

# Principal Cycle Network Plan



# Far North Queensland



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*Image of bicycle on front cover courtesy of Tourism Queensland.*

# Part 1

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## The plan

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### 1. Introduction

The Queensland Government recognises the value of cycling and is committed to supporting initiatives that encourage higher rates of cycling across the state.

Cycling has an important role in advancing the Queensland Government’s vision for a Queensland that is Healthy and Green by helping to meet targets to cut obesity and reduce our carbon footprint by one third under *Towards Q2: Tomorrow’s Queensland*.



#### Planning context

The Principal Cycle Network Plan for Far North Queensland is the second plan of its kind to be developed in the state and the first for regional Queensland.

It is also the first principal cycle network plan to be recognised in a statutory land use plan – the *Far North Queensland Regional Plan 2009–2031*.

The *Far North Queensland Regional Plan 2009–2031* includes a land use policy (8.2.9) for progressive implementation of the principal cycle network through cooperation between state agencies, local government and the private sector.

*Investing in cycling is an investment in healthy, sustainable and liveable communities.*



#### Principal cycle networks Purpose of this plan

A principal cycle network plan identifies existing and future high order cycle routes that make up the regional cycle network.

These routes function as the arterial roads or highways of the cycle network and connect major destinations within towns and throughout the region.

Routes that serve only local functions, such as from a residential estate to a nearby primary school, are not generally included in a principal cycle network plan.

#### Why support cycling?

This plan aims to guide coordinated delivery of a safe and connected network of principal cycle routes across far north Queensland to promote cycling as a convenient, sustainable and healthy way to travel and enjoy the region.

The plan is not a guide to cycling in the region, but rather a guide for planning and investment in regionally significant cycling infrastructure.

Implementation of the plan will also support regional economic development through the promotion of cycle tourism and better community health through the promotion of physical activity.

Cycling benefits the whole community. Cycling is an energy efficient mode of transport that responds to serious global issues such as climate change, oil vulnerability, affordable living and obesity.

The benefits of cycling include:

- reduced air pollution
- lower road congestion
- improved physical and mental health
- lower personal transport costs
- more compact and space efficient urban design.

Providing better facilities to encourage more cycling helps realise these benefits and more. For example, providing wider road shoulders decreases the likelihood of all vehicle accidents and reduces the cost of road maintenance.

## 2. What is a principal cycle network?

Principal cycle routes are the highest order routes in the overall cycle network functioning like arterial roads or highways for cyclists. A set of network principles were developed to help describe and identify principal routes for the draft principal cycle network for far north Queensland.

The network principles and identified routes were then reviewed and refined through community and stakeholder workshops and broader public consultation. The network principles and types of routes are summarised as follows.



### Network principles

*The principal cycle network for far north Queensland will :*

- be continuous and interconnected across local government areas
- connect key existing and future cycle origins and destinations including activity centres, employment nodes, regional attractions, transport interchanges, major education precincts and residential areas
- be easily accessed from residential areas by existing and future local cycle networks
- be generally provided within road corridors
- utilise other corridors where desirable, such as disused rail corridors
- provide the most direct routes between destinations
- cater for short and long distance cycle trips
- provide loop routes to enable round trips which are interesting and more attractive to some cyclists
- include iconic recreational routes with coastal trails and highland trails to support cycle tourism
- address major barriers to cycling such as steep grades and river crossings.

*The principal cycle network for far north Queensland will not :*

- include cycle routes that only serve a local function
- include long diversions to overcome constraints unless there are significant safety concerns
- identify mountain biking routes and facilities<sup>1</sup>.

Where parallel routes are potential principal cycle network routes, the route serving the most appropriate land uses will be identified in the Principal Cycle Network Plan for Far North Queensland.

### Network infrastructure

There is no single infrastructure solution for the principal cycle network.

The type of infrastructure required for principal cycle routes will be determined on a case-by-case basis and subject to further planning with respect to the conditions on the route and the types of cyclists most likely to use the route. For example, a route serving mainly children might require an off-road path while on other routes on-road cycle lanes might be more appropriate.

### Types of principal cycle network routes

Two types of routes are identified for the Principal Cycle Network Plan for Far North Queensland. Principal routes and iconic recreation routes are defined by the network principles and cater to different types of cyclists. Both types are further defined on the maps as either 'existing' or 'future' based on local knowledge and cyclist experience gathered during the community workshops held throughout the region.

Generally, routes labelled as existing have been identified in community workshops as having some form of cycle facility. Further investigation is required along those routes marked as existing to determine whether the route currently meets safety standards and adequately provides for different types of cyclists. Routes labelled as 'future' are not known to have any cycle facilities.



<sup>1</sup> Mountain biking facilities cater to a specific group of cyclists and are generally provided through sport and recreation projects.



### 3. How this plan was developed

The Department of Transport and Main Roads started developing the Principal Cycle Network Plan for Far North Queensland in 2007.

#### Process

The plan was developed through background investigations into cycle demand and opportunities, a review of existing local government cycle strategies and network plans and consultation with local governments, state agencies, bicycle user groups, community groups and individuals.

#### Consultation

Eight community workshops were held across Atherton, Cairns, Innisfail and Mossman to identify issues and opportunities. Broad consultation on the draft network maps occurred between May and August 2008. A prioritisation workshop was held with key stakeholders in June 2008 to identify the highest priority routes.

#### Network

The principal cycle network identified for far north Queensland features two types of routes:

**Principal routes:** These routes connect key destinations throughout the region.

**Iconic recreation routes:** These routes cater for longer distance cycle touring, highlighting both coastal and highland scenic opportunities.

#### Maps

Final maps of the principal cycle network were released in October 2008. Maps of the network are provided in Part 2 of the plan.

#### Study Area

The Principal Cycle Network Plan for Far North Queensland covers the current and former local government areas<sup>2</sup> shown in Figure 3.1.

<sup>2</sup> Local government areas combined in 2008 during the time the Principal Cycle Network Plan for Far North Queensland was being developed. Consequently the plan includes references to the names and geographical bounds of former local government areas.

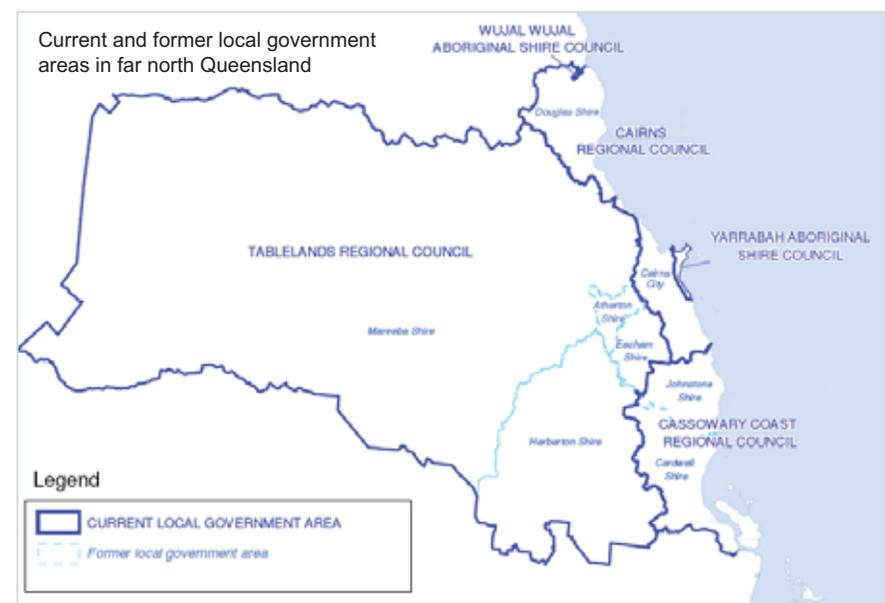


Figure 3.1: Current and former local government areas in far north Queensland

### 4. Objectives and challenges

#### Cycling in far north Queensland

The far north Queensland region has a higher rate of cycling than most other parts of Queensland. Figure 4.1 shows 2006 cycle to work rates for comparison.

However, data from the Australian Bureau of Statistics national census indicates cycling to work has declined in the region from 3.2% in 2001 to 2.7% in 2006.

Developing the Principal Cycle Network Plan for Far North Queensland is an important step towards addressing this decline.

#### 2006 cycle to work

Source: Australian Bureau of Statistics Census 2006, Journey to Work

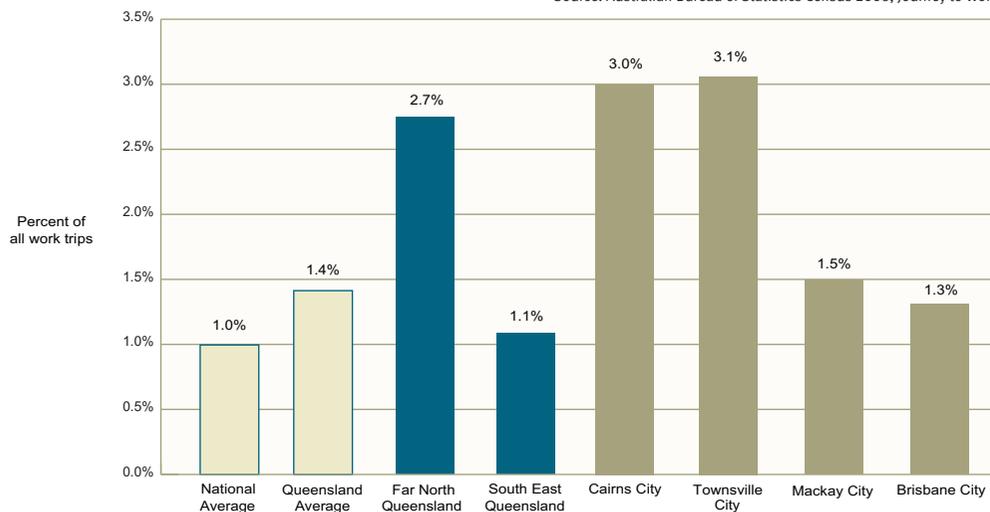


Figure 4.1: 2006 cycle to work rates

#### Objectives

The objectives of the plan are to:

- provide guidance to state agencies, local governments, developers and the community in planning and providing higher order cycle infrastructure
- progress implementation of the *Queensland Cycle Strategy 2003*
- form an element in the statutory *Far North Queensland Regional Plan 2009–2031*
- encourage and inform local government cycle network planning
- ensure that cycle infrastructure is incorporated into all future projects, such as the upgrading of roads and public transport systems
- inform development assessment and infrastructure charging for local governments
- promote regional economic development by enabling cycle tours through regional, rural and remote areas.

#### Challenges

While local governments and state agencies have delivered good outcomes for cyclists in many areas, better coordination is needed to overcome the major regional issues that limit cycle travel in far north Queensland such as:

- fragmented and unconnected cycle routes
- different quality cycle facilities along a single route
- poor linkages across local government area boundaries
- poor coordination and prioritisation between state and local government to deliver cycle infrastructure
- inconsistent provision for cycling in some road projects
- poor consideration of routes for medium and longer distance cyclists.

Local governments and state agencies will have to work closely together to address these issues.



### 5. Related policies and plans

The policies and plans relevant to the Principal Cycle Network Plan for Far North Queensland are summarised below.

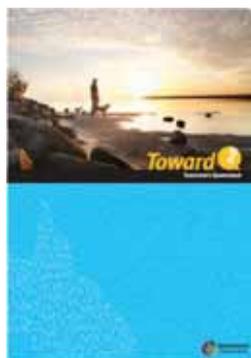
#### Toward Q2: Tomorrow's Queensland

In 2008 the Queensland Government released *Toward Q2: Tomorrow's Queensland* which frames a vision for 2020 with five ambitions: Strong, Green, Smart, Healthy and Fair.

The targets most relevant to the Principal Cycle Network Plan for Far North Queensland are:

**Green:** Cut by one-third Queenslanders' carbon footprint with reduced car and electricity use.

**Healthy:** Cut by one-third obesity, smoking, heavy drinking and unsafe sun exposure.

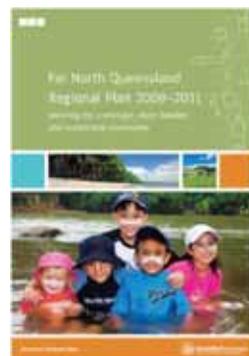


#### Far North Queensland Regional Plan 2009–2031

The *Far North Queensland Regional Plan 2009–2031* is a statutory plan intended to guide and manage regional growth and development and address key environmental, social, economic and urban objectives. This includes building resilience to climate change and oil vulnerability.

The regional plan was released 13 February 2009. It includes policies for providing cycle networks including the progressive implementation of the Principal Cycle Network for Far North Queensland.

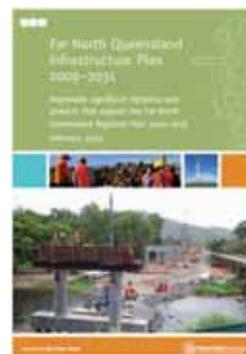
The regional plan sets targets for cycling trips consistent with the *Queensland Cycle Strategy 2003*.



#### Far North Queensland Infrastructure Plan 2009–2031

The *Far North Queensland Infrastructure Plan 2009–2031* identifies infrastructure projects, planning activities and funding that supports the regional plan.

The infrastructure plan includes \$6.1 million to deliver the first project for the Principal Cycle Network Plan, a cycleway from Aeroglen to Cairns central business district, in partnership with Cairns Regional Council.



#### Queensland Cycle Strategy 2003

The *Queensland Cycle Strategy 2003* provides a state-wide approach to support cycling as a safe and convenient mode of transport. The strategy aims to make Queensland a state where cycling is respected, supported and encouraged by all levels of government and the community.

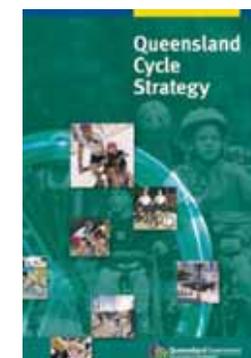
The strategy has a vision for 'More Cycling!' and includes targets to increase rates of cycling in communities by an additional 50% by 2011, and 100% by 2021.

The Principal Cycle Network Plan for Far North Queensland is an outcome of action 3.1(a) under this strategy.

#### Cycling on State Controlled Roads 2004

The Department of Transport and Main Roads policy for cycling on state-controlled roads is an outcome of the *Queensland Cycle Strategy 2003*.

The policy is linked to funding mechanisms and requires the Department of Transport and Main Roads to positively provide for cycling on state-controlled roads identified as a principal cycle route.



This policy was developed in accordance with a commitment made by the then Department of Main Roads in the *Queensland Cycle Strategy* to formalise a policy about providing for cycling on state-controlled roads. This policy applies to all state-controlled roads.

In line with this policy the Department of Transport and Main Roads will seek to make state-controlled roads cycle-friendly by incorporating cycle-friendly design into traffic operations, road upgrading and maintenance along priority cycle routes. The Department of Transport and Main Roads will positively provide for cyclists in road upgrade projects.





### 6. Supporting state and regional targets

Delivery of a safe and connected cycle network is important to encourage cycling to meet state and regional targets. Targets in the *Far North Queensland Regional Plan 2009–2031* are consistent with the *Queensland Cycle Strategy 2003* and aim for at least:

- 50% increase in person trips by cycling in far north Queensland between 2001 and 2011
- 100% increase in person trips by cycling in far north Queensland between 2001 and 2021.

The *Queensland Cycle Strategy 2003* recognises that cycling rates vary amongst communities.

Therefore the strategy recommends that targets are measured for individual communities rather than across broader regional areas.

*Cycling makes for healthier, happier and safer communities.*

*Increased physical activity from cycling alleviates symptoms of anxiety and depression and improves general well-being.*



Journey to Work data collected from the Australian Bureau of Statistics national census is currently the most reliable indicator for measuring progress towards such targets.

Journey to Work data can tell us the percentage of work commutes made by cycling compared to other modes of transport such as walking, public transport and private vehicle travel. This is referred to as mode share and is usually expressed as a percent of all work trips.

Work commuting represents approximately one third of all trips made on an average day.

Table 6.1 shows the 2001 and 2006 Journey to Work mode share for cycling in far north Queensland. The figures are shown for former local government

areas as census data has historically been compiled for these areas.

Recommended targets are also provided in Table 6.1 for 2011 and 2021 in accordance with the *Queensland Cycle Strategy 2003* and the *Far North Queensland Regional Plan 2009–2031*.

The *Queensland Cycle Strategy 2003* recommends that communities with cycle participation rates below 3% should aim to exceed the minimum desired targets.

The former Cairns City and Douglas Shire local government areas were the only areas to exceed 3% mode share for cycling to work in 2001 and 2006.

It is recommended that all other far north Queensland communities aim for a minimum of 3% of all trips by cycling by 2011 and 4.5% of all trips by cycling by 2021.

Presently, many areas in far north Queensland are falling behind in meeting the recommended targets.

Source: ABS 2001 and 2006

Region		Journey to Work mode share for cycling (percent)			
		2001 Rate	2006 Rate	2011 Target	2021 Target
Cairns Regional Council	Former Cairns City	3.7%	3.0%	5.6%	7.4%
	Former Douglas Shire	6.8%	5.4%	10.2%	13.6%
Tablelands Regional Council	Former Atherton Shire	1.4%	0.9%	3.0%	4.5%
	Former Eacham Shire	0.6%	0.7%	3.0%	4.5%
	Former Herberton Shire	0.4%	0.5%	3.0%	4.5%
	Former Mareeba Shire	1.3%	1.3%	3.0%	4.5%
Cassowary Coast Regional Council	Former Cardwell Shire	1.7%	2.0%	3.0%	4.5%
	Former Johnstone Shire	1.7%	1.5%	3.0%	4.5%
Wujal Wujal Aboriginal Shire Council		N/A (counted with Douglas)	0.0%	3.0%	4.5%
Yarrabah Aboriginal Shire Council		N/A (counted with Cairns)	0.6%	3.0%	4.5%
<b>Far North Queensland</b>		<b>3.2%</b>	<b>2.7%</b>	<b>4.8%</b>	<b>6.4%</b>

Table 6.1 Journey to Work mode share for cycling in far north Queensland and recommended targets

### 7. Background studies

Background studies into demographic characteristics, cycling activity and growth areas were undertaken in the development of this plan. This information helps to identify where and what level of infrastructure is needed to support existing cycling needs and encourage more cycling. A brief summary of these studies is provided.

#### Demographic characteristics

Demographic characteristics such as age, vehicle ownership, education and employment are considered good indicators for identifying areas with higher potential to increase cycling trips.

A regional analysis of these characteristics using 2001 and 2006 Australian Bureau of Statistics census data identified Atherton, Malanda, Millaa Millaa, Ravenshoe, Mareeba and southern Cairns as areas having the best potential to increase cycling trips.

#### Journey to work travel patterns

Journey to Work data from the Australian Bureau of Statistics 2001 and 2006 census were analysed to explore journey to work patterns for cycling within far north Queensland. This analysis revealed that cycling to work is concentrated within towns and is highest in the Cairns Regional Council area.

#### Regional growth

The *Far North Queensland Regional Plan 2009–2031* sets out a preferred pattern of development to manage an estimated regional population growth of up to 100,000 people between 2009 and 2031.

Approximately 70% of this growth is expected to occur in the Cairns Regional Council local government area. The majority of growth in this area will be accommodated in the Cairns southern growth corridor with up to 50,000 people being planned for in the declared Mount Peter Master Plan Area between Edmonton and Gordonvale.

The remaining 30% of regional growth is expected to be accommodated in other towns across far north Queensland particularly, Mareeba, Atherton, Innisfail and to a lesser extent Tully and Mossman. The Principal Cycle Network Plan for Far North Queensland will guide state and local government and private sector investment in cycling in these growth areas. This will help to manage growth related impacts such as air pollution and traffic congestion.



#### Sport and recreation cycling

Cycling is one of Queensland's most popular activities for sport and recreation. Every year far north Queensland hosts a number of major competitive and fund-raising events that attract cyclists from around the world.

These events can involve over one hundred participants travelling more than 500 kilometres. Routes that are favoured by sport and recreation cyclists were considered during the identification of the principal cycle network.

*Bicycles offer door to door service and are often quicker than cars over short distances up to five kilometres.*



#### Visitors

Visitors to the region represent a potential source of demand for cycling infrastructure as cycling is a low cost transport option and suitable for short term use. Cairns and Port Douglas cater to the highest concentration of visitors to the region.

Several towns on the Tablelands also accommodate significant numbers of tourists. Planning for cyclists in these locations should address the needs of visitors as well as residents.

#### Untapped demand

Many people who would like to cycle choose not to due to a variety of barriers. These barriers include safety concerns about the lack of protection from motorists, inexperience with riding bicycles, lack of knowledge about safe or direct routes and lack of showers or secure parking.

These people represent a demand for cycling that is so far 'untapped'. Removing these barriers can generate even more demand for cycle facilities.

Community workshops held in Atherton, Cairns, Innisfail and Mossman explored some of the barriers to cycling in far north Queensland. Many people also responded during the public consultation with their experiences and ideas.

Overall, safety was identified by the community as the most significant barrier to address in order to encourage more people to cycle.



### 8. Different types of cyclists

It is important to understand the different types of user groups and their needs when planning and building an appropriate cycle network. The types of cyclists identified in far north Queensland are described in Table 8.1.



*Up to 20 bicycles can be stored in the space required for one car.*



Group	Description
<b>Commuter and utility cyclists</b>	People who travel by bicycle as a means of transport to work and other destinations such as going to the shops or visiting friends. The speed and route choice of cyclists in this group will vary depending on individual cycling skill, confidence and fitness levels. Some commuter and utility cyclists will prefer the most direct line of travel while others will choose slower routes to avoid busy roads.
<b>Student cyclists</b>	Students who cycle to and from education facilities. This can be divided into two groups – younger and older students. It is important to distinguish the two groups due to varying levels of safety awareness and cycling experience amongst older and younger age groups. Student cyclists prefer to travel on direct off-road paths at slow to medium speeds.
<b>Fitness and training cyclists</b>	Cyclists who travel at medium to higher speeds over longer distances and often travel in groups. This is a diverse group, with new riders preferring uncrowded off-road paths while more experienced riders prefer to ride in on-road cycle lanes. In all cases the emphasis is on smooth surfaces, limited stops or signals and uncrowded routes which allow consistent speeds.
<b>Touring cyclists</b>	Cyclists who participate in long distance cycling tours. This group tends to travel on road and may carry heavy loads on their bicycles. Touring cyclists may also ride on off-road paths provided they are wide enough, for example rail trails.
<b>Recreational cyclists (including mountain bikers)</b>	People who ride a bicycle as a recreational activity. This group tend to travel at slower speeds and generally prefer off-road paths which do not need to be direct. The Principal Cycle Network Plan for Far North Queensland does not cater specifically for this group.

Table 8.1: Types of cyclists in far north Queensland

### 9. Community and stakeholder consultation

Stakeholder and community engagement was undertaken to help shape the Principal Cycle Network Plan for Far North Queensland. The study team consulted with the following stakeholders:

- local governments
- cycle user groups
- cycle sports organisations
- high schools
- chambers of commerce
- local police
- community association representatives
- local cyclists and cycle shops
- other state agencies.

In order to develop a draft principal cycle network, the study team engaged the community through a series of eight workshops held across Innisfail, Atherton, Mossman and Cairns during June and August 2007. Information from the workshops was then considered by the study team and used to complete a draft set of principal cycle network maps for far north Queensland.

The draft maps underwent a broader public consultation process between May and August 2008. Feedback from this consultation was used to produce the final principal cycle network maps for far north Queensland which was released on 28 October 2008.

The consultation and engagement activities provided an opportunity for the community to express their needs, concerns and ideas for cycling in far north Queensland.



Community feedback also played an important role in developing a method to assess the highest priority principal cycle routes for implementation. The network priorities are discussed in more detail in Appendix A of this plan.

#### What you told us...

##### Network routes

- The network needs to cater for all types of cyclists
- Potential conflicts between different types of users such as cyclists and pedestrians need to be avoided
- It is important to provide loop routes for cyclists
- On-road facilities cater to more types of cyclists

##### Priority

- Connections from surrounding urban areas into town centres are considered more important than long distance trips between towns
- Recreational cycling is more important on some routes than others
- Opportunities for commuter cycling trips are important in the region, particularly within urban areas
- Safety is the most important consideration when deciding which routes to build or upgrade

##### Safety

- Tour buses and heavy vehicles are a major concern on some routes
- The majority of hazards identified on the network are 'squeeze points', bridge crossings and roundabouts
- Rail and tram line crossings are a safety concern, especially in wet conditions
- International visitors need to be educated about cycle safety
- Need more awareness and education campaigns to improve safety

##### Opportunities

- Better cycle routes can support eco-tourism ventures
- There is a high potential for mountain biking in the region
- All infrastructure projects need to consider cyclists

##### Other facilities

- Need for mid-trip facilities on longer distance routes
- Need better signage for cyclists including warning signs for motorists
- Need secure bicycle parking in appropriate locations
- Need a reporting system for cyclists to record maintenance and safety issues
- Need integration of cycling with other modes of transport, especially buses

##### Implementation

- The capacity for local governments to maintain cycle facilities needs to be addressed
- Local councils need to have a champion to implement more cycling facilities

### 10. Identifying the network

#### Existing local cycle strategies and network plans

Local cycle network plans and strategies provide a starting point for identifying major cycle routes. In far north Queensland the following local plans were used:

- *Atherton Shire Council Cycling and Pedestrian Strategy* (Atherton Shire Council 2005)
- *Bikeway Planning Report for Kuranda Township* (Mareeba Shire Council 2000)
- *Bikeway Planning Report for Mareeba Township* (Mareeba Shire Council 1999)
- *Cairns Pedestrian Movement and Cycle Travel Strategy* (Cairns City Council 2003)
- *Douglas Shire Bikeway Strategy* (Douglas Shire Council 1999)
- *Johnstone Shire Cycleway and Shared Use Path Strategy* (Johnstone Shire Council 2004).

#### Cycle destinations

Recognising key destinations or places that attract cycle trips helps to identify potential principal routes. Popular or potential cycle destinations were identified through a number of sources including local cycle network plans and stakeholder workshops.

These destinations are shown in the principal cycle network maps for far north Queensland. The types of destinations identified for far north Queensland are listed in Table 10.1. Activity centres are also shown on the maps. These are defined in the *Far North Queensland Regional Plan 2009–2031* and describe the scale of activity including business, employment, education, services and residential density in town centres across the region.

#### Cycle network maps

The most recent principal cycle network maps for far north Queensland are provided in Part 2 of this plan. Routes depicted in the maps are subject to feasibility investigations which help to determine the most appropriate type of facility and its exact location. This may involve adjusting the alignment of a route currently shown or using a different location for the route if a better alignment is identified through further planning. Some parts of the network may change as a result.

The maps will be reviewed regularly and updated to show changes to route alignments as well as where ‘future’ routes have become ‘existing’ routes as the network is implemented. Updated versions of the maps will be posted on the Department of Transport and Main Roads website: [www.tmr.qld.gov.au](http://www.tmr.qld.gov.au).



Type	Place
<b>Activity centres</b>	<ul style="list-style-type: none"> <li>• Principal regional activity centre</li> <li>• Major regional activity centre</li> <li>• District regional activity centre</li> <li>• Village activity centre</li> <li>• Rural activity centre</li> </ul>
<b>Destinations</b>	<ul style="list-style-type: none"> <li>• Defence/industrial facility – these locations are often major centres of employment</li> <li>• Tertiary education including TAFE, university and language schools</li> <li>• Secondary schools<sup>3</sup></li> <li>• Major shopping centres</li> <li>• Library</li> <li>• Hospital</li> <li>• Transport interchanges – including bus and ferry terminals</li> <li>• Rail stations</li> <li>• Airports</li> <li>• Regional attractions including tourism, sporting and cultural facilities</li> </ul>

Table 10.1: Places that attract cycle trips

<sup>3</sup> Note: Local cycle network plans provide further details that better identify and address the specific needs of cyclists travelling to primary schools.



### 11. Implementation



The *Far North Queensland Regional Plan 2009–2031* provides the overarching direction for implementing the Principal Cycle Network Plan for Far North Queensland through land use policy 8.2.9:

“The Principal Cycle Network Plan for Far North Queensland is progressively implemented through cooperation between local government, state agencies and the private sector.”

As a first step towards enacting this policy, an implementation group consisting of state and local government representatives is recommended to oversee implementation by:

- coordinating network planning and delivery across agencies
- progressing delivery of the network through normal works such as road upgrades
- pursuing options for individual projects
- reviewing network priorities and developing concept designs for high priority routes.

A series of stages for implementation of the network are defined by themes of

- coordination
- integration
- delivery
- evaluation.

For each stage there is a set of strategies and actions to guide cooperation between local government, state agencies and the private sector to progress implementation of a safe and connected principal cycle network for far north Queensland.

An overall framework showing implementation stages and strategies is shown in Figure 11.1.

Principal Cycle Network Plan for Far North Queensland			
Stage 1: Coordination	Stage 2: Integration	Stage 3: Delivery	Stage 4: Evaluation
1.1 Form an implementation group	2.1 Inform related plans	3.1 Build a consistent and quality network	4.1 Meet plan objectives
1.2 Establish alliances and build effective communication channels	2.2 Integrate with works programs	3.2 Target network priorities	4.2 Monitor delivery of the principal cycle network
1.3 Explore and identify opportunities for delivery	2.3 Incorporate into infrastructure projects	3.3 Enhance outcomes through consultation	4.3 Maintain a relevant plan
	2.4 Integrate with land use planning		
	2.5 Align with sport, recreation and tourism projects		
<b>Principal Cycle Network</b>			

Figure 11.1: Implementation stages and strategies



### Stage 1: Coordination

Stage 1: Coordination focuses on exploring alliances and opportunities to deliver the principal cycle network.

This sets the foundation for an integrated and cost-effective approach to delivering principal cycle network facilities.



Another key aspect of this stage is to identify and address issues that may impact delivery of the principal cycle network.

Identifying key contacts and opening clear communication channels supports cooperation amongst stakeholder groups to act on opportunities and take steps to address issues.

Effective coordination is fundamental to efficient, consistent and integrated implementation of the principal cycle network.

As such, it is recommended that an implementation group be formed to guide this important stage.

Strategy		Action	
Stage 1: Coordination			
1.1	Form an implementation group	A	Form an implementation group with suitable state and local government representatives to: <ul style="list-style-type: none"> <li>coordinate cost-effective, timely and consistent delivery of the principal cycle network</li> <li>progress actions under the plan</li> <li>resolve barriers to delivery of the network.</li> </ul>
1.2	Establish alliances and build effective communication channels	B	Identify key contacts and develop partnerships with local government, state agencies and other stakeholder groups to progress implementation of the principal cycle network.
		C	Set up clear communication protocols and pathways to facilitate efficient information exchange and responsiveness to issues and opportunities.
1.3	Explore and identify opportunities for delivery	D	Identify existing and future opportunities for funding delivery of the network.
		E	Maintain awareness of all relevant policies, agreements, works programs, grants programs, land use planning instruments and planning activities that present an opportunity to deliver principal cycle network projects.
		F	Identify any barriers to delivery of the principal cycle network and develop strategies to address these issues.



### Stage 2: Integration

Stage 2: Integration responds to the range of planning and infrastructure delivery pathways available to implement the principal cycle network.

This stage focuses on incorporating the principal cycle network into relevant plans and programs as new ones are prepared and existing ones are updated.



This stage also looks to identify planned infrastructure projects that present an opportunity to align delivery of principal cycle network routes. Such projects may include major transport infrastructure projects or sport, recreation and tourism projects.

The most challenging aspect of Stage 2 will be to integrate design and delivery of principal cycle network routes into existing works programs and projects.



Strategy		Action	
Stage 2: Integration			
2.1	Inform transport plans	G	Incorporate the principal cycle network into state and local government transport plans.
2.2	Integrate with works programs	H	Identify projects within current state and local government works programs that relate to principal cycle routes.
		I	Ensure all future state and local works programs provide appropriate cycle facilities along principal cycle routes.
		J	Allocate resources in state and local government forward works programs for preparing concept designs and business cases for high priority principal cycle routes.
2.3	Incorporate into infrastructure projects	K	Ensure proposals, planning and design for major infrastructure projects incorporate principal cycle network routes.
2.4	Integrate with land use planning	L	Incorporate the principal cycle network in to land use planning instruments and activities including (but not limited to): <ul style="list-style-type: none"> <li>• regional land use plans</li> <li>• local government planning schemes</li> <li>• priority infrastructure plans</li> <li>• infrastructure charge schedules</li> <li>• master planning</li> <li>• structure planning</li> <li>• precinct planning</li> <li>• development assessment.</li> </ul>
		M	Identify principal cycle network routes that align with sport, recreation and tourism plans and projects.
2.5	Align with sport, recreation and tourism projects	M	Identify principal cycle network routes that align with sport, recreation and tourism plans and projects.



### Stage 3: Delivery

Stage 3: Delivery concentrates on construction of principal cycle network projects.

This stage recognises the need to adopt consistent and quality standards for principal cycle network facilities as well as provide practical information and guidance to those wishing to construct a facility on the principal cycle network.



This stage recognises two avenues to deliver the principal cycle network. One avenue is focused on delivery of the network through opportunities. It will be challenging to maintain consistent and quality standards when attempting to act on every opportunity to deliver parts of the principal cycle network.

The second avenue is focused on specifically targeting delivery of network priorities. Priority routes represent the most important links in the network. Efforts to secure funding for specific projects under the Principal Cycle Network Plan for Far North Queensland should focus on priority routes. As these routes are constructed, network priorities will need to be reassessed to determine the next set of priority routes for delivery.

The other key aspect of this stage is recognising the important role of community and stakeholder consultation. Consultation enables designers to incorporate community interests to enhance project outcomes and performance. A case-by-case assessment of planned projects will determine the appropriate level of consultation.

Strategy		Action	
Stage 3: Delivery			
3.1	Build a consistent and quality principal cycle network	N	Develop a toolkit for applying best practice planning and design principles for designing and constructing principal cycle routes in far north Queensland.
		O	Pursue opportunities to deliver the network through joint projects, transport and land use planning, relevant works programs and infrastructure projects.
		P	Pursue opportunities to deliver priority principal cycle routes as stand alone projects through partnerships, funding bids and grant applications. Maintain a rolling program of priority principal cycle network projects and develop link development plans and concept designs to support funding bids.
3.2	Target network priorities	Q	Refine the network prioritisation method and reassess priority principal cycle routes on an ongoing basis.
3.3	Enhance outcomes through consultation	R	Determine the need for stakeholder and community consultation on a case-by-case basis for projects.
		S	Adopt best practice consultation processes to address community interests in design and delivery of principal cycle routes (where a need for consultation is recognised).



### Stage 4: Evaluation

Stage 4: Evaluation outlines key elements in the plan where monitoring and review will improve delivery of the principal cycle network.

Evaluation must occur at every stage, and lessons learned need to be recorded and used to improve the plan over time.



Evaluation will also help to determine when an update is required and which elements of the plan need to be amended.



Strategy		Action	
Stage 4: Evaluation			
4.1	Meet plan objectives	T	Determine data needs and collection methods for evaluating this plan.
		U	Establish an evaluation framework to monitor and review integration of the principal cycle network relative to progress and outcomes for actions in Stage 2 Integration.
4.2	Monitor delivery of the principal cycle network	V	Track delivery of infrastructure on the principal cycle network.
		W	Evaluate the quality, consistency and performance of the network over time.
4.3	Maintain a relevant plan	X	Identify triggers and timeframes for plan review and update the plan as required to maintain relevance.



### 12. Getting the wheels in motion



The Principal Cycle Network Plan for Far North Queensland is for everyone.

The plan is a pathway for implementing a safe and convenient cycle network to support the local community to make green and healthy travel choices.

The far north Queensland community has already made a significant contribution to the plan and will continue to have an important role as the plan is implemented. Whether participating in future implementation activities, or simply choosing to ride a bike, the continued help and support of the local community will help to make this plan a success.

For more details on how to get involved in cycling in your area please contact your local bicycle user group or local council office.

The Department of Transport and Main Roads website contains a number of links to a range of technical documents related to cycling as well as tips and general information on cycling.

### 13. References

Cycling on State Controlled Roads 2004  
[www.tmr.qld.gov.au](http://www.tmr.qld.gov.au)

*Far North Queensland Infrastructure Plan 2009–2031*  
[www.dip.qld.gov.au](http://www.dip.qld.gov.au)

*Far North Queensland Regional Plan 2009–2031*  
[www.dip.qld.gov.au](http://www.dip.qld.gov.au)

*Queensland Cycle Strategy 2003*  
[www.tmr.qld.gov.au](http://www.tmr.qld.gov.au)

Towards Q2: Tomorrow's Queensland  
[www.towardsq2.qld.gov.au](http://www.towardsq2.qld.gov.au)



For further information on the Principal Cycle Network Plan for Far North Queensland, please contact the Department of Transport and Main Roads.

**Website:** [www.tmr.qld.gov.au](http://www.tmr.qld.gov.au)

**Email:** [planning.projects@tmr.qld.gov.au](mailto:planning.projects@tmr.qld.gov.au)

**Post:** Principal Cycle Network Plan  
Department of Transport and Main Roads  
PO Box 6542  
Cairns Qld 4870

# Part 2

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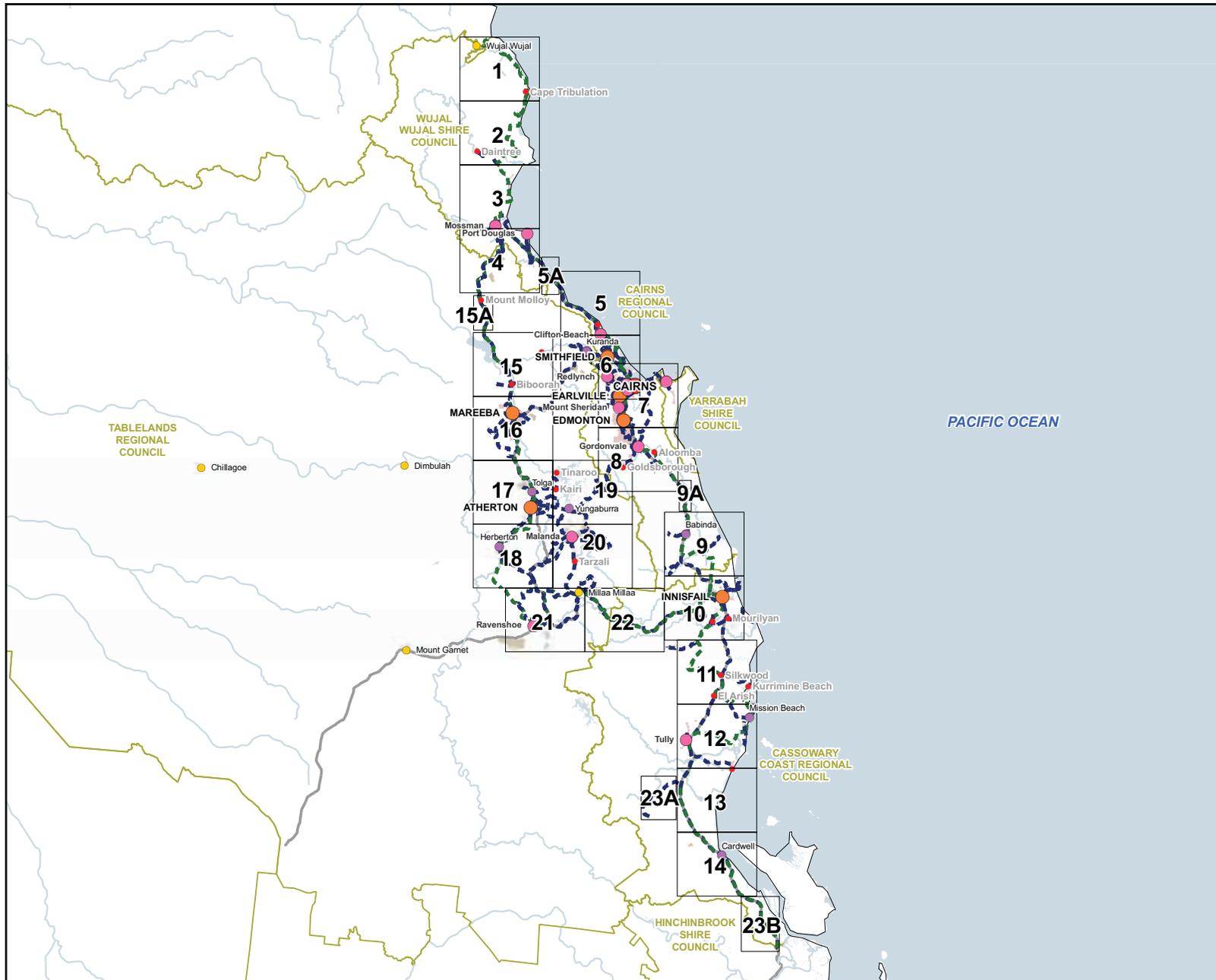
## Network maps

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Part 2: Network maps

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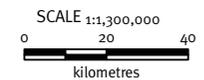


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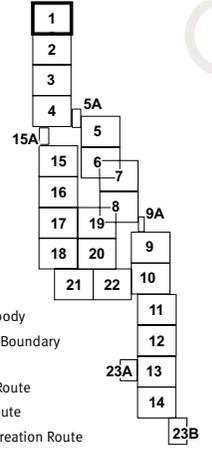
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Part 2: Network maps

Map 1

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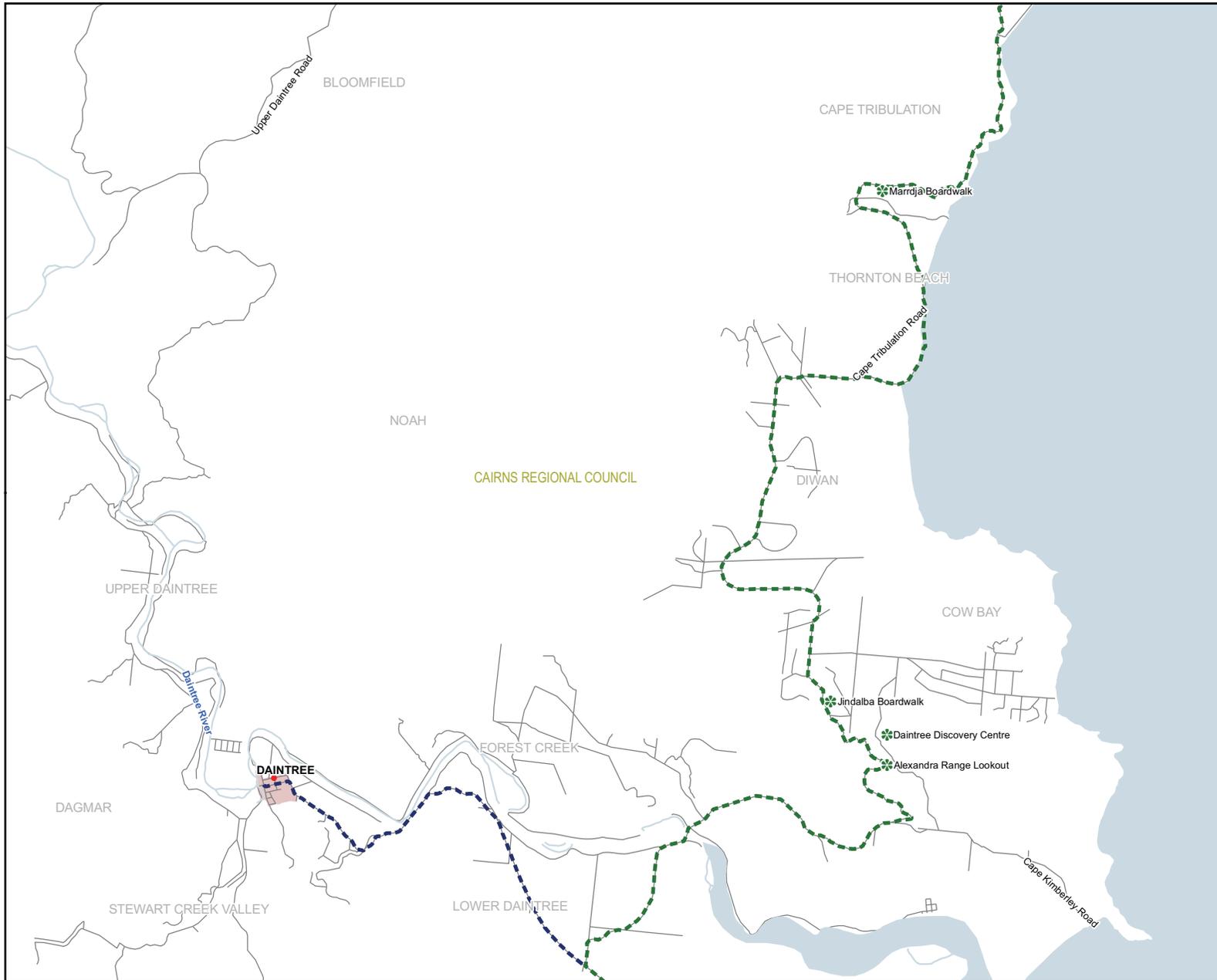
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Part 2: Network maps

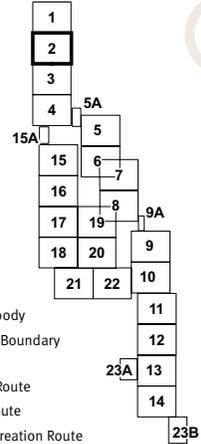
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Joins Map 1

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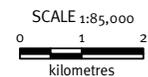
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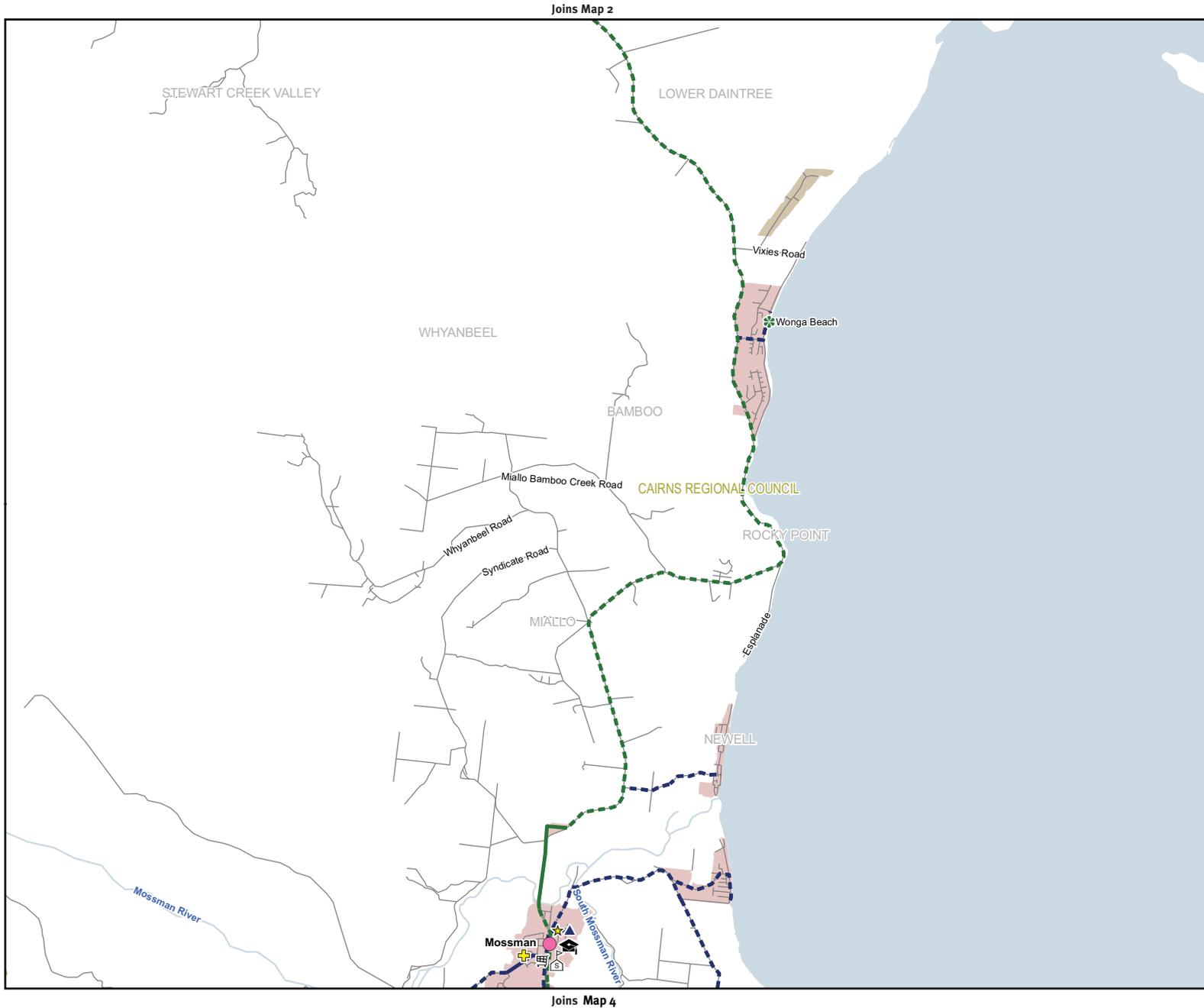
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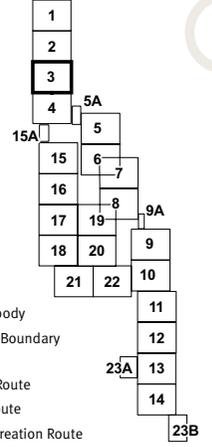


Part 2: Network maps

Map 3



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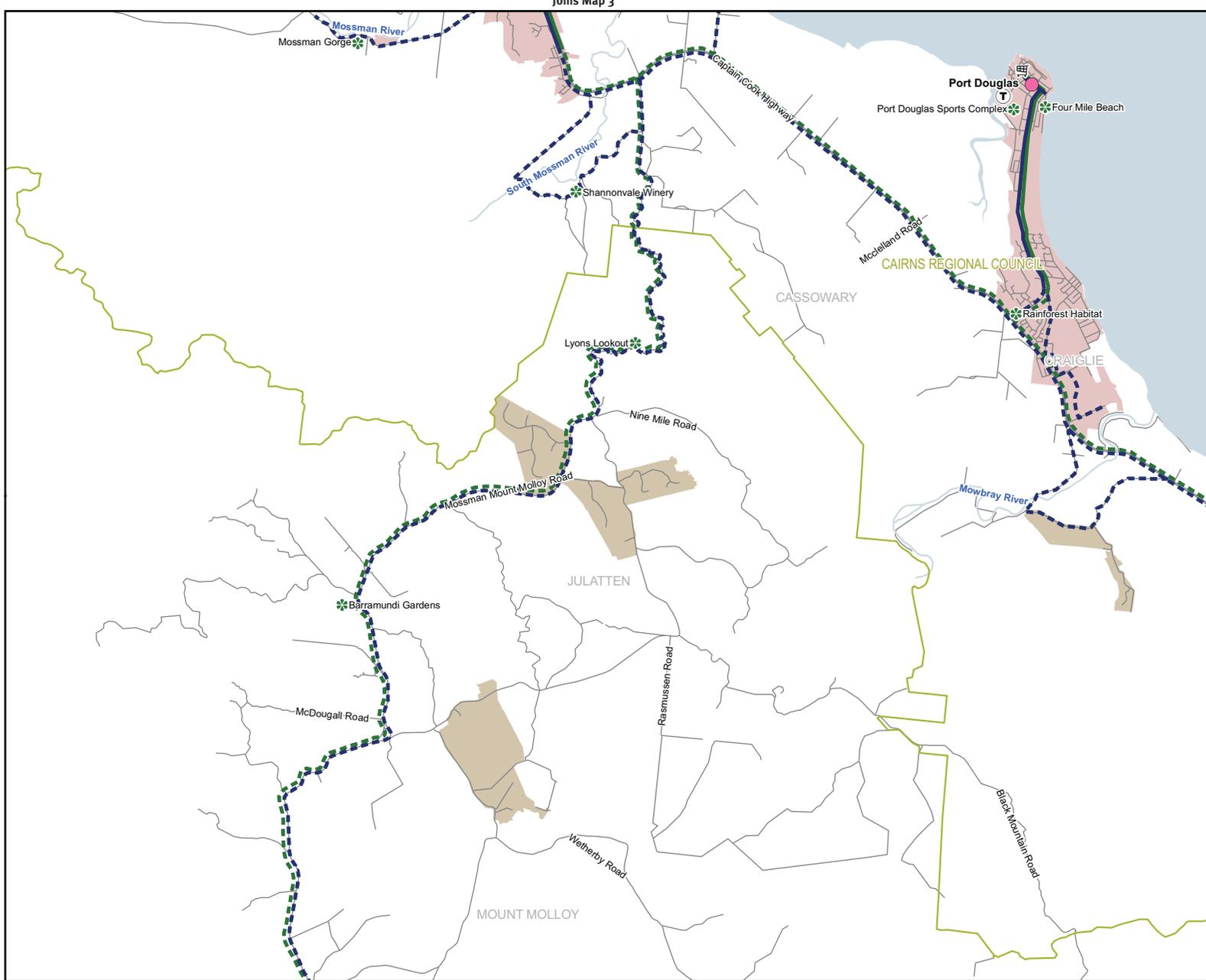


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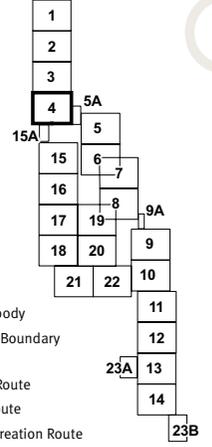


Part 2: Network maps

Map 4



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Joins Map 5A



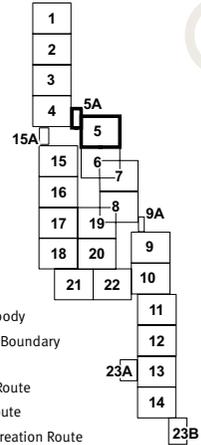
Joins Map 15A

Part 2: Network maps

Map 5-5A



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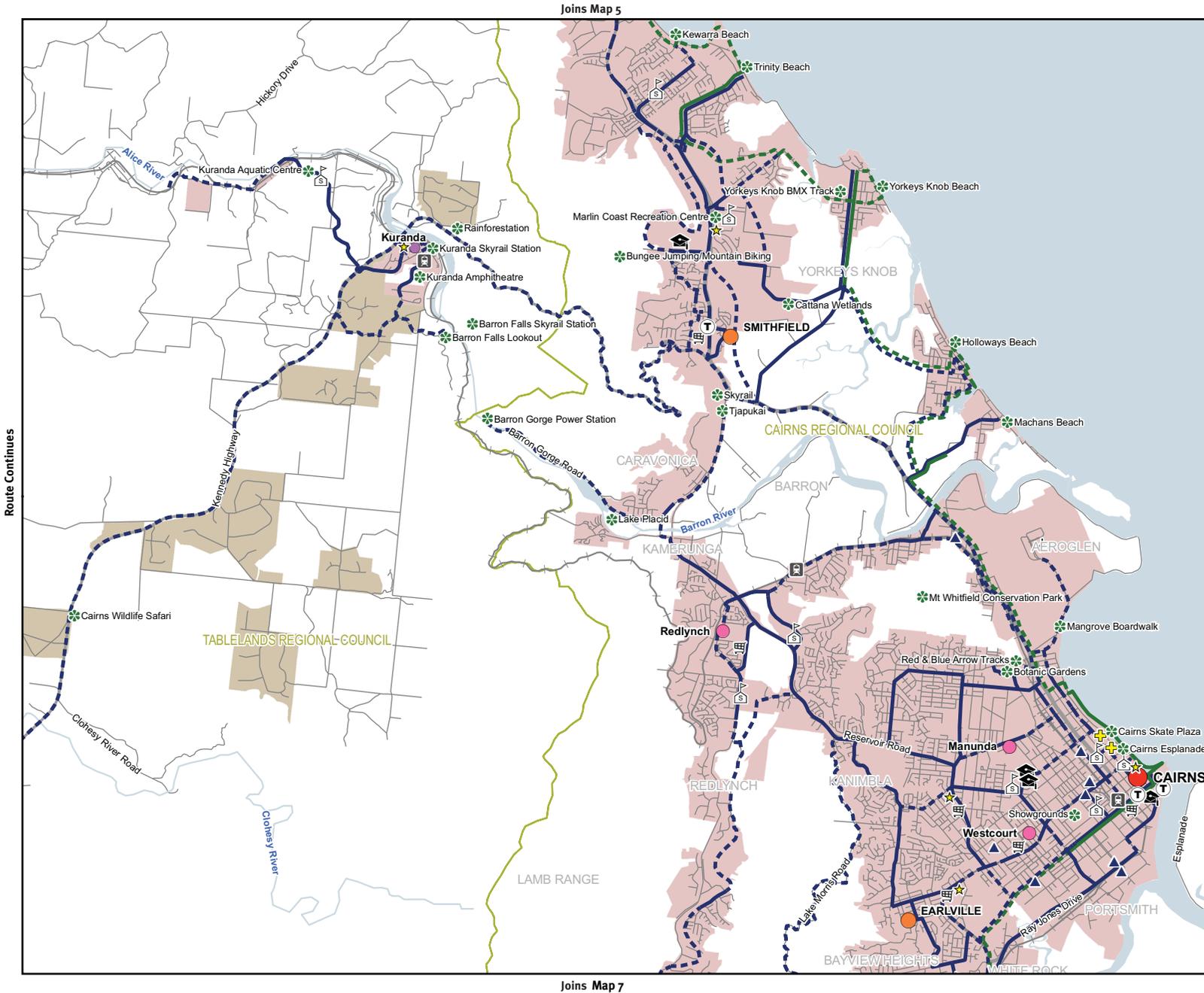
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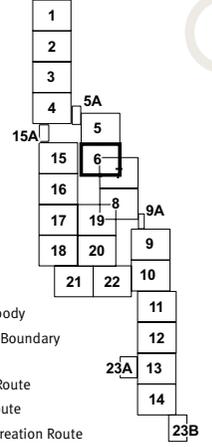


Part 2: Network maps

Map 6



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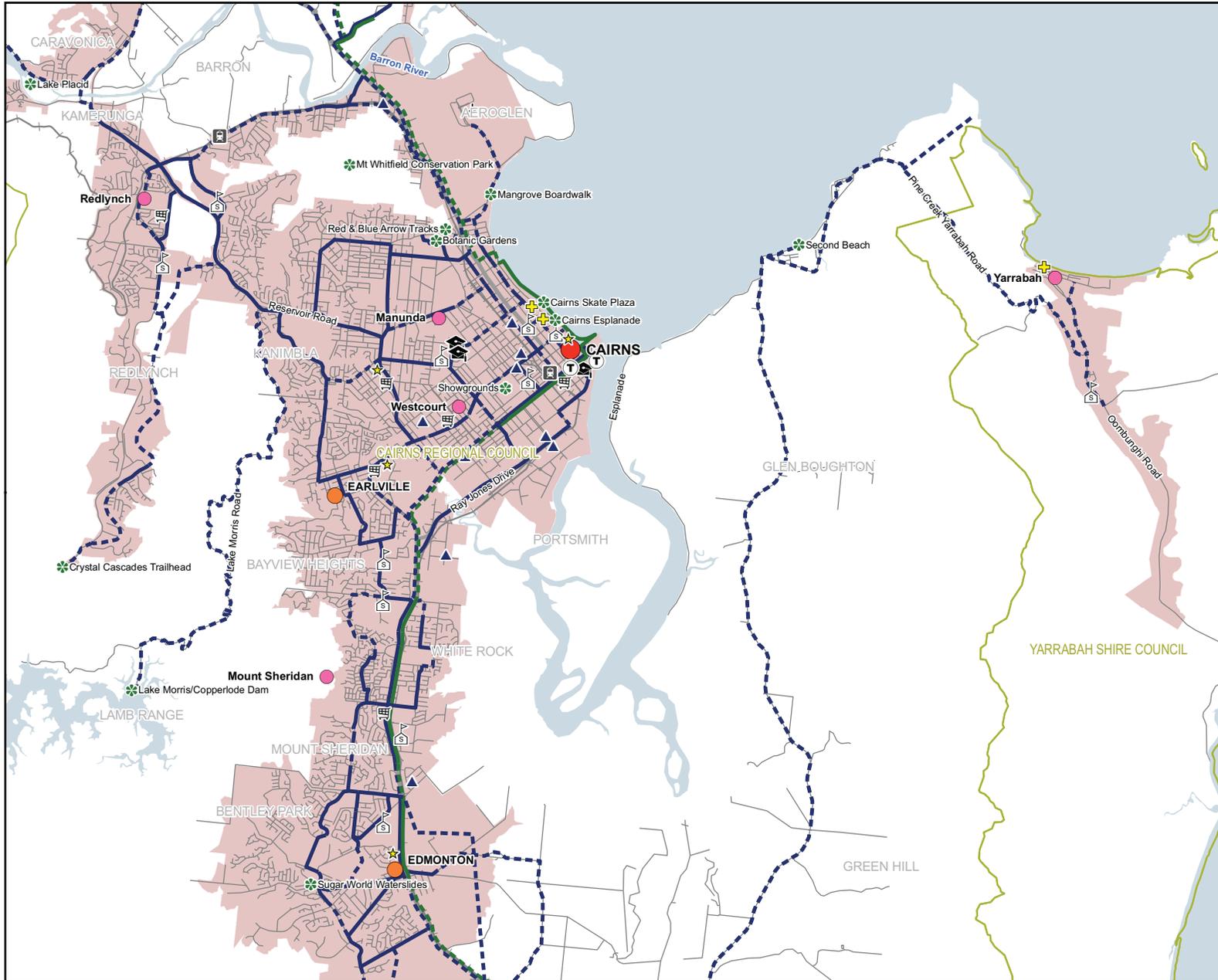


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Joins Map 5

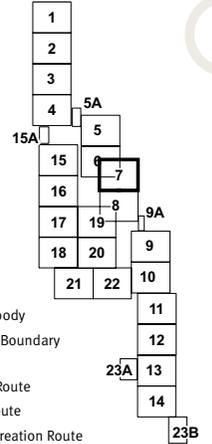
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Joins Map 6



Joins Map 8

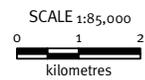
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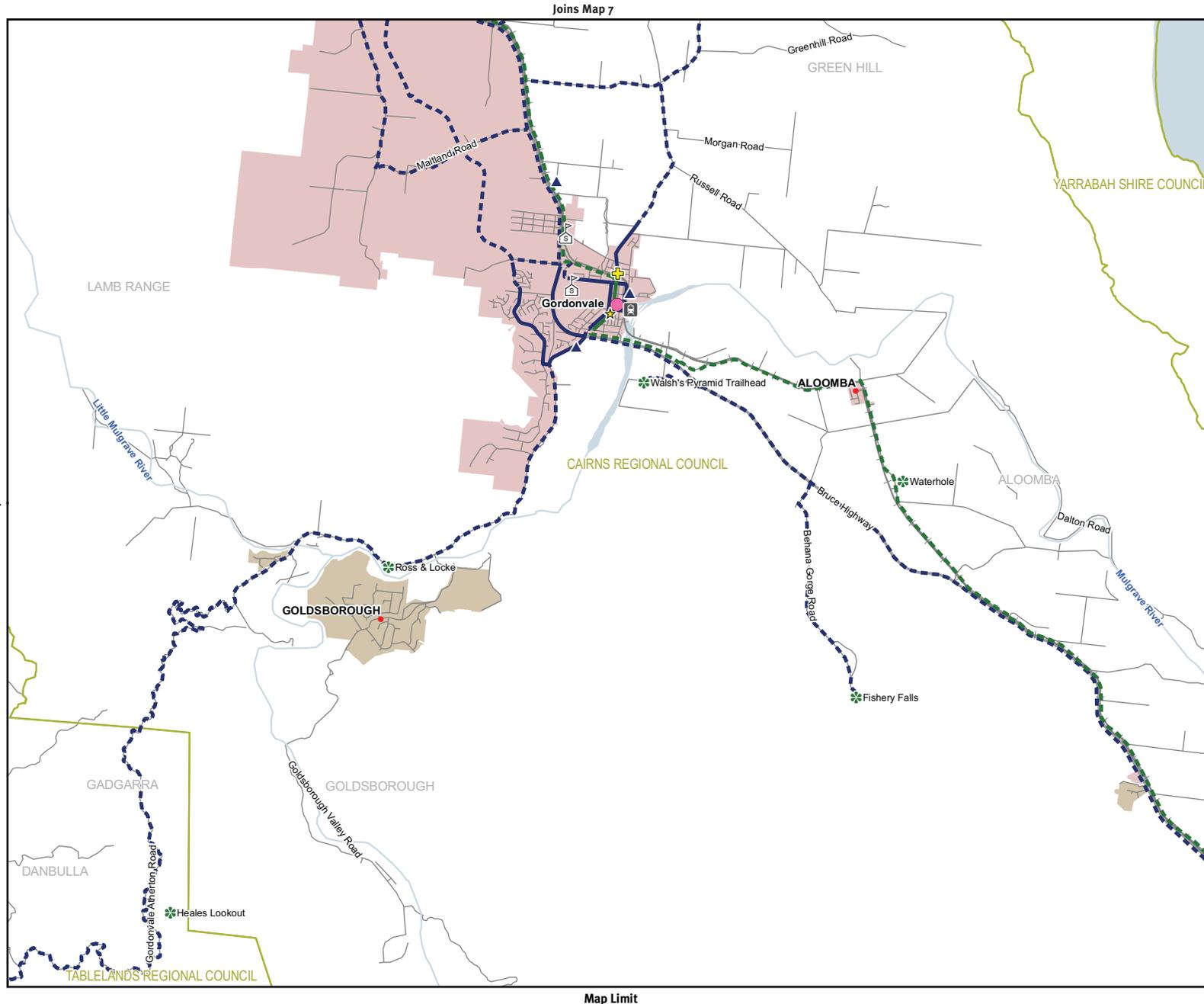


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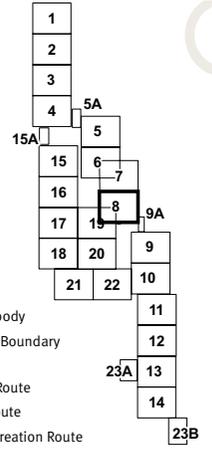
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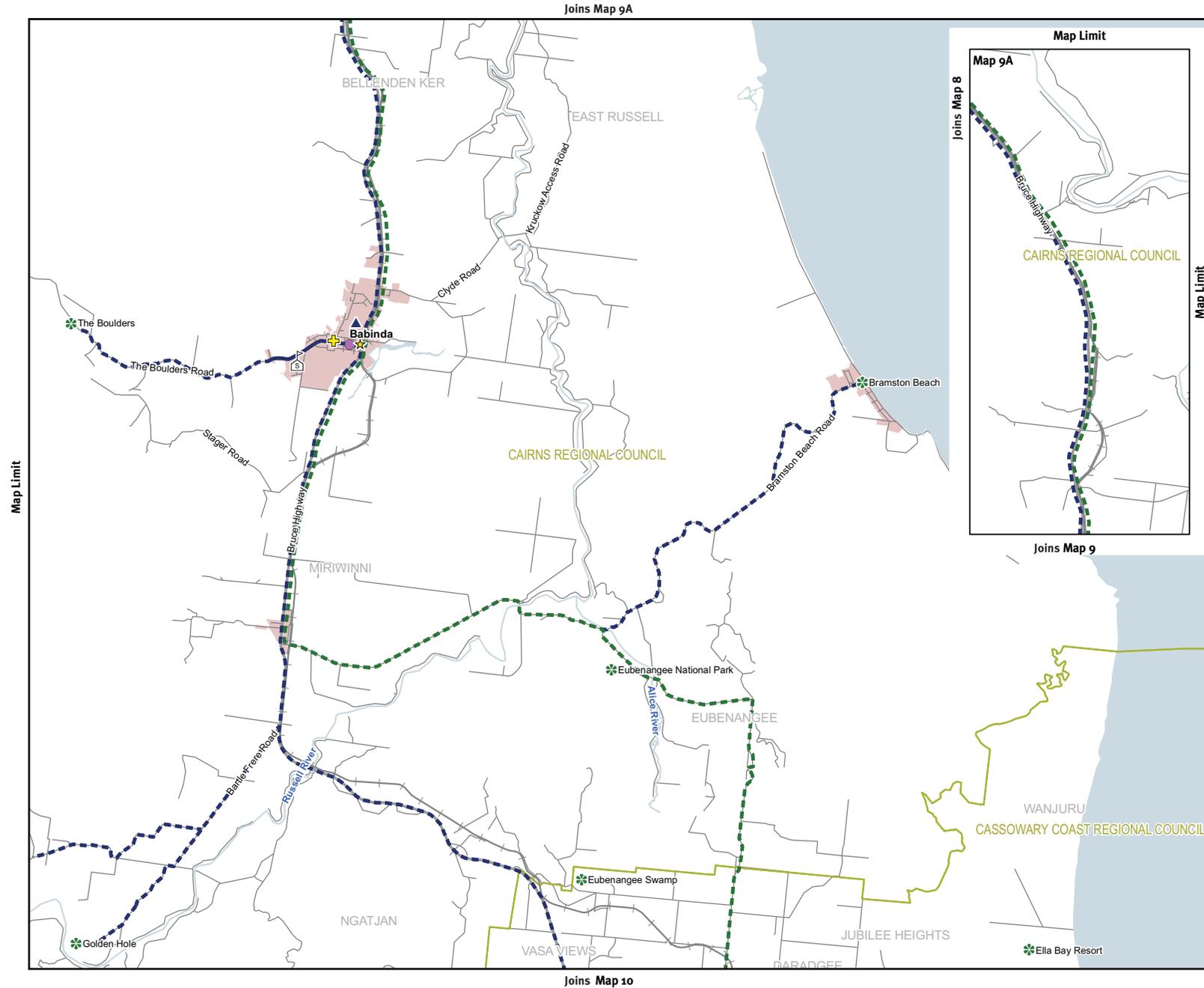
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Joins Map 9A

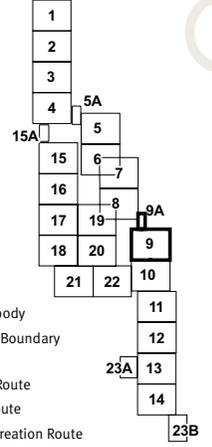


Part 2: Network maps

Map 9-9A

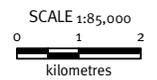


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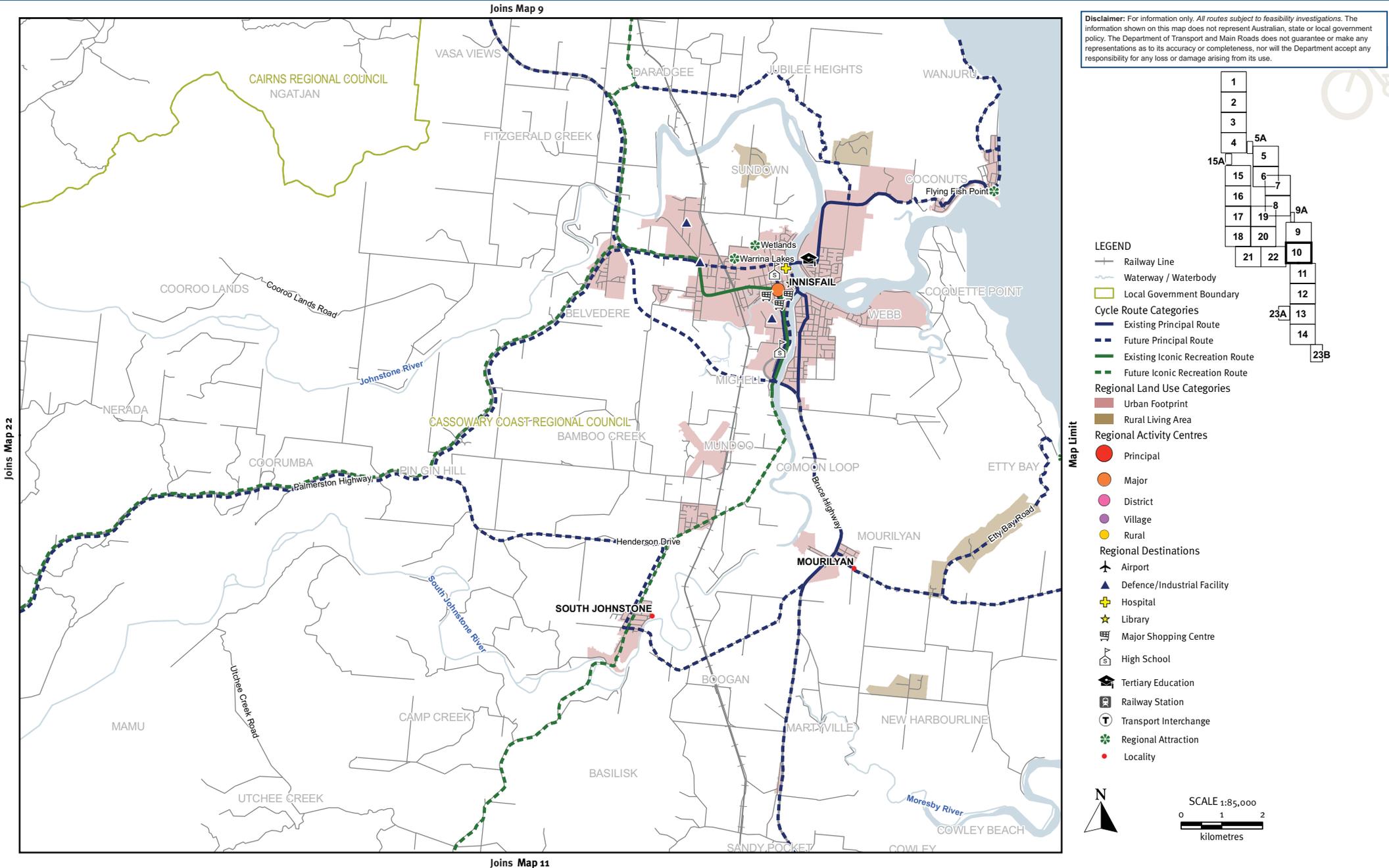
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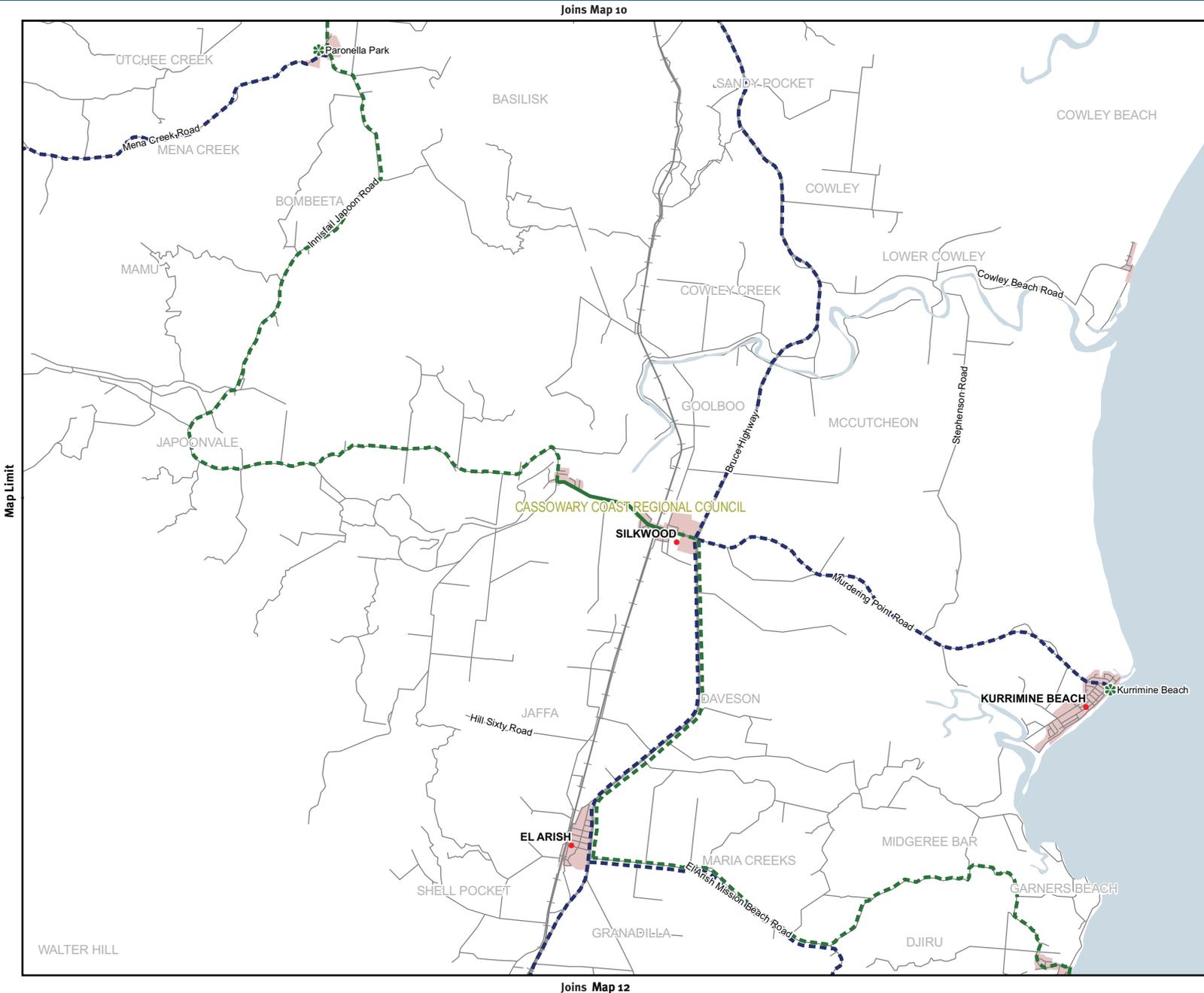
Part 2: Network maps

Map 10

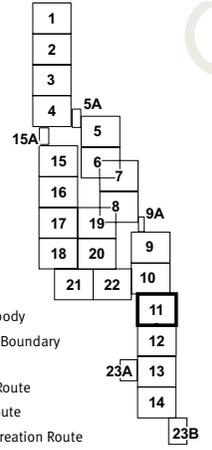


Part 2: Network maps

Map 11



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Joins Map 10

Joins Map 12

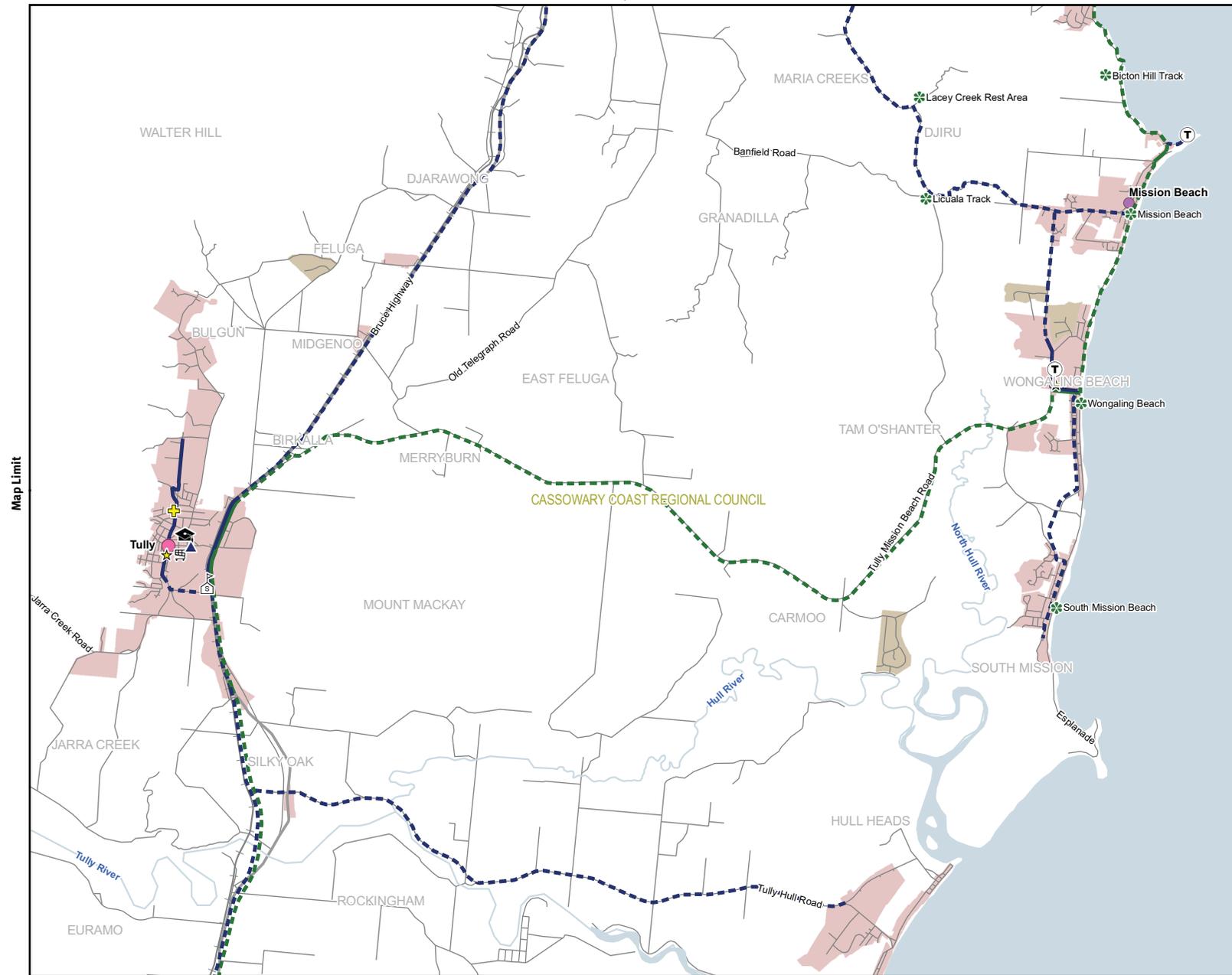
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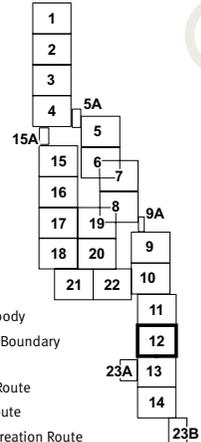
Map 12

Joins Map 11

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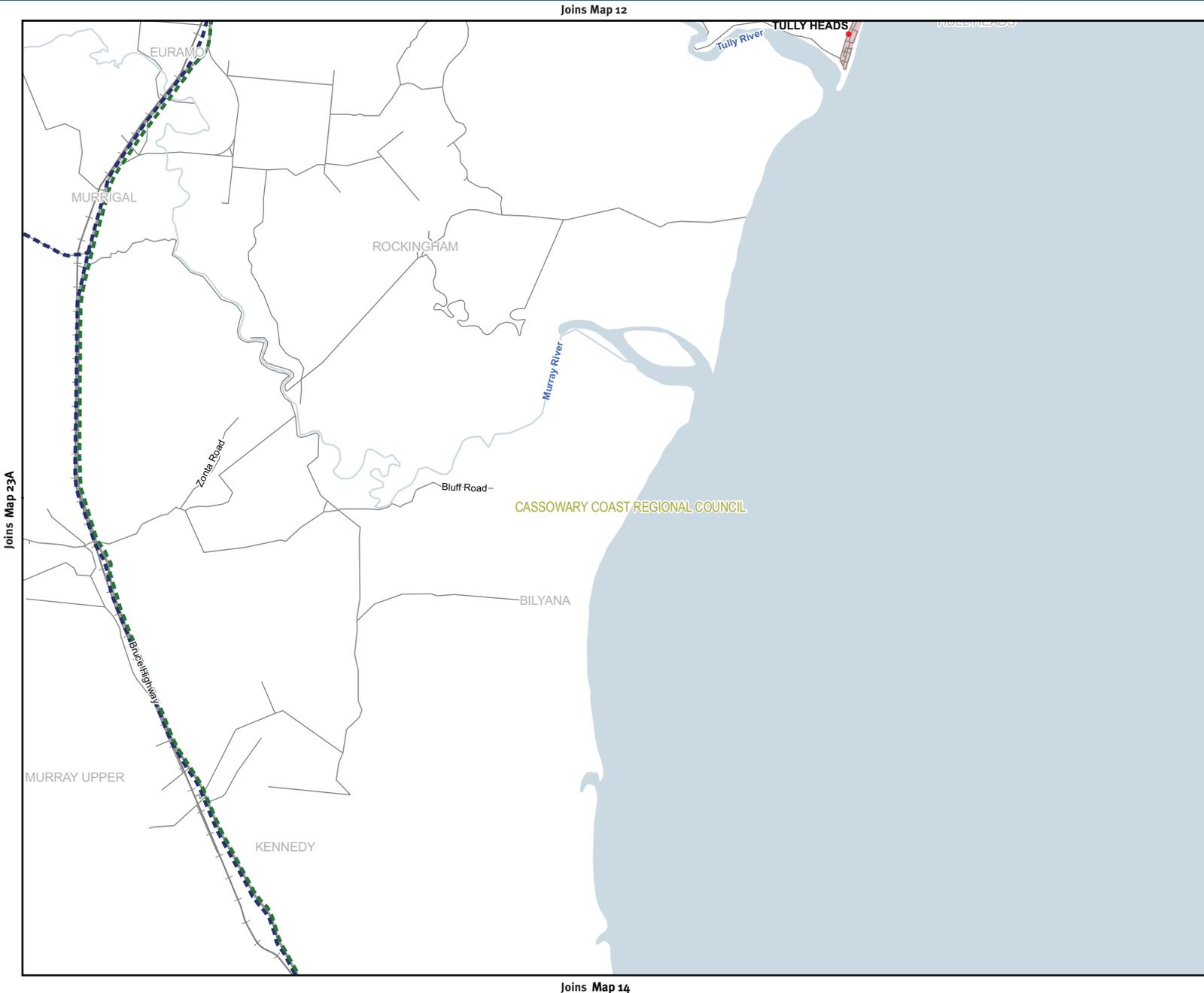
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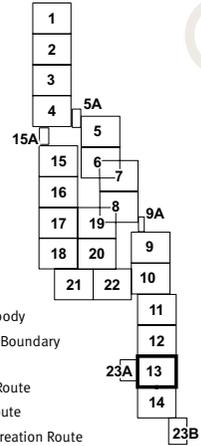


Part 2: Network maps

Map 13



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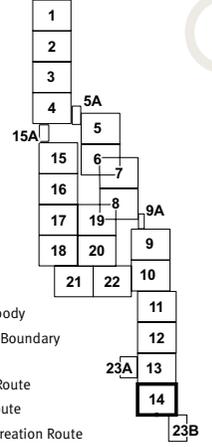
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Part 2: Network maps

Map 14

Joins Map 13

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LEGEND

- Railway Line
- Waterway / Waterbody
- Local Government Boundary
- Cycle Route Categories**
  - Existing Principal Route
  - Future Principal Route
  - Existing Iconic Recreation Route
  - Future Iconic Recreation Route
- Regional Land Use Categories**
  - Urban Footprint
  - Rural Living Area
- Regional Activity Centres**
  - Principal
  - Major
  - District
  - Village
  - Rural
- Regional Destinations**
  - Airport
  - Defence/Industrial Facility
  - Hospital
  - Library
  - Major Shopping Centre
  - High School
  - Tertiary Education
  - Railway Station
  - Transport Interchange
  - Regional Attraction
  - Locality

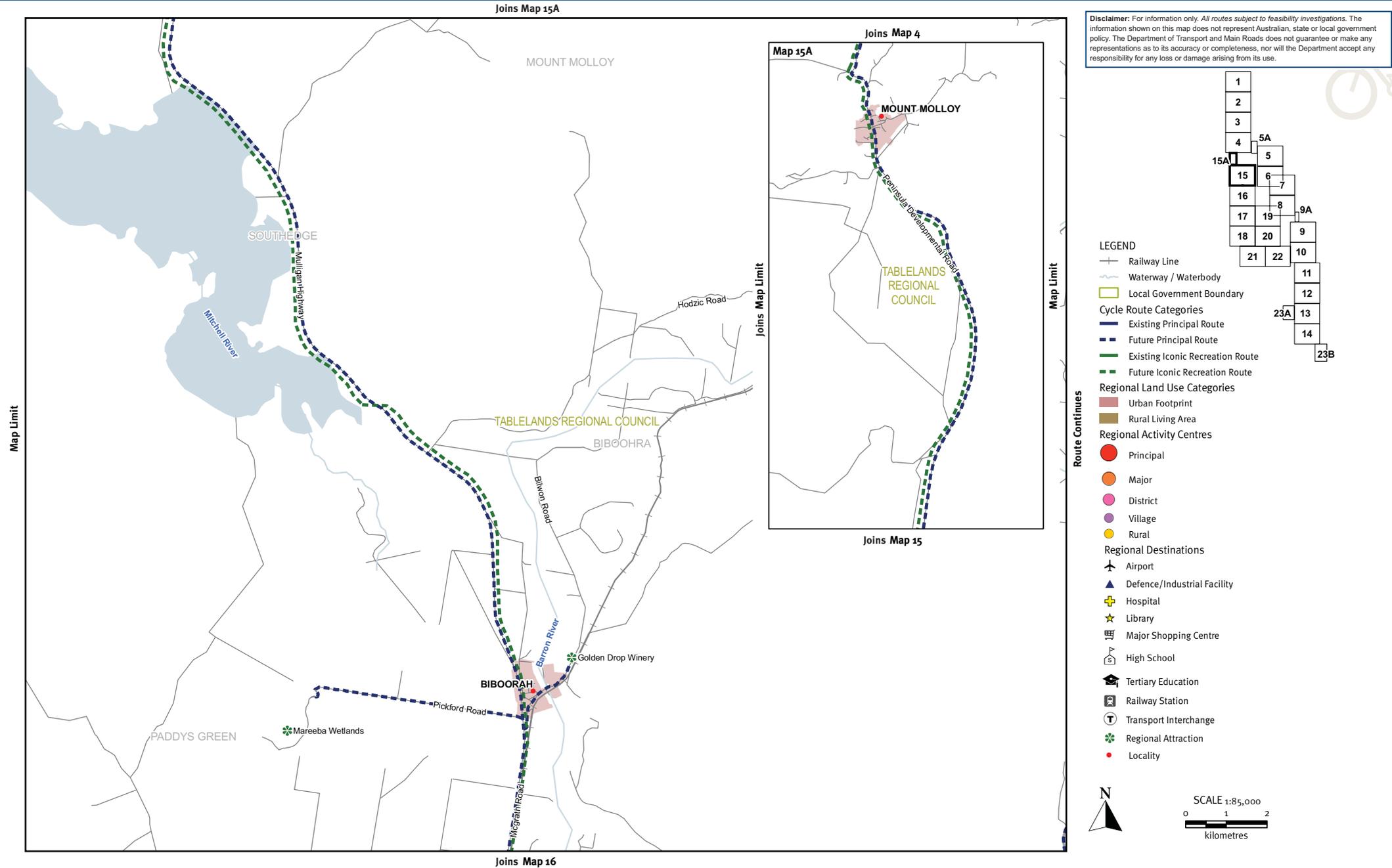
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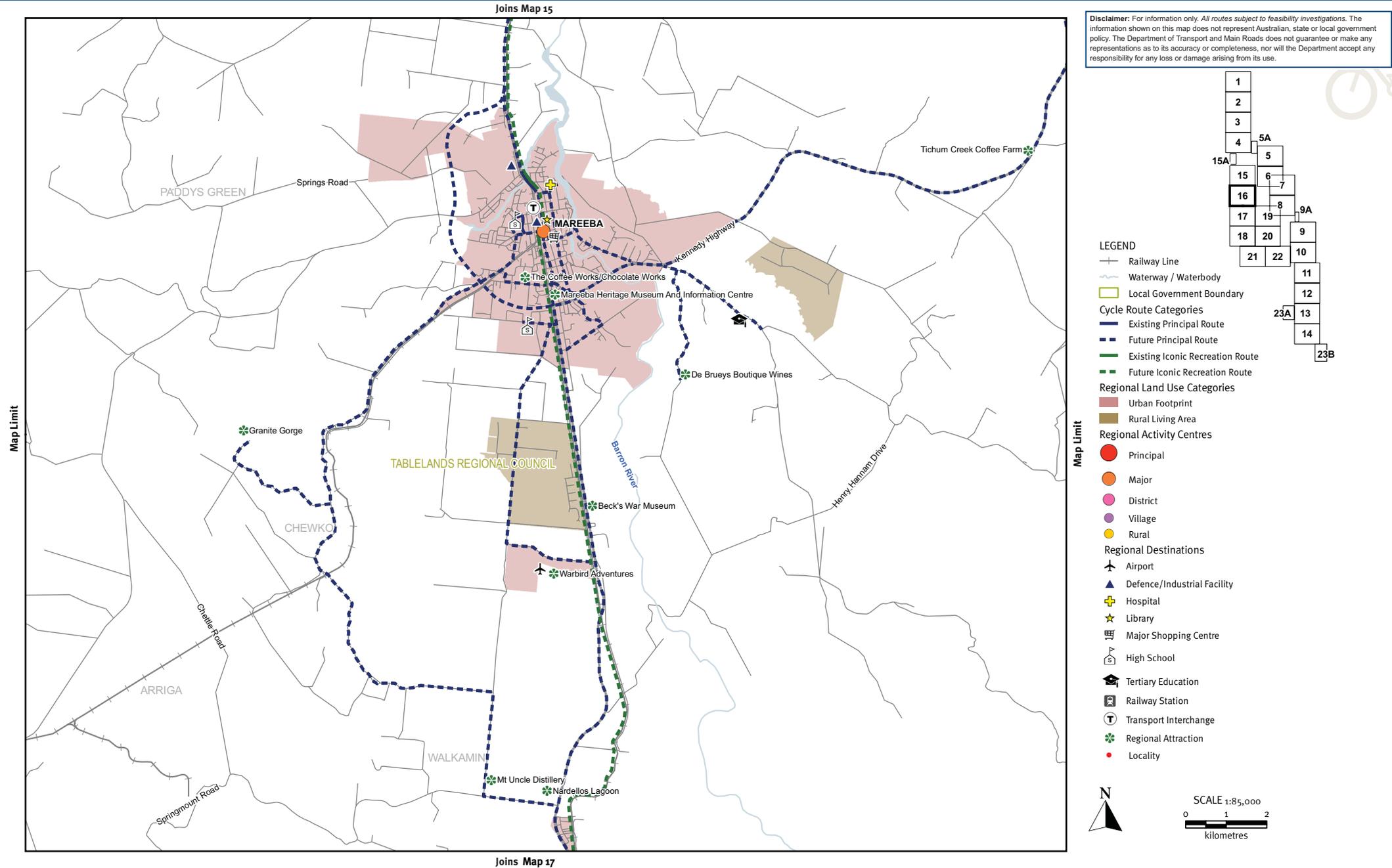


Joins Map 23B

Part 2: Network maps

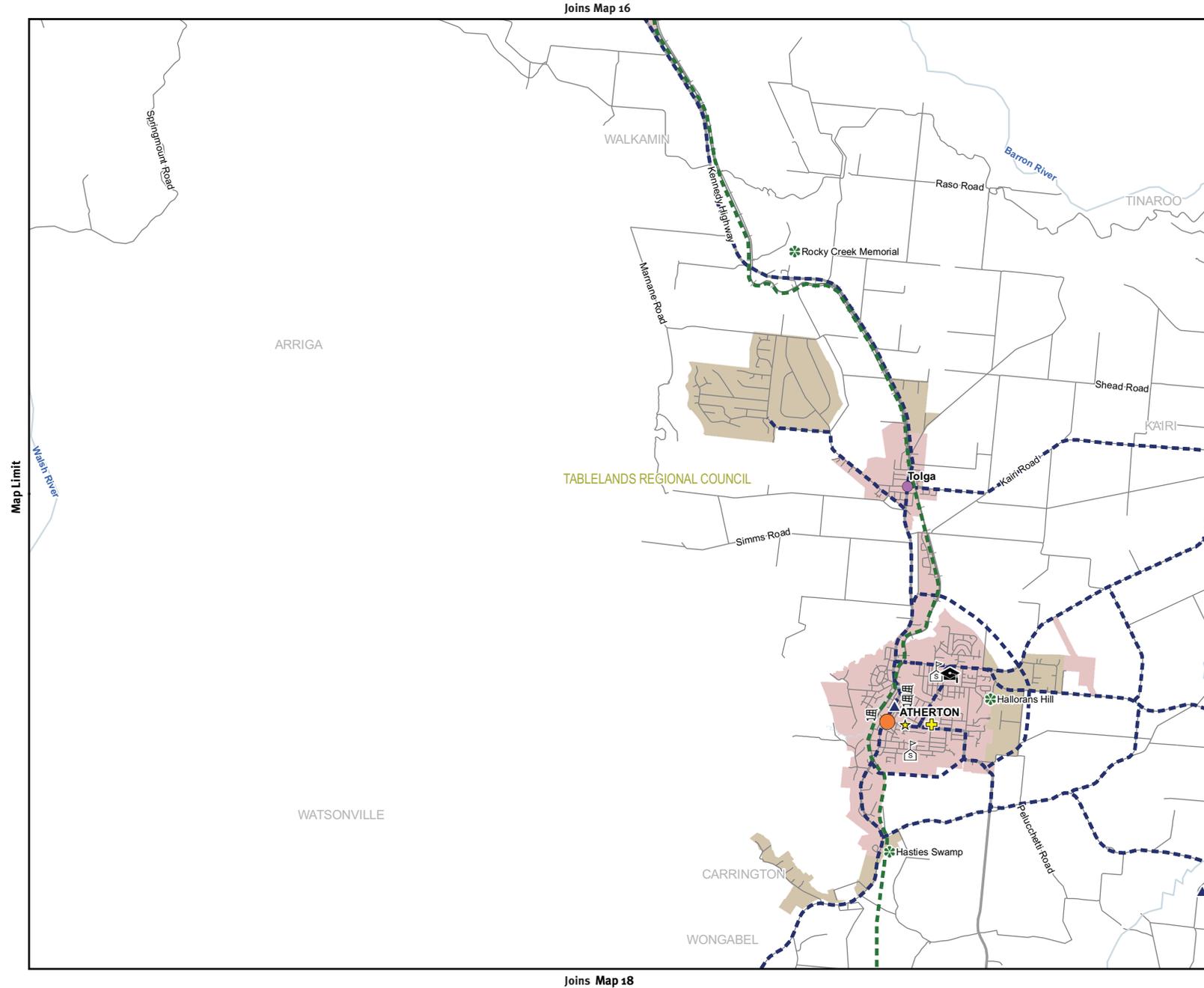
Map 15-15A



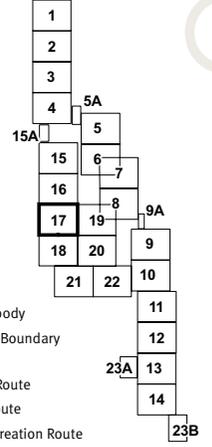


Part 2: Network maps

Map 17



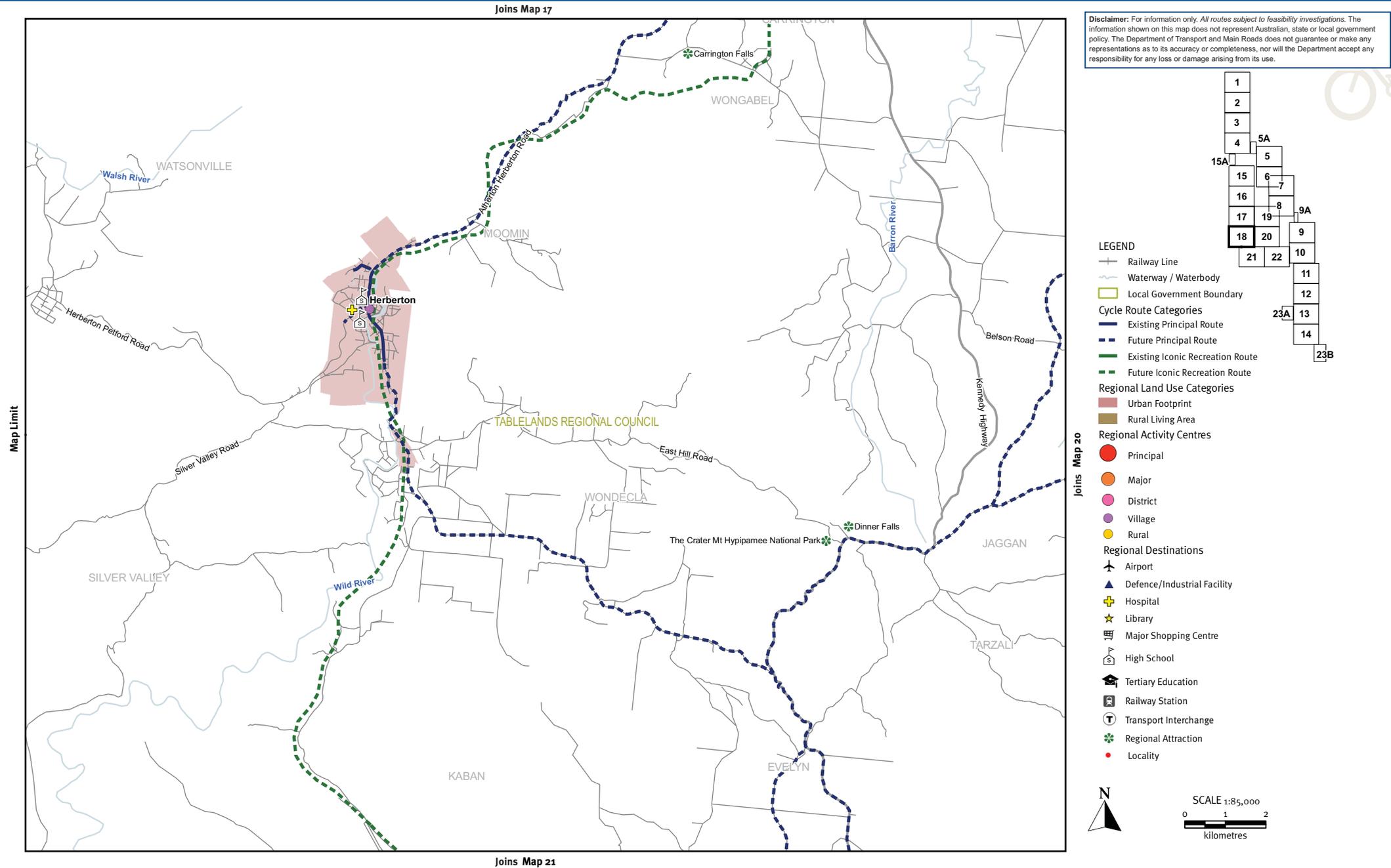
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**LEGEND**

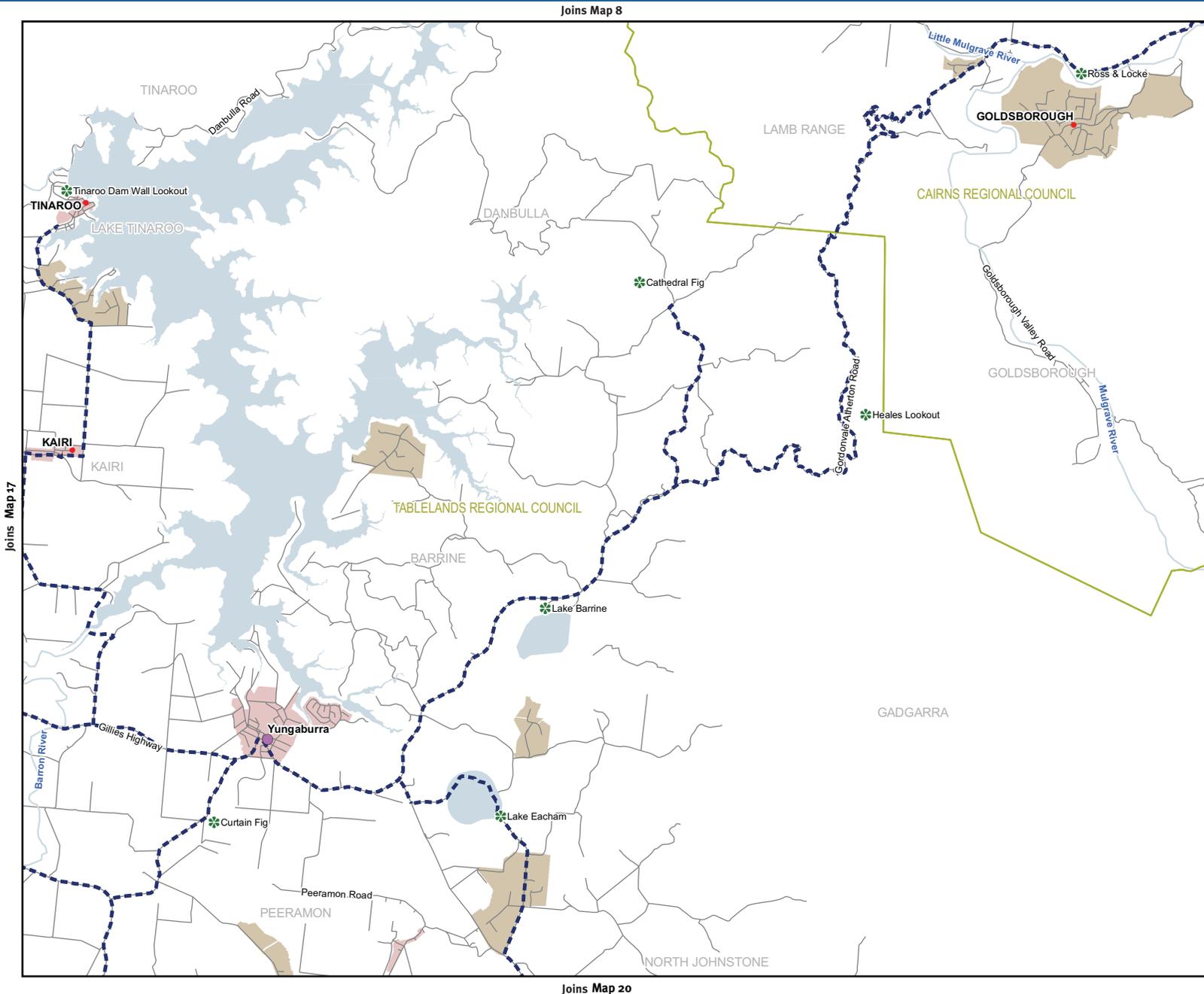
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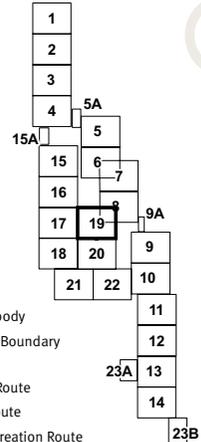


Part 2: Network maps

Map 19



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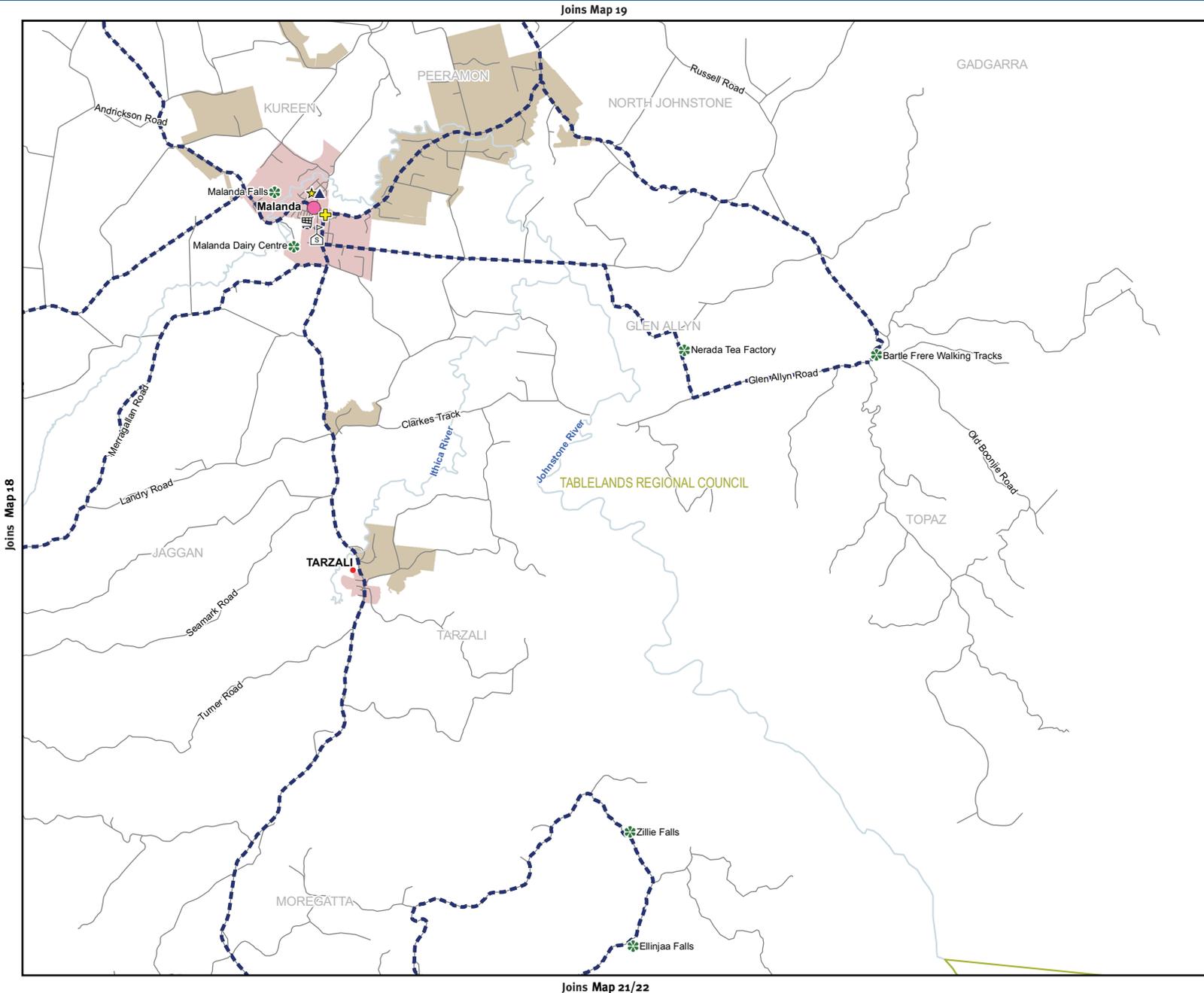
LEGEND

- Railway Line
- Waterway / Waterbody
- Local Government Boundary
- Cycle Route Categories**
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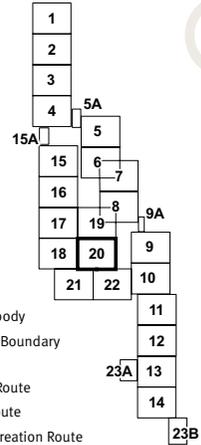


Part 2: Network maps

Map 20



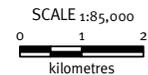
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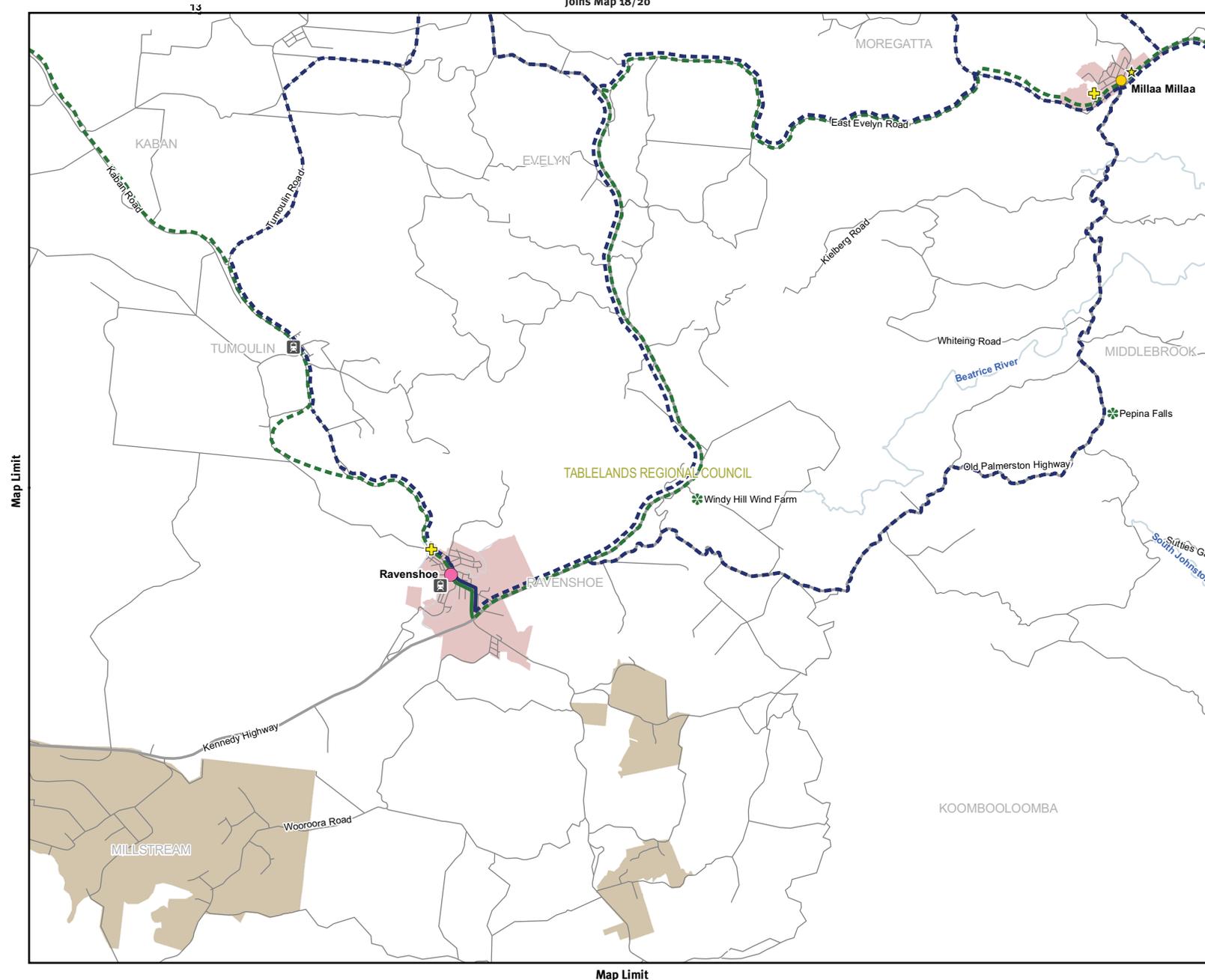


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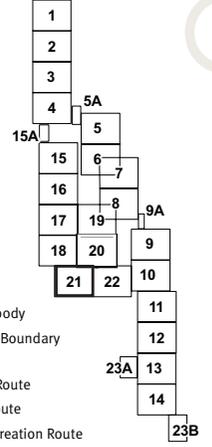
- Railway Line
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- Local Government Boundary
- Cycle Route Categories**
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Map Limit



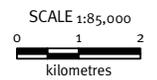


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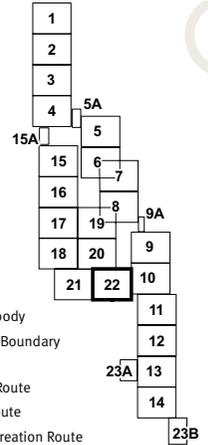
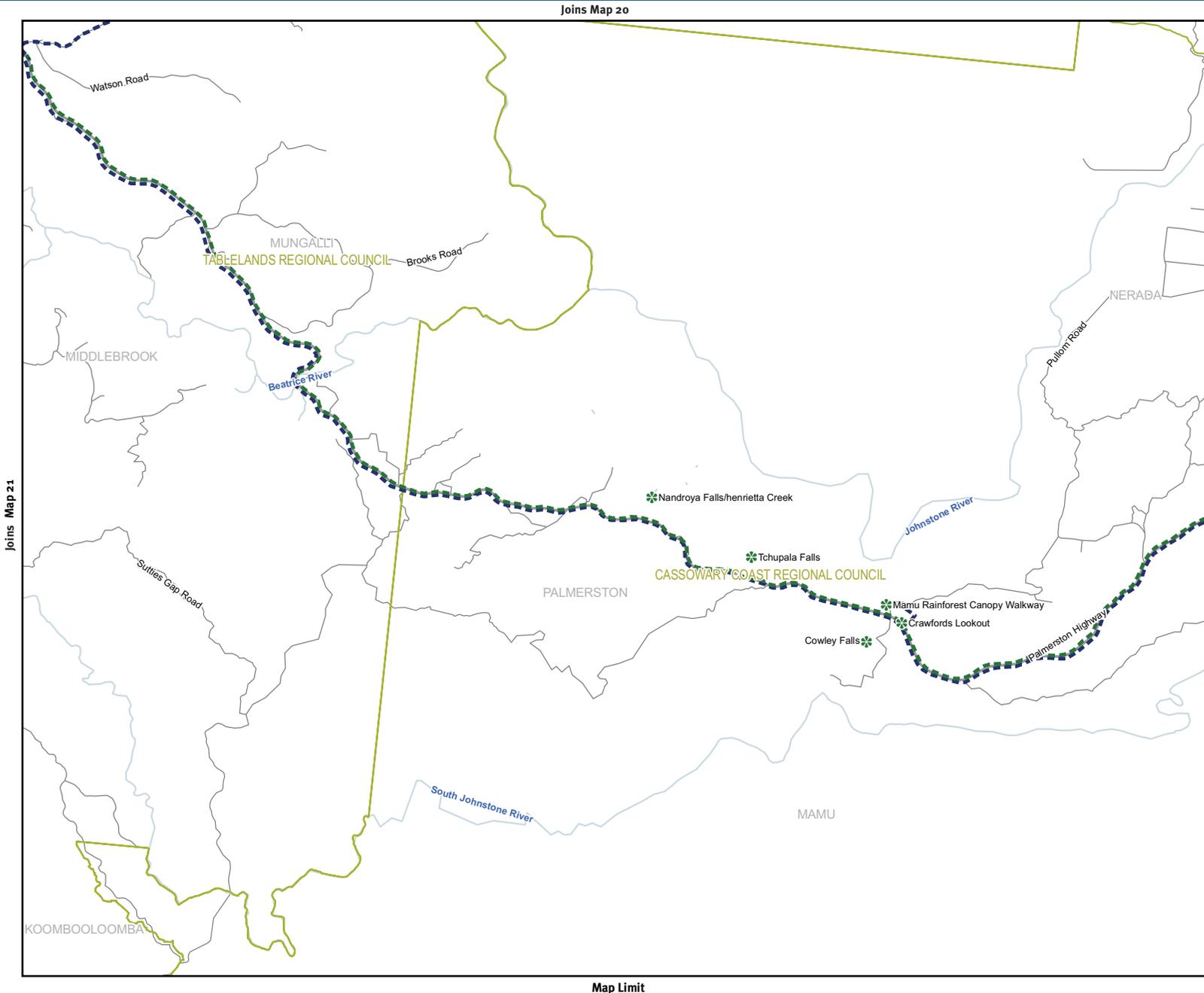
LEGEND

- Railway Line
- Waterway / Waterbody
- Local Government Boundary
- Cycle Route Categories**
- Existing Principal Route
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- Regional Attraction
- Locality



Part 2: Network maps

Map 22



**LEGEND**

- Railway Line
- Waterway / Waterbody
- Local Government Boundary
- Cycle Route Categories**
  - Existing Principal Route
  - Future Principal Route
  - Existing Iconic Recreation Route
  - Future Iconic Recreation Route
- Regional Land Use Categories**
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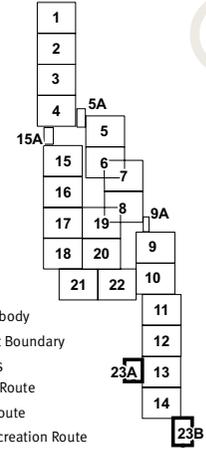
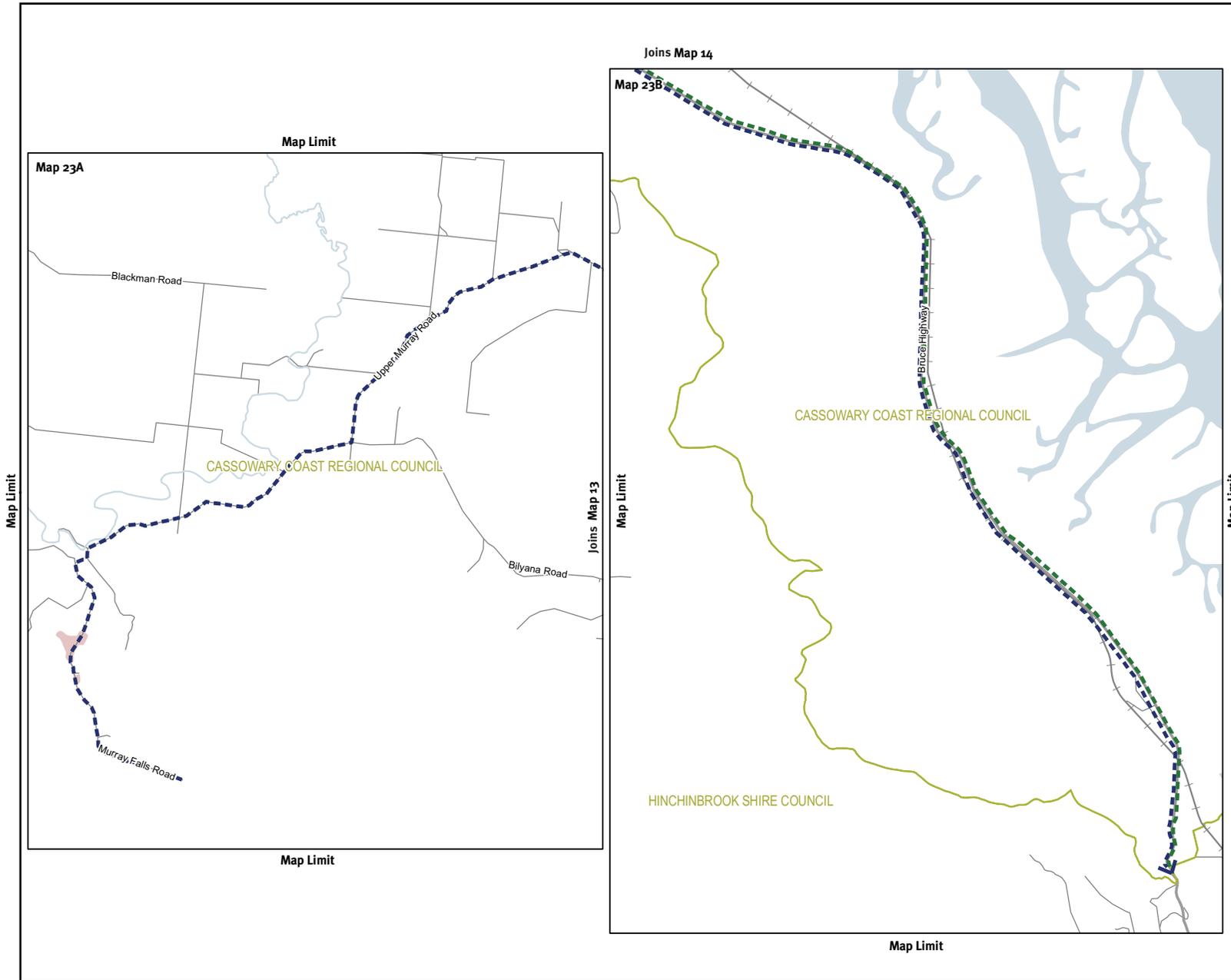


Map Limit

Part 2: Network maps

Map 23A & 23B

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- Locality



SCALE 1:85,000  
0 1 2  
kilometres

# Appendix A

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## Network priorities

Prioritisation process	44
Prioritisation outcomes	45
High priority routes for far north Queensland	45



### Appendix A: Network priorities

#### Prioritisation Process

The Principal Cycle Network Plan for Far North Queensland was subject to a prioritisation process to determine which routes were the most critical and urgent for implementation. The prioritisation process involved:

- a review of prioritisation methods used by other cycle planners
- gaining community and stakeholder feedback on proposed priority criteria. The community identified safety as the most important criteria
- applying a preliminary computer-based prioritisation method. Table 1.1 shows the measures used in this method
- a workshop to evaluate the outcomes of the prioritisation method and determine the highest priority routes for implementation.

A technical report detailing the prioritisation process is available from the Department of Transport and Main Roads.



Criteria	Weighting	Measure	Aim
Safety	60%	Average number of cycle crashes per kilometre along the route over a five year period.	Identify existing hazardous locations for cyclists.
		Number of heavy vehicles along the route.	Higher numbers of heavy vehicles reduce safety for cyclists.
		Percentage of population under 19 years living within one kilometre of the route.	Children are more vulnerable users due to reduced awareness of road rules as well as having reduced speed and distance perception.
Connectivity	20%	Number of attractors/destinations per kilometre served along the route.	Higher number of attractors indicates higher potential volume of cyclists.
		Diversity of attractors served along the route.	Indicates whether the route will serve multiple types of cycle users.
Demand	20%	Future population within one kilometre of the route.	Higher numbers of people around a route will have a higher potential to be used.
		Expressed demand for the route.	Stakeholders identify important routes for the community.
		Volume/capacity ratio of the route (road congestion).	Indicates where congestion occurs or is likely to occur. Ideal to provide cycling facilities as an alternative along these routes.
		Cars per person per household within one kilometre of the route.	Indicates households with reduced access to a motor vehicle and therefore more potential to increase cycling.
Opportunity	Considered in future implementation stages		Increased opportunity to deliver links including as part of other projects.
Cost effectiveness	Considered in future implementation stages		Identifies value for money of a route with consideration for cost and benefit to cycling and the community.
Network enhancement	Considered in future implementation stages		Increases the overall completeness of the network by filling network gaps and completing routes.

Table 1.1: Preliminary prioritisation method for far north Queensland

### Appendix A: Network priorities



#### Prioritisation outcomes

A stakeholder workshop was held in June 2008 to discuss the results of the preliminary prioritisation method.

A critique of the results found the method tended to favour routes in urban areas due to the larger populations, number of destinations and number of recorded crashes in these areas. However, some less used rural routes ranked highly due to the number of heavy vehicles along them.

After discussing the results, workshop participants agreed on a list of high priority principal cycle routes for far north Queensland as shown in Table 1.2.

Of the high priority routes shown in Table 1.2, some are already being planned for as part of other projects. These include:

- Airport to Cairns central business district: \$6.1 million has been committed through a 75% state and 25% local government funding partnership as part of the *Far North Queensland Infrastructure Plan 2009–2031*
- Cairns central business district to Edmonton: subject to Cairns Transit Network and Cairns Bruce Highway Upgrade projects
- Edmonton to Gordonvale: subject to Cairns Transit Network project, Cairns Bruce Highway Upgrade project and Mount Peter Master Plan Area structure planning

- Tolga to Atherton: subject to the Atherton Tablelands Rail Trail Feasibility Study and Advisory Committee
- Redlynch to Cairns central business district: subject to the Cairns Transit Network project and state road planning
- Captain Cook Highway (various sections): subject to the Cairns Transit Network project and state road planning.

#### High priority routes for far north Queensland

In developing the Principal Cycle Network Plan for Far North Queensland, concepts and designs have been prepared for a selection of high priority routes. These provide a foundation to attract funds for cycle infrastructure projects. Link concepts and concept designs are provided in Appendix B.

Local government area	Route
Cairns Regional Council	Airport to Cairns central business district
	Smithfield to Cairns central business district via Captain Cook Highway
	Palm Cove to Smithfield via the beaches route
	Port Douglas to Palm Cove – The Ellis Beach to Palm Cove link was considered the most important and a possible first stage
	Cairns central business district to Edmonton
	Edmonton to Gordonvale
	Port Douglas to Mossman
Cassowary Coast Regional Council	Redlynch to Cairns central business district
	Goondi Hill to former Innisfail State High School site via Bruce Highway
	Innisfail central business district to Johnstone College of TAFE
	Etty Bay Road to Innisfail
Tablelands Regional Council	Bingil Bay to South Mission Beach
	East Mareeba to Mareeba central business district
	Atherton to Lake Barrine – The Yungaburra to Lake Eacham link was considered the most important and a possible first stage
	Tolga to Atherton

Table 1.2: Highest priority routes per local government area

# Appendix B

---

## Link concepts and concept designs

Locality plan	48
Mossman to Port Douglas	49
Ellis Beach to Palm Cove	53
Smithfield to Palm Cove	55
East Mareeba to Mareeba central business district	58
Yungaburra to Lake Eacham	61
Goondi Hill to Johnstone College of TAFE Innisfail	63
Etty Bay Road	65
Bingil Bay to South Mission Beach	68



### Appendix B: Link concepts and concept designs

Preparing a link concept and concept design is a bridging step between identifying a high priority principal cycle route and initiating a construction project to deliver a specific part of the network. This step represents a starting point for attracting funds and progressing detailed design.

#### What is a link concept?

A link concept provides background information for the route and supports the concept design. This information includes:

- a description of the link, existing conditions and recommended standards
- potential issues such as traffic and parking considerations
- the strategic relationship to surrounding areas and overall network priorities.

Link concepts provide guidance when undertaking detailed planning and design to implement the link.

#### What is a concept design?

A concept design shows the proposed alignment for a selected route which is further broken into sections to indicate areas where different treatments are required. Treatments to upgrade existing conditions to better provide for cyclists are proposed for each section. Treatments may include providing on-road bicycle lanes or constructing off-road shared paths. Crossing structures and problem areas such as bridges and intersections are also identified on concept designs. This information can be used to develop cost estimates and prepare a business case for constructing a project.

Concept designs represent an idea of what might be achieved. Detailed design, combined with stakeholder consultation, determine the specific treatments and physical alignment of the facility before taking the project forward to construction.

#### Reading link concepts

Link concepts support the concept designs by providing the background information for each proposed link alignment.

Information contained in link concepts provides guidance when undertaking detailed planning and design to construct a principal cycle route.

Link concepts include:

- strategic positioning - the strategic relationship of the link to the surrounding area and network priorities
- proposed standards - a description of construction treatments proposed for each section
- conditions and form - a brief overview of existing conditions on the route and potential issues such as traffic and parking considerations.

The information in link concepts is useful for understanding why the link is important, why certain treatments have been proposed and what issues might need to be addressed before constructing the route.

The link concepts may need to be updated in the future to reflect changes to conditions or construction standards prior to constructing a principal cycle network project.

#### Understanding concept designs

The concept designs provided in the Principal Cycle Network Plan for Far North Queensland provide a starting point to deliver high priority cycle projects for the region.

These concept designs are not final plans for constructing cycle facilities. They are a first step toward identifying and suggesting appropriate construction treatments along different sections of a principal cycle route.

A proposed link alignment is shown on each concept design and broken into different coloured sections. Each section represents a change in the conditions along the corridor and indicates where a different construction treatment is required. Above each section is a brief description of the proposed construction treatment.

The 'chainage' along the route is provided for most concept designs. This shows the number of metres from the start of the route to the start and end of each section. Knowing the length of the treatment type proposed for each section helps to develop cost estimates for constructing all the different parts of the route. Extra details such as notes and photographs are also provided on the concept designs. Some of the terms appearing on the concept designs are explained on the right side of this page.

The concept designs provide an overall idea of what cycle facilities might be achieved on a particular part of the principal cycle network.

The routes depicted in the concept designs will require further investigation to determine if the proposed treatments are feasible. For some routes, consultation with stakeholders and the community will be necessary to help decide the most appropriate treatments for constructing the route. Detailed investigations may also consider alternative locations for all or part of a principal cycle route such as using a parallel street or nearby green corridor. The alignment of a route may change if alternative options provide similar or greater benefits to cyclists with fewer impacts or lower construction costs.

Contact the Department of Transport and Main Roads if you would like further information about the concept designs.

#### Terms

Bicycle awareness zone	Yellow bicycle symbols marked on the road surface indicate a shared zone for cyclists and vehicular traffic. These symbols are typically only applied in low speed environments along local roads where their use is approved by the local authority. Further consideration of traffic calming may be required in these locations.
Bike lane	A bike lane is typically an on-road facility extending from the outer edge of the vehicle traffic lane. A bike lane is usually between 1.2–1.5 metres wide along roads with up to 60km/hr speed limits. Bicycle lanes can be up to 2.5 metres wide in busier sections of 60km/hr roads and up to 3 metres along roads with speed limits above 60km/hr.
Bike path	A bike path is typically an off-road facility specifically designed to cater to cyclists.
Cantilever structure	Where the road environment is constrained by sloping terrain, a path can be extended over the sloping edge using a cantilevered structure. Such structures will also require safety rails built to standard height and clearances.
Clearances	Cycle routes must be set back from trees, posts, signage, drains, guardrails, sloping edges, kerbs and other obstacles to prevent collisions.
Shared path	A shared path is an off-road facility designed to cater for use by both cyclists and pedestrians, and is usually a minimum of 2.5 metres wide.
Shared zone	These spaces, usually roads, are shared by cyclists and vehicular traffic. Traffic calming may be required in these locations to keep speeds low.
Transition treatment	A transition treatment is required to enable safe movement between off-road cycle facilities and on-road cycle facilities, and also when a cycle path crosses a road.
Transport corridor	A strategic corridor identified for future vehicle or public transport use. These corridors present an opportunity for use by cyclists.



### Locality plan



LOCALITY PLAN

Route	Drawing	Page
Mossman central business district to Port Douglas central business district	Link concept	45
	1A: Concept design	46
	1B: Concept design	47
	1C: Concept design	48
Ellis Beach to Palm Cove	Link concept	49
	2A: Concept design	50
Smithfield to Palm Cove	Link concept	51
	3A: Concept design	52
	3B: Concept design	53
East Mareeba to Mareeba central business district	Link concept	54
	4A: Concept design	55
	4B: Concept design	56
Yungaburra to Lake Eacham	Link concept	57
	5A: Concept design	58
Innisfail TAFE to Goondi Hill	Link concept	59
	6A: Concept design	60
Etty Bay Road	Link concept	61
	7A: Concept design	62
	7B: Concept design	63
Bingil Bay to South Mission Beach	Link concept	64
	8A: Concept design	65
	8B: Concept design	66

*Note: The Aeroglen to CBD link is being designed and constructed by Cairns Regional Council, with \$4.6 million funding from the State and \$1.5 million funding from council. A concept design is not included for this link.*

### Link concept - Mossman to Port Douglas

#### Mossman to Port Douglas

##### Strategic positioning

###### Link description

The proposed principal cycle route begins at the intersection of Captain Cook Highway and Bow Street, Mossman. It heads in a southerly direction, along the Captain Cook Highway to Port Douglas. At the intersection of Captain Cook Highway and Port Douglas Road, the route follows Port Douglas Road to the Port Douglas centre, where it then follows Macrossan Street, terminating at the intersection of Macrossan Street and Wharf Street.

###### Strategic position

This link is part of a prioritised corridor in the Cairns Regional Council section of the Principal Cycle Network Plan for Far North Queensland.

The link will connect two district regional activity centres of Mossman and Port Douglas to provide a connection for residents to these centres as well as catering for tourists and recreational users.

This link is shown in Map 3 and Map 4 of the Network Maps.

###### Concept design

The link and its associated sections is detailed on Drawing No's 1A, 1B and 1C.

###### Link owner

The principal cycle route along the Captain Cook Highway and Port Douglas Road are both state-controlled, whilst the cycle routes proposed along Davidson Street and Macrossan Street are Cairns Regional Council controlled roads.

###### Connection priority

The route ranked in the top 25 routes for this region. The Port Douglas component of the route ranked as the top priority for the former Douglas Shire Council local government area. At the stakeholder workshop, the route was identified as being one of the top 10 priority routes for the region. Key aspects relating to its priority are that:

- it was identified as a priority link during the stakeholder consultation processes
- the route ranked highly in terms of the number of attractors it serves and the variety of these attractors along the route
- there is also a medium level of heavy vehicle use along the route.

##### Proposed treatments

- Section 1 (Captain Cook Highway between Bow Street and south of Harper Street) through the Mossman centre area comprises bike lanes
  - Section 2 (Captain Cook Highway between Harper Street and the rail line crossing (near Shannonvale Road) through the southern urban area of Mossman comprises a 3.5m shared path. In this section an alternative route for investigation is also proposed along Shannonvale Road due to potential limitations in road reserve widths along the Captain Cook Highway and potential to reduce bridge widening requirements
  - Sections 3 and 4 along the Captain Cook Highway (between the rail line crossing near Shannonvale Road and 500m north of Port Douglas Road) consists of 2.5m shared path
  - Section 5 along Port Douglas Road (between the Captain Cook Highway and Macrossan Street) consists of 3.5m shared path
  - Section 6 along Macrossan Street (between Port Douglas Road and Grant Street) consist of on-road bike lanes
  - Section 7 along Macrossan Street (between Grant Street and Wharf Street) consists of a new path.
- It is noted that along Port Douglas Road where an off-road shared path is proposed, on-road cycle facilities should also be provided as either a formal cycle lane or as part of the road shoulder. This may be able to be implemented as part of line marking and re-sheeting programs. Some sections already exist.

##### Conditions and form

###### Existing conditions

A commuter and recreational facility exists along Port Douglas Road and also along sections of the Captain Cook Highway in south Mossman. There are also some bike lanes recently implemented on Port Douglas Road near the shopping centre. Otherwise, no other cycle facility currently exists.

###### Interaction issues with other traffic

There are currently no cycle facilities on the Captain Cook Highway (except within urban area of Mossman central business district), and cyclists currently have to mix with traffic. The Captain Cook Highway forms a major highway link between Cairns and Mossman and Port Douglas.

Off-road paths are proposed to minimise the interaction of cyclists and motorised traffic along the Captain Cook Highway, with the exception of bicycle lanes in the Mossman central business district where the traffic speeds are much lower and there is a higher level of pedestrian activity associated with the adjacent land use in the commercial area.

- Off-road paths (existing and proposed) should also be designed and assessed according to Crime Prevention Through Environmental Design principles with regular maintenance of shrubs and vegetation to improve visibility and increase security.

A similar on-road facility has been proposed in the Port Douglas central business district except where proposed works associated with the Port Douglas Waterfront Master Plan may result in a cycle facility separated from pedestrians

###### Other operational issues

Section 1 can be achieved through proposed Department of Transport and Main Roads upgrading plans, which incorporate on-road bike lanes in the urban area of Mossman central business district.

There is a need to further investigate how to achieve cycle facilities across bridge crossings. These investigations will include the possibility of the requirement of a separate bridge.

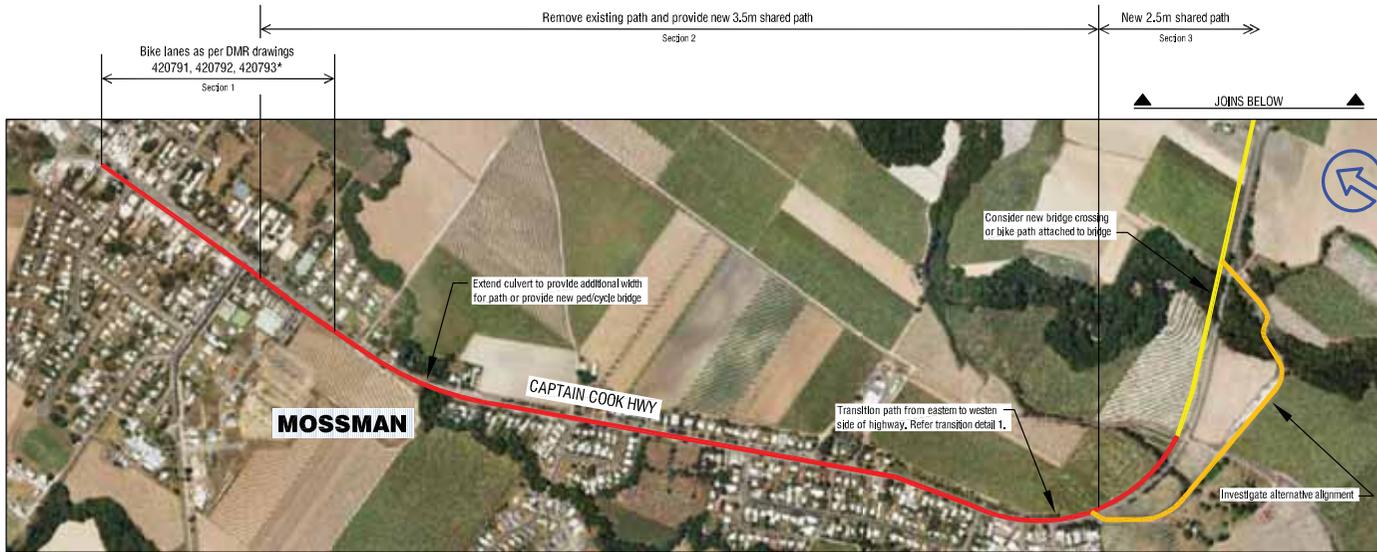
Section 7 could be delivered as part of the Port Douglas Waterfront Master Plan project.

###### Known potential issues/risks

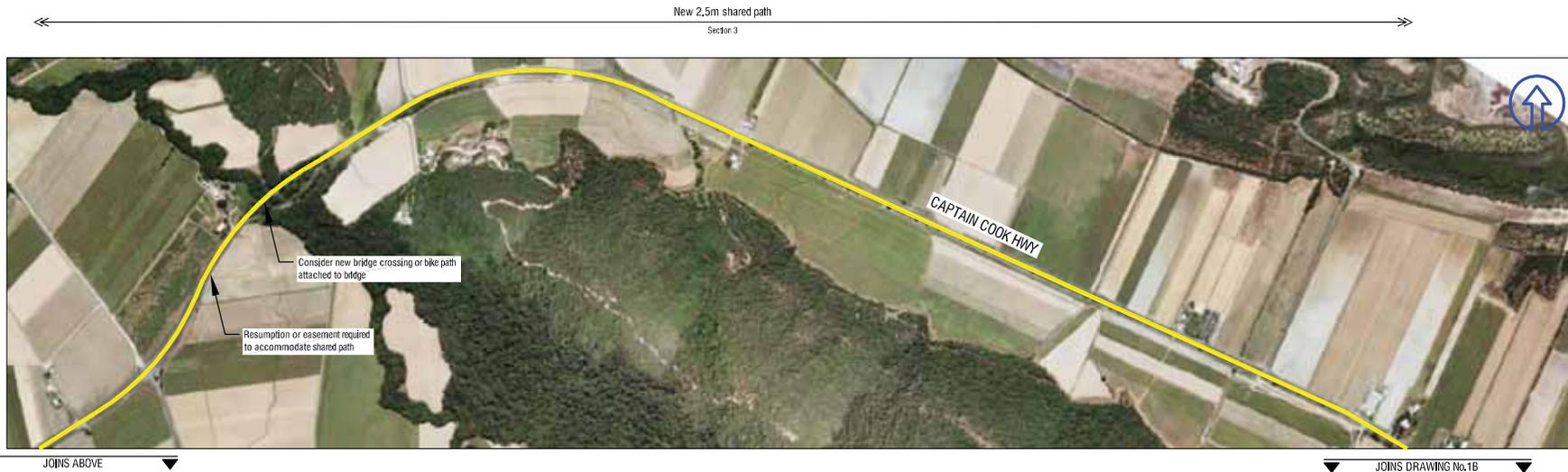
Macrossan Street – the proposed facility north of Grant Street to be considered in conjunction with the outcomes of the Port Douglas Waterfront Master Plan project. This may require removal of some existing vegetation.



Concept design - Mossman to Port Douglas



Transition Detail 1  
Scale 1:1000 @ A3



\* DMR drawings 420791, 420792, 420793 available from Dept of Transport & Main Roads

**CONCEPT ONLY**

Subject to detailed feasibility investigations.

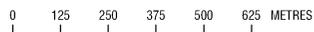
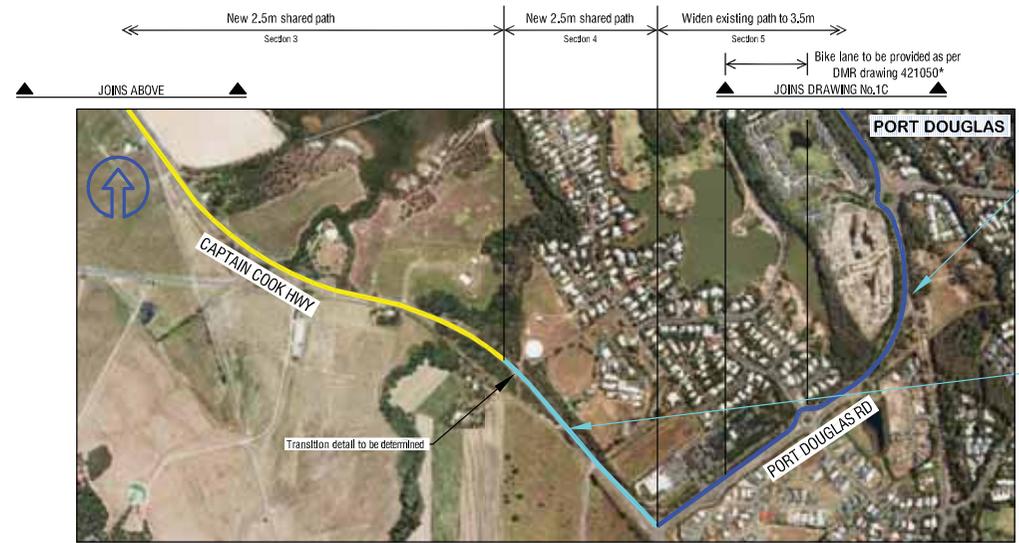
Principal Cycle Network Plan for Far North Queensland  
Mossman to Port Douglas  
Proposed Link Alignment

Drawing No. 1A

Date: 29.05.09



Concept design - Mossman to Port Douglas



\* DMR drawing 421050 available from Dept of Transport & Main Roads

**CONCEPT ONLY**

Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Mossman to Port Douglas  
Proposed Link Alignment

Drawing No. 1B

Date: 29.05.09



# Concept design - Mossman to Port Douglas



**CONCEPT ONLY**  
Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Mossman to Port Douglas  
Proposed Link Alignment  
Drawing No. 1C  
Date: 29.05.09



### Link concept - Ellis Beach to Palm Cove

#### Ellis Beach to Palm Cove

##### Strategic positioning

###### Link description

The link begins along the Captain Cook Highway at Ellis Beach. From here, it travels south, along the Captain Cook Highway and terminates at the intersection of Captain Cook Highway, Cedar Road and Veivers Road at Palm Cove.

###### Strategic position

This link is part of a prioritised corridor in the Cairns Regional Council section of the Principal Cycle Network Plan for Far North Queensland.

The principal cycle route will connect the Ellis Beach recreation/tourist area with the Palm Cove recreation/tourist area and locality. The route will form an iconic recreation and tourist facility for far north Queensland. The route forms stage one of an overall priority corridor between Port Douglas and Palm Cove.

This link is detailed in Map 5 of the Network Maps.

###### Concept design

The link and its associated sections is detailed on Drawing No. 2A.

###### Link owner

The principal cycle route traverses the Captain Cook Highway which is a state-controlled road and as such Department of Transport and Main Roads is responsible for this link.

###### Connection priority

The route was confirmed as a priority at the Stakeholder Prioritisation Workshop which involved State agencies, local governments and bicycle user groups. Key aspects relating to its priority status were related to the potential attractiveness of the route to form an iconic tourist and recreational route in the far north Queensland region.



##### Proposed treatments

The majority of the path is proposed as a 2.5m shared path, except where road reserve widths limit its width to 2.0m (Section 2) and at Ellis Beach where a wider path is proposed (Section 1 at 3.5m) due to higher demands by pedestrians and cyclists as a result of adjacent land uses.

The off-road path should also be designed and assessed according to Crime Prevention Through Environmental Design principles with regular maintenance of shrubs and vegetation to improve visibility and increase security for users.

##### Conditions and form

###### Existing conditions

The link will serve a recreational and tourist facility with some commuter use. Currently there are no specific cycle facilities existing along the route.

###### Interaction issues with other traffic

The route traverses the Captain Cook Highway which is a major highway connecting Cairns with Port Douglas and Mossman. The highway has high traffic volumes and speeds. As a result, an off-road path has been proposed.

###### Other operational issues

The construction of this route presents significant challenges. There are some sections where a boardwalk and cantilever construction types are required due to the proposed route's position along the coast with limited space for widening the road. The construction of these will need to be robust to address potential future erosion of the coastline. The type of facility proposed should retain the view and outlook to the coast.

###### Known potential issues/risks

The known potential issues/risks include the environmental impacts along the foreshore associated with construction of this facility.



# Concept design - Ellis Beach to Palm Cove



Section 1



Section 2



Section 4



Section 6



Section 7

Notes:

1. The site along section 2 is severely constrained. Where space permits, the 2.0m wide shared path should be increased to 2.5m and the offset to the kerb increased to 1.0m.
2. Sections 4 and 6 require safety rail along the outer edge of the path, and along the inside edge between the path and the road.
3. Sections 5 requires safety rail between path and road.



**CONCEPT ONLY**

Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Ellis Beach To Palm Cove  
Proposed Link Alignment

Drawing No. 2A

Date: 29/05/2009



### Link concept - Smithfield to Palm Cove

#### Smithfield to Palm Cove

##### Strategic positioning

###### Link description

The link begins at the intersection of Captain Cook Highway and Kennedy Highway. From this point, the link heads in a northerly direction along Captain Cook Highway, until Feathertop Close, whereupon it leaves the road corridor and heads in an easterly direction across the proposed Smithfield Town Centre near McGregor Road. It continues along the new intersuburban connector road through Smithfield Village estate and Bluewater, then travels along the disused cane rail corridor to Poolwood Road. At Trinity Beach it connects into Cottesloe Drive, continuing north-west before traversing a new development area and connecting into Rudder Street.

The principal cycle route then traverses local residential streets through Clifton Beach and Palm Cove. Specifically it traverses north south via Rudder Street, Hope Street, Undine Street, Batt Street, Pixie Street, Arlington Esplanade, St Crispin Street, Guide Street, Clifton Road, Yule Avenue, Beaver Street, Saxon Street, Endeavour Road, Haycock Street, Satellite Street, Linden Street and Argentea Boulevard. It then heads east along Deep Acres Drive, north along Triton Street, Veivers Road and Williams Esplanade until it reaches Cedar Road. The route then traverses east west along Cedar Road until Warren Street, which it traverses before

terminating at the intersection of Warren Street and Captain Cook Highway.

###### Strategic position

This link is part of a prioritised route in the Cairns Regional Council section of the Principal Cycle Network Plan for Far North Queensland. The link will connect the Smithfield major regional activity centre with the northern beaches residential areas and the Palm Cove tourist area. It also provides connectivity for local residents to local beaches and local shops along the way. Smithfield contains major services, shops, community facilities and employment areas for these residential areas.

This link is detailed in Map 5 and Map 6.

###### Concept design

The link and its associated sections is detailed on Drawing No's 3A and 3B of the Network Maps.

###### Link owner

Most of the roads that the principal cycle route traverse are Cairns Regional Council controlled roads, with the exception of the Captain Cook Highway which is state-controlled and as such

Department of Transport and Main Roads has stewardship of this section of the link.

###### Connection priority

A prioritisation process was undertaken and this route was identified as being in the top 10. The route was also confirmed as a priority at a stakeholder workshop, involving state and local governments and bicycle user groups.

Key aspects relating to its high priority area were as follows:

- it was identified as a priority link during the stakeholder consultation processes
- the route ranked highly in terms of the number of attractors it serves and the variety of these attractors along the route
- there is a high population of potential cyclists located within its catchment
- there was an opportunity to achieve cycle facilities as part of the planning and development of the proposed Cairns Transit Network.

##### Proposed treatments

- Sections 1 and 2 (Captain Cook Highway between Kennedy Highway and Poolwood Road) comprise a 3.0m off-road path to be constructed alongside the new intersuburban connector road between McGregor Road and Reed Road, then as a stand-alone bikeway along the disused cane rail corridor between Reed Road and Poolwood Road
- Section 3 (Cottesloe Drive) comprises an on-road yellow advisory treatment along the residential street
- Sections 4 and 5 (Cottesloe Drive to Rudder Street) comprise a 3.0m path as part of future development area
- Sections 6-8 (between Linden Street and Hope Street) comprise an on-road yellow advisory treatment along local residential streets
- Sections 9-12 (Deep Acres Drive, Argentea Boulevard, Linden Street) comprises the existing 2.5m path and a proposed bike lane
- Sections 13-14 (Deep Acres Drive and Triton Street) comprise a future bike lane
- Section 15 (Williams Esplanade, Veivers Road) comprises a 3.5m shared path along the foreshore
- Section 16 (Cedar Road) comprises a bike lane
- Section 17 (Warren Street) comprises a 2.5m shared path.

##### Conditions and form

###### Existing conditions

This link will serve a commuter and recreational facility. Existing shared paths and cycle lanes exist in some parts of the route, although not in a continuous manner. There is also an off-road shared path along parts of the Captain Cook Highway in the vicinity.

###### Interaction issues with other traffic

Some sections of the proposed route are bicycle advisory treatments where cyclists will share the road with other users. These streets are low volume and low speed local residential streets and therefore this is considered appropriate. This treatment is subject to approval by the local authority. The section of bikeway proposed as part of the transport corridor represents an opportunity to deliver a separated bikeway through the new residential estates of Smithfield Village and Bluewater, either alongside the new intersuburban connector road or within the disused cane rail corridor. Further discussion is required with council, the Cairns Transit Network project team and private developers.

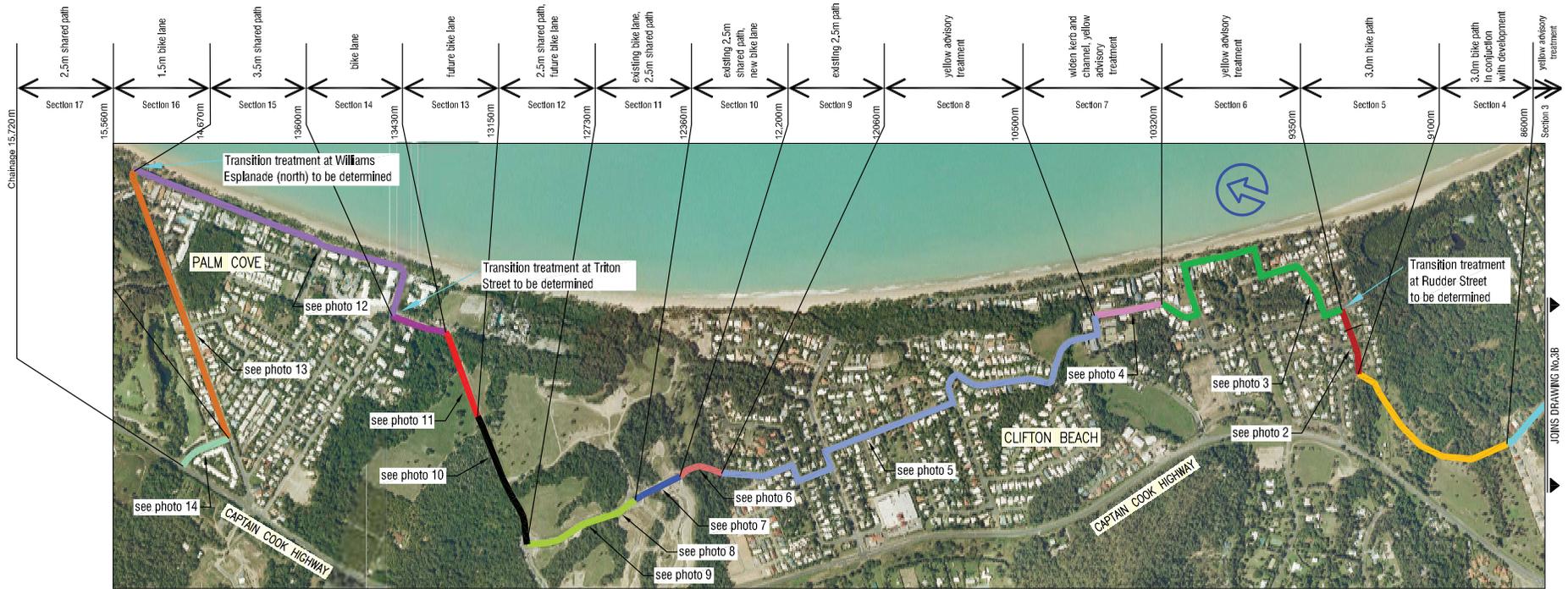
###### Other operational issues

A separated bicycle facility needs to be incorporated into the planning and design for future use of the transport corridor and constructed at the same time. A large percentage of the proposed principal cycle route traverses local residential streets through Clifton Beach and Palm Cove. The route is indirect and is currently not very legible to cyclists. As a result, it will require significant signage to improve its legibility. The cycle facility proposed will also allow a north south connection through these suburbs which is not possible to undertake by car.

###### Known potential issues/risks

There are no known potential issues/risks.

Concept design - Smithfield to Palm Cove



**CONCEPT ONLY** Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Smithfield to Palm Cove  
Proposed Link Alignment

Drawing No. 3A Date: 28/05/09



Concept design - Smithfield to Palm Cove



Photo 1

**CONCEPT ONLY**  
Subject to detailed  
feasibility investigations.



Principal Cycle Network Plan for Far North Queensland  
Smithfield to Palm Cove  
Proposed Line Alignment



Drawing No. 3B

### Link concept - Mareeba East to Mareeba central business district

## Mareeba East to Mareeba central business district

#### Strategic positioning

##### Link description

The link begins at the intersection of Peninsula Developmental Road and Mareeba Dimbulah Road, from which it travels south along Peninsula Developmental Road. At the intersection of Peninsula Developmental Road and Rankin Street, it heads east along Rankin Street and then south along Constance Street. At the intersection of Constance Street and Herberton Street, the link follows Herberton Street, to the east. The route crosses the Barron River into Anzac Avenue. It continues south-east along Anzac Avenue, terminating at the intersection of Anzac Avenue and Elisa Avenue.

##### Strategic position

This link is part of a prioritised route in the Tablelands Regional Council area of the Principal Cycle Network Plan for Far North Queensland.

The primary purpose of the link is to connect the residential areas to the east and west of Mareeba to the central business district, which is a major regional activity centre. The central business district contains a number and variety of attractors, including the Mareeba rail station, a library and major shopping centres and employment. A golf course is also located to the north of the proposed cycle route.

This link is detailed in Map 16 of the Network Maps.

##### Concept design

The link and its associated sections is detailed on Drawing No's 4A and 4B.

##### Link owner

The principal cycle route along the Peninsula Development Road is a state-controlled road. All other roads which the principal cycle route traverses are owned and maintained by Tablelands Regional Council.

##### Connection priority

A prioritisation process was undertaken and key parts of the route were in the top three priority routes for the former Mareeba Shire Council local government area. The link was then consequently proposed as a priority route at a stakeholder prioritisation workshop, involving state agencies, local governments and bicycle users.

Key aspects relating to its high priority are as follows:

- parts of the route ranked highly in terms of the number of attractors it serves and the variety of these attractors along the route
- part of the route has a high volume of heavy vehicles (Peninsula Development Road).

#### Proposed treatments

- Section 1 (Peninsula Developmental Road, between Mareeba Dimbulah Road and Railway Avenue) comprises a 3.0m shared path, replacing the existing path
- Section 2 (Peninsula Developmental Road, between Railway Avenue and Rankin Street) comprises an on-road cycle lane
- Section 3 (Rankin Street) comprises on-road bike lanes
- Sections 4 (Constance Street) comprises a new 3.0m shared path
- Section 5 (Herberton Street, between Constance Street and Barron River) comprises retaining the existing Copenhagen style bike lane
- Section 6 (Anzac Avenue over the Barron River) will comprise a wider version of the existing shared path facility (3.0m)
- Section 7 (Anzac Avenue to just north of Hastings Drive) comprises a new 3.0m shared path
- Section 8 (Anzac Avenue between Hastings Drive and Elisa Avenue) will comprise a new 3.0m shared path, replacing the existing facility
- Off-road paths (existing and proposed) should also be designed and assessed according to Crime Prevention Through Environmental Design principles with regular maintenance of shrubs and vegetation to improve visibility and increase security.

#### Conditions and form

##### Existing conditions

There is an existing bike path along Peninsula Developmental Road, between Mareeba Dimbulah Road and Byrnes Street, however this will be replaced with a wider path. In addition, there is an existing Copenhagen style bike lane along Herberton Street. Anzac Avenue also has some existing pathways, though these will be replaced with wider facilities.

##### Interaction issues with other traffic

The majority of the principal cycle route is proposed as an off-road shared path. The sections that are proposed as on-road bicycle lanes are through the main commercial area in the Mareeba central business district on Rankin Street and Peninsula Developmental Road due to the high levels of commercial activity as a result of adjacent land use. The Peninsula Development Road is a major through traffic route in the area with traffic volumes of 11,500 trips per day, connecting Atherton with Mareeba and Mt Molloy and Mossman to the north.

##### Other operational issues

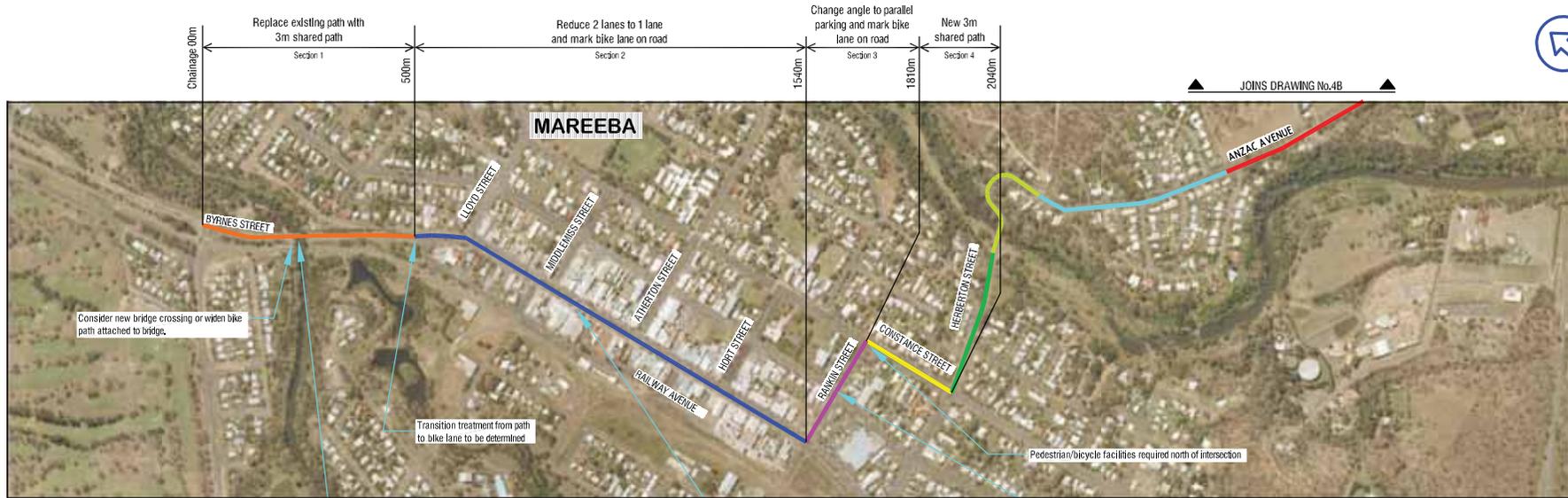
The other operational issues include the widening of pedestrian and cycle facilities on the Barron River bridge at Anzac Avenue and over the creek along Peninsula Development Road north of Railway Avenue.

##### Known potential issues/risks

There is a potential issue/risk associated with changing the number of traffic lanes on Peninsula Development Road from four lanes to two lanes through the central business district. Further investigation will be required to see if this is possible and will need to be assessed in association with consultation with the local authority and the community.



Concept design - Mareeba East to Mareeba central business district



Section 1



Section 2



Section 3



**CONCEPT ONLY**

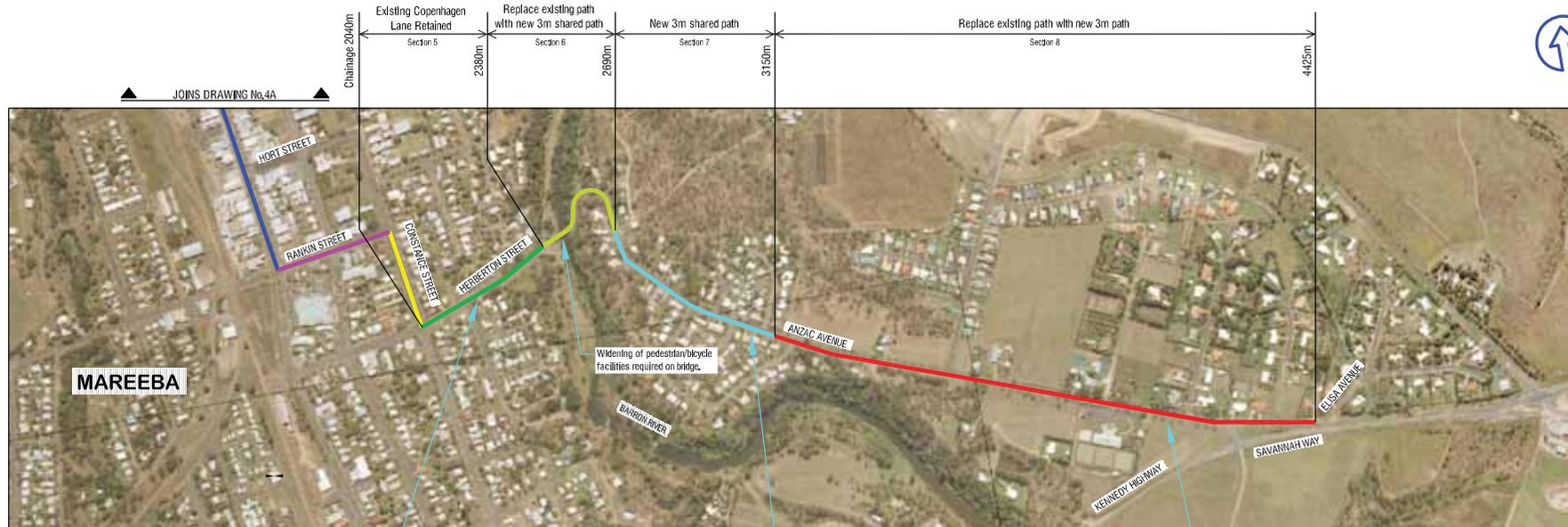
Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
 Mareeba East to Mareeba central business district  
 Proposed Link Alignment

Drawing No. 4A Date: 28.05.08



# Concept design - Mareeba East to Mareeba central business district



Section 5



Section 7



Section 8



**CONCEPT ONLY**

Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Mareeba East to Mareeba central business district  
Proposed Link Alignment

Drawing No. 4B Date: 29.05.09

### Link concept - Yungaburra to Lake Eacham

#### Yungaburra to Lake Eacham

##### Strategic positioning

###### Link description

The link begins at the entrance to Yungaburra town along Gordonvale Atherton Road and continues along Gordonvale Atherton Road through Yungaburra and towards Lake Eacham. At the intersection of Gordonvale Atherton Road and Byrnes Road the route leaves Gordonvale Atherton Road and traverses Byrnes Road to Lake Barrine Road. The link crosses Lake Barrine Road connecting to Lake Eacham Road and traversing this road, before terminating immediately south of the intersection of Lake Eacham Road and Malanda Lake Barrine Road.

###### Strategic position

This link is part of a prioritised route in the Tablelands Regional Council area of the Principal Cycle Network Plan for Far North Queensland.

The link will connect the Yungaburra Village Activity Centre with the Lake Eacham regional tourist/recreation facility. The route forms stage 1 of an overall corridor link between Atherton and Lake Barrine.

This link is detailed in Map 20 of the Network Maps.

###### Concept design

The link and its associated sections are detailed on Drawing No. 5A.

###### Link owner

The majority of the proposed principal cycle route is along Gordonvale Atherton Road which is state-controlled and as such the Department of Transport and Main Roads has responsibility for those sections of the link. The Tablelands Regional Council controls the remaining roads that the principal cycle route crosses.

###### Connection priority

The route was confirmed as a priority at the stakeholder prioritisation workshop, involving state agencies, local governments and bicycle users.

Key aspects relating to its priority status were related to its potential attractiveness to form an iconic tourist and recreational route in the far north Queensland region. It has also been identified a number of times throughout the stakeholder consultation process undertaken in developing the Principal Cycle Network Plan for Far North Queensland.

##### Proposed treatments

- Section 1 (Gordonvale Atherton Road between Peterson Creek and Fig Street) comprises a 3.0m shared path
- Section 2 (Gordonvale Atherton Road between Fig Street and Beech Street) comprises a 3.0m shared path
- Section 3 (Gordonvale Atherton Road between Beech Street and Byrnes Road) comprises a 2.5m shared path
- Section 4 (Byrnes Road) comprises a 2.5m shared path
- Section 5 (Lake Eacham Road) comprises a bicycle advisory treatment
- It is noted that where an off-road shared path is proposed, on-road cycle facilities should also be provided as part of the road shoulder. This could be implemented as part of any proposed road upgrades along this link
- Off-road paths (existing and proposed) should also be designed and assessed according to Crime Prevention Through Environmental Design principles with regular maintenance of shrubs and vegetation to improve visibility and increase security.

##### Conditions and form

###### Existing conditions

The link will serve a recreational and tourist facility with some commuter use. Currently no specific cycle facilities exist along the corridor.

###### Interaction issues with other traffic

The route mostly traverses the Gordonvale Atherton Road (Gillies Highway) which is a major highway connecting the Cairns central business district with Atherton. The highway has high traffic volumes and speeds. As a result, an off-road path has been proposed.

###### Other operational issues

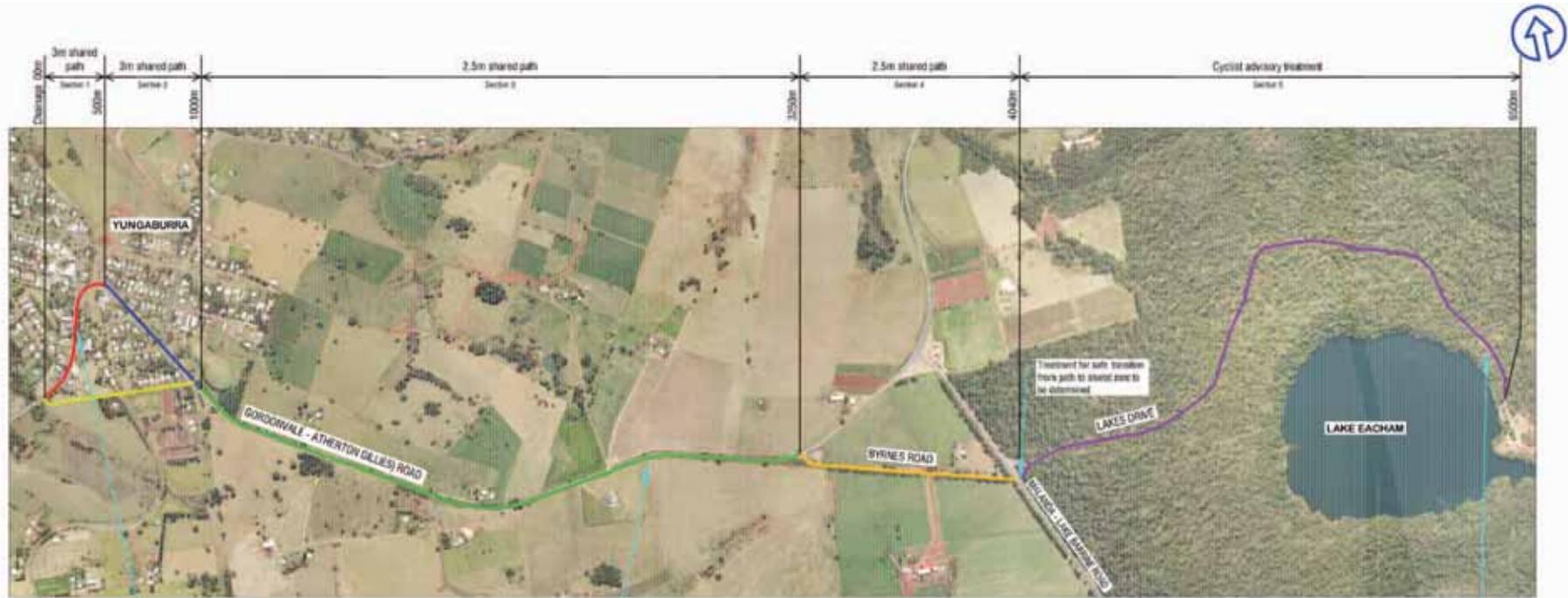
The shared path will result in a safer and useable facility for cyclists and pedestrians in a location with high traffic volumes and speeds. Appropriate crossing points of the Gordonvale Atherton Road will be necessary to access the facility, particularly in Yungaburra. There is limited room to increase the width of Lake Eacham Road and as a result a bicycle advisory treatment has been proposed. Due to its winding nature and current traffic calming devices this is an appropriate and cost effective treatment.

###### Known potential issues/risks

There are no known potential issues/risks.



Concept design - Yungaburra to Lake Eacham



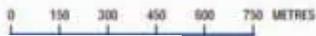
Section 1



Section 2



Typical Sign



**CONCEPT ONLY**

Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Yungaburra To Lake Eacham  
Proposed Line Alignment



Drawing No. 5A

July 2016

### Link concept - Goondi Hill to Johnstone College of TAFE Innisfail

#### Goondi Hill to Johnstone College of TAFE Innisfail

##### Strategic positioning

###### Link description

The principal route begins at the intersection of Flying Fish Point Road and the Johnstone College of TAFE access road. The link traverses Flying Fish Point Road crossing the Johnstone River. It then continues south along the Esplanade and on along McGowan Drive. The second part of the principal route heads north along Ernest Street (Bruce Highway), from the intersection of Ernest Street and McGowan Drive. The link then follows the Bruce Highway (Edith Street) heading west. The route terminates at the intersection of Ash Street, Bruce Highway and Blackwood Street.

###### Strategic position

This link forms part of a prioritised route in the Cassowary Coast Regional Council section of the Principal Cycle Network Plan for Far North Queensland. The link connects residential areas of Innisfail to employment destinations including the Innisfail central business district. It also provides connections to the showgrounds, TAFE College, recreation facilities and a high school.

This link is detailed in Map 10 of the Network Maps.

###### Concept design

The link corridor is detailed on Drawing No. 6A.

###### Link owner

The roads which the principal cycle route traverses are of mixed ownership, with the Bruce Highway a state-controlled road, and other roads being controlled by the Cassowary Coast Regional Council.

###### Connection priority

The majority of the route has been assessed as part of the top 10 priority routes in the region. This position was validated in a stakeholder workshop. Key aspects relating to its priority are as follows:

- The route to Flying Fish Point was identified as a priority link during the stakeholder consultation process
- The route ranked highly in terms of the number of attractors it serves and the variety of these attractors along the route. This link will access a large and diverse number of key destinations, resulting in potential high demands
- The Bruce Highway part of the route has a high volume of heavy vehicles and also a high number of crashes per kilometre.

##### Proposed treatments

- Section 1 (Flying Fish Point Road between TAFE entrance and Seymour Street) will comprise a new 3.0m shared path
- Section 2 (Flying Fish Point Road (at Seymour Street) to Geraldton Bridge at Fitzgerald Esplanade) will comprise a new 3.0m shared path. Further investigation is necessary to see if a wider path is possible at this location, including across the Geraldton Bridge
- Section 3 (Fitzgerald Esplanade from Geraldton Bridge to north of Edith Street) will comprise a new 3.5m shared path
- Section 4 (Fitzgerald Esplanade from north of Edith Street to Jubilee Bridge) will utilise the existing path
- Section 5 (McGowan Drive from Jubilee Bridge to Ernest Street) comprises a 3.5m shared path
- Section 6 (Bruce Highway (Ernest Street) between McGowan Drive and Railway Street) comprises on-road bike lanes
- Section 7 (Bruce Highway from Railway Street to Blackwood Street) comprises a 3.0m shared path
- It is noted that where an off-road shared path is proposed, on-road cycle facilities should also be provided as either a formal cycle lane or as part of the road shoulder. This could be implemented as part of line marking and re-sheeting programs
- Off-road paths (existing and proposed) should also be designed and assessed according to Crime Prevention Through Environmental Design principles with regular maintenance of shrubs and vegetation to improve visibility and increase security.

##### Conditions and form

###### Existing conditions

The link will serve a commuter facility with some recreational use. The route is also currently used by school students. Much of the route infrastructure already exists, though upgrades will be required as well as the completion of missing links. Bike lanes have recently been marked on Edith Street.

###### Interaction issues with other traffic

The Bruce Highway is a major traffic route with high volumes of traffic but traffic speeds are lowered in the section proposed as bike lane. A bike lane is proposed in these sections due to the high pedestrian activity related to adjacent land use. Traffic speeds are lower along the Esplanade and McGowan Drive.

###### Other operational issues

The facilities proposed along McGowan Drive may require some changes to parking arrangements in order to be achieved without major retention along the River bank.

###### Known potential issues/risks

The known potential issues/risks include the cost of upgrading facilities at squeeze points along the Geraldton Bridge.



Concept design - Goondi Hill to Johnstone College of TAFE Innisfail



Section 7  
New 3m shared path  
4550m

Section 6  
Bike lanes on road (1)  
3700m

Section 5  
2200m



- Notes:
- On-road treatment has been specified for section 6 due to the commercial/retail environment and the higher likelihood of conflicts between pedestrians and cyclists.



**CONCEPT ONLY**  
Subject to detailed feasibility investigations.



### Link concept - ETTY Bay Road

#### ETTY Bay Road



##### Strategic positioning

###### Link description

The link begins at the intersection of Mourilyan Harbour Road and ETTY Bay Road, from which point it heads north east along ETTY Bay Road to the caravan park at ETTY Bay.

###### Strategic position

This link is part of a prioritised route in the Cassowary Coast Regional Council area of the Principal Cycle Network Plan for Far North Queensland.

The link will connect the ETTY Bay tourist/recreational area with the locality of Mourilyan. It also connects the residential area along ETTY Bay Road to the bay. The link forms stage 1 of the route between ETTY Bay and Innisfail.

This link is detailed in Map 10 of the Network Maps.

###### Concept design

The link is detailed on Drawing No's 7A and 7B.

###### Link owner

ETTY Bay Road is a Cassowary Coast Regional Council controlled road.

###### Connection priority

The route was confirmed as a priority at the stakeholder prioritisation workshop, involving state agencies, local governments and bicycle users. Key aspects relating to its priority status were due to its potential attractiveness to form a recreational route in the far north Queensland region. It currently is utilised by sports and training cyclists.



##### Proposed treatments

- Section 1 (between Mourilyan Harbour Road and the end of the rural residential properties) comprises a 2.5m shared path
- Section 2 (between the end of the rural residential properties and the caravan park) comprises 1.5m sealed shoulders
- Section 3 (through the caravan park at the end of ETTY Bay Road) comprises a shared zone environment.

##### Conditions and form

###### Existing conditions

The link will serve a recreational facility with some minor commuter use. Currently no specific cycle facilities exist along the corridor.

###### Interaction issues with other traffic

The route traverses ETTY Bay Road which is a high speed rural residential road. As a result, an off-road path has been proposed through the existing rural residential areas and wide 1.5m sealed shoulders for the remainder.

###### Other operational issues

Ability to achieve 1.5m sealed shoulder in a cost effective manner needs to be investigated further.

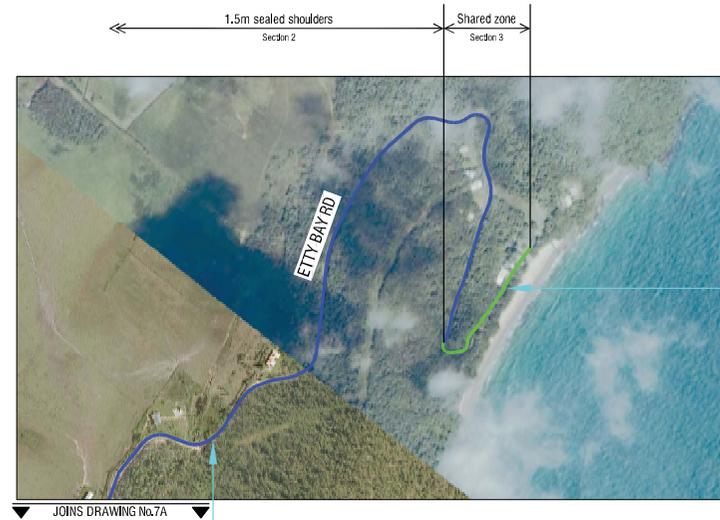
The shared zone needs to be well designed to ensure priority is given to pedestrians and cyclists along and across this section of the road near the caravan park.

###### Known potential issues/risks

There are no known potential issues/risks.



# Concept design - ETTY BAY ROAD



Section 3



Section 2



**CONCEPT ONLY**

Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Etty Bay Road  
Proposed Link Alignment

Drawing No. 7B

Date: 29/05/09



### Link concept - Bingil Bay to South Mission Beach

#### Bingil Bay to South Mission Beach

##### Strategic positioning

###### Link description

The link begins at the intersection of Bingil Bay Road, Butler Road and Be Amba Street. From this point, the link heads in an easterly direction along Butler Road, until reaching the bay and then continues south along Alexander Drive, which then becomes Bingil Bay Road.

Continuing adjacent to the coastline, the link runs south along the foreshore, through Mission Beach until it heads west along Seaview Street. The link continues west as Seaview Street joins El Arish Mission Beach Road. From the intersection of Tully Mission Beach Road and El Arish Mission Beach Road, the link heads south, traversing Tully Mission Beach Road until the intersection of Tully Mission Beach Road and Wongaling Beach Road, at which point it heads north east on Wongaling Beach Road. The principal cycle route then travels south along the foreshore, continuing along Banfield Parade, the Esplanade and Reid Road. At the termination of Reid Road, the link joins Wheatley Road and heads south-west. It then leaves Wheatley Road and follows a track due south, joining South Mission Beach Road. The route then follows South Mission Beach Road to Kennedy Esplanade, which it follows until it ends at Jackey Street.

###### Strategic position

This link is part of a prioritised route in the Cassowary Coast Regional Council area of the Principal Cycle Network Plan for Far North Queensland.

The link will connect residential and tourist areas at Bingil Bay and Mission Beach to the Mission Beach Village activity centre. The Mission Beach centre contains shops and service activities.

The link also connects the South Mission and Mission Beach residential and tourist areas with service facilities at Wongaling Beach, including a library and sports fields. The link also has potential to be a key tourist and recreational facility.

This link is detailed in Map 11 and Map 12 of the Network Maps.

###### Concept design

The link is detailed on Drawing No's 8A and 8B.

###### Link owner

Most of the roads that the principal cycle route traverse are Cassowary Coast Regional Council controlled roads, however Tully Mission Beach Road and El Arish Mission Beach Road are state-controlled.

###### Connection priority

The route was confirmed as a priority at the stakeholder prioritisation workshop, involving state agencies, local governments and bicycle users. This priority was then confirmed by the Steering Committee. Key aspects relating to its priority status were as follows:

- its potential to reduce car use for tourists and residents in the Bingil Bay, Mission Beach and South Mission Beach areas
- potential attractiveness of the route to form an iconic tourist and recreational route in the far north Queensland region.

##### Proposed treatments

- Section 1 (Butler Road, between Bingil Bay Road and Alexander Drive) comprises a 3.0m shared path
- Sections 2 through to 4 (Alexandra Drive and Bingil Bay Road, between Butler Road and Clump Point Lookout Road) comprise a 2.0m shared path
- Section 5 (along the foreshore between Clump Point Lookout Road and Seaview Street) comprises a 3.5m shared path along the foreshore
- Sections 6 through to 10 (El Arish Mission Beach Road, Tully Mission Beach Road, Wongaling Road) comprise a 3.0m shared path

- Section 11 (along the foreshore between Wongaling Road and The Esplanade) comprises a 3.5m shared path along the foreshore
- Sections 12 through to 14 (Reid Road, Wheatley Road) comprise a 3.0m shared path
- Section 15 (Kennedy Esplanade to Jackey Street) comprises a 3.5m shared path along the foreshore.

It is noted that where an off-road shared path is proposed, on-road cycle facilities should also be provided as either a formal bike lane or as part of the road shoulder. This could be implemented as part of linemarking and resheeting programs.

Off-road paths (existing and proposed) should also be designed and assessed according to Crime Prevention Through Environmental Design principles with regular maintenance of shrubs and vegetation to improve visibility and increase security.

##### Conditions and form

###### Existing conditions

The link will serve a recreational and commuter facility with potential for significant use by tourists. Limited cycle facilities exist along the Mission Beach foreshore as part of the Ulysses Track.

###### Interaction issues with other traffic

The whole route is proposed as a shared off-road path.

###### Other operational issues

Cantilevered sections of bikeway are required along the coastal road at Bingil Bay near James Road.

Section 2, 3 and 4 are highly constrained and therefore a 2.0m path is proposed. This is the absolute minimum width and should be increased to 2.5m wherever possible. Given the narrow sections of this length of the link, consideration should be given to visibility and sight distance in these sections.

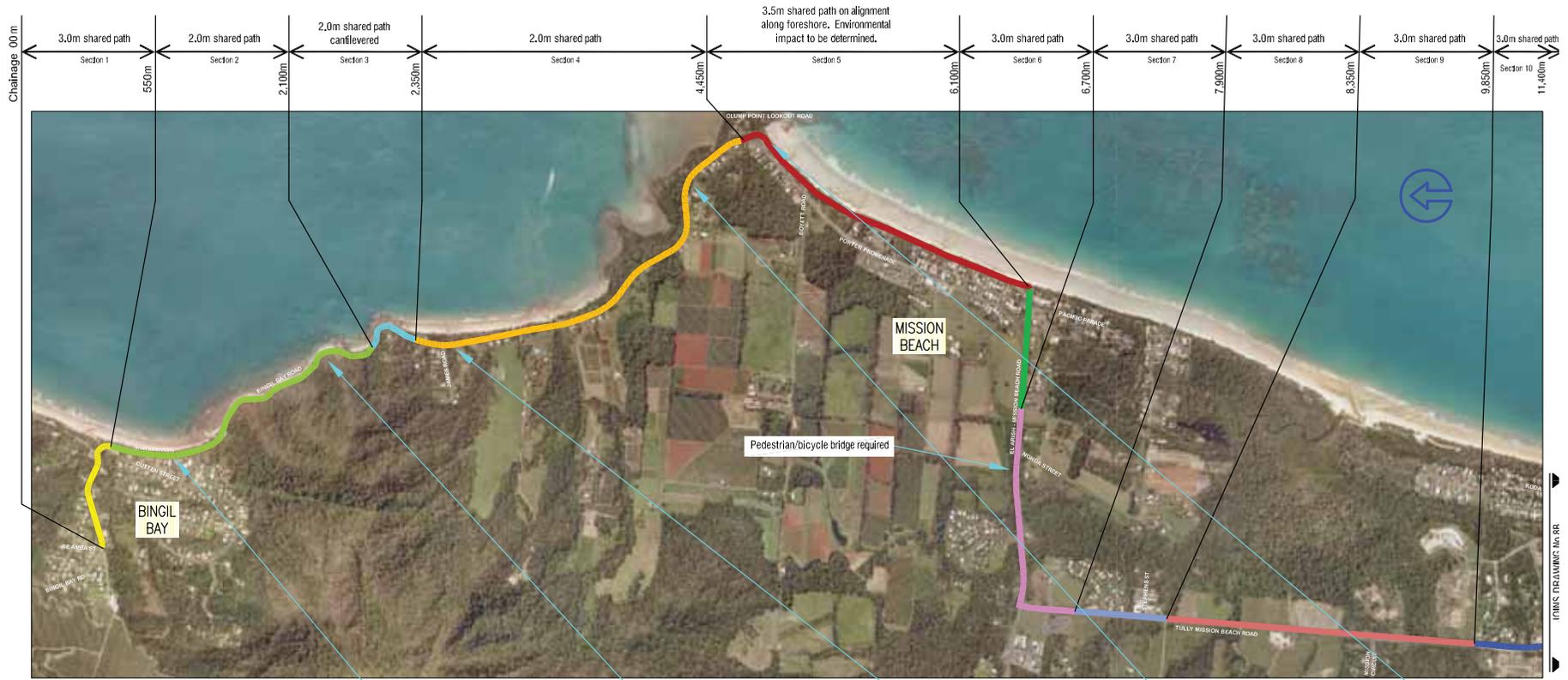
Special treatments such as segregated one-way paths or alternative routes may need to be considered should environmental impact prevent construction of proposed 3.5m shared paths on the foreshore for sections 5, 11 and 15.

###### Known potential issues/risks

The key risk for this link is the assessment of the environmental impacts of the proposed foreshore paths in section 5, 11, 15. The paths proposed in these areas should retain the environmental and aesthetic beauty of these areas and ensure removal of large trees and other vegetation does not occur. Consideration could also be given to different construction material such as crushed granite to limit the impacts in some sections. Further investigation and consultation with the community will be required for these sections.



# Concept design - Bingil Bay to South Mission Beach



Section 1



Section 2



Section 4



Section 4



Section 5

Notes:

1. The alignment of sections 2, 3 and 4 are highly constrained. The 2.0m shared path is the absolute minimum width and should be increased to 2.5m where practical. Given the narrow width of this section, consideration should be given to visibility and sight distance along these sections.
2. Safety fencing along the outer seaside edge of section 2 may be required in some locations.
3. Special treatments such as segregated one way paths or alternative routes may need to be considered should environmental impact determinations prevent construction of the proposed 3.5m shared paths on section 5.



**CONCEPT ONLY**

Subject to detailed feasibility investigations.

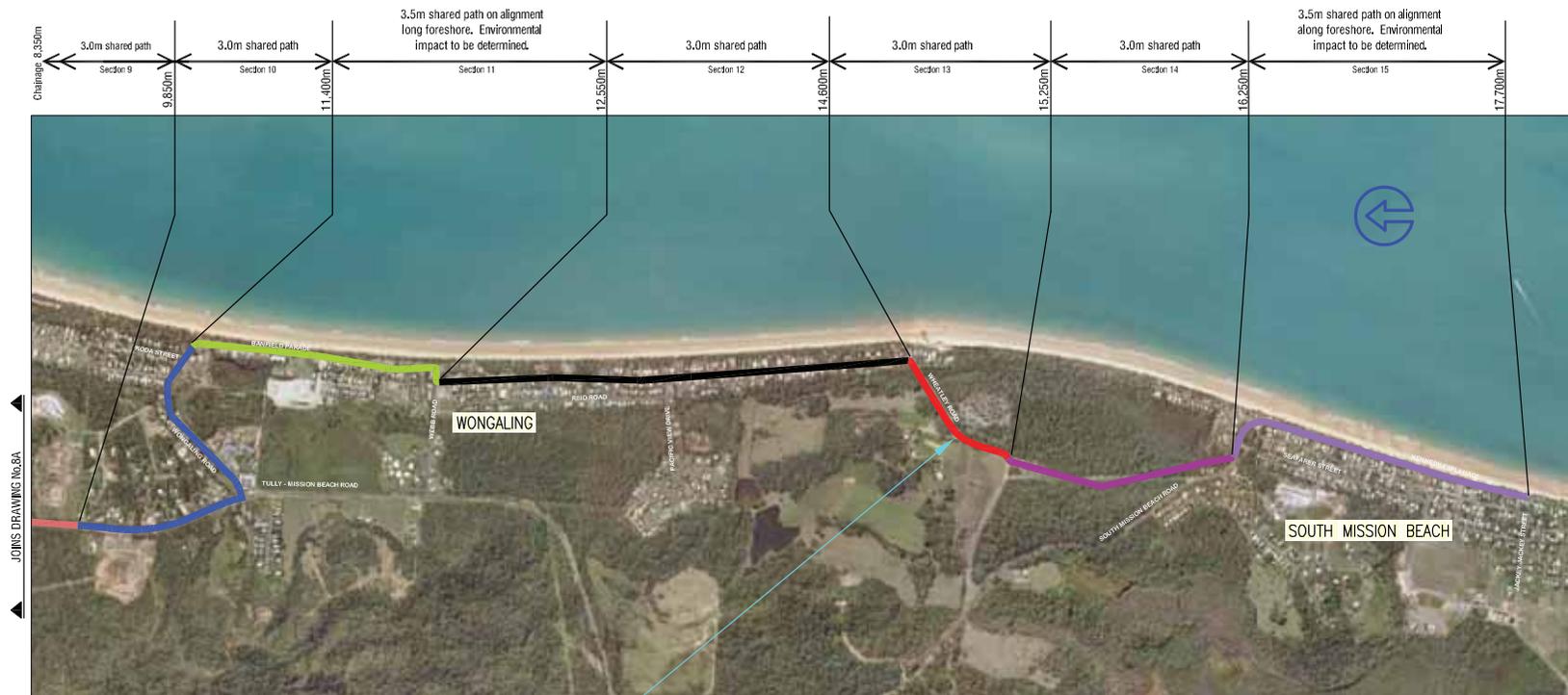
Principal Cycle Network Plan for Far North Queensland  
Bingil Bay to South Mission Beach  
Proposed Link Alignment

Drawing No. 8A

Date: 29/05/09



# Concept design - Bingil Bay to South Mission Beach



Section 13

**Notes:**

1. Special treatments such as segregated one way paths or alternative routes may need to be considered should environmental Impact determinations prevent construction of the proposed 3.5m shared paths on sections 11 and 15.



**CONCEPT ONLY**

Subject to detailed feasibility investigations.

Principal Cycle Network Plan for Far North Queensland  
Bingil Bay to South Mission Beach  
Proposed Link Alignment



Drawing No. 8B

Date: 29/05/09

# Contact information

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For further information on the Principal Cycle Network Plan for Far North Queensland, please contact the Department of Transport and Main Roads.

**Website:** [www.tmr.qld.gov.au](http://www.tmr.qld.gov.au)

**Email:** [planning.projects@tmr.qld.gov.au](mailto:planning.projects@tmr.qld.gov.au)

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