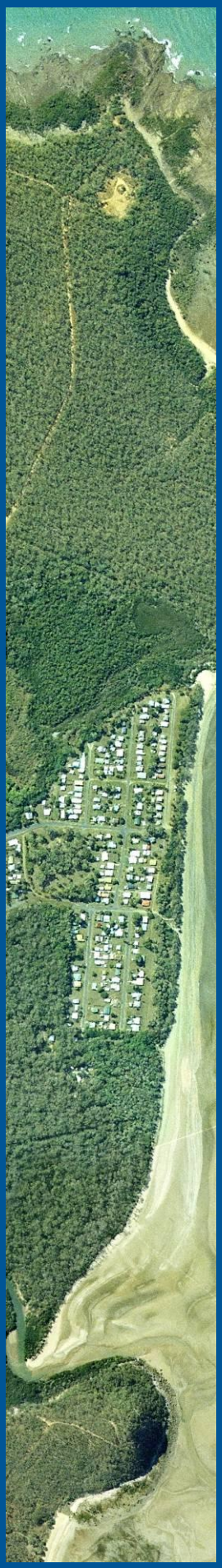

Mackay Coasts and Communities

Midge Point

Beach Plan

2010

Mackay Regional Council

Reef Catchments Mackay Whitsunday Inc

Caring for Our Country

Queensland Government

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1. Beach unit description

The Midge Point beach unit covers approximately 9.5 kilometres of coastline from the Midge Point Esplanade in the north to Yard Creek in the south (Figure 1). The unit includes three separate stretches of sandy beach; approximately 800 metres along Midge Point Esplanade in the north, a 700 metre long beach curving between two headlands on the Point, and a 1.8 kilometre stretch in front of the Midge Point residential settlement. The remainder of the coastline includes extensive mangrove fringes, a mangrove-filled bay, rock flats, and low headlands.

A large area of land on the Point is State Land under the management of the Department of Environment and Resource Management and has no zoning allocated in the current planning scheme (Figures 2, 3). Remaining government-owned coastal lands are either Esplanade or Reserve tenure, and zoned as Open Space, under the management of Mackay Regional Council. A National Park (Bloomsbury Conservation Park) of approximately 3 ha exists 600 metres from the residential foreshore. Freehold tenured land within the Midge Point beach unit is variously zoned as Village, Rural, and Rural Residential.

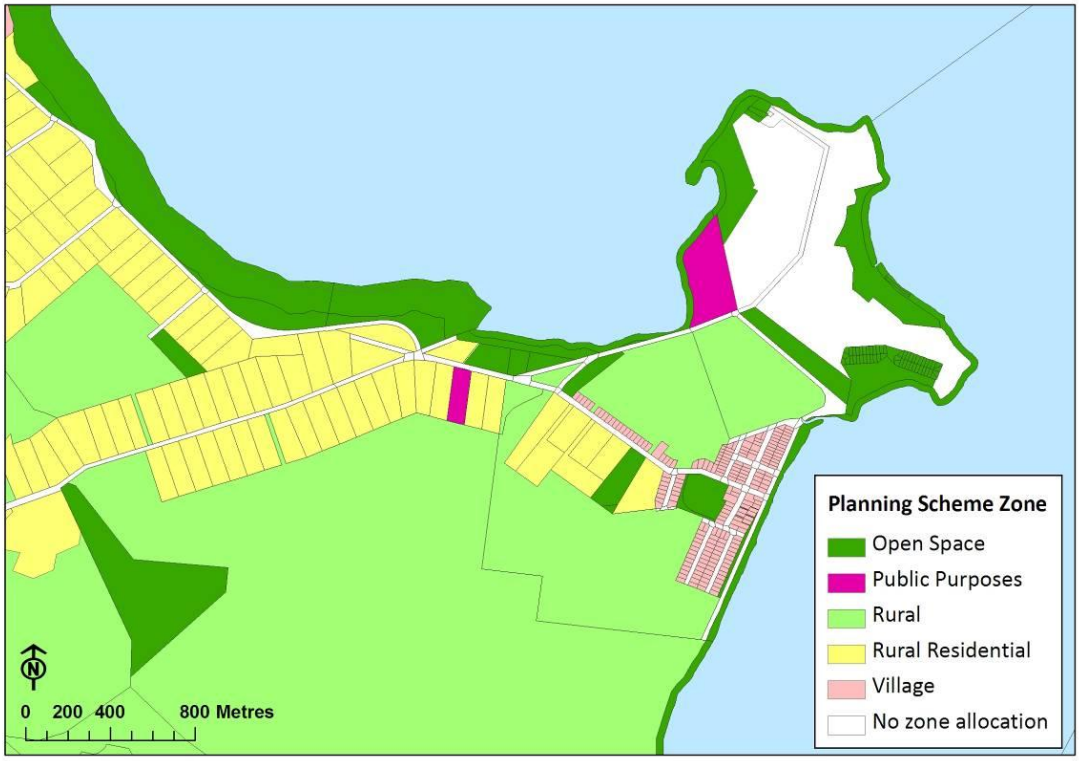
Figure 1: Extent of Midge Point beach unit

ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004 supplied by Mackay Regional Council.

Figure 2: Land tenure Midge Point beach unit

ACKNOWLEDGMENTS: Digital Cadastral Data 2008 supplied by Mackay Regional Council.

Figure 3: Planning scheme zonation Midge Point beach unit



ACKNOWLEDGMENTS: Planning Scheme Zone Data 2008 supplied by Mackay Regional Council.

2. Conservation and Management Issues

2.1 Vegetation

2.1.1 Remnant vegetation

Nearly 150 ha of remnant vegetation remains on government coastal land in the Midge Point beach unit (Table 1, Figure 4). The largest portion of this is located on the Midge Point headland and is Eucalypt woodland (RE 8.12.20a) listed as 'of concern' biodiversity conservation status. The eastern side of Midge Point has approximately 7 ha of 'critically endangered' microphyll vine forest on coastal dunes (*Environment Protection and Biodiversity Conservation Act EPBC, 1999*). The condition of remnant vegetation on the Point is threatened by weed invasion, waste dumping, and vehicle and pedestrian access from Jimmys Rock Road.

The coastal Esplanade to the north west of Midge Point also maintains significant remnant vegetation. This includes approximately 5 ha of nationally 'critically endangered' microphyll vine forest (beach scrub) (*EPBC Act*, 1999), and 26 ha of 'endangered' (*Queensland Vegetation Management Act, 2005) Melaleuca viridiflora* woodland. Opportunities exist to expand and protect these communities through weed management, and rehabilitation of adjacent, disturbed dune vegetation. Extensive mangrove and salt flat communities stretch from the north-western Esplanade, around Midge Point headland, to the northern boundary of the residential beach front (Figure 4).

Remnant vegetation has been removed from the residential frontage, and pre-clearing mapping shows that this area was previously a combination of eucalypt and acacia open forest with beach scrub understorey (Environmental Protection Agency, 2003).

The tract of remnant vegetation at Midge Point has previously been identified as a core vegetation management unit for conservation and protection (Cooper, Turnbull, Kingston, Hall, Champion, 2001). Given the extent, significance, and continuity of remnant vegetation remaining in the Midge Point beach unit, planning scheme and tenure should be amended to afford it increased protection.

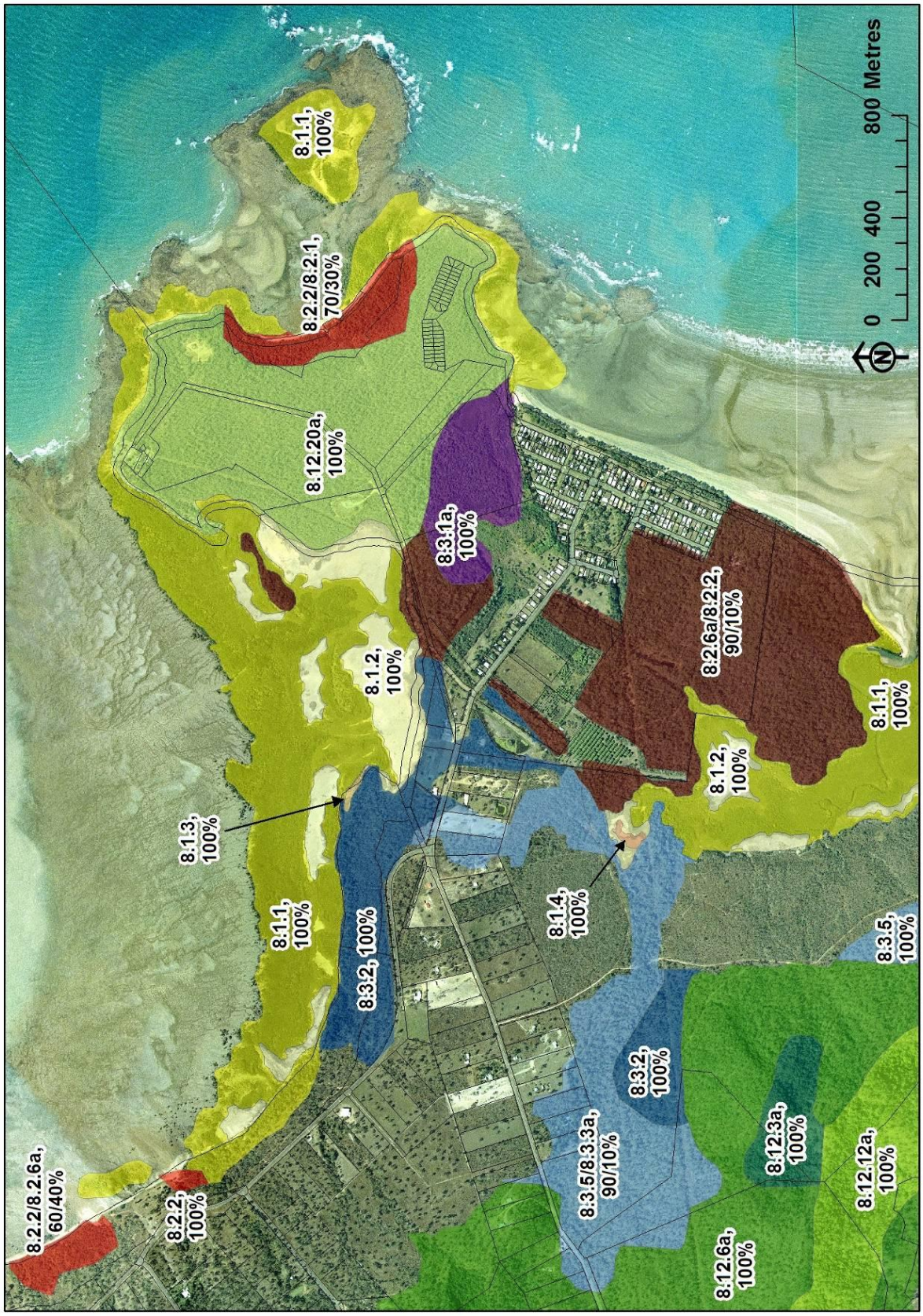
A bushfire is an uncontrolled fire burning in forest, scrub or grassland vegetation and may occur in most vegetation types in Queensland where there is a fuel path of sufficient dryness to be flammable (Queensland Government, 2003). State Planning Policy 1/03 under the *Sustainable Planning Act 2009* deals with the mitigation of adverse impacts of bushfire, and includes a natural hazard assessment for bushfires and the subsequent provision of safety buffers. According to this policy, a low hazard score and no prescribed safety buffer width is allocated to "narrow strips of coastal vegetation with a linear shape, less than 50 hectares in area and more than one kilomere from the nearest extensive vegetation, on 0-5% slope, with an eastern aspect" (Queensland Government, 2003). All rehabilitation activities undertaken as part of this plan will be done so with consideration of this State Planning Policy.

Table 1: Remnant vegetation (Regional Ecosystem) communities at Midge Point

RE (Regional Ecosystem)	Short description (Environmental Protection Agency, 2005)	Approximate area (ha) on Coastal Reserve, Esplanade and State Land tenure	Veg Mgt Act status 2005	Biodiversity status	EPBC Status
8.1.1	Mangrove vegetation of marine clay plains and estuaries. Estuarine wetland.	7.5 ha	Not of concern	No concern at present	n/a
8.1.2	Samphire open forbland to isolated clumps of forbs on saltpans and plains adjacent to mangroves.	5 ha	Not of concern	Of concern	n/a
8.1.3	*Sporobolus virginicus* grassland on marine sediments.	0.5 ha	Of concern	Of concern	n/a
8.2.1	*Casuarina equisetifolia* open-forest to woodland with *Ipomoea pes-caprae* and *Spinifex sericeus* dominated ground layer, on foredunes.	4 ha	Of concern	Of concern	n/a
8.2.2	Microphyll vine forest on coastal dunes.	13.5 ha	Of concern	Endangered	Critically Endangered
8.2.6a	*Corymbia tessellaris* ± *Acacia leptocarpa* ± *Banksia integrifolia* ± *Melaleuca dealbata* ± beach scrub species open forest on coastal parallel dunes.	5 ha	Of concern	Of concern	n/a
8.3.2	*Melaleuca viridiflora* woodland often with emergent eucalypts and grassy/herbaceous ground layer, on seasonally inundated alluvial plains with impeded drainage.	26 ha	Endangered	Endangered	n/a
8.12.20a	*Eucalyptus drepanophylla* and/*or E. platyphylla* ± *Corymbia clarksoniana* ± *C. dallachiana* woodland on low gently undulating landscapes on Mesozoic to Proterozoic igneous rocks.	85.5 ha	Not of concern	Of concern	n/a
8.1.4	*Paspalum spp.* and *Fimbristylis ferruginea* sedgeland/grassland (estuarine wetland). Includes areas of deep open water with clumps of *Schoenoplectus littoralis* ± *Eleocharis dulcis.*	Freehold tenure. Not included in beach unit works.	Of concern	Endangered	n/a
8.3.1a	Riverine wetland or fringing riverine wetland. Semi-deciduous (complex) notophyll/ mesophyll vine forest. Occurs on Cainozoic alluvial plains fringing or in vicinity of watercourses.	Freehold tenure. Not included in beach unit works.	Of concern	Endangered	n/a
8.3.3.a	Riverine wetland or fringing riverine wetland. *Melaleuca leucadendra* or *M. fluviatilis* and/or *Casuarina cunninghamiana* fringing open-forest to woodland. Occurs on sandy or rocky creek beds.	Freehold tenure. Not included in beach unit works.	Not of concern	Of concern	n/a
8.3.5	*Corymbia clarksoniana* + *Lophostemon suaveolens* + *Eucalyptus platyphylla* woodland, or *E. platyphylla* woodland on alluvial plains	Freehold tenure. Not included in beach unit works.	Of concern	Endangered	n/a

8.12.3a	Notophyll rainforest/microphyll rainforest ± *Araucaria cunninghamii*. Occurs on coastal hills ranges on Mesozoic to Proterozoic igneous rocks. Contains minor areas of Tertiary acid volcanic. Lower altitudes and drier or more exposed situations than RE 8.12.2.	Freehold tenure. Not included in beach unit works.	Not of concern	No concern at present	n/a
8.12.6a	*Eucalyptus drepanophylla* and *E. platyphylla* woodland to open-forest. Occurs on low hills and foothills on Mesozoic to Proterozoic igneous rocks.	Freehold tenure. Not included in beach unit works.	Not of concern	No concern at present	n/a
8.12.12a	Mixed open forest to woodland of *Corymbia intermedia* ± *Eucalyptus portuensis* ± *E. platyphylla* ± *E. drepanophylla* ± *E . tereticornis*. Occurs on lower and mid-slopes of mountains and hills formed on Mesozoic to Proterozoic igneous rocks.	Freehold tenure. Not included in beach unit works.	Not of concern	No concern at present	n/a

Figure 4: Remnant vegetation Midge Point beach unit



ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004 , and Digital Cadastral Data 2008 supplied by Mackay Regional Council. 2008 Central Queensland remnant beach scrub mapping 1:12,000; and 2003 Remnant Vegetation Communities and Regional Ecosystems of Queensland version 5, 2005, supplied by Environmental Protection Agency.

2.1.2 Vegetation zonation

Approximately 85% of the Midge Point beach unit coastline retains natural vegetation zonation and function. A mangrove zone is present around much of the low energy coastline of the Midge Point beach unit, affording significant protection for the development of frontal dune and inland communities (Figure 5). These sand dune communities include both colonising spinifex and casuarina woodland on foredunes, and microphyll vine forests (beach scrub) (Figure 6).

An interruption of natural dune zonation occurs where remnant vegetation has been removed along residential frontage (Figure 7) and Herb Winton Park (Figure 8). Revegetation along the frontal dunes in these areas may provide the dunes increased resilience into the future.

Figure 5: Mangrove communities line much of the Midge Point beach unit; providing protection for the development of extensive frontal dune and inland communities.

Figure 6: Beach scrub communities are present on the foredune in protected areas along the northern Esplanade and on the east facing sandy beach on the Midge Point headland.

Figure 7: Natural dune zonation has been partially removed in front of the residential settlement of Midge Point, with a mown recreational parkland and removed understorey.

Figure 8: Natural dune zonation has been removed at Herb Winton Park on the northern Esplanade.

2.1.3 Non-native vegetation

Many non-native species are present along the east facing dunes in front of the Midge Point residential settlement, reflecting the high levels of past disturbance and proximity to urban residence. These include a variety of both garden escapees and environmental weeds such as Guinea grass (*Megathyrsus maximus*) and lantana (*Lantana camara*) which increase fuel loads and threaten to outcompete native vegetation (Figure 9). Stands of coconut palms (*Cocos nucifera*) on the Reserve drop fronds which displace native vegetation, do not reduce wind erosion and accelerate wave erosion when they fall (Environmental Protection Agency, 2004) (Figure 10).

Midge Point headland and northern Esplanade also contains a range of non-native vegetation including leucaena (*Leucaena leucocephala*), lantana, Guinea grass and various herbaceous weeds particularly in disturbed areas and along the margins of Jimmys Rock Road and access paths.

Figure 9: Stands of lantana (*Lantana camara*) threaten to out-compete native vegetation and increase the risk of fire.

Figure 10: Coconut palms (*Cocos nucifera*) pose problems with the risk of falling coconuts, and fronds which don't readily decay prevent regeneration by native species.

2.1.4 Waste dumping

Vegetative and other waste dumping is present in the Midge Point beach unit, particularly on the Midge Point headland with access via Jimmys Rock Road and various associated vehicle tracks (Figures 11, 12).

Figures 11 and 12: Dumping of vegetative and other waste on Esplanade, Reserve and State Land in the Midge Point beach unit, creating a public nuisance, introducing weed species, increasing fire risk, and reducing the condition of the ecosystem.

2.2 Public access and facilities

There are nine official beach access paths along the residential Reserve foreshore at Midge Point (Figures 13, 20). One of these access ways is an official boat ramp (Figure 14), and two others have vehicle access points with boat launching permitted directly in front of the access tracks provided. Fencing has been installed along the Reserve to define the recreational area and to direct pedestrians and vehicles to these access point (Figure 15).

Several unofficial paths currently provide access from Jimmys Rock Road to the beach front on Midge Point headland (Figure 19). Vehicle access via these paths is being used for waste dumping, and further reduces the condition of remnant vegetation communities through increased disturbance and the introduction of weed species. Similarly, vehicle access to the salt flats destroys marine vegetation and alters soil hydrology (Figure 16). Unofficial access to the beach front is also provided via Herb Winton Park (Figure 17), where foredune vegetation has largely been removed. Rationalisation of these unofficial access points is required, and vehicle access to the foreshore should be restricted, with the exception of the boat ramp on Midge Point headland (Figure 18).

The mown parkland Reserve adjacent to the residential area is the key recreational park provided in the Midge Point beach unit, with picnic and toilet facilities provided. Herb Winton Park on the northern Esplanade is additionally facilitated with tables and rubbish bins. Defining the boundary of Herb Winton Park using fencing or bollarding will benefit dune rehabilitation, prevent vehicle access to the beach, and reduce maintenance required in the long term.

Figure 13: Example of official beach access on Midge Point Reserve residential frontage (Access #9, Figure 20).

Figure 14: Official boat ramp on Midge Point Reserve; one of three vehicle access points. (Access # 5, Bundesen Avenue, Figure 20).

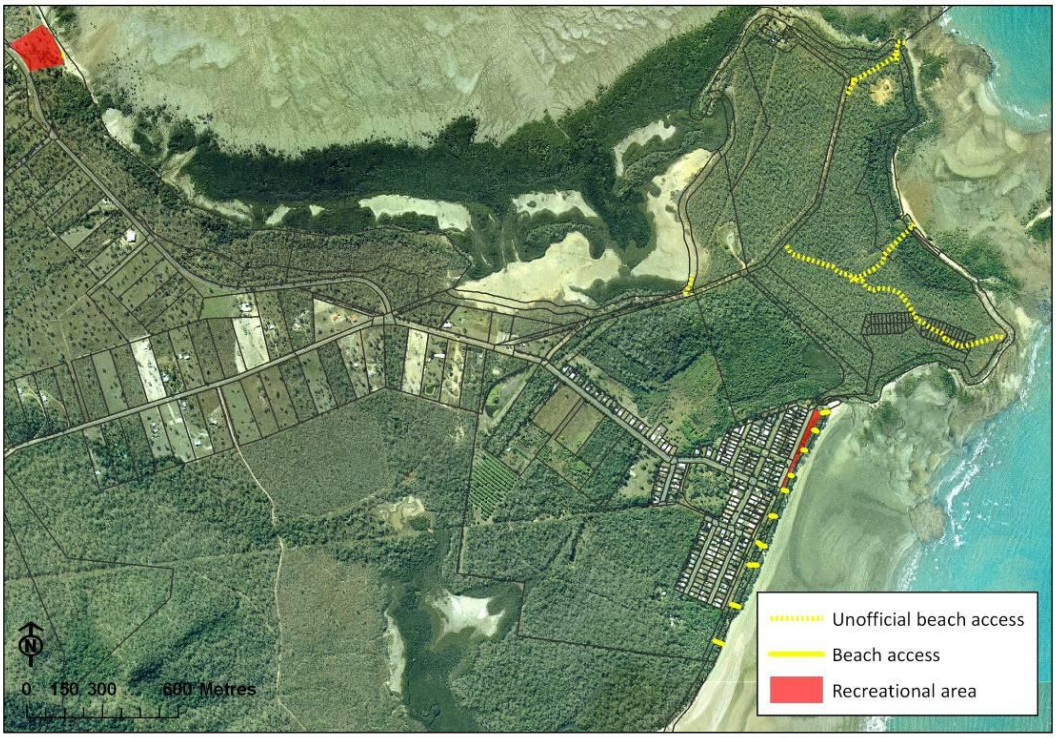
Figure 15: Fencing within the Reserve defines the recreational area and directs pedestrian and vehicle traffic to access points.

Figure 16: An unofficial vehicle access track has been created off Jimmys Rock Road, providing access to salt flat communities.

Figure 17: Vehicles are able to access the beach front via Herb Winton Park.

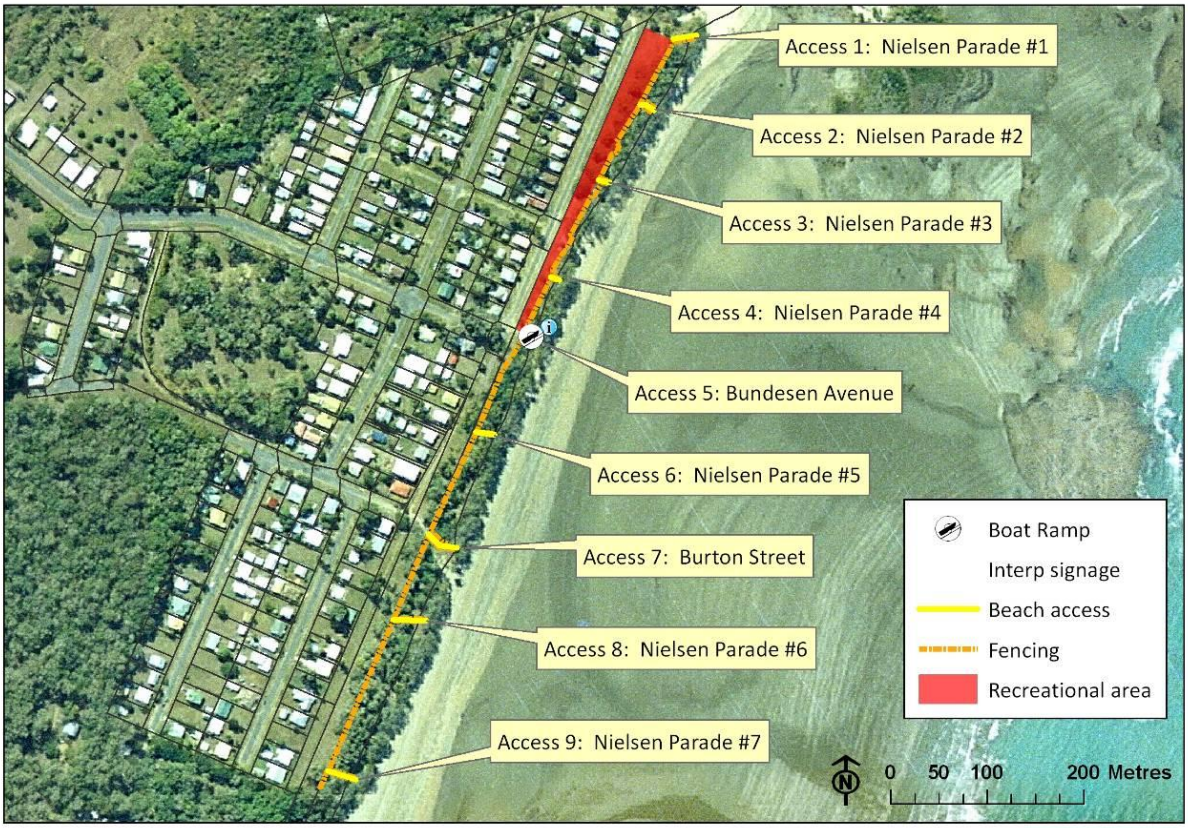
Figure 18: An unofficial vehicle access track from Jimmys Rock Road leads to an unofficial boat ramp on the Midge Point headland.

Figure 19: Midge Point access points and recreational areas



ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004; and Digital Cadastral Data 2008 supplied by Mackay Regional Council.

Figure 20: Midge Point residential frontage beach access points and facilities



ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004; Digital Cadastral Data 2008; and Boat Ramps 2008 supplied by Mackay Regional Council.

2.3 Wildlife

The Midge Point beach unit has three separate stretches of sandy beach which provide potential marine turtle nesting habitat; approximately 800 metres along Midge Point Esplanade in the north, a 700 metre long beach curving between two headlands on the Point, and a 1.8 kilometre stretch in front of the Midge Point residential settlement (Figure 21). Although no official turtle data records are available for this area, all sandy beaches provide potential habitat for marine turtle nesting and turtles are commonly sighted in the area. Significant challenges are present for nesting along the Midge Point residential beach including a receding shoreline, residential lights, and vehicle access to beaches. An interpretive sign highlighting the value of Midge Point as turtle nesting habitat is installed at the Bundesen Avenue access point (Figure 20).

Two shorebird roost sites are identified in the Midge Point beach unit; an open beach roost in front of the residential area, and a roost adjacent to the mangroves west of the Midge Point headland (Figure 21). Annual survey data are not available for these sites given that they are not currently counted on spring tides by the Queensland Wader Study Group, however, it is still considered an important site on other tides. The beach front roost is accessible to the public and faces regular disturbance by recreational fishers and pedestrians with domestic animals. Significantly, the vulnerable beach stone curlew (*Esacus magnirostris*) has been recorded on the beach front south of the residential community (Andrews, M. 2009, pers.comm., 2 July).

The vulnerable false water rat (*Xeromys myoides*) Essential Habitat covers the mangrove communities lining much of the Midge Point beach unit from the northern Esplanade to the north of the residential Reserve (listed 'Vulnerable' by *Queensland Nature Conservation Act, 1992*). Although no other Essential Habitat mapping is currently available, beach scrub ecosystems are considered to provide habitat for the listed northern quoll (*Dasyurus hallucatus*), rusty monitor (*Varanus semiremex*), and coastal sheathtail bat (*Taphozous australis*). The dunes in the northern Esplanade and on the Midge Point headland support over thirteen hectares of beach scrub vegetation on Esplanade and Reserve tenure (Figure 21). The condition of these communities is threatened by weed invasion, inappropriate access and disturbance.

Figure 21: Wildlife values Midge Point beach unit

ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004 and 2008 Digital Cadastral Data supplied by Mackay Regional Council. 2008 Central Queensland remnant beach scrub mapping 1:12,000; and 2006 False Water Rat Essential Habitat mapping, supplied by Environmental Protection Agency. 2008 Beach Stone Curlew sites pers comms Marj Andrews. 2008 Shorebird roosts GPS data supplied by Queensland Wader Study Group.

2.4 Cultural heritage

The Midge Point area was previously inhabited by Traditional Owners and the retention and rehabilitation of natural areas remains of significance to the Yuibera people (Mooney, G. 2009, pers. comm., 9 March). Shell middens, fish traps or other items of cultural significance may be present in the area.

2.5 Erosion

Development has occurred within the erosion prone area along the residential frontage of the Midge Point beach unit (Figure 26). The retention and maintenance of the Reserve buffer zone in this area is important to prevent threats to property boundaries and infrastructure. Erosion is evident along an approximately one kilometre stretch of sandy beach south from Sandfly Creek (Figures 22, 23). Attempts to limit the effects of this process have included the installation of sand retention fencing, hay bail trials, and an on-going sand scraping program (Figures 24, 25). A Shoreline Erosion Management Plan is required to provide technical advice on the cause of the erosion and options for future management. Remnant vegetation has been removed from this dune system, and revegetation using local native species within the Reserve boundary would assist in the maintenance of the dune structure into the future. However, any activity in this area will primarily depend on the advice of the Shoreline Erosion Management Plan.

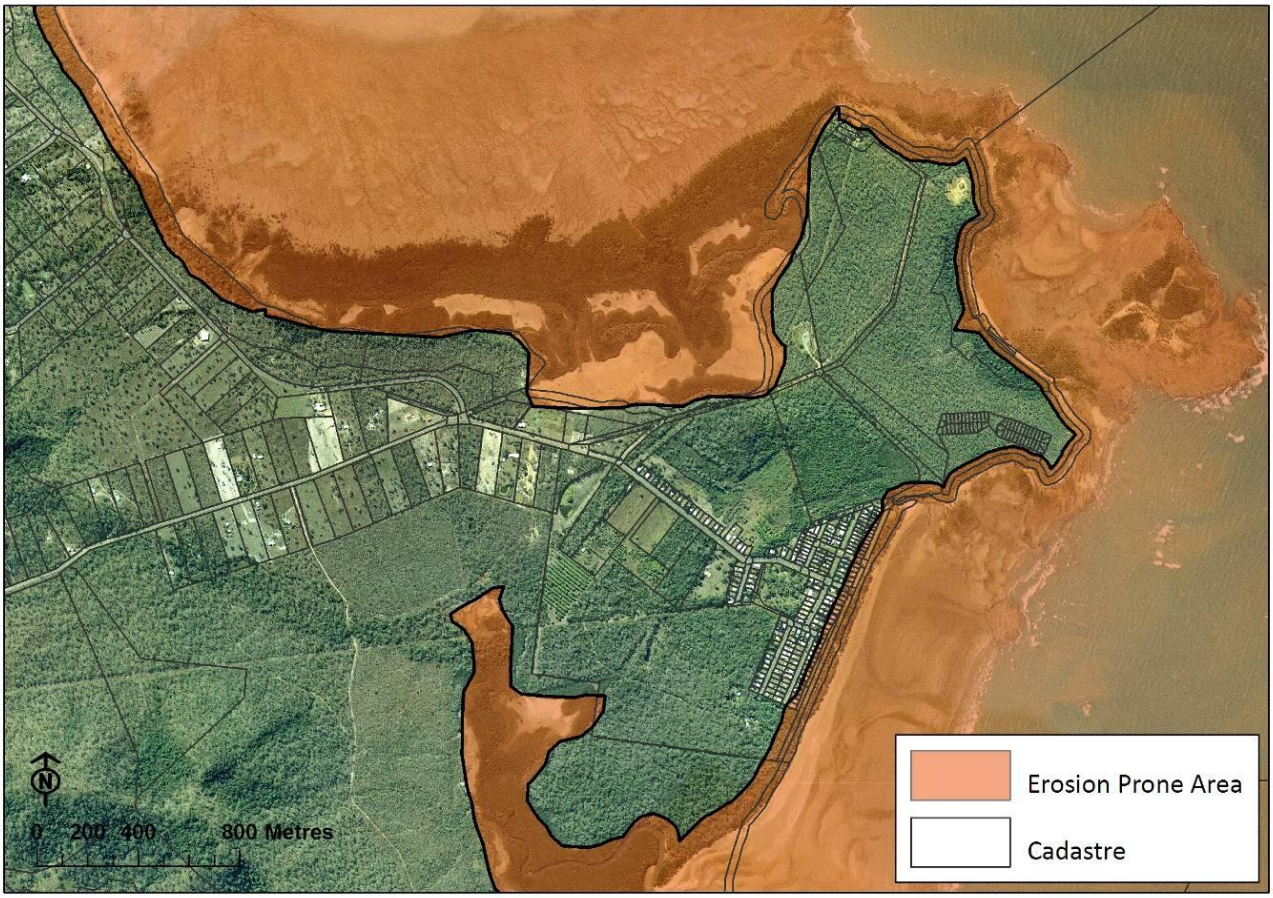
Unofficial access points providing vehicle access to the foreshore result in the destruction of coastal vegetation and localised erosion (Figures 16, 17). Restriction of inappropriate vehicle access to the foreshore (section 2.2) and some rehabilitation/ revegetation in these locations is recommended.

Figure 22 and 23: Eroding coastline on the eastern facing sandy beach in front of the Midge Point residential development. (Figure 23 by Lisa Kermode)

Figure 24: Sand scraping is used to move sand from the channel to recreate a foredune.

Figure 25: Sand retention fencing has been installed in some areas to assist in the build up and retention of sand.

Figure 26: Erosion Prone Area Midge Point beach unit



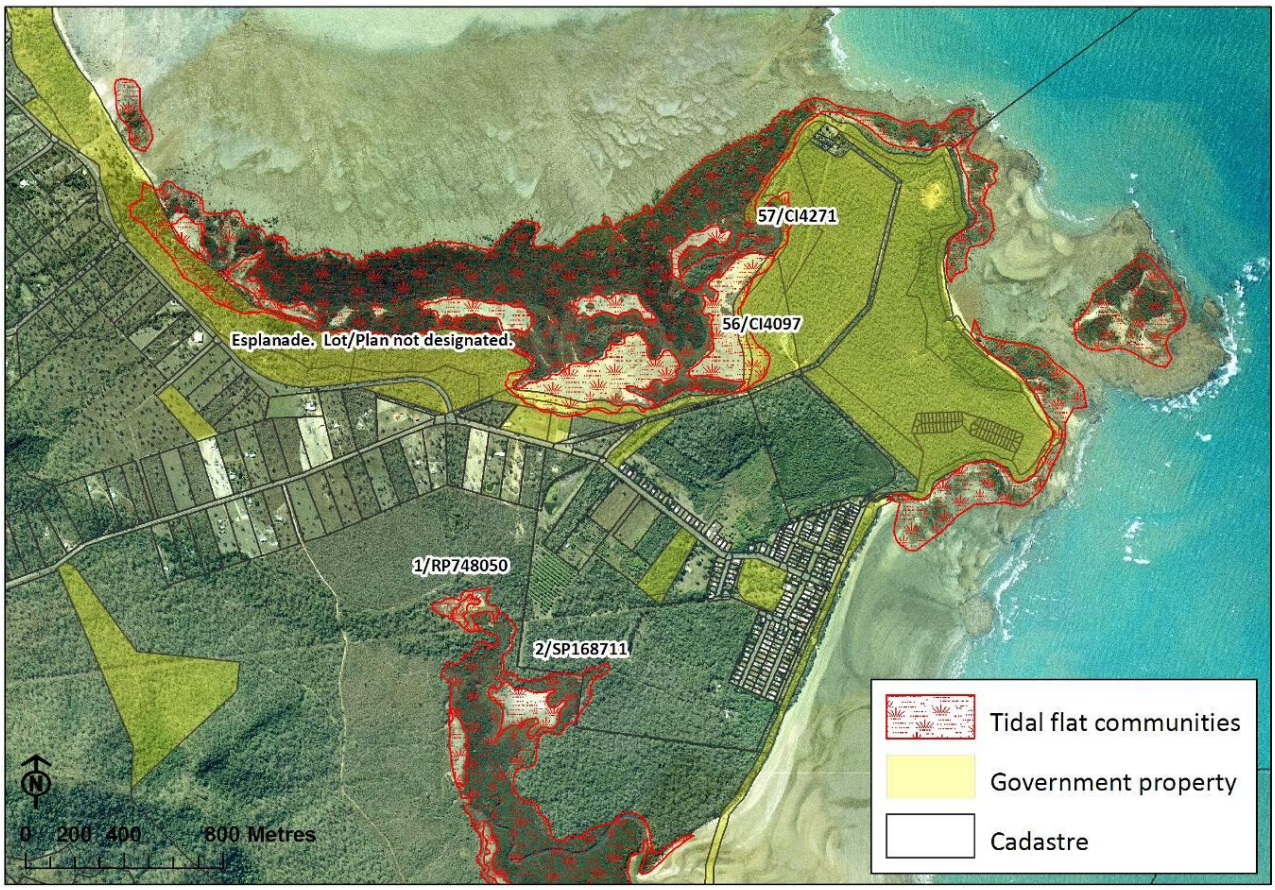
ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004; and Digital Cadastral Data 2008 supplied by Mackay Regional Council. Central Queensland erosion prone area mapping supplied by Environmental Protection Agency 2008.

2.6 Climate change

The presence of a buffer zone and natural vegetation zonation along much of the Midge Point beach unit coastline means it is well situated to protect against the effects of climate change. However, as described in section 2.5, erosion is evident along an approximately one kilometre stretch of sandy beach south from Sandfly Creek and will be further impacted by the predicted effects of climate change. Implementing the results of a Shoreline Erosion Management Plan, and reinstating native vegetation to build the resilience of this dune system are suggested.

Tidal flat communities extend around much of the Midge Point beach unit (Figure 27). Adjacent land should remain free of development and infrastructure to allow for migration of these communities as sea level changes occur.

Figure 27: Current extent of Midge Point beach unit tidal flat communities (Landzone 1)



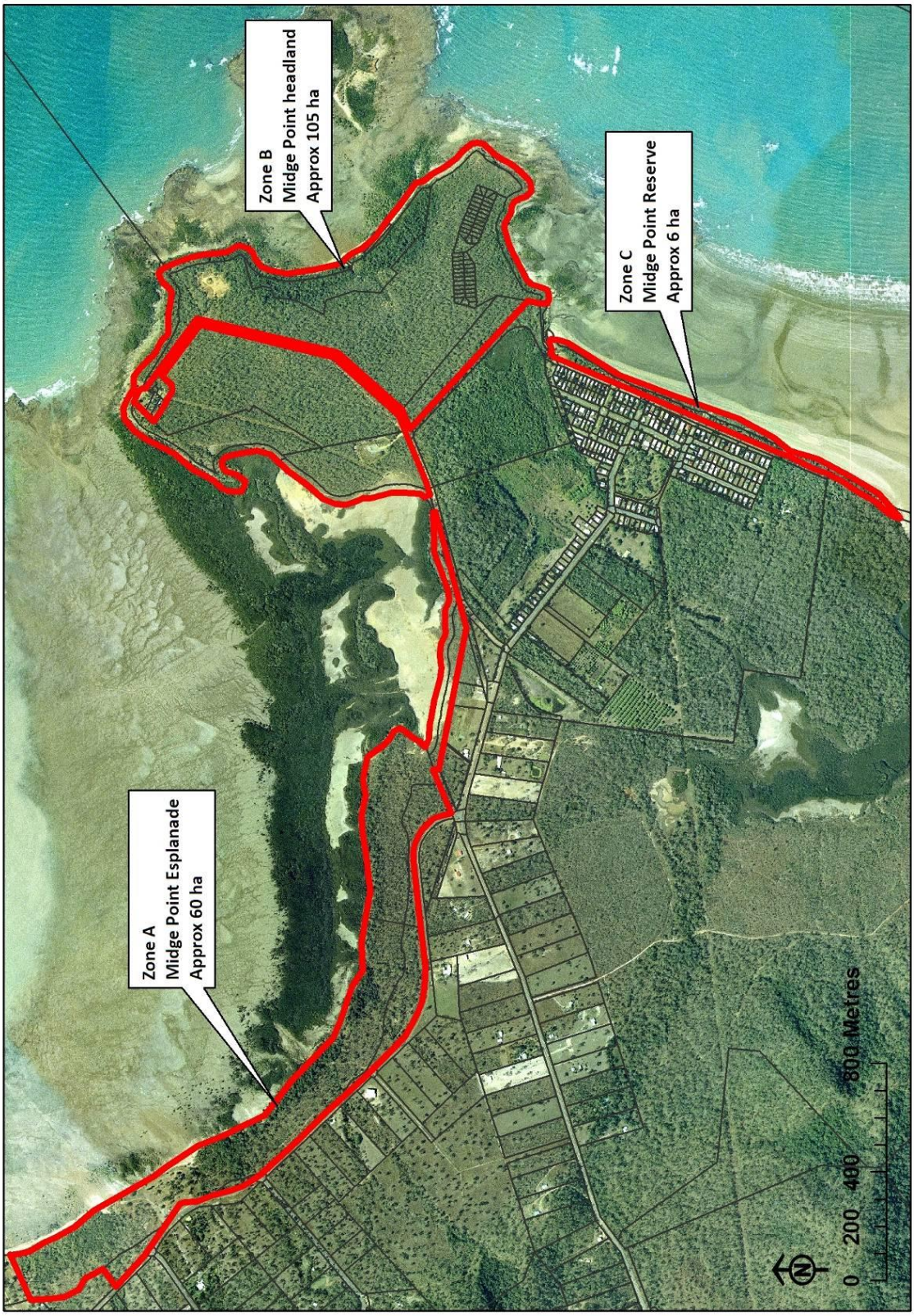
ACKNOWLEDGMENTS: Orthophotos from digital aerial photography 0.6m pixel 2004; and Digital Cadadstral Data 2008 supplied by Mackay Regional Council. 2003 Remnant Vegetation Communities and Regional Ecosystems of Queensland version 5, 2005, supplied by Environmental Protection Agency.

3. Recommended activities

#	**On-ground activity details** (Figure 28)
Zone A | Midge Point Esplanade (60 ha)	
1	**Weed control, revegetation.** Major target weed species include Guinea grass (*Megathyrsus maximus*), and lantana (*Lantana camara*). Revegetation to replace removed weed species, and to provide a buffer zone to remnant beach scrub and *Melaleuca* communities. Define the boundaries of Herb Winton Park to prevent encroachment and allow regeneration of native species.
2	**Fencing.** Fencing of the eastern (foreshore) margin of Herb Winton Park to direct pedestrian access, restrict vehicle access, and allow rehabilitation of the frontal dune.
Zone B | Midge Point headland (105 ha)	
3	**Weed control, revegetation, remove waste dumping.** Major target weed species include Guinea grass, lantana, leucaena (*Leucaena leucocephala*) and localised garden escapees such as pink periwinkle (*Catharanthus roseus*). Revegetation to replace removed weed species, and to assist in redirecting access in localised areas. Removal of vegetative and other waste dumping throughout headland.
4	**Restrict vehicle access.** Vehicle access through Midge Point headland to remain open along Jimmys Rock Road and to the unofficial boat ramp only, to prevent additional waste dumping and disturbance in the remnant vegetation. Limited bollarding and/ or fencing may be required to restrict vehicle access to the other unofficial access paths, which are to be left open for pedestrian access only.
Zone C | Midge Point Reserve (6 ha)	
5	**Development of Shoreline Erosion Management Plan.** Funding and technical support to be sought from the Department of Environment and Resource Management in the development of a Shoreline Erosion Management Plan for this zone. Should this approach be unsuccessful the option to fund the Shoreline Erosion Management Plan from the Natural Environment Levy is to be pursued.
6	**Weed control, revegetation, remove waste dumping.** All activities in this zone to be pending the advice of the Shoreline Erosion Management Plan. Major target weed species to include lantana, leucaena, Guinea grass, and young coconut palms (*Cocos nucifera*). Revegetation to replace removed weed species, assist dune stabilisation, and supplement coastal vegetation on frontal dune, to the east of current fenceline. Remove vegetative waste dumping and build-up of palm fronds to encourage regeneration of native species. Consideration of moving fenceline and infrastructure inland in the long-term to allow a wider buffer zone of native vegetation on the frontal dune.

Other activities across multiple zones	
7	Update and rationalise current regulatory and information signage; dogs on leads, vehicle and pedestrian access points, waste dumping, camping, and fire signage.
8	Land adjacent to salt marsh communities to remain free of infrastructure to allow migration of these communities as sea level rises. (Potentially including portions of Lot/Plan 1/RP748050, 2/SP168711, 56/CI4097, 57/CI4271, and the north western Esplanade).
9	Educate coastal community on local weed species and promote the use of local native species in residential gardens.
10	Educate coastal community on requirement to dispose of garden waste and other debris at designated Council refuse sites. Enforce local laws regarding rubbish dumping.
11	Amend tenure and planning scheme of State Land (Lot/Plan 59/AP17445, 60/AP17445) to afford increased protection to reflect the value of this stand of coastal remnant vegetation.

Figure 28: Zones for recommended activities



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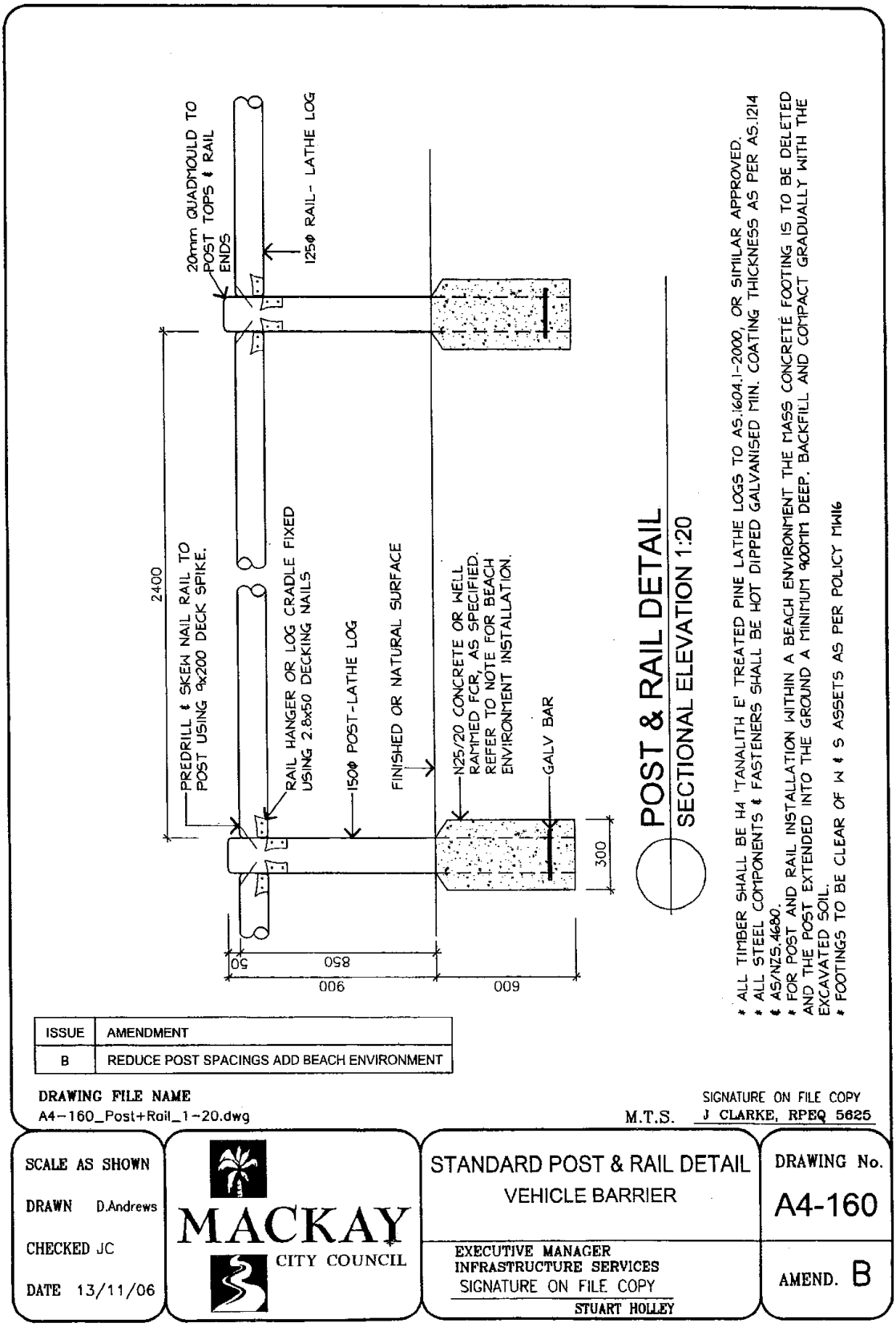
Appendix 1: Recommended species for dune revegetation

This is a generic list of recommended species for dune revegetation on Mackay beaches compiled from *Sarina Shire Beaches Management Guidelines for Coastal Zones*, Regional Ecosystem 8.2.1, 8.2.2, 8.2.6a revegetation recommendations, and field observations.

A distinction is made below between front and hind dune species for revegetation. However, the species selected for revegetation at any particular location will ultimately depend on current and pre-clearing Regional Ecosystem mapping, and site-specific conditions (such as aspect, topography, existing vegetation, soil condition, etc).

Front Dune (seaward)		
Species name	**Common name**	**Habit**
Canavalia rosea	Beach bean	Groundcover
Carpobrotus glaucescens	Angular pigface	Groundcover
Ipomoea pes-caprae	Goats foot convolvulus	Groundcover
Sporobolus virginicus	Marine couch	Groundcover
Vigna marina	Vigna	Groundcover
Cyperus pedunculatus	Pineapple sedge	Sedge
Spinifex sericeus	Beach spinifex	Grass
Thuarea involuta	Birds beak grass	Grass
Vitex trifolia	Coastal vitex	Shrub
Argusia argentea	Octopus bush	Tree
Casuarina equisetifolia	Coastal she oak	Tree

Front Dune (top and landward side)		
Species name	**Common name**	**Habit**
Clerodendum inerme	Coastal lollybush	Shrub
Dodonaea viscosa subsp. *viscosa*	Sticky hop bush	Shrub
Sophora tomentosa	Silver bean	Shrub
Vitex trifolia	Coastal vitex	Shrub
Casuarina equisetifolia	Coastal she oak	Tree
Hibiscus tiliaceus	Cottonwood	Tree
Pandanus tectorius	Pandanus	Tree

Hind dune and further landward		
Species name	**Common name**	**Habit**
Crinum pedunculatum	Spider lilly	Lilly
Eragrostis intrrupta	Coastal love grass	Grass
Eustrephus latifolius	Wombat berry	Climber
Stephania japonica	Tape vine	Climber
Clerodendrum inerme	Coastal lolly bush	Shrub
Dodonaea viscosa subsp. viscosa	Sticky hop bush	Shrub
Eugenia reinwardtiana	Beach cherry	Shrub
Jasminum didymium	Native jasmine	Shrub
Sophora tomentosa	Silver bean	Shrub
Acacia leptocarpa		Tree
Acacia oraria		Tree
Acronychia laevis	Glossy acronychia	Tree
Alphitonia excelsa	Soapy ash	Tree
Banksia integrifolia	Coastal banksia	Tree
Calophyllum inophyllum	Ball nut	Tree
Chionanthus ramiflora	Native olive	Tree
Clerodendrum floribundum	Lolly bush	Tree
Corymbia tesselaris	Moreton bay ash	Tree
Cupaniopsis anacardioides	Tuckeroo	Tree
Diospyros geminata	Scaly ebony	Tree
Drypetes deplanchei	Yellow tulip	Tree
Euroschinus falcata	Ribbonwood	Tree
Hibiscus heterophylus	Native hibiscus	Tree
Hibiscus tiliaceus	Cottonwood	Tree
Jagera pseudorhus	Foam bark	Tree
Macaranga tanarius	Macaranga	Tree
Mallotus phillipensis	Red kamala	Tree
Mimusops elengi	Red coondoo	Tree
Morinda citrifolia	Smelly cheese tree	Tree
Pandanus tectorius	Pandanus	Tree
Pittosporum ferrugineum	Rusty pittosporum	Tree
Planchonia careya	Cocky apple	Tree
Pleiogynium timorense	Burdekin plum	Tree
Sterculia quadrifida	Peanut tree	Tree
Terminalia cattapa	Beach almond	Tree
Terminalia muelleri		Tree
Thespesia populnoides	Tulip tree	Tree

Appendix 2: Coastal fencing specifications