Beach Activity Centre has been identified as a bushfire prone area and development and use of the site shall comply with the provisions of the approved Bushfire Management Plan and the Scheme.</p> <p>7. All residential buildings and, as far as is practicable, non-residential developments, are to incorporate the bushfire resistant construction</p>

No.	Description of Land	Special Use	Conditions
			<p>requirements of the Building Code, including as appropriate the provisions of AS3959 <i>Construction of Buildings in Bushfire Prone Areas</i> (as amended), commensurate with the bushfire attack level (BAL) established for the relevant portion of the site.</p> <p><u>Development Requirements</u></p> <p>8. Before commencing or carrying out any development on land within the Special Use zone, the developer must—</p> <ul style="list-style-type: none"> • demonstrate that the proposal aligns with the principles of any relevant State Planning Policy for design of the built environment; • comply with the requirements of the design guidelines referred to in Condition (3) above; and • incorporate the recommendations of an appointed design review panel, where available. <p>9. Notwithstanding the permissibility of the proposed use, any works proposed to be undertaken within the Special Use zone shall require the planning approval of Council following advertising of the proposal in accordance with clause 64(3) of the Deemed Provisions unless exempted by the provisions of Schedule 2, Cl 61 (1) of the Deemed Provisions to the <i>Planning and Development Regulations 2015</i>.</p> <p>10. Applications for planning approval are to demonstrate appropriate design and management controls to minimise conflict between permanent and short term residential, tourism and mixed uses and, in particular, night time hospitality and entertainment.</p> <p>11. Any approved development is to be constructed to plate height prior to the submission of any diagram or plan of survey (deposited plan) for subdivision of the parent lot to create individual lot(s) for the development(s).</p> <p>12. Basement car parking shall be integrated into the built form and screened from view, such that the car parking area is not directly visible from the street or other public spaces. Car parking areas shall be accessed from a laneway or secondary street where available.</p> <p>13. Car parking shall be provided in accordance with the provisions of the Scheme unless otherwise stated below.</p> <p>14. The following development requirements specifically apply to the following precincts as identified on the Middleton Beach Activity Centre Precinct Plan—</p> <p>Hotel / Mixed Use Precinct</p> <p>All proposals for development within this precinct are to be referred to the State Design Review Panel to ensure that building design is sympathetic to its iconic location.</p> <p>The scale of any residential development is to complement the tourism component and priority is to be given to locating the tourism component(s) on those areas of the site providing the highest tourism amenity.</p>

No.	Description of Land	Special Use	Conditions
			<p><u>Key Principles for Hotel/Mixed Use Precinct</u></p> <p>Any application within the Hotel/Mixed Use Precinct for development in excess of 5 storeys (21.5 metres) in height is to—</p> <ul style="list-style-type: none"> • Demonstrate excellent design outcomes • Be informed by a Visual Impact Assessment consistent with the guidelines set out in the WAPC's Visual Landscape Planning manual. • Contribute positively to the public realm; • Provide a landmark element on the axis of Adelaide Crescent and Flinders Parade; • Present no adverse impacts on the locality by overshadowing; • Respond to the site and its context and step built form away from the beach with additional height located towards Mt Adelaide; • Effectively mitigate bulk and scale of the proposed development; and • Achieve the criteria in Condition (1) above <p><u>Building Height—</u></p> <ul style="list-style-type: none"> • 1-3 storey height limit along Primary Active Frontages abutting Public Open Space, with additional height located on the southern portion of the site towards Mount Adelaide. • Except as provided for below, 5 storey (21.5 metres) height limit elsewhere on the site; • Development of a hotel use and/or holiday accommodation and/or multiple dwellings above 5 storeys (21.5 metres) may be considered to a maximum of 12 storeys (46 metres) if the proposed development accords with— <ul style="list-style-type: none"> o The key principles as outlined above; o The design guidelines referred to in Condition (3) above; and o The recommendations of the State Design Review Panel. <p><u>Setbacks—</u></p> <ul style="list-style-type: none"> • Generally nil street and side setbacks. <p><u>Car Parking—</u></p> <ul style="list-style-type: none"> • Hotel 1 bay per 2 employees + 1 per bedroom + 1 per 4m² in other public areas. • Retail—1 bay per 40m² NLA. • No visitor car parking requirement for permanent residential developments. <p><u>Bicycle Parking—</u></p> <ul style="list-style-type: none"> • 1 bicycle parking space per residential dwelling and 1 bicycle parking space per 10 dwellings for residential visitors. <p><u>Access—</u></p> <p>Delivery services are prohibited on the Flinders Parade frontage of the Hotel / Mixed Use site.</p>

No.	Description of Land	Special Use	Conditions
			<p>Mixed Use Precinct</p> <p><u>Building Height</u>—</p> <ul style="list-style-type: none"> • 2 storey (11 metres) minimum / 3 storey (14.5 metres) maximum between Barnett Street and the Public Access Way. • 2 storey (11 metres) minimum / 4 storey (18 metres) maximum for development fronting the southern extent of the Public Access Way; • 2 storey (11 metres) minimum / 5 storey (21.5 metres) maximum for development south of the Public Access Way, fronting Adelaide Crescent or Flinders Parade. <p><u>Setbacks</u>—</p> <p>Generally nil street and side setbacks.</p> <p><u>Car Parking</u>—</p> <ul style="list-style-type: none"> • Single attached dwelling—resident parking as determined by Council. • No visitor car parking requirement for permanent residential developments. • Retail—1 bay per 40m² NLA. <p><u>Bicycle Parking</u>—</p> <ul style="list-style-type: none"> • 1 bicycle parking space per residential dwelling and 1 bicycle parking space per 10 dwellings for residential visitors. <p>Residential Precinct</p> <p><u>Building Height</u>—</p> <ul style="list-style-type: none"> • 2 storey (10 metres) minimum / 3 storey (13.5 metres) maximum between Barnett Street and the Public Access Way. <p><u>Setbacks</u>—</p> <ul style="list-style-type: none"> • Generally nil street and side setbacks. <p><u>Car Parking</u>—</p> <ul style="list-style-type: none"> • Single attached dwelling—resident parking as determined by Council. • No visitor car parking requirement for permanent residential developments. <p><u>Bicycle Parking</u>—</p> <ul style="list-style-type: none"> • 1 bicycle parking space per residential dwelling and 1 bicycle parking space per 10 dwellings for residential visitors. <p>Active Frontages</p> <p>Areas marked as 'Active Frontage' on the Precinct Plan encourage a range of active uses at the pedestrian level. Specifically this shall be achieved by—</p> <ul style="list-style-type: none"> • Residential uses at the pedestrian level in areas delineated as 'Primary Active Frontage' are prohibited. • Areas delineated as either 'Primary Active Frontage' or 'Secondary Active Frontage' shall demonstrate measures have been undertaken to build adaptability into the development at ground floor level.



Middleton Beach Activity Centre Precinct Plan

3. Introduce the following land use definition to the City of Albany Local Planning Scheme No. 1
single attached dwelling means one of a group of two or more attached dwellings each being separated by a common wall and may include a row house, terrace house or town house, not located above or below another dwelling.
4. Amend the Scheme Maps accordingly.

D. WELLINGTON, Mayor.
 A. SHARPE, Chief Executive Officer.

DECEASED ESTATES

ZX401

TRUSTEES ACT 1962

DECEASED ESTATES

Notice to Creditors and Claimants

Marie Theresa Catherine Sherrington late of Parkview, G1/165 Derby Road, Shenton Park, Western Australia

Creditors and other persons having claims (to which Section 63 of the *Trustees Act 1962* relates) in respect of the estate of the deceased who died on 23 October 2016 at Mercy Aged Care, 18 Barrett Street, Wembley aforesaid are required by the Executors and Trustees of care of Messrs Dwyer Durack Lawyers of 8th Floor, 40 St Georges Terrace, Perth to send particulars of their claims to them by 23 February 2017 after which date the Trustees may convey or distribute the assets having regard only to the claims of which they then have notice.

ZX402**TRUSTEES ACT 1962**

DECEASED ESTATES

Notice to Creditors and Claimants

In the estate of Arthur Edward McCall who died on 10 May 2016 of Opal Applecross, Riverway, Western Australia.

Creditors and other persons having claims (to which Section 63 of the *Trustees Act 1962* relates) in respect of the estate of the said deceased person are required by the Executor of the deceased's estate being Peter Angus Tibbits of care of Angus Tibbits Solicitors, Suite 9, 73 Calley Drive, Leeming Western Australia, to send particulars of their claims to him by 17 February 2017, after which date the Executor may convey or distribute the assets having regard only to the claims of which he then has notice.



Appendix F

Foreshore Assets

**K1265/2, LandCorp - Middleton Beach Activity Centre
Preliminary Cost Estimate for Sheet Pile Wall Around Hotel Site**

Prepared by: B Smith

Checked by: C Doak

Date: 26 July 2016

Item	Activity	Quantity	Units	Unit Rate	Subtotal	Total for Item
1	Preliminaries, Supervision, Mobilisation & Demobilisation					\$ 85,000
1.1	Site establishment, insurances and BCITF	1	Item	\$ 15,000	\$ 15,000	
1.2	Management and supervision, survey, testing etc	1	Item	\$ 20,000	\$ 20,000	
1.3	Mobilisation to site	1	Item	\$ 35,000	\$ 35,000	
1.4	Demobilisation and site clean up	1	Item	\$ 15,000	\$ 15,000	
2	Sheet Piles					\$ 643,550
2.1	Supply and install sheet piles (12 m length AZ52-700)	600	m ²	\$ 650	\$ 390,000	
2.2	Paint top 4 m of piles for corrosion protection ²	200	m ²	\$ 200	\$ 40,000	
2.3	Concrete pile capping	50	m ²	\$ 2,000	\$ 100,000	
2.4	Excavate natural surface to enable placement of scour protection	700	m ³	\$ 10	\$ 7,000	
2.5	Temporary shoring works around 5 Norfolk Island Pines	5	Item	\$ 5,000	\$ 25,000	
2.6	Supply and place geotextile for scour protection	240	m ²	\$ 25	\$ 6,000	
2.7	Supply and place rock filter for scour protection	65	m ³	\$ 170	\$ 11,050	
2.8	Supply and place granite armour (0.8 to 3.0t; 50%>1.5t)	500	t	\$ 115	\$ 57,500	
2.9	Backfill site after scour protection placement	700	m ³	\$ 10	\$ 7,000	
3	Rock Seawall					\$ 301,000
3.1	Excavate natural surface to enable the construction of the seawall	3,040	m3	\$ 10	\$ 30,400	
3.2	Trim slope, supply and place geotextile	810	m2	\$ 25	\$ 20,250	
3.3	Supply and place filter material (0.1 to 0.6 m; 50%>0.35,)	340	m3	\$ 170	\$ 57,800	
3.4	Supply and place granite armour (0.8 to 3.0t; 50%>1.5t)	1,410	t	\$ 115	\$ 162,150	
3.5	Backfill site after seawall construction	3,040	m3	\$ 10	\$ 30,400	
4	Vertical Retaining Wall					\$ 32,900
4.1	Trim surface and cast concrete slab footing (unreinforced) as foundation for wall	70	m	\$ 120	\$ 8,400	
4.2	Construct 3 block high retaining wall (limestone or ferricrete blocks)	70	m	\$ 350	\$ 24,500	
	Subtotal 1				\$ 1,062,450	\$ 1,062,450
	Management & Design Fees	5	%		\$ 53,123	\$ 53,123
	Total Estimated Cost				\$ 1,115,573	\$ 1,115,573

Notes 1. Total cost is exclusive of GST



Appendix G

Weed Control Methods



Appendix G Weed Control Methods

Table G-1: Approach to Controlling Weed Species

Weed Species	Control Method	Optimal Control Time
Scientific Name	Herbicide	Manual
		J F M A M J J A S O N D
<i>Carpobrotus edulis</i>		Naturalised Stabiliser (Keep)
<i>Tetragonia decumbens</i>		Naturalised Stabiliser (Keep)
<i>Asparagus aethiopicus</i>	Spray 0.2 g metsulfuron methyl + Pulse® in 15 L water (or 2.5 - 5g/ha + Pulse®). Best results when flowering.	J A
<i>Trachyandra divaricata</i>	Wipe with 50% glyphosate solution before flowering. For dense infestations in degraded areas spot spray 0.4 g chlorosulfuron plus 25 ml wetting agent in 10 L of water when plants actively growing.	J J A
<i>Conyza sumatrensis</i>	Most susceptible to glyphosate at early development of rosette stage. Apply 25 ml/ 10L glyphosate after stem elongation and before flowering in late spring to summer each year when the plants are actively growing. A mixture of 50% glyphosate can be used to wipe the stems of plants. Lontrel® 4 g/ 10 L (200 g/ha) + wetting agent can be spot sprayed for fairly selective control.	J J A S O N
<i>Senecio elegans</i>	Apply Lontrel® at 10 ml/10 L + wetting agent before stem elongation in late spring.	O N
<i>Sonchus asper</i>	Apply Lontrel® at 10 ml/10 L + wetting agent preferably when plants are at the rosette stage.	J J



Weed Species	Control Method		Optimal Control Time											
Scientific Name	Herbicide	Manual	J	F	M	A	M	J	J	A	S	O	N	D
<i>Crassula glomerata</i>	Cut down close to ground and then immediately paint stump with straight Roundup®.	Be careful to remove all pieces of plant, as fragments easily resprout.							J	A	S			
<i>Euphorbia paralias</i>	When actively growing, spray with 50 mL glyphosate (360 g/L) + 0.2 g metsulfuron + Pulse® in 10 L water.	Hand remove small isolated infestations, ensuring use of appropriate personal protective equipment and safety guidelines. Consider possible dune erosion.	J									S	O	N D
<i>Medicago polymorpha</i>	Lontrel® at 10 ml/10 L + wetting agent provides effective control in early winter. Otherwise metsulfuron methyl 0.1 g/10 L + wetting agent or 1 g/10 L of Logran® applied in early winter provides reasonably selective control. Repeat annually for several years.	Relatively tolerant to glyphosate, grazing and mowing. Hand pull isolated plants in winter before flowering.						J	J	A				
<i>Melilotus albus</i>	2,4-D, MCPA, MCPB, 2,4-DB, dicamba, chlorsulfuron, clopyralid, triclopyr	Conn and Seefeldt (2009) suggest that a combination of a range of herbicides and non-chemical methods may be most effective in the long term.	J	F	M									N D
<i>Trifolium angustifolium</i>	Spot spray with 1% glyphosate before flowering, otherwise spot spray Lontrel® 3 ml/10 L (150 ml/ha) up to the 6 leaf stage.								J	A	S			
<i>Trifolium tomentosum</i>	Spot spray with 1% glyphosate before flowering, otherwise spot spray Lontrel® 3 ml/10 L (150 ml/ha) up to 6 leaf stage.								J	A				
<i>Pelargonium capitatum</i>			Naturalised Stabiliser (Keep)											
<i>Orobancha minor</i>	Soil fumigation to kill seeds (methyl bromide or metham sodium) Selective control through very low rates of glyphosate applied to hosts, which concentrates in attached broomrapes. Selective control through growth of host crops with tolerance to Group B herbicides. Host denial through maintaining broadleaf weed free cereals, grass pastures.							J	J	A	S	O	N	



Weed Species	Control Method		Optimal Control Time												
Scientific Name	Herbicide	Manual	J	F	M	A	M	J	J	A	S	O	N	D	
<i>Ehrharta longiflora</i>	Alternatively spray with Fusilade Forte® 30 ml/10 L or 1.6 L/ha (based on 500 L water/ha) + wetting agent or for generic fluazifop-p (212g/L active ingredient) 18ml/10L or 1L/ha + wetting agent before flowering stem emerges, or at 3-5 leaf stage. Secondary seedling flush often occurs, repeat treatment if necessary.	Hand remove small infestations.										A	S	O	
<i>Ehrharta villosa</i>	Spray with Verdict 520® 10 ml/10 L (500 ml/ha) or glyphosate 1% + penetrant. Several sequential applications will likely be required.		J	F	M	A							O	N	D
<i>Lagurus ovatus</i>	In selective situations spray with 16 ml/10 L (800 ml/ha) Fusilade® Forte + spray oil or for generic fluazifop-p (212g/L active ingredient) 10ml/10L or 500ml/ha + spray oil any time before flowering. A lower rate of 13 ml/10 L Fusilade® Forte or for generic fluazifop-p (212g/L active ingredient) 8ml/10L can be used in winter at the 2-8 leaf stage before stem elongation.	Prevent seed set. Hand removal small isolated infestations.						J	J	A					
<i>Lolium rigidum</i>	Spray with grass selective herbicide such as Fusilade® Forte in winter 4-6 weeks after opening rains. For larger plants up to flowering, increase rates of grass selective herbicide 3 to 4 fold. In agricultural areas, populations may be resistant to these herbicides and glyphosate may be needed. Spray 10 ml/10 L glyphosate when plants are vegetative up to when seed heads are emerging. Late season applications of herbicide can reduce the numbers of seeds produced, viability and seedling fitness.	Prevent seed set. Hand pull.						J	J	A	S	O			
<i>Dischisma arenarium</i>	Spot spray 0.2% glyphosate.							J	A	S					
<i>Spinifex sericeus</i>			Naturalised Stabiliser (Keep)												
<i>Ammophila arenaria</i>	Spray with 1% glyphosate + penetrant. Grass selective herbicides are less effective. Requires ongoing manual removal and/or treatment of regrowth. Fire may provide an effective window for control, as it removes thatch and stimulates regrowth, creating ideal conditions for effective herbicide uptake.	Dig out small infestations. Consider staggering removal to manage erosion and allow native species to re-establish.											S	O	N



Weed Species	Control Method		Optimal Control Time											
Scientific Name	Herbicide	Manual	J	F	M	A	M	J	J	A	S	O	N	D
<i>Cakile maritima</i>	Fairly selective control can be achieved by spot spraying Logran® at 0.5 g/10 L. Wick application with 50% glyphosate or foliar spraying with 1% glyphosate provides reasonable control and can be used at flowering to reduce seed set.	Assess carefully whether it is displacing native taxa or possibly having other impacts at the site prior to considering any control program. Manual removal is effective but must be done at least every 8-10 weeks. Ensure material is removed off-site, as once pods are formed, seed will often mature if plants have been uprooted.							J	J	A	S	O	N
<i>Arctotheca calendula</i>	For large infestations apply Lontrel® 6 ml/10 L (300 ml/ha) in early growth stages. Glyphosate at 0.2% will provide some selective control if the plants are young or at the budding stage, otherwise spot spraying glyphosate at 10 ml/L will control capeweed at all growth stages.	Chip out small infestations, ensuring root is severed well below ground level to prevent re-sprouting from the crown. A combination of chemical and physical control with follow up treatment provides optimal control.							J	J	A	S	O	N

Appendix H

Revegetation Species



Appendix H Revegetation Species

Table H-1 Dunal Revegetation Species

Life Form	Scientific Name	A Beach Grass 1722 m ²	B Dune Colonising 2313 m ²	C Protected/ Fenced 1697 m ²	M Mass Planting 2307 m ²
Tree	<i>Agonis flexuosa</i>			20	
Shrub <5m	<i>Acacia cyclops</i>		243		
Shrub <5m	<i>Spyridium globulosum</i>		243		
Shrub <3m	<i>Olearia axillaris</i>		243	226	1318
Shrub <3m	<i>Allocasuarina humilis</i>		243	226	
Shrub <3m	<i>Leucopogon parviflorus</i>	383	243		
Shrub <3m	<i>Atriplex isatidea</i>	383	243		
Shrub <3m	<i>Rhagodia baccata</i>	383	243		
Shrub <3m	<i>Hibbertia cuneiformis</i>			226	1318
Shrub <3m	<i>Hibbertia furfuracea</i>		243	226	
Shrub <3m	<i>Acacia cochlearis</i>		243	226	
Shrub <3m	<i>Acacia littorea</i>		243	226	
Shrub <3m	<i>Scaevola crassifolia</i>				
Shrub <3m	<i>Scaevola nitida</i>	383	243		1318
Shrub <1m	<i>Chorizema ilicifolium</i>			226	
Shrub <1m	<i>Eutaxia parvifolia</i>			226	
Shrub <1m	<i>Gompholobium tomentosum</i>			226	
Shrub <1m	<i>Dampiera fasciculata</i>		243	226	
Shrub <1m	<i>Opercularia hispidula</i>		243	226	
Sedge/ Rush	<i>Ficinia nodosa</i>	383	243	226	1318
Sedge/ Rush	<i>Lepidosperma gladiatum</i>		243	226	1318
Climber	<i>Hardenbergia comptoniana</i>				
Climber	<i>Billardiera fusiformis</i>			226	1318
Herb	<i>Carpobrotus virescens</i>	383	243		1318
Herb	<i>Tetragonia implexicoma</i>	383	243		
Herb	<i>Tetragonia tetragonoides</i>	383	243		
Herb	<i>Lyginia barbata</i>	383	243	226	
Total	27	3444	4626	3414	9228



Proposed Planting Density

Dune areas – 2 plants per m²

Irrigated areas – 4 plants per m²

An estimated 20 units per tree species will be planted in predetermined locations.

Table H-2 Dunal Revegetation Species

Life Form	Scientific Name	A Lower Slopes	B Upper Slopes
		1397 m ²	2756 m ²
Tree 10-30m	<i>Eucalyptus marginata</i>		20
Tree 10-30m	<i>Corymbia calophylla</i>		20
Tree 10-30m	<i>Agonis flexuosa</i>		20
Tree <10m	<i>Melaleuca cuticularis</i>		20
Tree <10m	<i>Banksia ilicifolia</i>		20
Tree <10m	<i>Banksia attenuata</i>		20
Tree <10m	<i>Allocasuarina fraseriana</i>		20
Shrub >2m	<i>Hibbertia furfuracea</i>		212
Shrub >2m	<i>Bossiaea linophylla</i>		212
Shrub >2m	<i>Taxandria parviceps</i>		212
Shrub 1-2m	<i>Pultenaea reticulata</i>		212
Shrub 1-2m	<i>Leucopogon obovatus</i>		212
Shrub 1-2m	<i>Melaleuca thymoides</i>		212
Shrub 1-2m	<i>Acacia pulchella</i>		212
Shrub 1-2m	<i>Bossiaea praetermissa</i>		212
Shrub 1-2m	<i>Hibbertia cuneiformis</i>		212
Shrub <1m	<i>Xanthosia rotundifolia</i>	349	212
Shrub <1m	<i>Boronia crenulata</i>	349	212
Shrub <1m	<i>Hypocalymma strictum</i>	349	212
Shrub <1m	<i>Tremandra diffusa</i>	349	212
Sedges/rushes	<i>Anarthria scabra</i>	349	689
Sedges/rushes	<i>Hypolaena exsulca</i>	349	689
Sedges/rushes	<i>Anarthria prolifera</i>	349	689
Sedges/rushes	<i>Loxocarya cinerea</i>	349	689
Sedges/rushes	<i>Lepidosperma gladiatum</i>	349	689
Sedges/rushes	<i>Ficinia nodosa</i>	349	689



Life Form	Scientific Name	A Lower Slopes 1397 m ²	B Upper Slopes 2756 m ²
Herbs	<i>Billardiera fusiformis</i>	349	689
Herbs	<i>Clematis pubescens</i>	349	689
Herbs	<i>Opercularia hispidula</i>	349	689
Herbs	<i>Hardenbergia comptoniana</i>	349	689
Herbs	<i>Patersonia umbrosa</i>	349	689
Herbs	<i>Platysace filiformis</i>	349	689
Herbs	<i>Cassytha racemosa</i>	349	689
Herbs	<i>Phlebocarya ciliata</i>	349	689
Herbs	<i>Billardiera laxiflora</i>	349	689
Herbs	<i>Lindsaea linearis</i>	349	689
Total	36	6985	13920

Proposed Planting Density

Shrubs – 1 plant per m²

Sedges/rushes & Herbs – 4 plants per m²

An estimated 20 units per tree species will be planted in predetermined locations.



Appendix I

Landscape Management Items

LANDSCAPE MANAGEMENT ITEMS

A. GRANITE - ORNAMENTAL

Remove marks as required

B. GRANITE DRYSTONE TERRACE WALLS

High pressure clean, graffiti coating and repair cracks every 10 years

C. MASS MASONRY WALLS

High pressure clean, graffiti coating and repair cracks every 10 years

D. DECKING PROMENADE

Oil and repair every 2 years

E. BEACH SAND NOURISHMENT

Refill to 700 below promenade seasonally

F. PLAY SURFACE SAND

Replenish and sift every 6 months

G. PARKLAND ACCESS PAVING

High pressure clean and replace cracked/heaved panels every 5 years
Universal access by use of TGSIs, signage and lighting

H. MASS PLANTING

Weed control quarterly | Top up mulch annually

I. ROLL-ON TURF

Mowing fortnightly

J. IRRIGATION TO PARKLAND

Repair as required annually

K. PROPOSED TREES

Prune and stake annually

L. PRECAST CONCRETE SAND CONTROL EDGING & SEATING WALL

High pressure clean, graffiti coating and repair cracks every 10 years

M. MASS ROCK SEA-WALL STRUCTURE & BEDDING LAYER

Re-grouted as required, safety barrier mesh repaired as required

N. DRAINAGE EXTENSIONS / CONNECTIONS TO CULVERT SYSTEM

Debris removed as required, inspections annually

O. DECORATIVE CONCRETE PAVING TO PROMENADE

High pressure clean and replace cracked/heaved panels every 5 years

P. BEACH ACCESS - DECKING RAMP

Oil and repair every 2 years, backfill sand as required

Q. SURF CLUB INTERFACE - PAVING

High pressure clean and replace cracked/heaved panels every 5 years
Remove sand / debris fortnightly

R. DUNE LOOKOUT

Repair and oil timberwork and painted steelwork annually

S. DUNE ACCESS PATHWAYS

Access is controlled by use of fencing, defined pathways and signage

T. REHABILITATION PLANTING

(Including preparation and protection fencing) Weed control quarterly

U. STREET FURNITURE

Remove marks annually, repair as required

V. PLAY SURFACE RUBBER

High pressure clean and repair cracks every 5 years



Aerial Perspective East



NOTE:
 DETAILS NOTED ON THIS DRAWING ARE BASED ON
 INFORMATION PROVIDED BY CLIENT
 CLIENT TO CONFIRM THE ACCURACY OF THESE DETAILS
 SIZES & LOCATIONS ARE INDICATE ONLY

Site Plan

Scale 1:1000



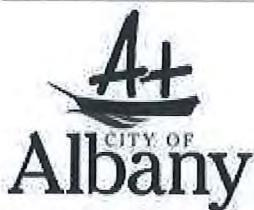
<i>project:</i> PROPOSED EVENTS LAYOUT ON LOT 75 RIVERSIDE ROAD, KALGAN		<i>client:</i> W. MONKS	<i>content:</i> SITE PLAN
<i>scale:</i> 1:1000	<i>drawn:</i> td	<i>date:</i> 10-10-2018	<i>job no.:</i> A181005
			<i>dwg.no.:</i> A1

IT REMAINS THE RESPONSIBILITY OF THE BUILDER TO ENSURE THAT ALL DIMENSIONS AND DETAILS ARE WORKABLE
 REMAIN THE SOLE PROPERTY OF THE DESIGNER AND MUST NOT BE GIVEN, LENT, RESOLD OR OTHERWISE DISPOSED OF OR COPIED WITHOUT THE PERMISSION IN WRITING OF THE DESIGNER

Jessica Anderson

From: Alan Millar
Sent: Friday, 7 September 2018 4:05 PM
To: Jan Van Der Mescht; Jessica Anderson
Subject: EF1886469 - A186838 - Riverside Road Capacity Review
Attachments: IMG_0221.jpg; IMG_0216.jpg; IMG_0230.jpg; IMG_0225.jpg; RIVERSIDE RD PLAN.pdf
SynergySoft: EF1886469 - A186838

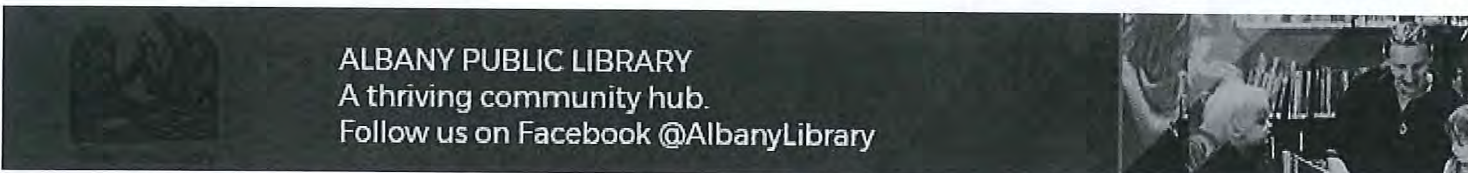
Plan included



Alan Millar / Development Engineer

@alan.millar@albany.wa.gov.au
(08) 6820 3046
(08) 9841 4099

PO BOX 484, Albany, WA, 6331
102 North Road, Yakamia
www.albany.wa.gov.au



Please consider the environment before printing this email.

From: Alan Millar
Sent: Friday, 7 September 2018 3:22 PM
To: Jan Van Der Mescht <janv@albany.wa.gov.au>; Jessica Anderson <jessicaa@albany.wa.gov.au>
Subject: Riverside Road Capacity Review

Hi Jan and Jess

Below is my assessment. Happy to discuss further if you wish.

Background:

Riverside Road was inspected on 7/09/2018 at 10:30am (sunny-clear) to comment on the suitability of the road to support events proposed for Lot 75 (end of Riverside Road).

Observations:

- The steep crest approximately 600m from the intersection of Hunton Rd and Riverside Rd is hazardous due to the inadequate sight distance for approaching traffic (see IMG 0230 facing west).
- Riverside Rd varies in width, with a typical width of 4.0m west of Myola Dr (see example IMG 0221 facing east).
- Limited opportunities are available to pass vehicles, except with some shielding at entrances to properties (see example IMG 0225 facing east).
- Passing opportunities are unlikely within the ~150m section of gravel track within private property adjacent to the reserve (see IMG 0216 facing south).

Capacity of Riverside Rd:

- Under the classification system in "Unsealed Roads Manual - Guide to Good Practice ARRB" the 4.0m section of Riverside Rd represents the lower end of an access road (Class C). This indicates a minimum road width of 4m and average daily traffic of 50-10 ADT.
- Given the narrow width of the road, and limited passing opportunities (due to the close vegetation), the road is estimated to be suitable to cater for the expected current traffic volumes west of Myola Dr (~20 ADT assuming 4 trips per day per lot).

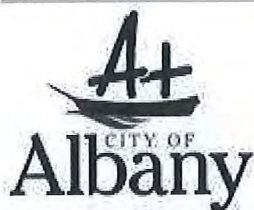
REPORT ITEM DIS135 REFERS

- Future upgrades as part of the Contribution Plan (June, 2014) include a 5.5m seal up to Ch660 (the new intersection to service the subdivision at Lot 102). West of Ch660 the build-out volume is estimated to be 76 ADT. This section of road is planned to remain as a gravel standard with "improved sight distances and passing opportunities." Sealing of this section of road may be considered, however, does not form part of the Contribution Plan.

Conclusions and Recommendations:

- Riverside Rd is currently not suitable to service large-scale events, which are likely to generate significant increases to the current traffic volumes west of Myola Dr, without potential unacceptable congestion and safety issues.
- Small-scale events may be possible with appropriate minor traffic management, and where the likelihood for passing 2-way traffic is expected to be low.

Regards



Alan Millar / Development Engineer

@ alan.millar@albany.wa.gov.au

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📍 102 North Road, Yakamia

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RIVERSIDE ROAD COMMENTS 7/09/18

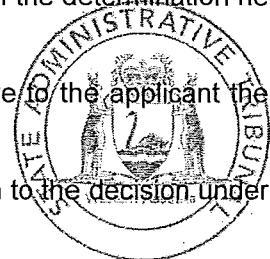
Jurisdiction:	<i>Planning and Development (Local Planning Schemes) Regulations 2015</i>
Application:	Review of a local development plan decision
Parties:	Wayne John Monks (Applicant) City of Albany (Respondent)
Matter Number:	DR 70/2018
Application Lodged:	26 March 2018
Hearing Type:	Mediation Conference between parties to a matter
Date of Decision:	26 July 2018
Decision of:	Senior Sessional Member Brian Hunt
Outcome:	Adjourned

1. By 30 July 2018, the applicant is to prepare and submit to the respondent an amended submission for a planning approval for an annual event (weekend) and in the submissions nominate a preferred period of the year and note any additional information that has developed from discussions.
2. Pursuant to s 31(1) of the State Administrative Tribunal Act 2004 (WA) the respondent is invited to reconsider its decision on or before 31 August 2018, noting that the applicant is requesting a planning approval and that public submissions have already been sought.
3. The proceeding is adjourned to a further directions hearing at 9.30am on 7 September 2018 at 565 Hay Street, Perth, Western Australia and, upon request, the parties may attend this by telephone.

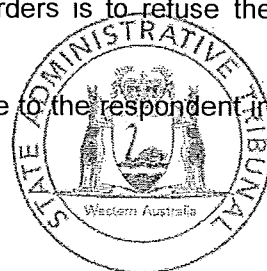


Jurisdiction:	<i>Planning and Development (Local Planning Schemes) Regulations 2015</i>
Application:	Review of a local development plan decision
Parties:	Wayne John Monks (Applicant) City of Albany (Respondent)
Matter Number:	DR 70/2018
Application Lodged:	26 March 2018
Hearing Type:	Directions
Date of Decision:	28 September 2018
Decision of:	Deputy President, Judge Parry
Outcome:	Adjourned

1. The Tribunal grants leave to the applicant to amend the development application for which approval is sought in this proceeding to be for the approval of two events per year in spring or summer and notes that the applicant would accept conditional approval subject to the conditions imposed by the respondent on the grant of the 'Events Approval' for the summer fair event in January 2018.
2. By 12 October 2018 the applicant must file with the Tribunal and give to the respondent a detailed site plan of the development for which approval is sought.
3. Pursuant to s 31(1) of the State Administrative Tribunal Act 2004 (WA) the respondent is invited to reconsider its decision having regard to the preceding orders on or before 30 November 2018.
4. By 7 December 2018 the respondent must notify the Tribunal and the applicant of its determination upon reconsideration.
5. By 14 December 2018:
 - (a) if the applicant is content with the respondent's determination he is to apply to withdraw the application for review
 - (b) If the applicant is not content with the respondent's determination he is to advise the Tribunal and the respondent in writing of which aspect or aspects of the determination he objects to.
6. By 11 January 2019 the respondent must file with the Tribunal and give to the applicant the following documents:
 - (a) a statement of issues, facts and contentions it says arise in relation to the decision under review; and



- (b) an indexed and paginated bundle in chronological or other logical order of the documents it is required to file under s 24 of the State Administrative Tribunal Act 2004 (WA) namely:
- (i) a statement of the reasons for the decision; and
 - (ii) documents and other material in its possession or under its control which are relevant to the Tribunal's review of the decision.
7. By 25 January 2019 the applicant must file with the Tribunal and give to the respondent its own statement of issues, facts and contentions setting out:
- (a) by reference to each paragraph number in the respondent's statement whether the applicant accepts or rejects the issue, fact or contention identified by the respondent; and
 - (b) any other issues, facts and contentions it says are relevant to the decision under review.
8. The applicant must at the time it files and gives its statement of issues, facts and contentions file with the Tribunal and give to the respondent an indexed and paginated bundle in chronological or other logical order of the documents on which it proposes to rely in the proceeding not in the respondent's bundle.
9. If any party proposes to give evidence or call any witness including any expert to give evidence at the hearing it must by 8 February 2019 file with the Tribunal a signed statement of the witness' evidence and give a copy of the statement to the other parties.
10. If a party engages an expert to attend a mediation or compulsory conference or to give evidence in the proceeding the party must give the expert within seven days of this order or of the engagement (whichever is the later):
- (a) the Tribunal's pamphlet entitled 'A guide for experts giving evidence in the State Administrative Tribunal', unless the party has already given the expert a copy of the pamphlet; and
 - (b) a copy of these orders.
11. An expert witness must acknowledge in his or her evidence that he or she has read the Tribunal's pamphlet entitled A guide for experts giving evidence in the State Administrative Tribunal and agrees to be bound by the expert's obligations stated in that document.
12. By 8 February 2019 the respondent must file with the Tribunal and give to the applicant in hard and electronic form, without prejudice to its final position in the proceeding, a set of all of the conditions which it will contend at the hearing should be imposed if the Tribunal considers that approval of the application subject to conditions is appropriate (draft conditions)(if the decision upon reconsideration in accordance with Order 3 of these orders is to refuse the development application).
13. By 28 September 2018 the applicant must file with the Tribunal and give to the respondent in hard and (where it can do so) electronic form a document which:
- (a) identifies any of the draft conditions which it objects to;





- (b) gives brief reasons for each objection; and
 - (c) sets out any alternative or additional conditions it will contend at the hearing should be imposed if the Tribunal considers that approval of the application subject to conditions is appropriate.
14. Where a party or expert witnesses are required by these orders to file a document with the Tribunal two copies of the document must be filed.
 15. The proceeding is adjourned to a further directions hearing at 2:30 pm on 1 February 2019 with the parties to attend by telephone in order to review preparation for hearing.
 16. The matter is listed for a final hearing to commence at 10:00 am on 7 March 2019 for a duration of two days at the Albany Courthouse.



Suggested conditions

1. Prior to the commencement of use, unless varied by a condition of approval or a minor amendment to the satisfaction of the City of Albany, all development shall occur and be maintained in accordance with the stamped, approved plans dated **27 November 2018**.

Advice: This approval does not exempt the operator from obtaining any separate event approvals that may be required. Please contact the City of Albany Events Team on 6820 3035 for further information.

2. The applicant shall provide exact details of the event (including details of vendors and activities offered on-site). The details shall be submitted for approval in writing, and implemented to the satisfaction of the City of Albany. Alternatively the applicant could provide these specific details via the lodgement of an Events Application through the Events team prior to each event.
3. Prior to the commencement of use, the operator shall prepare and submit for approval a detailed Management Plan for the premises, detailing practices and controls to minimise amenity impacts, to the satisfaction of the City of Albany.
4. The premises shall be operated in accordance with the approved Management Plan, to the satisfaction of the City of Albany.
5. Prior to the commencement of use, the operator shall prepare and submit for approval a detailed Traffic Management Plan for the premises, detailing practices and controls to minimise amenity impacts, to the satisfaction of the City of Albany.

The Traffic Management Plan shall include provision for a suitably qualified Traffic Management provider to undertake traffic management along Riverside Road during the times the event is open to the public, to the satisfaction of the City of Albany.

All designated access ways for emergency vehicles are to be kept clear at all times

6. Prior to commencement of use, the operator shall prepare and submit for approval a Noise Management Plan for the premises, detailing practices and controls to minimise noise emissions, to the satisfaction of the City of Albany.
7. The premises shall be operated in accordance with the approved Noise Management Plan, to the satisfaction of the City of Albany.

The level of noise emanating from the event not exceeding that prescribed in the Environmental Protections Act 1986, and the Environmental Protection (Noise) Regulations 1997:

Speakers / amplification is to set up facing away from neighbouring residences.

Noise is to be kept to a minimum during set up and break down times.

REPORT ITEM DIS135 REFERS

8. The development hereby approved shall not prejudicially affect the amenity of the neighbourhood by, but not limited to, the emission of noise, vibration, smell, smoke or dust.
9. Events/functions shall cease no later than 6pm, unless otherwise agreed in writing with the City of Albany.
10. The applicant shall advise nearby residents in writing and at least two weeks in advance to an event.
11. A maximum of 200 patrons shall be on site for any event/function at any one time, unless otherwise agreed in writing by the City of Albany.

Advice: This limit on patron numbers has been determined by the previous event application.

12. Sufficient numbers of event staff & volunteers are provided to manage anticipated numbers of participants & spectators attending the event.
13. All areas associated with this event, which are available to the public, should be structurally sound and safe to access. Any buildings that are not for public use/entry need to be clearly marked "no entry".
14. Development is required to comply with all relevant environmental health regulations. This includes, but not limited to the following;
 - a) All food vendors are to be approved by the City of Albany and comply with the requirements of the Food Act 2008, Food Regulations 2009 and Food Standards Code. Each food vendor is to have hand washing facilities, including running water, liquid soap and paper towels available for the duration of the event.
 - b) Drinking water must be from a potable source (rain and bore water is to be tested by NATA approved laboratory, UV filter or Osmoses filter is to be installed) – confirmation is to be provided to City of Albany Environmental Health Coordinator.
 - c) Public toilets are to be provided in sufficient numbers for the expected number of patrons at each event, as per the event application. The toilets are to be serviced regularly; with soap, paper towels, chemicals, water and toilet paper available and restocked throughout the event and that any transportable toilets are pumped out as required by a qualified contractor
 - d) Management of the event being undertaken in such a manner as to prevent erosion or pollution of the environment. Bins are to be provided in sufficient number and are to be emptied throughout the event, to avoid overflowing rubbish littering the site
 - e) Liquor is only to be supplied and consumed as per the terms of a liquor licence
 - f) The event organiser is to be in attendance for the entirety of the event and available to receive a phone call.

REPORT ITEM DIS135 REFERS

15. The loading and unloading of goods shall occur entirely within the site and be undertaken in a manner so as to cause minimum interference with other vehicular traffic.
16. No goods or materials shall be stored, either temporarily or permanently, in the parking or landscape areas or in access driveways, unless otherwise agreed in writing by the City of Albany.
17. On the days prior to, and the day of, the event, contact is to be made with the Department of Fire and Emergency Services, and the Bureau of Meteorology, to determine the Fire Danger Rating or Weather Warnings, and therefore the suitability of running the event. Our records show these details to be:
 18. Dept. Fire & Emergency Services (Albany): 9845 5000
greatsouthernadmin@dfes.wa.gov.au
 19. Bureau of Meteorology (Albany): 9842 2616
20. Sign(s) shall not be erected on the lot without the prior approval of the City of Albany.

Advice: Please refer to the City of Albany's Signs local planning policy for further information.
21. The applicant shall be responsible for the repair of any undue damage to Riverside Road (including the shared access way) caused by the event.