

Greater Mission Beach Area Foreshore Management Plan

2015 to 2035

September 2015



"Where will our knowledge take you?"



Foreshore Management Plan – Greater Mission Beach Area

Prepared for: Cassowary Coast Regional Council

Prepared by: BMT WBM Pty Ltd (Member of the BMT group of companies)

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Northern NSW
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Newcastle
Perth
Sydney
Vancouver*

Document Control Sheet

<p>BMT WBM Pty Ltd 6/20 Byron Street BANGALOW NSW 2479 Australia</p> <p>Tel: +61 2 6687 0466 Fax: +61 2 6687 0422</p> <p>ABN 54 010 830 421</p> <p>www.bmtwbm.com.au</p>	Document:	R.B20543.001.04.docx
	Title:	Foreshore Management Plan – Greater Mission Beach Area
	Project Manager:	Damion Cavanagh
	Author:	Damion Cavanagh; Greg Fisk; Shannon McGuire (Buckley Vann) and Steve Moss (UPLAN).
	Client:	Cassowary Coast Regional Council
	Client Contact:	Damon Sydes
	Client Reference:	

Synopsis: A plan for management of foreshore areas of the Cassowary Coast in the Greater Mission Beach Area.

REVISION/CHECKING HISTORY

Revision Number	Date	Checked by	Issued by
0	17 th June 2014	GWF	DCC
1	22 nd August 2014	GWF	DCC
2	24 th September 2014	GWF	DCC
3	8 th September 2015	GWF	DCC
4	28 th September 2015	GWF	DCC

DISTRIBUTION

Destination	Revision										
	0	1	2	3	4	5	6	7	8	9	10
Cassowary Coast Regional Council	PDF	PDF	PDF	PDF	PDF						
BMT WBM File	PDF	PDF	PDF	PDF	PDF						
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Executive Summary

Executive Summary

The Greater Mission Beach foreshore is unique and spectacular, rich in natural assets, and includes features and values that support the internationally significant Wet Tropics World Heritage Area and Great Barrier Reef World Heritage Area.

The predominantly natural character of the foreshore underpins the identity, landscape values, scenic amenity, recreational opportunities and tropical lifestyle of its residents.

The foreshore also contributes significantly to Mission Beach being renowned as a residential and tourist destination supporting local commercial activities and uses.

This diversity of environmental, social and economic values derived from the foreshore will be maintained in part through best practice foreshore management and recognising that conservation and social and economic well-being are inter-dependent.

The coastal fringe in the Cassowary Coast Region is managed by the Cassowary Coast Regional Council ('Council') using various interlinked strategies and planning documents that reflect applicable legislation. However, the current variety of documents (some of which are in draft form) can lead to confusion and misinterpretation of what activities and works are permitted to occur in foreshore areas and provide limited direction and guidance about the planning of future uses and activities.

In responding to this need, this Foreshore Management Plan (FMP) for the Greater Mission Beach Area has been developed to capture current and direct future management of the coastal fringe within the Cassowary Coast Region. The overarching purpose of the FMP is to provide a unified, concise and visual guideline document for use by Council in the management of the coastal fringe.

For the purposes of this study the coastal fringe is considered as the beach area, areas immediately adjacent to the beach and areas landward approximately to the nearest formed road boundaries (generally about 100-200 m from the beach proper). Geographically, the study area extends south from the Maria Creek entrance to Tam O'Shanter Point, a coastline extent of over 20 km. The configuration of land tenure varies across this study area but generally encompasses public land.

The key values, resources, infrastructure, hazards, threats and opportunities associated with the foreshore have been mapped and described under the FMP based on existing strategy and planning documents, consultation with Council officers and site inspections by the study team. This information forms the baseline for current and proposed management approaches outlined later in the document.

The FMP is underpinned by a vision for management that has been informed by the Mission Beach Visual Amenity Reference Group (VARG) and relevant Council corporate and statutory planning documents. VARG is an alliance of thirteen (13) diverse community organisations who have worked collaboratively as a group and with the Council, to define the desired outcomes for the future planning of the Greater Mission Beach foreshore area.

The Vision statement for the FMP recognises that,

'The Council and community show leadership in the protection, restoration and sustainable use of the Greater Mission Beach foreshore and work together to preserve and manage the foreshore for its significant contribution to Mission Beach being renowned as a unique World Heritage Area and one of the best nature based tourism destinations in the world.'

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The FMP is responsive to this vision. The function and architecture of the FMP is based on the principle of 'usage segregation', i.e. the FMP divides the foreshore into 'zones' and promotes certain types of outcomes for those 'zones' ranging from essentially preservation through to high use. This is intended to provide a balance between the desire to support current and emerging human usage types with long-term management to preserve the foreshores key natural values which are fundamental to its character and resilience. The foreshore divisions are referred to in the FMP as 'foreshore management units' or FMUs. The FMUs reflect the current values and/or level of use and activity on the foreshore. The four (4) types of FMUs include:

- 'natural beach and foreshore' areas are generally higher value, lower use areas where the intent is to retain these values by promoting appropriate usage types. Human recreational use is generally low level and compatible with conservation objectives;
- 'open space' areas are generally slightly to moderately disturbed and are subject to moderate human use. These areas provide a buffer between the preservation and higher use areas and allow for a moderate level of human usage;
- 'developed parkland' areas represent traditional parkland areas that are extensively modified and support high levels of human recreational use; and
- 'tourist park' areas represent existing caravan and tourists parks and are extensively modified that geared towards providing a unique tourist experience. These areas support a high level of human use.

Special Management Areas (SMAs) have been identified within FMUs to identify and provide management guidance to how specific areas, resources or features of the foreshore should be managed. The SMAs include:

- 'heritage protection' areas where the intent is to protect and maintain the natural or cultural resources of the area;
- 'rehabilitation' areas where the active rehabilitation, restoration or natural regeneration of foreshore vegetation is supported or encouraged. The FMP provides further guidance in respect of rehabilitation priorities along the foreshore based on existing known vegetative values and the anticipated success of any rehabilitation activities;
- 'nature based recreation' areas where low impact recreational activities that conserve the natural values of the foreshore are encouraged;
- 'high recreational or commercial use' areas which reflect areas where more active and intense human uses and activities occur, are permitted and/or are preferred. The FMP provides additional guidance in respect of foreshore usage for dog walking and horse riding given the increased risk of conflict associated with these activities; and
- 'special facilities' areas where major infrastructure exists, is proposed or is otherwise identified in the plan as being recommended for investigation.

To support the adoption these specialised usage areas Council will adopt a proactive educational approach to alert and inform foreshore users of the usage intent for sections of the foreshore. This will include use of appropriate signage to indicate preferred usage types, locations and conduct for activities. Additional proactive educational approaches will be employed to inform target user groups of the foreshore (these will be developed after the adoption of the FMP).

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The FMP also identifies activity nodes along the foreshore that have high recreational or commercial use potential but have not been formally master planned. These areas are identified in the FMP as 'future activity areas'. Master planning is proposed in these areas as part of the implementation of the FMP in order to optimise their use and value using best practice coastal planning principles. The future activity areas are supported by a series of visual mapping-based products to show best practice planning principles in action and to provide a clearer vision of future development and use of these areas.

Similarly, in respect of foreshore rehabilitation, suggested outcomes are supported by a series of visual mapping-based products to show best practice planning principles in action and to provide a clearer vision of potential rehabilitation outcomes to assist in understanding and communication.

To complement the mapping and visual aspects of the FMUs and SMAs, the plan outlines and provides management guidance for nine key coastal management issues. These include:

1. Protection and restoration of nature conservation values and vegetation management;
2. Natural hazards;
3. Beach access and connectivity;
4. Maritime infrastructure and ocean access;
5. Structures and facilities in the foreshore;
6. Appropriate recreation activities;
7. Tourist parks;
8. Leases for clubs and organisations; and
9. Commercial leases.

Each management issue is underpinned by a series of management principles and more detailed and discrete directions for foreshore management that will be observed by Council in planning and decision making activities, as well as day to day management of Council controlled land.

Next Steps

While the primary role of the FMP is to inform all aspects of the community about current and future management intent and guidance for the foreshore, it is intended that the FMP be integrated into relevant Council planning strategies and functions following approval and endorsement. This includes decision making and investment under Council's Corporate and Operational Plans, decisions about land use and development under the Planning Scheme and in day-to-day planning and management activities by various Council Departments such as parkland maintenance activities. While a Council document, the FMP is also intended to signal the preferred management intent for the foreshore to other decision makers in the coastal zone including State Government.

This first version of the FMP has identified some information gaps, particularly around mapping of ecological resources, which if addressed by further investigation, will strengthen planning outcomes in future versions of the FMP.

While the FMP is specific to the Greater Mission Beach Area it provides a methodology for potential application to other foreshore areas of the local government area if Council so chooses.

Glossary of Abbreviations and Key Terms

Adventure sports – Refers to higher speed activities, such as blokarting and personal water craft use.

Best Practice Coastal Planning - The Queensland Coastal Management Plan provides direction and guidance for the use of Queensland's coastal resources and sets out best practice coastal management principles and policies to inform decision making and management of activities and coastal resources on public coastal land. The plan provides best practice guiding policies on matters such as driving on beaches, coastal rehabilitation and the provision of public access.

C4 – Community for Coastal and Cassowary Conservation.

Commercial Use Area – An area that may be used for suitable commercial uses if demand for such use exists. The commercial uses need to be consistent with the intent of the FMP and may require permits and approvals from regulatory authorities other than Council.

EPBC - Commonwealth *Environment Protection and Biodiversity Conservation Act*, 1999

FMP – Foreshore Management Plan.

FMU – Foreshore Management Unit.

Future Activity Areas - Activity nodes along the foreshore that have high recreational or commercial use potential but have not yet been formally master planned.

GBRMP – Great Barrier Reef Marine Park

Scenic Amenity – A measure of the relative contribution of each place in the landscape to the collective appreciation of open space as viewed from places that are important to the public. Examples of natural features that contribute to scenic amenity and landscape character include the ocean, rivers, wetlands, hills, mountains, open space, farmland etc.

Reserve – There exist many thousands of reserves throughout Queensland. Reserves are dedicated lands under the *Land Act*, 1994 for public or community purposes. Examples of a community use are parks or botanic gardens. The reserves are managed by a trustee which is typically Council, but it can be a group such as a trust or an incorporated sporting association, e.g. surf-life saving association. The community can use the trust land for the purpose for which it was dedicated, subject to the by-laws or local laws made by the trustee.

Nature Based Recreation – Outdoor activities in natural settings or otherwise involving in some direct way elements of nature including terrain, plants, wildlife, water bodies. Examples of nature based recreation include walking, sightseeing, picnicking and viewing natural scenery.

OUV – Outstanding Universal Value as applicable to World Heritage Areas.

Permit to Occupy – This refers to a permit issued by Council to occupy land under the *Land Act* 1994. A permit to occupy gives personal permission to use the land; it does not create an interest in land. The land may be unallocated State land, a reserve or road. Permits to occupy should only be considered for uses that are minor and temporary in nature. Because of the nature of permits, structural improvements to the land are generally not appropriate.

PWC – Personal Water Craft, i.e. a jet ski.

Glossary of Abbreviations and Key Terms

Preferred dog beach – Foreshore area (part of the High Recreation and Commercial Use SMA) on which dog walking activities are preferred.

Preferred horse beach – Foreshore area (part of the High Recreation and Commercial Use SMA) on which commercial horse riding activities are preferred subject to receipt of a permit from Council for the activity.

SMA – Special Management Area.

Sustainability – meeting the resource and services needs of current and future generations without compromising the health of the ecosystems that provide them. It is a condition of balance, resilience and interconnectedness that allows human society to satisfy its needs while neither exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs, nor by our actions diminishing biological diversity.

Traditional uses – Refers to Indigenous Traditional uses.

VARG - Mission Beach Visual Amenity Reference Group.

Vehicle – a motorised machine, i.e. car, truck or tractor used to launch and retrieve boats from the water.

WHA – World Heritage Area.

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Introduction

1 Introduction

1.1 Purpose and Role of Foreshore Management Plan

1.1.1 Purpose

The overarching purpose of the FMP is to provide a unified, concise and visual guideline document for use by Council in the management of the coastal area.

Others purposes include:

- To identify both current and future management intent for foreshore areas;
- To coordinate management decisions and frameworks that apply in foreshore areas;
- To identify preferred uses and activities appropriate for particular foreshore locations. These may then be used to guide certain land-use and other planning decisions, e.g. issuing of permits; and
- To illustrate visually, best practice foreshore planning and management practices that show how the foreshore can be managed in a way that provides for a variety of human uses whilst protecting the predominantly natural character of the area.

The FMP is intended to serve as a reference document for matters relating to the management of the foreshore, but it is not a statutory document in its own right.

The FMP for the Greater Mission Beach Area collates and expands on a wide variety of existing documents relevant to the management of the foreshore; it aims to resolve existing cross-over points and provide a clear and easy to use guide.

While the FMP is specific to the Greater Mission Beach Area, the processes used will allow for its application to other coastal areas within the Cassowary Coast Local Government Area.

1.1.2 Foreshore Management Issues

The scope of the FMP is guided by a combination of historical, current and future coastal management issues and aspirations associated with the coastal fringe and its economic, social and environmental values.

The key foreshore management issues that have been identified by the study team and through preliminary consultation activities for the Greater Mission Beach foreshore area that are addressed in the plan are as follows:

Coastal hazards and structures and facilities in the foreshore

- Minimising future risks to life and property arising from natural hazards and climate change;
- Management of the foreshore to support desired foreshore uses and natural coastal processes in both the short and long term, noting that poor short term management can have long term social, environmental and economic impacts. The economic risks and benefits of chosen foreshore management approaches must be able to be supported by Council.

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Beach access and connectivity

- Rationalising the use of bollards (or other structures) to restrict vehicles from accessing higher priority rehabilitation areas and providing clearly identified and safe pedestrian and vehicle access points to the beach that do not detract from the visual amenity of the foreshore and directs pedestrian access to the beach;
- Establishing a coastal trail that connects communities from South Mission Beach to Bingil Bay using a mix of appropriately designed and located foreshore and off-foreshore walking and cycle tracks that are safe and provide equity of access for all users.

Appropriate recreation activities, commercial leases, leases for clubs and tourism parks

- Optimising foreshore recreational areas in selected locations to provide community “hubs” or “focus points” which activates these locations. When “activated” the hubs become attractive for suitably aligned business ventures to co-locate through leasing or permitting. Leasing/permit sites should not restrict public access or use of the foreshore, adversely impact on visual amenity or be located in recognised environmentally sensitive areas;
- Distributing foreshore usage types across the study area which includes “fit-for-purpose” use of foreshores. The aim is to balance the protection of higher ecological value foreshores, while supporting a variety of usage types in other foreshore locations. Locations for uses and activities should be selected to provide adequate access, safety and amenity for the community, and to avoid or minimise (in order of preference) potential adverse impacts on ecological and nature conservation values.

Protection and restoration of nature conservation values and vegetation management

- Protection and restoration of habitat and corridor connectivity for the endangered Southern Cassowary, other iconic species such as crocodiles, turtles, mahogany glider and curlews and critically endangered vegetation communities such as littoral forests;
- Management of foreshore vegetation that balances multiple and often competing objectives of habitat protection and restoration, foreshore stability, visual amenity, water and beach views and maintenance costs; Management of weed species in a way that supports safe foreshore use, promotes native revegetation, protects ecological processes and values and reduces long-term maintenance costs for the Council; Management of upper beach debris to limit coastal erosion where appropriate;
- Increasing community education and awareness in respect of:
 - foreshore vegetation values, particularly the role of vegetation in stabilising and protecting the foreshore; ecological and traditional owner values of the foreshore.
 - costs and impacts of mowing, fencing, traffic and pest plants and animals in the foreshore.

Maritime infrastructure and ocean access

- Provision of practical, safe and strategically located access points for pedestrians, small boats and commercial craft that meets community needs and limits foreshore erosion and impacts on coastal and aquatic ecosystems.

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1.1.3 How to Use the FMP

The primary role of the FMP is to be a public document that informs all aspects of the community about current and future management intent and guidance for the foreshore.

Once endorsed by Council, it is intended that the FMP is integrated into relevant Council planning strategies and functions (but remains non-statutory). It will be applied in accordance with the implementation advice provided in Section 1.2. The document will be uploaded onto Council's website and hard copies will be made available at Council's administration offices.

In using the FMP the user will initially consult the mapping prepared for the project. While the mapping is fully described later in the document, the general concept is that the foreshore is divided into a series of zones, called Foreshore Management Units (FMUs). The FMUs identify and describe current and future use and management intent of these foreshore zones. Further specific information is overlaid on these FMUs and is referred to as Special Management Areas (SMAs). The SMAs identify and provide management guidance to how specific areas, resources or features of the foreshore should be managed.

Consulting both the FMU and SMA mapping will enable the user to readily identify broad usage intent, as well as specific resources and constraints of areas or sites, which can be used to assist in determining suitable use and management into the future.

1.1.4 Time Horizon

The FMP has been developed for a twenty year period (2014 - 2034) but is proposed to be formally reviewed every four years by Council, although a substantive review may take place sooner at the discretion of Council to incorporate new materials or address existing concerns regarding FMP implementation or interpretation. The review process will allow Council to integrate new planning and research material as it becomes available; better reflect significant changes in the condition of the foreshore over the intervening periods (e.g. recovery or damage); and allow for consideration of changing human usage demands.

Minor amendments to the FMP including changes to mapping products may occur intermittently over the life of the plan as underpinning strategies are implemented and further studies are undertaken.

1.2 FMP Implementation

The complexity of governance and management arrangements means a coordinated and strong partnership approach is required between the Council, the State Government, community groups, businesses and individual property owners involved in the management or use of land in or adjacent to the foreshore. However, given the FMP will primarily be implemented by the Council, it is a requirement of Council that all of its departments and sections consider and implement the FMP, where relevant, for decision making, design and delivery of all Council works, services, programs, facilities and actions. The FMP will also be used to inform the issuing of permits under Council's local laws to undertake certain activities on the foreshore.

At the time of preparing the draft FMP the planning scheme was in a draft form, it was subsequently approved and took effect from 3 July 2015. Further information on how the FMP will be implemented is included in Appendix A.

Introduction

1.3 FMP Area

The Cassowary Coast region includes a vast stretch of coastline, including numerous islands. The area of interest is approximately 20 km in length and extends from Maria Creek in the north to Tam O'Shanter Point in the south. This stretch of coast includes a mix of land-uses, including:

- Four main villages (Bingil Bay, Mission Beach Township, Wongaling Beach and South Mission Beach);
- Dedicated National Parks (Clump Mountain National Park) and a part of the Wet Tropics World Heritage Area;
- Great Barrier Reef Marine Park and Great Barrier Reef World Heritage Areas (extent to lowest astronomical tide on the coast); and
- Various open spaces and natural areas, including wetlands, estuaries and rainforests.

Figure 1-1 identifies the extent of foreshores, beach (or rocky foreshore) and water considered by the FMP. For the purposes of this study the coastal fringe is considered as the beach (or rocky foreshore) areas, areas immediately adjacent to the beach and landward approximately to the nearest formed road boundaries. The configuration of land tenure varies across the project area but for the greater part the project focus is within 100-200m of the beach proper.

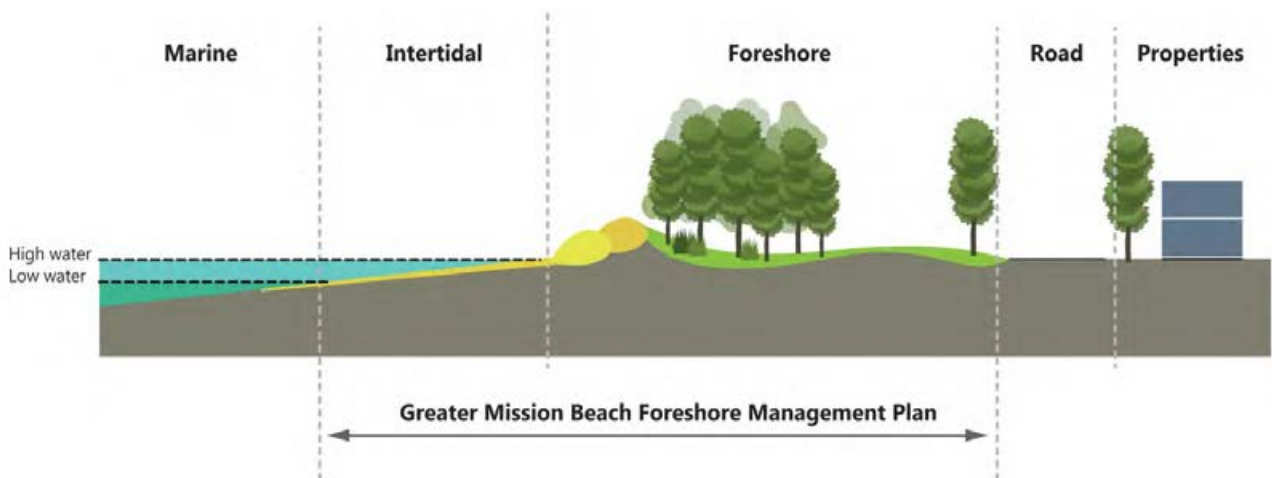


Figure 1-1 Study Area Extent – Schematic

The geographic extent of the study area is represented in Figure 1-2.

Figure 1-3 shows the boundaries of the Great Barrier Reef World Heritage Area (WHA) and the Wet Tropics WHA relative to the foreshore. As shown in this figure, the majority of the foreshore land that is the subject of the FMP is adjacent to, but outside of, the boundaries of both of WHAs (noting that the Wet Tropics WHA only abuts the foreshore on the coastline to the south of Bingil Bay). However, it is recognised that the foreshore is an important intersection of the two WHAs and a key principle applied to the delineation of FMUs and SMAs has been the need to reflect a consistent planning intent across this interface (e.g. maintenance of undeveloped/undisturbed corridors that run perpendicular to the coast from undeveloped catchments to the nearshore marine environments protected through the Marine Park).

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1.4 Preliminary Consultation

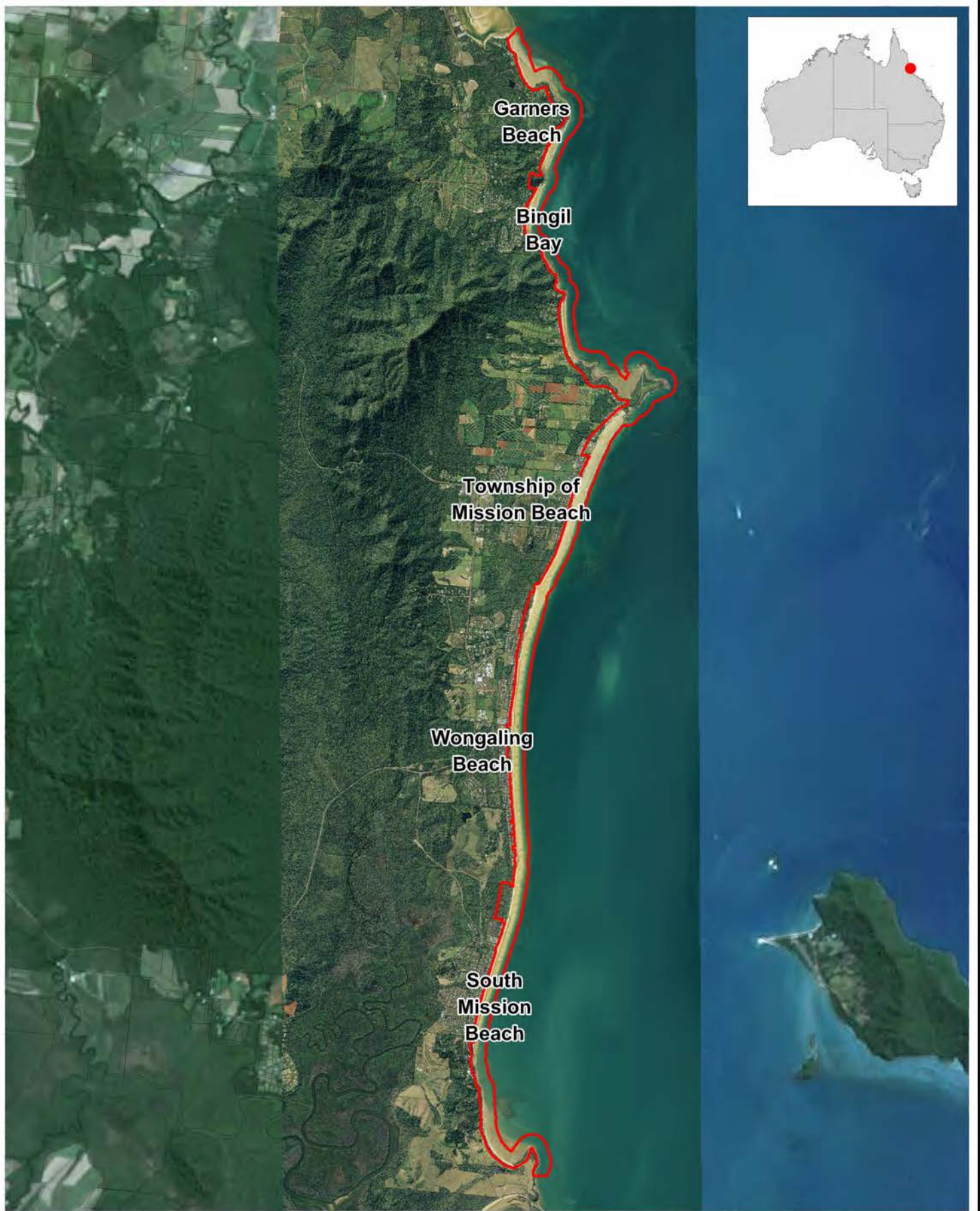
The FMP has been developed using input from selected stakeholder consultation activities as required by Council during the study. In particular, the FMP is underpinned by a vision for management that has been significantly informed by the Mission Beach Visual Amenity Reference Group (VARG). The VARG work has been adapted to ensure consistency and alignment with relevant Council corporate directions and statutory planning documents. In addition to informing the vision for the management of the foreshore, the VARG work has also informed the strategic directions in Section 3 of this report including the allocation of beaches to particular FMUs and SMAs and the Foreshore Management Issues and Desired Foreshore Management Outcomes in Section 3.5 of this report.

It was Council's intention to develop the plan initially and seek internal Council endorsement prior to broader public consultation on the plan.

As part of the FMP preparation the project team conducted workshops or provided presentations as follows:

- Workshop with Council officers on 14th February 2014 to seek input and validation of the preliminary draft FMU maps and confirmation of values and issues;
- Presentation to VARG on 14th February 2014 to provide an overview of the project and to seek VARG's input on key foreshore management issues; and
- Meeting with Djiru Traditional Owners on 23rd May 2014 in Tully to provide an overview of the project and to seek Traditional Owner input on existing foreshore use, values and management issues for consideration in the FMP.

Further specific information and outcomes from these preliminary consultation activities are included in Appendix B.

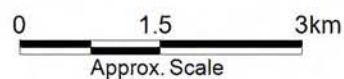


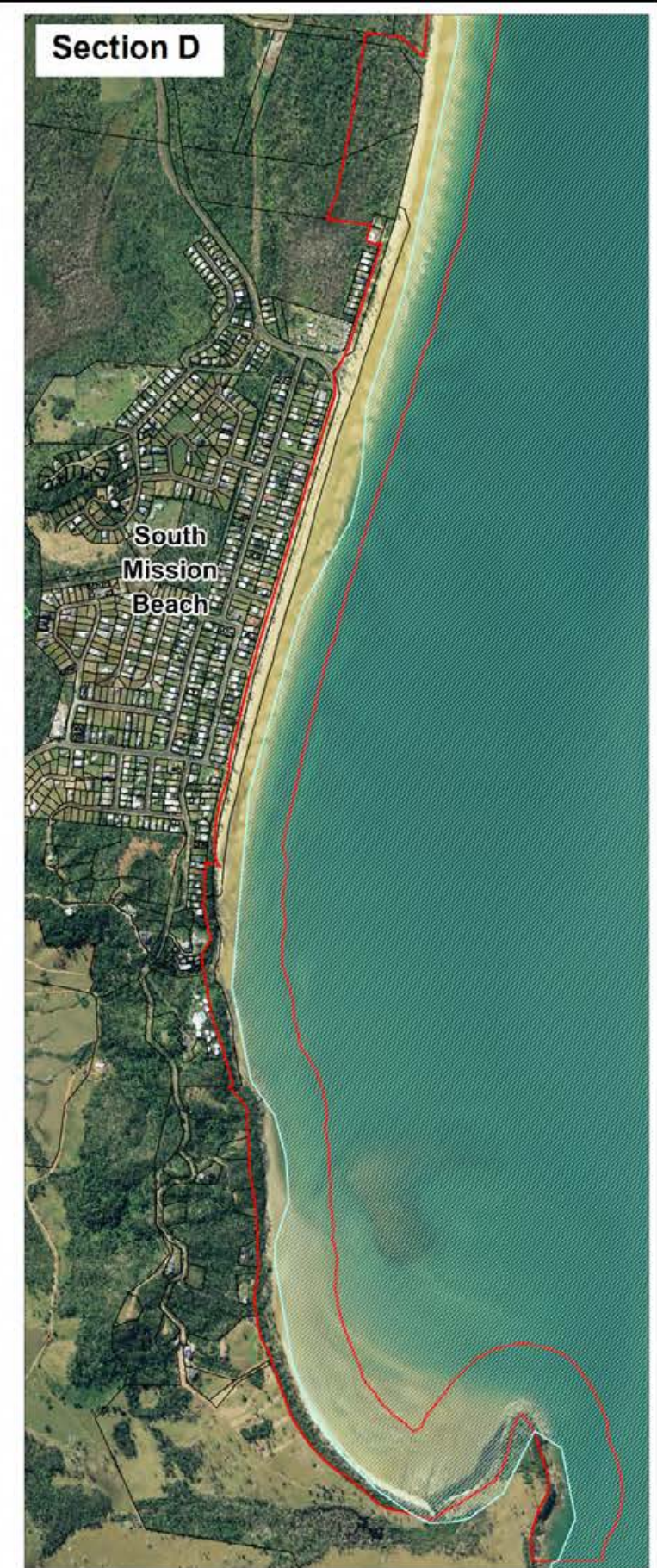
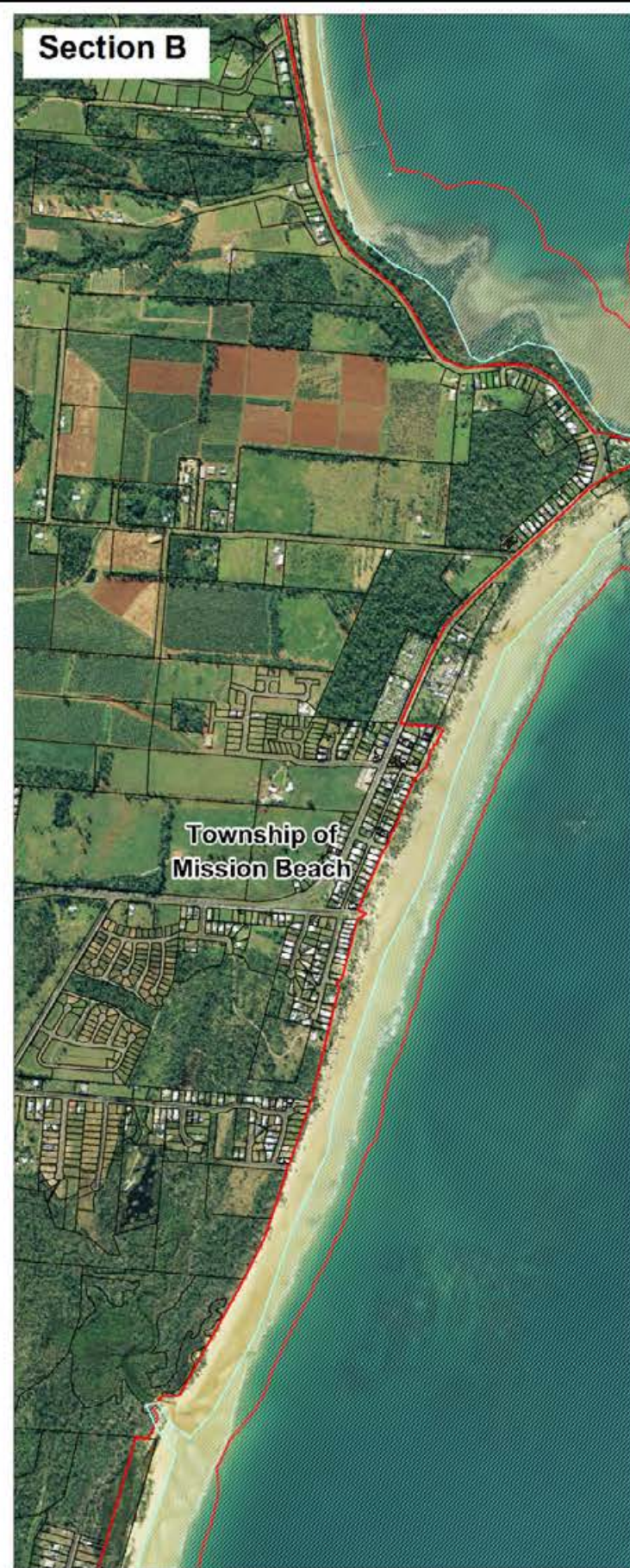
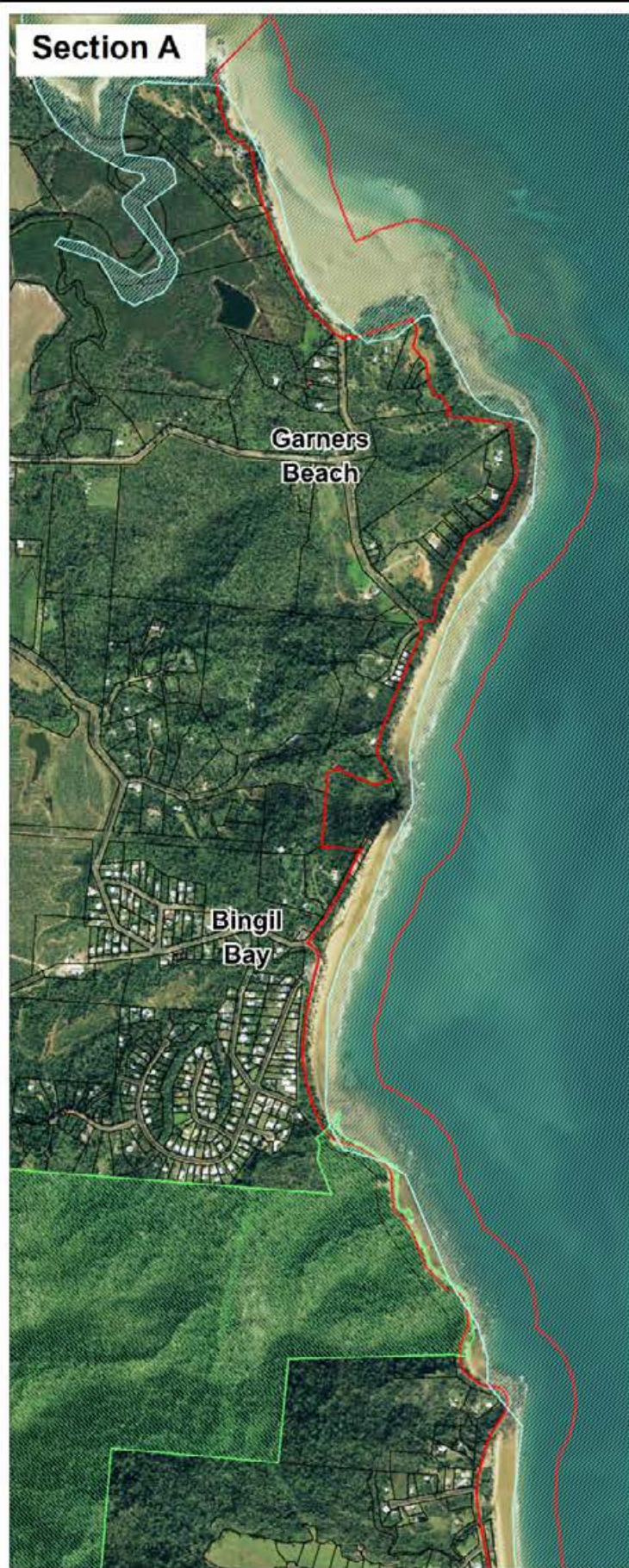
Title:
Study Area Extent - Geographic

Figure:
1-2

Rev:
A

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LEGEND

- Study Area
- World Heritage Area
- Great Barrier Reef
- Wet Tropics of Queensland

Section A

Section B

Section C

Section D

Title:
**Location of World Heritage Boundaries
in relation to foreshore**

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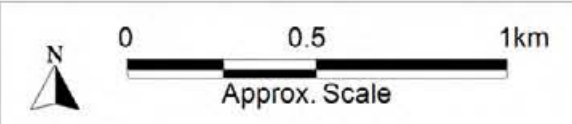


Figure
1-3

Rev:
A



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2 Context Analysis

This section provides contextual information relating to the foreshore of the study area which has been used in the development of the Foreshore Management Plan (FMP). Information compiled has been developed from Council's planning information, existing literature, consultation and site inspections amongst others sources. Further information about the planning context is contained in Appendix C.

2.1 Tenure

Figure 2-2 (at end of this section) identifies land tenure of the foreshore which forms the study area.

The figure identifies that the majority of lands to the west of the study area boundary are freehold land. Other landuses to the west of the study area boundary include National Park and Reserves.

Within the study area the majority of the land is allocated as road reserve although only a small proportion is used for actual road. There also exists a number of Reserves, and a list of the current Reserves in the study area is provided in Appendix C.

2.2 Human Use

The foreshore of the study area is used for a wide variety of activities. Usage types include (based on a broad division of the coastal fringe):

- Water-based – swimming (in and out of enclosures), parasailing (typically offshore with beach launch), boating (boat launch and retrieval via beaches or formed ramps), kayaking and fishing;
- Beach-based – horse-riding, sky-dive landing, land yachting, dog walking, cycling, fishing, walking; and
- Foreshore-based – weddings and special events, children's play area, cycling, barbeques, picnicking and walking.

Figure 2-3 shows existing use types in the study area further apportioned by indicative levels of use (i.e. high, medium and low use levels). It has been developed based on a review of available information, site inspections and preliminary consultations (note that cultural uses are discussed later in the report). Figure 2-3 does not try to represent those uses which are sporadic or itinerant across the study area such as kayaking, fishing, horse-riding, land-yachting, dog waking, etc. The uses that do or may occur on the foreshore often reflect underlying infrastructure as discussed in Section 2.3. An example of this is swimming, which primarily occurs in dedicated stinger-net enclosures.

There are a number of commercial leases and other permitted activities in this region, including:

- Skydive landing – is currently permitted in a number of locations (noting that while landing will typically occur in the nominated landing zone, there may be a need to land in any given location within the foreshore to avoid injury if weather conditions change during a jump);
- Leases - Mission Beach Sailing Club, Mission Beach Surf Life Saving Mission Beach Visitor Information Centre, Mission Beach Caravan park, Bingil Bay Caravan Park;

Context Analysis

- Permits to Occupy. These currently include:
 - Coral Sea Kayaking - approved access points at Bingil Bay, Wongaling Beach and South Mission Beach;
 - Mission Beach Boat Hire - approved access point opposite Beachcomber Caravan Park Kennedy Esplanade, South Mission Beach;
 - Mission Beach Dunk Island Water Taxi - Opposite 71 Banfield Parade, Wongaling Beach; and
 - Mission Beach Surf Lifesaving Club - 154 Kennedy Esplanade South Mission Beach.

Parts of the study area have also been used for a variety of indigenous uses including meeting places, hunting and ceremonies.

2.2.1 Horse Use on Beaches

Under Council's existing Local Law No. 4 – Local Government Controlled Areas, Facilities and Roads (LL4) and Subordinate Local Law, bringing or riding a horse in a park, reserve or foreshore is currently identified as a permitted activity in locations where sign-posted for that purpose by the Council, or permitted if authorised under an approval for the prescribed activity.

The Council at its meeting on March 2014, resolved to allow access for recreational horse riding activities on all beaches and common areas throughout the Cassowary Coast Region, unless otherwise signed. The Council further resolved that permits will be issued for commercial horse riding activities on designated beaches and common areas throughout the Cassowary Coast Region.

This FMP seeks to facilitate a variety of uses and activities, including opportunities for high use recreation areas (such as horse riding, dogs and high speed adventure sports) and balancing these activities with other important objectives such as protecting sensitive coastal habitats (e.g. dunes, turtle nesting sites, etc.) and minimising potential conflicts or tensions between foreshore users. It is also very important to consider the safety of people using the foreshore and to minimise potential liability issues for the Council. Of particular concern is the potential for conflict and safety issues between horses and people using designated beach locations for bathing reserves, dog beaches and sky diving activities. Given the inherent nature of horses and their tendency to scare or spook easily, this FMP has adopted the sensible principle of separating horse riding activities from those foreshore uses that are likely to result in a direct conflict with horses or potentially endanger the safety of beach users. The principle of separation is consistent with the Code of Practice for the Horse Industry (2009), which recommends separating spectators and dogs from horse activities.

While Council's Local Law regulates horse riding activity, the FMP provides important guidance and recommendations on the preferred approach to horse riding on the foreshore and should be relied on to inform decision making under Council's local laws. As such, this FMP recommends the following approach:

Beach Areas

Recreational horse-riding is permitted on all beaches, but is discouraged from beach locations designated for:

Context Analysis

- Bathing reserves;
- Preferred beach locations for dogs;
- Sky diving or land yachting activities;
- Use by or habitat for threatened species (e.g., turtle nesting areas); or
- Coastal dunes.

Commercial horse-riding under this foreshore management plan is supported where:

- Undertaken in accordance with a permit or the conditions of a permit pursuant to Council's local law; or
- Undertaken in designated beach locations signposted for that purpose.

This will make it easier for recreational horse riders to use the beach. However, for the safety of all beach users and horse riders and considering potential liability issues for the Council, it is recommended all horses, regardless of whether horse-riding is for a recreational or commercial purpose, be discouraged in preferred beach locations dog walking, or for other non-compatible commercial operations, as identified in this foreshore management plan. Horse riding of any form is not permitted in Bathing Reserves. It is also important to ensure all horse riding activities avoid sensitive coastal habitats and landforms, particularly turtle nesting areas and dunes; this can largely be avoided by allowing riding within the intertidal area of the foreshore. The issue of coastal protection is discussed further later in this section.

Safety

To avoid potential conflicts between horses and other non-equestrian beach users and to maintain the safety of people, recreational or commercial horse riding must comply with relevant State legislation and Council Local Laws and is not permitted in designated Bathing Reserves.

Horses should be ridden at a safe speed at all times and in a manner that maintains the safety of any other person in the area. In particular, horses are ridden at walking pace within 50m of other (non-equestrian) users of the foreshore.

Access

Access for horses to the foreshore is obtained from designated vehicle access points or boat launch and retrieval locations that are sign posted allowing for horse access. Suitable unloading locations for horses is required to ensure that horses do not need to be conveyed through other use areas potentially giving rise to a conflict in use. Also desirable are suitable turning and parking areas for horse floats.

This will ensure that horses are treated similarly to that of a 'vehicle' and can only access the foreshore from designated access points. This principle is also consistent with the intent of the Code of Conduct for the Horse Industry Association (2009) in ensuring safe entry and exit points and minimising potential safety issues with pedestrians.

Context Analysis

Coastal Protection

Unless signed accordingly, horses do not graze on coastal vegetation or walk over dunes. To ensure the protection of sensitive vegetation, turtle nesting sites and fragile coastal landforms, horses are only permitted within the intertidal area of the beach.

This provides very clear direction to horse riders where on the foreshore they can bring or ride a horse on the beach. This will also avoid horses from walking over dunes trampling sensitive coastal vegetation and accidentally destroying or impacting on sensitive habitats such as turtle nesting sites along the foreshore.

It is also a requirement under the local law for a person in control of a horse (or other animal) to immediately remove and responsibly dispose of animal faeces.

To implement the above outcomes, it will be necessary to include amendments to the provisions of Local Law No. 4 – Local Government Controlled Areas, Facilities and Roads as part of Council's upcoming local law review process.

2.2.2 Dog Use on Beach

Under Council's current Local Law No. 2 (Animal Management) 2011, a dog must be under the effective control of the owner or responsible person when in a public place. Local Law No. 2 makes it clear that 'effective control' means the person must be physically able to control the animal by holding it by an appropriate leash, halter or rein or, the dog is in a dog off-leash area and under the supervision of a person who is able to control the animal by voice command. Under the subordinate local law, the Council can designate an area within a public place as a dog off-leash area and these areas are signed accordingly indicating the extent of the area. At the time of drafting this FMP, it is understood that no designated dog-off leash areas currently exist in the Cassowary Coast Regional Council area.

It is also a requirement under the local law for a person in control of a dog (or other animal) to immediately remove and responsibly dispose of animal faeces.

Dog use will continue to be managed under Council's local law. While the FMP does not prescribe or mandate requirements for dog use, the FMP provides useful guidance and recommendations on the preferred or desirable locations for dog use along the foreshore (refer Figure 3-6 page 35), with the intention of minimising potential conflicts between dogs, other beach users and sensitive natural values. In this context, the FMP identifies preferred beach locations for where dog walking (on leash) is encouraged and also identifies locations where dog use should be discouraged. The FMP also includes recommendations to improve community awareness of sensitive natural values and to support dog users and other beach users on positive behaviours.

2.2.3 Vehicle Access on Beach

For vehicle access to and along the foreshore, while this is most often regulated by the Council under its Local Law No.4, in other instances the Department of National Parks, Recreation, Sport and Racing (NPSR) has jurisdiction to regulate the use of vehicles on beaches within protected areas under the *Nature Conservation Act 1992* and in Marine Parks under the *Marine Parks Act 2004*.

Context Analysis

Furthermore, once vehicle access regulations and laws are established, the *Transport Operations (Road Use Management) Act 1995* can be administered on these beaches by the relevant authority (i.e. for a protected area the NPRSR is the relevant authority and, for all other areas the Council is the relevant authority).

This FMP will provide a strategic approach and guidance for the issuing of permits under Council's local laws, where relevant to foreshore management. Once this FMP is finalised, it will be necessary to review these local laws to ensure alignment across activities envisaged under this plan and the permitting requirements under the local laws.

2.3 Infrastructure and Facilities

The study area includes a wide variety of infrastructure and facilities. These are provided below and have been separated into general and unique features:

- **General recreational features:** playgrounds, BBQs, seating, shelters, toilet facilities, camping and caravan parks, sailing / surf lifesaving facilities, beach accesses, boat ramps, pedestrian pathways and stinger nets swimming enclosures; and
- **Unique recreational features:** Cutten Brothers track, Ulysses Link track, Kennedy track, Arboretum, Clump Point lookout, C4 Environment Centre and Visitor Information Centre.

Figure 2-4 provides details of current foreshore infrastructure and facilities excluding access types and locations which are described in Section 2.3.1 (below).

2.3.1 Accesses

There are nearly 100 accesses in the study area which vary by their:

- Location;
- Ability to accept pedestrians, horses and/or vehicles;
- Width;
- Design Type;
- Ownership; and
- Construction material.

This number of accesses provides for approximately one type of access every 220 m on average throughout the study area, with the largest distance between accesses in a built up area being approximately at 280 m. This represents a substantial provision of access points in the study area.

Figure 2-5 provides imagery showing the access locations and other salient information with respect to access type, status (existing or proposed), design type, access restrictions and owner.

These access points support certain use types as described earlier in this Section including:

- Beach use – pedestrians can access the beach via nearly 100 access points in the study area. These access are sometimes constructed (i.e. steps, ladder, ramp etc) and are built of a variety of material such as sand, board and chain, concrete etc) and vary in width. Some ramps are suitable for limited mobility pedestrians.

Context Analysis

- Boating – vehicles are only allowed to access to the beach for the purpose of launching and/or retrieving a boat via designated access points (or for emergencies). Nearby suitable turning and parking areas for boat trailers is also desirable near these vehicle access points for the purposes of manoeuvring and parking vehicles off of the beach and foreshore dune areas. There are estimated to be 16 ramps suitable for boat launching access in the study area.
- Parachuting – pedestrian access points located near roads allows for the rapid set up of temporary landing sites and transport of skydivers and equipment to and from vehicles.
- Horse riding – horse riding on beaches can occur recreationally or commercially (under permit) within the study area, however, it is a requirement that horses access the beach via dedicated vehicle access points (further information on this is provided in the following sub-section). There are estimated to be 8 ramps suitable for horse access in the study area (with two potential additional sites identified) which represents around half of the vehicle access sites. Not all sites are suitable for horse access due to limitations on parking available and conflicts with other activities.

Due to the large number of accesses in the study areas and the costs incurred in maintaining them all, Council is intent on collecting usage information on the accesses to allow for a potential rationalisation over time. A reduction in unused or less used access point will save ongoing costs in maintenance and will reduce fragmentation of habitat along the foreshore as disused access points can become candidates for rehabilitation. The use of multiple use accesses is seen as one method which can be considered for rationalisation of access types and numbers, where one access can service a multitude of access requirements. Part of the review of accesses will consider equity for disabled access across the foreshore. Any future design for accesses to provide disabled access would apply contemporary design standards for these types of accesses.

2.4 Values

The Greater Mission Beach foreshore has a wide variety of significant natural, social and economic values. Further descriptions of local area values are included in Appendix C (Sections C.3.1, C.3.2 and C.3.3).

Natural Heritage Values

The foreshore is unique and spectacular, rich in natural assets, including areas that are of the highest integrity and abut the internationally significant Wet Tropics and Great Barrier Reef World Heritage Areas. The waters of the study area are within the Federal and State Great Barrier Reef Marine Park. Other formal reserves adjacent or near to the study area include the Clump Mountain and Hull River National Parks. These protected areas seek to conserve a variety of endangered, vulnerable, threatened and/or rare habitats, flora and fauna that contribute to the regions outstanding biodiversity. These endangered, vulnerable, threatened and/or rare habitats, flora and fauna also exist outside of the formal protected areas and are (or may be) represented in the foreshore. Other significant ecological features adjacent or within the study area include nationally important wetlands and corridors for the mahogany glider and southern cassowary. The connections between foreshore and inland vegetative communities are also recognised as important for ecological community integrity and associated animal movements. The information available identifies the many of natural values of the study area, although some specific information

Context Analysis

gaps exist at fine scale which over time will be addressed through investigation to improve the knowledge base that supports planning recommendations of the FMP.

Both the Great Barrier Reef and Wet Tropics WHAs have statements of Outstanding Universal Value (OUV) underpinning their listing as WHAs under the World Heritage Convention and *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. While broad statements of value that apply across the breadth of the sites, many of the attributes, habitats and species that underpin the OUV of the sites are present in or adjacent to the foreshore of Greater Mission Beach.

Social Values

The study area has very high scenic landscape values which are imparted by a rugged backdrop to the coast of rainforest clad hills and mountains with high natural integrity combined with a diversity of beaches, rocky headlands and offshore islands. The coastal land use of the study area provides a relatively low visual impact.

The foreshore supports a diverse range of recreational activities, as described in the Human Uses section (refer Section 2.2), which is considered a key social value of the study area.

Economic Values

The study area supports a variety of predominantly tourist related (domestic and international) economic activity and is a critical asset for the local tourism market of Mission Beach. The study area contains two Council managed camping and caravan parks, with many private accommodation facilities adjoining the study area. There are a number of private resorts adjacent to the study area that take advantage of their proximity to the foreshore in terms of views and foreshore access. A number of tourism related commercial enterprises utilise the foreshore including skydiving adventure sports, boat and watercraft hire. The foreshore is regularly used in several locations for weddings and other group activities and the significant walking tracks are likely to be an attractor for locals and tourists alike. The Clump Point ramp and Perry Harvey jetty and other beach based boat launching facilities provide access to and egress from the ocean for a variety of maritime pursuits including diving, fishing and sightseeing amongst others.

Cultural Values

The Wet Tropical Coast is part of a complex matrix of Aboriginal cultural, ceremonial, and story places, archaeological sites, hunting, gathering and living areas that contribute to a rich and dynamic Traditional owner landscape. Additionally, there exist features of significant European cultural heritage within the study area as detailed further in Section C.5.2.

2.5 Legislative and Management Frameworks

The statutory, management and governance arrangements for the foreshore are complex with multiple jurisdictions, legislation and policies at the Commonwealth, State and local government levels.

An overview of the legislative and regulatory arrangements for the foreshore area is shown in Figure 2-1. This is not intended to be an exhaustive list, but exemplifies the complexity of management arrangements.

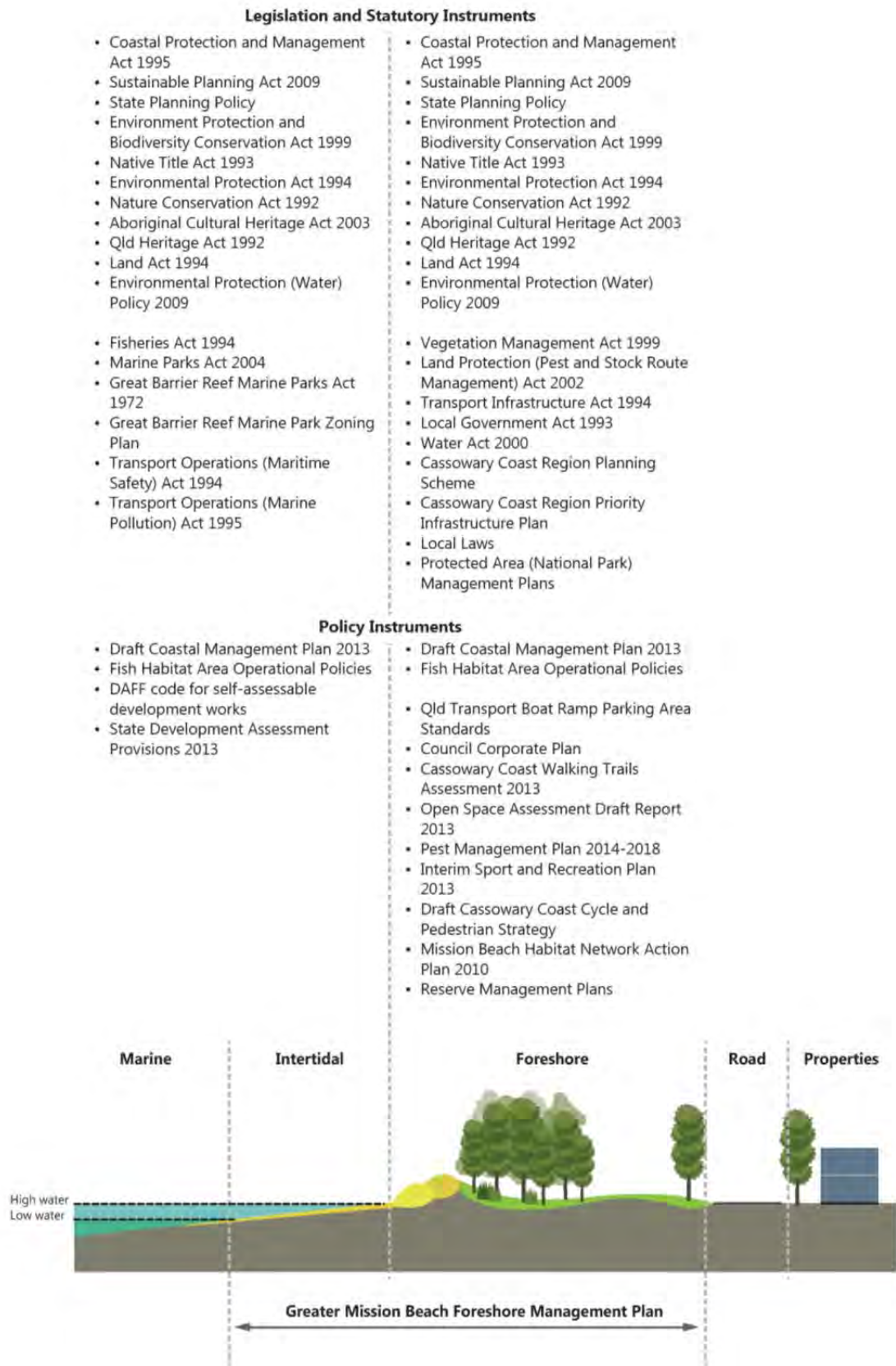


Figure 2-1 Legislative and Regulatory Arrangements of the Foreshore

Context Analysis

The Council has foreshore management responsibilities in the following areas:

- Corporate, operational and financial planning;
- Land use and development;
- Infrastructure planning, provision and asset management;
- Environmental protection, rehabilitation and asset management;
- Recreation planning, provision and asset management;
- Management of parks and local reserves;
- Monitoring;
- Pest management;
- Private and public sector land management; and
- Local roads.

The very nature of foreshore works, uses and management means that effective coordination and liaison across different departments of Council and different State agencies is essential.

Indeed, it is unlikely that Council will be able to expand its current allocation of Council resources for foreshore management.

This plan will assist Council and other land managers to ensure decisions on works, activities and management of the foreshore are effectively integrated and coordinated in a consistent way. While this will apply across all areas of Council's responsibility, a practical example may relate to establishing clear boundaries around which areas are to be serviced and to what level they are to be serviced. This will provide certainty to both Council and the general community.

Documents guiding or influencing the use and management of the foreshore have been discussed in the following sections in Appendix C:

- Local Government Planning Scheme;
- State Legislation, Planning and Development Controls; and
- Matters of National Environmental Significance including World Heritage Areas.

2.6 Coastal Resources and Constraints

The natural and cultural values of the study area have been mapped and listed under various legislation and strategies including the *Vegetation Management Act 1999* and new Queensland State Planning Policy.

The Wet Tropical Coast is also subject to natural hazards including coastal erosion, storm surge, overland flooding and to a lesser extent land slip and bushfire and Council has previously undertaken studies to map these hazard risk areas. Coastal hazards present a risk to local communities, infrastructure and assets within or close to the foreshore, and these hazards will be compounded in the future with climate change and sea level rise in particular.

Context Analysis

Outlined in this section and also in Appendix C are details of relevant resources and constraints for the study area. Resources and constraints that have been considered include:

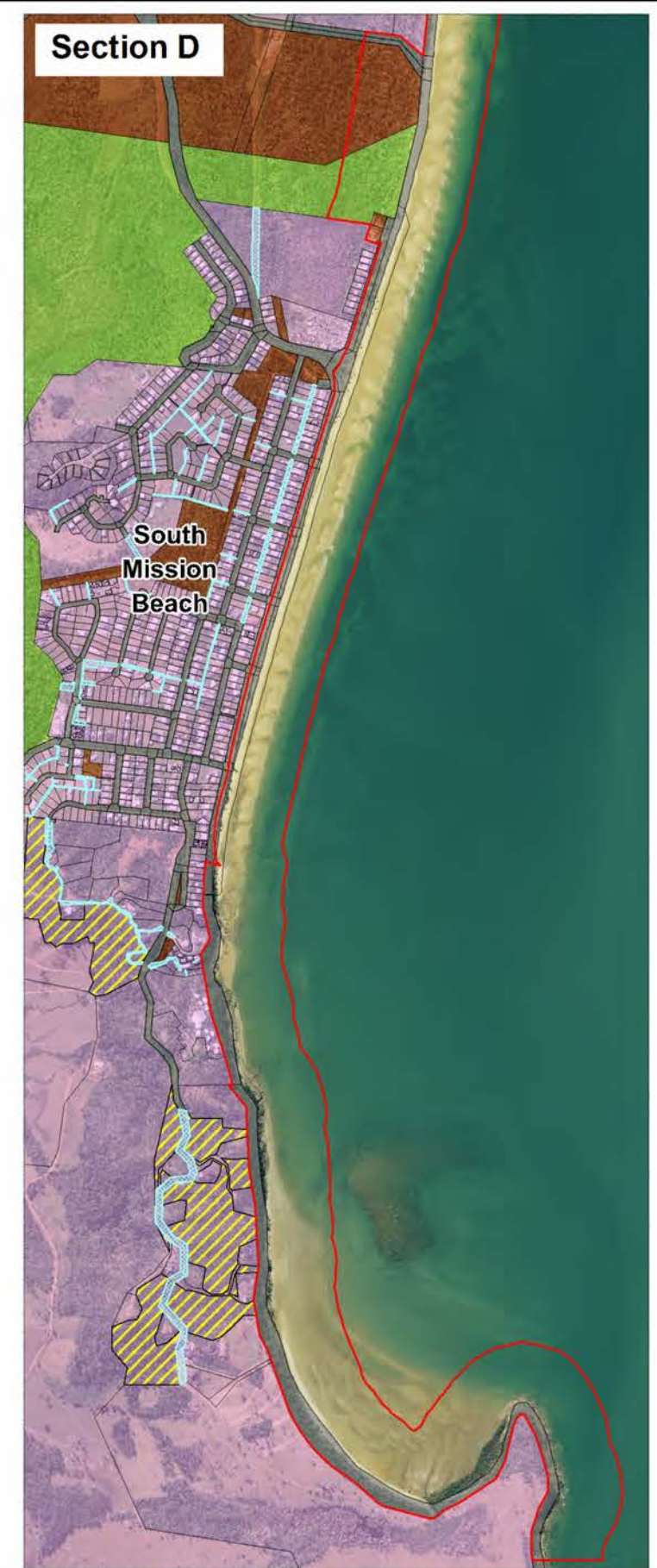
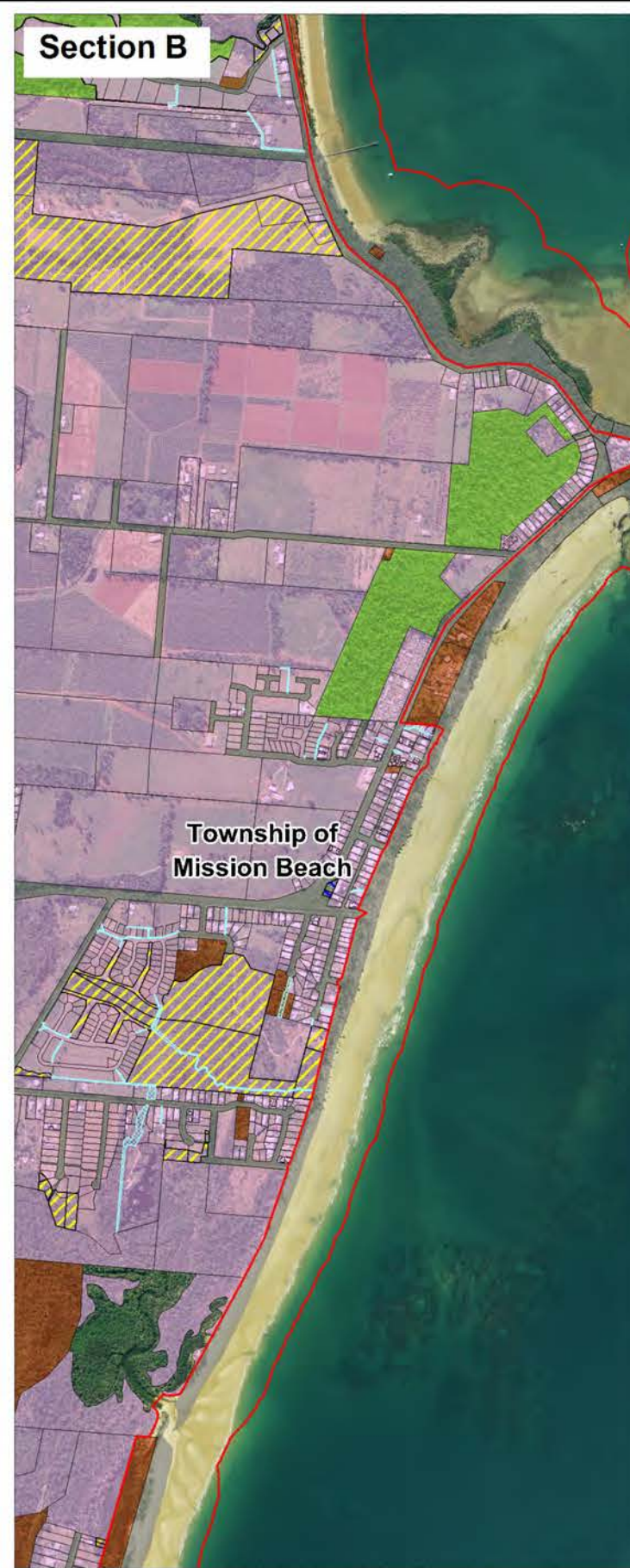
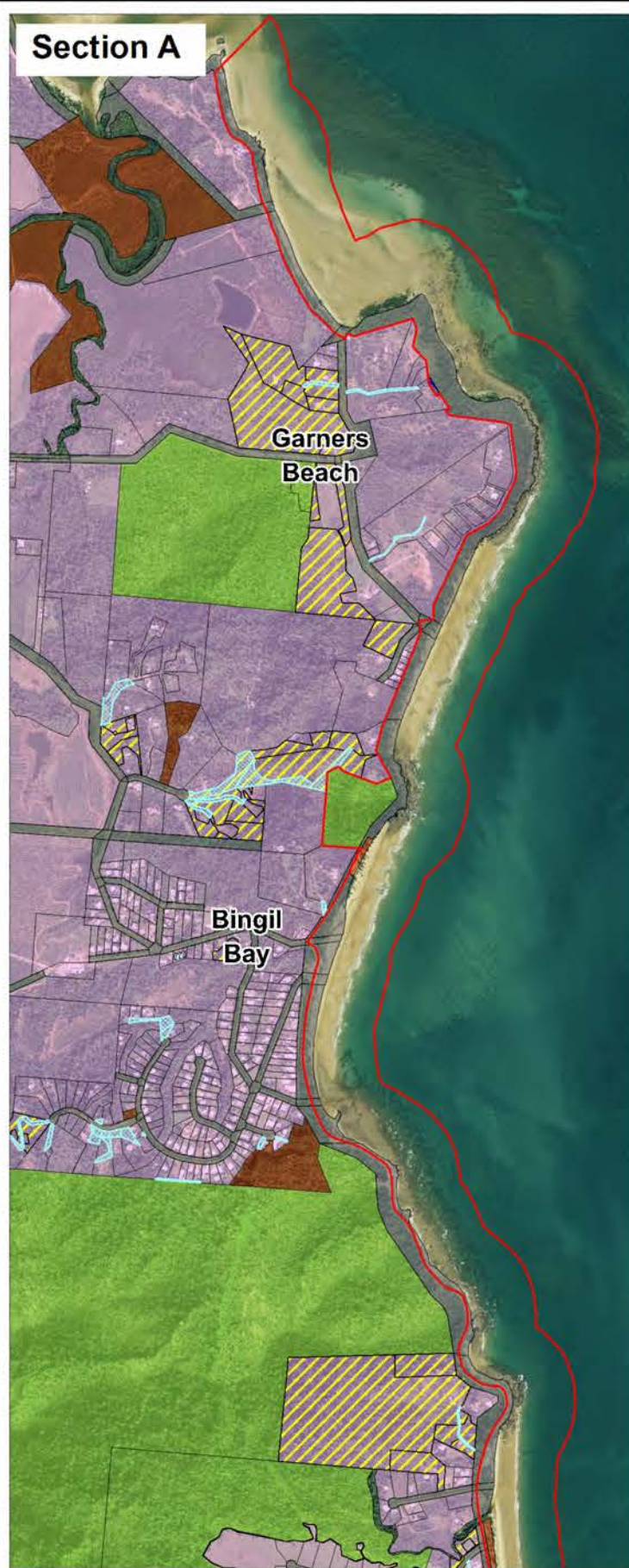
- Ecological resources and constraints – high value vegetation (encompasses National Parks), Great Barrier Reef Marine Park, essential habitat, regional ecosystems and wildlife corridors;
- Heritage resources including the management principles for World Heritage Properties under the EPBC Act and responsibility to maintain the Outstanding Universal Values (OUV) of the Great Barrier Reef World Heritage Area and Wet Tropics World Heritage Area;
- Cultural resources – locations of mapped sites or structures of European heritage and Djiru heritage significance;
- Coastal hazard constraints – Erosion Prone Areas¹, Sea Level Rise and High Inundation Storm Tide Risk²;
- Flood constraints – 1% Annual Exceedance Probability Flood Hazard;
- Bushfire constraints; and
- Landslip constraints.

The FMP study has been developed using information currently available and endorsed for use at the time of preparation. Some data gaps exist and a number of previous studies are in review or have been identified for review. Over time further information will inform aspects of the plan which can be built into plan revisions. Further details of information gaps that have been observed during the FMP preparation are included in Appendix C.

These resources and constraints have been used in the determination of preferred design outcomes as further discussed in Section 4 of this report. Essentially the resources and constraints overlays provide context for determining the likely suitability of sites for certain activities, and if acceptable, what types of other design considerations are relevant at a particular location.

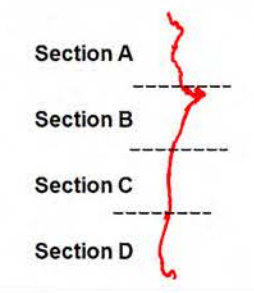
¹ Erosion Prone Area is considered to be any area that is threatened by shoreline erosion in a 50 year planning timeframe and/or any area that may be inundated by the highest astronomical tide including predicted sea level rise (SLR) for 100 years (currently estimated to be 0.8m).

² The storm-tide inundation area is the area of land inundated by a defined storm-tide event for a short period of time. The annual 1% (or one-in-100) return probability water level has been chosen as the defined event below which special management of the threat is required. High inundation storm tide risk refers to the land within the coastal hazard area that would be subject to temporary inundation during the one-in-100 event of one metre or more.



LEGEND

	Study Area		Easement
Land Tenure			Covenant
	Freehold		Lands Lease
	National Park		
	Reserve		
	Road Reserve		



Title:
Tenure of Study Area

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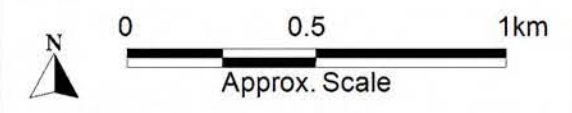
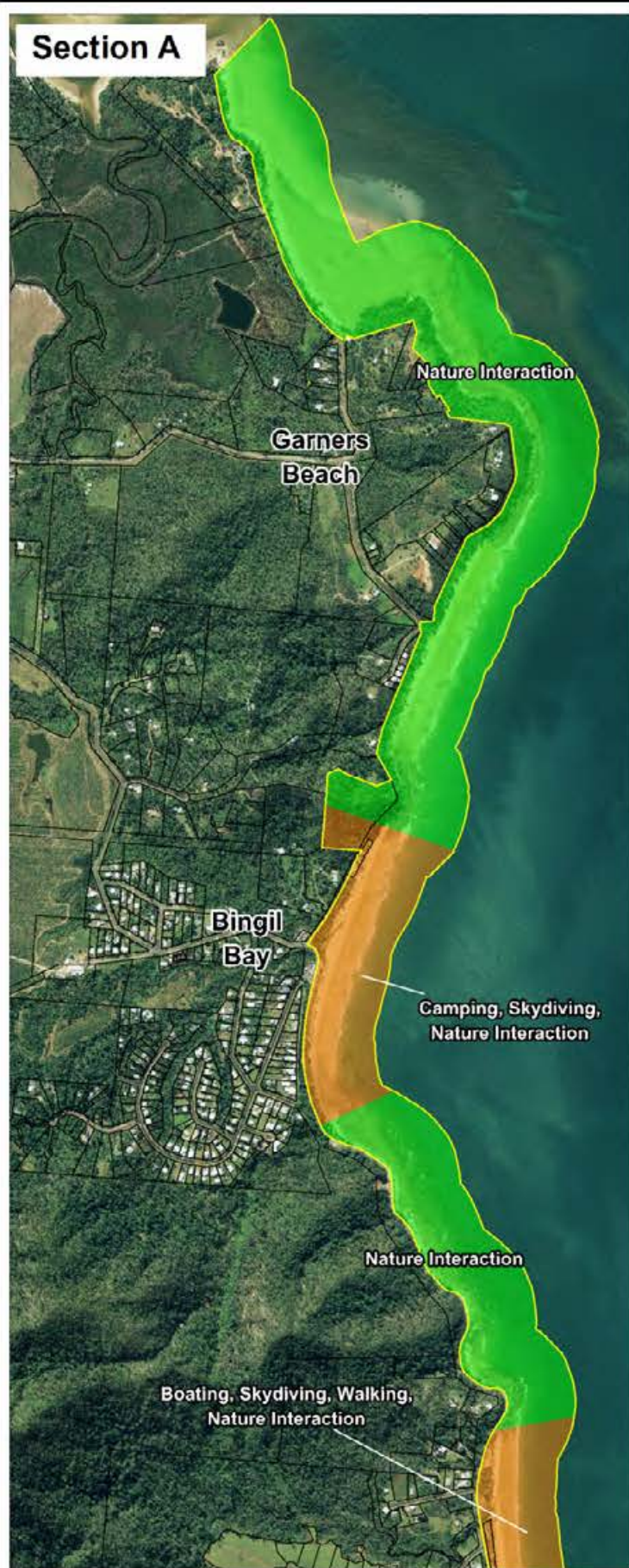


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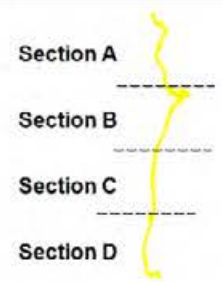


LEGEND

Study Area

Current Usage Level

- High
- Moderate
- Low



Title: **Current Uses**

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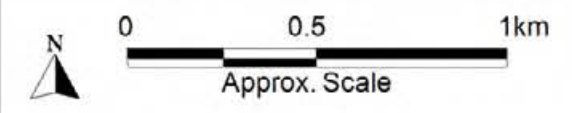
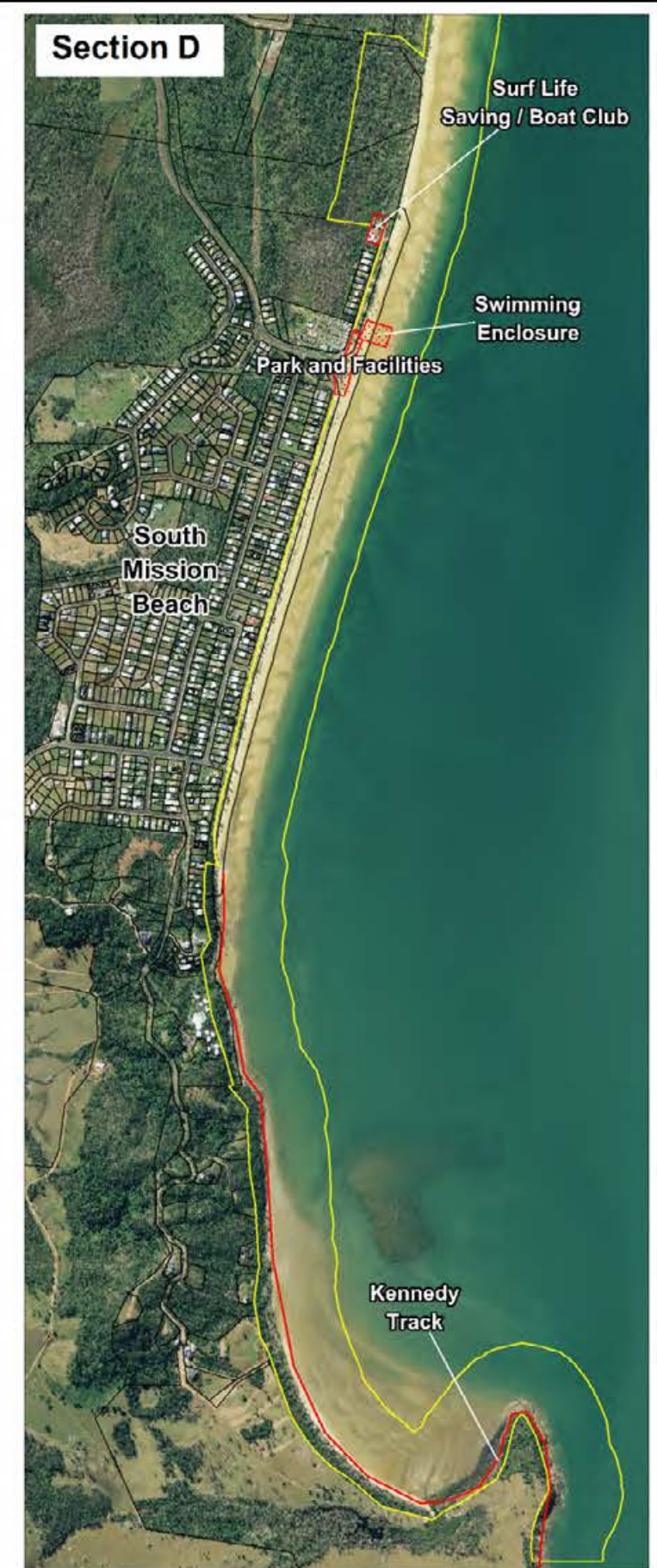
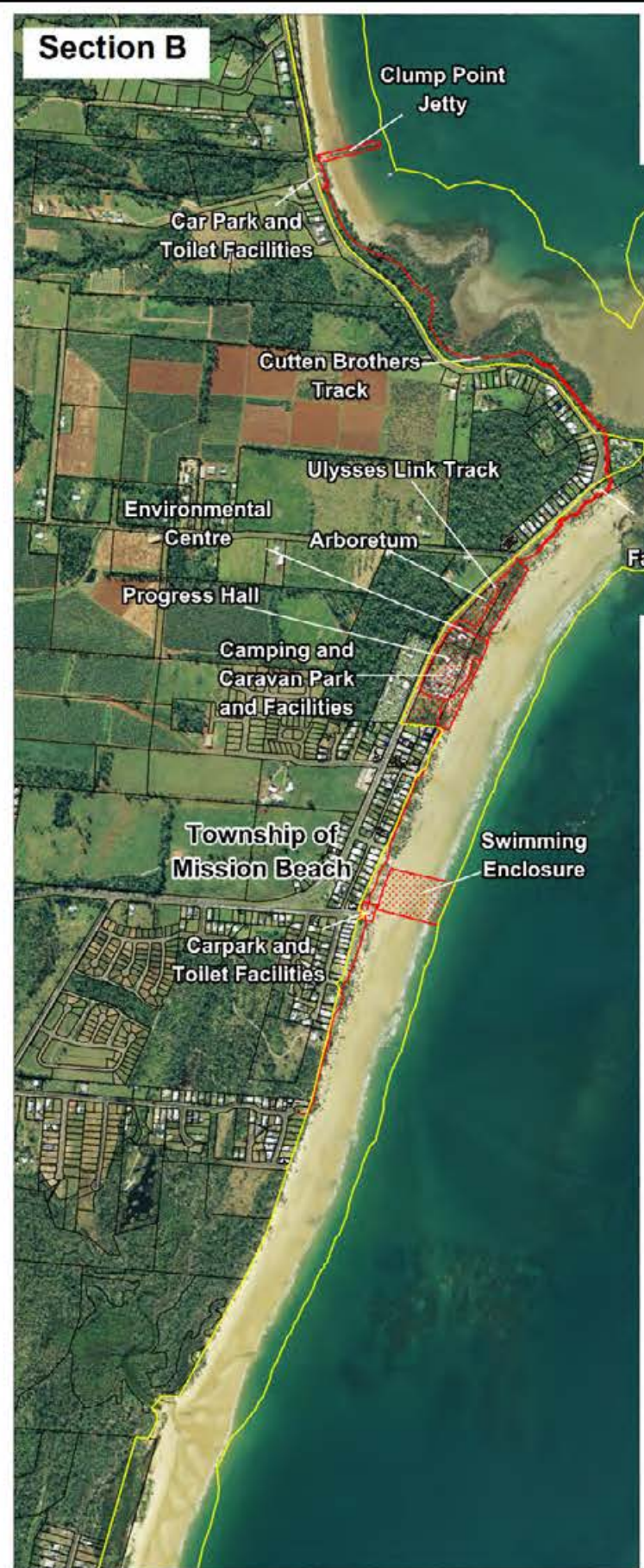
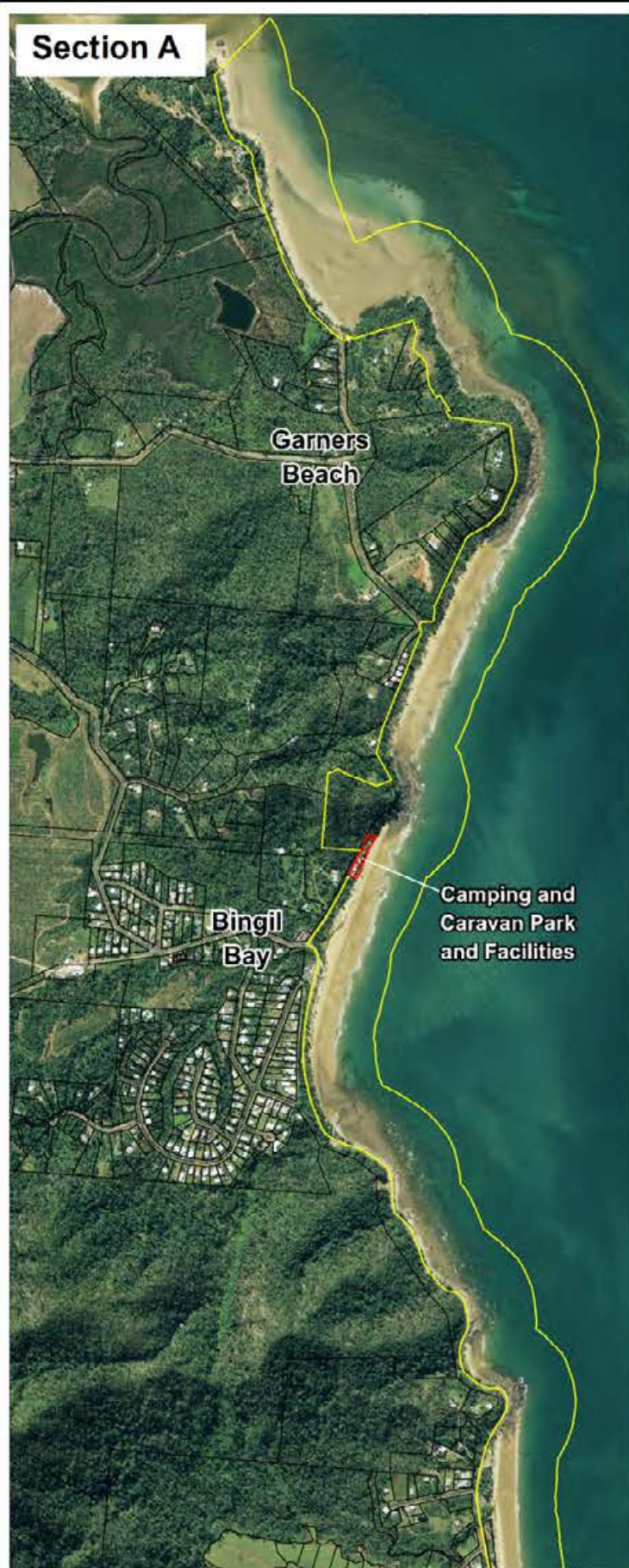


Figure 2-3

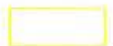
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LEGEND


 Study Area

 Infrastructure and Facilities

Section A 

Section B 

Section C 

Section D 

Title:
**Foreshore Infrastructure and Facilities
(excluding Accesses)**

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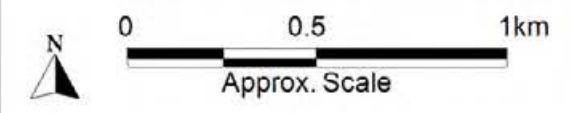
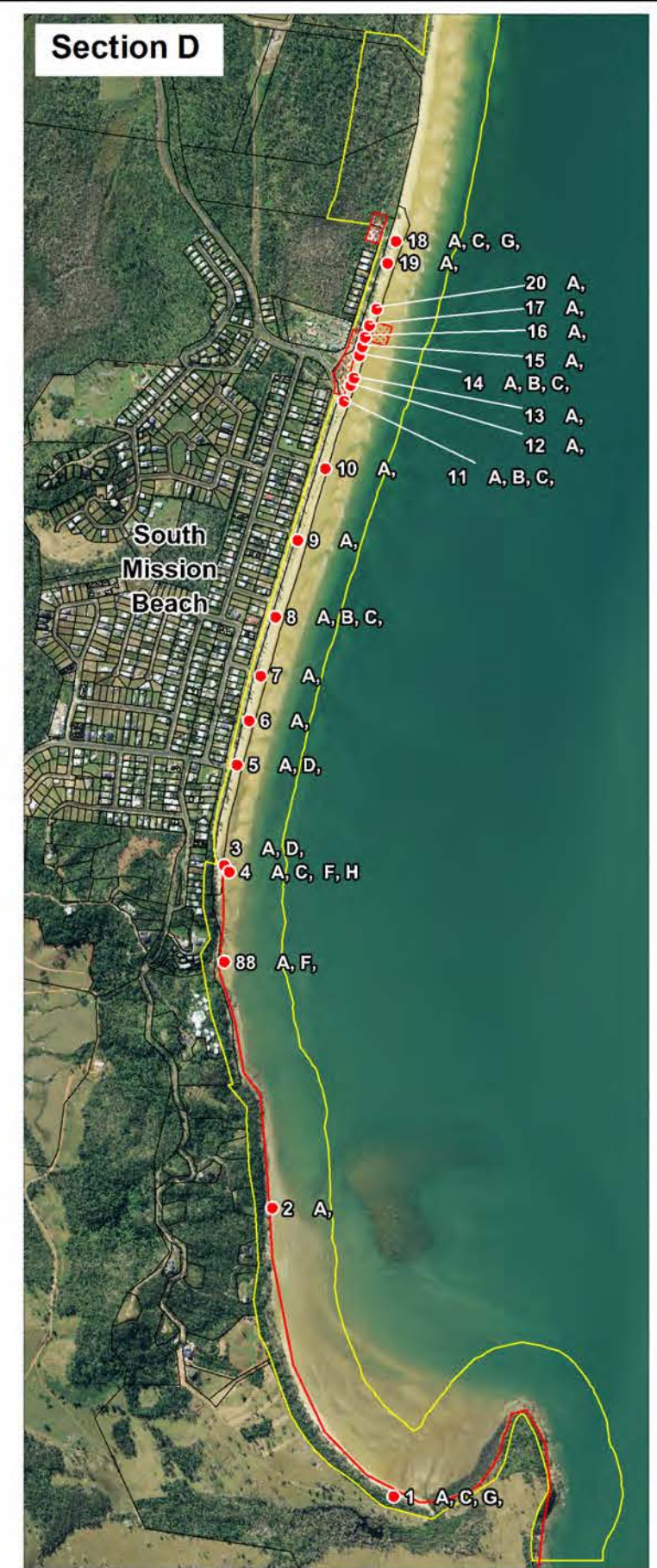
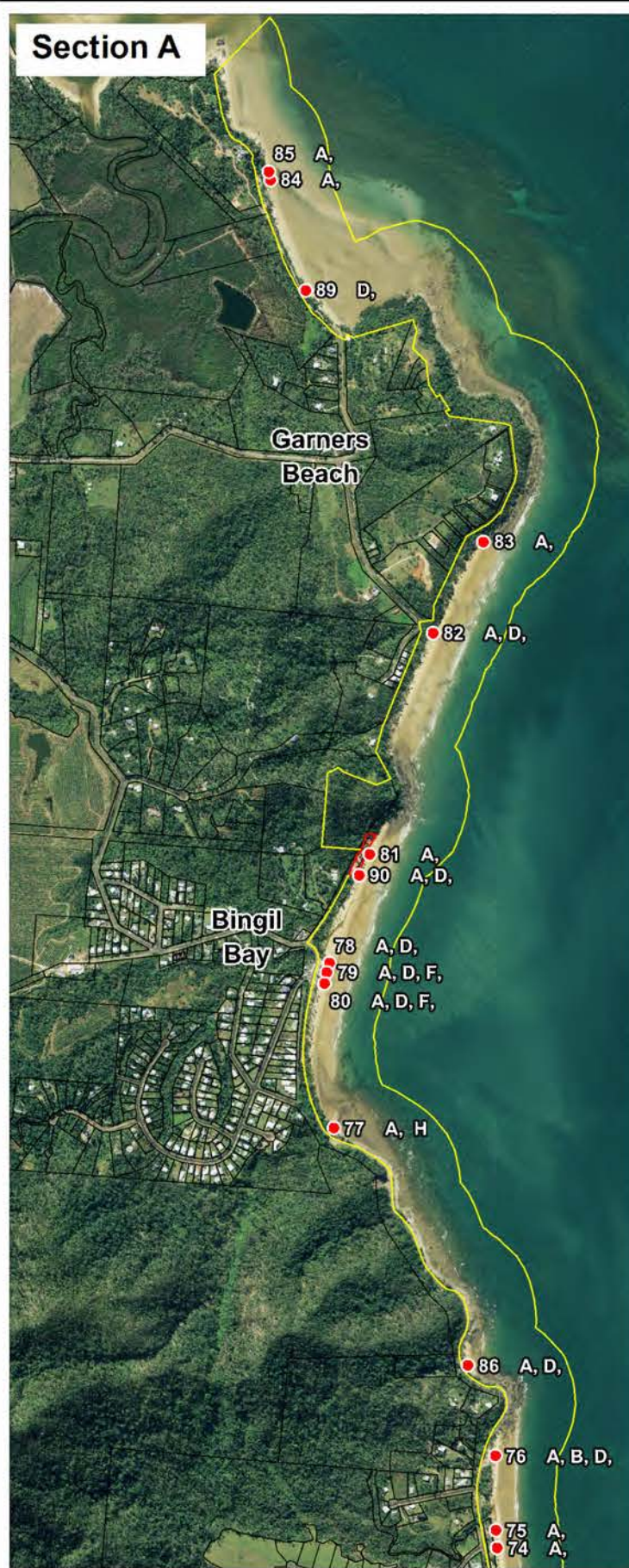


Figure
2-4

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LEGEND

Study Area

Infrastructure and Facilities

Accesses

A – Pedestrian Access
 B – Horse Access
 C – Vehicle Access
 D – Proposed Access
 F – Limited Mobility Access
 G – Restricted Access
 H – Non-Council Managed Access

Section A

Section B

Section C

Section D

Title: **Foreshore Infrastructure and Facilities – Accesses**

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Figure **2-5**

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3 Strategic Directions and Foreshore Management Outcomes

3.1 Introduction

This section of the FMP establishes the strategic direction and desired outcomes for the role, function, management and use of the foreshore for the Greater Mission Beach area. It has been developed to assist in decision making, management and use of the foreshore for the duration of the FMP.

To assist Council, land managers and other decision makers, the strategic direction for the Greater Mission Beach foreshore is structured in the following way:

- An overall vision statement;
- Allocation of the foreshore area to one of (4) four specific Foreshore Management Units (FMU). Each FMU describes a different type of foreshore setting and details the purpose, management intent and range of suitable activities that flow from the vision and desired foreshore management principles;
- Identification of Special Management Areas³ (SMA) within and across FMUs, where special management and more specific direction and policies on the use of the foreshore are needed; and
- Identification of the key foreshore management issues for Greater Mission Beach and a series of desired foreshore management outcomes for each foreshore management issue, to achieve the vision.

The strategic direction comprising the vision statement, suite of foreshore management units, special management areas and set of foreshore management outcomes in their entirety, represent the strategic intent and criteria to inform and guide decision making for the Greater Mission Beach foreshore area.

3.2 A Vision for the Greater Mission Beach Foreshore

The foreshore vision is based on, and has been significantly enriched by, meaningful and very well developed community input from the Mission Beach Visual Amenity Reference Group (VARG). It also embraces the unique and exceptional natural environment, features, values and tropical lifestyle of the Greater Mission Beach area and Cassowary Coast region. The vision is also informed by Council's Corporate Plan 2013-2017 and the planning scheme.

The purpose of the vision is to:

- Describe how the foreshore will be managed and the type of future for, and image of, the foreshore the Council and community aspires to;
- Align the aspirations and expectations of the Council, the community, the State Government, Federal Department of Environment and other land managers;

³ The management outcomes in the SMA take precedence over requirements in the FMU, to the extent of any inconsistency or conflict.

- Inspire and enthuse all those associated with the future protection, planning, management and use of the foreshore; and
- Focus, direct and guide all subsequent management decisions and actions of Council, the community and land managers on achieving the foreshore vision.

Vision – The Council and community show leadership in the protection, restoration and sustainable use of the Greater Mission Beach foreshore and work together to preserve and manage the foreshore for its significant contribution to Mission Beach being renowned as a unique World Heritage Area and one of the best ecotourism destinations in the world.

The Greater Mission Beach foreshore is unique and spectacular, rich in terrestrial and aquatic natural assets, including areas that are of the highest integrity and form part of the internationally significant Wet Tropics World Heritage Area and Great Barrier Reef World Heritage Area. The protection and restoration of these areas are central to the survival of the Southern Cassowary, an endangered species, and to provide habitat for other iconic wildlife such as crocodiles, turtles and other threatened species. These natural values are protected and restored for their ecological values and for the benefit of current and future generations, while enabling, where appropriate, their use and appreciation by residents and visitors.

The foreshore is also highly valued for underpinning the identity, landscape character, scenic amenity and tropical lifestyle of its residents and as a prime recreational and tourism feature. The foreshore is also culturally significant and highly valued by the Djiru Traditional Owners. These values and features are the foundation for the further development of a vibrant and sustainable tourism industry that protects and celebrates the unique natural values and tourism assets of Mission Beach and supports the economic well-being of people. This will be achieved in part through best practice foreshore management and recognising that conservation, social values and economic well-being are firmly inter-dependent. This means the sustainable use of our foreshore achieves a careful balance between the protection of our high heritage value and pristine beaches in a natural state, while allowing for appropriate recreation and commercial opportunities. To achieve this, foreshore uses, structures and activities are appropriately located in accordance with this plan and are designed and managed to adapt to the capability of the natural environment.

Maintaining and enhancing the scenic amenity and landscape character values of the foreshore is also very important. The foreshore is the binding element connecting the four distinct villages of South Mission Beach, Wongaling Beach, Township of Mission Beach and Bingil Bay, with each village nestled in the rainforest beside the sea. The vegetation separating these villages is protected and new structures, buildings and infrastructure in the foreshore do not dominate the natural environment, are low in scale and are architecturally innovative and representative of the coastal village character.

The foreshore is recognised as being essential for naturally occurring coastal and ecological processes, and valued for its function as a protective buffer against coastal hazards. The ongoing protection and stabilisation of the foreshore through best practice vegetation management and not placing people, infrastructure or development at unacceptable risk from coastal hazards is vital to the ecological, economic and social well-being of our communities both now and into the future.

3.3 Foreshore Management Units

To help provide greater certainty about current and future use and management of foreshore areas, this Plan sets out a system of four foreshore management units (FMUs) which describe different types of foreshore settings. These management units are:

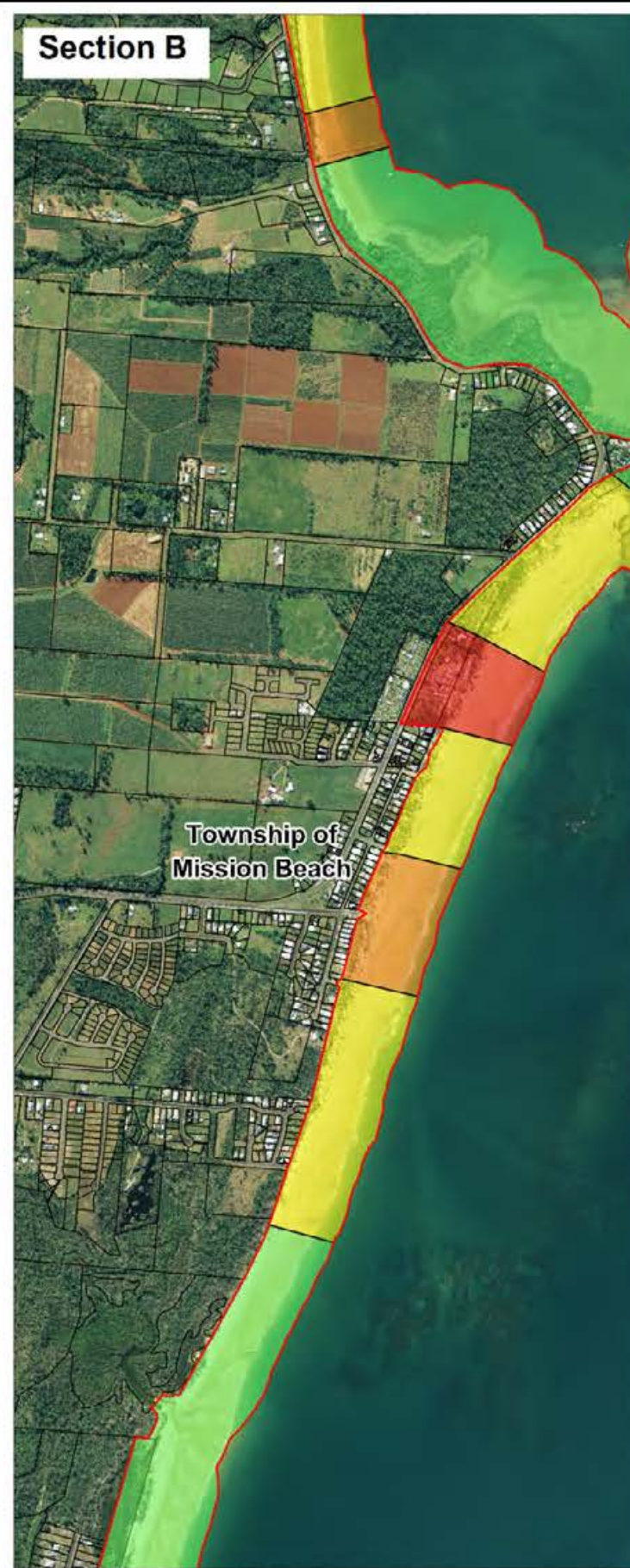
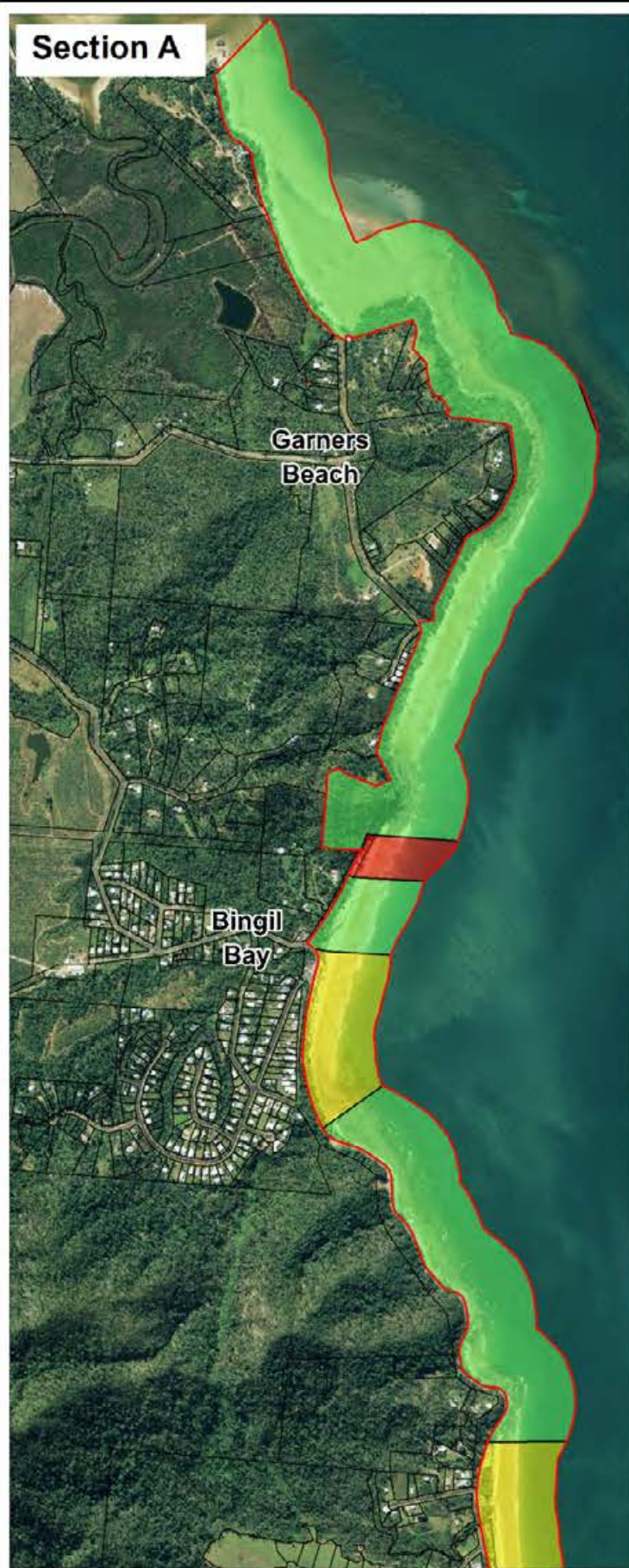
- (1) Natural Beach and Foreshore;
- (2) Open Space Area;
- (3) Developed Parkland; and
- (4) Tourism Parks.

These FMUs cover the full extent of the study area and are shown in Figure 3-1.






The intent for management and other information about FMUs is described in Figure 3-1. These management descriptions recognise that all foreshore areas have multiple uses and values. However, they also allocate a primary management purpose that will be the key driver in determining how individual foreshore areas are to be used and managed.

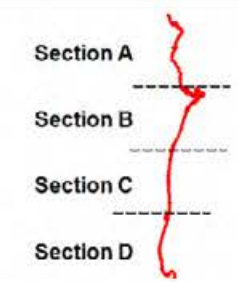
In reference to Figure 3-1 the principal FMU allocated in the study area is that of Natural Beach and Foreshore. This FMU categorisation reflects the largely unmodified state and associated high social and ecological value of much of the foreshore of the Greater Mission Beach area. The FMU categorisation aims to maintain those social and ecological values through recommending appropriate future use in those areas, as well as buffering those areas with other suitable use categories such as Open Space Area FMU where possible.

Mapping methodologies and criteria for determination of FMUs is provided in Appendix D.



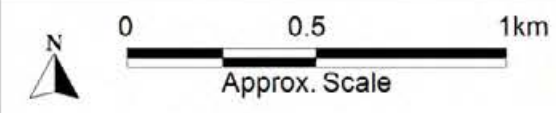
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	Natural Beach and Foreshore		Study Area
	Open Space Area		
	Developed Parkland		
	Tourism Park		



Title:
Foreshore Management Units

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Figure
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Strategic Directions and Foreshore Management Outcomes

Table 3-1 Foreshore Management Units

Foreshore Management Unit	Description	Intent	Suitable Uses/Activities (current and future) (as appropriate)	Potential Council Management and Maintenance
Natural Beach and Foreshore	<p>Generally undeveloped areas of the foreshore that adjoin conservation or other natural areas and otherwise have vegetated buffers to adjoining land uses</p> <p>Generally high value vegetation exists in or adjacent to this FMU or otherwise is regenerating from previous disturbance from recent cyclonic weather</p>	<p>To allow natural coastal processes to occur (very high priority)</p> <p>To retain and restore natural environment, biodiversity and cultural values</p> <p>To retain scenic amenity and natural landscape character values</p> <p>To provide appropriate access in suitable locations</p>	<p>Public access and enjoyment of the foreshore through managed pedestrian access points (preferred)</p> <p>Walking and cycle paths (i.e. Minor Pathways).</p> <p>Ecotourism and nature based tourism</p> <p>Education and scientific research</p> <p>Low level recreational uses compatible with conservation objectives</p> <p>Physical infrastructure is temporary and relocatable</p> <p>Interpretive signage</p> <p>The possibility of having a future camping area in the Clump Point Reserve should be investigated, noting that there are indications of this activity occurring at that location historically</p>	<p>Maintenance of public access points</p> <p>Limited maintenance of beach amenity after significant impacting weather events in accordance with Council adopted procedures.</p> <p>Foreshore rehabilitation consistent with Special Management Area (SMAs) for rehabilitation</p> <p>Vegetation generally self-sustaining although weeding (especially coconuts and other transformer weeds), fire and feral animal control will be required to protect flora and fauna values if able to be funded</p>
Open Space Areas	<p>Areas of semi-natural open space with low intensity adjacent</p>	<p>To provide buffer lands between natural and higher use regions for the foreshore</p>	<p>Public access and enjoyment of the foreshore through managed pedestrian access points in preferred locations where in accordance with this FMP.</p>	<p>Maintenance of identified public access points</p> <p>Limited maintenance of beach amenity after significant impacting weather events in</p>

Foreshore Management Unit	Description	Intent	Suitable Uses/Activities (current and future) (as appropriate)	Potential Council Management and Maintenance
	<p>development.</p> <p>These areas may contain limited basic amenities and facilities</p> <p>Much of the foreshore vegetation in this FMU has been degraded by recent cyclonic weather and is in varying stages of regeneration</p>	<p>Assist in maintaining a continuous 'green' link along the region's foreshores</p> <p>To help protect coastal property from natural hazards such as erosion, cyclones and storm surges</p> <p>To secure areas of parkland that may be required in the longer term.</p>	<p>Walking and cycle paths (i.e. Minor or Secondary Pathways)</p> <p>Dog use in preferred locations where in accordance with this FMP.</p> <p>Horse use on beach in preferred locations where in accordance with this FMP.</p> <p>Adventure sport use on beach (in some locations)</p> <p>Infrequent market use</p> <p>Limited or low scale of the following:</p> <ul style="list-style-type: none"> • Toilets/water supply • Shelter sheds, barbecues, rubbish bins, picnic tables, seats • Play equipment where adjacent to other community facilities or visitor nodes • Beach access points (vehicles / boats) • Interpretive signage 	<p>accordance with Council adopted procedures</p> <p>Mowing, slashing and clearing, funding allocations may allow two per year cycles of mowing and clearing</p> <p>Basic weed (excluding coconuts)#, fire and feral animal control (reactive to observed conditions)</p> <p>Foreshore rehabilitation consistent with Special Management Area (SMA) for rehabilitation</p> <p>Vegetation planting and management is designed to stabilise dunes and other natural land forms including following natural hazard events.</p> <p>Planting and management can be designed to facilitate views through or over vegetation where stabilisation objectives are not invalidated and there will be demonstrable public benefits and, increased shade along the foreshore.</p> <p>Vegetation management to facilitate views</p>

Foreshore Management Unit	Description	Intent	Suitable Uses/Activities (current and future) (as appropriate)	Potential Council Management and Maintenance
				<p>from entry roads perpendicular to the foreshore, may be appropriate, provided there is no disturbance or removal of habitat for threatened species.</p> <p>Possible planting of shade trees in areas where longer term park development is foreshadowed</p> <p>Maintenance of council assets</p>
Developed Parkland	Traditional parklands and open space facilities that provide extensively hardened and modified areas that have the capacity to accommodate high levels of recreational use	To provide traditional parkland areas that have the capacity to accommodate high levels of recreational use and associated facilities	<p>Road access and car parking</p> <p>Beach access points (vehicles / boats)</p> <p>Public access and enjoyment of the foreshore through managed pedestrian access points (preferred)</p> <p>Walking and cycle paths (i.e. Primary and Secondary Pathways)</p> <p>Toilets, water supply and electricity</p> <p>Shelter sheds, barbecues, rubbish bins, picnic tables, seats</p> <p>Shade structures in some locations may be appropriate</p> <p>Play equipment</p>	<p>Maintenance of beach amenity after significant impacting weather events in accordance with Council adopted procedures</p> <p>Mowing and clearing, funding allocations may allow three per year cycles of mowing and clearing</p> <p>Maintenance of foreshore vegetation primarily to provide dune and bank stability and protective buffer against coastal hazards</p> <p>Weed (excluding coconuts)#, fire and feral animal control (reactive to observed conditions)</p>

Foreshore Management Unit	Description	Intent	Suitable Uses/Activities (current and future) (as appropriate)	Potential Council Management and Maintenance
			<p>Recreational facilities such as club houses that need to be located on the foreshore</p> <p>Commercial facilities that meet community needs and provide a demonstrable public benefit</p> <p>Interpretive signage</p> <p>Picnicking, including provision for larger groups</p> <p>Organised sporting and club events</p>	<p>Maintenance of council assets including access points</p> <p>Planning and construction of new assets</p> <p>Foreshore rehabilitation consistent with Special Management Area (SMA) for rehabilitation</p>
Tourism Parks	Caravan and tourist parks and camping grounds which provide holiday accommodation	To provide reasonable quality and affordable holiday accommodation in keeping with a long-standing and traditional use and enjoyment of the foreshore	<p>Public access and enjoyment of the foreshore through managed pedestrian access (preferred)</p> <p>Walking and cycle paths (i.e. Primary and Secondary Pathways)</p> <p>Current and future tourist parks and associated activity and development</p> <p>Road access and parking</p> <p>Caravan and campervan sites with electricity and water</p> <p>Showers and toilets</p> <p>Sewage collection points</p>	<p>Maintenance of beach amenity after significant impacting weather events in accordance with Council adopted procedures</p> <p>Mowing and clearing, funding allocations may allow four per year cycles of mowing and clearing</p> <p>Weed (excluding coconuts)#, fire and feral animal control (reactive to observed condition)</p> <p>Maintenance of foreshore vegetation primarily to provide dune and bank stability and protective buffer against coastal</p>

Foreshore Management Unit	Description	Intent	Suitable Uses/Activities (current and future) (as appropriate)	Potential Council Management and Maintenance
			Play equipment Barbecues, rubbish bins, picnic tables, seats Beach access ramps and steps Limited cabin accommodation in suitable locations Tent camping	hazards Maintenance of council assets including access points Planning and construction of new assets Relocation of existing camping sites outside of the High Inundation Storm Tide Risk zone Foreshore rehabilitation consistent with Special Management Area plan for rehabilitation Canopy species cleared or maintained as necessary for space and public safety reasons Buffer plantings to provide visual screening

Due to the partial “naturalisation” of coconuts in their surrounds they are to be targeted for removal only in the Natural Beach and Foreshore FMU areas, retaining them in other FMU categories. Selective removal of coconuts may still be required however to provide access, manage coastal processes or address safety concerns.

Provided in Figure 3-2 to Figure 3-5 are photographic examples of Foreshore Management Units within the Greater Mission Beach area.



Figure 3-2 Natural Beach and Foreshore (Example: Garners Beach)



Figure 3-3 Open Space Area (Example: near int. Webb Rd and Banfield Pde)



Figure 3-4 Developed Parkland (Example: Rotary Park)



Figure 3-5 Tourism Parks (Example: North Mission Camping and Caravan Park)

3.4 Special Management Areas

Special Management Areas (SMA) sit within and overlay the Foreshore Management Units (FMU) and provide more specific management direction for areas, values and features of the foreshore. While care has been taken to ensure there are no direct conflicts between the mapping and management intents between FMUs and SMAs, the SMA would take precedence over the FMU in the event of a conflict as it provides greater and more specific planning and management guidance.

SMAs include:

- Heritage protection areas (noting that these areas apply to both natural and cultural heritage);
- Rehabilitation areas;
- Nature based recreation areas;
- High recreation and commercial usage areas; and
- Special facilities areas.

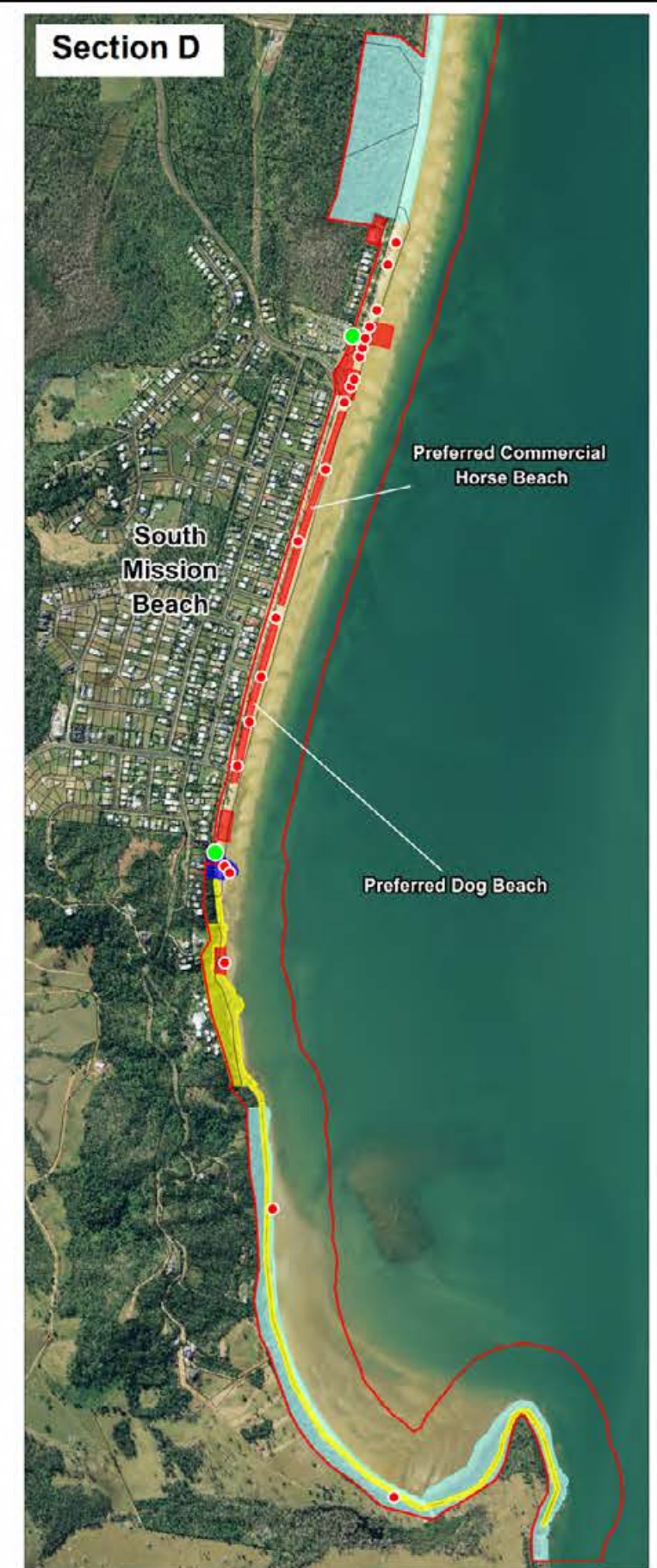
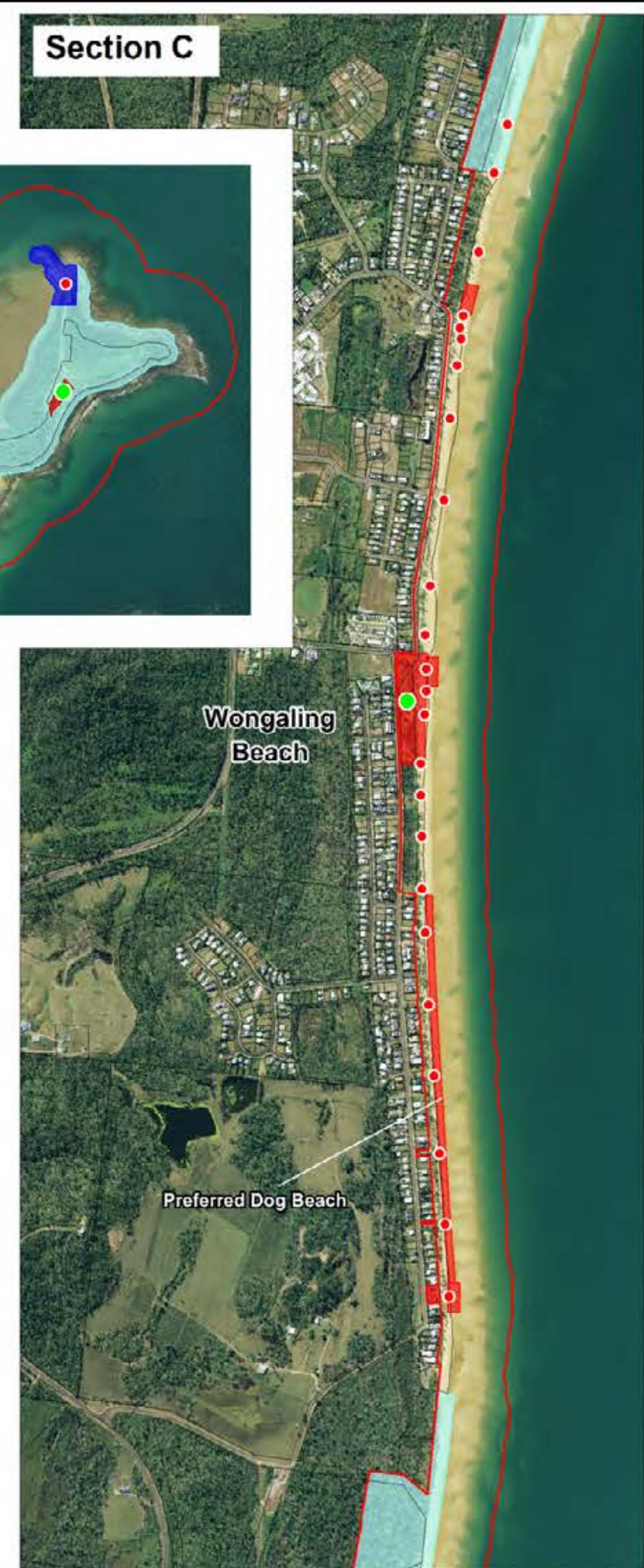
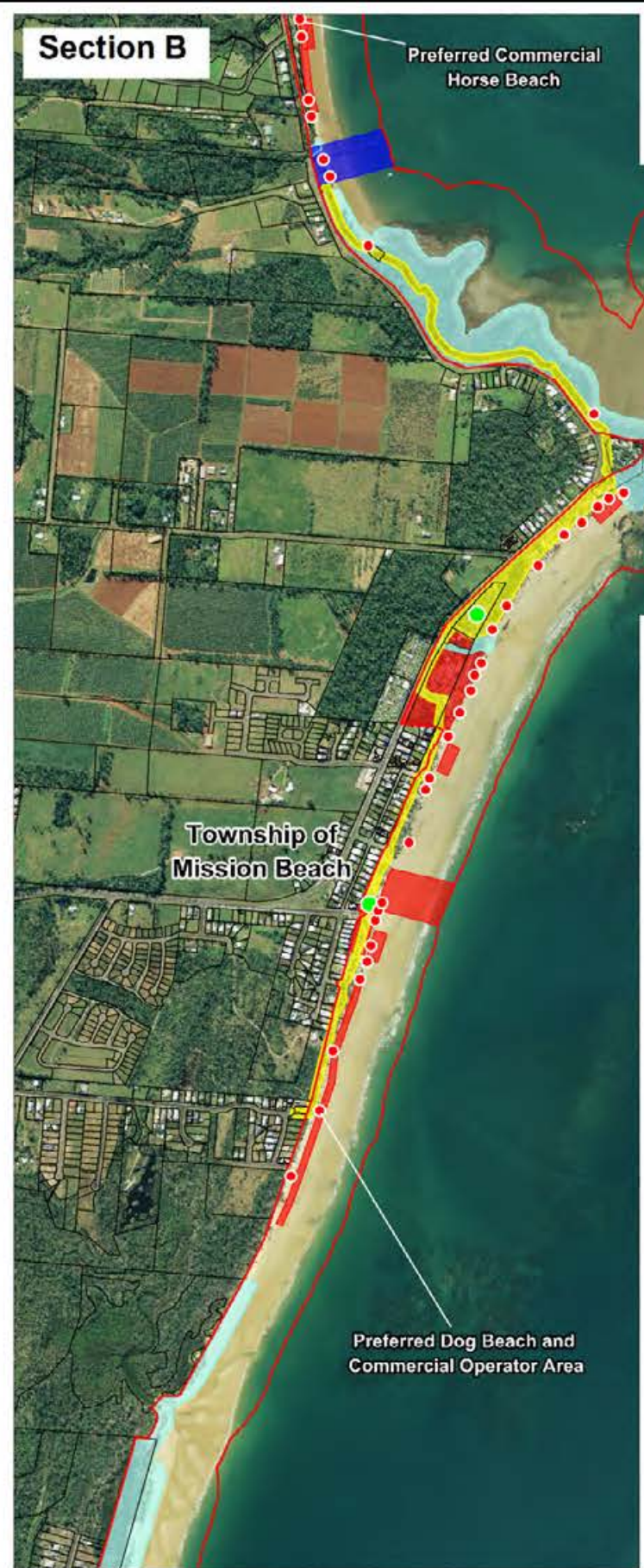
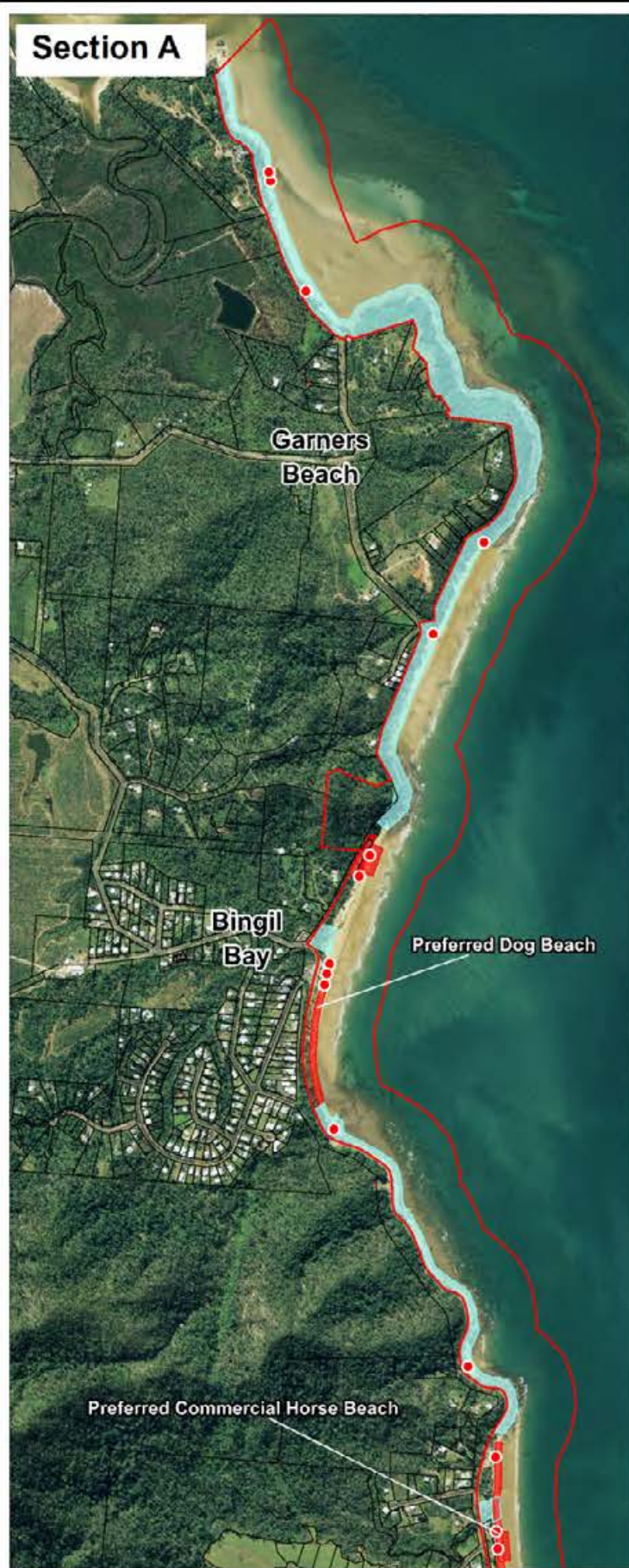
The SMAs are shown in Figure 3-6 and Figure 3-7. Figure 3-7 has been provided to improve the readability of Figure 3-6.

The intent for management and other information about SMAs is described in Table 3-2.

The SMAs have been developed to be consistent with the broader FMU classification, but take precedence in terms of management outcomes to the extent of any inconsistency or conflict with the FMU.

Although not specifically detailed in Table 3-2 infrastructure may be forecast for the study area, through forward planning instruments such as Council's Priority Infrastructure Plan, which considers infrastructure such as water supply, wastewater, stormwater, transport and parks. The FMP can be used to provide landuse guidance in relation to future decision making regarding route/site selection, design and aesthetic outcomes for this infrastructure within the foreshore zone.

Mapping methodologies and criteria for determination of SMAs is provided in Appendix D.



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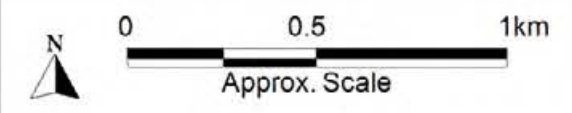
- Study Area
- Future Activity Centre
- Heritage Protection Area
- Nature Based Recreation Areas
- High Recreation & Commercial Areas (Refer 'Current Uses' Figure or as Indicated)

- Special Facilities
- Infrastructure & Facilities Access

- Section A
- Section B
- Section C
- Section D

Title:
Special Management Areas

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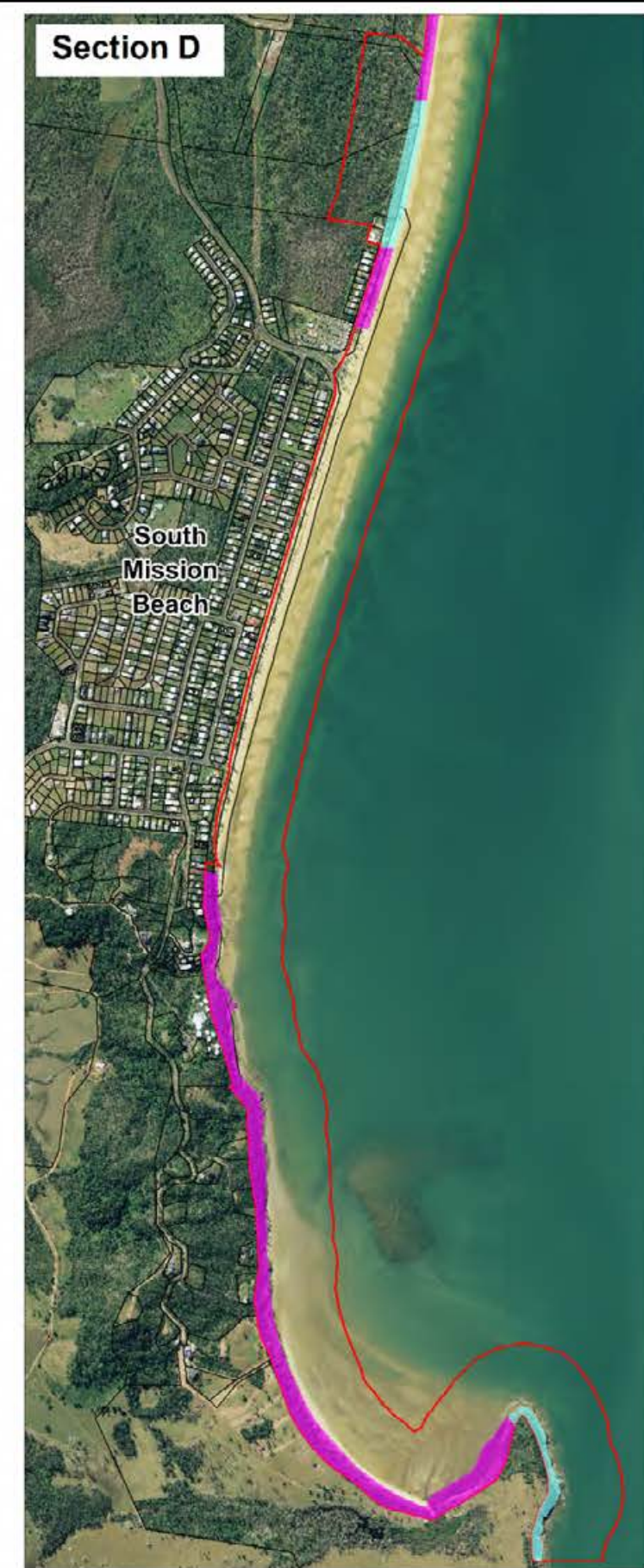
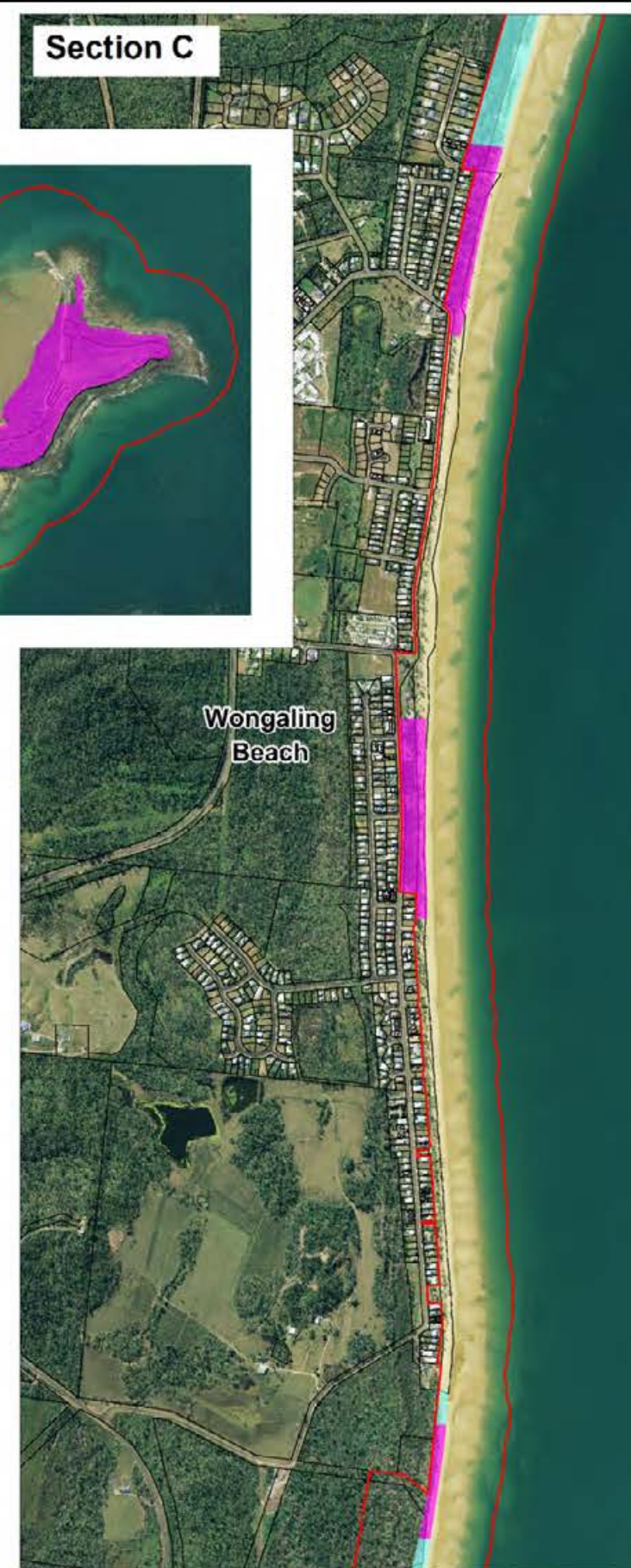
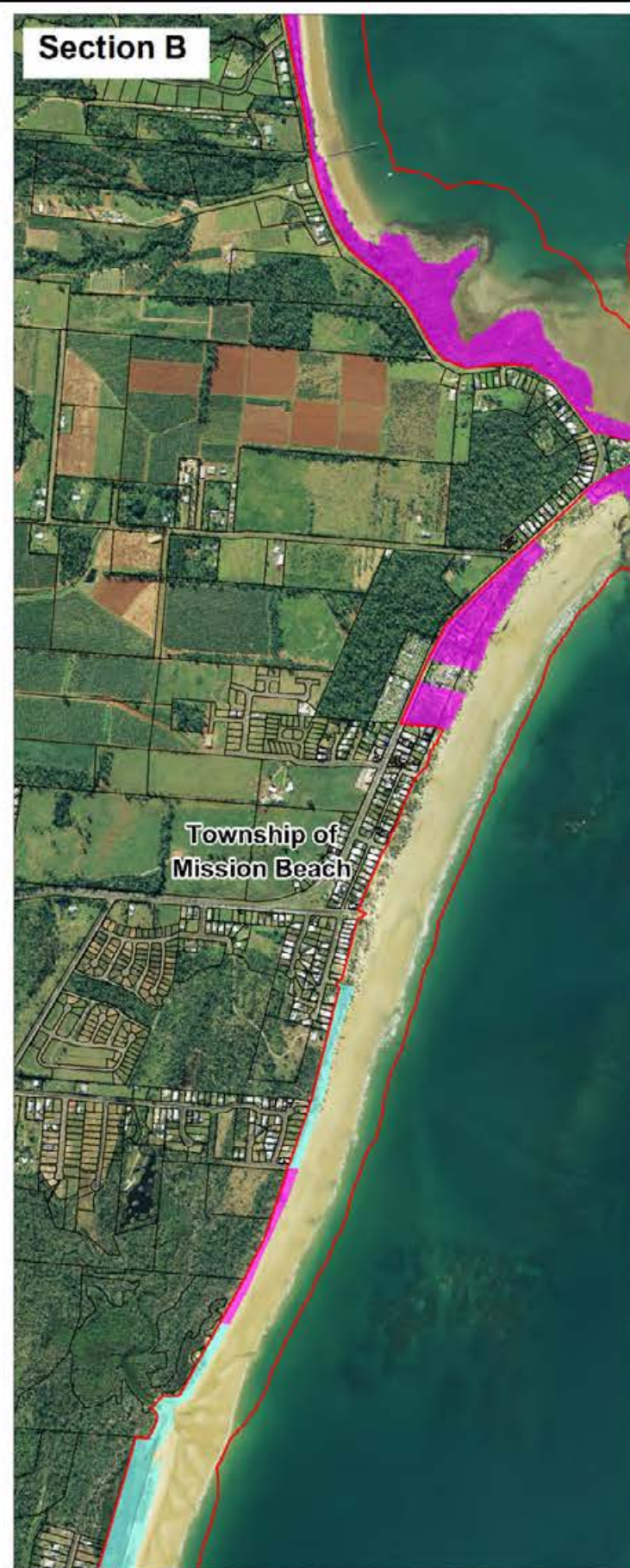
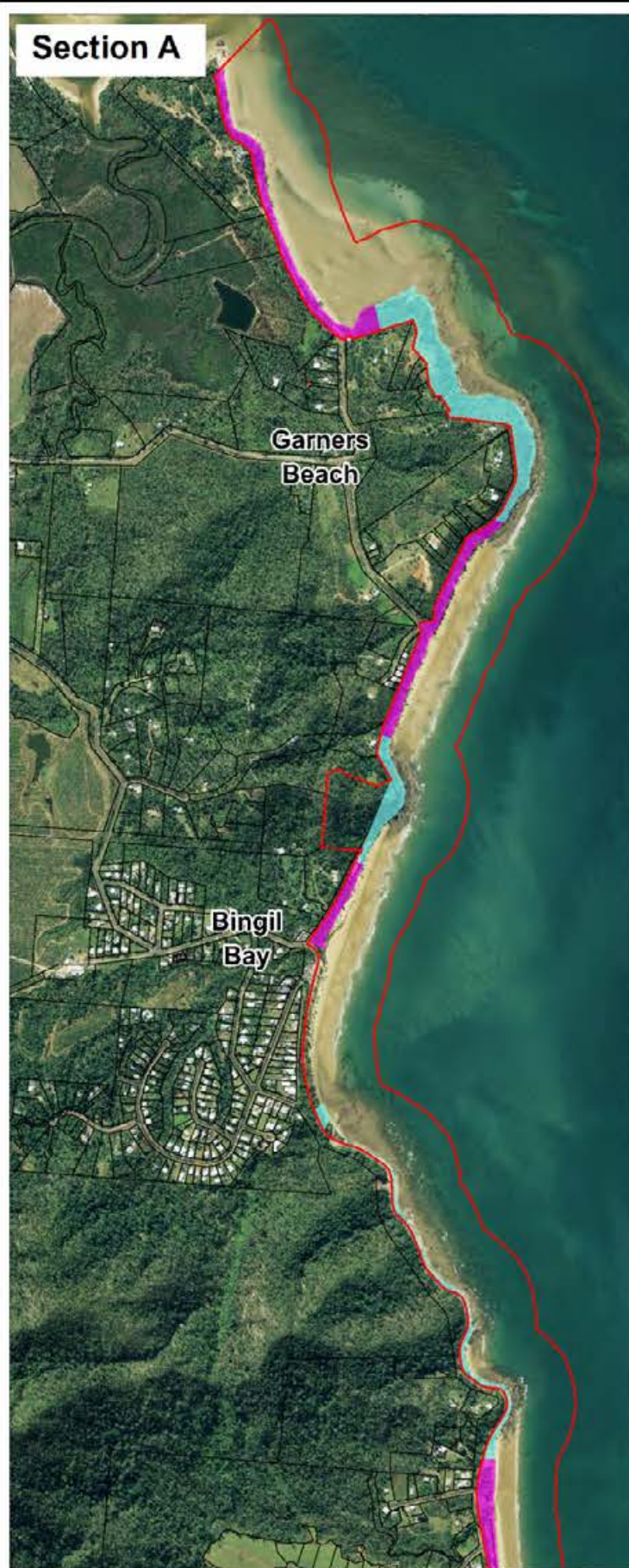


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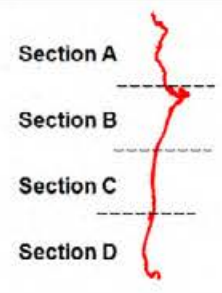
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Study Area

Restoration Areas

High

Moderate



Title:
Special Management Areas - Rehabilitation

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Strategic Directions and Foreshore Management Outcomes

Table 3-2 Special Management Areas

Special Management Areas	Description	Intent	Suitable Uses/Activities (current and future)
Heritage Protection Areas	Areas with very high natural, scenic amenity, landscape character or cultural heritage significance	Areas that are to be preserved and protected for future generations in their current predominantly natural state	Minimal, low level use Education, scientific and interpretive uses Access controlled or restricted Traditional uses and activities Relevant local input to development planning (as required) may be sought (e.g. as for Clump Point Lookout). Dog use is strongly discouraged from occurring in these areas
Rehabilitation Areas	Areas of low, medium or high priority for rehabilitation based on existing condition, likely future values and recovery potential	Areas identified for active or passive rehabilitation and restoration that will improve the stability and/or conservation values of the foreshore	Revegetation (active or passive) Weed and pest management activities Access controlled or restricted Focus of revegetation, pest and access control in high, medium and low sites vary in line with levels and types of use
Nature Based Recreation Areas	To provide opportunities for relaxed and informal outdoor recreation in a near natural setting	Activity is low key and low impact and is reliant upon, consistent with and does not degrade the ecological or cultural values of the area	Small group activities Walking and cycle tracks Requisite facilities to support low key and low impact use Traditional uses and activities Interpretative signage identifying environmental and heritage values Dog use is strongly discouraged from occurring in these areas

Strategic Directions and Foreshore Management Outcomes

Special Management Areas	Description	Intent	Suitable Uses/Activities (current and future)
High Recreation and Commercial Usage Areas	Areas where more intense recreational and/or commercial uses occur or are suitable to occur	Areas where there are opportunities for active and passive recreation, but realised in a way that does not impact on the scenic values of those areas	<p>Commercial activity nodes and commercial operator areas</p> <p>Areas set aside for skydiving and other adventure sports such as land yachting (not permitted within Bathing Reserves)</p> <p>Preferred commercial horse riding areas identified in accordance with this FMP and (subject to suitability of areas for activity and availability or planning for suitable support infrastructure)</p> <p>Controlled dog use (on leash) is supported in preferred dog beach locations where identified in accordance with this FMP</p> <p>Bathing Reserves (dogs and horses to be excluded from these areas)</p> <p>Commercial hire facilities and areas</p> <p>Beachside accommodation and holiday parks</p>
Special Facilities Areas	Marinas, piers, maritime infrastructure.	Areas where major infrastructure exists, is proposed or is otherwise identified in the plan as being recommended for investigation	<p>Proposed upgrades to Perry Harvey Jetty carpark (upgrade currently being planned).</p> <p>Mission Beach Safe Boating Infrastructure Project (DSDIP coordinated project)</p> <p>Proposed upgrades to car parking and other facilities at southern end of Kennedy Esplanade</p>

3.5 Foreshore Management Issues and Desired Foreshore Management Outcomes

The foreshore management principles (refer Table 3-3), collectively with the values and context analysis (included in Appendix C), have informed the allocation of the foreshore to the various FMUs and/or SMAs. While these management principles were developed for the Greater Mission Beach foreshore area, Council can apply the principles to other foreshore areas in the Cassowary Coast Regional Council area.

In addition to these spatial designations, the future use and management of the foreshore is underpinned by management principles that have been prepared for the following key coastal management issues:

- (1) Protection and restoration of nature conservation values and vegetation management;
- (2) Coastal hazards;
- (3) Beach access and connectivity;
- (4) Maritime infrastructure and ocean access;
- (5) Structures and facilities in the foreshore;
- (6) Appropriate recreation activities;
- (7) Tourism parks;
- (8) Leases for clubs and organisations; and
- (9) Commercial leases.

The intent is for these management principles to be considered by Council in all decision-making involving the foreshore. If there is a conflict between the management principles, the Council will consider the extent of the conflict and take the best course of action that will achieve the vision and be in the best long-term interests of the community as a whole.

In considering how these principles of the FMP interact with relevant Commonwealth and State legislation that seeks to protect and manage the adjoining Wet Tropics WHA and Great Barrier Reef WHA, the overarching intent of the FMP is to protect the OUV of these Areas, noting the foreshore is and needs to continue to be managed as a multiple use area consistent with the current management principles for both World Heritage Areas. Further, there is no planning/policy intent stated within the FMP that would directly facilitate or promote uses or activities that:

- Will or are likely to constitute a significant impact on the OUV of either of the World Heritage Areas (within the meaning of 'significance' as set out in relevant Commonwealth Significant Impact Guidelines for OUV); or
- Seek to identify/prefer activities that have been identified in recent reports about the WHA including the Commonwealth and State Government's Strategic Assessment of the GBR WHA as 'high' or 'moderate' risk.

In this context, the FMP is considered to be consistent with the management principles for the Areas and noting that any future action or activity that will or may significantly impact the OUV of

the WHA will still be required to undergo assessment and approval in accordance with relevant referral and approval processes of the EPBC Act.

In relation to Management Principle 1 (above), it is acknowledged that there are gaps in the knowledge of habitats of some threatened species that are known to use the foreshore and the FMP recommends the collection of locally specific data over time to assist in improving the recommendations of the FMP. The foreshore management outcomes and principles of the FMP already make reference to the need for a buffer and separation area to be maintained between higher impact uses and sensitive environmental areas to reduce risks of significant impact.

Table 3-3 Foreshore Management Issues and Desired Foreshore Management Outcomes

Management Issue	Context of issue	Desired Foreshore Management Outcomes	Directions for Foreshore Management and Planning
<p>Protection and restoration of nature conservation values and vegetation management</p>	<p>Management of foreshore vegetation and habitat restoration is a complex and multifaceted issue, often with conflicting objectives:</p> <ul style="list-style-type: none"> Habitat protection, restoration and improved connectivity including for the endangered Southern Cassowary and other iconic species e.g., Mahogany glider, crocodiles and turtles. Reconciling mapping and significant disturbances to vegetation communities resulting from cyclones Larry and Yasi. Foreshore protection and stability from coastal erosion and wind action. Scenic amenity and landscape character values underpinned by rainforest, beaches and 'tropical-ness'. Provision of views through or over vegetation to beach and ocean. Maintaining views of natural vegetation from the beach, rather than views of built infrastructure. Weed management and removal Mowing and maintenance regimes for 	<p>Revegetate appropriate areas using locally occurring native species and maintain the foreshore appropriate to the distinct characteristics of each beach location. Revegetation should occur in the context of the mapped SMAs for Rehabilitation and in accordance with best practice guidance.</p> <p>Maintain, protect and restore littoral rainforest and coastal vine thickets where these vegetation communities meet the beach to preserve world heritage aesthetic and biodiversity values.</p> <p>Foreshore dunes will be vegetated with native ground covers endemic to the area and other naturally occurring vegetation to protect and stabilise sand from wind erosion and increase the protective function of the foreshore against coastal hazards of storm tide inundation.</p> <p>In the 'natural beach and foreshore' FMU and the SMAs for 'heritage protection' and 'nature based recreation', vegetation management is carried out with the primary purpose to maintain, protect and improve habitat, connectivity and biodiversity values. In particular:</p> <ul style="list-style-type: none"> continuous naturally occurring vegetation cover is maintained, protected and restored using native ground covers, shrubs and canopy species; these areas are maintained in a natural state and valued for their natural landscape setting; human access will be minimised in sensitive areas to 	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> Review foreshore open space reserves for opportunities to reduce mown areas through revegetation using native species or gradual withdrawal of mowing at the margins of vegetated areas to reflect vegetation values and uses of areas in accordance with the FMU and SMAs and, to reduce pressure on Council's limited resources. Prioritise the protection and restoration of habitat and movement corridors for the Southern Cassowary and Mahogany Glider. Vegetation clearing or thinning does not decrease the extent of or condition of littoral rainforest or habitat or connectivity for the Southern Cassowary Promote public appreciation and awareness of native wildlife conservation issues, particularly the Southern Cassowary through interpretive signage and other programs. Maintain and protect the undeveloped and naturally vegetated foreshores that are identified as heritage protection SMAs.

Management Issue	Context of issue	Desired Foreshore Management Outcomes	Directions for Foreshore Management and Planning
	<p>vast areas and implications for Council’s limited resources</p> <ul style="list-style-type: none"> • Shade and amenity for beach users • Provision of functional open space and recreation areas. 	<p>avoid disturbance of rehabilitation areas and known populations of rare and threatened flora species;</p> <ul style="list-style-type: none"> • management measures such as information signage, buffer planting, exclusion zones, closure of tracks will be implemented to deter inappropriate access; • management measures will focus on pest species management including removal of coconut palms and other transformer weeds (primarily in the ‘Natural Beach and Foreshore’ FMU areas); and • management measures will focus on rehabilitation of native vegetation, reduced reliance on the use of chemicals and will not involve mowing or slashing. <p>In all other foreshore management units (i.e. ‘open space area’, ‘developed parkland’ and ‘tourism park’ and SMAs for ‘high recreation and commercial usage’ and ‘special facilities’), canopy species may be planted or retained in clumps or be subject to minor thinning to provide for, or improve:</p> <ul style="list-style-type: none"> • public safety; • views through or over vegetation to the beach and ocean; • shade; • formal or informal recreation opportunities; and • commercial opportunities. <p>The ‘rehabilitation’ SMA provides details of priorities in terms of coastal rehabilitation. These have been determined based on current condition, proximity to adjacent vegetation (and its</p>	<p>These beaches are to be maintained and restored to as pristine an environment as possible and are a focus for pest species management.</p> <ul style="list-style-type: none"> • Ensure planting and landscaping works use locally occurring native species appropriate to the foreshore location and is consistent with and supports a tropical rainforest character. Guidelines such as the Mission Beach Rainforest Landscaping Guideline may be useful resource. • Consult and engage the community in planting programs (consistent with ‘rehabilitation’ SMA). • Continue and if resourcing allows, increase weed removal. Priority areas for weed removal include high value ecological areas and high visitor impact areas. <p>Council will not support:</p> <ul style="list-style-type: none"> • Fragmentation, destruction or removal of habitat or movement corridors for the Southern Cassowary.

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		<p>values) and likely regeneration potential.</p> <p>Regardless of the intent of any foreshore management unit, vegetation management including thinning or clearing does not, in any way whatsoever, diminish foreshore stability or decrease the extent or condition of littoral rainforest. Where there is a conflict between this principle and the intent of a foreshore management unit or special management area, this principle takes precedence.</p> <p>Where located in the foreshore management unit being the 'open space area', 'developed parkland' or 'tourism park' or SMAs for 'high recreation and commercial usage' or 'special facilities', shading on the foreshore may be provided using trees and mixed height plantings that is appropriate to the scenic amenity and landscape character of the beach location. Where appropriate, shade structures may be permitted where they improve the amenity of the beach location and are visually unobtrusive.</p> <p>Buffers and separation areas are maintained between higher impact uses and sensitive environmental areas and areas being actively rehabilitated. Higher impact recreation uses include but are not limited to, horse riding, dog walking and adventure sports.</p> <p>Continuous vegetation cover will be maintained along the foreshore to visually and physically separate the coastal villages of South Mission Beach, Wongaling Beach, Township of Mission Beach and Bingil Bay.</p> <p>Provide for a consistent and coordinated works, landscaping</p>	

Management Issue	Context of issue	Desired Foreshore Management Outcomes	Directions for Foreshore Management and Planning
		<p>and vegetation approach using both local and expert knowledge, consistent with World Heritage aesthetics.</p> <p>Implement and maintain a weed management program which:</p> <ul style="list-style-type: none"> • relies less on the use of chemicals and more on revegetation with naturally occurring and locally endemic trees, shrubs and ground covers including native grasses, herbs, creepers and shrubs; • prioritises high visitor impact areas and high visibility areas such as walking tracks and entrances to village areas. <p>Cassowary habitat protection (regardless of the intent of any foreshore management unit):</p> <ul style="list-style-type: none"> • All Cassowary habitat and movement corridors will be maintained, protected and restored in accordance with best practice management principles for this species; • Vegetation management including thinning or clearing does not, in any way whatsoever, diminish foreshore stability or decrease the extent of habitat or connectivity for the Southern Cassowary; • Infrastructure construction and maintenance, uses or activities within or adjoining the foreshore, including impacts of fencing, traffic, slashing, controlled burns and pest plant and animal control, is carried out in a way that is sensitive to and protects the Cassowary; • Potential impacts on the Cassowary are avoided or 	

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		<p>minimised in accordance with the suggested mitigation measures outlined in the Significant Impact Guidelines (Comm. Australia, 2010);</p> <ul style="list-style-type: none"> • Buffers and separation areas are maintained between higher impact uses and cassowary habitat and corridors areas. Higher impact recreation uses include but are not limited to horse riding, dog walking and adventure sports; and • Any risk to the connectivity, integrity or extent of habitat for this species, will not be supported. <p>Where there is a conflict between any of these principles and the intent of a foreshore management unit or special management area, these principles takes precedence.</p>	
<p>Natural Hazards</p>	<p>The foreshore is at risk from various natural hazards. These include:</p> <ul style="list-style-type: none"> • Coastal hazards resulting from storm tide inundation and coastal erosion; • Catchment flooding from waterways and creeks; • Bushfire risk; and • Landslide risk. <p>These natural hazards, particularly impacts from coastal storm tide inundation and catchment flooding, will be exacerbated by permanent sea level rise and other climate change impacts.</p>	<p>The foreshore is retained in a natural state to allow coastal processes to occur naturally, support ecological processes and to maintain the visual amenity and recreation values of the beach. This means avoiding the use of ‘hard’ engineering coastal protection works such as revetment walls. Beach nourishment is the preferred option to restore sand erosion losses and to expand the width of dunes to create a wider buffer. Best results are obtained when sand replenishment/dune restoration is combined with revegetation activities to keep the sand in place.</p> <p>Any use, works or activities involving the excavation of clean sand, must place this sand elsewhere within the active beach system.</p>	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> • Investigate options to expand coastal dunes at South Mission Beach and other key locations by beach nourishment works. • Investigate options for suitable locations and feasibility for where parts of the road reserve could be ‘reclaimed’ for foreshore purposes to increase the width of the foreshore.

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	<p>It is critical that coastal processes can occur naturally and the foreshore is maintained for its protective function and buffering against high impact natural hazards of coastal erosion and storm tide inundation. In the village urban areas, development has established in the erosion prone area. In some areas, the remaining buffer between the foreshore and road is now very narrow. There is insufficient land in the dune area to accommodate short term cyclical erosion at current rates, without directly affecting the road and public infrastructure in the coming years. There is also insufficient space for relocation and, managed retreat is not a viable option. Beach nourishment to increase the width of the dunes in these locations to create a wider buffer zone seaward of the road is needed. Best results are obtained when sand replenishment/ dune restoration is combined with revegetation activities to keep the sand in place.</p> <p>To reduce risk and ensure long term financial sustainability, the Council also needs to carefully consider the type of facilities, where they are located in the</p>	<p>Development avoids areas at risk of coastal hazards including storm tide inundation, coastal erosion and projected sea level rise. Where avoidance is not practicable, there is no intensification of existing levels of development.</p> <p>New infrastructure is designed and located to avoid areas at risk of natural hazards. Where avoidance is not practicable, infrastructure is designed and located to ensure maximum resilience from impacts of natural hazards and design takes into account impacts of sea level rise and other climate change impacts.</p> <p>People, buildings, works and infrastructure are not put at unacceptable risk from coastal hazards including storm tide inundation, coastal erosion and impacts from sea level rise.</p> <p>This means:</p> <ul style="list-style-type: none"> • Permanent structures or buildings avoid and are located outside of a coastal hazard area; or • Where avoidance is not practicable, there is no intensification of existing levels of development in a coastal hazard area; • Development locates as far landward as possible; • Structures must be temporary, relocatable or sacrificial (i.e. readily replaceable in the event of loss or damage); • Park facilities are located as close to the road edge as is practical or designed to be relocatable prior to the event of storm tide inundation or erosion threat. • All servicing infrastructure including power, water and 	

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	<p>foreshore and their design and operation to provide maximum resilience to coastal hazards.</p>	<p>sewerage is located on the landward side of the road to minimise risk of loss during future erosion and storm tide inundation events.</p> <ul style="list-style-type: none"> • Uses, events, activities or structures are avoided under dangerous conditions where public safety risks are greater. 	
<p>Beach access and connectivity</p>	<p>Coastal dunes along the foreshore are fragile landforms and support sensitive coastal ecosystems and habitats such as turtle nesting sites. Dunes are subject to daily erosion from wind, current and wave action, and more severe impacts during extreme cyclonic events. Unless beach access is carefully controlled and managed, foreshore vegetation is trampled and erosion from on-shore winds is accelerated.</p> <p>Equity of access to the foreshore is an important issue. The use of the foreshore by the broader community includes residents, visitors, the elderly, people with disabilities and children.</p> <p>The foreshore is also the binding element that connects the four distinct and separate coastal villages from South Mission Beach to Bingil Bay. There is opportunity to improve connectivity</p>	<p>Pedestrian access to the beach is strategically located and occurs only at designated access points in accordance with this Foreshore Management Plan.</p> <p>Where pedestrian access is across dunes or other sensitive ecological community, fenced pathways are provided in accordance with best practice.</p> <p>Vehicle access is not permitted on beaches except for:</p> <ul style="list-style-type: none"> • emergency management purposes; • beach maintenance or management purposes; • wildlife rescues; • where otherwise permitted as part of the conduct of leaseholder activities connected with surf lifesaving, boat hire or sailing activities; or • in areas identified and permitted by Council subsequent to the approval of this Foreshore Management Plan, noting vehicle use should be limited in 'heritage protection', or 'nature based recreation' SMAs. <p>Access opportunities will be provided for a broad cross section of the community, including residents and visitors.</p>	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> • Investigate and undertake the necessary detailed site planning and design to provide the coastal trail linking the four coastal villages • Further extend the Ulysses Link Track over time. • Investigate an extension to the Cutten Brothers Track to provide a connection north to the Perry Harvey jetty along Narragon Beach. • Undertake a review of all vehicle, boat and pedestrian access types and locations to determine their adequacy for their intended purpose. • Consider the need for allowing limited vehicle access in specified areas as part of future implementation of the plan. However, these areas should be outside of Heritage, Rehabilitation or Nature

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	<p>through the establishment of a coastal trail using a mix of foreshore and alternative routes.</p>	<p>Safe and functional access will be provided for groups with special needs including children, the elderly and people with disabilities.</p> <p>A safe pedestrian/cycle path will be established to connect the four coastal communities from South Mission Beach to Bingil Bay. The pathway will be a mix of foreshore and off-foreshore tracks and designed and sited to be low impact unobtrusive and sensitive to the environment and safe from vehicular traffic. Where possible and practical, pathways located outside of the erosion prone area. The Cassowary Coast Cycle and Pedestrian Strategy and the State Government’s Principal Cycle Network Plan (PCNP) provide planning in respect of pedestrian/cycle path types and priorities for the region.</p> <p>The coastal trail connecting South Mission Beach to Bingil Bay will be supported with interpretive and educational signage, seating, viewing platforms, litter bins and ambient ‘fauna friendly’ lighting to create a memorable and meandering journey with multiple access points and universally accessible to all ages and abilities. Any lighting must be fauna friendly and be downcast rather than broadcast, and time limited.</p> <p>The Cutten Brothers Track will be extended to the Perry Harvey Jetty area to provide high tide pedestrian access and a connection along Narragon Beach.</p>	<p>Based Tourism SMAs.</p>
<p>Maritime infrastructure</p>	<p>There is a need for improved maritime safety in Boat Bay. The Queensland</p>	<p>Beach access points for small boats and commercial craft launching are strategically located and sited and occur only</p>	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> • Continue to liaise closely with the State

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and ocean access	<p>Government has developed three (3) infrastructure options for providing safer boating conditions for the unloading and loading of passengers and goods at Boat Bay. Perry Harvey Jetty has recently been constructed.</p> <p>It is important to ensure that maritime infrastructure is feasible from an engineering point of view (design and construction) and ensuring potential impacts on the marine environment and coastal processes are minimised and managed. The design and siting of maritime infrastructure also needs to be sensitive to the visual amenity and character of the area.</p> <p>Maritime infrastructure connected to the foreshore is for public use.</p>	<p>at designated access points in accordance with this Foreshore Management Plan.</p> <p>Maritime infrastructure being a jetty, pontoon or boat ramp must be a public facility.</p> <p>Private maritime infrastructure for exclusive use is not supported.</p> <p>Maritime infrastructure is designed and located to minimise impacts on the marine environment and foreshore values.</p> <p>Maritime infrastructure does not adversely impact on coastal processes.</p>	<p>Government in the redevelopment of maritime infrastructure at Clump Point and Boat Bay and upgrading of the associated public car park and public convenience facilities.</p> <ul style="list-style-type: none"> Investigate the long term need and adequacy of the South Mission Beach Boat ramp. Install safety warning signage ‘open ocean ramp, watch for swells’.
Structures and facilities in the foreshore	<p>Embellishments in the form of play equipment, barbecues, bench seating, walking/cycling paths, blended shade structures, picnic shelter sheds and club houses, support and enhance community use of informal and formal recreation areas in the foreshore.</p> <p>The establishment of permanent structures, buildings or facilities located</p>	<p>All structures, facilities and amenities are of a low scale that blend with and do not dominate the natural environment, are architecturally innovative and use quality and easily maintained materials.</p> <p>Facilitate natural shading of the foreshore using trees of mixed height plantings. In appropriate locations, blended shade structures may be provided where the design maintains and improves the scenic amenity and character of the beach location.</p>	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> Identify opportunities to rationalise toilet blocks. Identify priority areas where additional rubbish bins are needed. Identify opportunities and priority areas to improve shading on the foreshore.

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	<p>outside the erosion prone area and storm tide inundation area due to risks from coastal hazards. Any infrastructure, works or embellishments in the erosion prone area or storm tide inundation area should be relocatable, or designed to ensure maximum resilience from coastal hazard impacts taking into account sea level rise impacts or be sacrificial in nature.</p>	<p>The placement of BBQ facilities, shelters, bench seating, picnic settings and playground areas are determined by studying current usage patterns, population profiles and natural ambience.</p> <p>Upgrade public convenience facilities and provide more rubbish bins using modern, innovative and imaginative design that does not dominate the high scenic values of the foreshore.</p> <p>New permanent structures are assessed against current planning scheme.</p> <p>When making decisions about structures and facilities in the foreshore, Council will consider current and future risks associated with climate change including sea level rise. Any infrastructure, works or structures in the coastal hazard area should be relocatable, or designed to ensure maximum resilience from coastal hazard impacts or, are sacrificial in nature.</p> <p>No structure, works, amenities or other embellishments will be permitted if it is likely, either directly or indirectly, to contribute to foreshore erosion or instability.</p> <p>Where it is necessary to construct infrastructure works (e.g. stormwater drainage) in a foreshore area, all planning, design and construction shall be undertaken in a manner that minimises impacts on vegetation and habitat.</p>	
Appropriate recreation	The foreshore has multiple values and supports a range of formal and informal	Use of the foreshore will be determined on the basis of demonstrated need rather than demand. Uses and activities	Council to consider the following actions: <ul style="list-style-type: none"> • Different types of uses, activities and

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<p>activities</p>	<p>recreational activities. The popularity of the foreshore for recreation means an increased demand for access, amenities and facilities from a wide range of recreational interest and sporting groups. It is important to provide opportunities for a range of recreation uses, including some higher use activities, in a way that avoids impacts on foreshore and habitat values and avoids conflicts between other beach users.</p> <p>Some of the current uses of the foreshore include but are not limited to: swimming, surf lifesaving, sky diving, horse riding, land yachting, walking and nature appreciation, dog-walking, boating and sailing, camp fires, ecotourism etc.</p>	<p>will be in accordance with the intent of the Foreshore Management Units and applicable Special Management Areas.</p> <p>Preference will be given to activities that are dependent upon a foreshore location or where a demonstrable community benefit will accrue.</p> <p>Activities will not be supported where they are likely to negatively impact on ecological values, public safety, and community amenity or foreshore stability.</p> <p>Recreational or commercial activities on adjacent intertidal areas that are likely to interfere with the recreational amenity or environmental values of the foreshore will not be supported.</p> <p>Coincident uses where potential conflicts between user groups or adjacent residents are likely to occur and result in amenity impacts or public safety concerns, will not be supported.</p> <p>The use of areas containing significant ecological values or where areas are particularly sensitive to disturbances (eg: Cassowary habitat and corridors, migratory bird habitat, bird and turtle nesting sites and other habitat areas), will require special management, access and uses will be restricted.</p> <p>Use of the foreshore for community events organised by the Council or community groups will be encouraged in suitable locations in accordance with this plan.</p> <p>Consideration will also be given to providing occasional access to suitable areas of the foreshore for private and</p>	<p>access arrangements will be supported where in accordance with the intent of the FMUs and SMAs.</p> <ul style="list-style-type: none"> • Avoid coincident uses where conflicts between user groups or adjacent residents are likely to occur or impact on amenity or safety. • Identify environmentally sensitive areas requiring special management of visitor use, access and activities to ensure environmental values are protected. • Undertake an audit of all signage on the foreshore to determine need and appropriateness. Signage should be standardised in terms of design and positioning and focus on promoting community awareness, education and positive behaviour. Monitor use and behaviour to identify any sustainability, amenity or safety risks before they become a major issue. • Maintain and protect the undeveloped and naturally vegetated foreshores as denoted in the Heritage Protection Areas SMA. These locations are to be maintained in as pristine environment as possible. • Provide additional BBQs and playground

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		<p>temporary events (eg: weddings, corporate events, recreational equipment shows) where and when they will result in only limited disruption to public access and enjoyment.</p> <p>Dogs</p> <p>Dog walking (on leash) is undertaken in accordance with Council's Local Law requirements. Desirable or preferred beach locations for dog walking (on leash) are identified in this FMP. Dog users are strongly encouraged to walk their dogs within the preferred beach locations.</p> <p>Dog walking is discouraged from beach locations designated for:</p> <ul style="list-style-type: none"> • Bathing reserves; • Commercial horses riding; • Use by or habitat for threatened species (eg: turtle nesting areas); • Coastal dunes; or • Within the Natural Beach and Foreshore Management Unit. <p>Preferred dog walking beaches identified by this foreshore management plan have been selected to provide equitable access from nearby population centres and avoid interaction (and conflict) with other foreshore uses to enhance the user experience.</p> <p>All dog handlers must be cognisant and courteous of other beach users and activities. To avoid potential conflicts</p>	<p>facilities in Mission Beach Township.</p> <ul style="list-style-type: none"> • Develop a community awareness and education campaign to encourage safe practices for beach campfire activities. This may involve appropriate signage to encourage positive actions. • Develop a community education campaign and consider appropriate signage to promote awareness of natural values and positive dog management and use on beaches. Install dog waste stations close to foreshore access points near preferred dog beach locations. • Council will not: • Approve new or expanded foreshore activities unless in accordance with this foreshore management plan or, a clear community need exists and it can be demonstrated that risks to natural foreshore values, public safety and amenity are negligible or very low. • Permit recreational or commercial activities on the foreshore, including any intertidal area, that are likely to interfere with the recreational amenity or environmental values of the foreshores.

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		<p>between dogs and other beach users, Council’s Local Law requires that a dog must be on leash and under effective control by its handler at all times. Appropriate signage will be provided to assist and support dog users in positive dog management behaviours and awareness of sensitive natural values.</p> <p>Horses</p> <p><u>Beach Areas</u></p> <p>a) Recreational horse riding is permitted along the intertidal area of all beaches, where undertaken in accordance with Council’s Local Law requirements.</p> <p>Recreational horse use is not permitted in bathing reserves and is discouraged from beach locations designated for:</p> <ul style="list-style-type: none"> • Preferred beach locations for dogs; • Use by or habitat for threatened species (e.g. turtle nesting areas); or • Coastal dunes. <p>b) Commercial horse riding is supported along the intertidal area of a beach where:</p> <ul style="list-style-type: none"> • undertaken in accordance with a permit or the conditions of a permit issued pursuant to Council’s Local Law; or • undertaken in preferred beach locations being Narragon or South Mission Beach, as identified in this foreshore management plan. <p>To remove any doubt, recreational or commercial horse riding is not supported outside of the intertidal area of a</p>	

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		<p>beach.</p> <p><u>Safety</u></p> <p>To avoid potential conflicts between horses and other non-equestrian beach users, recreational or commercial horse riding is not permitted in bathing reserves.</p> <p>Horse riders are cognisant and courteous of other beach users and activities being undertaken. In particular, horses are managed in accordance with Council’s Local Law requirements and are ridden at a safe speed at all times and in a manner that maintains the safety of any other person in the area. In particular, horses are ridden at walking pace within 50m of other (non-equestrian) users of the foreshore.</p> <p><u>Access</u></p> <p>Access for horses to the foreshore is obtained from designated vehicle access points or boat launch and retrieval locations that are sign posted accordingly. Horses are discouraged from accessing the beach from other locations.</p> <p><u>Coastal Protection</u></p> <p>Unless signed accordingly, horses do not graze on coastal vegetation or walk over dunes. To ensure the protection of sensitive vegetation, turtle nesting sites and fragile coastal landforms, horses are only permitted within the intertidal area of the beach.</p> <p>High speed adventure sports</p> <p>High speed non-motorised sporting activities will be permitted on the foreshore only where located in accordance with this</p>	

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		<p>plan. In particular, sky diving and land yachting are encouraged in designated locations or in marked Commercial Operator locations.</p> <p>Other motorised vehicles on the foreshore such as quad bikes, trail bikes and the like are not supported.</p> <p>Personal water craft (PWC) use is managed by the Marine Park and Harbour Authority and is generally required to be 200m from waterline (low tide boundary). Subject to any necessary State government permits and management requirements, PWC use is only supported where located in accordance with this plan and where it can be demonstrated the activity will not cause a noise nuisance to residents or cause a public safety issue for other beach users.</p> <p>For the safety of the public and high speed adventure sports, these activities should not unduly interfere with the comfort or convenience of other users of the foreshore.</p> <p>4-Wheel Drive access</p> <p>As discussed in ‘Maritime, Infrastructure and Ocean Access’ 4WD access and transport along foreshore and beach areas is not permitted except in special circumstances.</p>	
Tourist parks	Tourist parks including Council and privately owned caravan parks and camping grounds are in keeping with a long standing and traditional use of the foreshore. It is important to maintain affordable holiday accommodation	<p>All existing beachside camping grounds will be maintained and open to the public for the life of this foreshore management plan.</p> <p>Tourist parks are maintained for visitor accommodation and do not involve permanent or long term occupation.</p>	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> • Rehabilitate and revegetate areas along the foreshore frontage of the Mission Beach Caravan Park and remove serviced sites from the erosion prone area.

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	<p>options to support visitor experience. In particular, it is important to maintain beachside camping grounds.</p> <p>Some tourist parks need infrastructure upgrading.</p>	<p>Tourist parks will not have exclusive use of any beachfront area.</p> <p>Tourist parks do not encroach into environmentally significant areas.</p> <p>For the Mission Beach tourist park:</p> <ul style="list-style-type: none"> • Areas along the foreshore frontage will be revegetated using locally occurring endemic species to assist in dune stabilisation and caravan sites are located further landward from the foreshore; and <p>A pedestrian link may potentially be provided along the northern side boundary and link to the Ulysses track. A foot bridge across the creek to the Arboretum will be investigated and consulted on by Council with the community, stakeholders and environmental experts.</p>	<ul style="list-style-type: none"> • Investigate and consult further the opportunity to: <ul style="list-style-type: none"> • Expand the Mission Beach caravan park into adjoining parkland providing additional serviced sites; • Develop a holistic Mission Beach Township urban design (or masterplan) with an increased scope that includes adjacent areas and features such as the central business district of Mission Beach Township. Key outcomes include the arboretum maintaining ecological connectivity between the National Park, the Cassowary corridor immediately to the west and the littoral rainforest immediately to the north. Council will consult with community, stakeholders, business and environmental experts. • Provide an iconic, state of the art and highly innovative play space in the area. The play space should focus on the wet tropics theme. • Provide a pedestrian link along the northern side boundary of the caravan park and link it to the Ulysses track.

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Management Issue	Context of issue	Desired Foreshore Management Outcomes	Directions for Foreshore Management and Planning
<p>Leases for clubs and organisations</p>		<p>Council will encourage the co-location and joint use of lease areas by clubs and organisations.</p> <p>Existing leases are only renewed at their time of expiry where the leases are used for a purpose that needs to be located on the foreshore. Council reserves the right to withdraw a lease at the time of its expiry.</p> <p>Council may support additional or new club/community leases where consistent with the intent of the foreshore management unit or special management area, if it demonstrated they must be located on the foreshore, the viability of the club or organisation can be demonstrated and there will be no adverse impacts on coastal stability, foreshore vegetation, wildlife or residential amenity.</p>	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> Identify lease areas where there is a legitimate need to extend lease boundaries.
<p>Commercial use permits</p>	<p>Commercial activities and uses, when appropriately located and properly managed, can improve the diversity of recreation, tourism, interpretive and educational opportunities for residents and visitors.</p> <p>The preferred approach is to cluster compatible commercial lease opportunities and activities in designated locations.</p> <p>Expansion or the establishment of new permits may require approval under Council's Planning Scheme and Local</p>	<p>Commercial activities are appropriately located, are consistent with the intent and purpose of the applicable foreshore management unit and any applicable special management area and are compatible with foreshore values and other uses. In particular, commercial activities and uses:</p> <ul style="list-style-type: none"> are conducted in a sustainable, safe, environmentally sensitive and culturally appropriate manner; enhance visitor appreciation of the World Heritage values of the area; are strongly encouraged and supported where involving low impact and small scale ecotourism and nature based presentation and interpretative activities; do not adversely impact on access or visual amenity of 	<p>Council to consider the following actions:</p> <ul style="list-style-type: none"> Permit commercial activities consistent with the intent of the FMU, SMA and foreshore values. The currency period for the permit is appropriate to the type of activity proposed and does not exceed 1 year. Where considered appropriate, the Council may include an option within the lease terms to extend the operations for 1 year or for a period of time that is appropriate to the type of activity proposed, where it can be demonstrated

Management Issue	Context of issue	Desired Foreshore Management Outcomes	Directions for Foreshore Management and Planning
	<p>Laws. Some activities, such as Personal water craft (PWC) use, require permits from the State Government’s Marine Park and Harbour Authority and are not managed by the Council.</p> <p>Commercial use permits will be removable and temporary commercial activities that will generally be on a year long permit (for larger operations) and for the period of use for opportunistic operations (such as stalls for ice creams, etc.). Council may consider including an option to allow another year of operation, where it can be demonstrated all conditions of the lease permit have been complied with.</p>	<p>the foreshore;</p> <ul style="list-style-type: none"> • provide removable refuse facilities; • locate outside of environmentally sensitive areas and include appropriate separation buffers to ensure uses and activities do not impact on or detract from nature conservation values. <p>Commercial activities locate in designated ‘Future activity areas’ in accordance with this plan. Future activity areas are strategically located along the foreshore and provide for a range of compatible and appropriate small scale commercial lease opportunities and activities.</p> <p>In addition to designated future activity areas, there are potential commercial use opportunities for the following activities:</p> <ul style="list-style-type: none"> • Kayak hire and wash down facility to the north of Lover’s Beach (Lovers Beach is located south of the South Mission Beach Boat Ramp and north of Lugger Bay). This will require upgrading of the existing boat ramp to accommodate safe launching of non-motorised boats. • Boat hire and PWC hire in South Mission Beach. • PWC hire at Seaview Street (subject to the operator obtaining all necessary permits from external regulators). • Kayak and other non-motorised activities at the Mission Beach Caravan Park. • Permitting and ticketing office at Clump Point. 	<p>all conditions have been complied with.</p> <ul style="list-style-type: none"> • Council reserves the right to withdraw a lease at the time of its expiry.

4 Preferred Design Outcomes

The preferred design outcomes are intended to demonstrate best practice principles and Council's preferred approach to managing the foreshore.

4.1 Future Activity Areas

The FMP identifies activity nodes along the foreshore that have high recreational or commercial use potential but have not been formally master planned. These areas are identified in the FMP as Future Activity Areas. To assist in demonstrating preferred design outcomes, a series of indicative landscape plans, sketch concepts and perspectives have been prepared to assist the reader in visualising outcomes for areas that are consistent with the aims of the Foreshore Management Plan.

Please note that these images are conceptual and do not present actual design outcomes. Further consultation and assessment will be undertaken by Council with the community and relevant stakeholders prior to any works being undertaken.

Specifically presented in this section are preferred design outcomes for the following Future Activity Areas:

- Clump Point Lookout (refer Section 4.1.1 below and Figure 4-1);
- Mission Beach Township (refer Section 4.1.2);
- Seaview Street (refer Section 4.1.3 and imagery at end of Section 4);
- Wongaling Beach (subject of previous designs prior to this study);
- South Mission Beach (refer Section 4.1.4 and imagery at end of Section 4); and
- Kennedy Street Carpark and Esplanade (refer Section 4.1.5 and imagery at end of Section 4).

These locations of these Future Activity Areas are denoted on Figure 3-6.

4.1.1 Clump Point Lookout

Clump Point and surrounding waters have recognised cultural heritage significance to the Djiru people as a historical meeting place along the coast. The area also has archaeological significance with nearby artefact scatters and an important ceremony ground.

There are opportunities to improve access and nature based recreational use of Clump Point in a way that recognises and protects the cultural heritage significance and ecological values of the area. Planning would necessarily integrate with current State Government plans for upgrading the Clump Point Boat Ramp.

Current unregulated vehicle access to the high point / lookout should be reviewed with a view to limiting access and providing pedestrian access (either a boardwalk or formed path). There are opportunities to improve current walks and paths as well and link to existing recognised tracks such as the Cutten Brothers walking track as indicated in Figure 4-1. Djiru representatives would necessarily be consulted and involved in preparation of future access and recreational planning for the site.



Title:
Clump Point Lookout Concept Sketch

Figure:
4-1

Rev:
A

BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.



Preferred Design Outcomes

4.1.2 Mission Beach Township

Mission Beach Township encompasses the arboretum, caravan and camping park, visitor information centre (VIC) and C4, adjoining open space areas.

A concept for the future of this area was prepared as part of the draft FMP. Considerable concern was expressed regarding the potential relocation of the markets into the Norm Burns Arboretum. This concept (and associated conceptual drawings) has been removed from this version of the FMP. However, many acknowledged that the Mission Beach Township area was still in need of review and in this regard the FMP recommends that a holistic Mission Beach Township urban design (or masterplan) be developed with an increased scope that includes adjacent areas and features such as the central business district of Mission Beach Township.

Separately, Council is progressing public consultation with respect to a crossing of the creek which exists between the caravan park and the arboretum, VIC and C4 areas. Council have also separately progressed a minor redesign of the caravan park layout to improve functionality and pull camping areas back from the creek and foreshore.

4.1.3 Seaview Street

Seaview Street (adjacent the foreshore) has been selected as a Future Activity Area on the basis that it is another key focus point for activities in Mission Beach Township. The area provides the first vision of the ocean when driving into Mission Beach (i.e. it acts as a visitor attractor), it's part of the Central Business District and is close to the Bathing Reserve and key resort facilities.

Statement of design intent:

“To achieve a practical and long term environmentally sustainable site outcome that also promotes the enjoyment and use of the site for all.”

The immediate foreshore is to be rehabilitated through a program of re-vegetation and weed management. Additional benefits are the appropriately designed public use facilities and passive recreational areas.

Access to the beach will be via designated pedestrian walkways sited to promote efficient access to the existing Bathing Reserve. It must be noted that the design of infrastructure in this zone must account for potential damage through ocean events. Elements subject to damage must be lightweight and readily replaceable.

Vehicle parking will be consolidated and provide easy access to the adjacent amenities.

The high profile Ulysses Link Track will traverse the site providing opportunities for interpretation and connection with site facilities, activities and the community.

Imagery depicting the Seaview Street Future Activity Area is provided at the end of this section.

4.1.4 South Mission Beach

The South Mission Beach Future Activity Area encompasses existing park and foreshore lands near the intersection of South Mission Beach Road and Kennedy Esplanade. This area has been selected as it was considered to be a location which could be improved through redesign to provide higher levels of amenity and improved use for locals and visitors.

Preferred Design Outcomes

Statement of design intent:

“The Master Plan aims to achieve a range of practical and long term environmentally sustainable site outcomes that promotes the enjoyment by all, and a diversity of appropriate uses within the Village precinct”.

The conceptual Master Plan proposes a significant rationalisation of the road network and vehicle 'parking' expanses. These areas are considered to currently encroach into the foreshore areas and dominate the view, recreational experience and all pedestrian movement and use within this site. Reorganising the road network and parking will free up areas for alternative uses that can be used to activate this area. The reduction in vehicles on the foreshore, combined with other foreshore works (described below) may enhance local and visitor usage experiences, while retaining essential car access for locals and tourists.

The form and structure of the foreshore is to be re-established and rehabilitated through a program of revegetation and weed management. Throughout the foreshore zone community benefits are achieved through the establishment of appropriately designed public use facilities and passive recreational areas.

A number of pedestrian access ways to the beach will be established to promote efficient access to the existing Bathing Reserve, plus ramp access will be upgraded to accommodate the boat hire, emergency vehicle and other ramp access requirements. It must be noted that the design of infrastructure in this zone must account for potential damage through ocean events. Elements subject to damage must be lightweight and readily replaceable.

Vehicle parking will be consolidated into a series of strategically positioned nodes that will provide easy access to the adjacent amenities.

The road network in the future and long-term may benefit from reduced profile, speed and associated design parameters to provide access to the caravan park, local residents and the beach.

Increased connectivity (visually and pathways) will be provided between the foreshore reserve and associated open spaces inland of the current main road.

Trees and endemic low-growing coastal plants will be established throughout the extent of the linear foreshore parks.

Imagery depicting the South Mission Beach Future Activity Area is provided at the end of this section. The imagery provides a Landscape Master Plan presented as a series of 2-dimensional overview plans, as well as a 3-dimensional perspective view of the area.

4.1.5 Kennedy Street Esplanade and Carpark

This area has been selected on the basis that it is a high use area which suffers from design issues.

Statement of design intent:

“To achieve a practical and long term environmentally sustainable site outcome that promotes the enjoyment and efficient use of the site for all.”

Preferred Design Outcomes

The roadside foreshore will continue to be rehabilitated through a program of re-vegetation and weed management. A series of bollard edged, gravel car and trailer parking nodes are also to be provided and maintained.

A future and in the long term, pedestrian walkway is proposed along the entire length of the Kennedy Esplanade from Jackey Jackey Street to the boat ramp and start of the park trails.

A new beach access at the end of Jackey Jackey Street is currently being progressed by Council.

A small (4) car park zone will be defined, and line markings established to promote efficient use of the boat ramp facility.

South Mission Beach boat launch ramp to have a sign placed reading, 'Open ocean ramp – watch for swells'.

Imagery depicting the Kennedy Street Esplanade and Carpark Future Activity Area is provided at the end of this section.

4.2 Rehabilitation Areas

Management of foreshore vegetation is seen by both Council and the community as the key management issue for Greater Mission Beach. In this context, management of foreshore vegetation and habitat enhancement is a complex and multifaceted issue, often with conflicting objectives of habitat conservation, stability and protection against natural coastal processes, amenity and landscape and public access and enjoyment of the foreshore.

The impacts of successive major cyclones have significantly affected the character, extent and condition of coastal vegetation in some locations in the planning area. This has led to conflicting objectives concerning weed control, access (in terms of positioning of bollards), mowing and maintenance regimes and landscape and visual amenity.

Given Council's limited resources and vast areas for maintenance, the aim has been to allocate priorities for rehabilitation. These priorities reflect the existing characteristics, vegetative values and uses of areas, as well the likely success of rehabilitation efforts if applied to them. In the context of this report, rehabilitation refers to the enhancement of the quality, coverage or condition of existing vegetation. Revegetation may occur in all types of foreshore areas i.e., near natural, or heavily used park area. Vegetation plays different roles in both settings but is an integral part of both. Having the correct type, coverage and condition of vegetation in certain areas will increase existing habitat (natural) or human use values. Enhancing foreshore vegetation will also assist in cyclone recovery efforts and enhance the potential for the foreshore to buffer assets such as roads against future loss.

The various rehabilitation outcomes preferred for the foreshore in different areas are represented in Figure 3-7. It should be noted that this figure only identifies the high and moderate priority rehabilitation areas, with the low priority areas forming the remainder. The three rehabilitation outcomes are detailed below:

- Low Priority – Many of these areas have the lowest vegetative values along the foreshore primarily due to erosion (both long term and cyclonic). Also many of these areas are located in front of existing coastal housing where views and amenity expectations are high. The focus for

Preferred Design Outcomes

these areas is to support natural dune regeneration through establishment of low grasses and shrubs, many of these foreshore areas will also be actively maintained by mowing and other techniques to ensure visual amenity values are maintained. Community lead mid and canopy forming tree planting will be supported by Council in these areas.

- Medium Priority – These areas are located near to existing high value vegetation and have lower demands on them in terms of views and coastal amenity. Assisted vegetation rehabilitation (planting, weed control, etc.) would be expected to have a high likelihood of improving foreshore stability and vegetative values in these areas. Access control (both pedestrian and vehicular) might be considered in areas of medium priority during the establishment phase of vegetation.
- High Priority – These areas are known or suspected to contain high value vegetation, or already form continuous sections of vegetation on the foreshore which add significantly to the visual amenity of the area. These areas are high priority for rehabilitation in the sense that rehabilitation efforts in these areas are likely to have the greatest chance of success in improving existing vegetative values. Access control (both pedestrian and vehicular) is likely to be considered in areas of high priority during the establishment phase of vegetation.

4.2.1 High Priority Example

An existing section of coastline near the Mission Beach Camping and Caravan Park which has previously been subject to coastal recession and vegetation loss is considered a 'high priority' site for rehabilitation in that it contains patches of endangered littoral rainforest and is also considered to have a high recovery potential.

The Queensland Department of Environment and Heritage (DEHP) have prepared a series of information brochures which can be used as an aid to managing dune use. These expansive guidelines detail all major considerations for dune usage such as:

- Legislative Context;
- Dune Vulnerability and Management;
- Beach and Dune Values;
- Pedestrian Access to Beaches;
- Access and Safety Management;
- Dune Rebuilding and Restoration of Vegetation;
- Dune Fencing;
- Dune Revegetation;
- Weed Management; and
- Horticulture for Dune Restoration.

The guidelines are currently in draft form and are in limited release. They build upon existing earlier material already available through the DEHP.

Preferred Design Outcomes

From the available information brochures, key aspects relevant for this high priority site include understanding what key mechanisms have resulted in a decline in dune and vegetative values over time. Managing these impacting forces (if possible) will be a key consideration moving forward.

Given its location near a high commercial and recreational use zone (i.e. camping/caravan park, markets and Ulysses Link Track), egress through the area, and from the foreshore to the beach may need to be temporarily restricted or directed to dedicated paths to increase the opportunity for successful rehabilitation in non-path areas. Subsequently a process of dune building may be required by importation or reorganisation of beach sands to form a stable area suitable for subsequent revegetation. The process for revegetation should allow for existing high value vegetation to remain in-situ with additional plantings adding initially to the stability of the underlying dune and over time to mid-level and high-level canopy coverage. Revegetation approaches will vary from site to site with some involving components of weed removal. Given that this site is outside of a 'Natural Beach and Foreshore FMU' coconuts would be recommended for retention unless those posed a safety or other management issue. In respect of species selection for revegetation, species perform different roles at different times of their lifecycle, in addition to species recommended for dune stabilisation; Terrain NRM has prepared the Mission Beach Rainforest Landscaping Guideline which may be useful resource in revegetating high priority sites, with high levels of adjacent human usage.

4.2.2 Low Priority Examples

For contrast, additional examples (3 sets) of a low priority site have been provided in Figure 4-2 to Figure 4-9 and are described further below.

Example 1

The first set of images display a wide foreshore expanse which in its existing state is mostly grassed. The long term aim with this site is to re-establish vegetation which will reduce mowing while improving foreshore stabilisation and beautification. It can be seen that over time limited additional canopy trees have established. Maintenance of ocean views for the houses behind the foreshore is a key aim of this example. Hence, overall the option demonstrates a potential balance between human uses and environmental needs. The provision of longitudinal paths in this portion of the foreshore is optional and is shown for illustrative purposes only.



Figure 4-2 Example 1 – Existing State



Figure 4-3 Example 1 – Paths and Site Preparation



Figure 4-4 Example 1 – Paths and Site Preparation

Example 2

The second set of images display a narrower foreshore expanse which in its existing state is vegetated with grasses and occasional canopy forming trees. As for the first example, the long term aim with this example is to strike a balance between human uses (views, access, etc.) with environmental needs, i.e. foreshore protection and stabilisation.

Other key outcomes demonstrated through this example include improved road edge formalisation, adjustments to bollards to reduce their overall number and apply them only in the most needed locations i.e. defining accesses, and preventing potential vehicle ingress, etc. It can be also be seen that over time limited additional canopy trees have established. It should be noted that over time, once vegetative cover is sufficient bollards may be removed.



Figure 4-5 Example 2 – Existing State



Figure 4-6 Example 2 – Edge Formalising and Protection



Figure 4-7 Example 2 – Revegetation with Additional Canopy Trees

Example 3

The third set of images display a wide foreshore expanse which in its existing state is vegetated with grasses and occasional canopy forming trees. However, the condition of the foreshore has reduced through major storm activity. The aim with this example is to initially prepare the site by removal of large debris and foreign seed material, protecting the existing stormwater drain with rock revetment and provision of a sand berm to limit tidal penetration to behind the berm. Subsequent to this, the landward areas are revegetated with low level shrubs, grasses and occasional canopy forming trees. As per the previous examples, the option demonstrates a potential balance between human uses and environmental needs in this type of foreshore zone.



Figure 4-8 Example 3 – Existing State



Figure 4-9 Example 3 – Rock Protection, Ground and Canopy Revegetation

Preferred Design Outcomes

In implementing foreshore revegetation works (in any area regardless of priority), Council should be aware of opportunities that may arise out of associated activities to implement revegetation activities. Examples might be road or other infrastructure upgrades, redevelopments, within or adjacent the foreshore, which present opportunities to implement revegetation outcomes consistent with the FMP at overall lower cost, or no cost if revegetation activities can be assigned to others as part of the work they are completing.

4.3 Pathways and Tracks

4.3.1 Existing Planning

Council has completed the Cassowary Coast Cycle and Pedestrian Strategy study (Cardno, 2009) which considers the State Government's Principal Cycle Network Plan (PCNP) which was completed in 2007. The Cardno (2009) investigation identified the following types of access types in the Cassowary Coast region:

- Existing / Future iconic recreation;
- Existing / Future principal;
- Existing / Future district; and
- Existing / Future local.

As described in the Cardno (2009) study:

- *“Principal and Iconic Recreation Routes – these routes cater for key cycling trips between and within FNQ urban centres. These routes connect urban areas to activity centres and other attractors throughout the region as well as provide iconic cycling;*
- *District Routes – These routes provide links between suburbs and district level attractors. These routes supplement the regional routes and support the local routes;*
- *Local Routes – These routes serve local destinations such local destinations such as local shops and primary schools. These routes are generally lower order connections.”*

For the most part, the cycle and pedestrian network is (or is proposed to be) located adjacent to existing roads (i.e. within the road reserve). Planning for the physical form of the access track will be largely governed by its status, i.e. iconic or principal network connector, and likely usage volumes/types and connection/relationship to the adjacent road.

Within the study area there are some locations where the network extends down to the foreshore (i.e. it departs from the road network), these include:

- Existing iconic recreation route in Mission Beach Township (roughly following the Ulysses Link track) down to Seaview St, where the network switches between existing and future iconic recreation routes and continues south to Conch St;
- Future iconic recreation route in the foreshore in front of Banfield Parade, which turns into a future principal route from the intersection with Webb Road and extends south along Reid Road;

Preferred Design Outcomes

- Future district route along the very northern end of Kennedy esplanade; and
- Future principal route adjacent to Kennedy Esplanade (the foreshore in this location is not very wide, and it would logically be associated with the existing roadway).

4.3.2 Linkage with FMP

The FMP provides foreshore usage intent through the designation of Foreshore Management Units and Special Management Areas. These categorisations can be used as a guide in the selection of the appropriate types of pathways and tracks in foreshore areas as they reflect likely levels of foreshore use. Their structure however does not account for, or reflect, the need for connector paths and tracks between different areas, for example connector paths and tracks between towns and key features such as the Aquatic Centre, etc.

As such the recommendations provided are not intended to supersede any existing detailed planning work which has been completed by others (outlined earlier in this section). If existing planning work is insufficient, further detailed assessment and planning may be required in addition to this study to provide enhanced guidance on this matter.

The existing planning studies and key guidance documents such as the Austroads publications including Cycling Aspects of Austroads Guides; and Guide to Road Design Part 6A: Pedestrian and Cyclist Paths; refer to a system of paths and tracks which reflect their location (i.e. on-road, or off-road) likely levels of use and types of use. The levels of use refer to volumes of people using the path or track, and types of use refer to whether it is for pedestrian and/or cycle use. The Austroads publications also provide design guidance for pedestrian and cycle routes in a variety of use circumstances and should be utilised by Council in this regard.

In certain areas of the foreshore, more than one path or track exists within the study area which allows for multiple use options to be explored, such as separated pedestrian and cycle paths. When this occurs, careful consideration should be applied to selecting the most appropriate path type for the different locations to ensure that multiple objectives are achieved.

To further assist in determining desired path and track design outcomes, Table 4-1 provides Foreshore Management Plan specific guidance to assist in the decision making process.

Table 4-1 Considerations for Siting and Designing Paths and Tracks Based on FMU

	Tourism Park	Developed Parkland	Open Space Area	Natural Beach and Foreshore
Indicative Use Level	High	Moderate	Moderate - Low	Low
Reasons for Use	Commute, Recreation	Commute, Recreation	Commute, Recreation	Recreation
Types of Use	Pedestrian and Bicycle	Pedestrian and Bicycle	Pedestrian and Bicycle	Primarily pedestrian
Visual Amenity	High ^A	Moderate	Moderate	High
Durability of Path Material	High	High - Moderate	High - Moderate	Low

Preferred Design Outcomes

	Tourism Park	Developed Parkland	Open Space Area	Natural Beach and Foreshore
Speed of Use (shared path)	Low for bicycles	Moderate for bicycles	Moderate to Low for bicycles	-
Speed of Use (separated path)	High for bicycles	High for bicycles	High to Medium for bicycles	-
Path type	Primary	Primary/Secondary	Secondary/Minor	Minor

^A Normally low, but should be improved through appropriate landscape and urban design to enhance user experience

When planning pathways and tracks in a given area, the key considerations are likely to be around location (on- or off-road), width and surface finishes. Locations are likely to have been selected based on existing planning work. Widths will typically be selected on the basis of location (i.e. adjacent to road or off-road), current and projected levels of use (high, medium and low), and usage types (pedestrian, bicycle, horse, and other). It should be noted that the FMU categories reflect likely levels of use from adjoining areas, however, they do not reflect usage levels arising from longitudinal transport through the foreshore. These levels are provided in the Cardno (2009) study.

Other key considerations which may factor into selecting surface width and finish are aspects such as desired visual amenity, durability and speed of use (for combined or separated pedestrian and cycle paths). Visual amenity is often enhanced when the pathway or track is off-road and provides a meandering form which brings the user close to high value foreshore features. Speed of use will vary according levels of use, whether it is on-road, off-road, single or shared use and the surface finish applied noting that in instances aesthetics can be maintained or enhanced without use of concrete or bitumen.

In terms of speed of use, typically those wishing to commute are willing to trade off aesthetics for reduced travel time and conflict with other uses. However, those completing recreational cycling are likely to adopt lower travel speeds to allow for sight-seeing enabling them to utilise paths offering higher visual amenity, this may require sharing the path with pedestrians. Commuter pathways may require improved widths and sight lines, and more durable/gripping surfaces to enable higher speed transit.

Other key considerations in the siting and design of pathways relates to coastal erosion (particularly minimising locating expensive, non-moveable pathways within 30m to 40m of unprotected foreshores in Erosion Prone Areas), appropriate path width (particularly for non-sealed paths) to avoid potential for weed establishment, avoiding sensitive vegetation particularly littoral rainforests, and considering other potential environmental / social effects and capital / maintenance costs.

Figure 4-10 provides imagery of example pathway and tracks from within the study area and from other places in Australia. They have been provided to illustrate potential surface finishes and size.

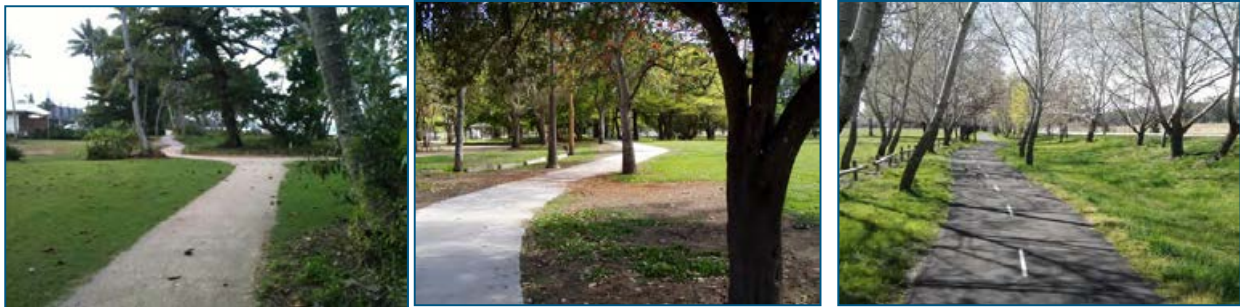


Figure 4-10 Examples of Tracks and Pathways (from left Minor, Secondary⁴ and Primary⁵)

4.3.3 Existing Walking Tracks

The study area contains a number of iconic walking trails including Ulysses Track, Cutten Brothers Walking Track and the Edmund Kennedy Track. Council has separately investigated these tracks within the Walking Trail Assessment (Strategic Leisure Group, *et al* 2103). The Trail Assessment investigated aspects of compliance with Australian Standards, current standards of management and associated deficiencies as well as options for new tracks, linkages or upgrades which may benefit Council.

Consultation performed on the draft Foreshore Management Plan identified an interest in connecting the Ulysses Trail and Edmund Kennedy Track. This matches with Council's intent to develop these tracks over time in an environmentally and socially acceptable way as resources allow.

Other commentary identified a need to connect the northern end of the Cutten Brothers Walking Track with the Perry Harvey Jetty due to issues associated with track users at the northern end having to navigate waters on high tide which presents a stinger risk. Council has identified that this connection could be made along Narragon Beach and Council is intent on developing this connection over time as resources allow.

⁴ Sourced from Burdekin Council, <http://www.burdekin.qld.gov.au/wp/media/2011/08/Plantation-Pk-0101.jpg>

⁵ Sourced from Bicycle Canberra, http://bicyclecanberra.blogspot.com.au/2010_09_01_archive.html

4.4 Next Steps - Where to from here

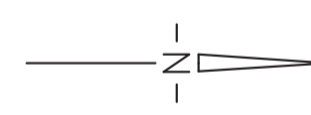
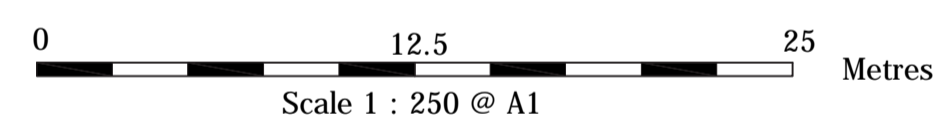
The primary role of the FMP is to inform the community and other stakeholders about current and future management intent for the foreshore, it is intended that the FMP will be integrated into relevant Council planning strategies and functions following approval and endorsement. This includes decision making and investment under Council's Corporate and Operational Plans, decisions about land use and development under the Planning Scheme and in day to day planning and management activities by various Council Departments such as parkland maintenance activities. While a Council document, the FMP is also intended to signal the preferred management intent for the foreshore to other decision makers in the coastal zone including State Government.

While the FMP is specific to the Greater Mission Beach Area it provides a methodology for potential application to other foreshore areas of the local government area if Council so chooses.

LEGEND

-  Bollards to edge
-  Road
-  Gravel
-  Timber Decking
-  Structure / Infrastructure

1. Protect the existing trees & other coastal vegetation along the drainage corridor including the mature hibiscus tileasus.
2. Parking within this space is for cars & small buses only. No trailers or caravans due to turn around restrictions. Additional parking in street.
3. Commercial operator (food vehicle is to be located on the dedicated concrete platform adjacent to the new decking and pavements).
4. Undertake drainage & associated stabilisation works to restore the drainage swale.
5. Connecting decking on the coastal margin permit use & access.
6. Provide major point of pedestrian access to the beach.
7. Provide a story board of the re generation of the immediate coastal fringe to encourage understanding and protection. A series of photos over time is a suggested display.
8. Establish orientation shelter with information & signage at key pedestrian entry point to Seaview street site.
9. Upgrade the existing toilet facility (includes re-painting).
10. Existing SLSC Facility.
11. Establish clear point of arrival with council & destination signage on matching positions at the entry.
12. Approximate locations of the two pylons associated with the stinger net facility.
13. Consolidate carpark with wheel stops & barriers to contain vehicles, designate bays & reduce ad hoc vehicle parking & movement within the coastal reserve.
14. Existing pump facility.
15. Further encourage appropriate low level coastal re- vegetation along the boundaries of the foreshore & adjoining private properties.
16. Upgraded Ulysses Trail.
17. Rehabilitate the corridor behind the immediate foreshore establish a landscape of open coastal trees and grass cover.
18. Retain & protect all the mature trees within the park area.
19. Retain the existing picnic facilities & BBQ's.
20. Provide signage and route definition of the Ulysses trail as it traverses the site.
21. Undertake weed removal & other re vegetation tasks as required.
22. Grassed margins around carpark. Bollards to edge.
23. Traffic island with low grasses & pruned trees permitting views of the foreshore.
24. Maintain opportunity for emergency vehicle access to beach.



FORESHORE MANAGEMENT PLAN RECOMMENDATIONS	
Current Use	Activity centre with some facilities
Proposed Future Use	Activity centre with expanded facilities
Adjacent Uses	High intensity beach and foreshore usage (including weddings, swimming, vehicle access to beach, skydive landing site and general recreation in foreshore areas)
Foreshore Management Unit	Developed Parkland
Special Management Area	High Recreation and Commercial Use Area and Future Activity Centre
Coastal Erosion	Within Erosion Prone Area, new structures in this zone must be designed appropriately to withstand erosion and storm surge and if located within 30 m of the foreshore they must be temporary and re-locatable, or sacrificial in nature
Coastal Inundation	The majority of the site is not subject to coastal inundation hazard
Flooding	No flooding hazards present
Ecology	Scattered areas of high ecological value vegetation (littoral rainforest) adjacent to the site
Rehabilitation	Low Priority. Landscape planting may assist to improve delineation between public open space and the semi-private open space areas of the houses adjoining the foreshore park
Heritage	No heritage items adjacent this site
Landslip	No landslip hazard present at this location
Bushfire	No bushfire hazard present at this location
Beach Access	Formalised pedestrian beach access.
Pathways	Consistent with FMU, suitable for Primary or Secondary Pathway

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U PLAN
Landscape Architecture
Steve Moss, Director
Registered Landscape Architect

PO Box 609
Cannonvale QLD 4802
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au

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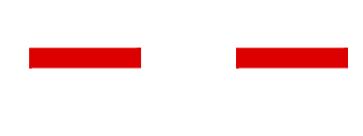
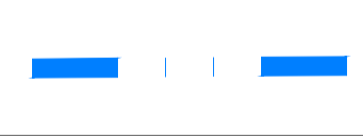



Cassowary Coast

Seaview Street - Landscape Concept

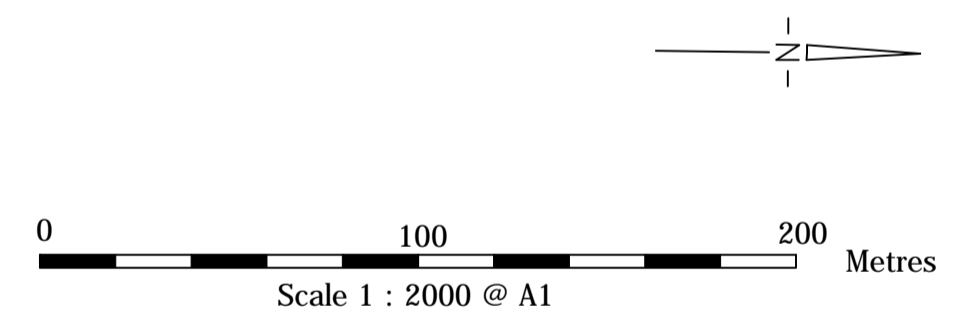
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- 1 Restructure intersection to divert main traffic onto South Mission Beach Road. Slow local traffic through meander.
- 2 Refer Concept Landscape Master Plans
- 3 Important open space and cultural area



-  Main village road & streetscape, supporting infrastructure & higher volumes of traffic
-  Beach access roads
-  Low profile coastal street (4m carriage with passing lanes)
-  South Mission Beach Esplanade Gateway & Entry
-  Beach access nodes

FORESHORE MANAGEMENT PLAN RECOMMENDATIONS	
Current Use	Boat hire, park, boat launching, swimming and skydive landing
Proposed Future Use	Incorporating existing uses in a focused Aquatic Sport Areas or Precinct
Adjacent Uses	Horse and dog beach (to south - proposed), local business, tourism and environmental conservation uses
Foreshore Management Unit	Developed Parkland
Special Management Area	Future Activity Area, High Recreation and Commercial Area
Coastal Erosion	Within Erosion Prone Area, new structures in this zone must be designed appropriately to withstand erosion and storm surge and if located within 30 m of the foreshore they must be temporary and re-locatable, or sacrificial in nature
Coastal Inundation	This site has coastal inundation risk, structures susceptible to damage by inundation should not be located there. Sand filling could be used to reduce inundation risk
Flooding	The site is subject to flooding hazard
Ecology	No constraints present at this site
Rehabilitation	Low priority
Heritage	Not present at this site
Landslip	Not applicable at this site
Bushfire	Not present at this site
Beach Access	Access to be maintained in current form
Pathways	Consistent with FMU, suitable for Primary or Secondary Pathway as required



Note: This is a long term future option : FOR DISCUSSION ONLY

Not for construction



P O B o x 6 0 9
Cannonvale QLD 4802
131005.00
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au
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Cassowary-Coast

South Mission Beach - Township Overview

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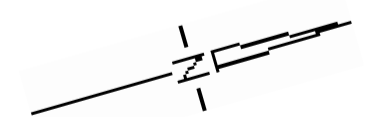
LEGEND

1. Esplanade entry statement and signage
2. Series of consolidated car parks.
3. 2.0 metre wide pedestrian walkway linking all spaces within the Village coastal precinct.
4. Bushland walkways, picnic facilities & interpretative trail.
5. Central creek effect and associated plantings (important storm water function).
6. Predominately open & flat grassed areas with scattered local species shade trees.
7. Revegetated and protected graded or gently sloping coastal edges.
8. Defined and enhanced entry area to existing Caravan park.
9. Central roundabout with South Mission Beach 'place making' signage icon.
10. Proposed shade shelter.
11. Future play or other community space within gentle grassed terraces.
12. Pedestrian friendly cross over through traffic calmed roadway.
13. Upgraded existing shelter and toilet facilities.
14. Existing playground is relocated to adjacent site with parkland.
15. Village Central Coastal Hub, with seating, shade and easy pedestrian access. Maintain beach ramp access.
16. Central grassed parkland.
17. Feature Shade trees throughout.
18. Bollard & other protective devices will be established along open space boundaries to manage access & encourage re vegetation of this vital coastal corridor.
19. Open views will be encouraged along all main roads and pathway.
20. A few signed pedestrian only access ways to the beach will be provided at key points.
21. Casual seating and picnic tables will be scattered around the grassed coastal Park.
22. Long term future option of meandering road system into Village and diversion of main traffic along Seafarer Street.
23. Stinger net Infrastructure.
24. Lifeguard & S.L.S.C building.
25. Boat hire facility.



FORESHORE MANAGEMENT PLAN RECOMMENDATIONS	
Current Use	Boat hire, park, boat launching, swimming and skydive landing
Proposed Future Use	Incorporating existing uses in a focused Aquatic Sport Areas or Precinct
Adjacent Uses	Horse and dog beach (to south - proposed), local business, tourism and environmental conservation uses
Foreshore Management Unit	Developed Parkland
Special Management Area	Future Activity Area, High Recreation and Commercial Area
Coastal Erosion	Within Erosion Prone Area, new structures in this zone must be designed appropriately to withstand erosion and storm surge and if located within 30 m of the foreshore they must be temporary and re-locatable, or sacrificial in nature
Coastal Inundation	This site has coastal inundation risk, structures susceptible to damage by inundation should not be located there. Sand filling could be used to reduce inundation risk
Flooding	The site is subject to flooding hazard
Ecology	No constraints present at this site
Rehabilitation	Low priority
Heritage	Not present at this site
Landslip	Not applicable at this site
Bushfire	Not present at this site
Beach Access	Access to be maintained in current form
Pathways	Consistent with FMU, suitable for Primary or Secondary Pathway as required

1:500 @ A1



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U PLAN
Landscape Architecture
Steve Moss, Director
Registered Landscape Architect

PO Box 609
Cannonvale QLD 4802
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au

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Cassowary Coast
South Mission Beach

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Registered Landscape Architect

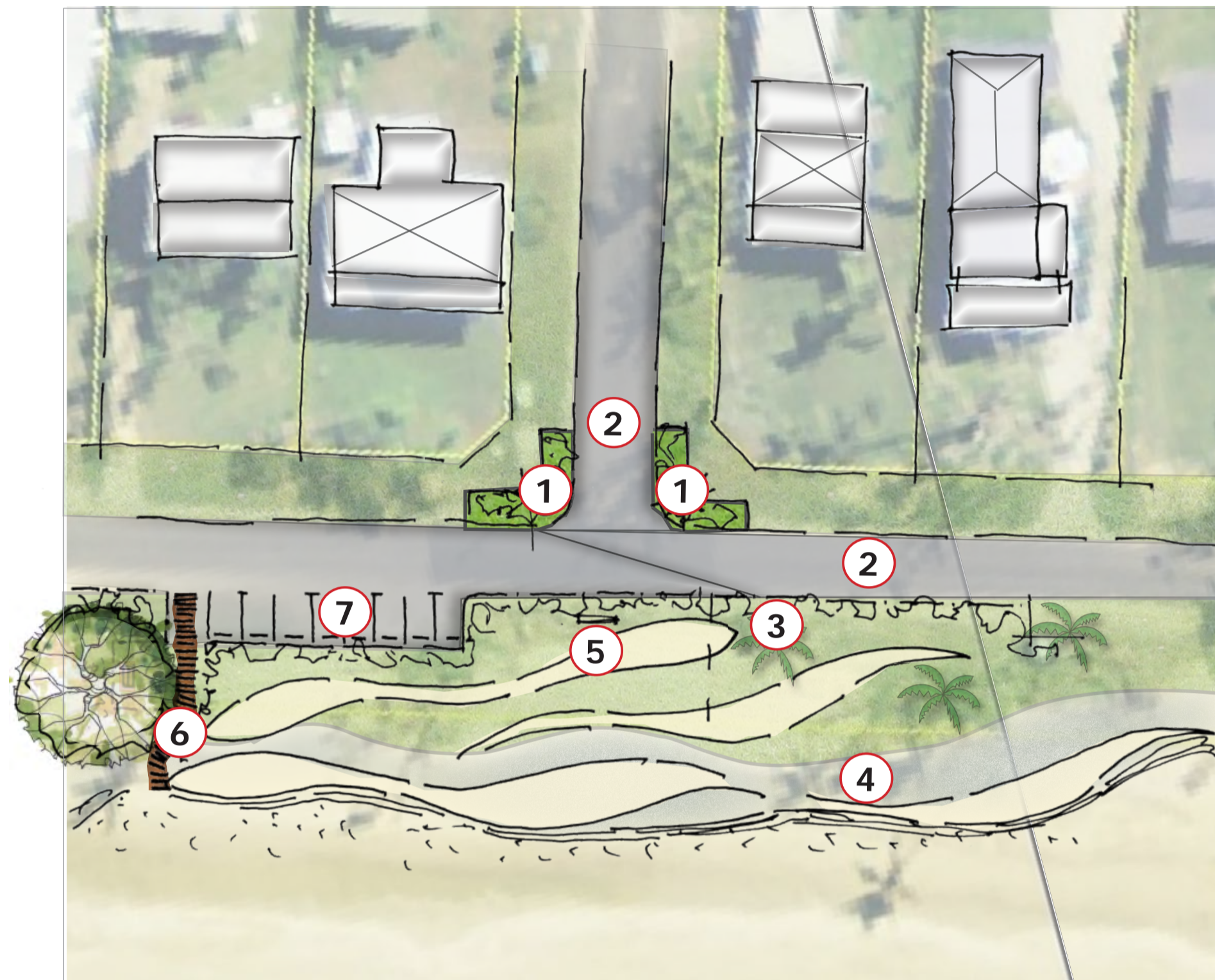
PO Box 609
Cannonvale QLD 4802
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au

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INDICATIVE STREET INTERSECTION & BEACH ACCESS CONCEPT

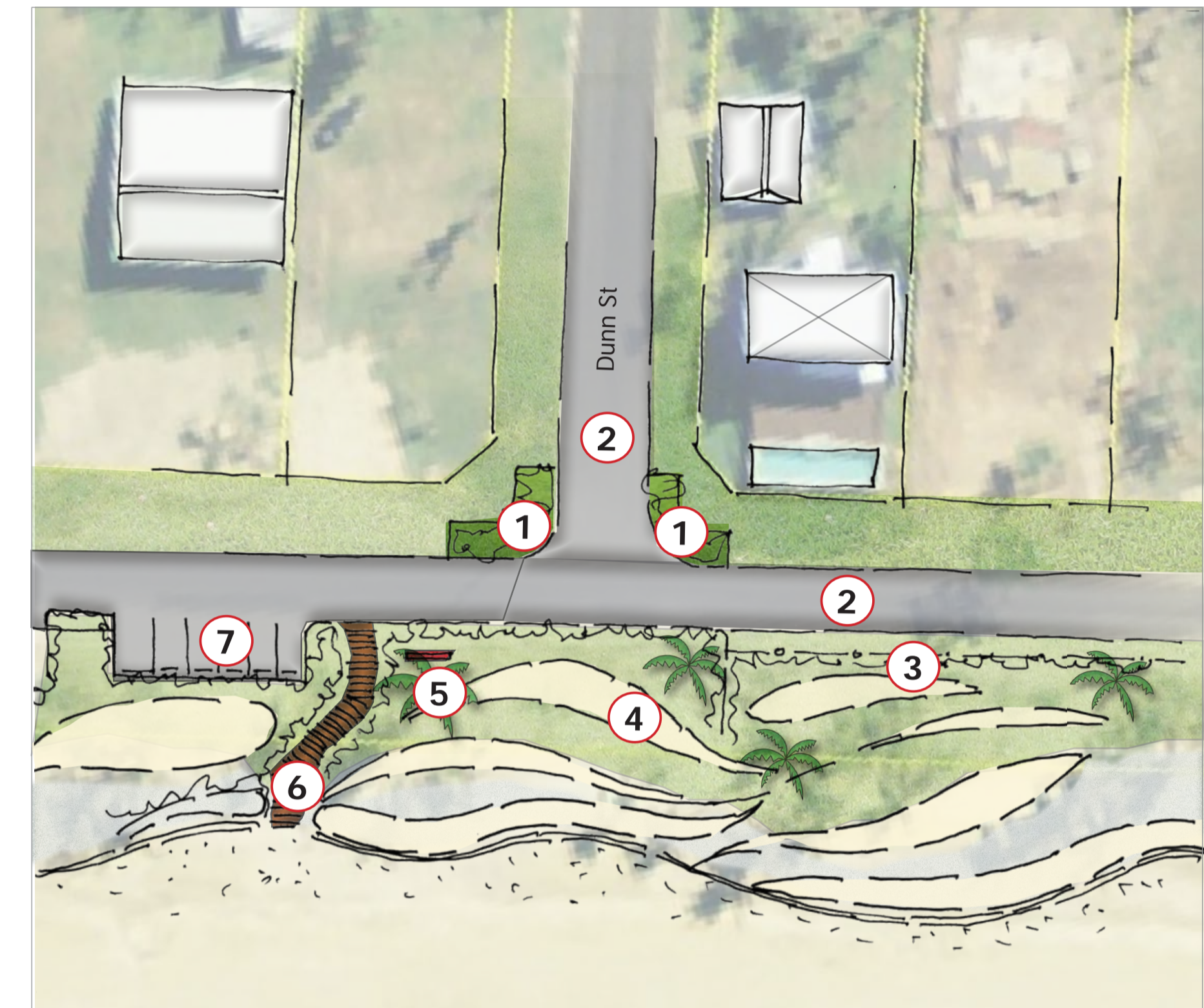


Detail Plan 2
1 : 500 @ A1

- ① Edged low grasses to define roadway corner
- ② Defined 2 way local street (Max. 6m)
- ③ Low profile bollards to edge road & revegetation
- ④ Dune shaped crescents of sand to promote revegetation
- ⑤ Locality & beach access I.D signage
- ⑥ Pedestrian only access (inc. emergency vehicles)
- ⑦ Small car park nodes

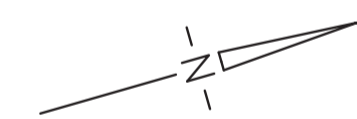


DUNN STREET INTERSECTION - PROPOSED UPGRADE TO EXISTING ACCESS & INTERSECTION



Detail Plan 3
1 : 500 @ A1

- ① Edged low grasses to define roadway
- ② Defined 2 way local street (Max. 6m)
- ③ Low profile bollards to edge road & revegetation
- ④ Dune shaped crescents of sand to promote revegetation
- ⑤ Locality & beach access I.D signage
- ⑥ Pedestrian only access
- ⑦ Small car park nodes



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U PLAN
Landscape Architecture

Steve Moss, Director
Registered Landscape Architect

PO Box 609
Cannonvale QLD 4802
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au

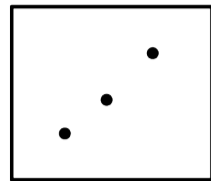
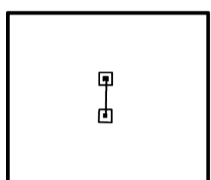
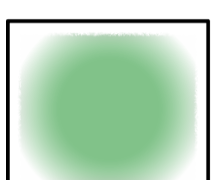
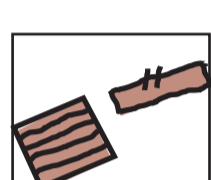
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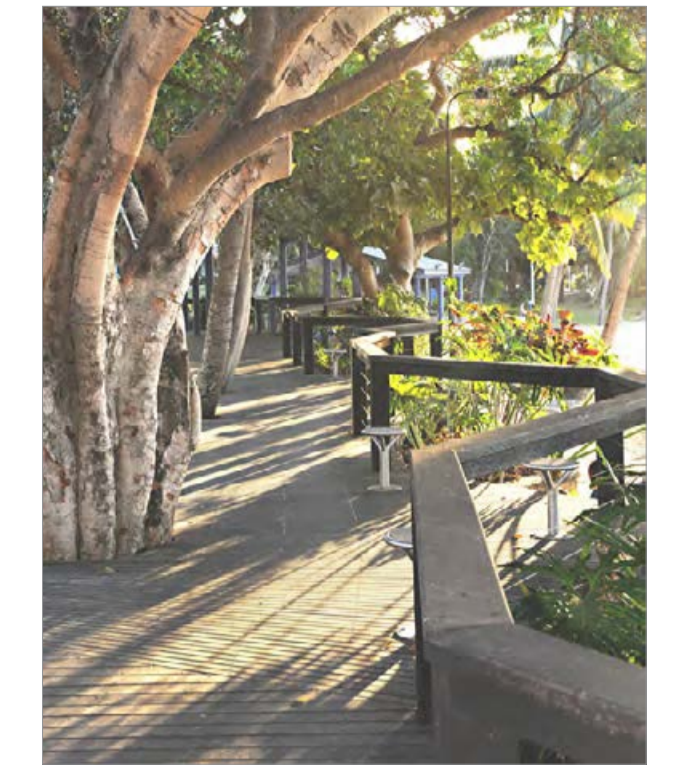
Cassowary Coast Kennedy Esplanade - Typical Design

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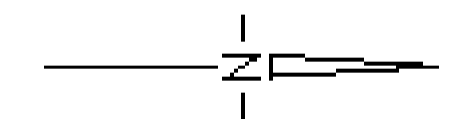
LEGEND

-  Bollard access management barrier system as nominated on plan.
-  Interpretative & park signage as nominated. All within Cassowary Coast regulations
-  Vegetation - Existing coastal vegetation, predominantly low grasses
-  Walkway - 2m wide minimum, with lookout areas as shown. Balustrading along area adjacent to road.

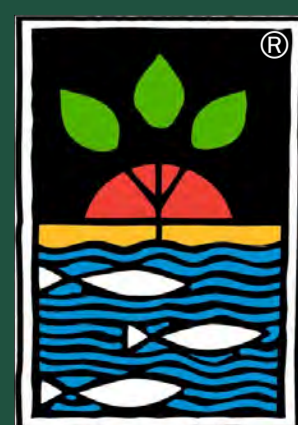
- 1** Car Park area - Refer 131005.31
- 2** Possible future walkway along inland edge of rock sea-wall.
- 3** Retain bollards to protect revegetation areas
- 4** Bollarded and gravel areas for car and car/trailer parking
- 5** Lookout expanded decking.
- 6** Small 3 - 4 bay carpark and pedestrian beach access.



FORESHORE MANAGEMENT PLAN RECOMMENDATIONS	
Current Use	Low intensity recreation, occasional skydive landing
Proposed Future Use	Low intensity recreation, occasional skydive landing
Adjacent Uses	Walking trail, dog /horse beach, skydive landing site
Foreshore Management Unit	Undeveloped Parkland
Special Management Area	High Recreation and Commercial Usage Areas (particularly skydive landing on beach, and dog / horse usage of beach)
Coastal Erosion	Pathway and foreshore within Erosion Prone Area, structures in this zone must be protected by suitably designed foreshore armouring and / or designed appropriately to withstand erosion and storm surge or be sacrificial.
Coastal Inundation	Present at edge of rock wall
Flooding	No flooding hazards present
Ecology	No significant ecological constraints / resources present
Rehabilitation	Low priority
Heritage	No heritage items adjacent this site
Landslip	Landslip hazard is present at southern end of site
Bushfire	Bushfire hazard present at southern end of site
Beach Access	No formal beach access point provided
Pathways	Consistent with FMU, suitable for Minor or Secondary Pathways



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U PLAN
Landscape Architecture
Steve Moss, Director
Registered Landscape Architect

PO Box 609
Cannonvale QLD 4802
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au


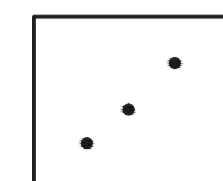
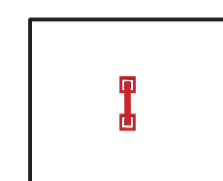
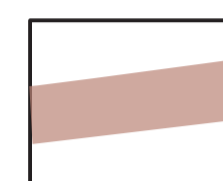

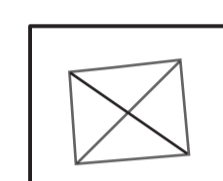
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Cassowary Coast

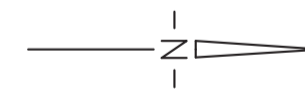
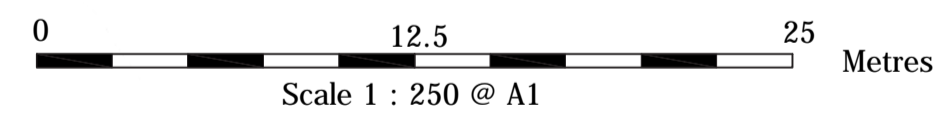
Kennedy Street Esplanade - Landscape Concept

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LEGEND

-  New road
-  Bollard access management barrier system as nominated on plan.
-  Interpretative & park signage as nominated. All within Cassowary Coast regulations.
-  Pedestrian Walkway - 2m wide minimum, with lookout areas as shown. Balustrading along area adjacent to road.
-  Rock Sea-wall
-  Structure/Shelter

- ① Retain & unify the single picnic setting near the entry.
- ② Formalise small (4 space) carpark with wheel stops and markings to designate bays.
- ③ Consider relocating any current commercial operator and the main focus of community activities to the area near the intersection of Kennedy Esplanade & Jackey Jackey Streets.
- ④ Provide Council & destination signage in a prominent location.
- ⑤ Parking of trailers to be accommodated along Kennedy Esplanade
- ⑥ Undertake weed removal & other re-vegetation tasks as required.
- ⑦ Upgrade the existing toilet facility.
- ⑧ Re-establish the carpark surface as high grade asphalt surface with line markings to guide vehicle movements.
- ⑨ Provide a continuous pedestrian pathway from the end of the existing boardwalk, through the 'end of road space' and create an obvious connection to the (long term) future walkway option .
- ⑩ Extend the bollards to define the pathways & protect coastal vegetation
- ⑪ Pedestrian access to beach
- ⑫ Retain & protect the mature trees immediately adjacent to the Esplanade and behind the rock revetment.
- ⑬ Protect the sensitive vegetation along the escarpment.
- ⑭ Consider the future & long term option of a Pedestrian Walkway following the entire length of the new rock wall structure. The walkway would provide a great pedestrian corridor and separate vehicle and other traffic while encouraging strong revegetation of the remaining coastal corridor.
- ⑮ Boat launching ramp



FORESHORE MANAGEMENT PLAN RECOMMENDATIONS	
Current Use	Carparking, Kennedy track access and boat launch / retrieval
Proposed Future Use	Carparking, Kennedy track access and boat launch / retrieval
Adjacent Uses	Walking trail, dog /horse beach, skydive landing site
Foreshore Management Unit	Undeveloped Parkland
Special Management Area	Special Facilities
Coastal Erosion	Pathway and carpark within Erosion Prone Area, structures in this zone must be protected by suitably designed foreshore armouring and / or designed appropriately to withstand erosion and storm surge
Coastal Inundation	The majority of the site is subject to coastal inundation hazard
Flooding	Not assessed at this location
Ecology	Adjacent Mahogany Glider Corridor and High Ecological Value Vegetation
Rehabilitation	Low Priority
Heritage	No heritage items adjacent this site
Landslip	Landslip hazard is present at this site
Bushfire	Bushfire hazard exists adjacent to site
Beach Access	No formal beach access point provided
Pathways	Consistent with FMU, suitable for Minor or Secondary Pathways

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U PLAN
Landscape Architecture
Steve Moss, Director
Registered Landscape Architect

PO Box 609
Cannonvale QLD 4802
T. (07) 4946 4745
M. 0414 494 066
F. (07) 4946 4567
E. steve@uplan.com.au
W. www.uplan.com.au

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Cassowary Coast

Kennedy Street Car Park - Landscape Concept

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Notes on FMP Implementation

Appendix A Notes on FMP Implementation

The complexity of governance and management arrangements means a coordinated and strong partnership approach is required between the Council, the State Government, community groups, businesses and individual property owners involved in the management or use of land in or adjacent to the foreshore. The FMP will be implemented by the following parties in the following ways.

A.1 Council

The FMP will primarily be implemented by Council, as it is generally responsible for managing foreshore parklands, road reserves⁶ and esplanades. Therefore, it is a requirement of Council that all of its departments and sections consider and implement the FMP, where relevant, for decision making, design and delivery of all Council works, services, programs, facilities and actions within the Greater Mission Beach foreshore area.

While the FMP is not a statutory document in its own right, the outcomes sought by the FMP will also be given effect and implemented through the following statutory documents, where applicable:

- The local government planning scheme, if uses, activities or works involve development⁷. This may include the issuing of a development permit and the imposition of conditions;
- Council's local laws, through the issue and conditioning of permits to undertake certain activities or uses on the foreshore;
- Permit to occupy conditions or foreshore lease conditions; and
- The local government Priority Infrastructure Plan (PIP) for infrastructure provision associated with development in and adjacent to the foreshore.

It will be important to ensure alignment in outcomes across the FMP, planning scheme, PIP and Council's local laws, to ensure the FMP's desired outcomes can be easily enabled and facilitated through the appropriate statutory process.

The FMP will also provide a focused approach to the allocation of limited Council resources and funding by assisting Council in prioritising future projects. The FMP may be used to guide planning and expenditure decisions in the following areas:

- Corporate and operational planning processes. These planning processes guide capital works, asset planning and expenditure, operational and maintenance programs and future budgeting;
- Natural area management and environmental programs. These may include habitat rehabilitation, removal and management of pest species, stabilisation of dunes from wind and water erosion, areas warranting restricted access due to sensitivity etc.;
- Parks planning, maintenance and management. These may include improving the quality and attractiveness of foreshore parklands, park facilities, mowing, and vegetation management; and

⁶ This will always be the case, unless the road is a declared State Controlled Road for which the Department of Transport and Main Roads will then be the responsible entity.

⁷ *The Sustainable Planning Act 2009 (SPA) defines development to include a material change of use, reconfiguration of a lot, operational works, building works and plumbing and drainage works.*

Notes on FMP Implementation

- Foreshore land use allocation. The identification of 'future activity areas' in strategic locations to provide opportunities for commercial activities such as leasing and other permitted activities. Designation of foreshore areas for particular active uses that provides equitable and adequate use experiences, while minimise conflicts and potential environmental impacts associated with usage types.

It is unlikely Council will be able to expand its current allocation of Council resources for foreshore management. The ongoing operational costs arising from the level of servicing and mowing the foreshore is not sustainable and, in some locations along the foreshore, these activities are having detrimental impacts on habitat and decreasing the protective function of the foreshore against coastal hazards. The FMP will seek to correct the 'imbalance' and set clear expectations about which sections of the foreshore will be reinstated to a natural state as distinct from those areas that will be maintained by Council as developed parkland.

A.2 State Government

The FMP will also be relevant to other authorities responsible for the management of land or waters in or adjacent to the foreshore. In particular, the complexity of governance and management arrangements for the foreshore requires coordination and a strong partnership with other State agencies involved in statutory decision making under other legislation and/or, where the State is responsible for the management of foreshore land and/or waters. Examples of these processes and State agencies include:

- Department of National Parks, Recreation, Sport and Racing (NPRSR) where involving the management of protected areas in or adjacent to the foreshore and decision making under the *Nature Conservation Act 1992* or *Marine Parks Act 2004*;
- Department of Environment and Heritage Protection (DEHP) for making statutory decisions under the *Environmental Protection Act 1994* or, pursuant to the *Sustainable Planning Act 2009* or *Coastal Protection and Management Act 1995* if involving development. The DEHP also has responsibility for managing and conserving threatened species in Queensland via the *Nature Conservation Act 1992*. The State Planning Policy and development assessment code for biodiversity also identifies matters of national environmental significance (MNES) and matters of state environmental significance (MSES);
- Department of Agriculture, Fisheries and Forestry (DAFF) for minor works involving the removal, destruction or damage to marine plants under the *Fisheries Act 1994*;
- Department of Natural Resources and Mines where involving unallocated State land and/or giving owners consent (e.g. for development on land below high water mark), resource allocation decisions under the *Land Act 1994* or decisions under the *Vegetation Management Act 1999*; and
- Department of State Development, Infrastructure and Planning (DSDIP) for declared major projects and decisions under the *State Development and Public Works Organisation 1971 Act* e.g. some maritime infrastructure, public jetties etc.

It is important to ensure alignment between the FMP and land management plans that affect land in or adjacent to the foreshore.

Notes on FMP Implementation**A.3 Community and Businesses**

The FMP will also be important to community groups, researchers and organisations involved in natural area management and habitat rehabilitation (e.g. Terrain and C4), businesses and individuals who have entered into a formal memorandum of understanding (MOU) with the Council to manage sections of the foreshore (e.g. Castaways Resort) and, commercial operators, event organisers and for group activities being undertaken in or adjacent to the foreshore. The community can make a significant contribution to the protection and management of the foreshore and it is therefore vitally important these activities and management actions accord with the outcomes of the FMP. It will also be important to ensure a high level of compliance is maintained with conditions of applicable local law permits, leases, permit to occupy, development approvals or land management plans for reserves.

Summary of Consultation Activities

Appendix B Summary of Consultation Activities

B.1 Council

The project team had a workshop with Council officers on 14th February 2014. The purpose of the workshop was to seek input and validation of the preliminary draft FMU maps and confirmation of values and issues.

Key foreshore management issues discussed at the workshop included:

- Vegetation management and habitat protection and enhancement;
- Ongoing high maintenance costs of mowing the foreshore and the need to be strategic about where Council allocates its resources and the importance of setting clear community expectations around management regimes;
- Natural hazards and the need to recognise the foreshore is subject to natural coastal processes including high coastal hazard areas and, the importance of reducing risk by carefully considering the type of facilities that locate in the foreshore and ensuring they are appropriately designed and managed to improve their resilience to hazards;
- Maritime infrastructure and access;
- Beach access and connectivity including walking tracks and shared pathways;
- Opportunities for recreational activities such as horse riding, adventure sports, dog beaches;
- Tourist parks;
- Leases for clubs;
- Commercial uses and permits;
- Motorised vehicles along beaches e.g., 4WD, quad bikes/trail bikes etc.; and
- Community events and group activities.

B.2 VARG

In addition to Council input, the FMP has also been significantly informed by the outcomes of consultation activities and inputs from the Mission Beach Visual Amenity Reference Group (VARG). VARG is an alliance of thirteen (13) diverse community organisations who have worked collaboratively as a group and with the Council, to define the desired outcomes for the future planning of the Greater Mission Beach foreshore area.

VARG undertook the following engagement activities with the broader community to inform the desired foreshore outcomes:

- Sought member input from the 13 community organisations represented on the VARG committee;
- Held public meetings at four (4) beachfront locations; and
- Carried out a qualitative on-line survey of the community.

Summary of Consultation Activities

In a report dated 8 November 2013, VARG identified the key elements it considered important to supporting and enhancing the visual amenity values of the Mission Beach coastal zone. These elements included an overarching vision for the Mission Beach Coastal Zone and four (4) categories dealing with:

- Foreshore and beachfront management;
- The built environment;
- Streetscapes; and
- Interconnectivity.

At the time of writing this report, VARG had prepared the overarching vision statement adapted from the Cardwell Shire Planning Scheme (2007) as well as:

- a mission statement for the foreshore and beachfront management category;
- a series of guiding principles for foreshore and beachfront management; and
- for each principle, a set of priorities.

The VARG report notes a high degree of community consensus for the desired outcomes in relation to foreshore and beachfront management and in particular, notes the community does not actually want change.

“They like what Mission Beach already has - specifically, its natural assets, casual lifestyle and unspoiled ambience. They do, however, seek improvements and planning specific to each beach locations”. (VARG Report 2013, pg 1)

VARG has provided important direction for the preparation of this foreshore management plan.

In preparing this FMP, the project team and Council officers met with VARG on 14th February 2014 to present an overview of the project and to seek VARG’s input on key foreshore management issues.

The key foreshore management issues raised by VARG included:

- Maritime infrastructure including boat ramps and the redevelopment of Clump Point maritime infrastructure by the State Government and, the importance of ensuring this infrastructure integrates with the foreshore and the FMP.
- Access to the beach and ocean being supported by Council.
- Vegetation was a commonly raised issue in the context of:
 - Maintaining and improving vegetation connectivity;
 - Vegetation, habitat protection, enhancement and management; and
 - How vegetation management will be integrated into everything.
- Foreshore structures and facilities including the range of facilities and their design and appearance.
- Opportunities for leases including commercial leases and ecotourism based on natural values.

Summary of Consultation Activities

VARG members also provided specific information on the nature, characteristics and key management issues for certain beaches. Certain beaches were identified as being of special heritage significance and therefore, need to be managed and enhanced to their near pristine state.

B.3 Djiru Traditional Owners

A study team member met with Leonard and Whitney Rassip from Djiru Traditional Owners on the 23rd May 2014 to discuss the Foreshore Management Plan and seek input from the Traditional Owners in areas relevant to the plan.

The key outcomes from the meeting include:

- General support that the Indigenous Cultural Significance Assessment for Mission Beach adequately represents the key indigenous cultural heritage items and places of significance. Djiru Traditional Owners may advise of additional sites during the progression of the study.
- The FMP needs to map broadly the items and places of cultural heritage significance from the Indigenous Cultural Significance Assessment for Mission Beach report as an overlay or colour within the FMP if not already covered by the heritage protection area overlay. However, these should not be specifically named.
- In addition to sites and features identified in this study, all river and creek mouths on the beach are of indigenous cultural heritage significance as well as the headlands (i.e. at Clump Point and Tam O'Shanter Point).
- Clump Point should also be mapped as an area of indigenous cultural heritage significance and include a note that it should be identified as a Future Activity Area in the Special Management Areas mapping.

Other notes recorded during the meeting include:

- Clump Point and surrounding waters have recognised cultural heritage significance to the Djiru people as a historical meeting place along the coast. The area also has archaeological significance with nearby fish traps, artefact scatters and an important ceremony ground.
- There are opportunities to improve access and nature based recreational use of Clump Point in a way that recognises and protects the cultural heritage significance of the area.
- Current unregulated vehicle access to the high point/lookout should be reviewed with a view to limiting access and providing pedestrian access (either a boardwalk or formed path). There are opportunities to improve current walks and paths as well and link to existing recognised tracks.
- Djiru representatives should be consulted and involved in preparation of future access and recreational planning for the site.

Context Analysis for Greater Mission Beach Foreshore

Appendix C Context Analysis for Greater Mission Beach Foreshore

C.1 Tenure

The study area has been defined as the beach areas, areas immediate adjacent to the beach and landward approximately to the nearest formed road boundary.

The majority of lands to the west of the study area boundary are generally freehold land. Other minor landuses to the west of the study area boundary include National Park and Crown Reserves. Within the study area there exist a few locations of Crown Reserve Land, with the vast majority being comprised of unallocated State land. A list of the current reserves in the study area is provided below including details of current use, or locality:

- Lot 543 on SP136930 – Bingil Bay Caravan Park;
- Lot 542 on SP136929 – Narragon Beach (North of Perry Harvey Jetty);
- Lot 487 on NR5180 – South of Perry Harvey Jetty;
- Lot 540 on NR7350 – Clump Point (Clump Point Coastal Grass Land Reserve);
- Lot 541 on SP136928 – Clump Point;
- Lot 535 on NR6870 – Ross Overton Park, Norm Byrnes Arboretum (Mission Beach Foreshore Reserve);
- Lot 270 on CP862648 – Visitor Information Centre and C4 (Mission Beach Foreshore Reserve);
- Lot 269 on CP862648 – Mission Beach Caravan Park (Mission Beach Foreshore Reserve);
- Lot 801 on SP110366 – Koda Street Reserve;
- Lot 617 on CWL3370 – Wongaling Park;
- Lot 652 on CWL2983 – Wheatley Park;
- Lot 10 on RP849823 – South of Wheatley Park immediately in front of houses on Nissen Street;
- Lot 7 on SP125434 – Wheatley Creek;
- Lot 1 on SP125433 – Mission Beach Sailing Club; and
- Lot 111 on CP846526 – Mission Beach Surf Club.

C.2 Infrastructure and Facilities

In terms of infrastructure and facilities located within the study area these are noted to include (from north to south):

- Bingil Bay camping and caravan park (campground), playground, BBQs, seating and toilet facilities;
- Bingil Bay day use area - BBQs, shower and toilet;
- Perry Harvey Jetty, carpark and toilet facilities;

Context Analysis for Greater Mission Beach Foreshore

- Clump Point boat ramp and parking (subject to redevelopment by State Government);
- Clump Point lookout and turnaround carpark;
- Cutten Brothers walking track (Clump Point to Narragon Beach at Jetty);
- Ulysses Link walking track (Clump Point to Clump point to Conch St);
- Arenga Park – toilet park, tables and carparking;
- Ross Overton Park, Norm Byrnes Arboretum including pathways and tables;
- Visitor Information Centre (incl. C4);
- (North) Mission Beach camping and caravan park, Progress Association hall, toilet facilities, seating, playground (to be redesigned / relocated), stinger net enclosure;
- Day park/market park, petanque pitch, tables and pathways;
- David Street Village Green, toilets and tables;
- Seaview Street, stinger net, toilet block, surf lifesaving hut, tables, etc.;
- Wongaling Park playground, toilet facilities, carpark, BBQs and shelters (to be redeveloped skate ramps, half court, amphitheatre is under construction at present);
- Wheatley Park toilet facilities, BBQs, small playground and shelters;
- Mission Beach Sailing / Surf Lifesaving facilities;
- South Mission Beach stinger net enclosure, boat hire facilities (permitted activity), toilet facilities in Casuarina park to the south, informal carpark, playground, BBQs and shelters;
- Kennedy Esplanade Boat Ramp, informal carpark and toilet facilities; and
- Kennedy track board walk and track.

In addition to the above, there are numerous other beach access locations for the purposes of pedestrian access, or for safe vehicle access for boat launching and retrieval as shown in Figure 2-5. There are limited other formal pedestrian pathways or cycleways within the study area.

C.2.1 Coastal Development

It was noted during the preparation of the FMP that there were two new significant private coastal developments proposed. These were located at:

- Lot 2 on SP158022 - South Mission Beach (Lugger Bay); and
- Lot 103 on SP177188 Casuarina Crescent (Mission Beach).

C.3 Values

The Greater Mission Beach foreshore is unique and spectacular, rich in natural assets, including areas that are of the highest integrity and form part of the internationally significant Wet Tropics World Heritage Area and Great Barrier Reef World Heritage Area. These natural values are

Context Analysis for Greater Mission Beach Foreshore

protected and enhanced for the benefit of current and future generations, while enabling, where appropriate, their use and appreciation by residents and visitors.

The foreshore is also highly valued for underpinning the identity, landscape character, scenic amenity and tropical lifestyle of its residents and as a prime recreational and tourism feature. The foreshore contributes significantly to Mission Beach being renowned as a unique residential and tourist destination; achieved in part through best practice foreshore management and recognising that conservation and economic well-being are inter-dependent.

The following sections briefly describes these natural, social, heritage and economic values, sourced from various strategies and documents including the Wet Tropical Coast Regional Coastal Management Plan (DERM, 2002).

C.3.1 Natural Values

Significant natural features and areas of the foreshore and coastal fringe include:

- Recognition as an area of outstanding biodiversity owing to its diverse range of plants and animals including the southern Cassowary and important frog species;
- Extensive areas of diverse remnant vegetation (including important littoral rainforests) that have high natural integrity and are dominated by a mosaic of mesophyll vine forests with associated palms and paperbarks in wetland areas. Rainforest areas contain endangered and of concern regional ecosystems that provide habitat for threatened species;
- Near threatened and threatened species such as Irrawaddy and Indo-Pacific humpback dolphins, dugong and turtles occur in inshore marine areas;
- Esplanades along Mission Beach, Clump Point, Bingil Bay and Narragon Beach contain vegetative communities that provide habitat for common wildlife including butterflies which are an iconic species of the region;
- Important migratory and resident shorebirds under State and Federal legislation and recognised under international treaties use coastal foreshore areas including the beach stone curlew and little tern;
- The State Marine Park encompasses the beach (to highest astronomical tide) while the Commonwealth Marine Park covers to the lowest astronomical tide (excludes the beach). The foreshore includes several terrestrial National Parks (Djiru National Park, Hull River National Park and Clump Mountain National Park) and foreshore Reserves (listed in Section C.1); and
- As per the Commonwealth Marine Park coverage, these are also included in the Great Barrier Reef World Heritage Area and parts of the foreshore are mapped within the Wet Tropics World Heritage Area. These areas typify the iconic 'Where rainforest meets the reef' concept in the Wet Tropics region.

Note: At the time of preparation of the FMP, it is recognised that the condition and intactness of foreshore vegetation communities has in some locations been significantly compromised by the impacts of successive major cyclones (Larry and Yasi) which have the potential to be further compounded if appropriate post-cyclone clean-up methods are not employed. As a result many

Context Analysis for Greater Mission Beach Foreshore

ecosystems are in a recovery phase with coastal vegetation communities providing diminished habitat quality and native species competing with invasive weeds such as Singapore Daisy.

C.3.2 Social and Heritage Values

The study area of the foreshore has very high scenic landscape values which are imparted by a rugged backdrop to the coast of rainforest clad hills and mountains with high natural integrity combined with a diversity of beaches, rocky headlands, offshore islands and relatively low visual impact of coastal land use.

The foreshore supports a diverse range of recreational activities including camping, picnicking, barbecues and foreshore parkland activities, fishing, walking, kayaking, and swimming with two stinger net enclosures. Major walking and cycling tracks are maintained by the Council including the Cutten Brothers, Kennedy and Ulysses Link tracks.

The Wet Tropical Coast is part of a complex matrix of Aboriginal cultural, ceremonial, and story places, archaeological sites, hunting, gathering and living areas that contribute to a rich and dynamic Traditional Owner landscape. Although the full extent of the local values, places and items are not identified in the FMP, these indigenous traditional owner cultural resources, values and practices are recognised to occur in the study area and management approaches seek to incorporate conservation of these values where possible.

Further information is provided in Section C.5.2 including details of specific European and Indigenous cultural heritage features and locations.

C.3.3 Economic Values

The foreshore of the planning area, with views and access to the Great Barrier Reef World Heritage Area and coastal islands, supports the domestic and international tourism industry in Far North Queensland and is a critical asset for the local tourism market of Mission Beach.

Bingil Bay and Mission Beach townships provide a wide range of facilities including accommodation and tourist parks. 'Castaways' in Mission Beach Township provides resort style accommodation immediately adjacent to the foreshore.

Differentiated from the larger urban centres to its north and south, the Mission Beach foreshore is more predominantly natural in character but still supports a range of commercial activities including skydiving and other adventure sports, boat and watercraft hire and several locations are used for weddings and other group activities.

The Perry Harvey jetty provides a popular and regionally significant launch site with additional maritime infrastructure proposed in the vicinity. Public boat ramps are located at Clump Point and Mission Beach and extensive access points are provided for beach-based boat launching. Vehicles are used on beaches for transporting and launching water craft but otherwise, beach 4WD access is not permitted along the beach.

Context Analysis for Greater Mission Beach Foreshore

C.4 Legislative and Management Framework

C.4.1 Local Government Planning Scheme and other Local Planning Instruments

C.4.1.1 Planning Scheme

Development in the Cassowary Coast Regional Council area is currently regulated by two planning schemes, namely the Johnstone Shire Planning Scheme and the Cardwell Shire Planning Scheme. Council has recently prepared the draft Cassowary Coast Regional Council Planning Scheme pursuant to the *Sustainable Planning Act 2009* (SPA) and to accord with the Queensland Planning Provisions (QPP). The planning scheme was released for statutory public consultation and the closing date for submissions was 11 July 2014, the planning scheme was amended thereafter and came into effect on 3 July 2015. This FMP has been prepared to align with the draft planning scheme given the advanced state of the draft planning scheme and because it articulates the Council's land use planning aspirations.

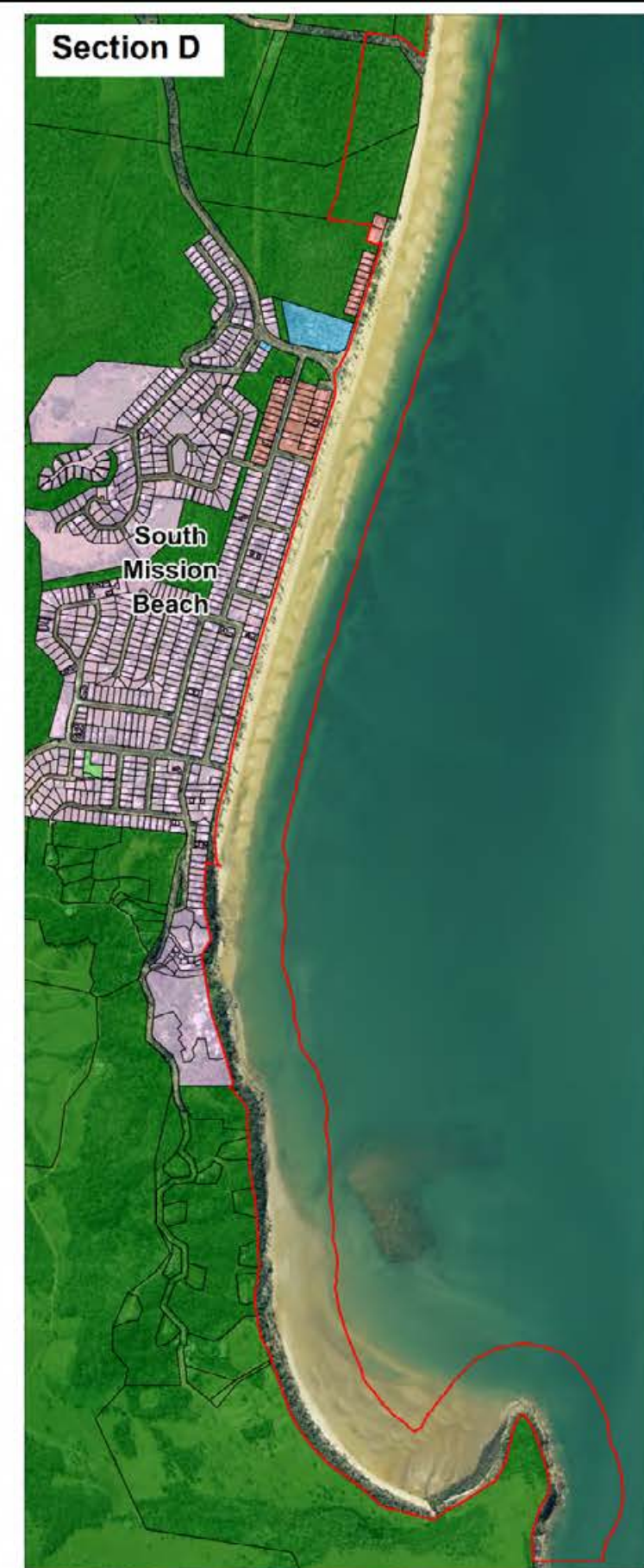
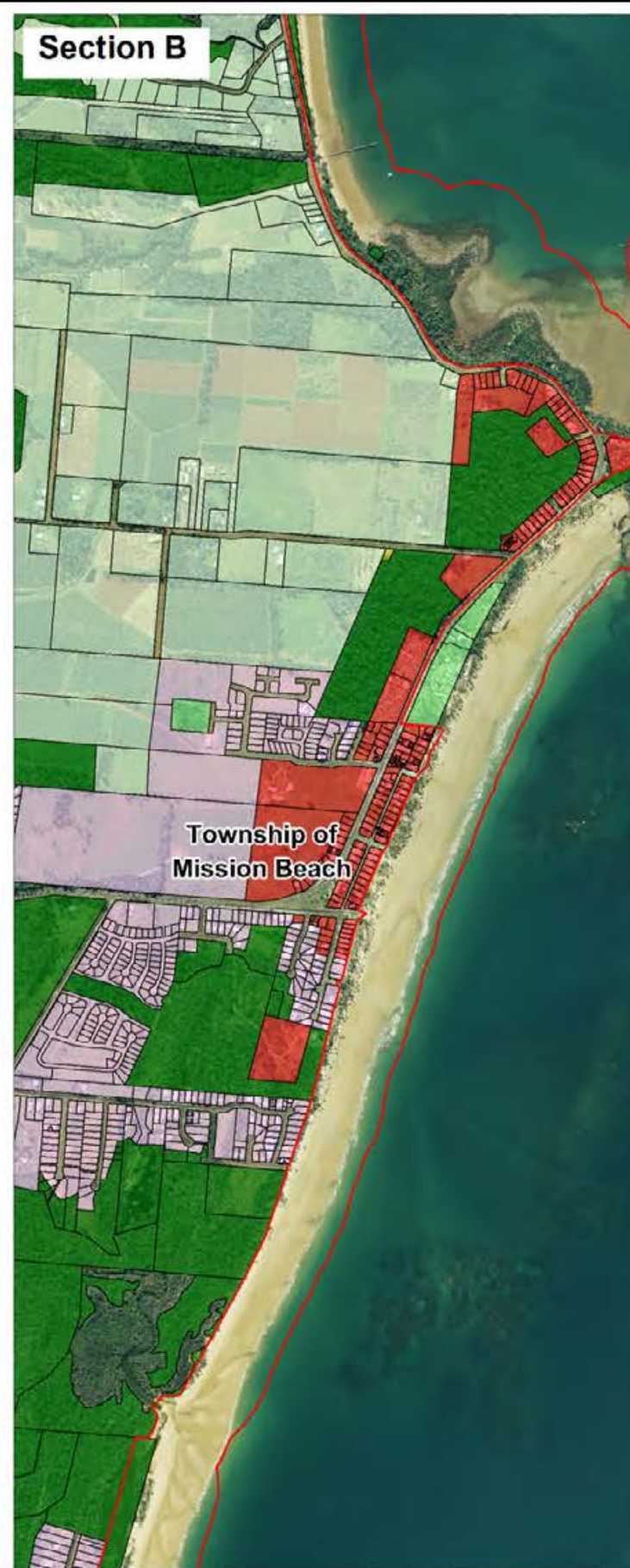
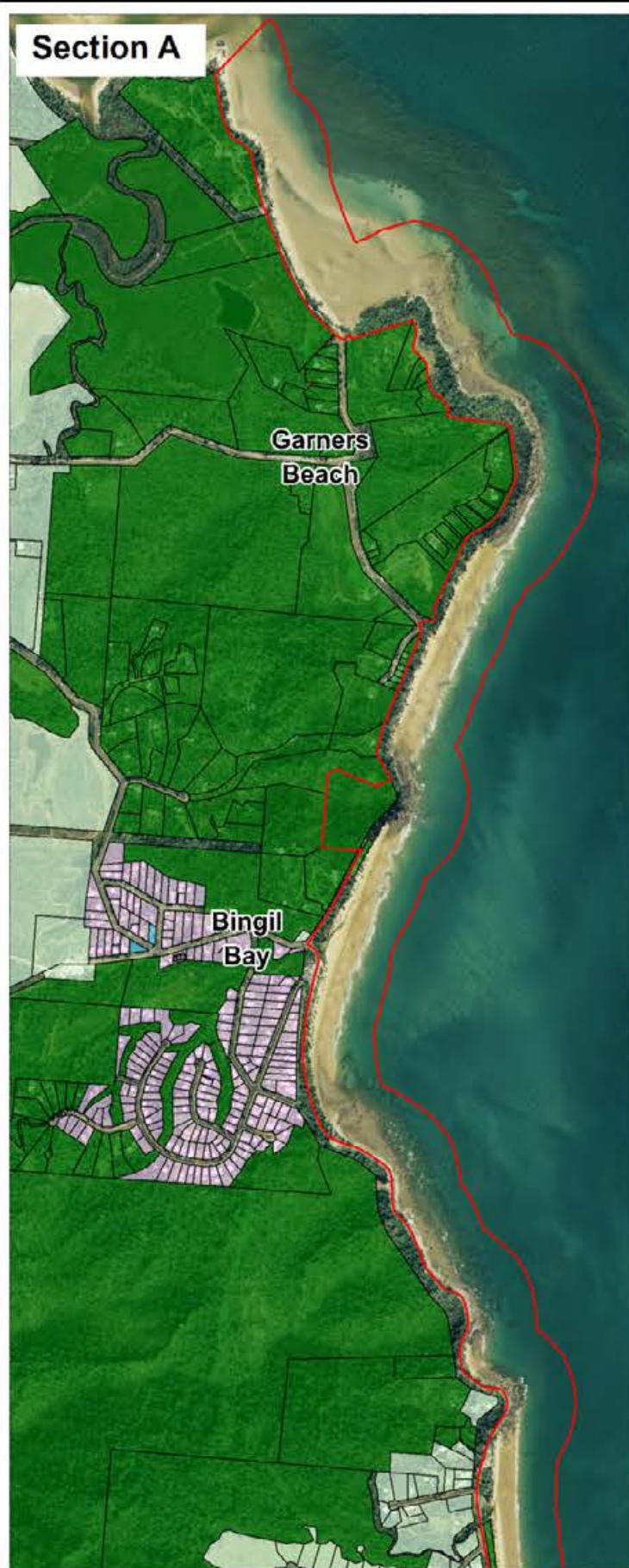
The new planning scheme will regulate development in the local government area of the Cassowary Coast Regional Council including all premises, roads, internal waterways and local government tidal areas.

From a statutory planning perspective, the planning scheme does not include the foreshore in a specific zone, unless the foreshore is part of a reserve with a real property description. However, the planning scheme establishes that if the road (or waterway or reclaimed land) is adjoined on one side only by land in a zone, the road (or waterway or reclaimed land) is in the same zone as the adjoining land. This means that development on the foreshore may trigger a development application under the planning scheme and the level of assessment and applicable provisions would be determined from the zoning provisions of the adjoining land. In the case of the Greater Mission Beach foreshore area, the applicable zone will either be the Township Zone, Rural Zone or the Environmental Management and Conservation Zone. Figure C-1 provides a composite map of the study area with the Planning Scheme Zoning and Local Plan Precincts.

It is important to ensure alignment between the planning scheme and this FMP. The key strategic directions from the draft planning relevant to foreshore management are summarised below:

Community Identity and Landscape Character

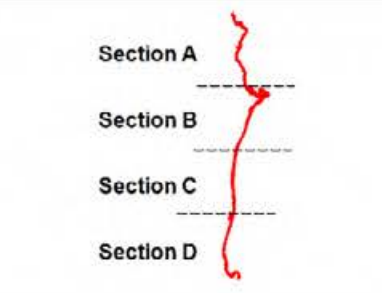
- Development in Mission Beach ensures it remains an area comprised of pristine natural environment and highly attractive coastal villages nestled in the rainforest beside the sea. The four distinct villages comprising Mission Beach remain separated and contained by vegetated areas.
- The region's coast, including beaches, native plants and animals, littoral rainforest, coastal wetlands and the Great Barrier Reef is an important part of the region's identity, the lifestyle of residents and economic viability of its tourism industry. Development ensures protection of the biodiversity values of coastal ecosystems and the coastal zone should be conserved in its natural or non-urban state outside of existing urban areas.



LEGEND
Zoning and Local Plans

	Residential
	Residential Choice
	Recreation
	Community Purpose
	Environmental Management and Conservation

	Study Area
	Tourism
	Local Business
	Business
	Rural
	Special Purpose



Title:
Planning Scheme Zoning and Local Plans

BMT WBM endeavours to ensure that the information provided in this map is correct at the time of publication. BMT WBM does not warrant, guarantee or make representations regarding the currency and accuracy of information contained in this map.

Filepath : I:\B20543_I_BRH Cassowary\DRG\GIS_006_140206 Planning Schemes.wor

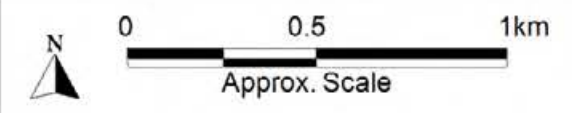


Figure C-1	Rev: A
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Context Analysis for Greater Mission Beach Foreshore

Natural Hazards

- Development avoids areas at risk of coastal hazards including storm tide inundation, coastal erosion and projected sea level rise. Development is undertaken to be consistent with planning scheme.
- New infrastructure is designed and located to avoid areas at risk of natural hazards. Where avoidance is not practicable, infrastructure is designed and located to ensure maximum resilience from impacts of natural hazards and design takes into account impacts of climate change.

Built Environment

- New development incorporates tropical design principles where practicable, is low in scale (no greater than 2 storeys) and recognises the importance of the natural environment in contributing to tourism, scenic amenity and recreational activities in the design of development. Maintenance of scenic values of the coastline is very important.

Natural Environment

- Development is designed to take into account, and allows the region's natural assets to be resilient to the impacts of climate change.
- Coastal development avoids or minimises adverse impacts on coastal resources and ecosystems by ensuring that development is appropriately located and by reducing the scale of development. Urban development is located outside of areas of significant vegetation in the coastal management district.
- Maintaining, protecting and restoring connectivity of the region's important habitat links and corridors is essential, including improved forest to beach connectivity. Degraded or missing links within this habitat network will be restored. A minimum width of 200 metres is optimum for habitat links.
- The cassowary is an iconic symbol of the region. Ensuring conditions exist for its survival through preservation of cassowary habitat, habitat corridors and reducing/minimising conflicts with development and impacts of traffic, is extremely important.
- Development is sensitive to and protective of the region's endangered and threatened species, including the cassowary and mahogany glider. Impacts such as fencing, traffic and introduction of pest plants and animals does not impact on the future viability of these species.

Tourism and Ecotourism

- Nature-based tourism may be located in ecologically significant areas, provided the activity is low key and low impact and is reliant upon, consistent with and does not degrade the ecological values of the area. Small scale and low impact tourism activities are designed to minimise impacts on environmental and scenic values.
- The number, location and type of tourism facilities in the environmental management and conservation zone are managed so they do not have a cumulative impact on environmental and scenic values.

Context Analysis for Greater Mission Beach Foreshore

Social Infrastructure

- Existing recreation and open space is maintained with its use rationalised to enhance opportunities for different types of recreational activities. Opportunities for active and passive recreation in natural areas are maximised, but realised in a way that does not impact on the scenic values of those areas.

Access and Marine Infrastructure

- There is no net loss of public access to waterways, foreshores or the ocean. Where practicable, development is designed to enhance, improve or increase public access.
- Public access to waterways and the ocean is designed and maintained to protect aquatic and adjacent land based ecosystems.
- The provision of marine infrastructure catering for recreational users and commercial operators, is important to allow residents and visitors access to the region's waters and islands. The siting, design and construction of marine infrastructures minimises impacts on aquatic and coastal ecosystems.

C.4.1.2 Local Laws

Council has prepared a suite of Local Laws and subordinate Local Laws under the *Local Government Act 2009*, of which the following are relevant to foreshore management:

- Bathing Reserves Local Law No. 6;
- Local Government Controlled Areas, Facilities and Roads Local Law No. 4:
 - Foreshores;
 - Boat harbour and river ways;
 - Esplanades;
 - Parks and reserves, natural areas and cultural reserves and drainage channels;
 - Jetties and boat ramps;
 - Caravan parks;
 - Public conveniences; and
 - Footpaths.

Context Analysis for Greater Mission Beach Foreshore

C.4.1.3 Cassowary Coast Regional Council Corporate Plan 2013-2017

Council's Corporate Plan, the most significant planning document adopted by the Council, sets the overarching strategic direction for the Council for the next five (5) years. The Corporate Plan puts into effect the aspirational goals the community has identified as being important and aligns closely with the Cassowary Coast Regional Community Plan 2011-2021.

The Corporate Plan is supported and implemented by the following documents:

- Asset Management Plans;
- Long Term Financial Plan;
- Annual Operational Plans;
- Annual budgets; and
- Planning Scheme.

The strategic objectives relevant to foreshore management are detailed in Table C-1.

Table C-1 Relevant Corporate Plan Strategic Objectives

Focus Area	Strategic Objective	Key Strategies
Unique Natural Environment	<p>That our communities value the diversity of our region's natural environment through:</p> <ul style="list-style-type: none"> • Maintaining our unique biodiversity • Protecting, restoring and enhancing our special places • Protecting our natural resources and landscapes. 	<p>Develop effective partnerships to ensure a coordinated approach is taken to natural resource management across the region.</p> <p>Partner with responsible agencies such as Terrain, Great Barrier Reef Marine Park Authority and National Parks to ensure preservation of the region's biodiversity.</p> <p>Support protection of endangered species.</p> <p>Promote a strong network of wildlife corridors that provides movement and protection of our endangered species and other wildlife and resilience to future impacts of climate change and urban development.</p> <p>Recognise and promote a range of opportunities to improve the region's wealth and wellbeing.</p> <p>Develop effective partnerships to ensure a balance is maintained between lifestyle expectations and conservation of natural values.</p> <p>Manage the region's coastline to sustain its amenity, accessibility and biodiversity</p> <p>Prepare and protect coastal areas from the impact of storm activity and climate change.</p> <p>Develop effective partnerships which assist Council in meeting its natural resource management responsibilities.</p>
Liveable Built Environment	<p>That the development and growth of our region demonstrates social, economic and environmental sustainability through:</p>	<p>Develop and implement a new planning scheme that guides the future growth of the region and delivers a balanced sustainable economy while maintaining its exceptional natural environment, culture and heritage preservation and unique tropical lifestyle.</p> <p>Develop and implement effective infrastructure planning</p>

Context Analysis for Greater Mission Beach Foreshore

Focus Area	Strategic Objective	Key Strategies
	<ul style="list-style-type: none"> • Delivering smart, sustainable community infrastructure • Making sustainable decisions • Embracing our places and spaces • Efficiently transport our people and goods around the community. 	<p>that meets the community's needs and informs Council's long term Capital Works Programs and Priority Infrastructure Plans.</p> <p>Provide and manage appropriate marine facilities to meet the boating needs of the region.</p> <p>Ensure disaster mitigation and sustainability principles are applied to the maintenance and delivery of Council's assets.</p> <p>Nurture a sense of place where residents of the region value the unique wet tropical location and distinctive flavour of our coastal villages, rural landscapes and busy towns.</p> <p>Provide, manage and enhance the region's recreational facilities, including parks, sporting fields, open spaces and foreshores for varying types of sporting and recreational activities.</p> <p>Ensure our public spaces are safe and accessible to all community members regardless of age and ability.</p> <p>Develop and implement master plans for significant public spaces and streetscapes, which allow for long-term staged delivery of vibrant community infrastructure.</p> <p>Encourage the provision of vibrant public art to enhance community buildings, public places and open spaces.</p> <p>Provision and manage a network of linked, shared cycle and pedestrian friendly pathways with supportive infrastructure for commuter and recreational use throughout the region.</p>

C.4.2 State Legislation, Planning and Development Controls

C.4.2.1 Single State Planning Policy

Statutory planning of foreshore and neighbouring land areas is guided by the Queensland State Planning Policy (2013). Elements of the single SPP that are most relevant to foreshore development and management in Greater Mission Beach include:

- Economic Growth: Tourism;
- Environment and Heritage: Coastal Environment; and
- Hazards and Safety: Natural Hazards.

As outlined above, these issues must be reflected in the Cassowary Coast Regional Council Planning Scheme under the *Sustainable Planning Act 2009*.

C.4.2.2 Marine Parks Zoning Plan

Marine areas are governed under the Federal and State Great Barrier Reef Marine Park and the Mission Beach area is covered by the Zoning Plan # 6 for Innisfail (extract shown in Figure C-2).

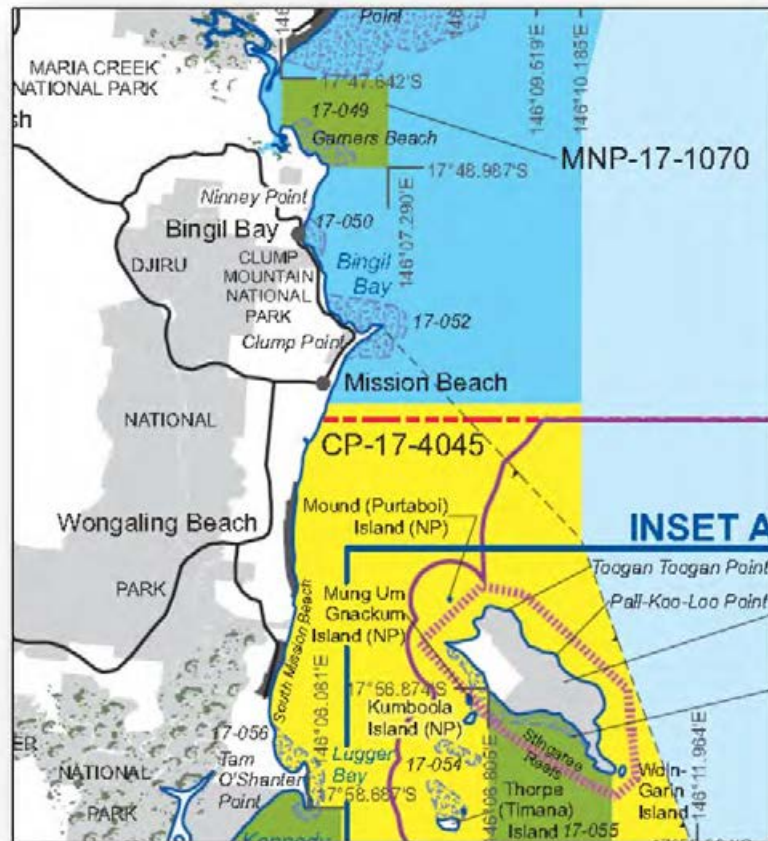


Figure C-2 Extract from Marine Park Zoning Plan #6

As shown in the Figure, the entire coastline is within the boundaries of the marine park (boundary is declared at Lowest Astronomical Tide) with the following zone boundaries:

- Garners Beach area within a Marine National Park (Green) Zone;
- Bingil Bay and Mission Beach Township within a Habitat Protection (Blue) Zone; and
- Wongaling Beach, South Mission Beach to Tam O’Shanter Point within a Conservation Park (Yellow) Zone.

C.4.2.3 Draft Coastal Management Plan 2013

The draft Coastal Management Plan (DEHP, 2013) provides direction and guidance about the management of State-owned and other coastal land in Queensland to achieve the objectives of the *Coastal Protection and Management Act 1995*. It applies to management planning, activities, decisions and works that are not assessable development under the *Sustainable Planning Act 2009* (SPA) and therefore not subject to the State Planning Policy.

Context Analysis for Greater Mission Beach Foreshore

Of most relevance to this FMP is section 6 of the Draft Coastal Management Plan which provides that, “*Coastal land managers are encouraged to prepare and implement local plans, where appropriate, to guide activities consistent with the policies of this Coastal Management Plan*”.

The FMP responds to this policy direction.

Section 6 of the Draft Coastal Management Plan is supported by a ‘Sample management plan template. The sample management plan template has been considered and incorporated where practical in the context of this FMP with a view to preparing a document that addresses the policy outcomes sought by the Coastal Management Plan.

C.4.2.4 Development Controls

Development in the coastal zone, including foreshore areas, is regulated under the *Sustainable Planning Act 2009* (SPA).

The Integrated Development Assessment System (IDAS) in the SPA prescribes the statutory process for development applications to be made, assessed and decided. Some development applications will trigger referral to the State. This will particularly be the case for certain development located in the Coastal Management District (which includes coastal waters and coastal land areas within and neighbouring the foreshore) and for prescribed tidal works (works in on or over tidal lands).

The Department of State Development, Infrastructure and Planning (DSDIP) acts as assessment manager or a referral agency for applications in the Coastal Management District. The State assesses development applications under State Development Assessment Provisions - SDAP (2013). Modules of the SDAP relevant to foreshore management include, most notably, Module 10 – Coastal protection and Module 5.3 - Removal, destruction or damage of marine plants state code.

The tenure of most foreshore land is vested with the Crown as unallocated State land or Reserve (generally with Council as trustee). On this basis development and activities in foreshore areas must include land owner’s consent. For land below high water mark, the State will be the relevant land owner in most instances.

C.4.3 Matters of National Environmental Significance

Matters of National Environmental Significance (NES) are protected under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999*. A number of matters of NES occur within or adjacent to the Greater Mission Beach foreshore including:

- Presence of threatened species and ecological communities (including most notably the Southern Cassowary and littoral rainforest);
- Presence of listed migratory species (particularly migratory waterbirds and marine species);
- The Great Barrier Reef World Heritage Area (which covers all marine areas up to Lowest Astronomical Tide);
- The Wet Tropics World Heritage Area (mostly to the west of the study area); and

Context Analysis for Greater Mission Beach Foreshore

- The Great Barrier Reef Marine Park.

C.5 Coastal Resources and Constraints

A range of natural and cultural values of the study area have been mapped and listed under various legislation and strategies including the *Vegetation Management Act 1999* and new Queensland State Planning Policy.

The Wet Tropical Coast is also subject to natural hazards including coastal erosion, storm surge, overland flooding and to a lesser extent land slip and bushfire risk.

The following section identifies the relevant mapping and registers that describe these areas and provide foreshore mapping products that underpin the FMP.

C.5.1 Ecological Resources and Constraints

The Study Area is subject to a number of ecological constraints to land use as imposed by federal, state and local level government legislation based on its known ecological resources. This includes the *Environmental Protection and Biodiversity Act 1999* (Cth), the *Vegetation Management Act 1999* (Qld), the *Sustainable Planning Act 2009* (Qld) and regulations, the *Environmental Protection Act 1994* (Qld), the FNQ Regional Plan 2013, the State Planning Policy, the State Development Assessment Provisions (SDAP), the Johnstone Shire Planning Scheme and the Cardwell Shire Planning Scheme 2007.

These constraints consist of the Great Barrier Reef World Heritage Area (GBRWHA) and Marine Park (GBRMP), Areas of Ecological Significance (AES), as defined under the Department of Environment and Heritage Protection (DEHP) Method for Mapping Ecological State Interests for Land Use Planning and Development Assessment Version 2.1, significant natural areas and local corridors for cassowaries and mahogany gliders. In particular, the ecological features represented by these constraints mapping layers consist of:

- GBRWHA and GBRMP;
- One listed threatened ecological communities (Littoral rainforest and coastal vine thickets of eastern Australia);
- Potentially up to 34 listed threatened species and 33 listed migratory species under the *Environmental Protection and Biodiversity Conservation Act 1999* (Cth) and *Nature Conservation Act 1992* (Qld);
- Great Barrier Reef Marine Park nationally important wetland;
- Kurrimine Area nationally important wetland;
- Clump Mountain National Park and Hull River National Park;
- Great Barrier Reef Coast Marine Park;
- Hull River Fish Habitat Area;
- Regional ecosystems on the regulated vegetation management map;
- Wetlands on Lot 2 SP1254433, Lot 11 NPW876, Lot 944 SP111626 and Lot 801 SP110366;

Context Analysis for Greater Mission Beach Foreshore

- Essential habitat vegetation;
- Watercourses; and
- Locally significant corridors for mahogany glider and cassowary movement.

Threatened species collected or recorded from the Mission Beach area are include:

- Mammals: Mahogany Glider *Petaurus gracilis*; Spectacled Flying Fox *Pteropus conspicillatus*.
- Birds: Southern Cassowary *Casuarius casuarius johnsonii*; Little Tern *Sterna albifrons*; Beach Stone Curlew *Esacus neglectus*; Macleay's fig-parrot *Cyclopsitta diophthalma macleayana*; Eastern Curlew *Numenius madagascariensis*; Sooty Oystercatcher *Haematopus fuliginosus*; White-rumped Swiftlet *Collocalia spodiopygius*.
- Reptiles: Estuarine Crocodile *Crocodylus porosus*.
- Flora: Carronia *pedicellata*; Showy Costus *Costus potierae*; Hedyotis *novoguineensis*; Amomum *dallachyi*; Aphyllorchis *queenslandica*; Cleistanthus *discolor*; Gouania *australiana*; Ilex sp. (Gadgarra B.P.Hyland RFK211); Macaranga *polyadenia*; Polyalthia *patinata*; Rourea *brachyandra*; Arenga Palm *Arenga australasica*; Ant Plant *Myrmecodia beccarii*.

The general focus of the FMP has been to focus on environmental legislative constraints that represent endorsed and adopted information sets. It is recognised that other locally significant species such as Asterinid Sea Star and Peppermint Stick Insect as well as the local basalt geologies currently do not have environmental legislative implications and therefore have not been addressed in the FMP. If these issues become listed under environmental laws in the future, this would be a trigger to have them included in the FMP.

It is noted that this knowledge base is continually expanding and there are presently knowledge gaps in the information available, such as detailed habitat mapping for some species that utilise the foreshore e.g. beach stone curlew, turtles and cassowary. It is hoped that a partnership approach between Council and stakeholders will increase knowledge of usage characteristics of these species along the foreshore and over time this information can be used to support modifications to recommendations included in the FMP.

Biodiversity Threats and Management Actions

In terms of biodiversity threats and associated management, the 'Back on Track Actions for Biodiversity' (DERM, 2010) publications provide direction for species conservation in the Wet Tropics Natural Resource Management region identifies the following threats to priority species and management actions for Mission Beach.

- *Chelonia mydas* (green turtle): pigs have been recorded at turtle nests on Mission Beach. Although only small numbers of green turtles nest in this region, most nests would be impacted by pigs. There is a need for a pig control programme.
- *Casuarius casuarius johnsonii* (southern population) (southern cassowary): the current lack of habitat continuity and connectivity in the region makes populations vulnerable. A review of aerial photography and available data and reporting (e.g Biotropica, 2009) lowland linkages within the study area are typically broken by residential development along the foreshore. All

Context Analysis for Greater Mission Beach Foreshore

habitat connections between the beaches through to the foothills have significant ecological value for movement corridors particularly for wide ranging species such as the Cassowary. Therefore all management recommendations to protect Cassowary habitat should also apply to intact foreshore management areas particularly those addressing habitat protection, buffer zones and dog control.

Improved connectivity can be achieved by strategic revegetation. Keeping human influences away from cassowaries as much as possible and improving connectivity between forest patches would only be of benefit. New developments bordering any cassowary habitat should be subject to dog control measures and be fenced to minimise the contact between birds and humans and dogs. Further detailed information is available in the Significant Impact Guidelines for the Endangered South Cassowary.

- Pond apple (*Annona glabra*) is one of the threatening weeds invading a wide range of cassowary habitat.
- Lantana (*Lantana camara*) is a minor threat to the southern cassowary where it is acting as a barrier to movement, especially around identified sites at Mission Beach.
- Implement actions identified in the Mission Beach Habitat Network Action Plan which identifies priority wildlife habitat and corridors at Mission Beach with a focus on assistance for land owners and the community to protect and restore priority areas and development of fauna-friendly road crossings to protect the cassowary.
- Encourage local government to include no drive zones on Mission Beach and a reduced number of access points to beaches to reduce impacts on beach-stone curlew and little tern.

Graphical Representation of Data

Figure C-3 provides a pictorial representation of the relevant environmental legislative constraints mapping information available for the study area.

This figure is based on publicly available State and Federal mapping products which have legislative implications and are triggers for development applications (i.e. Areas of Ecological Significance (AES) Far North Queensland, 29th February, 2012, State of Queensland Department of Environment and Heritage Protection 2014. Australian World Heritage Areas, Australian Department of the Environment, 26th July, 2013. It should be noted that the AES data includes regional ecosystem, essential habitat, rehabilitation and corridor mapping). It is beyond the scope of the FMP to assess the accuracy of these State and Federal mapping products.

Figure C-3A provides mapping of littoral rainforests and coastal vine thicket areas based on the Mapping Littoral Rainforest & Coastal Vine Thickets of Eastern Australia in the Wet Tropics: Mission Beach Pilot Study (Metcalf *et al*, 2014). This image is provided for **information only** as the FMP cannot recommend the use mapping products which do not have State or Federal Government endorsement. The FMP makes no assertions as to the accuracy or limitations of this data and reference should be made to the abovementioned report in this regard.

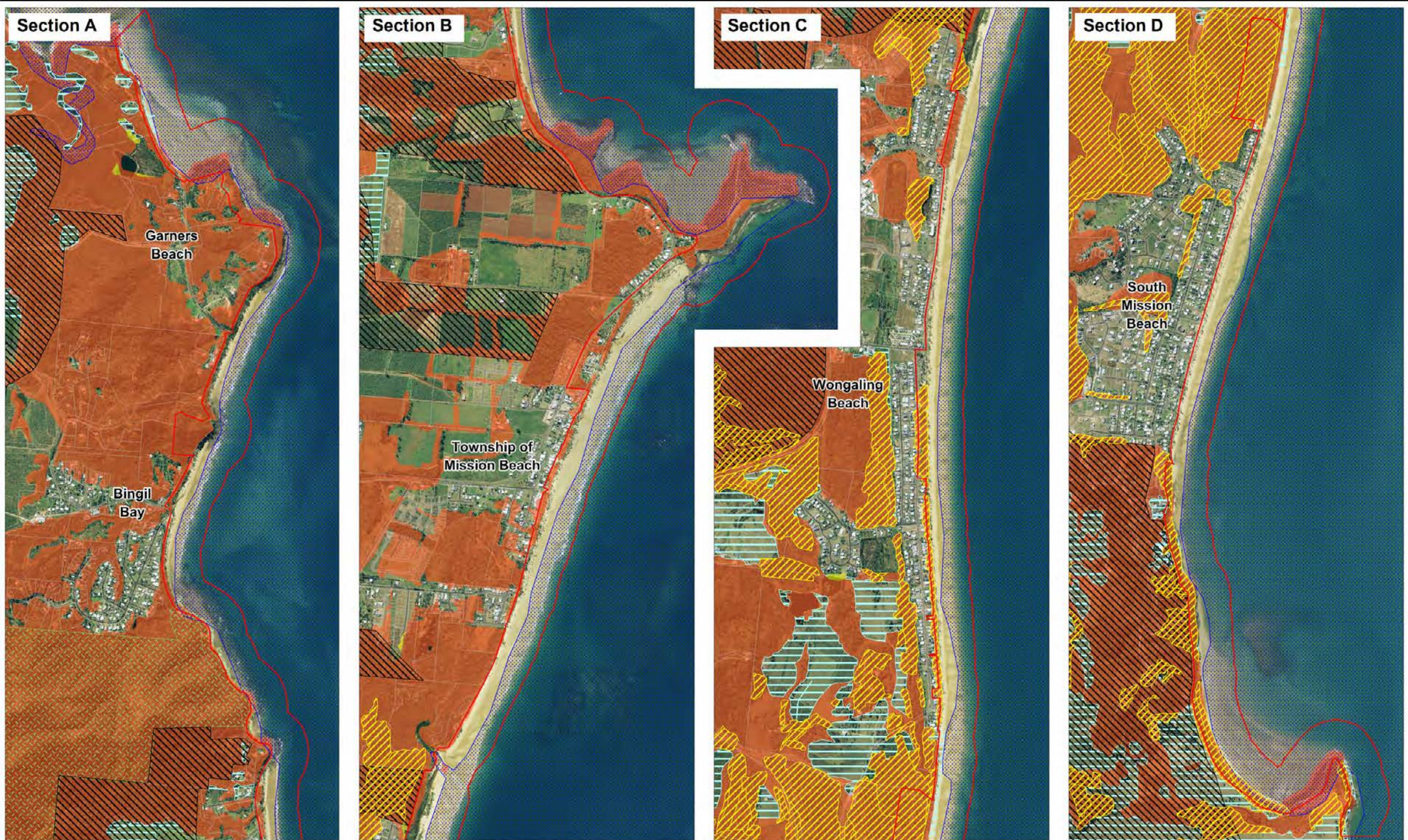
Figure C3 identifies the presence of High Ecological Value vegetation areas (which encompasses a variety of land tenures including National Parks, Reserves and Freehold lands), corridors for Mahogany Glider and Cassowary, strategic rehabilitation areas which within the study area appear

Context Analysis for Greater Mission Beach Foreshore

to be primarily aimed at rehabilitating degraded dunal structures in front of existing housing at South Mission and Wongaling Beach.

The strategic rehabilitation areas are integrated within the Rehabilitation Areas SMA where they tend to be of lower priority with activities mainly associated with dunal stabilisation. The Rehabilitation Area SMA also identifies areas of medium and high priority for rehabilitation which have been selected on the basis of trying to preserve and enhance existing areas of intact vegetation, particularly those associated with littoral rainforests and coastal vine thickets which are a threatened ecological community.

Other threatened and significant species use the foreshore such as beach stone curlew, although it was found as part of this study that there was only limited information available to understand usage patterns and locations. Generally the less disturbed beaches to the north and south of the study area seemed to support a greater abundance of species such as cassowaries. Significant bird species were also sighted in areas of low disturbance associated with water environments adjacent the beach, such as creek entrances. Further information on usage types and patterns would assist in management planning.



LEGEND

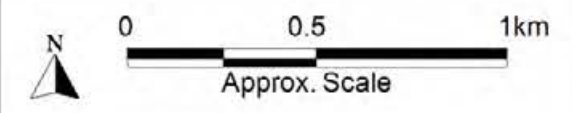
- Study Area
- Great Barrier Reef WHA
- Wet Tropics WHA
- High Ecological Value
- Mahogany Glider Corridor
- Cassowary Corridor
- Strategic Rehabilitation Area

Mapping layers are publicly available State and Federal mapping products

- Section A
- Section B
- Section C
- Section D

Title:
Environmental Legislative Constraints

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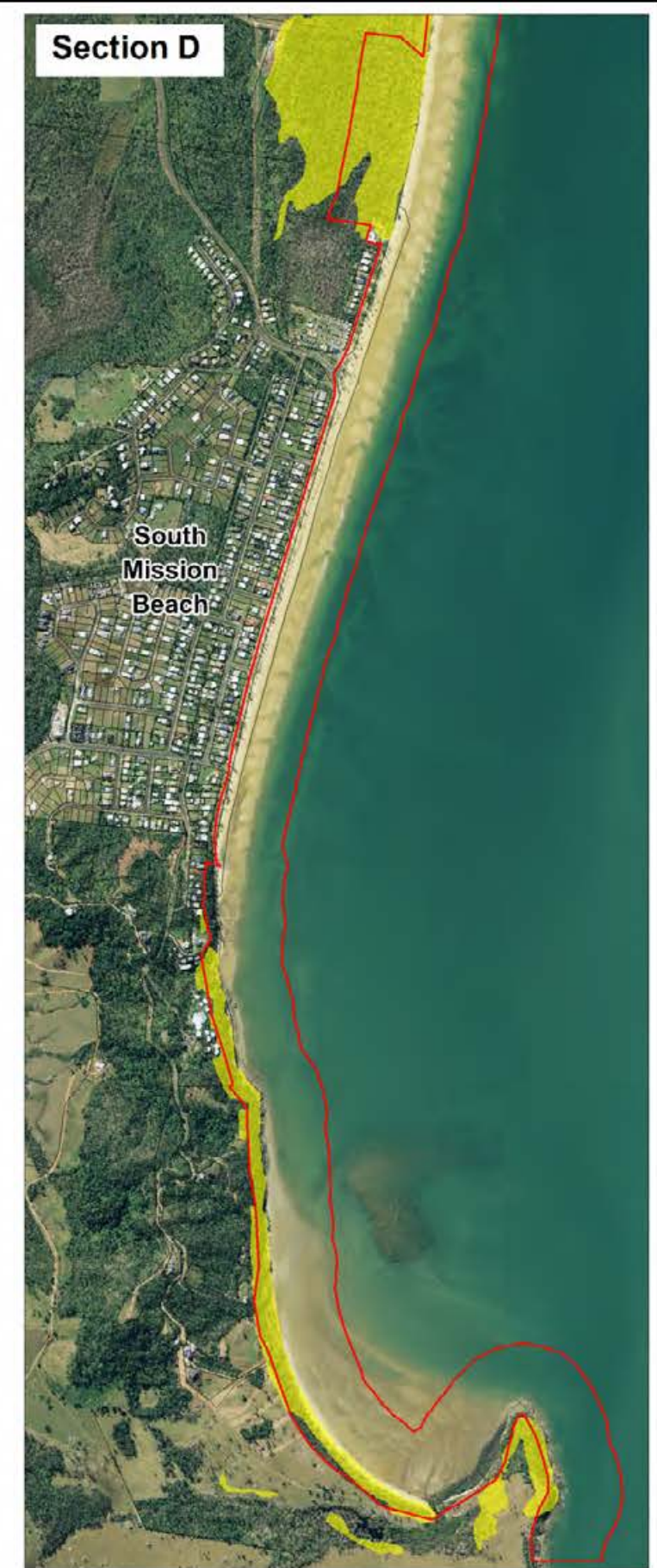
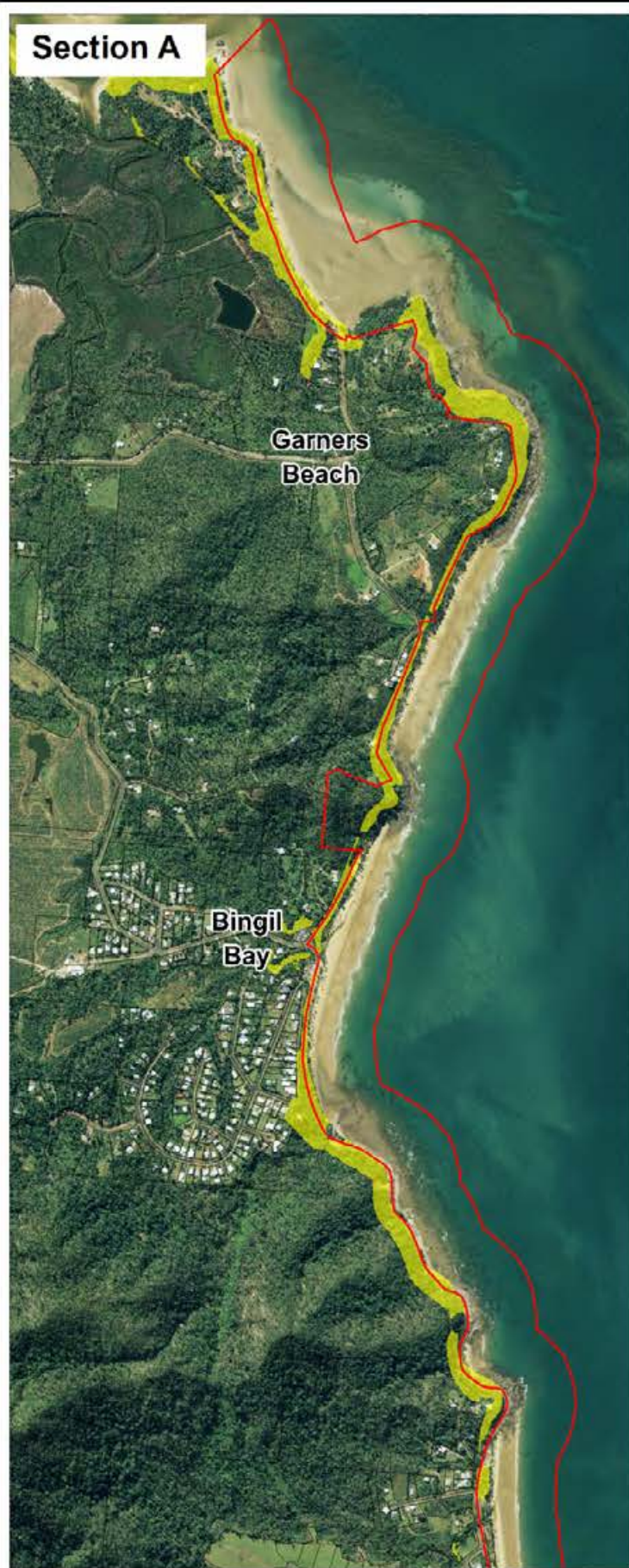


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Figure
C-3

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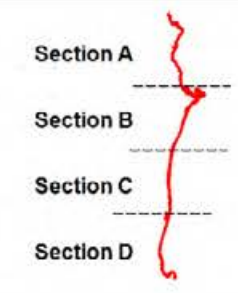




LEGEND

 Study Area

 Littoral Rainforest & Coastal Vine Thickets



Title:
Littoral Rainforest & Coastal Vine Thickets

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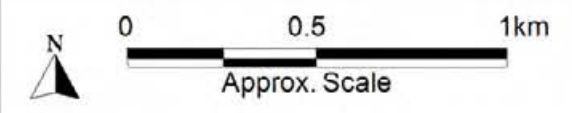


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Context Analysis for Greater Mission Beach Foreshore

C.5.2 Cultural Resources

FNQ NRM Inc (now Terrain NRM) commissioned a cultural heritage study of Mission Beach in 2007 (Girringun Aboriginal Corporation 2007). Key findings from that study in relation to items, places and location of indigenous and historic heritage for the Mission Beach area included in Table C-2 and where appropriate (noting that isolated sites of high value have not been represented) are shown in Figure C-4.

Table C-2 Assessment of Cultural Values - Mission Beach Area

Cultural Item	Significance Assessment (Indigenous)	Significance Assessment (Scientific)
Cultural Values		
Djiru – part of unique rainforest culture	High Significance	High Significance
Clump Point area	Very High Significance	Medium Significance
Clump Point fish traps	High Significance	High Significance
Clump Point ceremony grounds	Very High Significance	High Significance
Shell and artefact scatters	Medium Significance	Medium Significance
Mission Beach Township shell and artefact scatter	Medium Significance	High Significance
Natural Values		
Clump Point Basalt formations	High Significance	Very High Significance
Cassowary	Very High Significance	Very High Significance
Rainforest precinct	Very High Significance	Very High Significance
Seagrass	Very High Significance	Very High Significance
Historic values		
Hull River Aboriginal Settlement	Medium Significance	Very High Significance
Tam O'Shanter Point	Medium Significance	Medium Significance
Cutten Brothers Walk	Low Significance	Medium Significance
Historic jetty	Low Significance	Medium Significance

As outlined in the study, while there are difficulties inherent in the process of ascribing quantitative significance to indigenous cultural values, some useful measures were listed as follows (Girringun Aboriginal Corporation 2007):

'The Djiru people's sense of identity as 'rainforest people' is very strong and is demonstrated by their relations with their rainforest neighbours and their affinity with the rainforest environment.

Clump Point is universally seen by the Djiru people, both young and old, as a core place in their homeland, a hub of traditional life in pre-European times and a place today that they enjoy for its beauty, for its natural benefits and for the sense of connection to tradition and country that it brings to them.

Context Analysis for Greater Mission Beach Foreshore

The cultural components within the Clump Point area are seen as tangible expressions of connection. The fish traps on either side of Clump Point and the ceremony ground are seen to be very significant as they invoke potent images of traditional life. Shell and artefact scatters recorded in the area are seen as lesser though still significant evidence of connection. These oral history and material items have significant value to researchers.

The natural estate of the Mission Beach area is extremely significant to the Djiru people.

There is a unique affinity between the people and the rainforest that provided food, shelter and spiritual regeneration to their people. An integral part of this relationship is the highly visible and ubiquitous gunduy (cassowary) which is important to the health of both the people and the rainforest.

The Clump Point coastal basalt formations and their ecosystems are unique to the Wet Tropics Bioregion of North Queensland and are of extreme significance to the Djiru people as land managers and to researchers.

Places such as the Hull River Aboriginal Settlement and Tam O'Shanter Point, that connect with the Djiru people through historic incidents are also seen by the traditional owners as significant. They feel however that the wider community places an importance on these places that might subtract from other parts of their history.

Historic places which are seen as predominantly European constructs, such as the Cutten Brothers Walk and the historic jetty are seen as less significant. The Djiru recognise that these are places of significance to the wider community.'

Mapping under the Queensland Heritage Register and the draft Cassowary Coast Regional Council planning scheme has identified the following historic sites in or near the foreshore planning area:

- Garners Beach Burial Ground;
- Ninney Rise and John Büssst Memorial;
- Cutten Brothers Grave;
- Mission Beach Bingil Bay Progress Association Hall;
- Hull River Settlement Site; and
- However, in general, these sites are outside of the immediate foreshore area or are otherwise afforded protection under other legislation and planning controls.

Figure C-4 indicates where these sites are located in relation to the FMP study area.

Ninney Rise was the home of John Büssst who was a resident artist of the area (near Bingil Bay). In the 1960's he teamed up with other conservationists in the protection of the Great Barrier Reef and their work is credited with the ultimate formation of the Great Barrier Reef Marine Park (and the Marine Park Authority) in the 1970's (Turning the Tide, 2015).

C.5.3 Coastal Hazard Constraints

Under current legislation the erosion prone area is considered to be any area that is threatened by shoreline erosion in a 50 year planning timeframe and/or any area that may be inundated by HAT

Context Analysis for Greater Mission Beach Foreshore

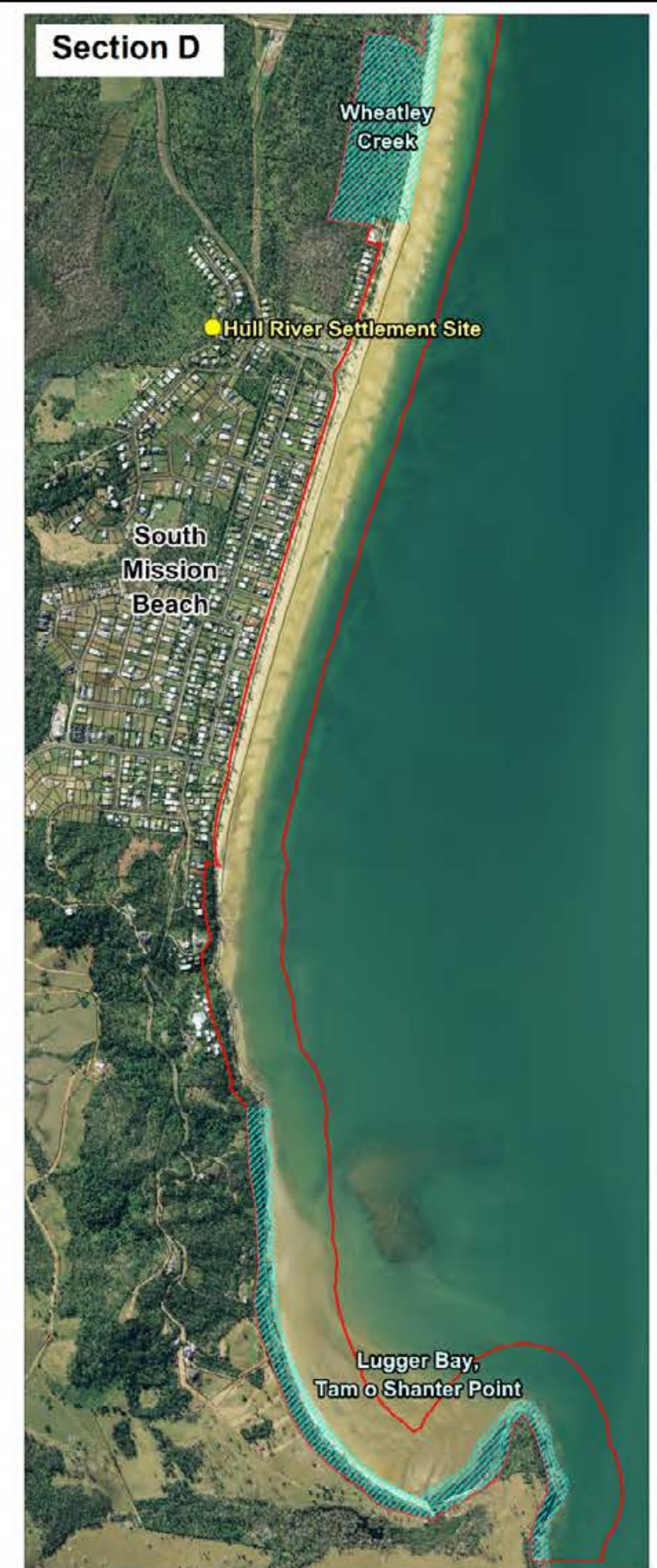
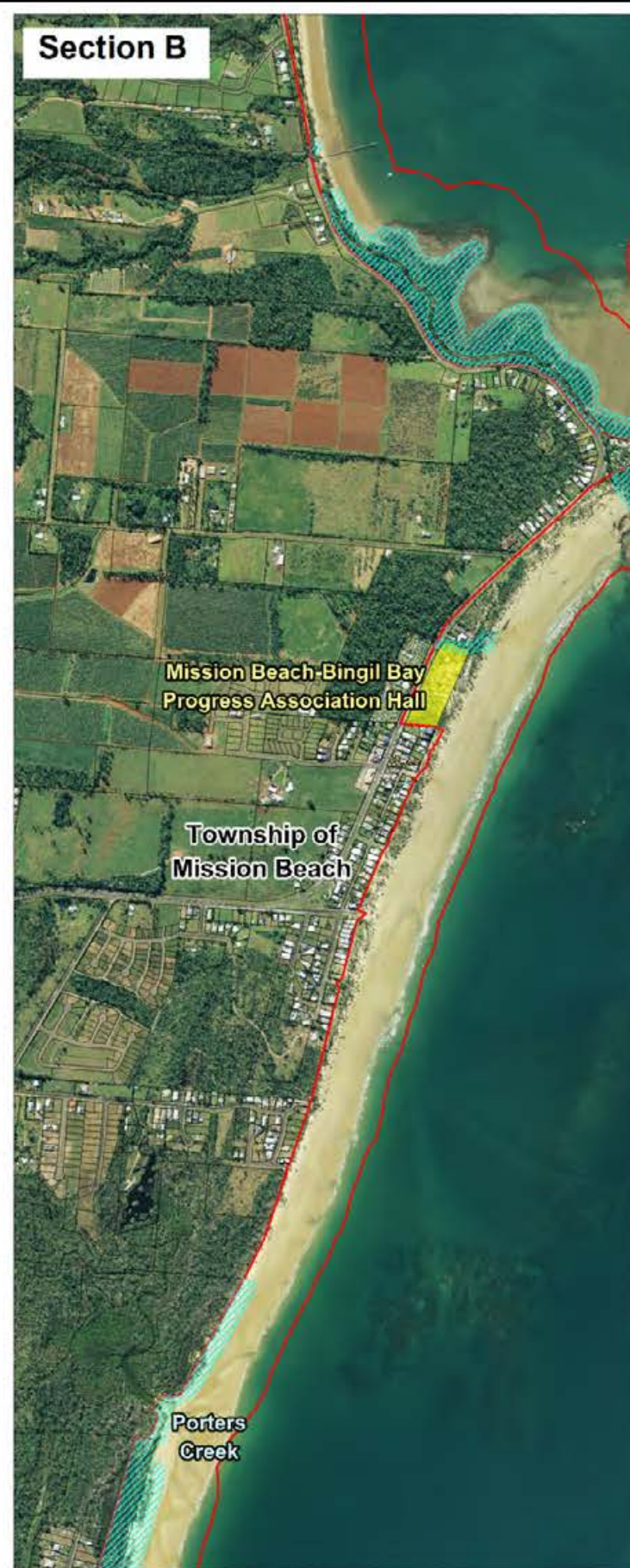
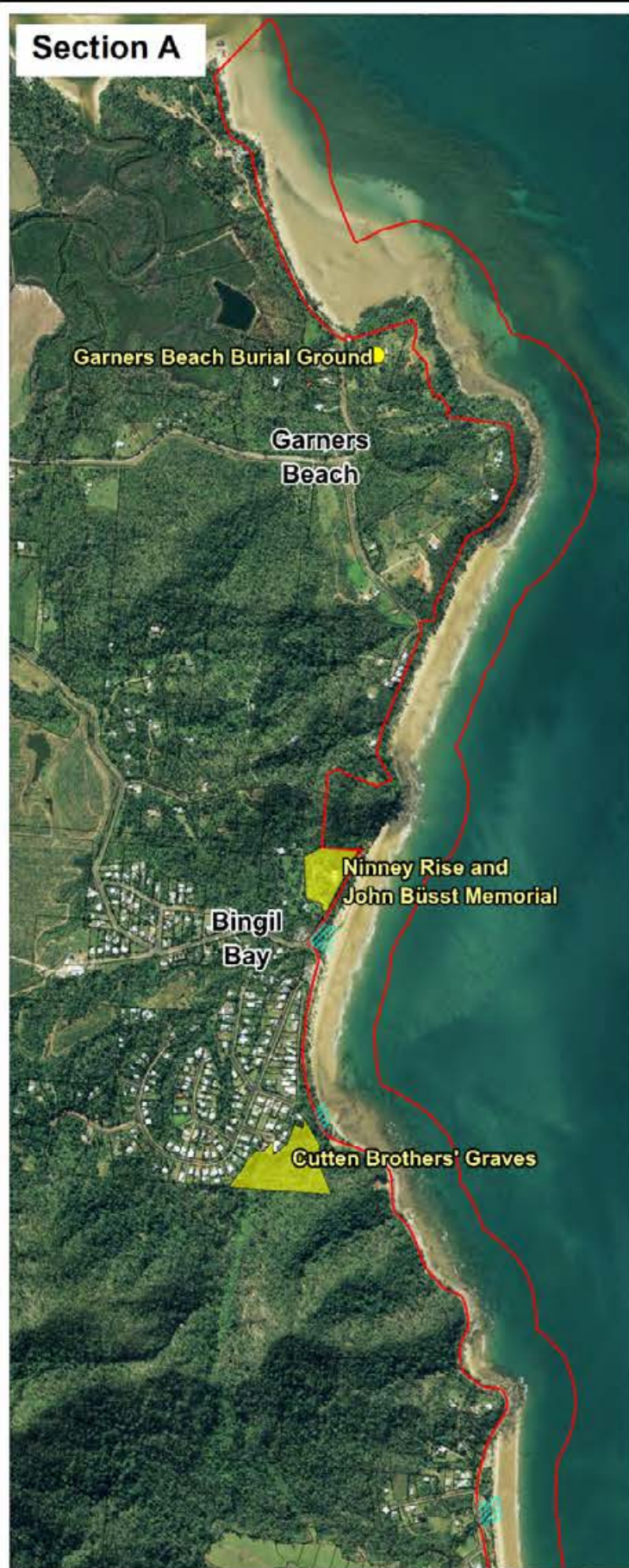
including predicted sea level rise (SLR) for 100 years (currently estimated to be 0.8 m). Also of consideration will be the area that is of High Inundation storm tide risk.

The current mapping has the shoreline erosion prone area generally at 165 m with some reductions down to 110 m in more protected areas. The HAT plus SLR is a contour at around 2.7 m AHD (1.91 m HAT + 0.8 m SLR) and generally covers the lower lying areas around creeks and coastal lagoons. The mapping also includes the High Risk Inundation line which is defined as the areas which experience over 1m inundation in a 1% AEP storm tide. This can be taken as around 3 m AHD but will vary with geographic location. Figure C-5 identifies coastal hazards relevant to the study area.

Generally all of the areas adjacent to the shoreline being considered in this project are within the erosion prone area (erosion and/or inundation) and most will be within the shoreline erosion prone area. It may be useful to consider the short term erosion component of the erosion prone area which will be around 40 m for the beaches with 165 m EPA with a reduction to 30 m for beaches with reduced EPA.

It is recommended that only the more easily removed infrastructure, e.g. swings, picnic tables may be located in this short term erosion prone area with more permanent infrastructure e.g. toilet blocks being located further back and on higher land outside on the inundation zone.

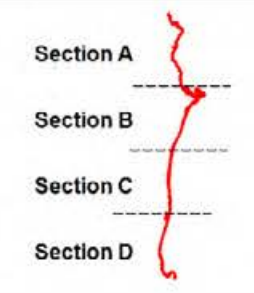
Council is currently completing a LGA wide review of coastal hazards and storm tide inundation which will harmonise and update existing modelling completed for the Johnstone and Cardwell Shires and it will be used to inform Council's future planning schemes.



LEGEND

- Study Area
- Heritage Sites
- Indigenous Sites*

** Note: Not all places of Indigenous Cultural Heritage Significance have been included on this drawing*



Title: **Areas of Indigenous and European Heritage Significance**

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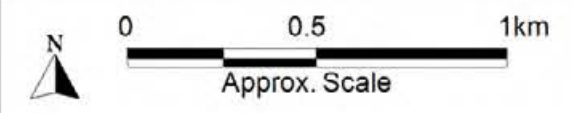
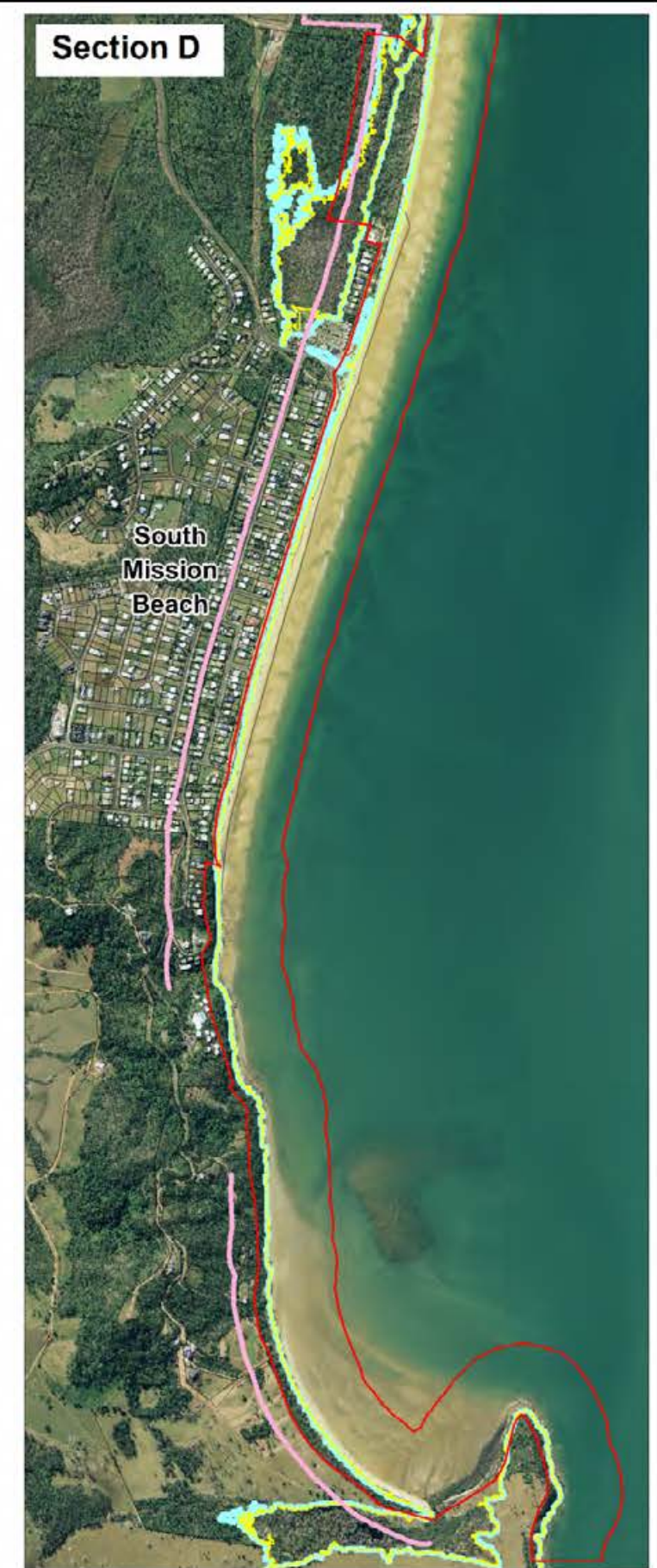
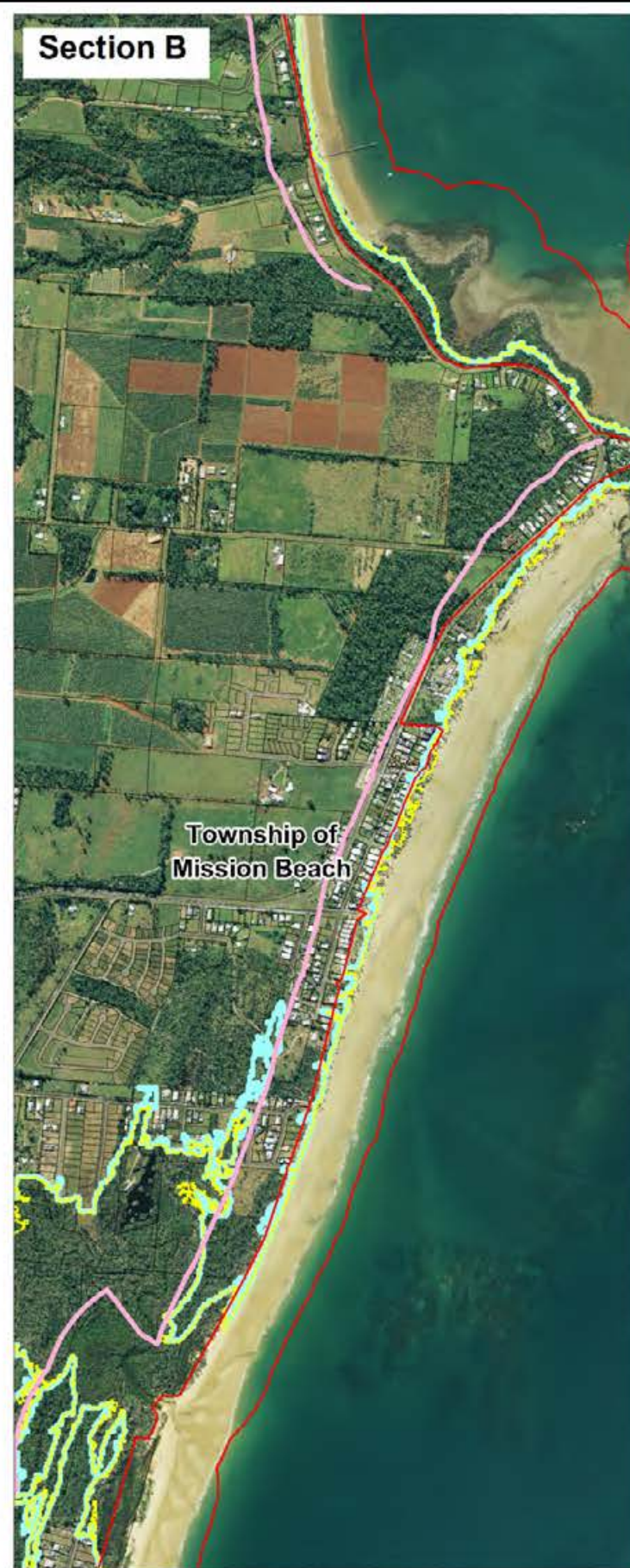
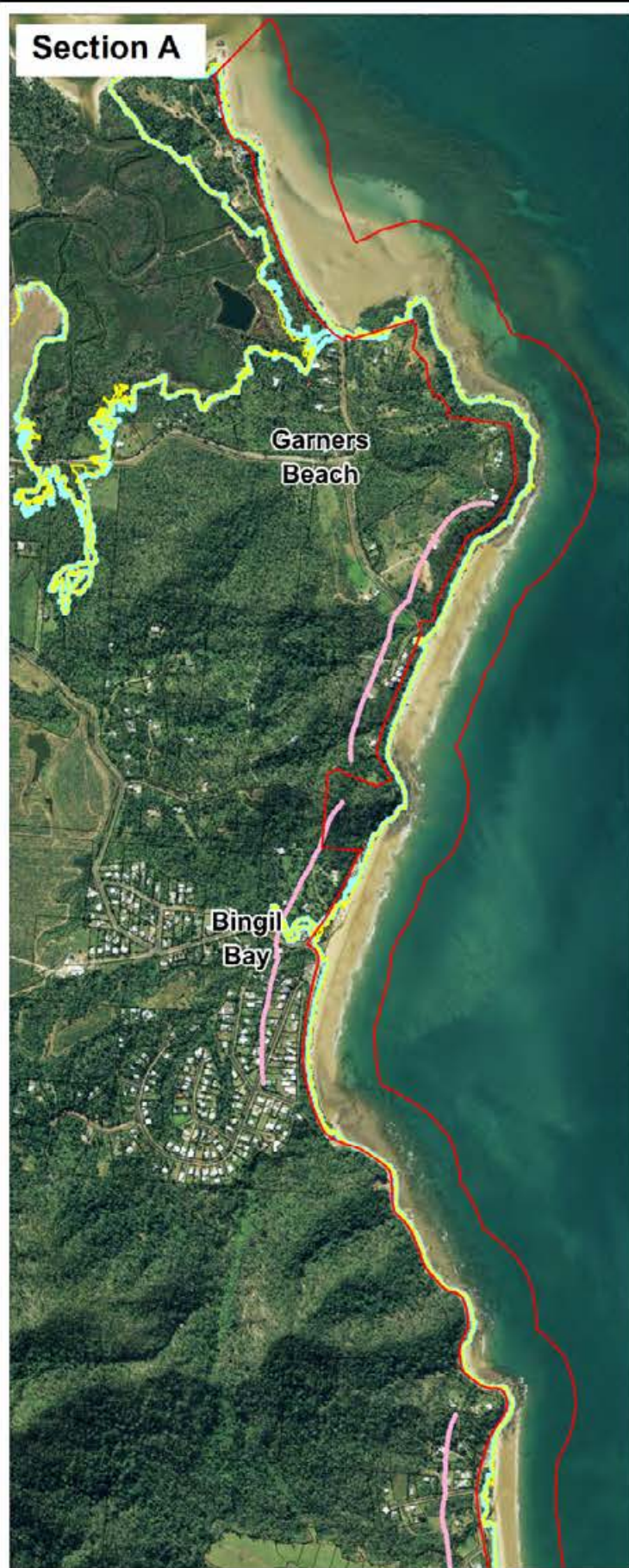


Figure **C-4** Rev: **A**

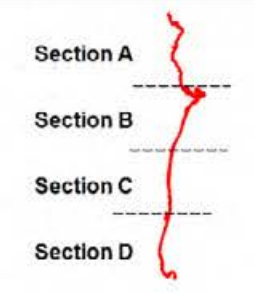


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LEGEND

	Study Area
	Erosion Prone
	Sea Level Rise
	Storm Tide High Risk



Title:
Coastal Protection Constraints

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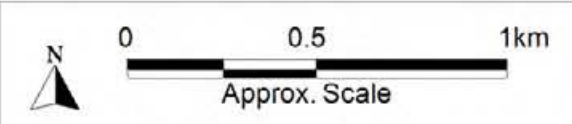


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C.5.4 Flood Constraints

BMT WBM has undertaken a range of flood studies within the Cassowary Coast (December 2012). The studies have focused on key townships throughout the shire, and areas where there are known flood issues.

Council has adopted a 1% Annual Exceedence Probability (or 100 yr) flood hazard categorisation based on the combination of velocity and depth. These hazards have been divided into ratings of Extreme, High and Low Hazard as shown in Figure C-6.

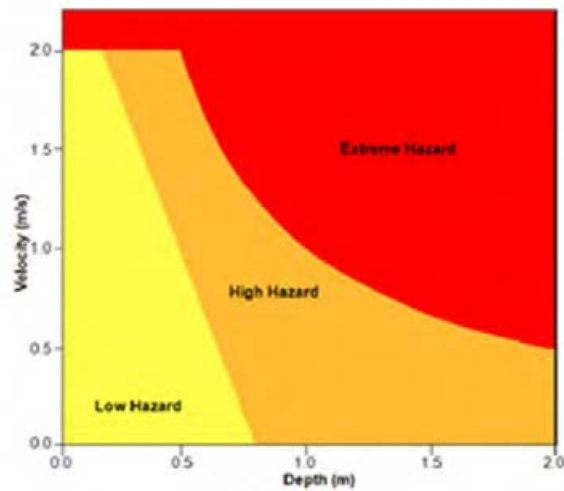


Figure C-6 Adopted Hazard Rating based on Flood Velocity and Depth

Context Analysis for Greater Mission Beach Foreshore

Development within Extreme Hazard areas should be avoided, as the velocity and depths are so high that there is a high likelihood that any infrastructure will be destroyed. For a High Hazard area, it is unlikely that the building or infrastructure will be destroyed, but contents will be at risk. In a high hazard area, people are at risk of being unable to keep their feet within flood waters. The risk to development in these areas should be considered before building within them. In a Low Hazard area, adults are likely to be able to wade, and there will be minimal damage to building contents. There is low risk to people and infrastructure in these areas.

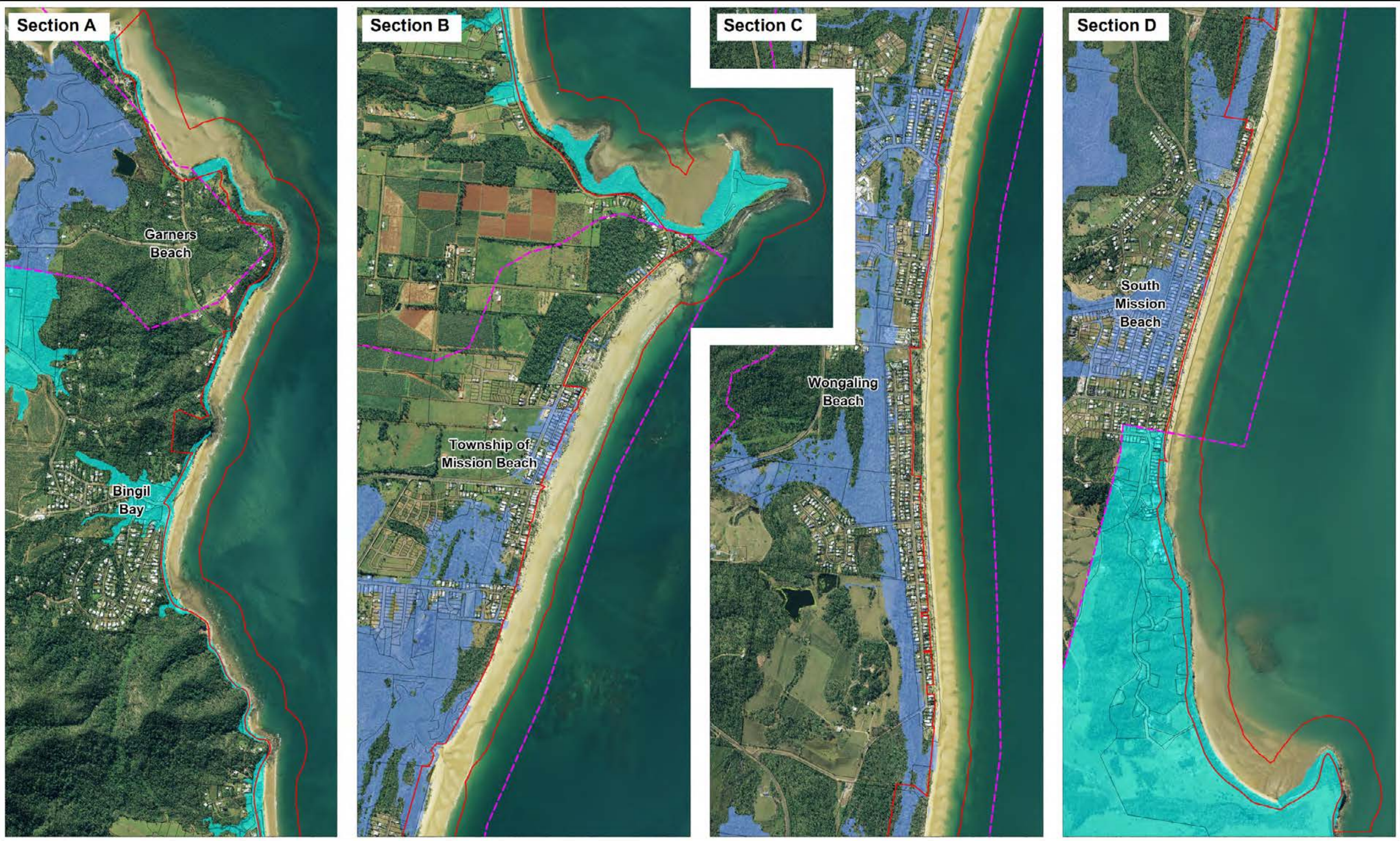
The area of interest is mostly covered by existing flood models and studies, excluding Bingil Bay as shown in Figure C-7. The results are discussed as follows:

- Maria Creek (i.e. Garners Beach area) – The overland flood waters have minimal impact on the properties or infrastructure within the area.
- Wongaling Creek (i.e. Mission Beaches) - The flood behaviour within Mission Beaches is characterised by a quick catchment response. This means that there is limited warning time before a flood event occurs. Properties within Mission Beach, Wongaling Beach and South Mission Beach are affected by flooding in events equal to and greater than the 20% AEP event (or 1 in 5 year event). In the Mission Beaches area, the main hazard (high depth and/or velocity) area is along Wongaling Creek, particularly near the creek mouth. Flooding within Wongaling Beach and South Mission Beach is typically to the west of the remnant dune. The flooding within Mission Beach is mainly along the creek and inundating low areas next to the creek. Velocities in the area are typically less than 1.5 m/s. There are localised areas of high velocity scattered through the catchment, mainly close to river/creek entrances to the ocean. Any planned development in these areas should take into account these velocities.

C.5.5 Bushfire Risk

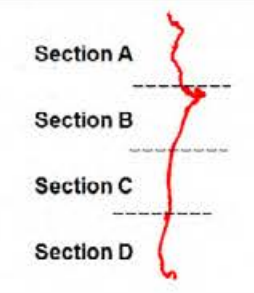
As shown in Figure C-8, undeveloped, vegetated areas of the foreshore in Greater Mission Beach are generally identified as having bushfire risk based on the State Bushfire Hazard Mapping (which Council uses to map these hazard risk areas). This is particularly the case in the far northern and far southern areas of the planning area, noting the influence of previous cyclones has greatly reduced the fuel load in some areas.

Risk of bushfire along the foreshore is managed in the context of maintenance and mowing as well as through the restriction of camp fires. In general, bushfire risk is considered low.



LEGEND

	Study Area
	Flood Modelling Extent
	Q100 Flood Extent
	Potential Flood Hazard



Title:
Flood Hazard Constraints

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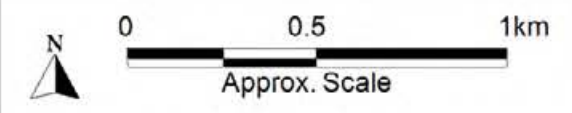
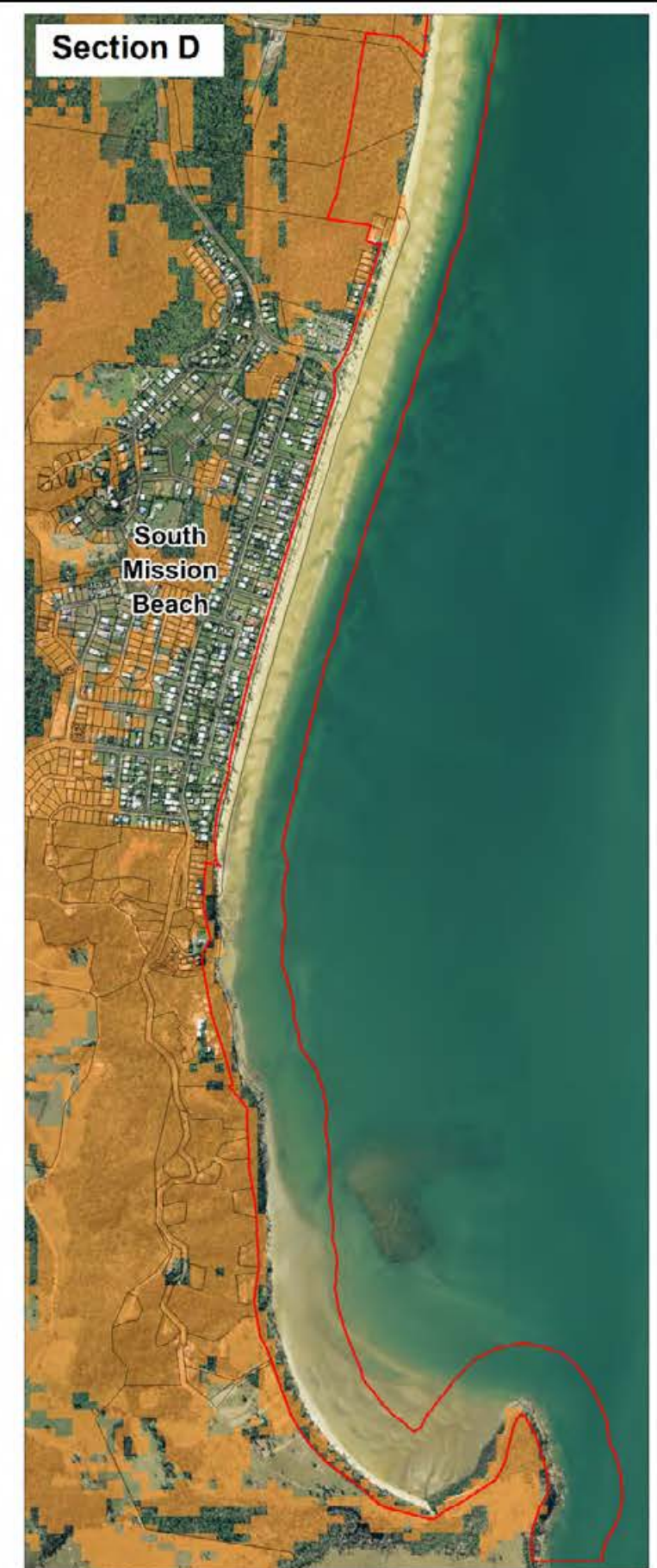
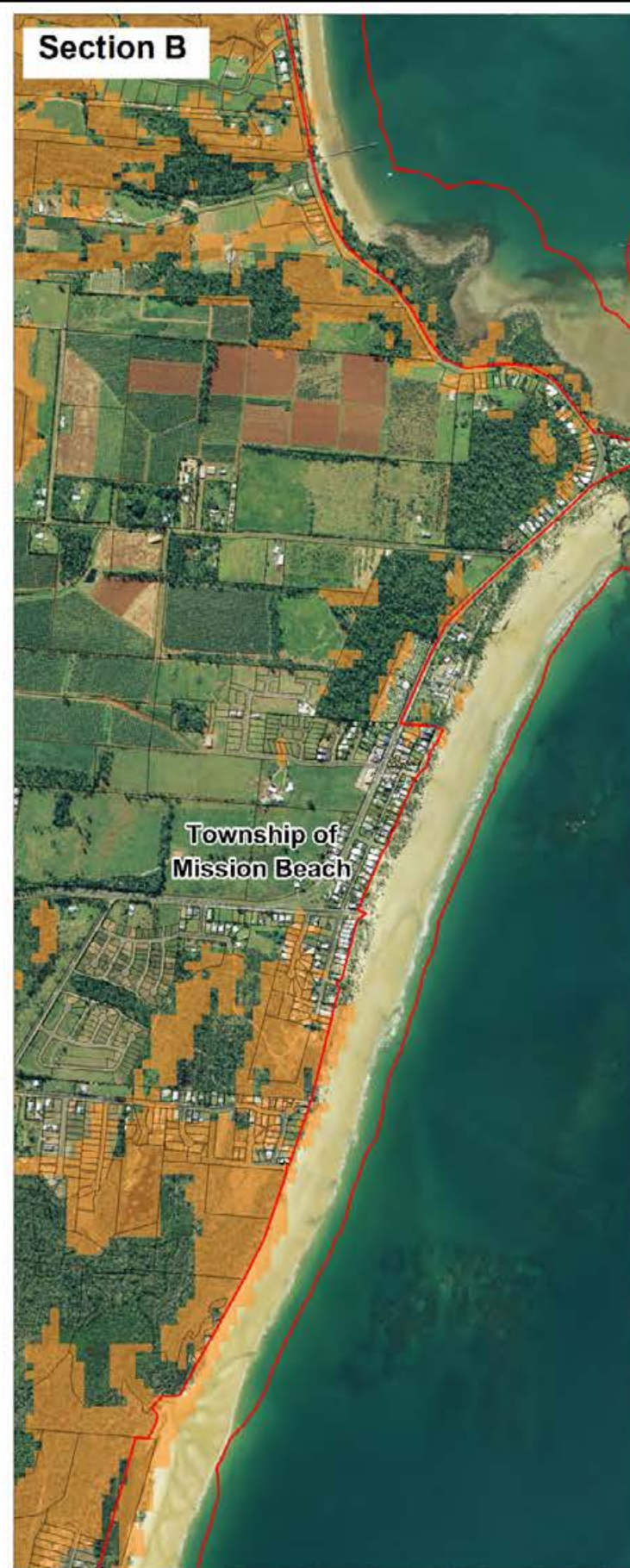
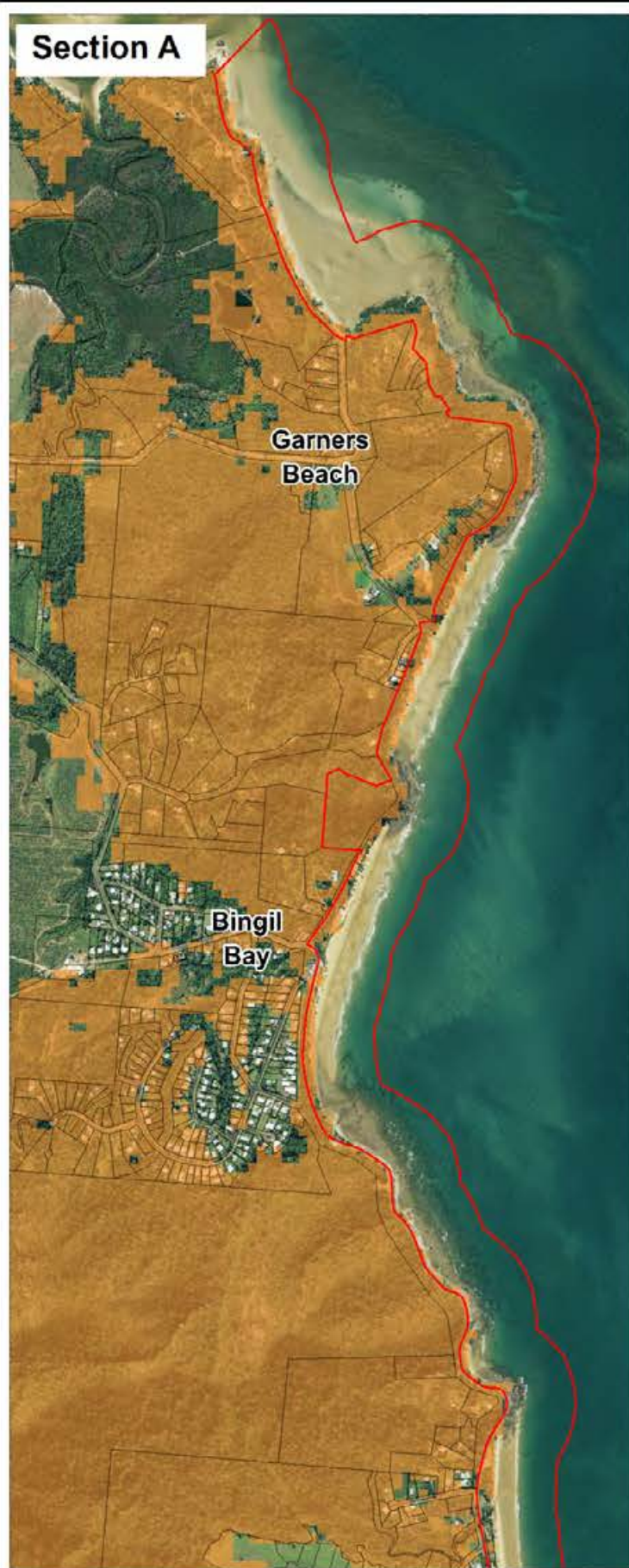


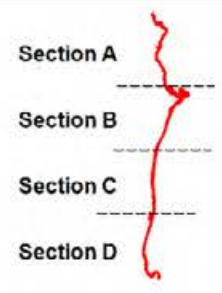
Figure C-7	Rev: A
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LEGEND

 Study Area

 Bushfire Risk



Title:
Bushfire Hazard Constraints

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Context Analysis for Greater Mission Beach Foreshore**C.5.6 Landslip Risk**

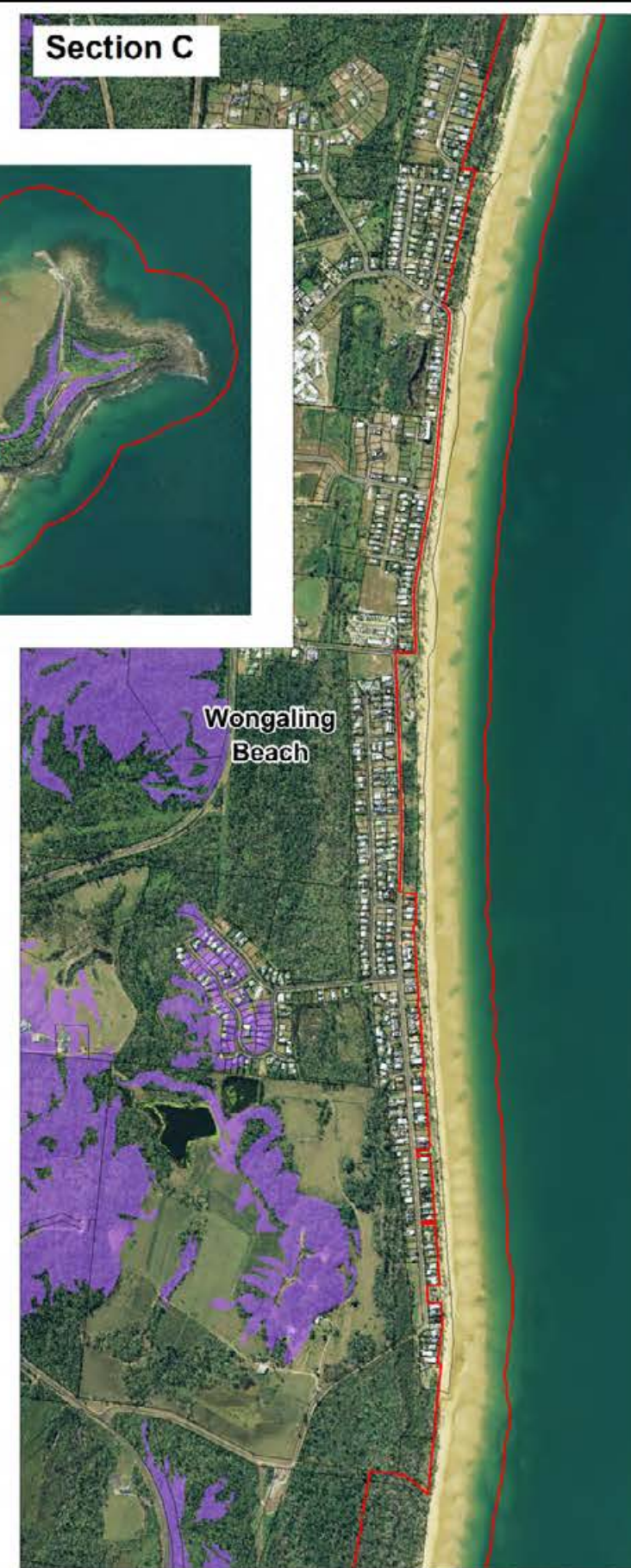
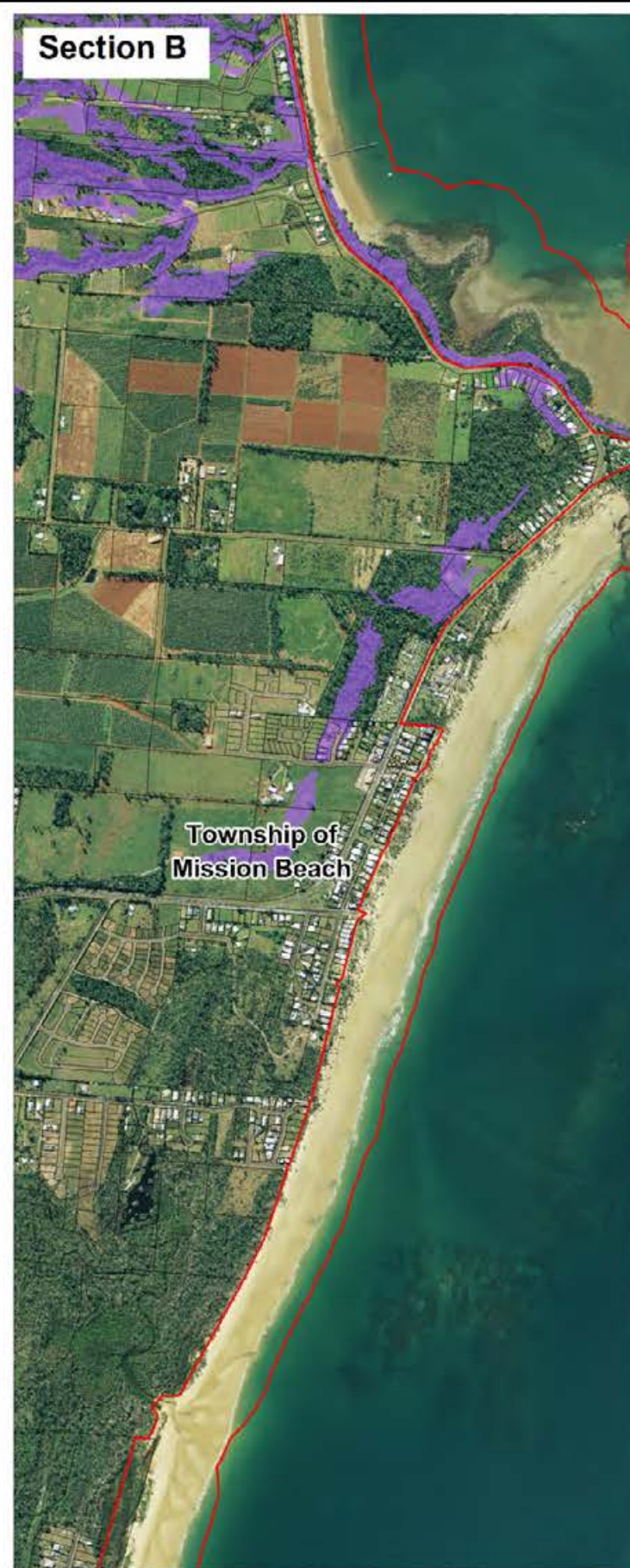
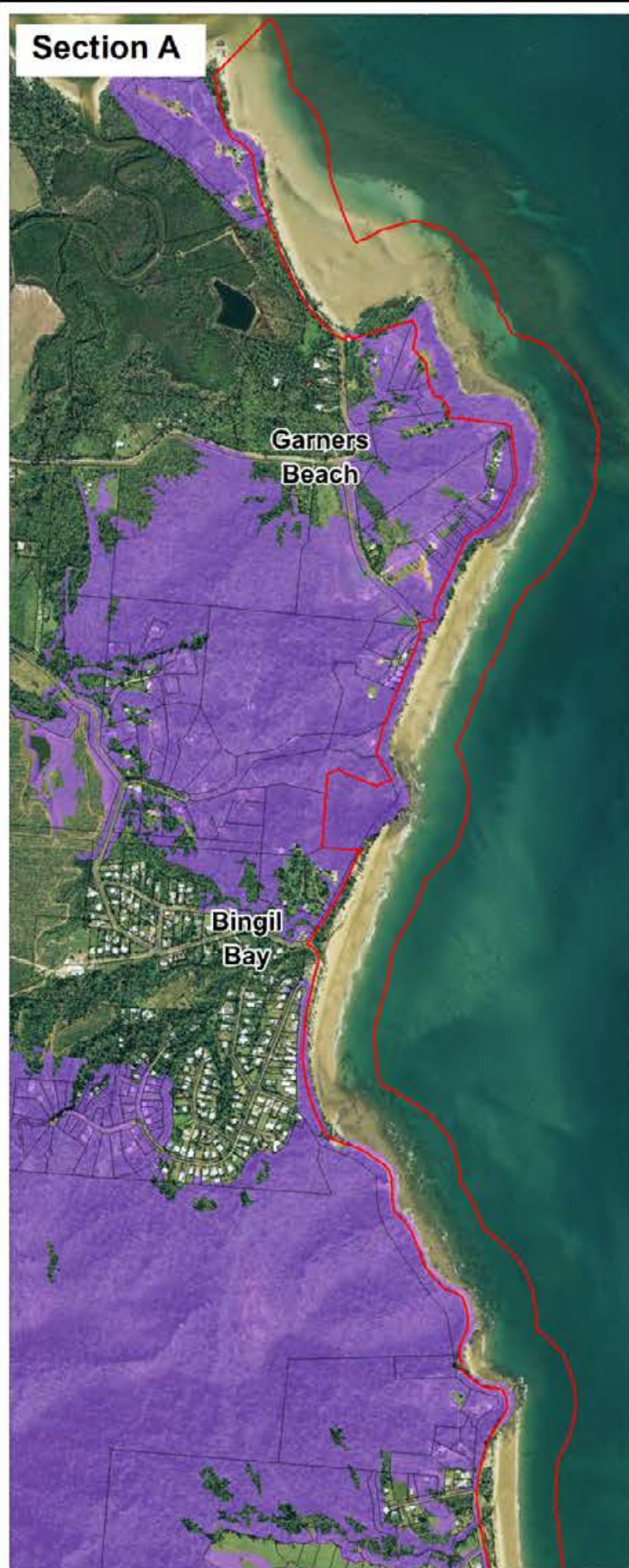
Landslip risk based on Council hazard mapping along the foreshore is shown in Figure C-10.

The risk is most significant in the northern foreshores of the planning area north and south of the village of Bingil Bay and in the higher relief southern section of the planning area (south from Lover's Beach).

Council monitors and manages landslip events as they arise noting the need to ensure public safety, protect homes and buildings and minimise damage to other assets. A good example of recent landslip along the foreshore is shown in Figure C-9 near to the boardwalk track at Lovers Beach (start of the Kennedy track).



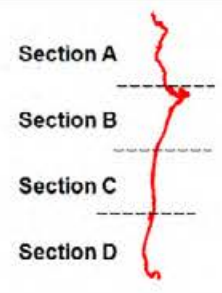
Figure C-9 Example of Landslip (right side of photograph)



LEGEND

Study Area

Landslip Hazard



Title:
Landslip Hazard Constraints

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Context Analysis for Greater Mission Beach Foreshore

C.5.7 Implications of Future Climate Change

The Wet Tropics Management Authority produced a special climate change report as part of its State of the Wet Tropics Report in 2008. The report detailed the impacts of climate change on the Wet Tropics World Heritage Area and suggested responses to mitigate the potential damage to the Area and its fauna and flora.

In addition to expected rises in sea level as outlined above, climate projections for the Wet Tropics indicate the likely changes as follows (WTMA 2008):

- Temperature may increase by 1.4 °C by 2030 and 4.2 °C by 2070 under high emission scenarios.
- Rainfall is predicted to become more seasonal with a wetter wet season and a longer, drier dry season.
- Cyclone intensity is predicted to be greater, creating risks of more frequent major ecosystem disruption as witnessed after Cyclone Larry.
- The El Niño phenomenon is predicted to occur more frequently, causing more frequent droughts and increasing the risk of bushfire.

As large areas of the foreshore are contained within the erosion prone area and are subject to potential storm tide inundation, future use of the foreshore and adjoining areas particularly in the context of the design of permanent buildings and structures need to be carefully considered. The combined effect of sea level rise and more intense cyclonic activity will only exacerbate existing risks from erosion and extreme weather events.

Increased cyclonic events and storm related tidal inundation will also affect the natural values of the foreshore as evidenced by the current condition of foreshore vegetation communities following successive large cyclones.

While normal tidal inundation can be beneficial to control weeds and other pest species that are less salt tolerant compared to native species in dune areas, damaging events will reduce the stability and resilience of dune areas leading to the need for greater active rehabilitation and restoration to control wind and wave erosion.

Appendix D Mapping Methodology and Criteria for FMU and SMA Regions

Foreshore Management Units

The delineation of FMUs has been based on assessment of the following factors, issues, values and characteristics:

- Planning scheme intent and how the foreshore is influenced by adjacent land uses;
- Extent of existing physical development or structures present (e.g. parks, accesses, etc);
- Extent and type of existing use; and
- Areas proposed or likely to experience intensification of usage or development pressure.

Generally, the following can be stated about the FMUs:

- Natural Beach and Foreshore Areas experience the lowest human use and are located adjacent areas of extensive existing natural foreshore vegetation;
- Open Space Areas buffer Natural Beach and Foreshore Areas from adjacent higher use areas. Open Space areas are modified areas with some existing natural values and are subject to low to moderate human use;
- Developed Parkland areas exist adjacent to existing designed foreshore park areas and include the stinger net swimming enclosures; they are extensively modified but have some existing natural values and tend to be subject to higher use levels; and
- Tourism park areas exist adjacent to existing designated foreshore caravan and camping parks.

Special Management Areas

The delineation of SMAs has been based on assessment of the following factors, issues, values and characteristics:

- Tenure of land including presence of conservation estate and protected areas;
- Areas proposed for capital works projects or investment by Council;
- Values in terms of:
 - recreational use – beaches or parks used/cherished by the locals;
 - economic/tourism value – specific beach or area that is regionally recognised by holiday makers and draws the crowds during public holidays etc;
 - scenic amenity or landscape character – vantage points, views, aesthetic features;
 - cultural heritage significance;
 - natural values such as habitat for threatened species and/or the presence of regional ecosystems, condition and wildlife usage and corridors. It should be noted that the FMP

Mapping Methodology and Criteria for FMU and SMA Regions

has utilised limited information about significant species usage patterns and locations of the foreshore;

- Degree that land is constrained (such as coastal hazards, flood hazards, land slip and bushfire risk); and
- Public safety risk of using the land.

Generally, the following can be stated about the SMAs:

- Heritage Protection Areas – encompass areas of high natural values, scenic amenity, landscape character and cultural heritage significance. Examples include the Wet Tropics WHA where it crosses the study area, the most undisturbed and hence natural beaches of the study area, known areas of European and Aboriginal cultural heritage.
- Nature Based Recreation Areas – essentially encompasses existing areas of known high nature based recreational use including the iconic tracks/trails of the study area and selected other areas that may be suitable in the future for natural based recreation pursuits due to lower levels of conflict with existing uses.
- High Recreation and Commercial Areas – represent locations of existing and preferred future use for a variety of usage types such as swimming, dog walking, commercial horse riding, parachuting, caravanning/camping and park use. This data has been obtained from a variety of sources. This SMA category also identifies locations for preferred dog walking on beaches and preferred locations for commercial horse riding. Preferred dog use areas have been identified by providing a section of foreshore that already experiences moderate use and is not in a “Natural Beach and Foreshore” FMU. Preferred commercial horse beaches have been selected to occur “Open Space Areas” as these areas currently experience low to moderate use levels (presenting lower opportunity for human usage conflicts) and are already modified from their natural condition (presenting lower opportunity for natural value conflicts).
- Special Facilities – represent existing dedicated maritime infrastructure.
- Rehabilitation Areas – these boundaries developed in consultation with Council represent areas for future rehabilitation. The categorisation of priority has taken into a range of factors including existing condition and continuity of vegetation, current and future value of the vegetation for habitat, current and future value of the habitat in managing coastal processes (e.g. dune stabilisation) and existing human and fauna usage level and types (where available). Other factors have also been considered such as the likely success of rehabilitation efforts which will vary due to cost/effort required to efficient quality rehabilitation and community support for these efforts noting that rehabilitation has previously been resisted in some locations due to issues relating to loss of coastal amenity.

The classifications, areas and maps also reflect observation of the authors during site visits and feedback provided by both Council officers, VARG and Djiru Traditional Owners as part of the consultation process on the draft plan. It is expected that over time subtle modifications to the boundaries will occur to account for the evolving use and knowledge base in respect of the foreshore zone.



BMT WBM Bangalow
6/20 Byron Street Bangalow 2479
Tel +61 2 6687 0466 Fax +61 2 66870422
Email bmtwbm@bmtwbm.com.au
Web www.bmtwml.com.au

BMT WBM Brisbane
Level 8, 200 Creek Street Brisbane 4000
PO Box 203 Spring Hill QLD 4004
Tel +61 7 3831 6744 Fax +61 7 3832 3627
Email bmtwbm@bmtwbm.com.au
Web www.bmtwml.com.au

BMT WBM Denver
8200 S. Akron Street, #B120
Centennial Denver Colorado 80112 USA
Tel +1 303 792 9814 Fax +1 303 792 9742
Email denver@bmtwbm.com
Web www.bmtwbm.com

BMT WBM London
1st Floor, International House
St Katherine's Way London E1W1TW
Email london@bmtwbm.co.uk
Web www.bmtwbm.com.au

BMT WBM Mackay
Suite 1, 138 Wood Street Mackay 4740
PO Box 4447 Mackay QLD 4740
Tel +61 7 4953 5144 Fax +61 7 4953 5132
Email mackay@bmtwbm.com.au
Web www.bmtwbm.com.au

BMT WBM Melbourne
Level 5, 99 King Street Melbourne 3000
PO Box 604 Collins Street West VIC 8007
Tel +61 3 8620 6100 Fax +61 3 8620 6105
Email melbourne@bmtwbm.com.au
Web www.bmtwbm.com.au

BMT WBM Newcastle
126 Belford Street Broadmeadow 2292
PO Box 266 Broadmeadow NSW 2292
Tel +61 2 4940 8882 Fax +61 2 4940 8887
Email newcastle@bmtwbm.com.au
Web www.bmtwbm.com.au

BMT WBM Perth
Suite 6, 29 Hood Street Subiaco 6008
Tel +61 8 9328 2029 Fax +61 8 9486 7588
Email perth@bmtwbm.com.au
Web www.bmtwbm.com.au

BMT WBM Sydney
Level 1, 256-258 Norton Street Leichhardt 2040
PO Box 194 Leichhardt NSW 2040
Tel +61 2 8987 2900 Fax +61 2 8987 2999
Email sydney@bmtwbm.com.au
Web www.bmtwbm.com.au

BMT WBM Vancouver
Suite 401, 611 Alexander Street
Vancouver British Columbia V6E 3W1 Canada
Tel +1 604 683 5777 Fax +1 604 608 3232
Email vancouver@bmtwbm.com.au
Web www.bmtwbm.com