Daintree Gateway Master Plan

Issues and Opportunities Draft Discussion Paper



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Issues and Opportunities

Draft Discussion Paper

Prepared by	Cairns Regional Council				
Purpose	This discussion paper outlines an understanding of issues and opportunities that may require investigation in the preparation of the Daintree Gateway Master Plan				
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Executive Summary

The development of the Daintree Gateway Master Plan is a phased planning process. In support of the preparation of the master plan a number of elements must first be established, including the preparation of a discussion paper about the issues and barriers known about the Daintree Gateway and the opportunities that arise in addressing them. This document aims to provide such knowledge.

The Daintree Gateway is a place of both natural quality and day to day operations. Often these produce conflict because of the needs to retain both in unison. These conflicts have been addressed in an ineffective manner in the past, failing to deliver a product that community can be proud of. In the Daintree Gateway there are three areas which broadly categorise issues and opportunities:

- physical character;
- form, place and character; and
- operations.

The opportunities are then organised into themes which will assist in the delivery of strategies and grouped outcomes as part of the master plan or processes in its preparation. The core themes in which the opportunities are grouped include:

- sustainability;
- environment;
- form, place and character;
- mobility; and
- visitor experience.

The Daintree Gateway presents an opportunity to be an exemplar in sustainability in its form and function, the way it protects and nurtures attitudes to the significant natural qualities of the area, the way people interact and move in the area and the overall experience and messages delivered.

The master plan needs to capture these opportunities through the master planning and build upon them to define a vision for a world class visitor experience at an arrival to one of the world's special places.



1.0 Introduction

The lowland rainforests north of the Daintree River is Australia's oldest coastal rainforest and amongst the most bio-diverse areas in the world. The outstanding attributes of these natural features are reflected in the protection of the Daintree National Park and the 1988 declaration of the Wet Tropics World Heritage Area. These features make the Daintree's lowland rainforest one of Australia's most attractive natural attributes and support a number of small communities and an eco-tourism industry. In recognition of the outstanding natural assets of the Daintree National Park and Wet Tropics World Heritage Area, Cairns Regional Council seeks to deliver a sustainable, iconic and world-class visitor experience at its Gateway.

This discussion paper aims to identify the current issues which affect the Daintree Gateway and highlight the importance of the opportunities which will help to define a memorable experience at the entrance to a World Heritage Area. To achieve this, the report is structured to present background information, identify issues (in terms of physical character, operations, and legislation and policy) and to synthesise the arising opportunities into the following themes:

- sustainability;
- environment:
- form, place and character;
- mobility; and
- visitor experience.

The development of a Master Plan will provide a fresh direction for the Daintree Gateway and highlight the importance of the experience of the Wet Tropics World Heritage Area. Therefore it is important that a clear understanding of the issues facing the Daintree Gateway is grasped from the outset of the project. It is equally important those opportunities arising are explored and built upon through the planning process to ensure delivery of a visitor experience at the Daintree Gateway that encapsulates the natural features of the Daintree National Park and Wet Tropics World Heritage Area.

1.1 Background

A number of issues related to the management and presentation of the ferry precinct adjacent to the Daintree River remain unresolved despite the issue being prevalent for more than 10 years. The former Douglas Shire Council established the Daintree River Ferry Precinct Working Group (DRFPWG) to develop a management strategy for the Precinct. Despite the appointment of a consultant and meetings held as recently as 2007, the DRFPWG was unsuccessful in achieving its objectives.

Following amalgamation of the Councils in 2008, The Daintree Precinct Working Group (DPWG) was formed by Council in July 2008 to address a number of long standing operational issues relating to the Precinct, the Ferry and tourist operations. With most of the work of this Group having been complete, it was considered that it was now appropriate to revisit the precinct's future and potential and embark on the preparation of The Daintree River Gateway Master Plan.

1.2 The Daintree Gateway

As a major entrance to the Daintree National Park and the Wet Tropics World Heritage Area the Daintree Gateway offers an opportunity to exemplify the experience of one of the Region's key natural attractions. In a broader sense, the Daintree Gateway is a focal point for not only the Wet Tropics and the Daintree National Park, but the community and business associated with the 'Daintree'.

The 'Daintree Gateway' encompasses three areas including the intersection between Mossman-Daintree Road and Cape Tribulation Road, the Western Precinct and the North Bank. These three areas work in unison to form the Daintree Gateway.



Figure 1.1: Daintree Gateway areas of focus.

Numerous businesses rely on the tourism sector in the Daintree as a means of prosperity. While the lowland rainforest of the Daintree is the predominant attractor north of the Daintree River, the River itself is a tourist attraction. Tour businesses have been situated in the 'Western Precinct' for some time, complementing other businesses in and further towards Daintree Village.

Because of this, the Daintree Gateway has become a tourist destination in its own right.

With Mossman being the administrative centre for the former Douglas Shire area, the communities north of the Daintree River rely heavily on the ferry crossing for access to services, secondary education, employment and other day-to-day activities. The importance of the Daintree Gateway is also emphasised through its continued use as a means of transit across the Daintree River. The ferry is a critical piece of infrastructure linking the Daintree (Cape Tribulation) communities to the goods and services in Mossman.

1.3 Daintree National Park & Wet Tropics World Heritage Area

The Daintree National Park is located approximately 100 kilometres north of Cairns, via the Captain Cook Highway. It was founded in 1981 (although the Cape Tribulation National Park existed from 1981 to 1983) and is valued for its exceptional biodiversity. On 9 December 1988 the Daintree National Park was given World Heritage Listing as part of the Wet Tropics World Heritage Area.

The Daintree National Park is commonly understood to have two main parts; the Mossman Gorge area and the Cape Tribulation area. The Cape Tribulation coast contains one the largest expanses of lowland rainforest in Australia. These sections of rainforest are understood to be some of the oldest rainforest in the world with an age over 100 million years.

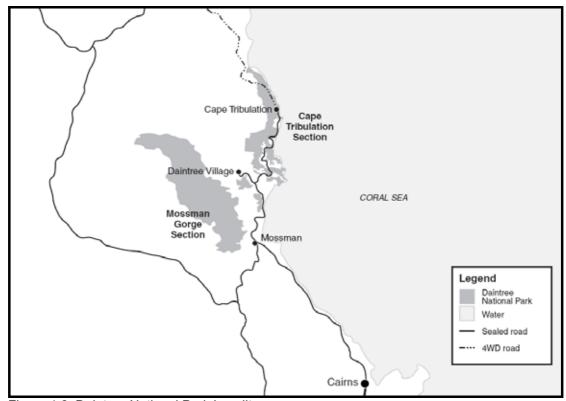


Figure 1.2: Daintree National Park Locality

The listing of the World Heritage Values of the Wet Tropics World Heritage Area (WTWHA) recognised that it:

- 1. Represents (8) major stages of the Earth's evolutionary history. WTWHA rainforests are internationally recognised as where flowering plants (angiosperms) originated, evolved and dispersed.
- 2. Has outstanding examples of ongoing geological and biological processes.
- 3. **Is an outstanding area of natural beauty**. The WTWHA has steep to undulating plateaus of between 600m and 900m and steep escarpment country with deeply incised valleys and streams. It has mountain peaks like Mt Bartle Frere of 1622m and coastal lowlands that are linked by foothills, ranges and escarpments.
- 4. Has the most important natural habitats to conserve biological diversity. Along with the mainly rainforest vegetation of the WTWHA there are species-rich mangrove forests, wet sclerophyll forests and tall open forests. As home to more than 3000 plant species, at least 25 species of vertebrate animals in the WTWHA are very rare, found only in small areas or in danger of extinction.

These values highlight the importance of the Daintree Gateway as a statement in arriving at a place of world significance.

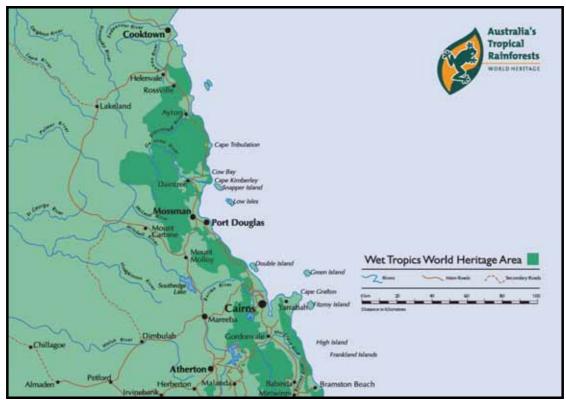


Figure 1.3: Wet Tropics World Heritage Area

1.4 Master Planning for the Daintree Gateway

It is envisaged that the Master Plan will deliver:

- A clear vision and guiding principles for the Daintree River Gateway Precinct that is shared by Council, the community and State agencies;
- A master plan and other outputs consistent with the vision and guiding principles;
- An implementation program to assist Council and other stakeholders deliver outcomes consistent with the vision and guiding principles; and
- Which will all ultimately lead to a visitor experience at the Gateway that encapsulates the natural features of the Daintree National Park and Wet Tropics World Heritage Area.

This report aims to provide supporting information that will assist in identifying some of the more significant issues affecting the Daintree Gateway and the opportunities that can be explored through the master planning process.



2.0 Daintree Gateway Physical Character

The Daintree Gateway is primarily situated on the bank of the Daintree River and is impacted by a number of physical processes, surrounded by natural areas and is now characterised by transport infrastructure. The following discussions identify issues related to the current physical characteristics of the Daintree Gateway such that the Master Plan may address them.

2.1 Topography

The topography of the Daintree Gateway is characterised particularly by its situation on the Daintree River The North Bank starts at only 2.0m AHD rising slowly to 3.0m AHD and then more steeply to above 5m along a ridge. Opportunities for improvements at the North Bank are characterised by very low areas where a depressions on both eastern and western sides of Cape Tribulation Road would be subject to guite swampy conditions.

At the Western Precinct, a ridge above the Daintree River (the high bank) offers some protection 3.0m - 4.0m AHD from lower drainage systems. The approach from the south to the precinct is particularly low with a west-east flow path leaving the ferry queuing area the highest areas. The cropping lands to the west and south of the precinct would be subject to some drainage and overland flow paths associated with the Daintree River's seasonal variation. Contours of the land are shown in Figure 2.1 below.

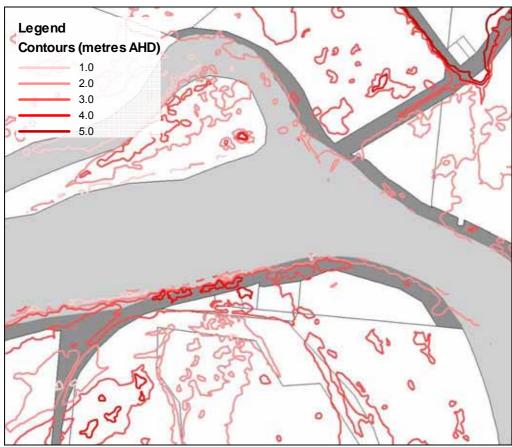


Figure 2.1: Contour Information at Western Precinct and Ferry Crossing

The intersection is situated at approximately 5.0 metres AHD sloping gently to the north along Cape Tribulation Road and rising steeply to the south-west with the foothills adjacent to the Mossman-Daintree road. There are low lands to running parallel to the Mossman-Daintree Road reflecting the extent of the Daintree River flood plain. This area of land would potentially be subject to large flood events such as the one in 1996 where records showed water up to and above Mossman-Daintree Road in this locality. Contours of the land are shown in Figure 2.2 below.

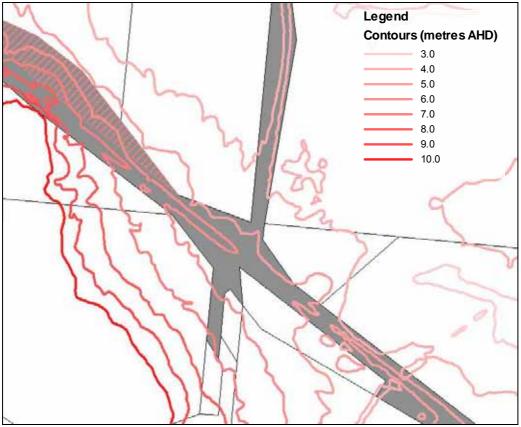


Figure 2.2: Contour Information at Mossman-Daintree Road Intersection

2.2 River Processes

There has been no clear noted movement of river in recent times, however past movement is evidenced by the existence of an ox bow to the west of the study area as can be seen in Figure 2.3.



Figure 2.3: Ox Bow near the study area

Some bank erosion issues exist on McDowell Lane which have been attenuated but there will be an ongoing need to maintain the river bank in this location.

Dredging of river sediment is required in the ferry path to allow operation of the ferry across the river.

The Daintree River catchment drains an area of 2,125 square kilometres. Floods may develop quickly and with little warning from high rainfalls on the 1000 metre high mountain ranges around the catchment and are often caused by cyclonic influences in the adjacent Coral Sea.

Major flooding requires a large scale rainfall situation over the Daintree River catchment. Average catchment rainfall in excess of 100mm in 24 hours may result in stream rises and the possibility of minor flooding and local traffic disabilities. Average catchment rainfalls in excess of 200 to 300mm in 24 hours is likely to result in significant stream rises with the possibility of moderate to major flooding developing, particularly in the lower reaches around Daintree and areas downstream.

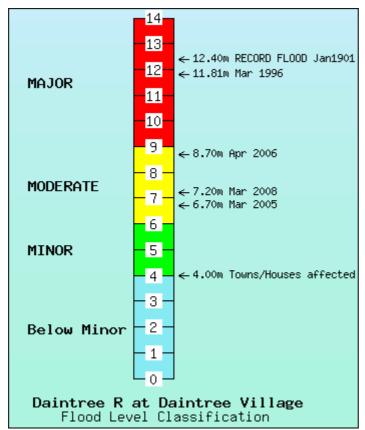


Figure 2.4: Daintree River Flood Level Classifications

Anecdotal evidence suggests that during the 1996 water was up to the underside of the ferry house floor. This would also put the level over parts of the Mossman Daintree road indicating a level of between 5 and 6m AHD.

2.3 Coastal Processes

The Daintree River, where the ferry crossing is located, is subject to tidal and coastal processes and influences. With the low-lying topography and close proximity to the coast line, the Daintree Gateway is confronted by a number of coastal related constraints. These include, coastal management controls (policy and legislative controls), bank erosion, marine plants, storm tide inundation and sea level rise factors.

The Coastal Management District and Erosion Prone Area are policy related constraints that are dealt with in section 3. However, they are related to the tidal influence exerted on the banks of the Daintree River. The Highest Astronomical Tide for the ferry crossing and Western Precinct is 1.779 metres AHD. The Mean High Water Spring Tide is 0.879 metres AHD. This correlates to the markings of the Coastal Management District and factors in the calculation of storm tide inundation levels.

Storm tide inundation affects the Daintree Gateway at different levels commensurate with drainage lines and depressions in the topography of the area.

Figure 2.5 shows that a 1% AEP (Annual Exceedance Probability) event will impact over all of the western precinct and north bank up to approximately 3.29 metres AHD (based on Wonga Beach levels with wave runup potential). A theoretic maximum of 5.73 metres AHD for the 0.01% (1 in 10,000 year) event is identified in the study.

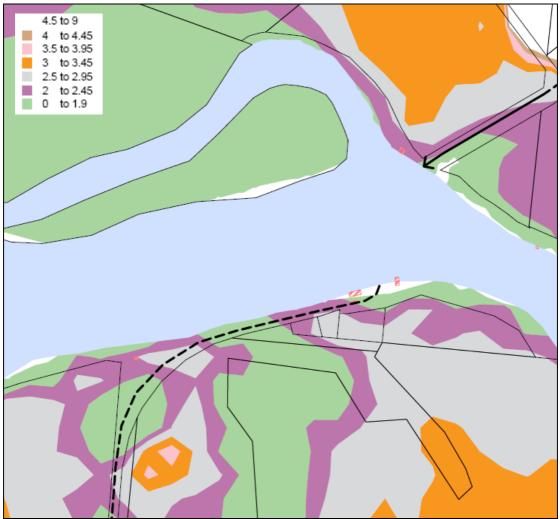


Figure 2.5: Storm Tide Inundation levels

The introduction or renewal of assets must also consider sea level rise as an impact of climate change. In particular floor levels for new building assets should account for sea level rise. Based on Draft Queensland Coastal Plan guidelines, storm tide inundation levels for habitable floors would be calculated as in the following manner:

Highest Astronomical Tide + 1.5m + 0.1m x (asset life/10 years)

It is a generally accepted that 1.5m + the Highest Astronomical Tide level will provide the approximate 1% AEP storm tide level. However, given Council has undertaken a study of the storm tide inundation levels for the Cairns Region the formula should be read in the following manner:

Storm tide level + 0.1m x (asset life/10 years)

The component in this formula relating to sea level rise is the 0.1m x (asset life/10 years). This is reflective of an average sea level rise of approximately 0.1m rise in sea level every 10 years.

Due to tidal influence and river processes, bank erosion has occurred in proximity to the Western Precinct and the North Bank. Critical infrastructure in the Western Precinct and North Bank include the roads to the ferry crossing along with the ferry and its systems. The location of this infrastructure is within road reserves, park reserves and freehold land (owned by Council). Attenuation is recommended for bank erosion where the ferry crossing is concerned. If the Queensland Coastal Plan and its associated coastal management plans suggest permanent physical infrastructure should not be located within the erosion prone areas or coastal management district in this locality, then strategic corridors must be investigated for new roads to the ferry crossing. Notwithstanding this discussion point, a review of the coastal legislative and policy position is assessed in Section 4.3.

A mix of marine and terrestrial plants is situated along the banks of the Daintree River, with marine plants particularly in those areas affected by salt and brackish tidal waters. These support habitats for marine life and are a food source for birds and terrestrial animals. It is therefore important to maintain the marine plant regime in the Daintree River.

2.4 Infrastructure

Various infrastructure exists in the study area locations including the Mossman-Daintree Road, Cape Tribulation Road, Western Precinct and ferry crossing. Existing infrastructure at the intersection consists of directional and informational signage only, whereas infrastructure at the Western Precinct consists of a mix of facilities.

A jetty is sited on the Daintree River and is used by tour operators running river cruises and fishing tours. A public boat ramp lays adjacent to the tour operators is also used by local boaters. A number of tour operators have established stalls in the western precinct from which they sell tours and river cruises. This infrastructure is located in the road reserve and does not have required permits to occupy the road. A gazebo with Wet Tropics information is also located in the area closer to the road. Signage, garbage bins and portable toilets are also found in this area. An electricity pole is also located close to the operator booths.



Figure 2.6: Existing infrastructure in the Western Precinct

Physical infrastructure in the ferry crossing precinct includes the ferry ticket booths, roadways, the ferry and directional and informational signage. An amenities block and phone booth are located near the ferry crossing along with rubbish bins. A cassowary statue is located on the river side of the line up lanes for the ferry. The ferry house is also located in this area. This house is occupied by the ferry operators.



Figure 2.7: Existing Infrastructure at the ferry crossing

2.5 Views and Vistas

The bounds of the Daintree Gateway are described in terms of the physical infrastructure elements that provide a defined/interpretive experience. However, the Gateway can also be described by the natural characteristics and the wider topography that makes the Gateway an experience in itself. The oblique photograph below provides a graphic description of the Lower Daintree, highlighting the experience that someone could obtain from a wider Gateway to the Daintree area.



Photograph: Lower Daintree area

To describe the particular vistas from key points in the wider Gateway, Figure 2.8 and Table 2.9 identify where significant vistas occur and what those vistas comprise.

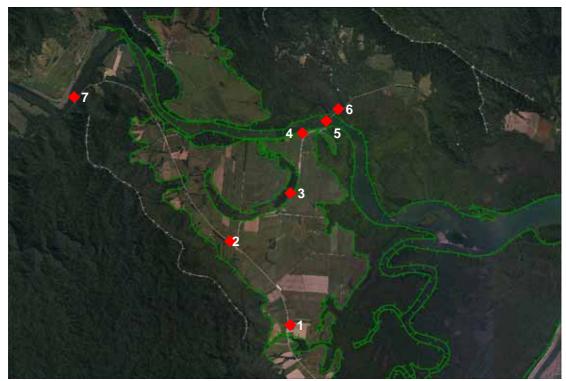


Figure 2.8: Lower Daintree key vista locations

		Views to:					
No.	Name	Cropping Land	Scenic Ridgelines	Thornton Peak	Wetlands	Daintree River	Significant Rainforest
1	Main Road Entrance	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
2	Intersection Precinct	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark
3	Oxbow wetlands	\checkmark	\checkmark		\checkmark		
4	Western Precinct	\checkmark	\checkmark	\checkmark		\checkmark	\checkmark
5	Daintree Ferry		\checkmark	\checkmark		\checkmark	\checkmark
6	North Bank				\checkmark	\checkmark	\checkmark
7	Daintree Road	\checkmark	\checkmark			\checkmark	

Table 2.9: Vistas composition from key locations

The Daintree Gateway Master Plan should build upon these views and vistas as opportunities for defining the Daintree Gateway experience.

2.6 Cultural Heritage

The traditional owners of the Daintree area, including the Daintree Gateway, are the Eastern Kuku Yalanji. Documented understanding of the Kuku Yalanji cultural association with the region is detailed in the Indigenous Land Use Agreement that is registered over part of the site and adjacent to the Daintree Gateway.

The Daintree Ferry is recognised as a local heritage place under the Douglas Shire Planning Scheme Policy 4 – Cultural Heritage and Valuable sites.

The Daintree Gateway is also adjacent to the World Heritage listed Wet Tropics area.

2.7 Physical Character Opportunities

As expressed in the discussions of this chapter, the physical character of the Daintree Gateway provides some serious constraints, but also some valuable opportunities. A summary of these is outlined in the following list.

- Given the Daintree Gateway will be susceptible to large flood events and to storm tide inundation, alternative building construction and floor levels require consideration;
- Bank erosion be allowed in areas of natural movement and attenuation in areas of critical infrastructure:
- The introduction or renewal of assets address sea level rise as an impact of climate change;
- The importance of the Daintree River banks is identified as part of the ecosystem when providing messages and educational experiences for visitors;
- Palettes of appropriate signage and infrastructure are identified in different locations, expressing the values of the Daintree lowland rainforest in context of their location;
- The Daintree Gateway Master Plan celebrates the natural scenic amenity and explores new experiences for the Daintree Gateway;
- The traditional owners of the Daintree area, the Eastern Kuku Yalanji people, are strongly attached to the land and their cultural association is noted in the education and messages in the Daintree experience.



3.0 Daintree Gateway Operations

The Daintree Gateway is a place of transit and business associated with the ferry and with the Daintree River's natural attractions. Therefore there are a number of operational matters which arise on a day-to-day basis around the ferry, transport and tour operators. The following discussions aim to identify some of the more significant elements of the operations (without a minute detailed view of each aspect of the Gateway) and the issues which continue to arise.

3.1 Ferry Crossing

The Daintree Ferry is a critical piece of infrastructure linking the Cape Tribulation section of the Daintree National Park and the communities north of the Daintree River with the rest of the Cairns Region.

The ferry operates daily between 6am and 12am (midnight). Each year, approximately 90,000 to 100,000 trips are made across the ferry. Ferry trips are made up of residents, tourists, tour companies, business related and service vehicles.

Maintenance of the ferry is generally scheduled and undertaken between the hours of 12am and 6am when the Ferry is not in use. Ferry operations are occasionally interrupted during normal operational hours due to unforeseen events including flooding, landslides and traffic and accidents. Community requests have been made for the implementation of a system to advise interested parties of service disruptions to the ferry.

3.2 Commercial Operators

Commercial tour venders operate stalls from the western precinct. There are long standing tenure issues related to this area which is located on an area of road reserve.

3.3 Traffic Mobility

Entry to the Daintree Gateway precinct is via Cape Tribulation Road at its intersection with Mossman-Daintree Road. From this point there is a multitude of signage posted on the roadside giving information and direction to visitors. It has been noted that there is too much signage between the western precinct and the ferry crossing, and while the messages are of importance, the delivery could be done in a more efficient way.

Some conflicts occur with movement of recreational fishers and boaters in the Western Precinct. A boat ramp is located in close proximity to the tourist operator booths and issues exist between tourist and boat trailer parking. Appropriate parking and manoeuvring areas will need to be addressed to allow the continued functionality of the boat ramp and the western precinct operations.

Another point of conflict is the access to McDowell Lane which is gained through the Western Precinct. Safe access to this roadway will need to be established during the Master Planning in a way that reduces conflict with traffic and pedestrian movements associated with the information and tour vendors in the Western Precinct.

Traffic movements in the ferry crossing precinct are either in the ferry line, priority lane, or around the bypass. If visitors don't see signage advising of the different lanes they can end up in the line for the ferry instead of taking the bypass. A priority lane is set up for residents who live north of the river.

Traffic and safety issues arise when people get out of their vehicles while lining up for the ferry and whilst on the ferry. There are crocodile warning signs posted near the ferry crossing, however people leave their cars and walk down towards the water which creates potentially dangerous situations.

3.4 Recreational Boating

The boat ramp located in the subject area is used by recreational fishers and boaters from the nearby area. Due to the boat ramp being located up stream from the ferry, boats have to cross the ferry path to move down the river and out to the off shore and reef areas. Conflict exists in the western precinct car park between car and trailer parking. Arrangements for sharing of the space will need to be made.

Safety messages warning about the presence of crocodiles are located in the western precinct but it is important to ensure that infrastructure, such as the boat ramp and jetty, are provided for safety from crocodiles

The North Bank area is identified for another boat ramp in the future. Council is currently investigating options to purchase land adjacent to the ferry crossing within the North Bank.

3.5 Land Tenure

The Daintree Gateway is made up of varying tenure; freehold, reserve, national park, unallocated state land, road, permit to occupy, road leases and land leases. Figure 3.1 shows the mix of reserve (broadly made up of USL, parks and reserves), freehold and road (including permits to occupy/road leases).



Figure 3.1: Freehold, Reserve & Road Land Tenure

In connect with the tenure of the land, the layout of roads and structures in the western precinct and ferry queuing areas need to be identified. Figure 3.2 below shows that the south-bound lanes from the ferry are contained on freehold land. While not shown, the south-bound lane exiting the ferry is actually over ILUA land. The effect of the ILUA is discussed further in section 4.5.

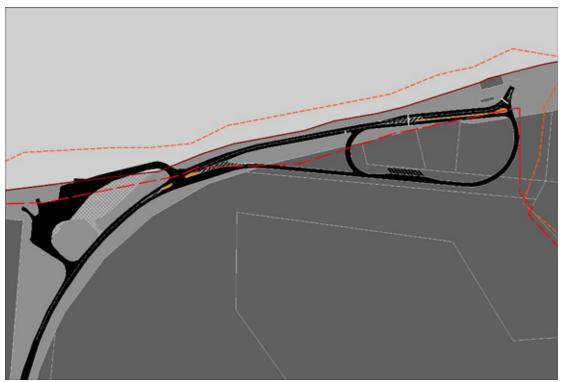


Figure 3.2: Road layout, coastal lines and cadastral lines

Also notable is the quantum of road reserve in the Western Precinct. This places a restriction on public infrastructure or types of uses in the location. Given that there is road infrastructure on freehold land and there are significant quantities of road reserve where land uses exist, this situation needs to be addressed.

While coastal constraints are discussed in greater detail under Section 4.4, the coastal management district restricts the introduction of new permanent infrastructure (excluding roads and safety measures and the like).

3.6 Dredging

Dredging of the Daintree River is required to clear a path for the Ferry to operate. Dredge spoil has previously been piled in the western precinct, however this is not the preferred option. Alternative locations are being investigated and should be formally recognised in the Master Plan.

3.7 Information and Promotional Signage/Structures

At present, too much informational and advertising signage exists throughout the Gateway, particularly in the Western Precinct and Ferry crossing precinct. Much of the signage is also positioned in inappropriate locations. There is a need for signage in the Gateway however the delivery and display of messages can be improved.

3.8 Economics

The value of the economy of the Daintree has not recently been quantified. A 2000 report by the Rainforest CRC, "Daintree Futures Study" identified that the value of Daintree tourism a substantial (around the \$100 million mark). It is important to note that with the economic downturn across the world, this figure is perhaps irrelevant in the current market as tour operators and peak groups have noted a change in the types and behaviours of visitors. What remains relevant, is the potential for the Daintree tourism market and the need to understand a sustainable economy associated with the Daintree (both north and south of the river).

The opportunity exists through this master plan to explore the current tourist destinations in the Daintree area and identify what facilities or attractions are needed to fill the gaps such that the Gateway does not compete for business. The Daintree Gateway is to support other local business, promote the sustainable use of the Daintree's natural resources and provide education of its visitors. Support to economic development is balanced in a sustainable manner with broader social, environmental and cultural development opportunities.

3.9 Daintree Gateway Operations Opportunities

The Daintree Gateway needs to maintain its functionality. The opportunities and issues arising from this need is summarised in the following text.

- The Daintree Ferry remains a critical piece of infrastructure linking the Cape Tribulation section of the Daintree National Park and the communities north of the Daintree River with the rest of the Region;
- Ongoing occupation of road reserve deserves resolution, guided by the outcomes of the Master Plan;
- Location, style and types of directional signage and information relating to the ferry are provided in an efficient manner;
- Location, style and types of infrastructure containing safety messages are provided in an efficient manner;
- The quantum of road reserve in the Western Precinct be reviewed in light of outcomes of the Master Plan with respect to any new facilities needed in the precinct, or where opening of road over freehold land may compensate the closing of road;
- Car parking in the western precinct be rationalised to reduce potential conflict between the vehicle movements associated with the use of the boat ramp and other activities;
- Access to McDowell Lane which is gained through the Western Precinct is formalised, dependant on any other outcomes for the use of the Western Precinct;
- Traffic movements in the ferry crossing precinct are reviewed for efficiency and opportunities for improvements are identified for further investigation as an outcome of the Master Plan;
- Transit lanes and areas are designed to reduce the ability for people to leave their vehicles;
- Identify areas where visitors can walk to the water and remain in a safe location while appreciating views;
- Recreational boaters are provided a boat ramp in the North Bank to improve access to the Daintree River for recreation;
- Alternative locations for dredge spoil from the ferry crossing is identified with approvals obtained after the master planning;
- Educational messages are identified, developed and delivered in effective and innovative ways;

• The Daintree Gateway Master Plan supports the sustainable use of the Daintree's natural resources which in turn supports the tourist economy in the area.



4.0 Daintree Gateway Policy and Legislation

There are a number of Federal, State and Local legislative and policy positions in relation to activities that may be conducted in the Daintree Gateway and its related areas.

4.1 Wet Tropics World Heritage

The Daintree Gateway is adjacent to the Wet Tropics World Heritage Area. The Wet Tropics is protected by the *Wet Tropics World Heritage Protection and Management Act 1993* that is administered by the Wet Tropics Management Authority.

While the precinct is not specifically affected by the Wet Tropics World Heritage controls, the values and processes protected by legislative controls should be promoted in the Daintree Gateway.



Figure 4.1: Wet Tropics World Heritage Areas

4.2 Environmental Protection and Biodiversity Conservation

There are two pieces of legislation that have broad implications for the conservation and protection of biodiversity values in the Daintree Gateway area; *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC – Federal legislation) and the *Nature Conservation Act 1992* (State legislation). While the latter has no immediate effect in the Daintree Gateway, as it relates to State reserves and conservation estates, it is directly aimed at protecting natural resources such as those natural areas adjacent to the Gateway.

The EPBC generally has a broader scope. It aims to protect species as well as areas of significance. The lower Daintree wetland area is not an identified RAMSAR Wetland. However, it is identified on the Important Wetlands of Australia register. This area is covered by National Park. Because the wetland areas adjacent to the Gateway is not mutually exclusive to those immediately adjacent to the Western Precinct, the master plan needs to be cognisant of requirements about noise and light and their impact on flora and fauna. It is important that new development or activities are not supported where they are likely to cause adverse impacts on the surrounding ecosystems.

4.3 Coastal Protection and Management

4.3.1 Introduction

The Daintree Gateway is contained within the coastal zone. In particular the Western Precinct and the North Bank areas are contained within the bounds of the Coastal Management District described under the Wet Tropical Coast Regional Coastal Management Plan and legislated by the Queensland Coastal Protection and Management Act 1995. The Department of Environment and Resource Management has also developed its Draft Queensland Coastal Plan which contains a framework for coastal management and a State Planning Policy for coastal protection and hazard mitigation. The effect of these documents is discussed in the following sections.

4.3.2 Draft Queensland Coastal Plan

The Coastal zone of Queensland is both managed and protected through the State Coastal Plan and the regional coastal management plans. During 2009 the Department of Environment and Resource Management reviewed the State Coastal Plan and the coastal protection measures under the *Coastal Protection and Management Act 1995*. The result of which is the Draft Queensland Coastal Plan. This document is a consolidation of the management and protection regimes into three major parts; the State Coastal Management Plan, the State Planning Policy for Coastal Protection and Guideline for Coastal Hazards.

The Queensland Coastal Plan has not come into effect at the time of preparing this report. However, it is highly likely that it will come into effect at some point in the preparation of the Master Plan. The State Planning Policy is likely to have the most applicability in terms of the opportunity or potential to development new infrastructure. Development within the coastal zone (5km inland or 10 metres AHD) will need to be cognisant of the outcomes sought by the planning policy. In particular, these outcomes will be focussed around protecting areas of ecological significance, maintaining natural regimes in erosion prone areas and mitigating against coastal hazards (including adaptation to sea level rise, coupled with storm tide inundation).

It is considered that the current Wet Tropical Coast Regional Coastal Management Plan provides a comprehensive guide to coastal matters for the Daintree Gateway, albeit without the consideration of sea level rise in new development.

4.3.3 Wet Tropical Coast Regional Coastal Management Plan

The Wet Tropical Coast Regional Coastal Management Plan provides a comprehensive policy to the outcomes sought for the Daintree Gateway area. The relevant policy regional outcomes to the Daintree Gateway are identified and discussed in the sections below.

4.3.4 Settlement Pattern and design (Policy 2.1.2)

The policy states the following:

Growth of urban settlements should not occur on or within (refer also to State Coastal Plan policy 2.8.1 Areas of state significance (natural resources) and regional policy 2.8.2 Coastal wetlands):

- (a) erosion prone areas;
- (b) riparian areas;
- (c) areas of state significance (natural resources) significant coastal wetlands:
- (d) areas of state significance (natural resources) significant coastal dune systems; and
- (e) areas of state significance (natural resources) endangered regional ecosystems.

New urban (including rural residential) development is not supported within the following key coastal sites and coastal localities (further detail is provided in Chapter 3 – refer to section 4.3.18):

(n) Daintree wetland—dune complex (refer to Figure 4.2);...

Cairns Regional Council

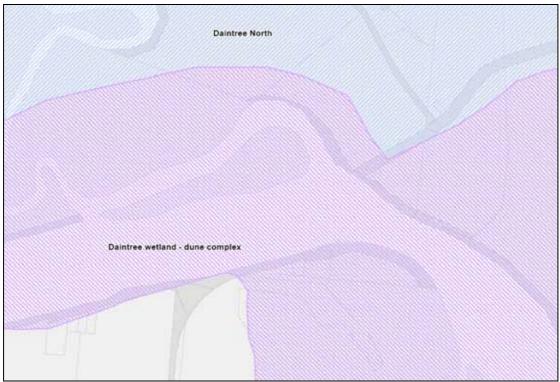


Figure 4.2: Coastal Localities

No urban growth is to occur in the Daintree Gateway. It is considered that this is not an issue, given there is no intention to accommodate new communities in the scope of the Master Plan.

It is important to note that the Daintree wetland-dune complex extends from west of the Western Precinct, encompassing the ferry crossing and north bank, out to the Great Barrier Reef Marine Park.

4.3.5 Maritime Infrastructure (Policy 2.1.5)

The policy states the following:

New privately or publicly owned maritime infrastructure is not supported in the largely pristine tidal waters of the Wet Tropical Coast region identified below (with the exceptions of navigation and regulatory aids to assist vessels, infrastructure necessary for environmental protection and/or management, minor modifications of existing approved structures such as adding a pontoon to a boat ramp):

(n) Daintree wetland—dune complex - including the Daintree estuarine system;

No new maritime infrastructure (public and private) is supported in the Daintree River. This information is particularly important to note as there has been a notion of providing a floating pontoon for tourist purposes on the river.

4.3.6 **Dredging (Policy 2.1.8)**

The policy states the following:

Maintenance and capital dredging in the Wet Tropical Coast region is mainly associated with the Cairns Seaport, the Port of Mourilyan, the Port Douglas boat harbour and marina, and the Half Moon Bay Marina. Many land and sea areas in the region may be inappropriate for the disposal of dredge spoil because they are World Heritage listed, national park or have important conservation or recreational values. Dredge spoil is used for reclamation or placed at sea (ports only). Dredging occurs at:

 Daintree wetland - dune complex - to maintain access for the ferry crossing of the Daintree River.

Dredging may continue to maintain access for the ferry crossing.

4.3.7 Tourism and Recreational Activities (Policy 2.1.10)

The policy states the following:

Provision of a diverse range of nature—based tourism and recreational opportunities and settings in the Wet Tropical Coast region, as promoted in the Wet Tropics Nature Based Tourism Strategy, is supported with an emphasis on:

- (a) presentation of the region's coastal resources, in particular the World Heritage areas;
- (b) enhancing understanding and appreciation of the World Heritage areas:
- (c) maintaining opportunities for visitors to experience high quality, remote, undeveloped areas while maintaining the inherent character and full suite of values of those places; and
- (d) supporting, where relevant, Indigenous Traditional Owner cultural tourism aspirations.

Tourism and recreation development and operations are to be compatible with the desired coastal outcomes of applicable key coastal sites and coastal localities identified in Chapter 3 (refer to section 4.3.18).

Access to recreation/tourism settings is to be allocated equitably between tourism operations and private recreational users, and avoid displacing established users.

Key messages from any new interpretive or education facilities should be providing information about the coastal areas and values of the region.

4.3.8 Adaptation to Climate Change (Policy 2.2.1)

The policy states the following:

In planning for new and existing development on the coast in the Wet Tropical Coast region, local governments and other relevant planning agencies are to incorporate available data on climate change to safeguard human life and property.

To the extent practicable, State agencies, local government, industry groups and other stakeholder groups in the region are to participate in relevant climate change studies and provide data and knowledge about relevant climate change impacts and any adaptation options.

Cairns Regional Council has recently adopted its Climate Change Strategy. As part of this strategy officers are currently reviewing Council's standards for assets in responding to climate change, including sea level rise. Any new facilities shall need to respond to sea level rise in this location.

4.3.9 Erosion Prone Areas (Policy 2.2.2)

The policy states the following:

Defence actions undertaken to protect development within erosion prone areas are to avoid whenever practicable, adverse impacts on coastal resources and their values including scenic amenity and coastal processes.

If action is required, taking into account the practicality of the proposed defence action and the development's value, the following options are supported in order of decreasing preference:

- (a) remove, relocate or resume the development from the site; or
- (b) undertake beach nourishment to increase the width of the buffer zone; or
- (c) push sand from the intertidal zone up to the beach to provide short term relief from erosion where the movement of sand will have minor and temporary impacts on intertidal ecology; or
- (d) construct groynes or off—shore breakwaters to increase sand accumulation on the eroded section of coast, subject to an assessment of the impacts on the adjacent coast; or
- (e) construct a revetment to permanently stop erosion and protect development, provided that such works are placed as far landward as possible so as not to isolate sand reserves from the active beach system and are subject to an assessment of impacts on the adjacent coast.

Where erosion threatens Indigenous Traditional Owner cultural heritage places, consultation with the Indigenous Traditional Owners should be undertaken regarding the management options required to protect these places.



Figure 4.3: Erosion Prone Areas

Development will be relatively free of erosion prone areas in this location. However the principles of erosion prone areas needs to be applied to activities in the Daintree Gateway, particularly as there is an esplanade given to the banks of the Daintree River. Esplanades are generally provided to protect river and foreshore areas from development activities.

4.3.10 Coastal Hazards (Policy 2.2.4)

The policy states the following:

Local governments and other planning agencies are to recognise areas identified as having a risk of being affected by coastal hazards as a development constraint, when undertaking relevant planning.

Cairns Regional Council has conducted storm tide inundation studies for this area. These are discussed in section 2.3. Decisions need to be made about whether new floor areas or other facilities need to be clear of storm tide inundation levels or whether new facilities have risk appetite to accept the impact of storm tide inundation. It will depend on the form, function and type of facility proposed.

4.3.11 Coastal Road Network (Policy 2.3.3)

The policy states the following:

Esplanades in the following localities in the Wet Tropical Coast region are to remain in an undeveloped state, with the exception of low-key development to support recreational activity such as walking tracks and day-use areas, or to minimise impacts from erosion:

- (w) Daintree River (partly within coastal locality 15.1 Daintree wetlanddune complex);
- (x) Daintree wetland-dune complex (coastal locality 15.1) the beach at Cape Kimberley;

The Western Precinct is located in a road reserve. This type of tenure prevents Council and others from proposing new activities or permanent building infrastructure in this locality. An appropriate tenure of the land must be supported by the State Government, otherwise the intersection of Mossman-Daintree and Cape Tribulation Roads must be considered as a primary location for new tourist activities for the Daintree Gateway.

4.3.12 Waste-disposal Facilities (Policy 2.4.3)

The policy states the following:

Treated effluent from sewage treatment systems including package treatment plants and septic systems is to have no adverse impacts on coastal waters.

The use of septic systems in proximity to coastal waters is not supported in the region.

Alternative sewage treatment and disposal technologies that do not result in adverse impacts on coastal waters are supported, including connection to a sewerage scheme or the use of an appropriate sewage treatment process/package.

The re-use of treated effluent is supported, where it will not contaminate coastal waters.

Upgrading of package treatment plants and septic systems to reduce levels of nutrient discharge is supported.

Improved monitoring and management of existing sewage treatment systems, including package treatment plants and septic systems, is supported to optimise their performance.

The Western Precinct requires new public amenities (if the tour operators are to remain in the precinct). These need to be designed and located to maintain coastal water quality objectives.

4.3.13 Areas of State Significance (Scenic Coastal Landscapes) (Policy 2.7.1)

The policy states the following:

The areas of state significance (scenic coastal landscapes) for the Wet Tropical Coast region are those having 'Very High' scenic landscape quality, as shown within... Figure 4.4 below.

As landscape resources of the region would be particularly affected by visible development at those offshore islands and mainland locations having 'Very High' scenic landscape qualities, areas of existing or new development in these locations are not to increase their level of visual impact.

Agencies are to include measures in plans that protect scenic coastal landscape values from incompatible land uses. For the following localities within areas of state significance (scenic coastal landscapes), buildings and other structures are to be screened by native vegetation complementary to the landscape character of the area and be no more than two storeys.



Figure 4.4: Scenic Coastal Landscapes (Very High)

The area has a very high scenic amenity value. New development must be sympathetic to, and reflective of these high natural values.

4.3.14 Coastal Wetlands (Policy 2.8.2)

The policy states the following:

Coastal wetlands in the Wet Tropical Coast region are shown within Figure 4.5.

Planning schemes are to identify coastal wetlands in the region and include measures that conserve these areas from incompatible development.

Detailed research on the impacts of natural and human disturbance to seagrass, and the comprehensive mapping of seagrass beds by relevant agencies within the region, particularly along the coastline from Ellie Point to the Bloomfield River, is supported.

The quality of water entering coastal wetlands is to be of a standard sufficient for the ecological sustainability and functionality of aquatic ecosystems consistent with ANZECC guidelines, or regional water quality objectives when prepared.

Agencies with planning and management responsibilities for areas within or adjacent to coastal wetlands are to, where practicable, achieve their protection by:

- (a) involving all relevant interests, including Indigenous Traditional Owners:
- (b) identifying individual wetland values and functions through comprehensive surveying and monitoring;
- (c) developing and implementing wetland management plans;
- (d) reinstating or rehabilitating wetlands and ensuring their ecologically sustainable use (through providing appropriate incentives); and
- (e) supporting education programs that illustrate the values of wetlands including their role as fish habitats.



Figure 4.5: Coastal Wetlands – Lower Daintree River

This plan shows that the Daintree River, the north bank and the areas to the east of the ferry are within the coastal wetlands.

The Queensland Wetlands Program was launched to support projects that will result in long-term benefits to the sustainable use, management, conservation and protection of Queensland wetlands. The Program is a multi-agency partnership between the Queensland departments of Environment and Resource Management (DERM) and Employment, Economic Development and Innovation (DEEDI), the Australian Government Department of Water, Heritage, Environment and the Arts, and the Great Barrier Reef Marine Park Authority.

As part of this program, new wetland mapping has been produced. Figure 4.6 below shows the extent of newly defined wetlands in this locality.

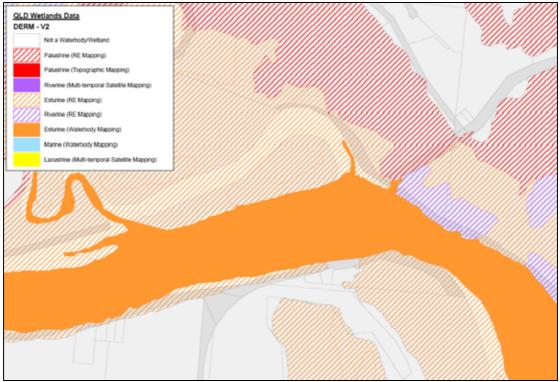


Figure 4.6: Queensland Wetlands Mapping

The extend of wetland area is generally consistent with the Coastal Management Plan's mapping. However, there is more detail about the extent and type of wetland and the sorts of buffers that may be needed between wetland and new development. These guidelines have not yet been established. However, it is considered the Department of Environment and Natural Resource Management shall need to be consulted through the master planning to understand the current policy development for wetlands.

4.3.15 Biodiversity (Policy 2.8.3)

The policy states the following:

Areas of important biodiversity value in the Wet Tropical Coast region include:

- (a) riparian vegetation;
- (b) World Heritage areas;
- (c) Fish Habitat Areas:
- (d) coastal wetlands:
- (e) vegetated dune systems; and
- (f) remnant native vegetation.

Areas of important biodiversity value in the region are to be recognised as valuable features in planning schemes and measures developed to conserve and manage these areas from incompatible development. Appropriate measures are provided in policies 2.1.2 Settlement pattern and design, 2.8.1 Areas of state significance (natural resources), 2.8.2 Coastal wetlands and as follows.

To the extent practicable, agencies are to adopt strategies to protect roosting and nesting sea birds, including seasonal closures if necessary, particularly at the following sites:

(k) Daintree wetland—dune complex including tidal fiats (coastal locality 15.1);

The following matters are to he achieved whenever practicable by agencies, local governments and land managers when undertaking planning, development or management activities in the Wet Tropical Coast region:

- (a) rehabilitation of riparian vegetation and wildlife corridors (refer regional policy 2.8.4 Rehabilitation of coastal resources);
- (b) sustainable natural resource management practices on rural lands (refer regional policy 2. 1. I Rural land uses)
- (c) consideration of appropriate management arrangements to maintain biodiversity on State land on the coast (refer regional policy 2.9.3 State land on the coast
- (d) the involvement of Indigenous Traditional Owners (refer regional policy 2.5.2 Involvement of indigenous Traditional Owners in managing their cultural resources);
- (e) targeted control of pest species (refer regional policy 2.8.5 Pest species management);
- (f) development of education programs to increase awareness of biodiversity and the functional values of remnant and riparian vegetation and other coastal habitats including wetlands;
- (g) voluntary conservation on private land, particularly in the priority areas listed on pages 95 and 96 (of the Plan);
- (h) establishment of incentives to encourage conservation of important biodiversity areas and rehabilitation of riparian vegetation and wildlife corridors (refer regional policy 2.8.4 Rehabilitation of coastal resources); and
- (i) investigation of prudent and feasible alternatives to the location and design of powerline infrastructure that would otherwise impact on riparian vegetation and wildlife corridors, coastal wetlands and refuge areas.

Priority areas for negotiating voluntary conservation agreements that promote habitat retention, including the conservation of wetlands, riparian vegetation and wildlife corridors, on land zoned for agriculture or urban development, are within the localities listed below (Chapter 3 (refer to Section 4.3.18) provides further details for key coastal sites and coastal localities):

- (s) Daintree wetland-dune complex;
- (t) Daintree north;

The master planning for the Daintree Gateway will need to be cognisant of the biodiversity outcomes for the area. With assistance of internal departments of Council and from the Department of Environment and Natural Resource Management, other outcomes extending through the implementation of the Master Plan may be necessary.

4.3.16 State land on the coast (Policy 2.9.3)

The policy states the following:

The following are priority localities containing State land on the coast that provide important opportunities for the Queensland Government to directly influence the use and management of land on the coast and to achieve coastal management outcomes and principles:

(z) Daintree wetland-dune complex;

Decisions on tenure or reserve classifications for State land on the coast (listed above) are to:

- (a) be consistent with the desired coastal outcomes for the applicable key coastal sites and coastal localities identified in Chapter 3 (refer to section 4.3.18); and
- (b) involve Indigenous Traditional Owners (in accordance with regional policy 2.5.2 Involvement of Indigenous Traditional Owners in managing their cultural resources

To the extent practicable, management plans are prepared for reserves on the coast in the Wet Tropical Coast region.

As identified previously in this report, the tenure of land needed in the Western Precinct is not available at present. The master plan will need to determine the best tenure of land necessary in a collaborative manner, with stakeholders from the state and indigenous traditional owners.

4.3.17 Coastal Management Districts (Policy 2.9.5)

The coastal management district and coastal building lines are the areas where the Department of Environment and Resource Management has concurrence agency or assessment manager powers to assess certain development applications under the *Sustainable Planning Act 2009*. Under the Coastal Act, regulations can be made and coastal protection notices can he issued within a coastal management district. Figure 4.7 shows the extent of the Coastal Management District for the Daintree Gateway. The Coastal Management District in this locality is generally mapped at 40m landward from the Daintree River Mean High Water Spring (MHWS) which is approximately 0.879 metres AHD, except where the extent of the coastal wetland mapping is greater.



Figure 4.7: Coastal Management District

4.3.18 Key Coastal Site 15.1: Daintree wetland-dune complex

The description relating to the Daintree wetland – dune complex is outlined in the following paragraphs. This description gives context to the outcomes sought in the coastal management areas.

Desired coastal outcomes

- The World Heritage values of the wetlands and associated mosaic of forest types are maintained.
- The integrity of the wetland and associated dune/swale system is maintained.
- The mouth of the Daintree River and its immediate environs (including the esplanade) are retained in a natural condition, free of infrastructure.
- Water quality is maintained through measures such as the conservation of riparian vegetation and effective stormwater and sediment control.
- Future use of the unallocated State land on the coast (particularly USL lot 97, plan USL 4922) conserves the high environmental values and features, through the implementation of an appropriate management regime.
- Future use of the reserve (lot 373, plan SR783) is consistent with its
 dedicated purpose and includes the community purpose of
 'environmental purposes'. The reserve is properly and effectively
 managed in accordance with an approved management plan.

- Management of sand extraction from the Daintree River, to maintain access at the ferry crossing, considers the potential adverse effects of erosion along the coast and the important contribution the river makes to the sand replenishment process.
- The natural, physical and scenic integrity 0f the dune/swale system, including the rare mesophyll vine forest on beach dunes, is maintained.
- There is no vehicle use on the beach beyond the southern limit of USL lot 97, plan US LS922,
- The natural integrity of the wetland system associated with the Daintree River is maintained.
- Degraded parts of the Daintree River are rehabilitated to a natural condition.
- Recreational and tourism use of the Daintree River is managed to provide ecologically sustainable and diverse visitor experiences.
- No further intensification or expansion of beach lint settlements occurs on the south arm of the Daintree River.
- There is no further development of private maritime infrastructure on the south arm of the Daintree River.

Significant resources and their values

Significant coastal resources (natural and cultural) and their values

- An extensive estuarine complex with marginal freshwater wetlands and a dune/swale system (approximately 1 km wide) extends southwards from (Cape Kimberley.
- These wetlands (known collectively as the lower Daintree River Wetland), including the associated endangered regional ecosystems and vegetated dune system, are areas of state significance (natural resources).
- A substantial part of this locality is in the WTWHA. It has high natural
 integrity and very high scenic and scientific values. All of the coastal
 waters are within the GBRWHA, Great Barrier Reef Marine Park or
 Cairns Marine Park.
- The mouth and environs of the Daintree River have high wilderness values with the highest diversity of mangrove species in Queensland.
- A mosaic of vegetation communities includes mangrove forests in tidal areas, melaleuca wetlands and complex mesophyll vine forests associated with the dune/swale system.
- The vegetation diversity provides habitat for a wide range of wildlife including estuarine crocodiles, turtles, the southern cassowary and Irrawaddv and Indo—Pacific humpback dolphins. The tidal habitats are used by migratory and resident waders.
- The Far North Queensland Regional Plan recognises the Daintree to Cape Tribulation section of this locality as a 'priority biodiversity' area. (Editor's Note: The regional plan is the now superseded).

Significant social and economic resources and their values

- The locality has a popular beach and is a highly frequented recreational and tourism area of international renown for fishing, scenic amenity and wildlife appreciation.
- The excellent opportunities to view estuarine crocodiles are a tourism drawcard.

Coastal management issues

- Much of the Daintree floodplain has been cleared for sugar cane production and grazing. This has impacted on water quality and caused the erosion of stream banks and the introduction of weeds.
- Drainage of agricultural land can adversely affect wetlands and may expose acid sulfate soils. Acid sulfate soil risk is high.
- Disruption to natural sand supply to the coast may cause significant erosion for tins coastal sector.
- The USL parcels and reserve need to he managed to conserve their high environmental values and features.
- Due to the multiple jurisdictions involving marine park, esplanades and reserve, combined with a World Heritage listing, there is a need for coordination between the relevant land and marine resource managers, including the appropriate Indigenous Traditional Owners, in matters relating to planning and management.
- The natural integrity of the Daintree duties is potentially threatened by unmanaged recreational use. Vehicle use on the beaches can damage and degrade the dunes and associated vegetation. it also impacts on the enjoyment of the beaches by other users.
- Maintenance of the natural and scenic integrity of the wetlands of the Daintree River requires careful management. Coastal land use (residential and tourism development) has the potential to impair the integrity of the wetland.
- Commercial tourist operations on the Daintree River require careful management to maintain natural integrity and visitor experience. Increasing visitor numbers may adversely impact on the environmental arid social values of the river arid cause the displacement of wildlife. Tourist operations may also compromise the enjoyment of the river by other risers.
- Beach huts and maritime infrastructure on the south arm of the Daintree River adversely impact on the natural and wilderness values of the estuarine system.

The locality is described in Figure 4.8.



Figure 4.8: Key Coastal Sites – Daintree

It is worth noting that the Western Precinct and the intersection are not covered by the effect of the Wet Tropical Coast Regional Coastal Management Plan.

4.3.19 Summary of Key Coastal Considerations

- The Daintree River and areas including the ferry crossing and North Bank are included in the identified areas of ecological integrity of the coastal zone:
- No permanent infrastructure in coastal management district;
- No new public or private maritime infrastructure;
- Risk of acid sulfate soil presence is high;
- Stormwater quality is a high consideration;
- Tourism and recreation is promoted where they do not impact on ecological integrity values;
- The erosion prone area is not to be protected, but rather development is located and designed to withstand risk from erosion and river movements (except to protect the ferry crossing);
- Waste disposal systems need to designed and located to maintain the water quality of the Daintree River;
- Dredging to maintain the functionality of the Daintree River may continue;
- The area has a very high scenic amenity making it a place of State significance:
- The outcomes for development in the Daintree coastal area must be cognisant of the impacts of climate change.

4.4 Vegetation Management

Regional Ecosystem mapping from the Department of Environment and Resource Management (shown in Figure 4.9) identifies where Operational Works approvals for vegetation clearing are required if such works are proposed.

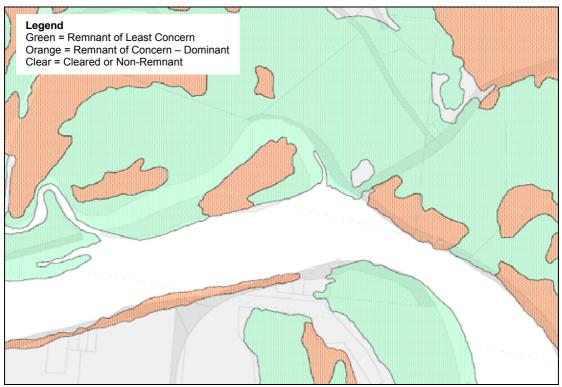


Figure 4.9: Regional Ecosystem Mapping (v6)

4.5 Indigenous Land Use Agreement

Part of the Daintree Gateway is covered by the Eastern Kuku Yalanji Indigenous Land Use Agreement (ILUA). The ILUA recognises Native Title claim and opportunities for indigenous community development, while allowing Council to maintain non-indigenous infrastructure. Lot 359 on SP215752 (formerly Lot 359 on SR709) is covered in the ILUA area and contains Council road and public amenities infrastructure. This was formally recognised by a subdivision of the parent allotment early in 2010 creating two reserves; the western reserve for recreational purposes (Lot 359 on SP215752) and the eastern reserve for "cultural and environmental purposes" (Lot 67 on SP215752).

The ILUA allows Council to continue to maintain and for the public to use this infrastructure. However, changing the functionality and introduction of new infrastructure may not be appropriate with respect to the outcomes of the agreement. It is necessary to engage the Jabalbina Yalanji Corporation as a stakeholder in the development of the master plan to ensure the intent of the ILUA is upheld and the community development aspirations of the Eastern Kuku Yalanji are considered in final outcomes.

4.6 Iconic Places

The Iconic Queensland Place of Douglas was declared in 2008 under Section 5(2) of the *Iconic Queensland Places Act 2008* (IQPA). The purpose of the Act is to protect places with characteristics or qualities in their natural or built environment that reflect or contribute in a substantial way to Queensland's character.

The IQPA modifies laws and procedures about planning and development assessment by local governments in the places and imposes additional requirements for making changes to particular local laws relating to the place.

The Douglas Declaration Notice stated the below as the Iconic Values of Douglas:

Iconic Queensland Place of Douglas - Iconic Values

Douglas Shire is a place of extremely high biodiversity. It is also internationally unique as the only place where two World Heritage Areas (WHAs) meet - the Great Barrier Reef World Heritage Area (GBRWHA) and the Wet Tropics World Heritage Area (WTWHA).

Douglas Shire's biodiversity values range from woodlands to mangrove forests, to vegetated sand dunes/swale systems, reefs, foreshore areas, intertidal seagrass beds and estuarine river/creek systems to lowland rainforests and mountain ranges. Areas of important remnant/riparian habitat and areas of considerable biodiversity value occur along the coastal plain and are subject to considerable development pressure.

The landscape and scenic values include the dramatic mountainous topography, luxuriant rainforest, wilderness areas, steep escarpments, the coastal plain, scenic coastline and the diversity in landscape elements from sand dunes, mangrove forests, wetlands, creek and river estuaries, fringing coral reefs and coral islands, sandy beaches, to rugged mountain ranges and the broad expanse of agricultural land with smaller areas of cattle grazing and horticulture.

Known sacred / spiritual / burial / story / meeting / ceremonial places / sites, which encapsulate the Indigenous cultural / landscape values and include, but are not restricted to, Roaring Meg Falls, Bouncing Shores Mossman Gorge and Blue Hole. Highly defined urban footprint boundaries of the Shire contain urban development to designated town, villages and settlement areas within the Shire. These include Wangetti, Oak Beach, Mowbray, Craiglie, Port Douglas, Mossman, Cooya Beach, Newell Beach, Miallo, Rocky Point, Wonga Beach and Daintree Village and various small rural residential communities to the south of the Daintree River and Forest Creek, Cape Kimberley, Cow Bay, Diwan, Coopers Creek, Cape Tribulation and Degarra to the north of the Daintree River.

The built environment values are characterised by:

- Low rise buildings, maximum 2 storeys Shire wide (Port Douglas very select areas limited to 3 storeys);
- Low scale buildings and visually dominant native/tropical vegetation in an urban setting surrounded by an expansive rural landscape and framed by mountains;
- No major through roads in the Shire, no traffic lights and no proliferation of advertising signage;
- Development of a tropical architectural style, particularly in Port Douglas, Daintree Village and north of the Daintree River;
- Containment of tourist development, primarily in Port Douglas and to a lesser extent Daintree Village and north of the Alexandra Range, where it is low key and subservient to the environment;
- Confirming Mossman as the administrative centre of the Shire, thereby limiting commercial development in the smaller towns and villages to that which services the local community;
- Low rise coastal settings. Limited views of urban development along the beachfront (when viewed from the beaches) at Port Douglas and at beach townships and coastal settlement areas;
- The rainforest setting of the settlement areas and townships north of the Alexandra Range, with access to this area limited to the Daintree Ferry crossing, which provides a sense of arriving in a special place; and
- Historical buildings and monuments in Port Douglas, consolidating the town centre near the harbour, maintaining open space between the Boat Harbour and Wharf Street and maintaining low speed, narrow local roads.

4.7 Sustainable Planning

The Sustainable Planning Act 2009 provides a number of state, regional and local dimensions to planning and planning instruments. This piece of legislation also aims to integrate and coordinate legislative policy positions from numerous other pieces of legislation through development assessment processes and planning instruments. A number of State Policies and legislative requirements have been discussed in the paragraphs above. In addition, the primary planning instruments that affect the Daintree Gateway include the Far North Queensland Regional Plan and the Planning Scheme for the Douglas Shire. The effect of these two documents is discussed in further detail below.

4.7.1 Far North Queensland Regional Plan 2009-2031

The Far North Queensland Regional Plan 2009-2031 is the penultimate statutory planning instrument for the Region. It provides a clear direction to the location of urban and growth areas and is supported by eight interlinking themes and Desired Regional Outcomes (DRO); environment, regional landscape and natural resources, strong communities, urban development, economic development, infrastructure, water management and transport.

For each DRO there is a number of sub-themes and for each sub-theme, there is a number of land use policies.

Mapping is also attached with these DROs, sub-themes and land use policies. The regional land use categories and the areas of ecological significance mapping is of particular importance to the Daintree Gateway. These influence the location of new development and the significance of particular environmental areas. Figure 4.10 identifies that the entire Daintree Gateway location is contained in the Regional Landscape and Rural Production Area (RLRPA). Two other land use categories exist in the Regional Plan; Urban Footprint and Rural Living Area. The RLRPA category restricts the opportunity for expansive urban development in this area. The Regional Plan defines urban development as:

A general term including residential, industrial, retail, commercial, sporting, indoor recreation, short term accommodation, community activities and a range of other urban land uses. It does not include rural land uses such as agriculture and horticulture.

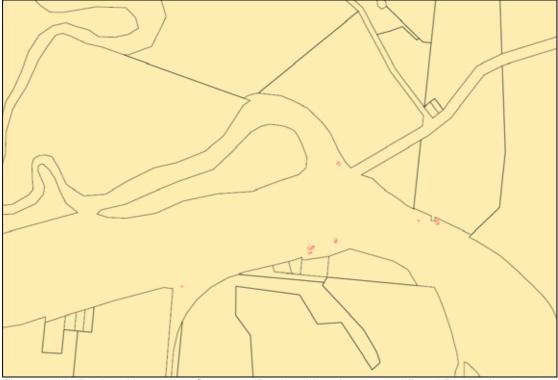


Figure 4.10: Regional Land Use Category (Regional Landscape and Rural Productive Area)

Notwithstanding, the ultimate planning instrument for the Region is the Far North Queensland Regional Plan 2009-2031 State Planning Regulatory Provisions (SPRP or regulatory provisions). In its introduction, the Regional Plan identifies the SPRP restricts the following in the RLRPA:

- further fragmentation of land holdings;
- urban development, except within specific urban zonings;

- residential development associated with tourist accommodation;
- expansion of rural residential development.

The regulatory provisions support diversification of rural economies by allowing a range of developments including:

- small to medium scale tourist activities:
- small scale industry, business and community activities;
- sport and recreation facilities.

It is therefore considered that scope is available to establish structures and land uses in the Daintree Gateway, despite its designation under the Regional Plan.

As discussed above, there is a second area of interest (in terms of mapping) in the Daintree Gateway; the areas of ecological significance mapping. While these maps also correlate to the wetlands, ecosystems and coastal mapping, the Regional Plan mapping places broad-based values on these regions. There are a number of classifications that describe these values; high ecological significance (terrestrial, wetlands, state and regional conservation corridors, estate) and general ecological significance (terrestrial, wetlands, local conservation corridors). Land use policies 1.1.1, 1.1.3 and 1.1.4 relate to these categories. They read as follows:

- 1.1.1 Urban development within the regional landscape and rural production area is located outside of areas of high ecological significance.
- 1.1.3 Urban development adjacent to areas of high ecological significance is located, designed, operated and setback to avoid adverse impacts on the area's ecological values.
- 1.1.4 Urban development in or adjacent to areas of general ecological significance is located, designed and operated to avoid or, where avoidance is not possible, minimise any adverse impacts on ecological values where possible.

Figures 4.11, 4.12 and 4.13 below, identify areas of high ecological significance, general ecological significance and local conservation corridors (respectively) in the Daintree Gateway area.

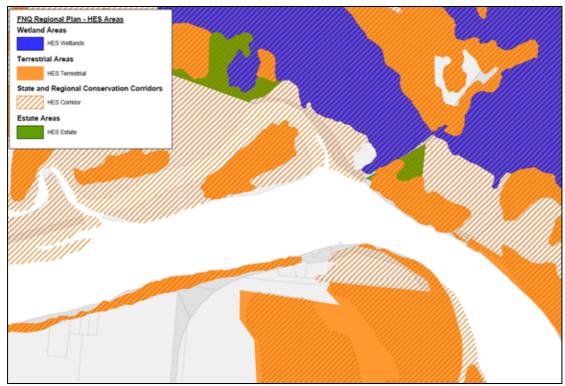


Figure 4.11: High Ecological Significance Areas



Figure 4.12: General Ecological Significance Areas



Figure 4.13: Local Conservation Corridor

As shown in the figures, the western precinct and a small pocket of clearing at the north bank are clear from areas of high and general ecological significance. However, given they are adjacent to areas of these values, the land use policies will apply to any new development activities.

There are numerous land use policies in the Regional Plan which will apply to development in support of the outcomes for the Daintree Gateway Master Plan. Rather than relay all of these policies, Table 4.14 below identifies some of the key policies that will be relevant.

Desired Regional Outcome		Sub-Theme	Land Use Policy
1.	Environment	Biodiversity conservation Coastal management Air and acoustic environment protection	1.1.1, 1.1.3, 1.1.4 1.2.1, 1.2.3, 1.2.5 1.3.1
2.	Regional landscape and natural resources	Regional landscape values Scenic amenity, outdoor recreation and inter-urban breaks Primary production and fisheries Rural precincts	2.1.1, 2.1.2, 2.1.3 2.3.1, 2.3.4 2.4.1, 2.4.2 2.7.1, 2.7.2
3.	Strong communities	Social planning Social infrastructure Healthy and safe communities Community engagement and capacity building Sense of community, place and identity Arts and cultural development Cultural heritage Strengthening Indigenous communities	3.1.1, 3.1.2, 3.1.6 3.2.2 3.3.1 3.4.1 3.5.3, 3.5.4, 3.5.5 3.6.2 3.7.3 3.8.2
4.	Urban development	Sustainable buildings and tropical design Mitigation of hazards	4.5.1, 4.5.2, 4.5.3, 4.5.4 4.7.1, 4.7.2
5.	Economic development	Economic growth and diversification Primary industries Tourist development	5.1.1, 5.1.6, 5.1.7 5.4.2, 5.4.3, 5.4.5 5.5.4
6.	Infrastructure	Infrastructure planning and coordination Energy	6.1.4 6.3.2, 6.3.3
7.	Water management	Protection of waterways, wetlands and water quality Total water cycle management	7.1.1, 7.1.2, 7.1.3, 7.1.4, 7.1.5, 7.1.7 7.2.1
8.	Transport	Integrated transport and land use planning Transport networks	8.1.10, 8.1.11, 8.1.12 8.2.9

Table 4.14: Far North Queensland Regional Plan 2009-2031 relevant Land Use Policies

4.7.2 Douglas Shire Planning Scheme

The Douglas Shire Planning Scheme was adopted in 2006 by the former Douglas Shire. A number of its elements relate directly to desired outcomes in the Daintree Gateway. Of all planning and legislative requirements relating to the Gateway, the planning scheme is the least paramount in case of conflict. More significantly, as this is a local planning instrument considerable scope to amend its provisions exists. In this regard, while it is important to understand the fundamentals of the planning scheme, they are the most likely able to change.

The Daintree Gateway is located at the adjunct of three planning localities and consists of two predominant zones. Figures 4.15 and 4.16 below show the spatial bounds of each.

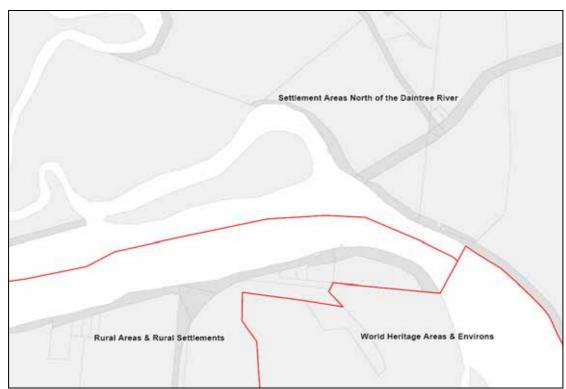


Figure 4.15: Planning Localities



Figure 4.16: Planning Areas

In terms of natural constraints, the planning scheme describes the bushfire risk, potential or actual acid sulfate soils and natural watercourses (refer to Figures 4.17, 4.18 and 4.19).



Figure 4.17: Bushfire Risk

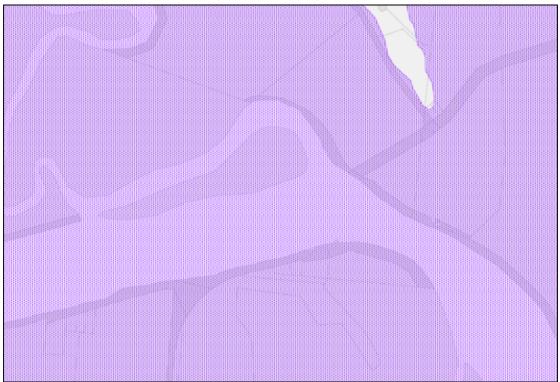


Figure 4.18: Potential or Actual Acid Sulfate Soils (20m contour)

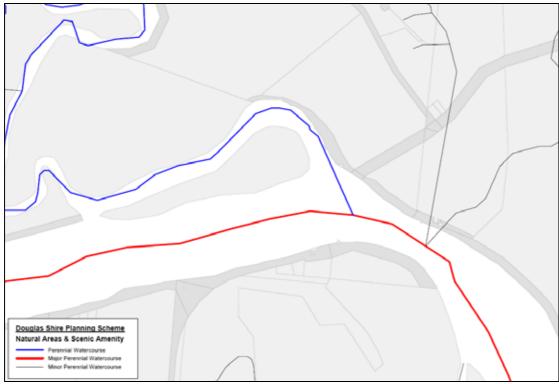


Figure 4.19: Natural Areas and Scenic Amenity (Watercourse)

As mentioned in Section 2.6, the Daintree Ferry is identified as a local heritage or valuable place (see also Figure 4.20 below). There is no description or declared heritage value attached to the ferry at this stage.



Figure 4.20: Cultural Heritage & Valuable Sites

4.8 Building Codes

There are many options relative to new facilities or amenities in the Daintree Gateway. The needs of multi or single purpose buildings in common or separate locations will be determined through the planning process with key stakeholders. The common building code element is the Building Code of Australia (BCA) which is applicable to all new facilities and amenities. In conjunction with the BCA, sustainable building provisions MP4.3 of the Queensland Development Code (QDC) may apply. MP4.3 relates to alternative water sources for commercial buildings, particularly with respect to the capture of rainwater and its use as greywater.

However, this is only one aspect of sustainable building design. Opportunity exists to facilitate an exemplar in sustainable building design and self-sufficiency that integrates all of the following in some manner:

- water use, re-use and wastewater disposal;
- energy use and production;
- use of recycled building materials;
- climate responsive design;
- construction methods;
- stormwater quality improvement;
- waste minimisation; and
- environmental offsets or improvement.

Council is currently embarking on developing a Sustainable Design Guideline for Council Buildings.

A plethora of Australian Standards relate to building works for new facilities, as referenced in the BCA and QDC. One of the more prominent standards relating to Council facilities is *AS1428.1 Design for access and mobility*. This standard relates to access to and within buildings for all abilities.

Additionally, Council must consider the flooding, storm tide and sea level rise impacts on the Daintree Gateway in conjunction with these standards and building design measures.

4.9 Sustainability

Cairns Regional Council's *General Policy No.* 1:04:01 – *Corporate Sustainability Policy* aims to embed sustainability into the operational function of the organisation. The intent of this policy is to:

- Respond to the challenge of climate change;
- Maintain and restore the natural environment;
- Use our resources more efficiently:
- Reduce our environmental impact;
- Display strong leadership to the community;
- Reduce financial losses associated with inefficient energy and resource consumption.

The areas of focus for the delivery of this policy include:

- 1. resource efficiency
- 2. sustainable urban form and places
- 3. biodiversity conservation
- 4. health and wellbeing
- 5. good governance

Council will strengthen, adjust and build internal management frameworks that ensure sustainability performance improvement is integrated as a core part of Council's strategic and operational management. To help implement this, the Sustainability Scorecard has been developed.

The intent of the Scorecard project is to:

- provide resources to assist the integration of Council's CSP across its operations; and
- deliver a process for measuring and communicating Council's activities against the CSP.

The Sustainability Scorecard framework is structured around four themes which reflect the intents of the CSP and are based on a quadruple bottom line approach.

- Improving Resource Efficiency
- Conserving Bio-Diversity
- Enhancing Community Health and Wellbeing
- Delivering Sound Governance and Economic Management

Balanced reporting on the sustainability merits of individual projects, decisions or activities will be produced by the Sustainability Assessment Tool. The outputs of the assessment will also contribute to lead indicators for the Annual Scorecard and Monthly Snapshots, as well as providing a project specific reporting output to Council.

The Daintree Gateway Master Plan is a project that can be measured by using the Sustainability Scorecard and assess the quadruple bottom line sustainability of the final outcomes.

4.10 Climate Change Adaptation

Cairns Regional Council has adopted its *Climate Change Strategy 2010-2015* to provide clear direction for responding to climate change risks and challenges. The strategy builds on Council's existing climate change policies and programs and recognises that responding to climate change is the responsibility of all areas of Council, and will require a coordinated, collaborative approach in order to successfully make the transition to a low carbon, low oil and sustainable future.

The values of the Climate Change Strategy should be reflected in the Daintree Gateway Master Plan.

4.11 Daintree Gateway Policy & Legislative Opportunities

Policy and legislation is generally considered a constraint. However, it must be viewed as opportunity to reinforce the values it seeks to protect. In this regard, the following outlines a summary of the opportunities that arise from local, State and Federal policy and legislation.

- The values of the natural areas protected and guided by policy and legislative controls should be exemplified in the educational messages Daintree Gateway (e.g. Wet Tropics values, wetland values);
- New amenities and facilities use innovative design to reduce noise and light impacts on flora and fauna;
- New development and activities adjacent to the Daintree River include consideration of their footprint and impact on the ecological integrity of the coastal zone;
- Permanent infrastructure is located outside of the coastal management district to protect the coastal resource;
- Public or private maritime infrastructure must only be established where they are essential to sustainable use of the Daintree River;
- Innovative construction methods are use to avoid risk of exposing acid sulfate soils;
- The quality of stormwater entering the Daintree River is healthy;
- Tourism and recreation is sustainable and leave no footprint on the ecology of the area;
- Alternatives to protection of the entire erosion prone area is considered, with development being established in areas where the risk from erosion and river movements is minimal;
- Waste disposal meets contemporary best practice standards and use innovative design to maintain the water quality of the Daintree River;
- Dredging continues to maintain the functionality of the ferry, but alternative locations are sought for the treatment and use of spoil;
- The high scenic amenity is recognised as a value to utilise in developing an experience at the Daintree Gateway;
- Innovative design outcomes are built into new development that addresses impacts of climate change and long term sustainability;
- Vegetation in the Daintree Gateway is retained and enhanced;

- The iconic values of the area are embedded in outcomes of the Daintree Gateway Master Plan;
- Any new development activities consists of small to medium scale tourist activities and recreation facilities and protects areas of general and high ecological significance through its design;
- Planning outcomes are sought through innovative and alternative ways of addressing issues rather than accepting the rule of the current planning scheme;
- Capture opportunities to develop an exemplar in sustainable building design and self-sufficiency that integrates all of the following in some manner:
 - water use, re-use and wastewater disposal;
 - energy use and production;
 - use of recycled building materials;
 - climate responsive design;
 - construction methods;
 - stormwater quality improvement;
 - waste minimisation; and
 - environmental offsets or improvement.
- High level sustainability targets are set for the Master Plan outcomes and measured against the Sustainability Scorecard.



5.0 Opportunities for the Daintree Gateway

The Daintree Gateway Master Plan presents a significant opportunity to bring together a sustainable plan to celebrate the Daintree at its entry point. The opportunities presented in the previous chapters highlight the broader context of the Gateway's physical character, its operational aspects and the policy and legislative controls that aim to preserve the values of the area. The Master Plan will need to explore these in more detail and how they may be themed to relate more positively to different people through the planning process. This chapter pulls together all of the opportunities and synthesises them into 5 key themes. These include:

- sustainability;
- environment;
- form, place and character;
- mobility; and
- visitor experience.

It should be noted that the opportunities may be applicable to more than one theme despite being identified only once. It is therefore necessary to understand them as a whole, but explore them in different ways and seek different outcomes.

5.1 Sustainability

Sustainability is an underpinning principle to be observed in all decisions made by Council. The focus of the Daintree Gateway Master Plan is to achieve a world class visitor experience through sustainable outcomes. Opportunities focussed on sustainable planning and outcomes include:

- The Daintree Gateway Master Plan supports the sustainable use of the Daintree's natural resources which in turn supports the tourist economy in the area;
- New development and activities adjacent to the Daintree River include consideration of their footprint and impact on the ecological integrity of the coastal zone;
- Tourism and recreation is sustainable and leave no footprint on the ecology of the area;
- Innovative design outcomes are built into new development that addresses impacts of climate change and long term sustainability;
- The iconic values of the area are embedded in outcomes of the Daintree Gateway Master Plan;
- Planning outcomes are sought through innovative and alternative ways of addressing issues;

- Capture opportunities to develop an exemplar in sustainable building design and self-sufficiency that integrates all of the following in some manner:
 - water use, re-use and wastewater disposal;
 - energy use and production;
 - use of recycled building materials;
 - climate responsive design;
 - construction methods;
 - stormwater quality improvement;
 - waste minimisation; and
 - environmental offsets or improvement;
- High level sustainability targets are set for the Master Plan outcomes and measured against the Sustainability Scorecard.

5.2 Environment

The success of tourism and the prosperity of communities in the Daintree area is dependent on the quality of its natural environmental features. Opportunities focussed on retaining and enhancing the Daintree natural environment include:

- Vegetation in the Daintree Gateway is retained and enhanced;
- Bank erosion be allowed in areas of natural movement and attenuation in areas where critical infrastructure is located, with development being established in areas where the risk from erosion and river movements is minimal;
- Permanent infrastructure is located outside of the coastal management district to protect the coastal resource;
- Public or private maritime infrastructure must only be established where they are essential to sustainable use of the Daintree River;
- Innovative construction methods are use to avoid risk of exposing acid sulfate soils;
- The quality of stormwater entering the Daintree River is healthy;
- Waste disposal meets contemporary best practice standards and use innovative design to maintain the water quality of the Daintree River.

5.3 Form, Place and Character

The Daintree Gateway is a place, as well as being a notion of arrival. Its forma and character are influenced by its natural surrounds, but may require small pockets of improvements to deliver intended outcomes. The opportunities for improvement in the place include:

- Any new development activities consists of small to medium scale tourist activities and recreation facilities and protects areas of general and high ecological significance through its design.
- New development and activities adjacent to the Daintree River include consideration of their footprint and impact on the ecological integrity of the coastal zone;
- New amenities and facilities use innovative design to reduce noise and light impacts on flora and fauna;
- The introduction or renewal of amenities and facilities address sea level rise as an impact of climate change;
- Alternative building construction and floor levels require consideration in response to susceptibility to large flood events and to storm tide inundation:
- Palettes of appropriate signage and infrastructure are identified in different locations, expressing the values of the Daintree lowland rainforest in context of their location;
- The Daintree Ferry remains a critical piece of infrastructure linking the Cape Tribulation section of the Daintree National Park and the communities north of the Daintree River with the rest of the Region;
- The ongoing occupation and quantum of road reserve in the Western Precinct be reviewed in light of outcomes of the Master Plan with respect to any new facilities needed in the precinct, or where opening of road over freehold land may compensate the closing of road;
- Innovative construction methods are use to avoid risk of exposing acid sulfate soils;
- Dredging continues to maintain the functionality of the ferry, but alternative locations are sought for the treatment and use of spoil.

5.4 Mobility

The Daintree Gateway is a multi-functional place with aspects of arrival and transit. The mobility of people to, through and beyond the Daintree Gateway will help to define the experience people have in the area. Opportunities to facilitate the experience in relation to people's mobility include:

 Location, style and types of directional signage and information relating to the ferry, as well as safety messages, are provided in an efficient and effective manner:

- Car parking in the western precinct be rationalised to reduce potential conflict between the vehicle movements associated with the use of the boat ramp and other activities;
- Traffic movements in the ferry crossing precinct are reviewed for efficiency and opportunities for improvements are identified for further investigation as an outcome of the Master Plan;
- Transit lanes and areas are designed to reduce the ability for people to leave their vehicles;
- Pedestrian areas are safe;
- Recreational boaters are provided a boat ramp in the North Bank to improve access to the Daintree River for recreation;
- Access to McDowell Lane which is gained through the Western Precinct is formalised, dependant on any other outcomes for the use of the Western Precinct.

5.5 Visitor Experience

A fundamental outcome of the master plan is to define a world class visitor experience. The opportunities that could be explored in the master plan to help define a remarkable experience include:

- The Daintree Gateway Master Plan is an arrival point to the greater Daintree region;
- The Daintree Gateway Master Plan celebrates the natural scenic amenity and explores new experiences for visitors while encouraging exploration of the greater Daintree region;
- Information for education and interpretation focus on the importance of the Wet Tropics World Heritage Area, Daintree National Park, Daintree lowland rainforests, the Daintree River and associated cultural association (particularly with emphasis on the Eastern Kuku Yalanji association) as part of the ecosystem that supports the local economy and social well-being;
- Educational messages are identified, developed and delivered in effective and innovative ways;
- The location, style and types of signage contribute to the experience of the Daintree Gateway
- The Daintree River is a key feature of the Daintree Gateway.
 Opportunities to provide safe access to the water for visitors should be explored.



6.0 Conclusion

The Daintree Gateway has been the subject of planning in the past. The beneficial nature of the planning has not been realised and has continued to deliver an underwhelming experience, particularly in arriving to a key point in the Daintree region.

The Wet Tropics World Heritage Area, the Daintree National Park and the Daintree lowland rainforests deserve recognition through a world class experience at its arrival point. Whether the Gateway is defined as a group of distinct geographic places or an area encompassing greater geographic features, there are a number of topographic, operational and policy related matters that need to be understood. The opportunities associated with these issues can be expressed through themes of sustainability, environment, form, place and character, mobility and visitor experience. They need to be captured through the master planning and built on to define a vision for a world class visitor experience at an arrival to one of the world's special places.

