



INFRASTRUCTURE COMMITTEE MEETING

AGENDA

4 JUNE 2014

Your attendance is required at a meeting of the Infrastructure Committee to be held in the Council Chambers, 232 Bolsover Street, Rockhampton on 4 June 2014 commencing at 12:30pm for transaction of the enclosed business.

A handwritten signature in black ink, appearing to be "C. R.", is positioned above the printed name of the Chief Executive Officer.

CHIEF EXECUTIVE OFFICER
28 May 2014

Next Meeting Date: 02.07.14

Please note:

In accordance with the *Local Government Regulation 2012*, please be advised that all discussion held during the meeting is recorded for the purpose of verifying the minutes. This will include any discussion involving a Councillor, staff member or a member of the public.

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1 OPENING

2 PRESENT

Members Present:

Councillor A P Williams (Chairperson)
The Mayor, Councillor M F Strelow
Councillor N K Fisher
Councillor G A Belz
Councillor S J Schwarten
Councillor C E Smith

In Attendance:

Mr E Pardon – Chief Executive Officer
Mr R Holmes – General Manager Regional Services

3 APOLOGIES AND LEAVE OF ABSENCE

4 CONFIRMATION OF MINUTES

Minutes of the Infrastructure Committee held 30 April 2014

5 DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA

6 BUSINESS OUTSTANDING

6.1 BUSINESS OUTSTANDING TABLE FOR INFRASTRUCTURE COMMITTEE

File No: 10097

Attachments: 1. **Business Outstanding Table for
Infrastructure Committee Meeting**

Responsible Officer: Evan Pardon - Chief Executive Officer

Author: Evan Pardon - Chief Executive Officer

SUMMARY

The Business Outstanding table is used as a tool to monitor outstanding items resolved at previous Council or Committee Meetings. The current Business Outstanding table for the Infrastructure Committee is presented for Councillors' information.

OFFICER'S RECOMMENDATION

THAT the Business Outstanding Table for the Infrastructure Committee be received.

BUSINESS OUTSTANDING TABLE FOR INFRASTRUCTURE COMMITTEE

Business Outstanding Table for Infrastructure Committee Meeting

Meeting Date: 4 June 2014

Attachment No: 1

Date	Report Title	Resolution	Responsible Officer	Due Date	Notes
08 May 2013	Vallis Street - Proposed Traffic and Parking changes	THAT the matter of proposed traffic and parking changes in Vallis Street, North Rockhampton lay on the table pending community consultation and return to the Infrastructure Committee Meeting in July 2013.	Martin Crow	22/05/2013	No response from IGA Management to date.
05 February 2014	Denham-West Street Area Stormwater Drainage	That a report be provided to this Committee with respect to a solution and costing for an upgraded stormwater drainage program in the Denham-West Street area to reduce the constant flash flooding and damage to businesses in the Denham-West Street area.	Martin Crow	12/02/2014	Draft technical report investigating several options has been completed but requires further investigation. Council report will be submitted when technical report is finalised.
02 April 2014	Access to Properties at Razorback Road	THAT the matter of access to properties at Razorback Road lay on the table for a report to return to the next Infrastructure Committee Meeting.	Bruce Russell	16/04/2014	Report has been completed as of 23 May but yet to be reviewed by General Manager.
30 April 2014	Notice of Motion - Councillor Stephen Swarten - Kershaw Street Drainage Issue	<ol style="list-style-type: none"> 1. That a report on the drainage issues, and an update on previously proposed solutions for the Caribea Estate, be presented to the next Infrastructure Committee Meeting. 2. That the existing stormwater system be investigated to ensure that there are no blockages and that it is operating at design capacity. 	Robert Holmes	14/05/2014	

6.2 LIFTING MATTERS LAYED ON THE TABLE

File No: 1370
Attachments: Nil
Responsible Officer: Evan Pardon - Chief Executive Officer
Author: Evan Pardon - Chief Executive Officer

SUMMARY

The Business Outstanding table is used as a tool to identify when reports are due back to the table. Items lying on the table require a report to be lifted from the table before being dealt with. This report is designed to lift all necessary reports from the table to be dealt with at this meeting.

OFFICER'S RECOMMENDATION

THAT the following matters, "lying on the table" in the Business Outstanding table due to return to the Infrastructure Committee Meeting, be lifted from the table and be dealt with accordingly:

1. Access Roads to Moonmera Properties off Razorback Road Bouldercombe

7 PUBLIC FORUMS/DEPUTATIONS

7.1 PROPOSED CBD BUS STOP UPGRADE

File No: 237

Attachments:

1. Presentation by Transport and Main Roads
2. Preliminary Layout for Bus Stop

Authorising Officer: Robert Holmes - General Manager Regional Services

Author: Russell Collins - Manager Civil Operations

SUMMARY

Deputation from Translink representatives Mr Alan Hawkes and Mr Brad Scouller to discuss options for the bus services that use the main bus stops in Bolsover Street outside the Police Station, Kern Arcade and Denham Street outside the Leichhardt Hotel to determine the most cost effective and user friendly way to provide a public transport to service the CBD area.

OFFICER'S RECOMMENDATION

THAT Council receive the deputation from Translink

COMMENTARY

In reviewing the needs for public transport access for the Central Business District (CBD) of Rockhampton, Translink is trying to achieve the goals of providing a bus station that is readily identifiable as a major public transport node, that provides efficiencies that will enable savings to be reinvested in providing better and more user friendly transport services for the Rockhampton Region. If these goals can be achieved and more people are attracted to using public transport to access the CBD, it will have benefits of increasing business opportunities and reducing the parking requirements for the area.

To achieve the above goals, Translink has investigated four options to improve public transport access into and out of the CBD of Rockhampton to cater for the future growth of the Rockhampton Region. The four options are:-

1. Add an additional bus bay to the existing two bus bays outside the Police Station and create three bus bays outside the Choice Bottleshop car park.
2. Create three bus bays opposite the existing Kern Arcade bus stop and delete the bus stop outside the Police Station.
3. Use the existing Bolsover Street bus stops outside the Police Station and the Kern Arcade and delete the Denham Street bus stop outside the Leichhardt Hotel.
4. Create two new bus bays outside the Choice Bottleshop car park and maintain the use of the bus stops outside the Police Station and the Kern Arcade.
5. Create a bus stop in the centre of Denham Street between Bolsover Street and Bolsover lane.

Option 1

This is Translink's preferred option as it will lower future operational costs of the network by reducing the annual distance travelled by 13,000 kilometres per year and combines all stops into an identifiable area that is located centrally in the CBD and close to the Police Station. It also allows for future expansion of services into the growth areas of Gracemere and Parkhurst.

Other than the loss of four car parks, the addition of an extra bus bay outside the Police Station should not cause any major concern.

The proposed new bus stop outside of 170/174 Bolsover Street (Choice Bottleshop and Leichhardt Hotel) and 162 Bolsover Street will result in the loss of 18 car parks and the

facility may attract vagrants to the shelters overnight. It is possible that these property owners will object to the bus stop being created along their street frontages.

In the CBD area there is no opportunity to provide a bus station area that is completely located in one area that identifies it as a major transport destination without an impact on commercial property. The location of Option 1 has the least impact, as the Choice Bottleshop has off street parking. The loss of 22 car parks has partially been offset by the removal of bus stops in East Street just north of Fitzroy Street; William Street between East Street and East Lane; and the removal of the bus stop in Denham Street if this proposal goes ahead.

Part of this proposal is that the existing bus stop outside the Kern Arcade will not be required as a bus stop. Although the construction of the existing area was totally funded by the State Government, the general public will see it as Council wasting money on the facility unless an alternate use can be found. The area is accessible with direct under cover access to East Street through the Kern Arcade. One possible use is to relocate the Denham Street Taxi Rank to the existing bus stop area.

Option 2

While this option combines all the CBD stops into an identifiable area that is located centrally in the CBD, it does not provide for any operational savings for Translink as in Option 1, due to the increased travel distance of 13,000 kilometres per year.

The proposed new bus stop outside of the old TAFE College building will result in the loss of 20 car parks and the facility may attract vagrants to the shelters overnight. Prior to the disposal of the TAFE College this site would have had the least impact on commercial property. As the site is now in private ownership with planning approval for a boutique motel that relies on the available on street parking, it is no longer a preferred site.

Part of this proposal is that the existing bus stop outside the Police Station will not be required as a bus stop. Although the construction of the existing area was totally funded by the State Government, the general public will see it as Council wasting money on the facility unless an alternate use can be found. Possible uses are to return the area to public parking or parking for Police vehicles.

Option 3

To revert back to the two bus stop locations outside the Police Station and the Kern Arcade without the Denham Street bus stop will increase operational costs by adding an additional 15,000 kilometres per year resulting in reduced services to cover the additional expenditure. It will also create capacity problems at the Kern Arcade which will cause delays and prevent further expansion into growth areas such as Gracemere and Parkhurst.

This option does not identify a central transport node within the CBD.

Option 4

This option is very close to Option 1 in that it still reduces parking outside of 170/174 Bolsover Street (Choice Bottleshop and the Leichhardt Hotel) but does not achieve the aims of reducing the distance between bus stops and is not an identifiable transport node. Translink considers this option as an interim measure until Option 1 can be achieved.

Option 5

New option to be presented by deputation.

BACKGROUND

In 2010 Queensland Transport funded the construction of five saw tooth bus bays in Bolsover Street, three in front of the Kern Arcade Car Park and two outside the Rockhampton Police Station. The Saw Tooth arrangement allowed for buses to depart whenever they were ready, whereas the previous nose to tail arrangement meant that buses had to wait for the lead bus to depart before they could move off. With the existing

arrangement, passengers transferring from country services to city services are required to walk over 200 metres to make the connection.

Translink has since determined that it is more cost effective to have bus stops on both sides of Bolsover Street as it reduces the distance that buses need to travel when travelling from the south side to the north side of Rockhampton. As a result Translink then started using the bus stop outside the Denham Street frontage of the Leichhardt Hotel. Almost from the time that this change was made Council has received complaints and requests for the bus stop to be provided with seating and other improvements.

The Denham Street bus stop has been in existence since the Leichhardt Hotel was built and its main use was to provide parking for tourist buses that were staying overnight at the hotel. The location is not suitable for a high usage bus stop as it only provides for one bus bay, has steep crossfalls on the footpath and road shoulder, and is directly outside of a hotel.

The bus stops outside the Kern Arcade and the former bus stop at the north eastern corner of Fitzroy Street and East Street both have problems with being attractive areas for vagrants to congregate at night time. These areas are high maintenance areas that need cleaning on a daily basis. It is for this reason that seating has not been provided for the Denham Street bus stop.

BUDGET IMPLICATIONS

There are no capital budget implications for Council as Transport and Main Roads have indicated that they will fully fund the design and construction of any new bus stop. There will be ongoing operational costs for Council to maintain the facility after it is constructed.

RISK ASSESSMENT

The main risk for this project is providing on street space for the bus station without unduly affecting the value of commercial land in the CBD.

CORPORATE/OPERATIONAL PLAN

This proposal supports the provision of infrastructure for public transport to service the needs of the community.

CONCLUSION

The most acceptable options for the CBD bus stop are to be discussed after new information from Translink has been considered by the Council.

PROPOSED CBD BUS STOP UPGRADE

Presentation by Transport and Main Roads

Meeting Date: 4 June 2014

Attachment No: 1

Department of Transport and Main Roads

Rockhampton CBD Bus Stops

Rockhampton Regional Council
Tuesday 8 October

Alan Hawkes – TMR TransLink
Alec Tattersall – TMR TransLink

Coleen Williams – TMR TransLink
Russell Collins – Rockhampton RC

Great state. Great opportunity.



Agenda

- Background to existing situation
- Issues being experienced
- Options developed to resolve issues
- Preferred option
- Way forward
- Site visit

Background

- 2010 - Queensland Transport engaged Rockhampton Regional Council (RRC) to construct two new premium bus stops on the southbound side of Bolsover Street
 - Kern Arcade – Sunbus
 - Police Station – Youngs
 - Total construction cost \$655,011.00
 - TMR contribution \$646,485.40.
- January 2013 - Sunbus service change addressed on-time running and incorporated school services into urban services
 - The service change required both northbound and southbound CBD stops – solution for northbound was Denham Street
- Using Denham St stop has created issues from Council, customers etc as well as highlighting a need to resolve the future stopping pattern in CBD

Network Strategy (1)

- Rockhampton Sunbus network is a 'Base Plus' network. This category in the TMR Network Categorisation system provides it with good accessibility to key destinations, particularly for those with high transport need, adequate service frequency and well matched origins and destinations
- The Gracemere/Yeppoon Youngs network is a 'Base' network. This category in the TMR Network Categorisation system provides it with good accessibility to key destinations, particularly for those with high transport need, appropriate level of service to meet social transit objectives and well matched origins and destinations

Network Strategy (2)

- As Rockhampton grows and changes, so too will its bus networks. Their maturation leads to more requirements for infrastructure
- The requirement for a northbound stop in the CBD is consistent with the operation of almost all bus networks as it will create a more legible network for customers and provides operational efficiencies
- The (draft) Fitzroy Public Transport Service Plan outlines the need for a northbound stop in Rockhampton CBD to provide more efficient operations
- A northbound stop will enable more efficient operations and the reinvestment of service kms and hours into growth areas such as Gracemere

Current Arrangement



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Denham Street Bus Stop Issues

- No seating or shelter provided
- Not compliant with disability standards
- Insufficient capacity with just one space
- Road camber
- Compliance cost problematic

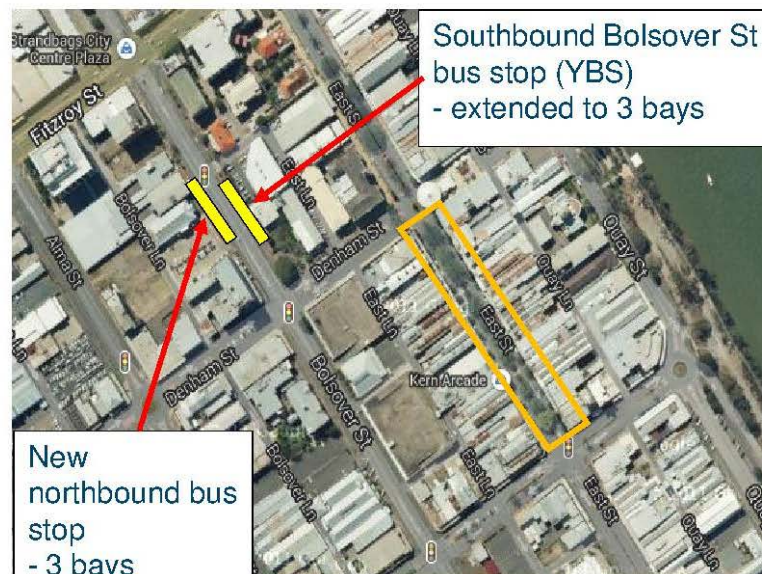


Stop Analysis Process

- TransLink Division Network Management collated feedback on potential options from:
 - TransLink Division Regional Operations
 - TransLink Division Infrastructure
 - Rockhampton Regional Council
- Feedback was entered into a multi criteria analysis grouped by:
 - Operational cost
 - Infrastructure cost
 - Passenger amenity / safety
 - General amenity / commercial concerns
 - Capacity / future growth
 - Contracts
 - Road network

Option One

- Expand the existing Young's Bus Service bus stop to three bays, implement a new paired bus stop for northbound services opposite, and decommission Kern Arcade bus stop (Sunbus)



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- Total bus capacity:**
 - 6 bays
 - 3 new northbound
 - 1 new southbound
 - 2 existing southbound
- Service change:**
 - Minor operational impacts but integration of operations for the first time

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Strengths

- Lower operational costs
- Meets objectives of an integrated network
- Potential for an estimated saving of 13,000 km/year to YBS network
- More efficient operations could see reinvestment in growth areas such as Gracemere and Yeppoon
- Increased network legibility for customers
- Stops directly outside police station
- Would be in keeping with stop/station form used across QLD/Australia
- Situated between CBD major shopping precincts

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Weaknesses

- New paired stop, a significant cost to design & construct
- Perception of impacts to commercial business frontages and reduction of on street parking
- Redundant Sunbus bus stop would be seen as wasted investment
- Concerns over traffic implications on this section of Bolsover St

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Option Two

- Implement a new paired northbound bus stop opposite the Kern Arcade bus stop (southbound Sunbus) and decommission Young's Bus Service bus stop



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- Total bus capacity:**
 - 6 bays
 - 3 new northbound
 - 3 existing southbound
- Service change:**
 - Major operational impacts.

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Strengths

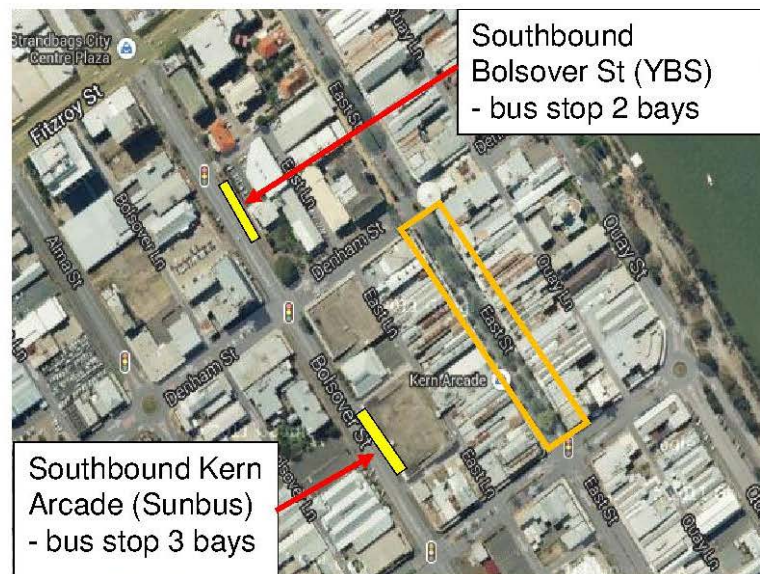
- Increased network legibility
- Close access to the old main street (East Street) via undercover walkway through Kern Arcade
- Would be in keeping with stop/station form used across QLD/Australia

Weaknesses

- Increased operational costs estimated at 13,000 km/year
- Due to lack of additional operational funding the additional costs may have to be found from a loss of service in the network
- New stop in front of the former TAFE site, recently subject to a DA to be used as a boutique motel, which would not support loss of parking
- Redundant Young's bus stop would mean 'wasted investment'
- Significant service change required

Option Three

- Use existing southbound Bolsover Street bus stops and remove current Denham Street bus stop



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- **Total bus capacity:**
 - o 5 bays
 - 5 existing southbound
- **Service change:**
 - o Major operational impacts

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Strengths

- Low infrastructure cost
- Mitigate public perception of wasting money by retaining both southbound bus stops
- No additional infrastructure works required
- Direct undercover access to East St shopping precinct (Sunbus passengers only)
- Confines vagrant problem to area away from commercial businesses

Weaknesses (cntd)

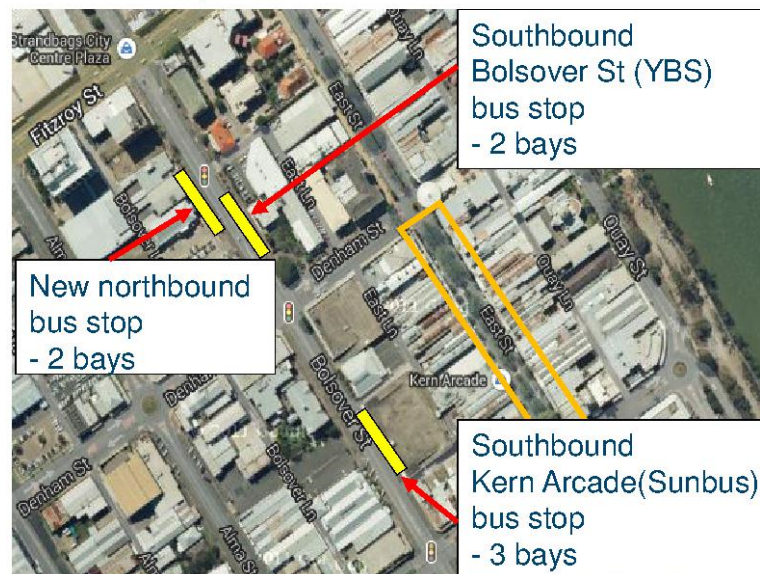
- Doesn't facilitate extension of service into growth areas such as Gracemere

Weaknesses

- Illegible network of stops, does not meet best practice or TransLink aim of integration
- Increased operational costs to Sunbus network - estimated to increase by 15,000 km/yr to maintain existing services
- To revert network to pre 2013 change would result in a loss of service
- Capacity issues at Kern Arcade stops
- Long walk between bus stops to interchange between Youngs and Sunbus services
- Significant service change required
- Doesn't meet draft PTSP requirements of a northbound and southbound stop

Option Four

- Install new bus stop (2 bays) in front of First Choice bottle shop opposite Young's Bolsover St bus stop for use by Sunbus northbound services. Continue to use existing Bolsover St and Kern Arcade southbound bus stops



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- **Total bus capacity:**
 - o 7 bays
 - 2 new northbound
 - 5 existing southbound
- **Service change:**
 - o No service changes necessary to network however customer information work required.

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Strengths

- Mitigate public perception of wasting money by retaining both southbound bus stops
- No change in current operational cost
- Possible low cost option for two bay nose to tail operational bus stop
- No service change required only customer communication.
- Could act as temporary solution to resolve current Denham Street issues
- Additional capacity allows for future growth

Weaknesses

- No benefit for Youngs bus network for future service improvements unless 3 bays are provided
- Long walk between stops to interchange between Young's Bus Service and Sunbus and within Sunbus network
- Possible impacts to commercial business frontages
- Reduction of on street parking
- Maintains illegible network and provides the most complicated passenger outcome

Summary of Options

- **Option 1:** TMR preferred long term solution. Creates a more legible network, opportunity for extra Youngs services through saving in operational kilometres
- **Option 2:** Not considered a feasible option due to extra service kilometres and bus stop outside propose boutique hotel not conditioned as part of DA
- **Option 3:** Significant ongoing network costs in both travel time and monetary. Not considered feasible due to ongoing costs
- **Option 4:** Preferred interim solution. No operational costs, possible low infrastructure cost, with seating/shelter installed

Way Forward

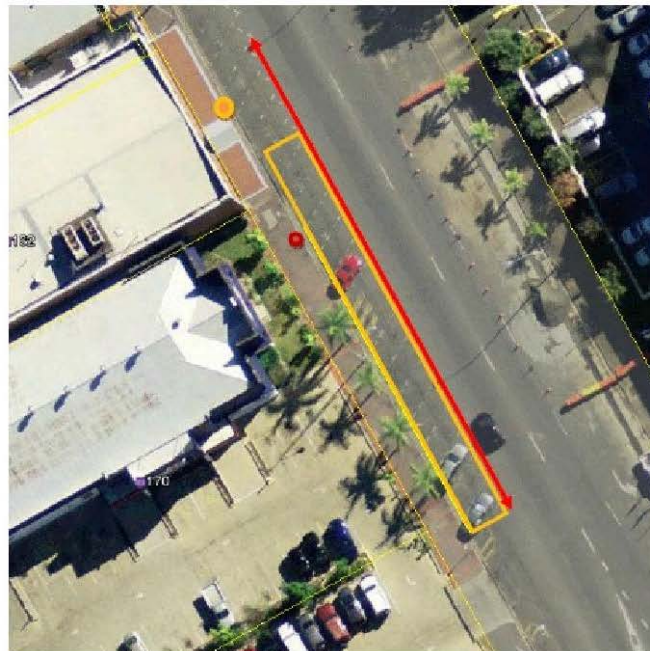
Interim

- Seeking Council support for option 4 to relocate existing Denham Street stop to Bolsover Street

Long term

- Seeking Council support for preferred long term option by early November
- Project will then be recommended to go into Passenger Transport Infrastructure Program for:
 - Pre-feasibility analysis in 2013/14; and depending on the outcome either
 - Detailed feasibility or Design and construct in 2014/15

Option 1 and 4 footprint



- **Yellow**
 - Two bay bus stop with independent operation (reduction of 7.5m for nose to tail)
- **Red**
 - Three bay lead stop or nose to tail operation

PROPOSED CBD BUS STOP UPGRADE

Preliminary Layout for Bus Stop

Meeting Date: 4 June 2014

Attachment No: 2



8 OFFICERS' REPORTS

8.1 CENTRAL QUEENSLAND PRINCIPAL CYCLE NETWORK PLAN

File No: 5732

Attachments: 1. Central Queensland Principal Cycle Network Plan

Authorising Officer: Robert Holmes - General Manager Regional Services

Author: Martin Crow - Manager Engineering Services

SUMMARY

A Central Queensland Principal Cycle Network Plan (CQPCNP) has been prepared by the Department of Transport and Main Roads (TMR) for the Fitzroy region. The Principal Cycle Network Plan identifies a network of existing and future arterial cycle routes to improve cycling in the region.

OFFICER'S RECOMMENDATION

THAT the Rockhampton Sub-region section of the Central Queensland Principal Cycle Network Plan be endorsed.

COMMENTARY

The Central Queensland Principal Cycle Network Plan (CQPCNP) aims to support the existing transport system encouraging more people to choose cycling for journeys to work, school, shops and along recreational routes. This is done by connecting origin and destination points and identifying approximate cycle alignments within the network. Existing and future demands for cycling have been analysed using demographic data and travel patterns in order to identify where cycling infrastructure will be needed in the future.

TMR have requested that Council endorse the sections of the CQPCNP within the Rockhampton Regional Council boundaries. The sections of the CQPCNP relevant to Rockhampton Regional Council are contained within pages 15 to 21 of the attached document. Maps 5 – 8 of the document provide a visual summary of the chosen routes. The full document has been provided should Council be interested in the routes identified across the Fitzroy Region.

TMR had provided a draft PCNP for Council's consideration and endorsement prior to De-Amalgamation. Consideration of the PCNP was put on hold at that point to allow the Rockhampton Regional Council and Livingstone Shire Council to reconsider the plan in light of their new local government boundaries.

A recent review of the draft CQPCNP had revealed a number of issues which Council Officers believed required amendment before submitting to Council for endorsement. These amendments included the addition of a number of routes, the deletion of incorrectly identified routes and the addition of some commentary around known active routes that have not been included in the CQPCNP. These amendments have now been incorporated into the document and Council Officers believe that the document is now suitable for Council's endorsement. Further refinement of the document should be undertaken as TMR's and Council's cycle route planning matures over time.

BACKGROUND

In consultation with Councils and community groups, the Department of Transport and Main Roads has been preparing a Principal Cycle Network Plan for the Fitzroy region. The Principal Cycle Network Plan identifies a network of existing and future arterial cycle routes to improve cycling in the region.

The plan will be used to guide future detailed planning and construction of principal cycle routes on both state controlled and local roads. It will also inform the assessment of development applications to ensure cycle infrastructure is delivered in a consistent manner.

BUDGET IMPLICATIONS

The Department of Transport and Main Roads has adopted a policy of providing cycle facilities on state-controlled roads which have been identified as Principal Cycle Routes. Indications to date are that funding for cycling infrastructure outside of South East Queensland will be made available to Councils which have an endorsed Principal Cycle Network Plan

RISK ASSESSMENT

Upgrades which provide cycling facilities will improve safety for cyclists on roads within the Region

CORPORATE/OPERATIONAL PLAN

The endorsement of the principal cycle network plan clearly supports the Strategy 3 within the Community Plan: "A community that enjoys a range of strategically placed and integrated pedestrian and cycle paths".

CONCLUSION

The Central Queensland Principal Cycle Network Plan is generally satisfactory in relation to Rockhampton Regional Council's needs but should be further refined as cycle route planning for the region matures. It is therefore recommended that Council endorse the Central Queensland Principal Cycle Network Plan.

CENTRAL QUEENSLAND PRINCIPAL CYCLE NETWORK PLAN

Central Queensland Principal Cycle Network Plan

Meeting Date: 4 June 2014

Attachment No: 1



Principal Cycle Network Plan

Central Queensland

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Background

1 Introduction

The *Central Queensland Principal Cycle Network Plan* (PCNP) has been developed to guide and inform practitioners involved in the planning, design and construction of the region's transport network. It provides a vision for the cycle network in the central Queensland region.

The principal routes shown in this plan represent cycling desire lines. They indicate the most important routes and known missing links for cyclists within the region. In most instances, further corridor investigation work will be required to determine the precise route and desired standard of cycle facilities.

The PCNP is not a navigation aid, since the maps provided make no distinction between existing and future cycle infrastructure. Neither does it designate the form or timing of infrastructure delivery. Rather, the PCNP's role is to flag the demand, location and functional requirement of cycle routes and inform further planning and design of cycle infrastructure across the region.

An action plan based on a prioritisation of routes within the region will be developed and published separately to the PCNP. The plan will dictate the actions required in the short to medium term to progress the delivery of the highest priority routes identified in the Central Queensland PCNP.

Section 4 clarifies the various implementation mechanisms associated with principal and regional recreational routes.

2 What is a principal cycle network?

A principal cycle network is comprised of core routes designed to maximise the community's use of the bicycle as an everyday form of transport. It is a functional network focussed on trips that can be easily cycled in the central Queensland region.

2.1 Types of journeys

The PCNP identifies routes primarily for cyclists within urban environments, with a particular focus on the 5km radius around trip destinations. Most of the urban areas in the central Queensland region are within a 5km radius of a town centre (sometimes 2.5km); at these distances, cycling becomes accessible for a range of trip types.

Therefore, the PCNP focuses on journeys to work, school, and social/utility trips. The cycle network will connect residential areas with employment nodes such as town centres, industrial precincts, ports, education facilities, and shopping and entertainment destinations.

The Central Queensland PCNP includes the local government areas displayed in Figure 1 below.

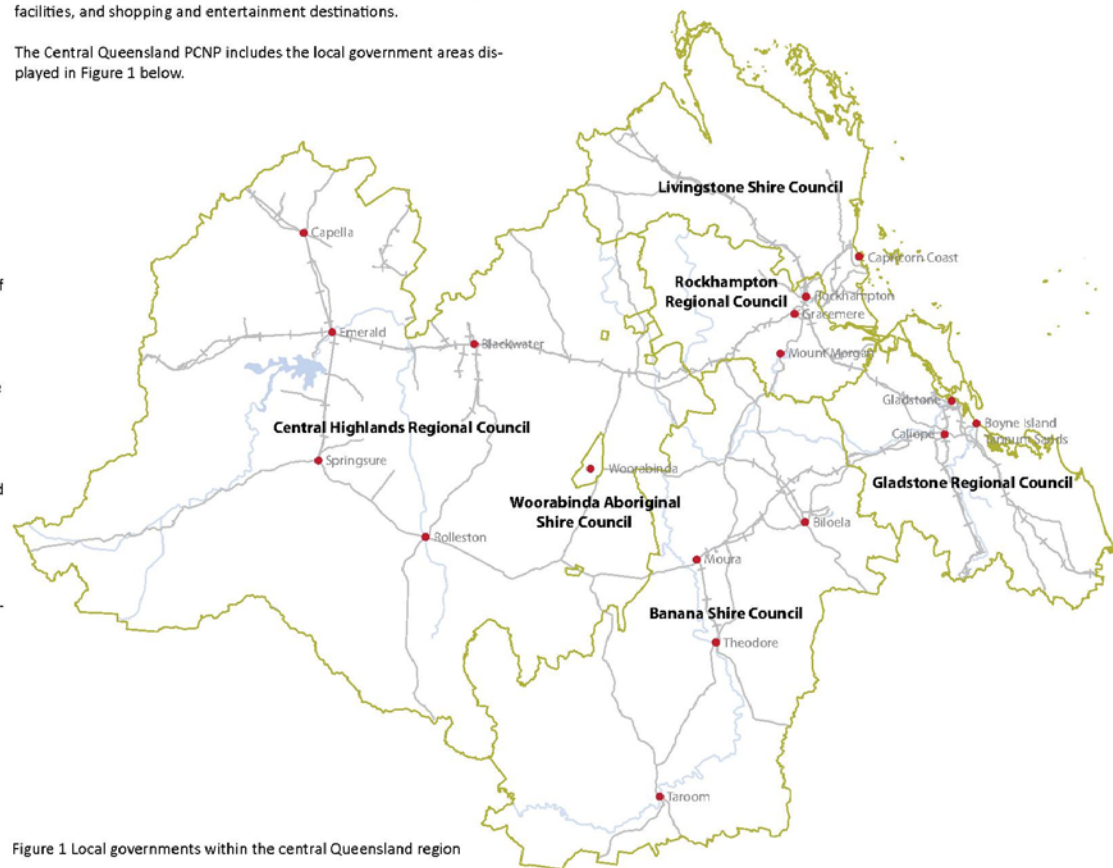


Figure 1 Local governments within the central Queensland region

Background

2.2 Types of routes

The PCNP identifies the functional requirements for cycling in the region by highlighting the indicative locations of principal routes. This will influence the form of facilities and the priority given to implementing certain routes. The PCNP identifies the following types of principal cycle network routes:

- **Principal routes** form the spine from which local cycle networks are built. Principal routes connect residential areas to major trip attractors such as public transport nodes, universities, schools, shopping and commercial centres, industrial areas and regional recreational facilities. At the regional scale, they provide key connections between activity centres or towns.
- **Future strategic routes** identify expansion opportunities for the principal cycle network in areas where significant urban growth has been identified but land use planning has not yet been undertaken or finalised. These routes are represented by an arrow in the broad direction of a future route.
- **Regional recreation routes** cater for longer distance recreation and cycle touring, highlighting both coastal and hinterland scenic opportunities.

2.3 What is the purpose of the plan?

The purpose of the PCNP is to present an agreed position on the desire lines for cycle routes in the region by applying the planning principles outlined in section 3. The routes shown are indicative, and exist to guide further planning which will ultimately determine exactly where the facility will be placed.

To achieve this, the PCNP consolidates existing cycle planning, data on key origins, destinations and cycling demand, as well as knowledge from regional councils and bicycle groups. This information has been used to formulate a principal network which will connect key activity centres, residential areas and local cycling networks.

This network then represents the core cycle routes needed to get more people cycling, more often, which is the vision of the Queensland Government's *Queensland Cycle Strategy 2011-2021*. When the network is delivered, residents will have the opportunity to view cycling to work, school, shopping precincts and other major destinations as a safe, efficient and attractive option.

Higher rates of cycling can reduce the overall vehicle demand on state and local government roads, particularly the proportion of single occupant vehicles. Moving enough of these trips to walking and cycling can reduce the need for road capacity upgrades, or extend the life of existing assets.

3 How was the network identified?

3.1 Planning principles

The following principles were used to guide the identification of the principal cycle network.

Principle 1

Connect key existing and future origin and destination points, such as town centres, major shopping and commercial facilities, employment nodes and educational institutions.

Principle 2

Focus on commuter, utility and education-related trips, with a supplementary focus on touring, recreation and sporting trips.

Principle 3

Establish a mesh width¹ of no more than 1000 metres between principal routes in urban areas. The mesh width is the distance between parallel routes in a network and is only applicable within built up areas.

Principle 4

Identify a network that is connected, direct, coherent, legible and planned with safety in mind.

Principle 5

Ensure that the network is easily accessible from residential areas.

Principle 6

Identify the network predominantly within transport corridors, state-controlled roads, higher order local government roads and through open space areas.

Principle 7

Adopt a 'one network' approach and consider all transport corridors as potential cycling corridors, regardless of whether they are managed by state or local government.

A principal cycle route may meet the principles and still be identified within corridors that are, at the time, considered not conducive for

cycling (such as priority freight routes or highways). In this case, further detailed planning will consider the feasibility of cycling within the corridor, and investigate appropriate cycling treatments.

In some instances this may result in a separated cycle facility within the identified corridor and in others a facility on an adjacent alignment within the vicinity. The aim of the PCNP is to identify routes at a strategic network level that will deliver good cycling outcomes, recognising that to achieve this, more detailed planning, investigation and design will be required. Although planned with a realistic level of feasibility in mind, the aim of the plan is to not exclude routes from the principal network based entirely on their current level of cycling feasibility.

3.2 Workshop and consultation

To develop the principal cycle network, officers from the Department of Transport and Main Roads held workshops with stakeholders in the region's centres. These stakeholders represented local and state government agencies, local cyclists and bicycle interest groups and some local community groups.

During the meetings, stakeholders applied the adaptive grid method² to highlight the core cycle network. This method required stakeholders to firstly nominate major origins and destinations on maps of each town in their local government area³. They then drew preference lines to connect the origins and destinations, often using the shortest most direct route or 'as the crow flies'. The preference lines were then transferred to preferred routes along existing and disused transport corridors and through open spaces/recreation corridors.

The placement of the preferred routes considered hazards, constraints, land tenure and topography. Other factors guiding the placement included the seven planning principles, existing bicycle plans where available and local knowledge of current and desired cycling routes.

After the stakeholder meetings, Transport and Main Roads officers analysed and refined the draft network using the planning principles along with knowledge of the physical conditions surrounding particular routes.

¹ *Queensland Cycle Strategy 2011-2021*

² CROW Design Manual for Bicycle Traffic (2007)

³ Not all towns within each local government area are included in the PCNP. A planning hierarchy was applied to determine the level of planning for towns.

Implementation

4 Implementation

4.1 Prioritisation

Transport and Main Roads will collaborate with local governments to identify a list of priority corridors. This prioritised list will be published as an addendum to the PCNP and will be reviewed regularly to ensure it remains an up-to-date representation of investment priorities. It will guide state planning and investment decisions as well as the assessment of grants to local government for cycling infrastructure. Involving local governments in the prioritisation process will ensure that principal cycle network facilities are developed where they will deliver the greatest benefit for the transport system.

4.1.1 Planning and protection of cycling corridors

Further planning and consultation is needed to determine the specific location and form of facilities on priority routes. On the state network, this planning will be undertaken as part of Transport and Main Roads' State Planning Program. Once the detailed planning has been completed, the highest priority corridors can be mapped and protected, and will be considered as part of the application process for any proposed developments on nearby land.

This planning and protection for future cycling corridors is particularly useful for greenfield development areas, where pre-emptive planning can avert the need for expensive retrofitting.

4.2 Funding and process

Figure 2 illustrates the policies and strategies which influence the PCNP and the delivery mechanisms available for its construction. The principal cycle network has been developed using a 'one network' approach, meaning the network contains routes on both state-controlled and local government roads and open space networks. While Transport and Main Roads has direct control of cycle facilities delivered on state-controlled roads, its influence over local government roads and land is less direct.

4.2.1 Queensland Government delivery

The Cycling Infrastructure Policy requires that Transport and Main Roads considers the needs of cyclists in all state-controlled road and transport projects. When a state-controlled road or transport project coincides with an identified principal cycle network route the department seeks to integrate cycle infrastructure as part of the project.

Transport and Main Roads' Cycling Infrastructure Policy is one of the key delivery mechanisms for the principal cycle network, requiring cycle facilities to be funded by larger transport projects on the state-controlled network.

The demand for new cycle facilities will not always align with the timing of other transport projects. In cases where benefits and priorities can be identified, stand-alone cycle infrastructure projects will be planned, designed, constructed and funded through Transport and Main Roads' Queensland Transport and Roads Investment Program. However, only the highest priority projects will be put forward as stand-alone projects.

4.2.2 Local government delivery

Local governments in the central Queensland region can apply for funding to deliver cycle infrastructure through the Transport Infrastructure Development Scheme (TIDS). From 1 August 2013, the TIDS Policy allows for a single annual funding allocation to Regional Roads and Transport Groups (RRTGs), through consolidation of previous TIDS sub-programs.

RRTGs will be the decision-making authority on funding for a range of transport infrastructure including cycle infrastructure, thereby enabling councils themselves to champion cycling within the RRTG and prioritise investment into cycle infrastructure if desired.

Local governments can also allocate funding for cycling infrastructure in their own budgets, enabling them to deliver projects independently.

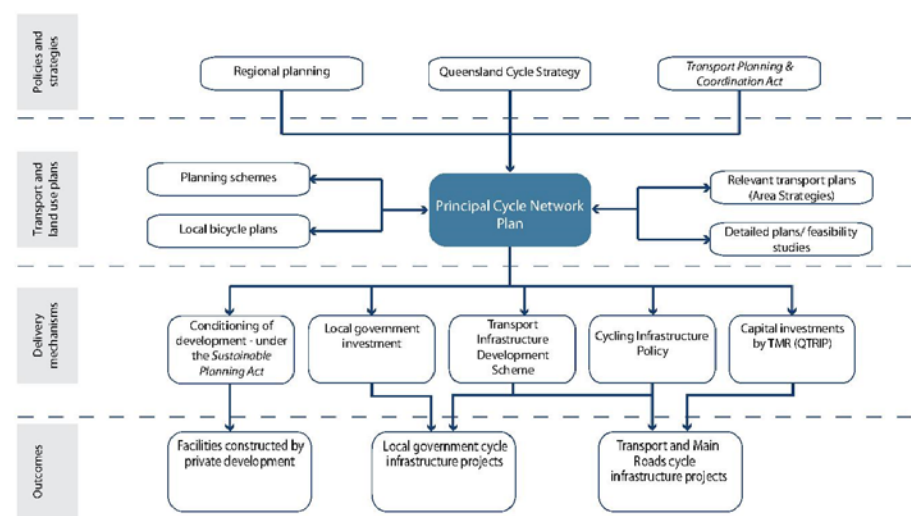


Figure 2 Policies and strategies influencing the principal cycle network.

Implementation

4.2.3 Regional recreation routes

Principal and future strategic routes along state controlled transport corridors will trigger explicit provision for cyclists as defined by the department's Cycling Infrastructure Policy.

Regional recreation routes are not considered to be part of the principal network as it applies to this policy. These routes generally correspond either with touring and training routes in rural areas, or with proposed rail-trail routes along disused rail lines. Their identification in this plan, is intended to increase safety and focus delivery in the areas where the highest level of recreational cycling is likely to occur.

As an example, as part of an upgrade to an existing state-controlled road where a regional recreation route is identified, improvements to the road might include implicit cycle provisions such as sealing or widening of shoulders, safety signage, and squeeze point treatments.

These routes may also be eligible for funding through other sources such as TIDS or tourism and recreation programs.

4.3 Infrastructure associated with the principal cycle network

The PCNP does not identify specific infrastructure solutions in relation to routes shown as part of the network. Rather, it identifies the function of each route in general terms and leaves the detailed planning and design to others with a greater understanding of the local issues.

This is because determining the appropriate facility type requires consideration of a range of factors beyond the scope of this network plan. These factors include:

- available space
- type and likely mix of users
- surrounding land uses and trip attractors
- likely volumes of cyclists
- likely volumes of pedestrians
- average traffic volumes
- cyclist crash history
- physical constraints and hazards.

Not all future cycle infrastructure requires a segregated off-road facility; it is possible to design on-road cycle paths with a reasonably high level of safety. There is also the potential for significant cost savings if the road can safely accommodate both vehicles and cyclists. An example of this would be a road corridor with reasonably wide shoulders.

Network maps

5 Network maps

This section presents principal cycle network maps for the central Queensland region divided into the four local government areas. This section also contains an analysis of routes, with an explanation of the rationale for most routes in each local government area.

Note that some inter-regional recreation routes may only appear on the local government subregional maps.

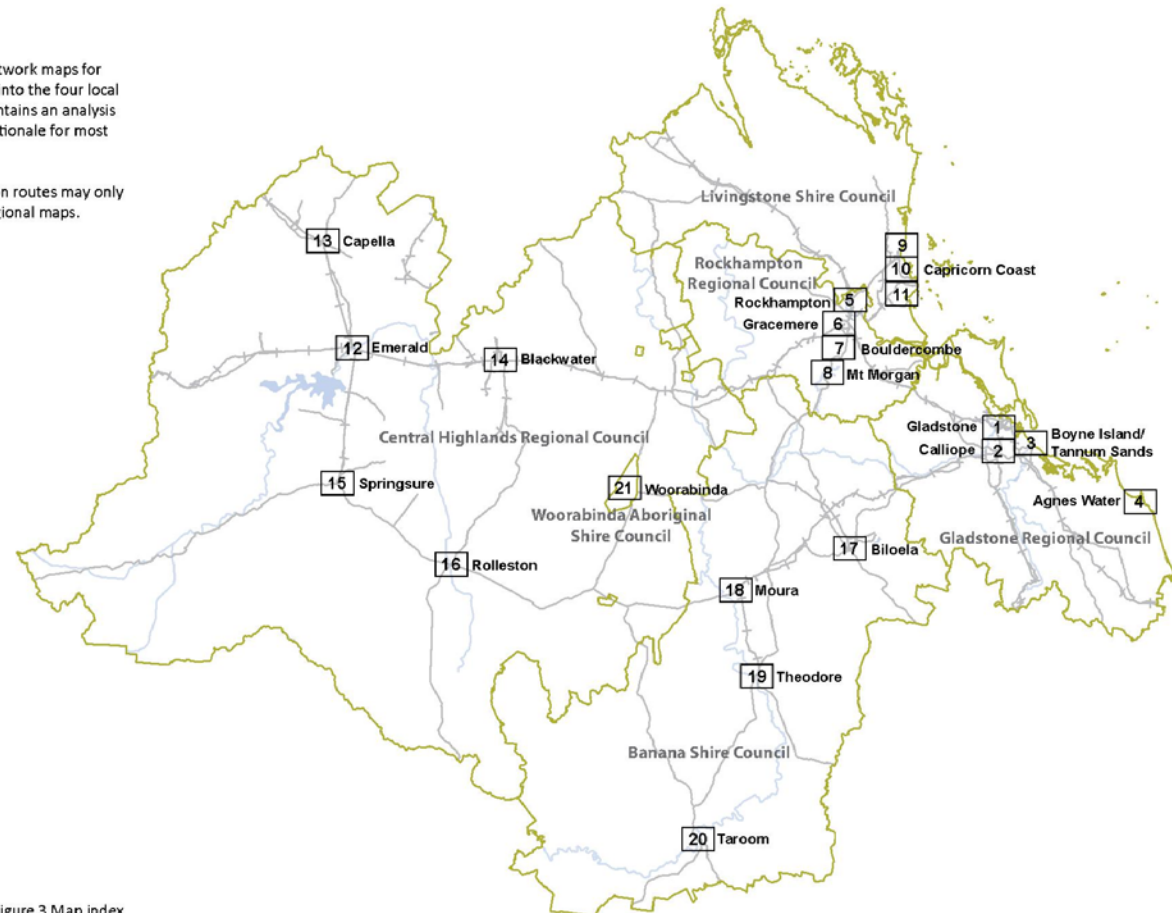
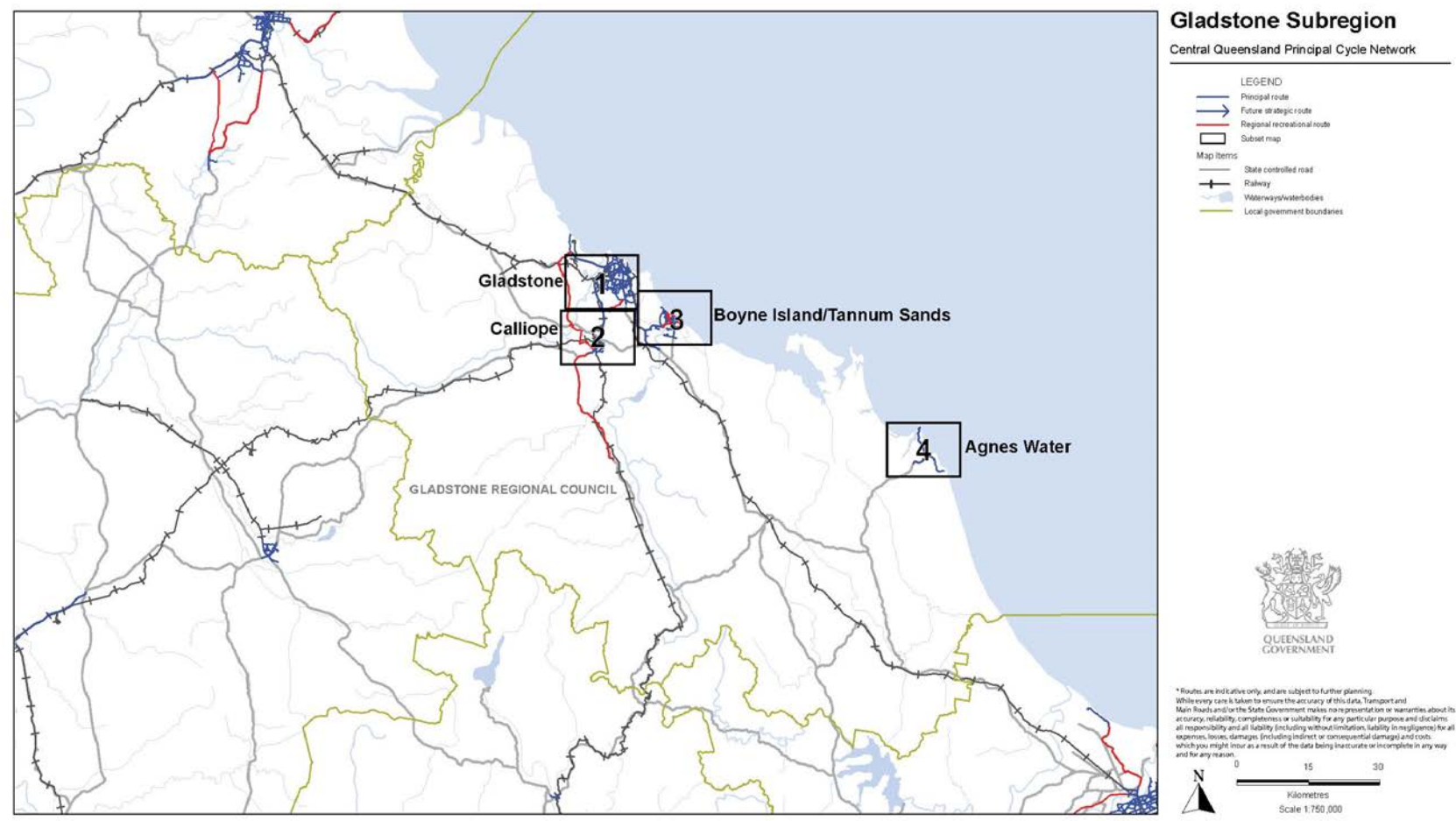
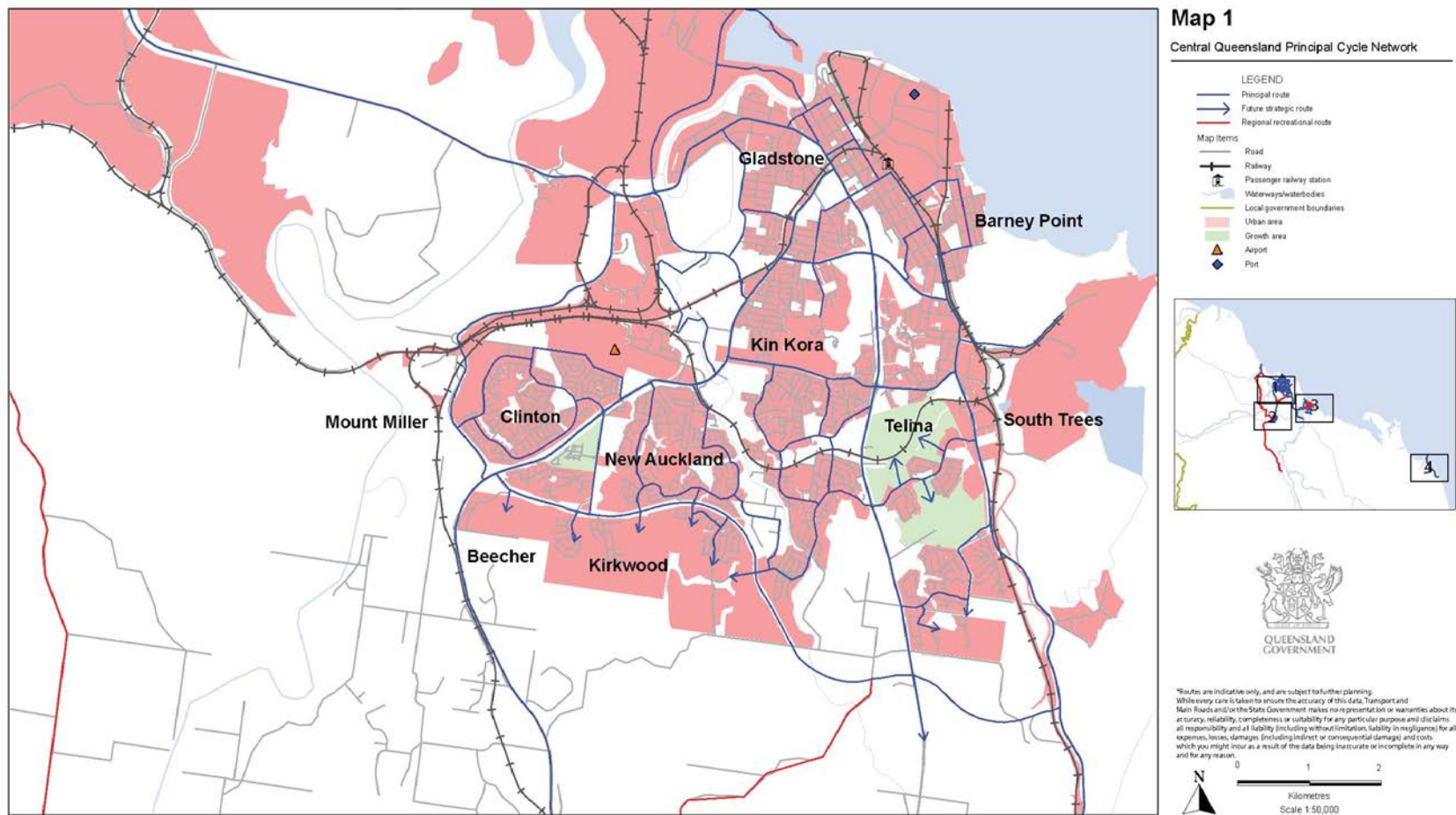


Figure 3 Map index

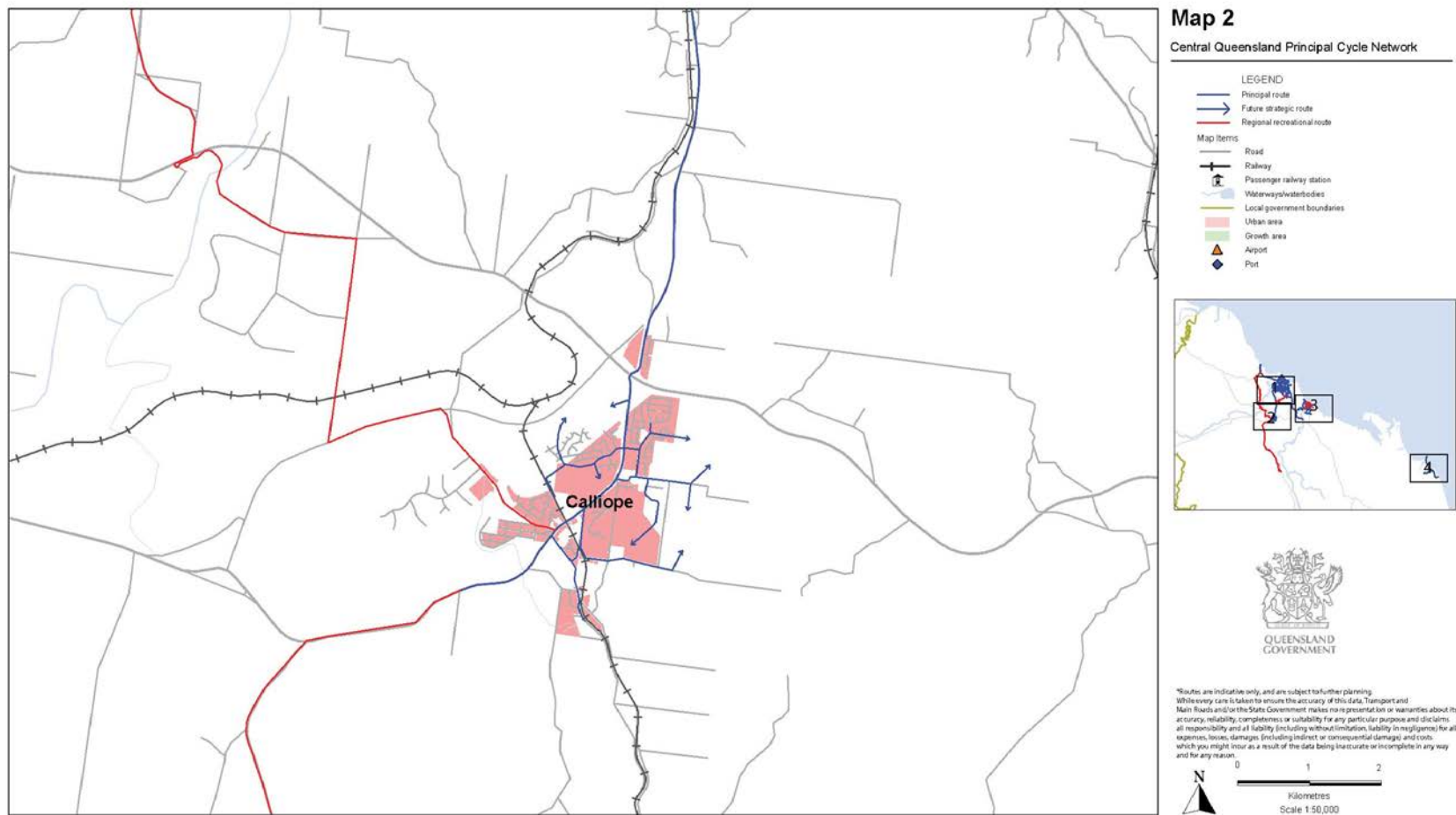
Gladstone Regional Council network maps



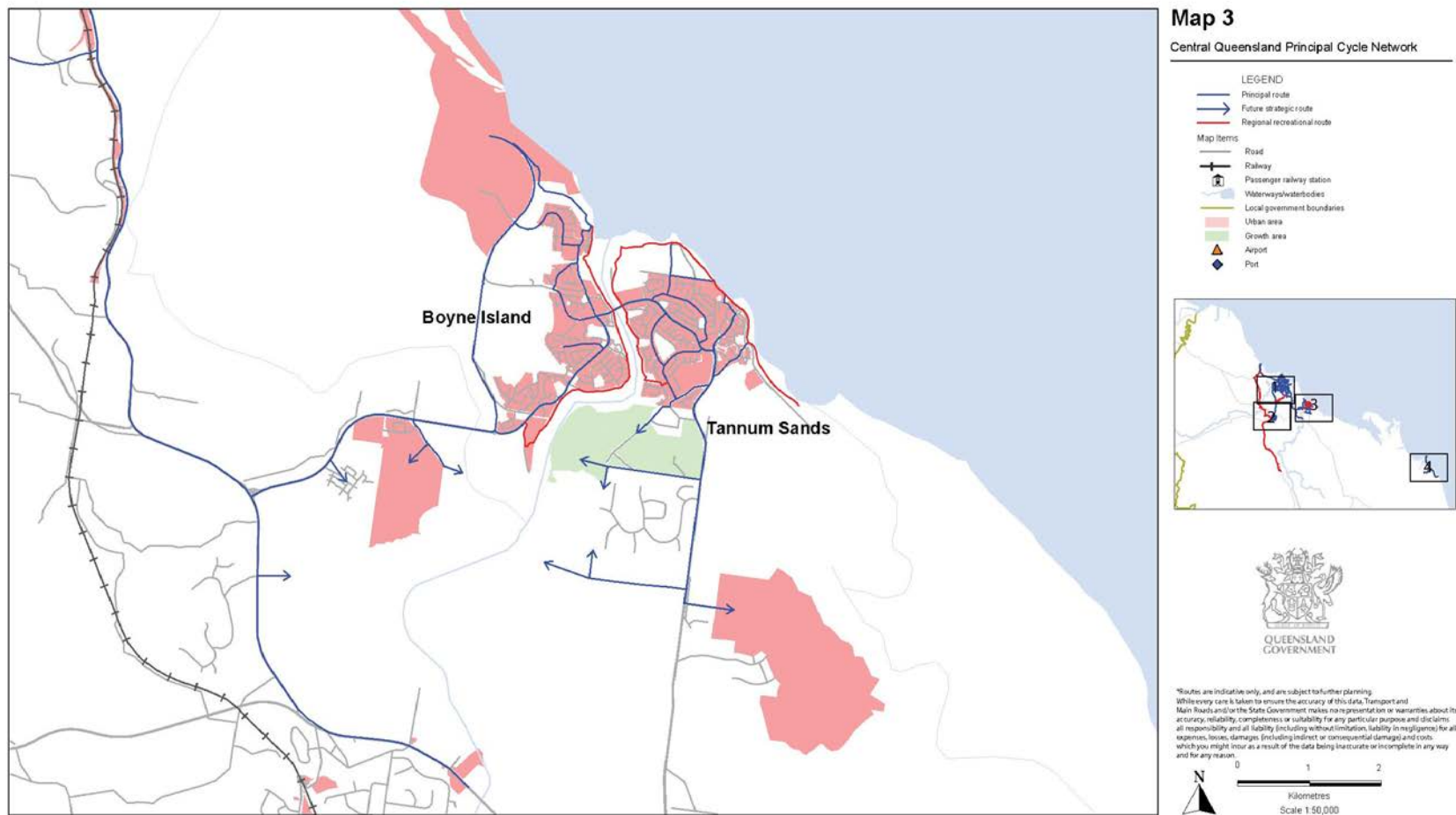
Gladstone Regional Council network maps



Gladstone Regional Council network maps



Gladstone Regional Council network maps



Gladstone Regional Council network maps



Gladstone Regional Council analysis of routes

Map 1 - Gladstone *Opportunities and constraints*

Gladstone's hilly topography has influenced development of the town's urban form and road network. As a result, the street layout does not follow a grid pattern and relies on main roads, such as the Dawson Highway, to connect various residential pockets with destination points.

The street layout, combined with typical cul-de-sac residential development, has created a disjointed active transport network with missing links. The principal cycle network aims to improve connectivity and permeability through the town, using existing road and active transport networks along with open spaces/waterways. The mesh width principle of providing cycle routes no more than 1000 metres apart was difficult to apply in Gladstone due to the topography. While there are varying distances between some cycle routes, every attempt was made to space the network consistently.

Gladstone's roads carry high volumes of heavy vehicles due to the extensive industrial and port activity in the area. There are opportunities in the future for freight routes to be diverted around the town's urban area, which could free up space for cyclists on some main roads. A number of roundabouts in Gladstone, which service major activity centres such as Kin Kora, can prove difficult for cyclists to navigate safely. Future solutions could be to remove the roundabouts or improve specific treatments to assist cyclists to move through them safely.

Urban and regional network

Future residential growth in Gladstone will be a combination of infill development and new residential areas, known as 'greenfield' development. Infill development will be concentrated in south and west Gladstone (i.e. to the north of Phillip Street), while greenfield development is planned for south of Kirkwood Road and two Priority Development Areas (PDA) declared in Clinton and Toolooa. These developments will be serviced by principal routes identified along existing road corridors, such as Harvey Road, Kirkwood Road and Dalrymple Drive. Future principal routes have been identified for the Toolooa PDA site, through open space to the north of the existing railway (i.e. north of Dalrymple Drive).

Existing residential areas will be served by a number of main cycling spines, generally following the major road corridors. These spines offer

the most convenient and direct route to destinations throughout Gladstone.

Phillip Street is identified as a major east-west corridor through Gladstone, servicing the schools and shops in this area. The Dawson Highway and Glenlyon Road corridors provide the north-south connection that links the southern suburbs with activity areas towards the CBD.

The key industrial areas around Gladstone are important employment attractors and a focal point for the principal cycle network. The industrial areas close to the CBD are serviced by road corridors as well as the open space network. For example, the cycle network through the open space around Lake Callemondah services the Gladstone Powerstation, Callemondah Aurizon Depot and surrounding industry along Blain Drive, while Harbour Road is included to service Queensland Alumina.

Further out of Gladstone along Port Curtis Way, the principal cycle network connects to Yarwun and continues along to Fisherman's Landing, which is the launching point for Curtis Island. There is currently demand to cater for cyclists heading to Yarwun, with employers already providing end of trip facilities. A safer connection to Yarwun is a priority and is likely to attract more cyclists to the route.

The principal cycle network outside of Gladstone includes the Dawson Highway, Calliope River Road and Gladstone-Benaraby Road corridors. These routes are intended to provide inter-regional connections between Gladstone, Calliope, and Boyne Island/Tannum Sands. Currently there are safety issues with the link connecting Gladstone and Calliope, particularly crossing the Bruce Highway, however it is expected that this will improve with future upgrades to the Bruce Highway heading in to Calliope.

The inter-regional routes are primarily included for sport and recreation, although there may be some commuter trips to the Boyne Island smelter between Gladstone and Boyne Island/Tannum Sands, and Benaraby and Boyne Island/Tannum Sands. As the Gladstone-Benaraby Road is a constrained corridor, an alternative route to Boyne Island could be investigated. Additionally providing for cyclists along the Bruce Highway through the Benaraby township will need to be planned appropriately, with off-road alternatives investigated, particularly connecting Benaraby to the future development Riverstone Rise.

Map 2 - Calliope

The network in Calliope is mostly identified as future principal routes to

service the anticipated growth. Future routes are identified on both the eastern and western sides of the Dawson Highway and will be determined when the road layout for new development is formed. Ensuring safe crossings over the Dawson Highway is a priority, as Calliope's only school is located on the eastern side of the highway and a significant proportion of residents live on the western/north-western side. The school can be accessed via the Dawson Highway underpass. The highway is identified as a principal cycle route and approaches on both sides of the highway (directly to the primary school and to the underpass) should be investigated.

Yarwun is an important industrial hub, so a connection from Calliope is identified along Stowe Road-Schilling Lane (Old Bruce Highway) to meet with the Bruce Highway at River Ranch. The network was initially envisaged along the Bruce Highway to River Ranch, but the alternative along the Old Bruce Highway was deemed more suitable. Calliope River Road is likely to be identified as a route for transporting dangerous goods and other major industrial materials between the Gladstone State Development Area and the Bruce Highway. Any upgrades to this road should consider the potential conflict with cyclists, with facilities designed accordingly.

Map 3 - Boyne Island/Tannum Sands

The key principal cycle route into the Boyne Island/Tannum Sands area is along Boyne Island Road, connecting to Gladstone-Benaraby Road. Many sections of Boyne Island Road have non-compliant shoulders for cyclists. This, combined with the 80km/hr speed limit and high traffic volumes, provides a challenging environment for cyclists. The principal cycle network includes the 'Turtleway Bikeway' which follows along the Boyne River foreshore to link schools, shopping centres and community facilities.

The residential areas within Tannum Sands and Boyne Island are linked by a number of cycle networks. A PDA declared on the southern edge of Tannum Sands will be home to more than 3000 residents in the coming years. To service this growing residential area, principal cycle routes are proposed along Coronation Drive to the north of the site providing direct connections to Tannum Sands State School and Tannum Sands Activity Centre. A route is also proposed along Dahl Road on the southern boundary linking residents to Tannum Sands Road and Tannum Sands Activity Centre.

An additional river crossing is planned at Boyne Island, which will link Pioneer Drive on the northern side of the river with Tannum Sands Road

Gladstone Regional Council analysis of routes

on the southern side. The intended river crossing is shown as a future principal route along Pioneer Drive and along Tannum Sands Sewerage Treatment Plant Road.

Routes for future consideration

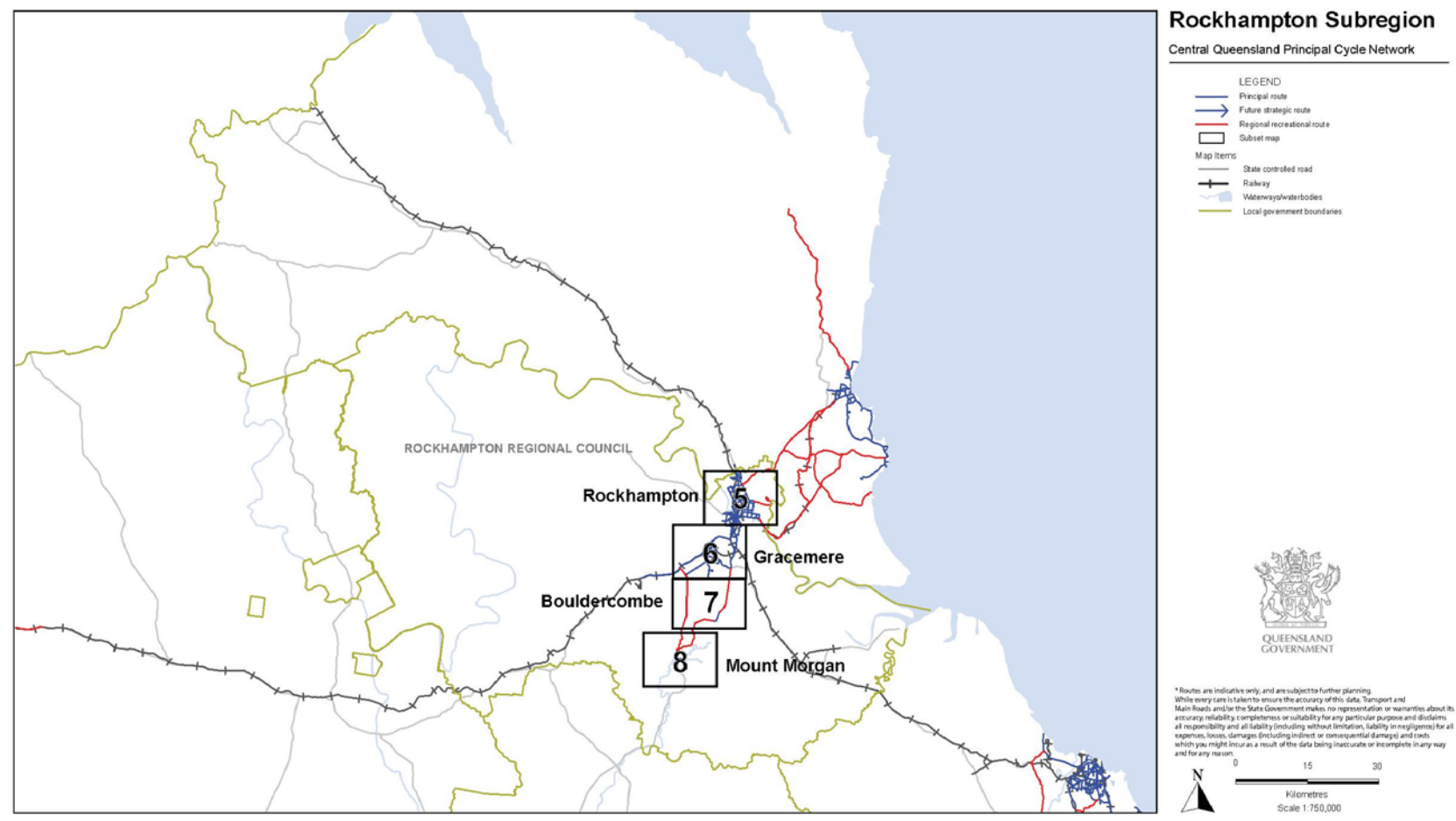
The following routes will be considered for inclusion on the principal cycle network plan at the five year review period:

- Extension of the principal route along Tannum Sands Road, from The Sands Boulevard to the Bruce Highway.
- Connection north along the Bruce Highway from Tannum Sands Road intersection to the Benaraby Township.
- Connection from the Gladstone rail line south-west to Mount Stowe Road utilising the power easement corridor.
- A principal route from Bunting Park to Morcom Street following Lexip Creek.

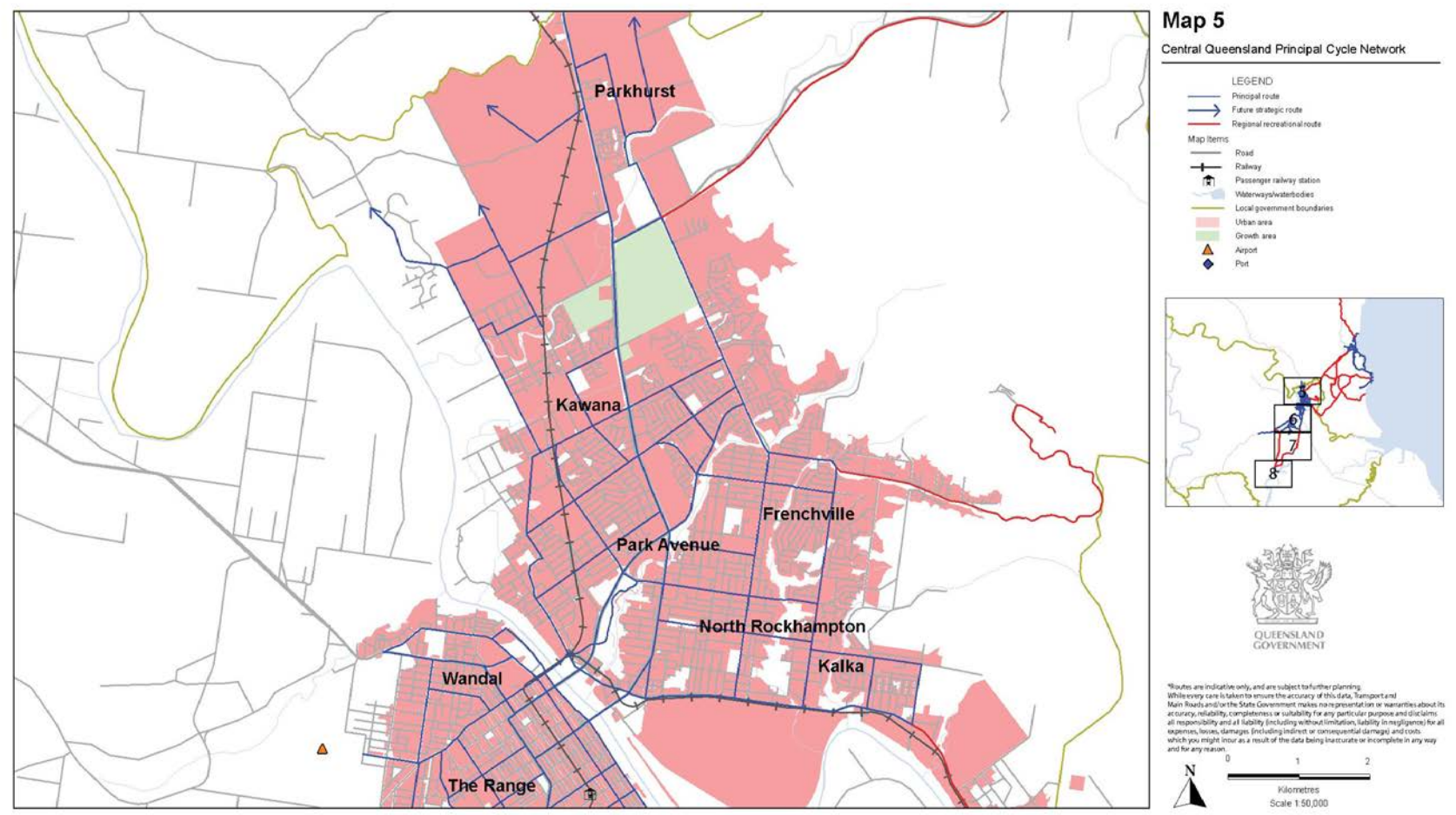
Map 4 - Agnes Water

The principal cycle network for Agnes Water reflects the cycling network in Council's planning scheme. It focuses on connecting residents in Agnes Water to common destinations, as well as providing a link from town to Seventeen Seventy.

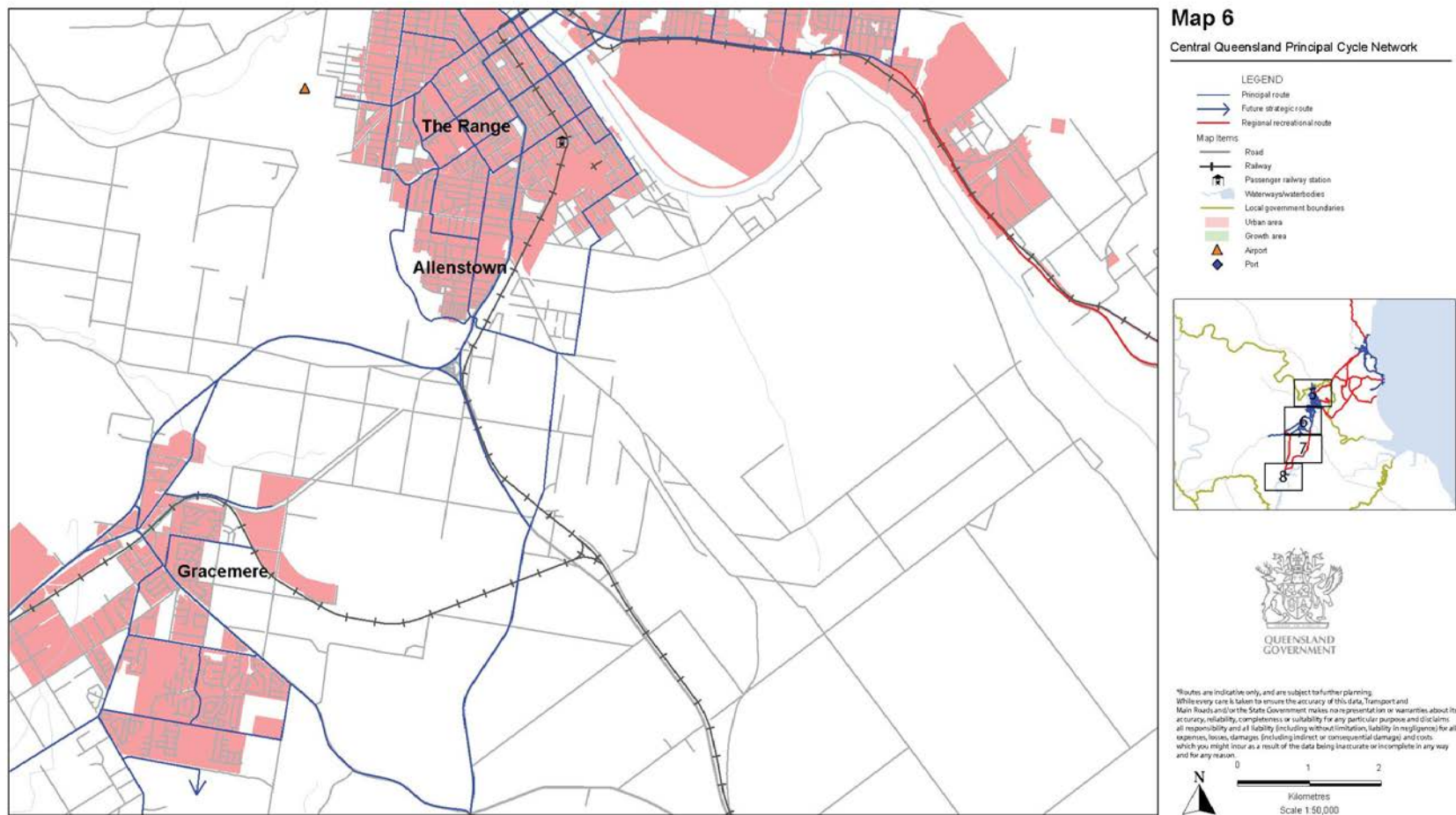
Rockhampton Regional Council network maps



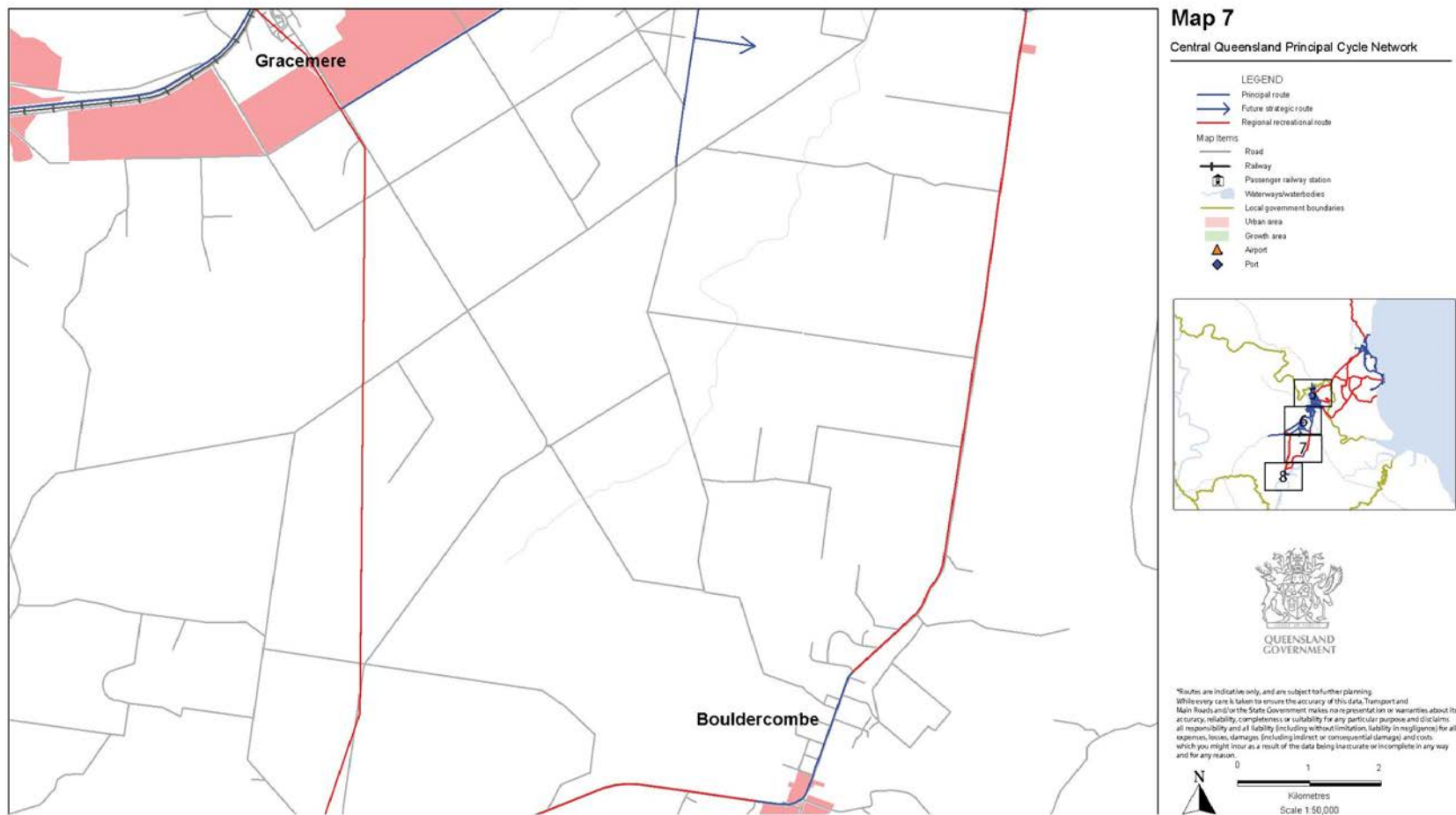
Rockhampton Regional Council network maps



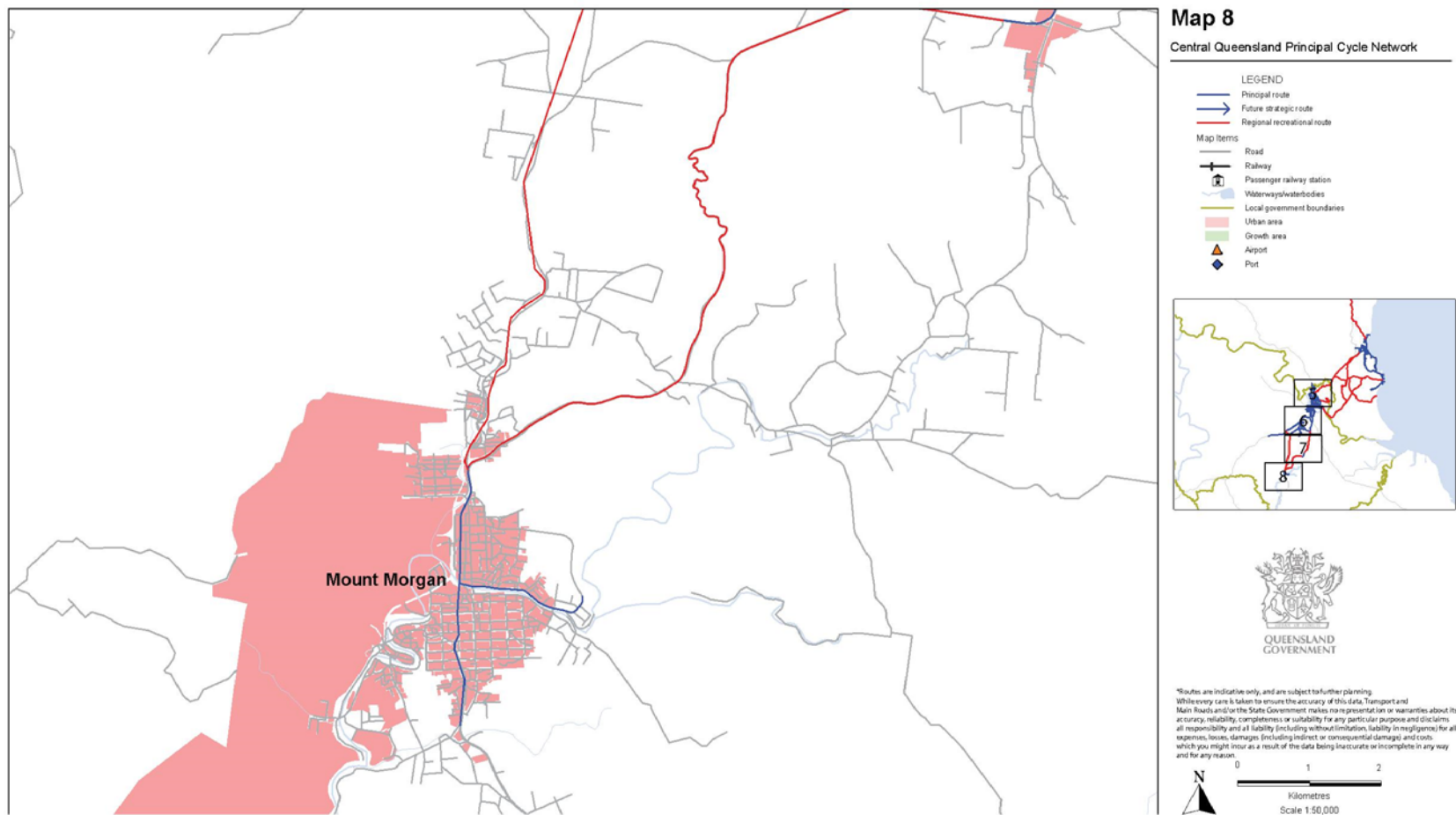
Rockhampton Regional Council network maps



Rockhampton Regional Council network maps



Rockhampton Regional Council network maps



Rockhampton Regional Council analysis of routes

Map 5 - Rockhampton

South of the Fitzroy River

Rockhampton's urban form is separated by the Fitzroy River, creating a divide between the old centre of town south of the river and new residential and commercial development to the north of the river. The existing bridges (Neville Hewitt Bridge and Fitzroy Bridge) have some off-road pathways, but these are narrow and/or shared facilities. Principal routes are identified on the existing crossings. Any future river crossings in Rockhampton should consider facilities for cyclists to ensure maximum permeability across town.

In the old town centre, the traditional street layout enabled the cycle network to be applied in a uniform grid with a fairly consistent mesh-width. South of the Fitzroy River, four major north-east spines through the CBD have been identified including, North Street, the Bruce Highway, Fitzroy Street and Derby Street. North Street, the Bruce Highway and Fitzroy Street connect to the existing bridge crossings enabling connection between the suburbs in south Rockhampton to destinations on the northern side of the Fitzroy River.

At present the Fitzroy Street corridor is a busy corridor that will likely be difficult to provide adequately for cyclists. When the opportunity arises for delivery of a principal cycle route on Fitzroy Street, the alternative parallel corridors of Archer Street and Denham Street should be investigated. Rockhampton Regional Council has identified these parallel corridors as more appropriate corridors to cater for cyclists in the future.

Including the Bruce Highway, the other important corridors perpendicular to the north-east corridors are Bolsover Street and Quay Street, as well as Canning Street and Agnes Street. Denison Street was originally considered as a principal cycle route through the CBD, however given the active rail within this corridor it is currently not conducive to cycling. This route should be reviewed in the future, particularly if the rail becomes inactive as it would provide a good connection to the existing rail bridge crossing. Bolsover Street was identified as a more appropriate route, it provides connection through to Lions Creek Road and the existing pathways within the Victoria Park area.

Stakeholders suggested the lane ways through Rockhampton's older CBD be used as cycling routes, given they are quieter and lower speed environments. While using lane ways raises some concerns regarding crossing points and local delivery vehicles, lane ways should be investigated

wherever they run parallel to the identified principal route (e.g. where the Bruce Highway enters the CBD). Parallel lane ways could be an alternative to the Bruce Highway on the principal cycle network.

The hilly topography was a constraint around The Range and in connecting to the hospital. An existing route from the southern section of Ann Street linking through the Botanic Gardens following the Yeppen Yeppen Lagoon has been included as a principal cycle route. This route provides for commuter cyclists and recreational cyclists in south Rockhampton connecting to schools and the Hospital in The Range.

North of the Fitzroy River

Towards the north side of the Fitzroy River, the network was applied in a grid in two separate sections on the north and south sides of Moores Creek. Despite some constraints such as the railway and creek crossings, the cycle network within both of these sections is mostly uniform and evenly spaced.

Future development is planned along Rockhampton's northern corridor, on the eastern and western sides of the Bruce Highway. This new development will be serviced by future principal routes along William Palfre Road and north off McMillan Avenue.

The Central Queensland University site has been declared a Priority Development Area, so a number of principal routes, including Norman Road and the Bruce Highway, have been included on the principal cycle network to cater for the future development.

Training and Recreation Routes

TMR recognise that there are a number of training and sporting loops and routes throughout the Rockhampton Regional Council area. The routes were initially considered for inclusion on the plan, but were removed due to their primary training/sporting function. A number of recreation routes were retained such as the Rockhampton to Yeppoon Rail Trail given its future potential attraction as a tourist route.

The training routes not included on the plan have been noted and will be kept on record by Transport and Main Roads regional operations staff to provide further information on where cyclists are riding throughout the region. Known training routes that were considered for inclusion include the route through Alton Downs using Canoona Road, Ridgeland Road, Nicholson Road and Fairy Bower Road, and a route along Port Curtis Road, Roope Road and Gracemere-Gavial Road.

A recreation route is identified along the Burnett Highway to connect Rockhampton to Mount Morgan, providing a longer sporting/training route for cyclists.

Consideration was given to a principal route along the Bruce Highway to the north connecting to The Caves. This route has not been included in the current plan due to the high volume of heavy vehicles on the Bruce Highway. Re-evaluation of the appropriateness of a route along the Bruce Highway will be undertaken during future reviews of the network.

A recreation route between Rockhampton and Gladstone, along the Bruce Highway, was investigated but was not included due to a perceived lack of demand for the connection. Some sections of the Bruce Highway between Rockhampton and Gladstone already have shoulders wide enough for cyclists to ride on road.

The recreation route between Rockhampton and Gladstone was investigated as a recreation route continuing beyond Gladstone to Miriam Vale along the Bruce Highway, then east to Agnes Water. The route to Miriam Vale was not included due to a lack of identified demand, however it could be a tourism route in the future if driven by the local government or an agency like Tourism Queensland.

Map 6 and 7 - Gracemere and Bouldercombe

Gracemere generates substantial commuter traffic into Rockhampton, resulting in increasing congestion and travel times along the Capricorn Highway and into Rockhampton's CBD. For this reason, a principal route is envisaged along the Capricorn Highway between Rockhampton and Gracemere. A principal route is also identified along the Capricorn Highway to the Stanwell Power Station, recognising its status as an important employment attractor.

Gracemere's urban footprint is predominantly situated on the southern side of the Capricorn Highway, with future residential development likely to remain within this footprint. This means that crossing the Capricorn Highway is not a significant issue in Gracemere. The principal cycle network in Gracemere consists of a main spine along Gavial-Gracemere Road with a number of connectors, such as Johnson Road-Ranger Street, servicing the Waraburra Primary School and local shops.

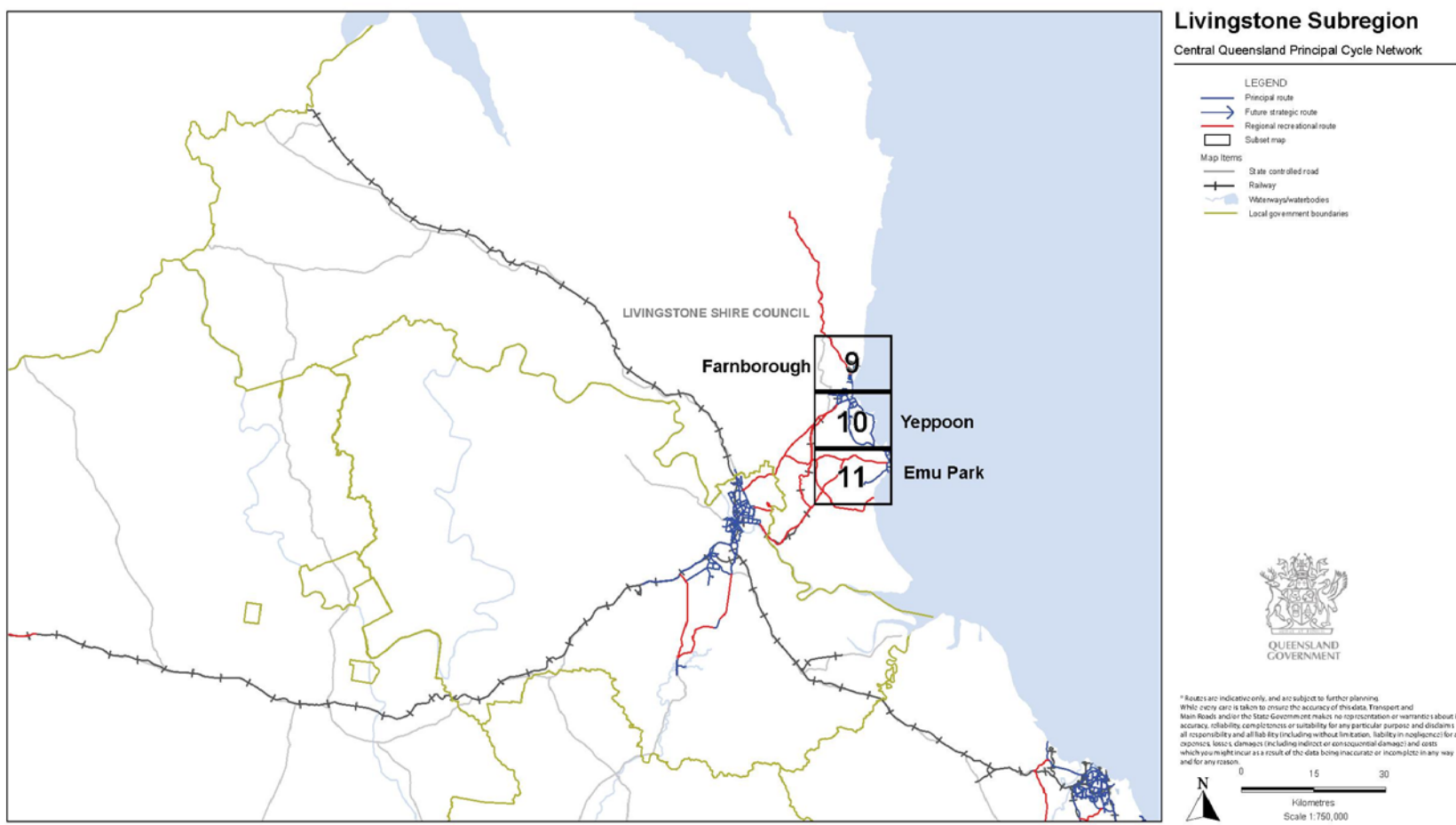
Future principal routes are identified east of Cherryfield Road and along Johnson Road to cater for future residential development.

Map 8 - Mount Morgan

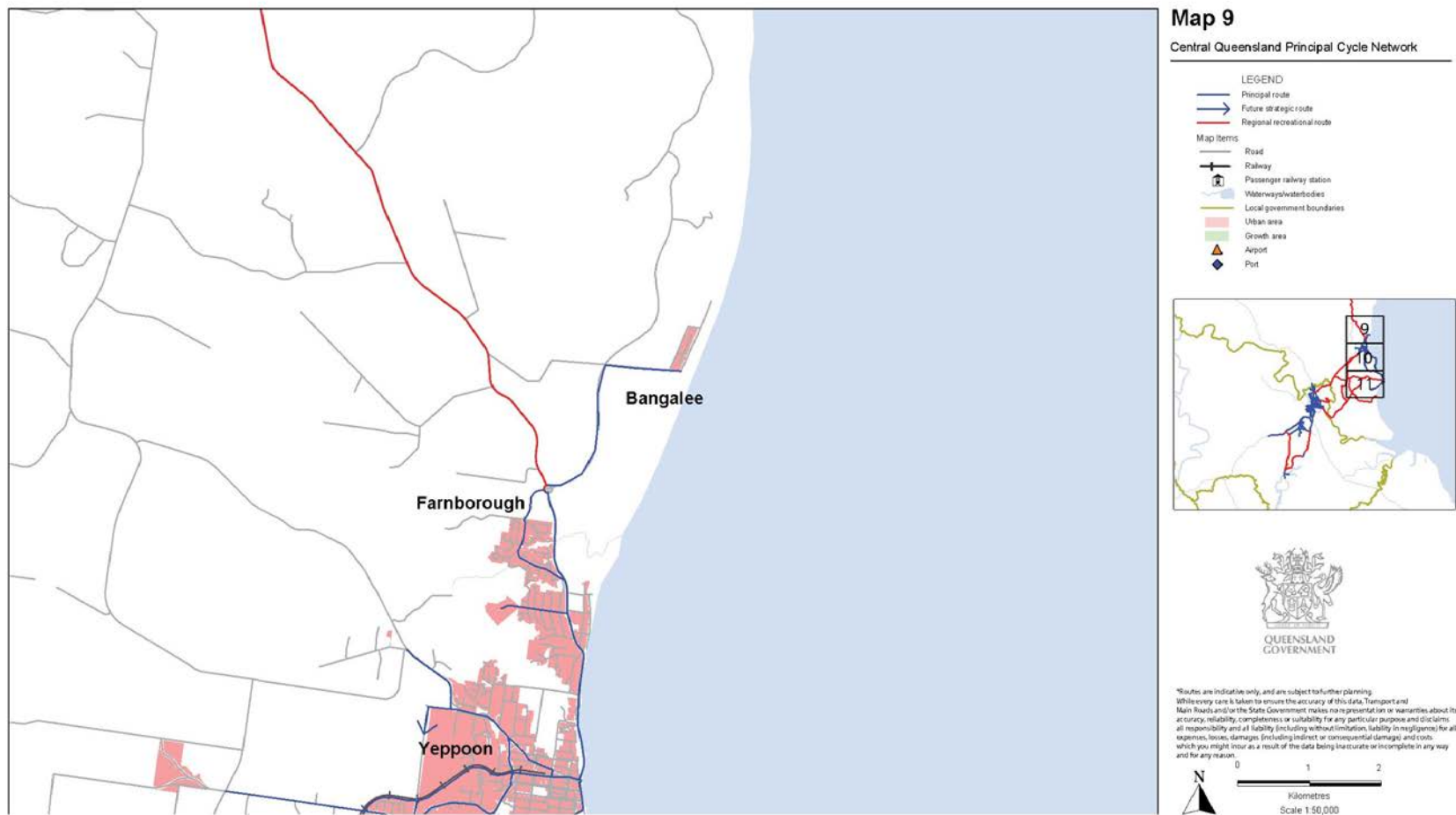
The principal cycle network in Mount Morgan consists mostly of recreation routes connecting to Rockhampton along the Burnett Highway. A rail trail is also identified, connecting Mount Morgan with Gracemere.

The Burnett Highway is identified as a main cycling spine through town to its southern outskirts. The route along Byrnes Parade is a lower level connector to the Burnett Highway spine and also provides a recreation function to the Dee River.

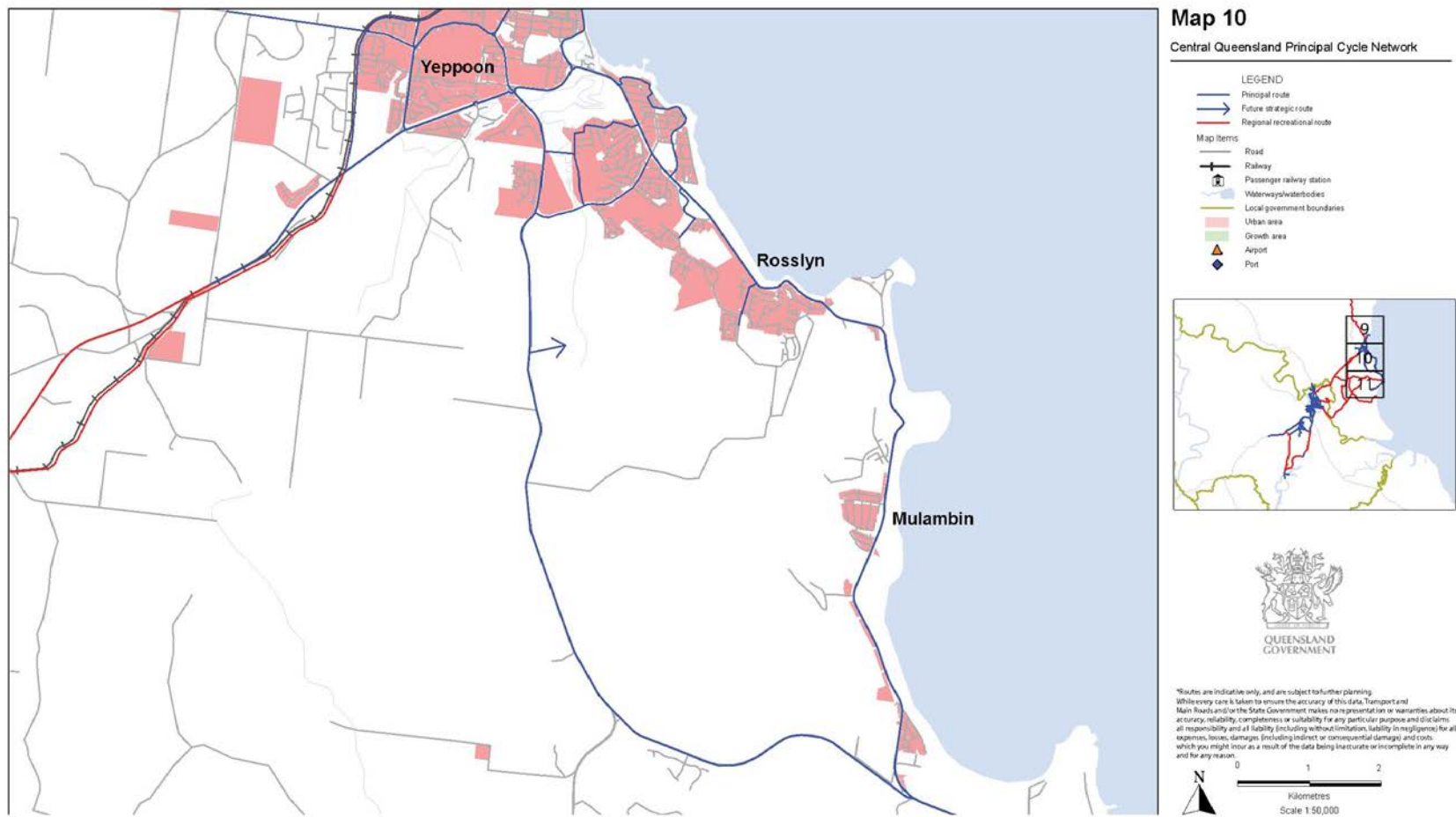
Livingstone Shire Council network maps



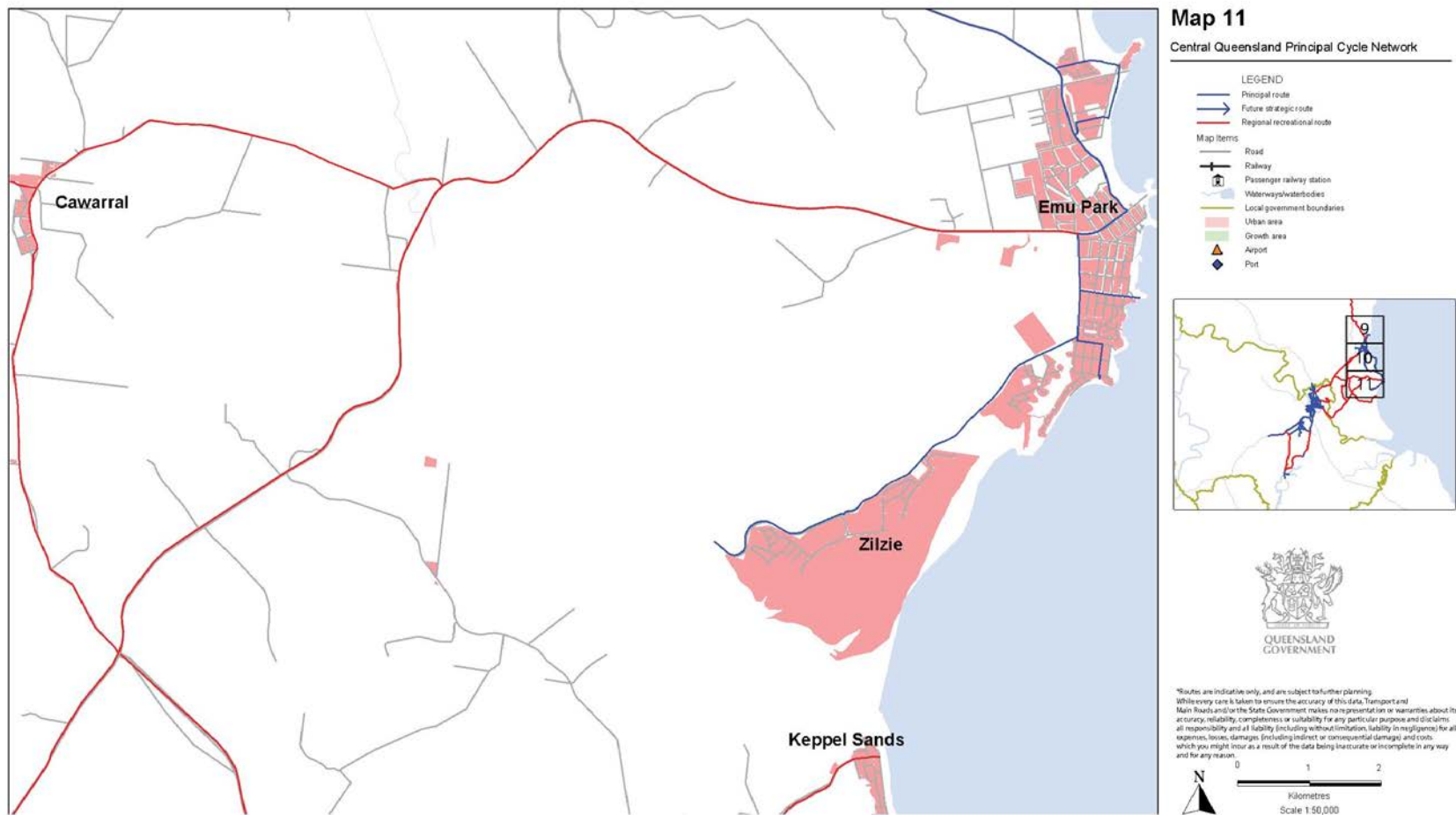
Livingstone Shire Council network maps



Livingstone Shire Council network maps



Livingstone Shire Council network maps



Central Queensland Principal Cycle Network, Transport and Main Roads, 2014

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Livingstone Shire Council analysis of routes

Maps 9, 10 and 11 - Yeppoon, Cawarral, Emu Park, and Keppel Sands

The principal cycle network on the Capricorn Coast focuses on connecting the four centres of Yeppoon, Rosslyn Bay, Emu Park and Zilzie. The Scenic Highway and Tanby Road are both identified as principal routes connecting to the coastal communities. Tanby Road is an alternative to the Scenic Highway and a shorter route for residents travelling from Emu Park and Zilzie to Yeppoon.

Within each centre, the principal cycle network focuses on connecting residential areas with the main destinations of schools, shops and recreation areas. A principal route along Barmaryee Road provides a connection to the Capricorn Coast Regional Sports Complex currently under construction.

A future principal route is identified to the east of Tanby Road, indicating a connection to the southern end of Lammermoor (north of Mulambin). This route is intended to service future development and could also provide an alternative to the Scenic Highway.

The Rockhampton to Yeppoon Rail Trail is a significant recreation route. Construction has already started on some sections, and its completion is a priority as there is significant demand for the trail. It is anticipated that the rail trail will be used by touring and recreation cyclists and to a lesser extent commuters. A principal route has also been identified along Yeppoon Road to provide a more direct route between Rockhampton and Yeppoon.

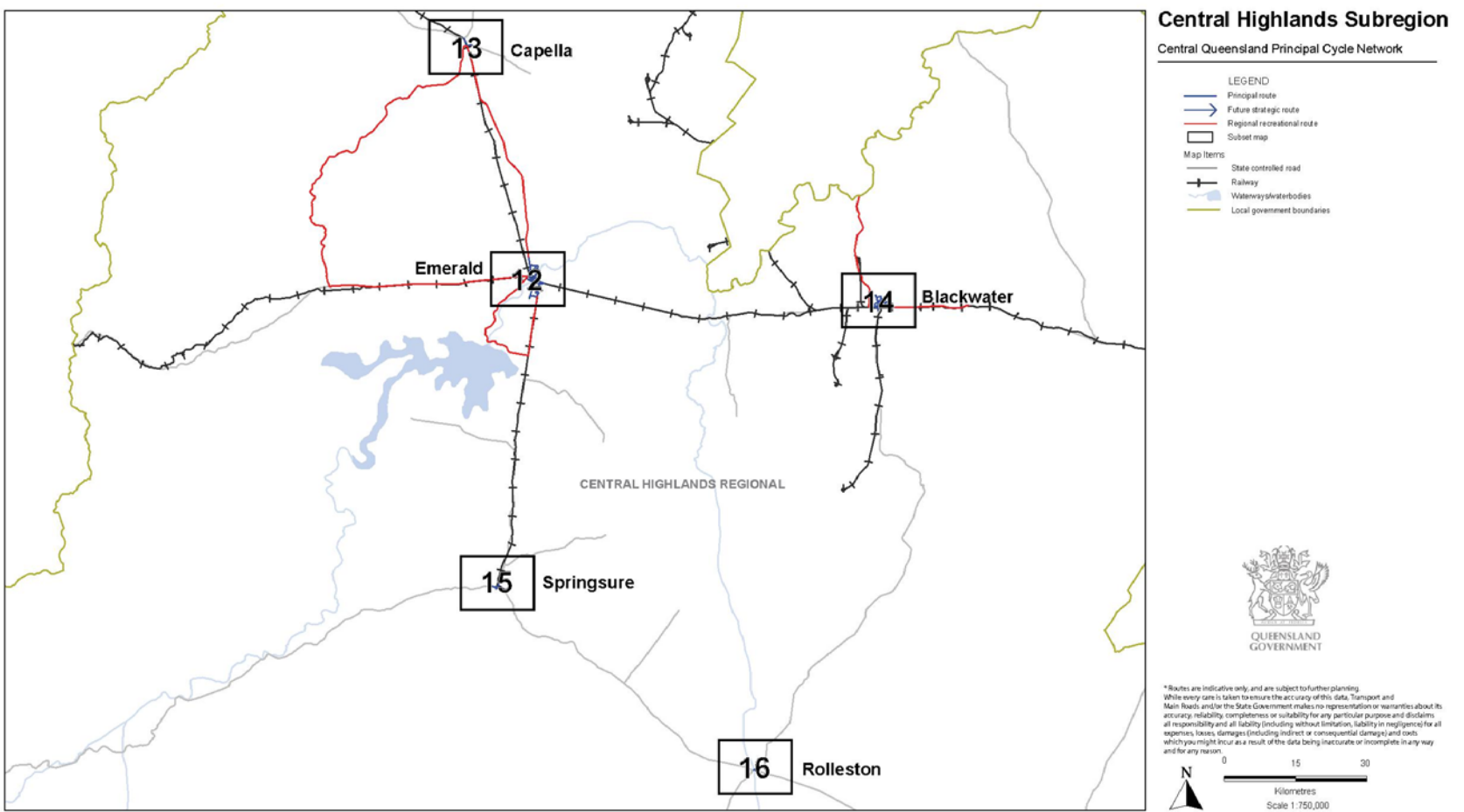
In addition to the recreation routes along Yeppoon Road and the Yeppoon Rail Trail, there is a regional recreation route along Farnborough/Yeppoon-Byfield Road connecting Yeppoon to Byfield State Forest, a popular recreation and camping destination. Recreation routes along Dairy Inn Road and Coorooman Creek Road provide cycling opportunities for residents in Cawarral.

A recreation route is also identified along the Keppel Sands Road corridor from the intersection with Rockhampton-Emu Park Road. Via this route Keppel Sands is provided a connection to Rockhampton and Emu Park.

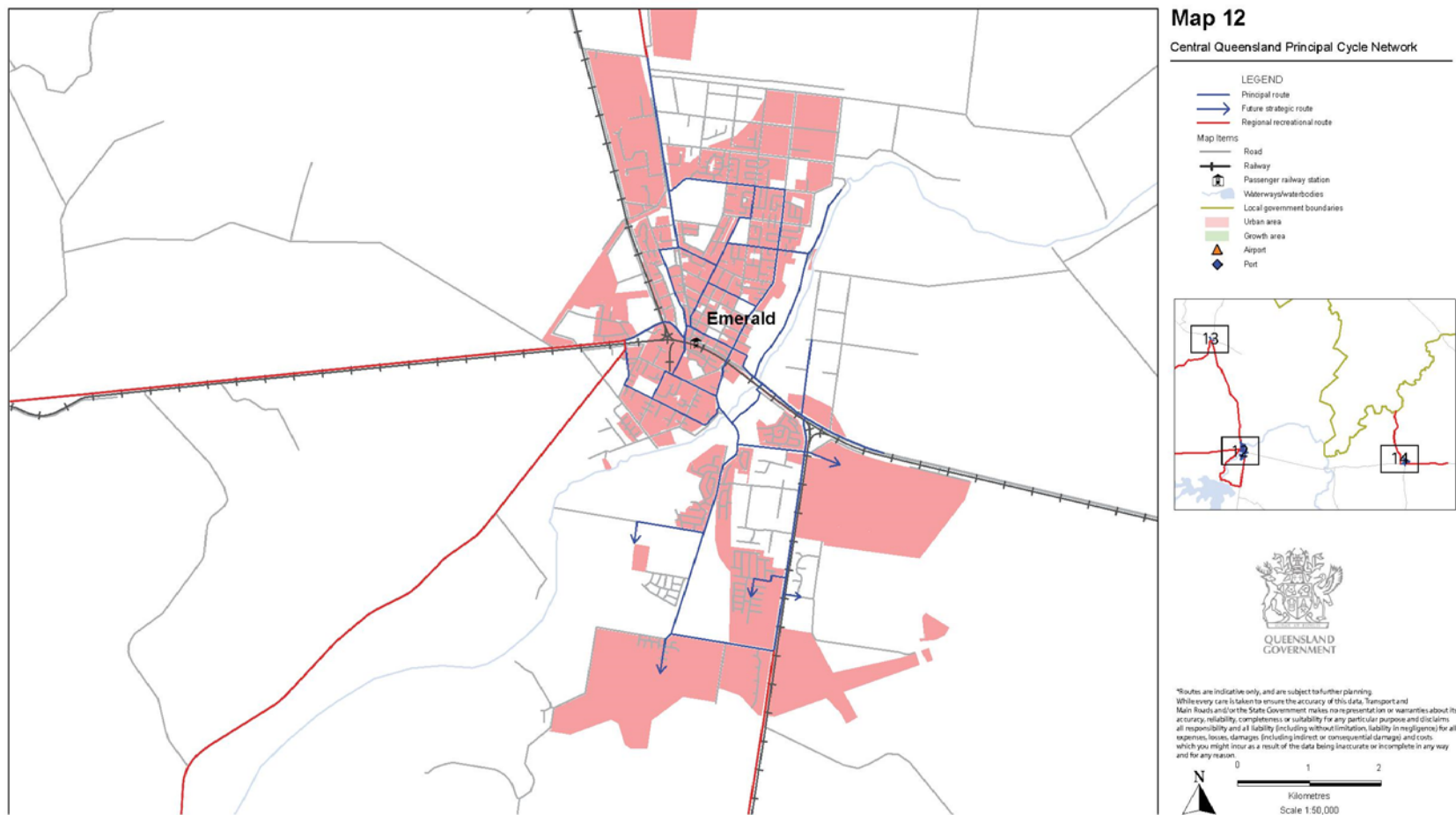
Consideration was given to a route along Neils Road in Yeppoon, however this route was deemed inappropriate for inclusion as Neils Road provides a bypass for heavy vehicles accessing Byfield. Routes closer to the coast have been identified as more conducive to cycling though

Yeppoon. Re-evaluation of the appropriateness of a route along Neils Road will be undertaken during future reviews of the network.

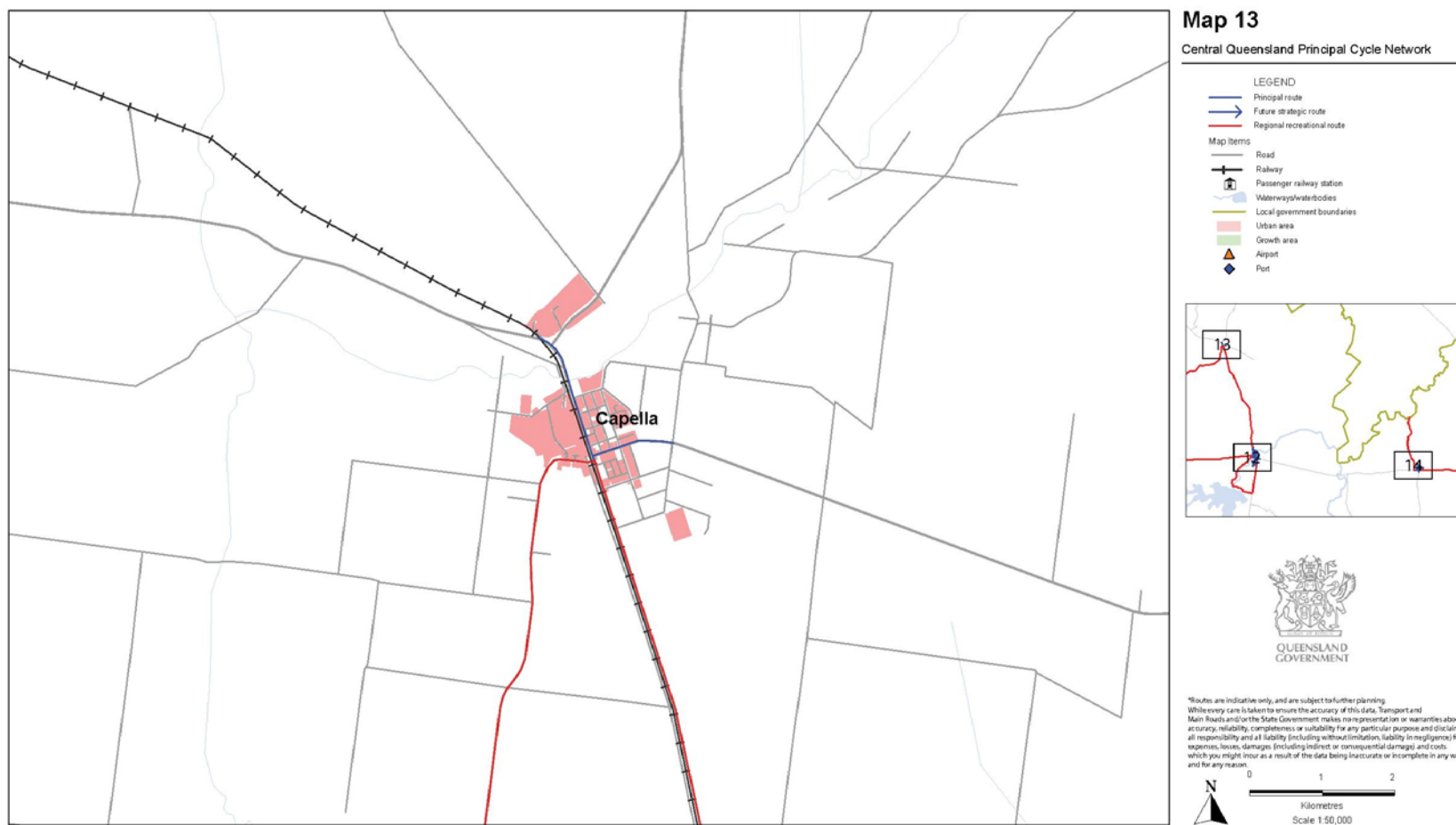
Central Highlands Regional Council network maps



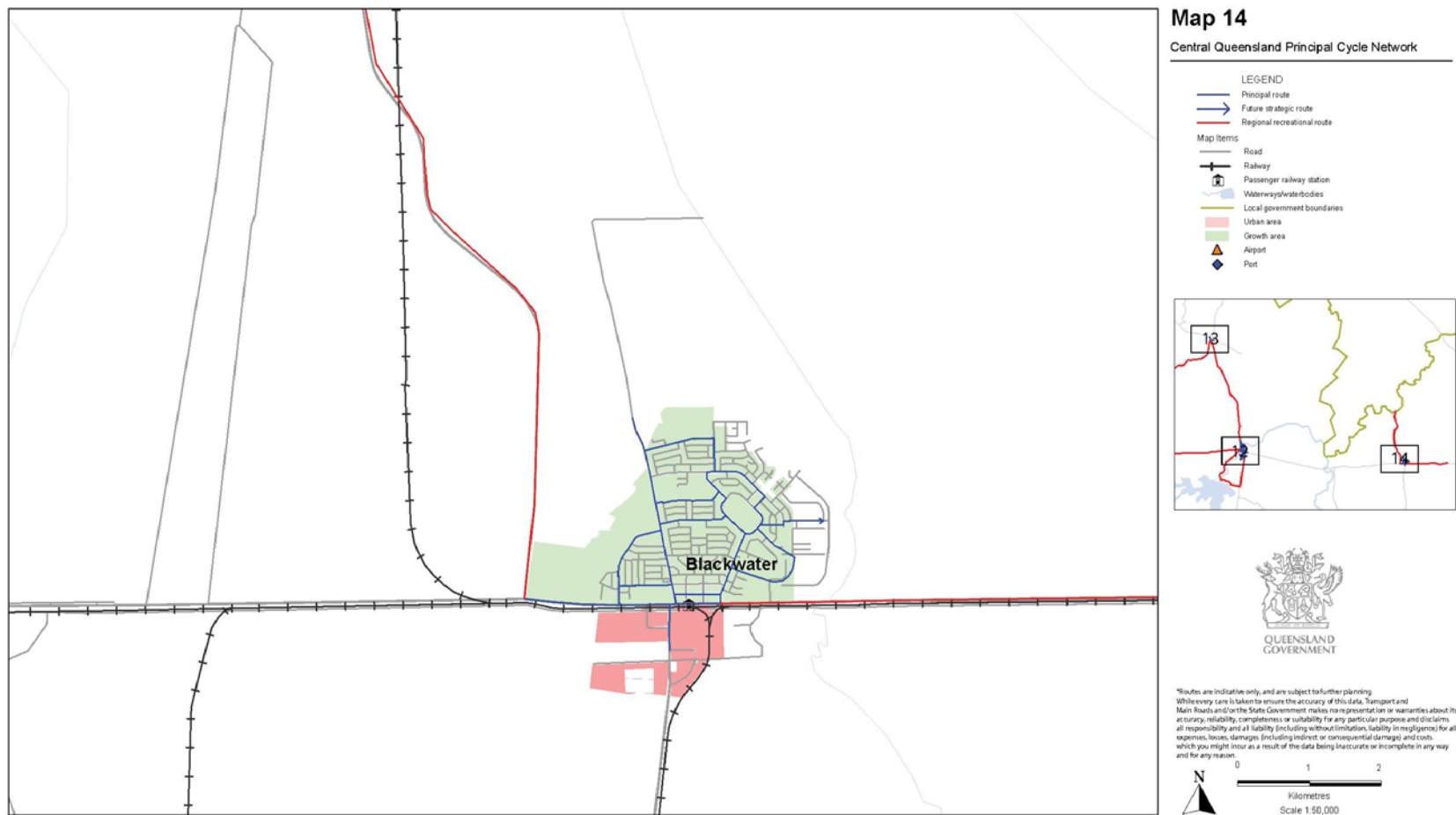
Central Highlands Regional Council network maps



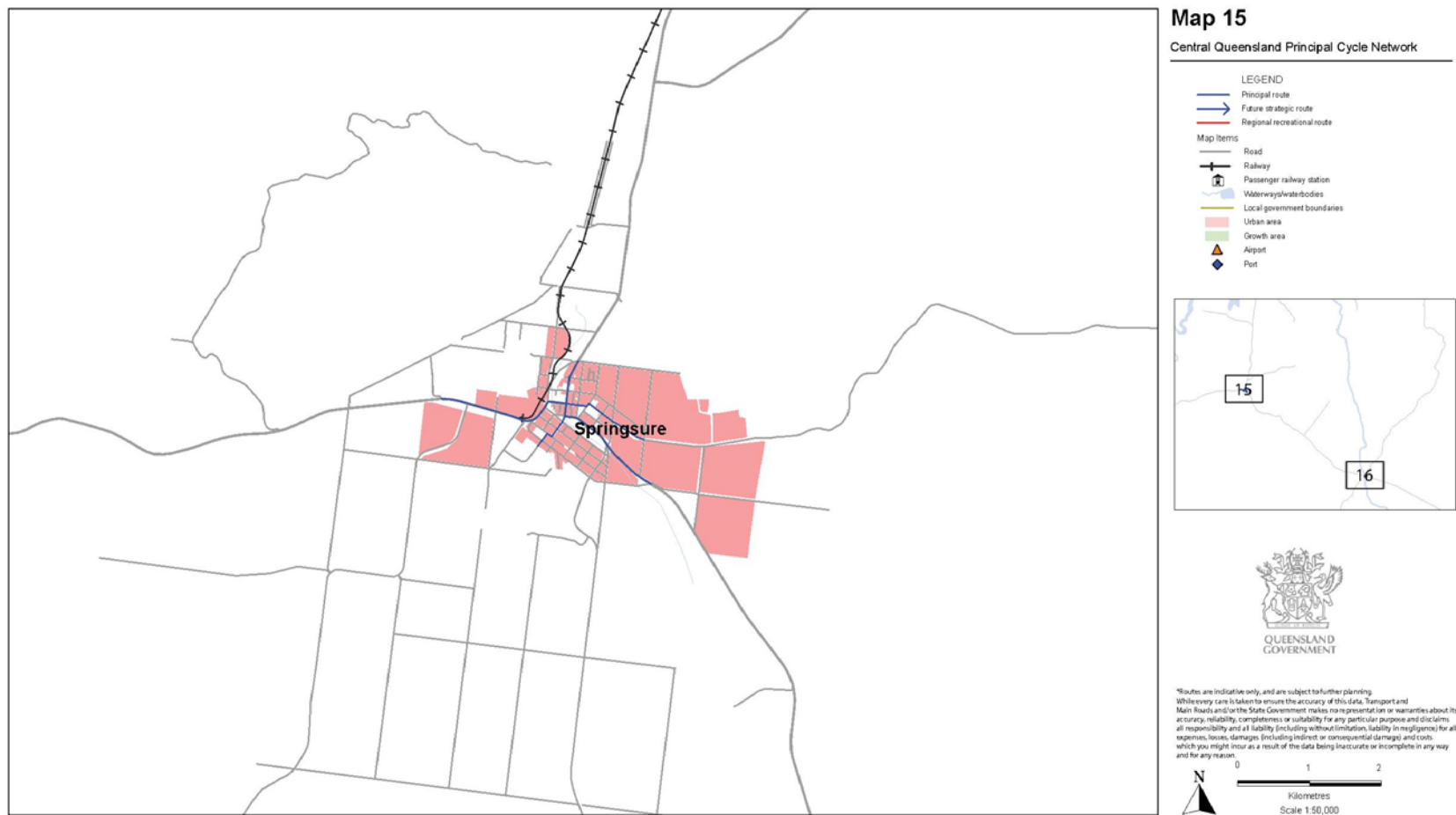
Central Highlands Regional Council network maps



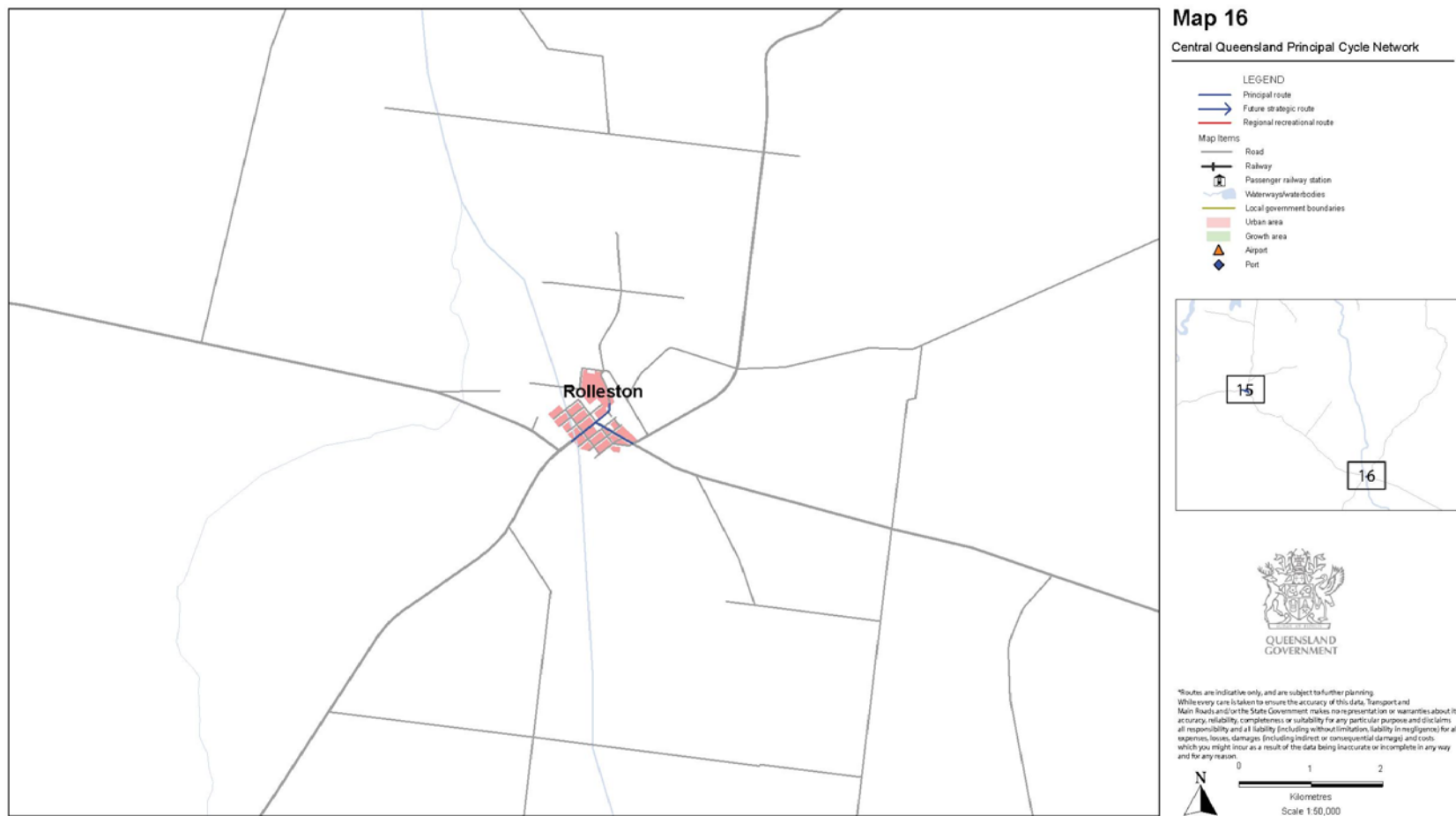
Central Highlands Regional Council network maps



Central Highlands Regional Council network maps



Central Highlands Regional Council network maps



Central Highlands Regional Council analysis of routes

Map 12 - Emerald

Two discrete centres are emerging in Emerald. The traditional heart of Emerald is located north-west of the Nogoa River, while new residential and commercial development is taking place south-east of the river.

The principal cycle network in Emerald focuses on capitalising on the opportunities provided by the open space areas, and connecting the two emerging centres. This connection will rely on safe access across the Capricorn Highway, with principal routes identified along King Street, the underpass connecting Sullivan Street with the Capricorn Highway, Opal Street, and the rail bridge underpass east of the Nogoa River.

Future principal routes along Mayfair Drive, Edgewood Drive, Pressler Road and Rifle Range Road will provide for future development and cater to Marist College, Emerald Christian College, Harvey Norman shopping centre and an industrial estate.

A principal route planned along the Capricorn Highway will service the TAFE and university campuses, located about 3km east of the town centre. The principal route continues along the Capricorn Highway into Emerald until Opal Street where it is diverted along Egerton Street (between Opal Street and the Gregory Highway). Egerton Street provides an alternative to the Capricorn Highway through town.

Two regional recreation loops are identified on the principal cycle network around Emerald. A recreation route is highlighted along Selma Road, looping past Lake Maraboon and back along the Gregory Highway. The second loop links Emerald with Capella to the north along Gregory Highway and heads south-west along Rubyvale-Capella Road to the gemfields (a popular tourist destination).

Map 13 - Capella

Capella will experience moderate growth in the future as a result of the mining activity in the area. The principal route along Yan Yan Road aims to service existing residential areas and future residential development between Yan Yan Road and Bakers Crossing Road to the east. The principal cycle route continues along Gregory Highway to the industrial area north of the town centre.

Map 14 - Blackwater

Blackwater has been declared a Priority Development Area (PDA) in response to housing pressures resulting from recent growth in the resource

sector. The principal cycle network includes a number of the cycling routes identified in the PDA Development Scheme for Blackwater, as well as other connections to enhance the permeability and accessibility of the network. The principal routes focus on connecting residents with the commercial areas on Blain Street and the Capricorn Highway, and the schools and local attractors around town.

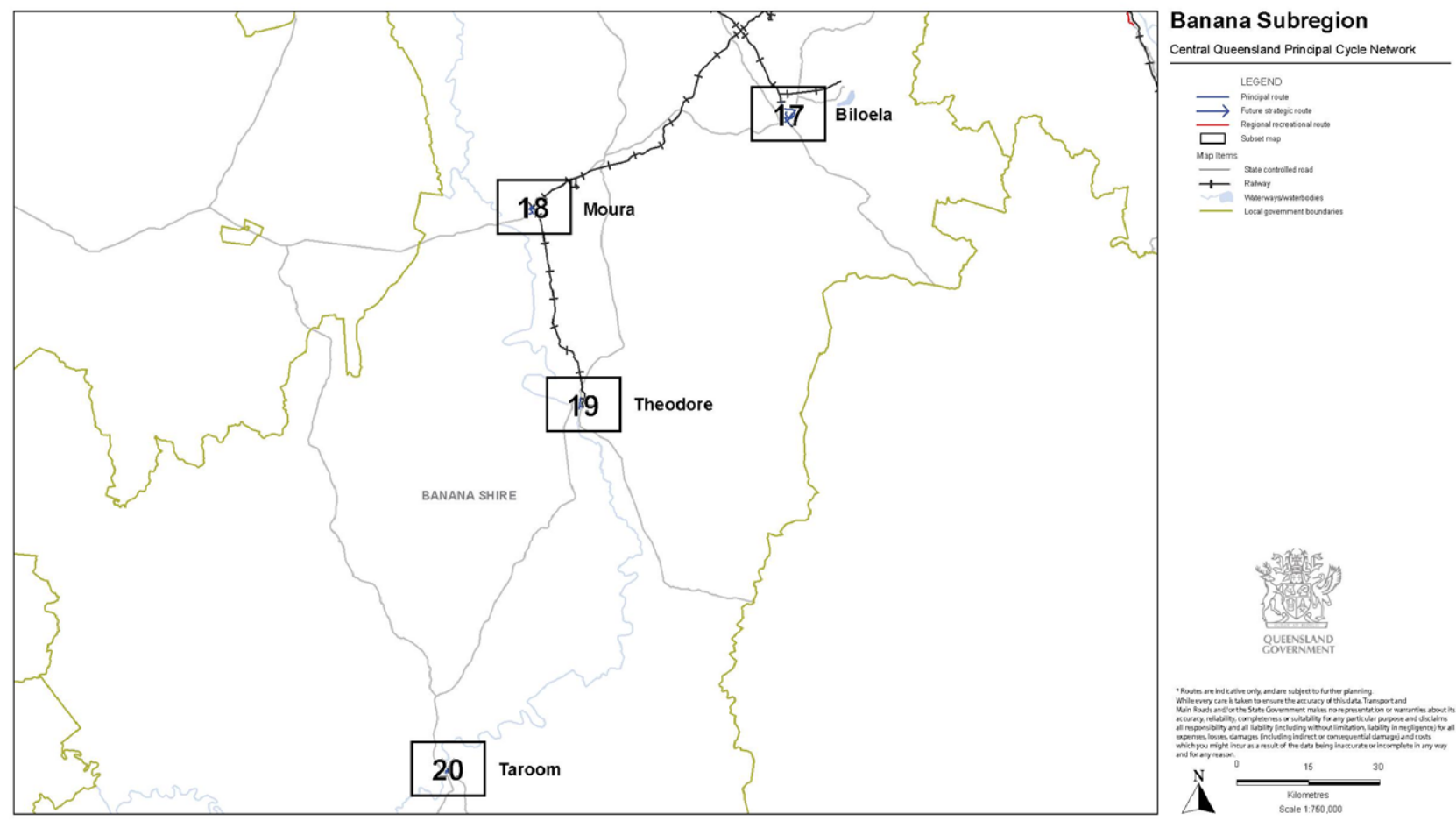
A future principal route along Cordingly Street will service proposed development on the eastern edge of town. A regional recreational route is planned along Blackwater-Cooroora Road (off the Capricorn Highway) connecting to the Bedford Weir, which is a significant recreation destination for Blackwater. A regional recreation route is also identified along the Capricorn Highway to Bluff.

Maps 15 and 16 - Springsure and Rolleston

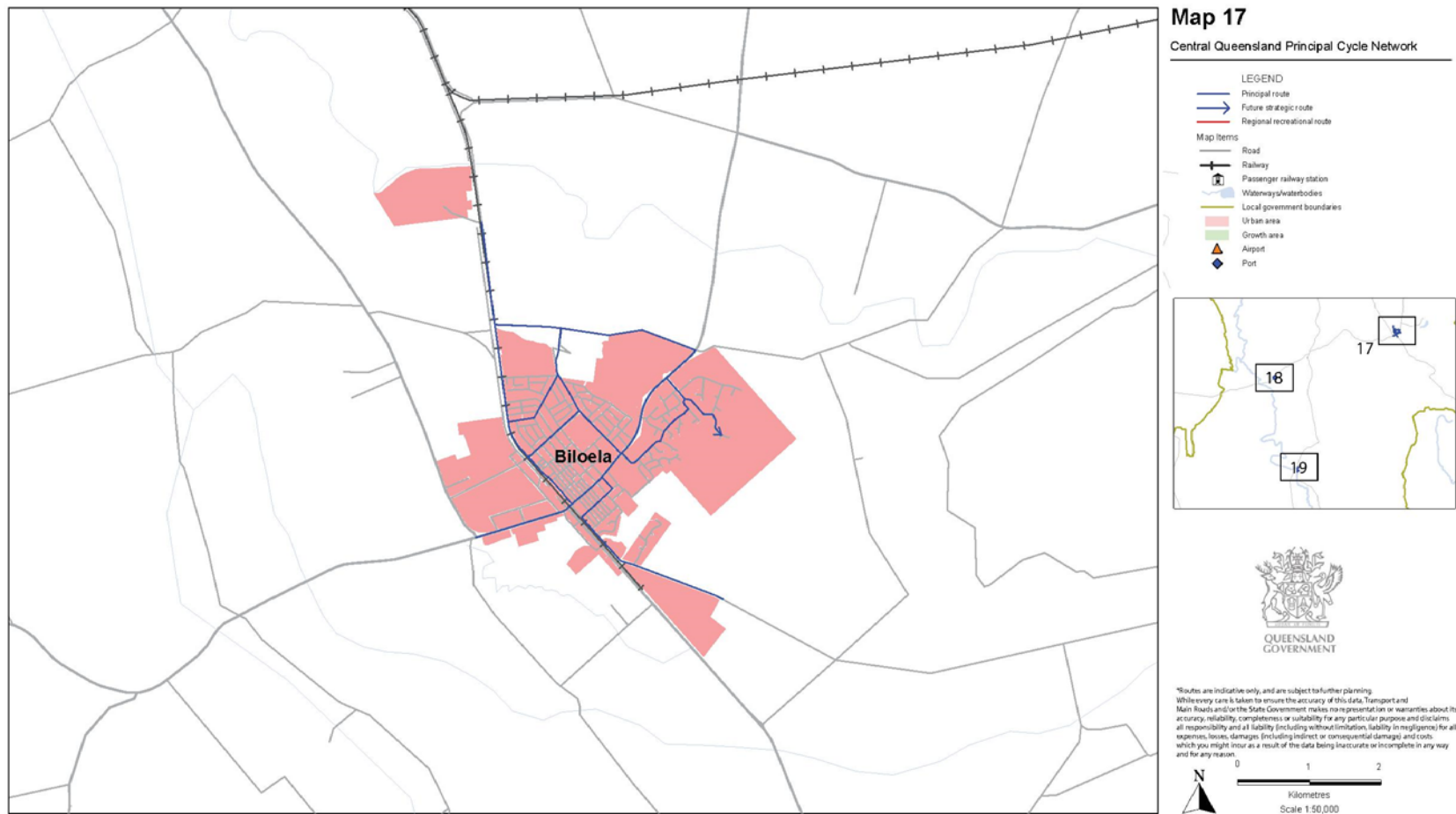
Routes are identified along Charles Street and the Dawson Highway in Springsure to improve cycle access within the town centre. A route along Comet Street provides access to Springsure Hospital while a principal route on Gap Street services residential areas.

The cycle network in Rolleston includes routes along Warrijo Street and the Dawson Highway to facilitate cycle access in the town centre and to Rolleston Airport. Future residential development is expected on the southwest of the township and will be serviced by a principal route on Herzog Street.

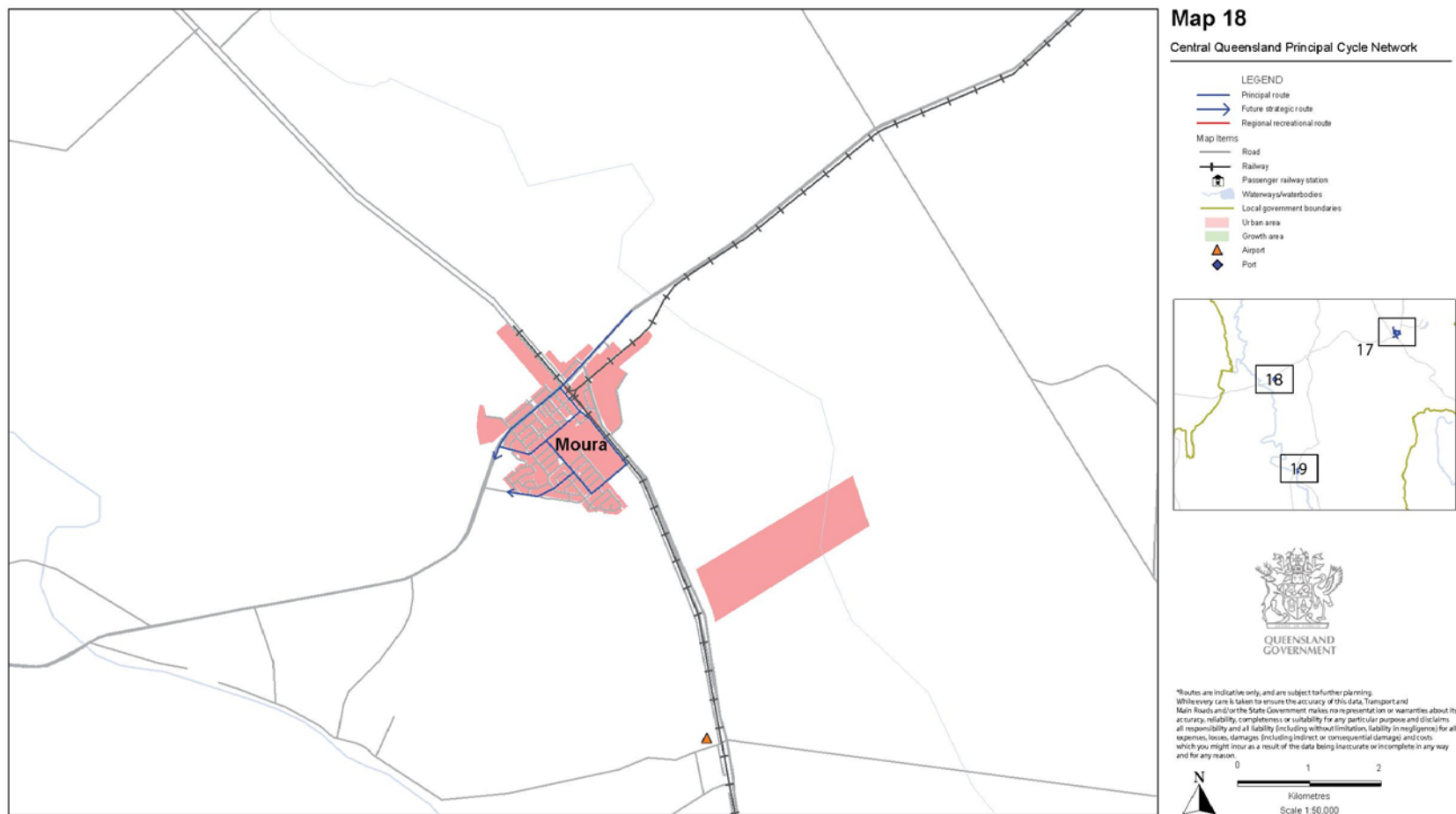
Banana Shire Council network maps



Banana Shire Council network maps



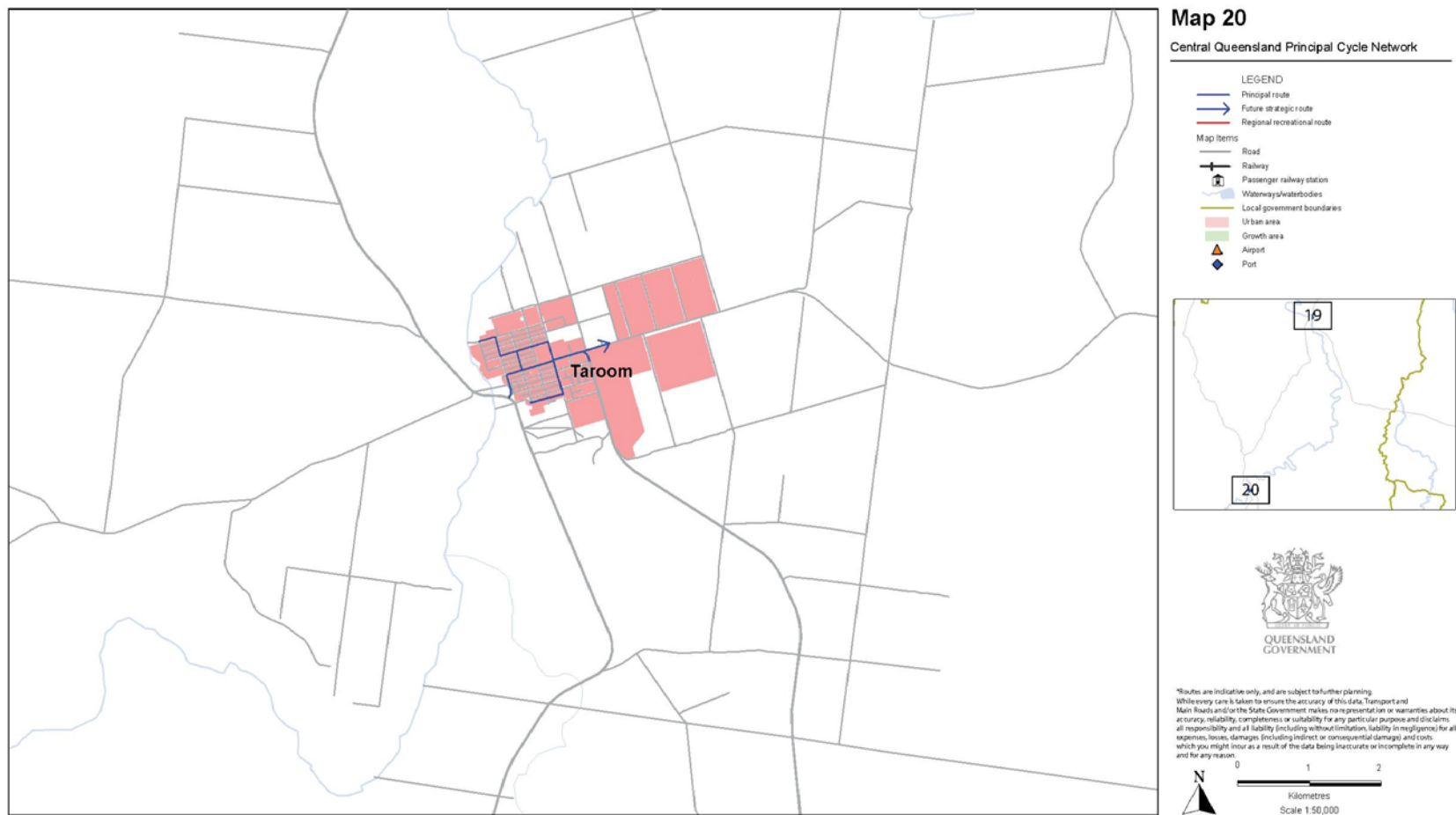
Banana Shire Council network maps



Banana Shire Council network maps



Banana Shire Council network maps



Banana Shire Council analysis of routes

Map 17 - Biloela

As the main population and economic centre of Banana Shire, Biloela contains the key government, administrative, retail, business and community services within the local government area. The principal cycle network envisages routes connecting residential areas across Biloela to the town centre. Principal routes planned along Lawrence and State Farm Road will connect residential areas to the north and south of Gladstone Road.

A number of planned routes, including Lawrence Street, State Farm Road and Washpool Street connect residential areas to the three schools.

Principal routes along Callide Street and Gladstone Road will facilitate cycling to central destinations like Biloela Shopping World. A principal route on Ward Crescent parallel to the Dawson Highway and a future principal route along Valley View Drive will cater for proposed residential development.

Map 18 - Moura

In Moura, the local amenities are concentrated in the centre of town while a number of the major employment centres are located on the outskirts.

Planned routes along Gillespie Street connect Moura primary and high schools to the main residential areas. A planned route on Nott Street will encourage cycling trips to the hospital, show grounds and retirement village.

Future residential development is expected on the southwest of the township and will be serviced by future principal routes identified along Nobbs Street and the Dawson Highway.

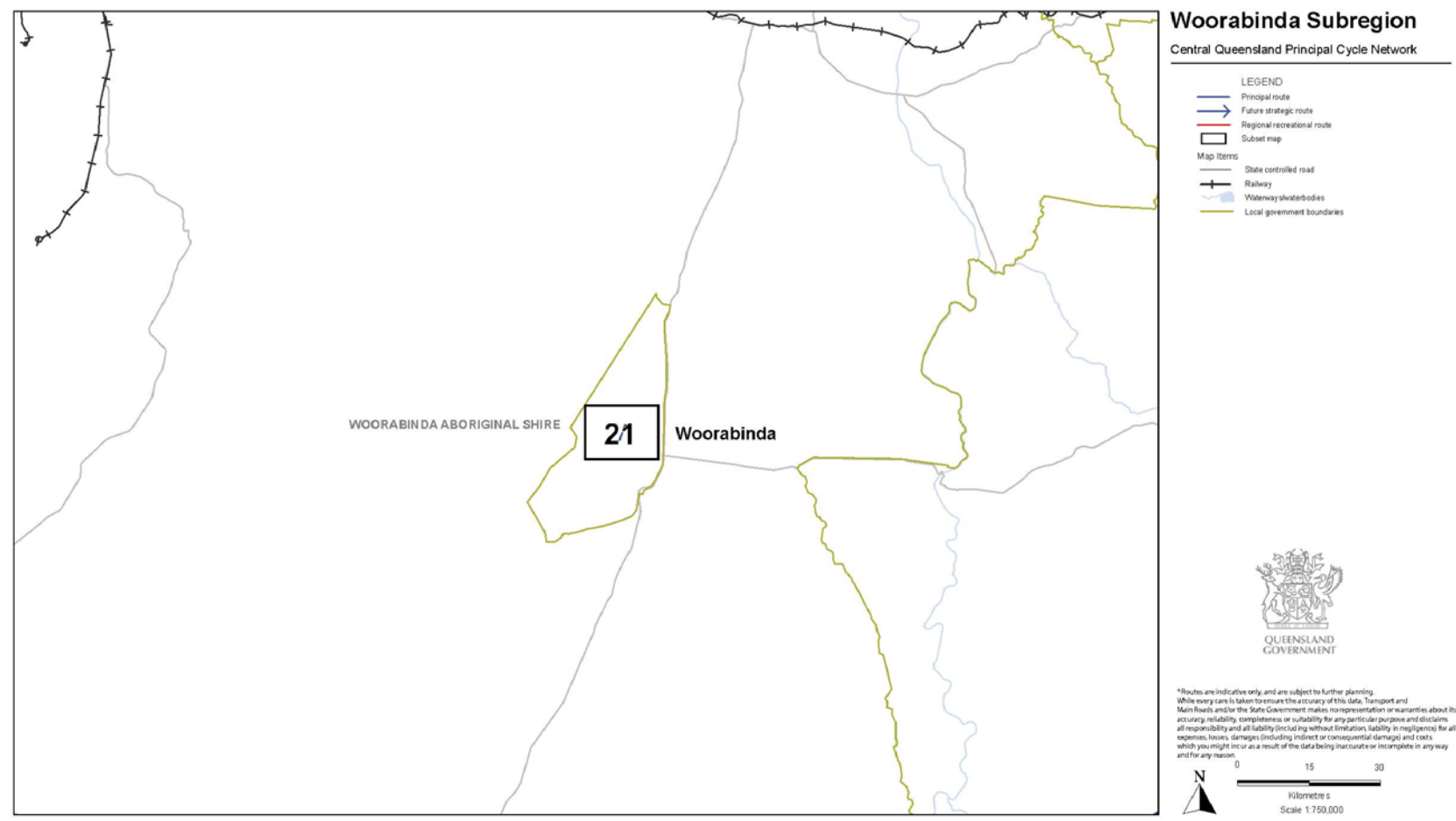
Maps 19 and 20 - Theodore and Taroom

Theodore and Taroom are located on the Leichhardt Highway south of Moura. In Theodore, a cycle route planned along the Boulevard will service most of the town's amenities including the hospital. Theodore has wide streets with little traffic allowing cycling on most residential streets.

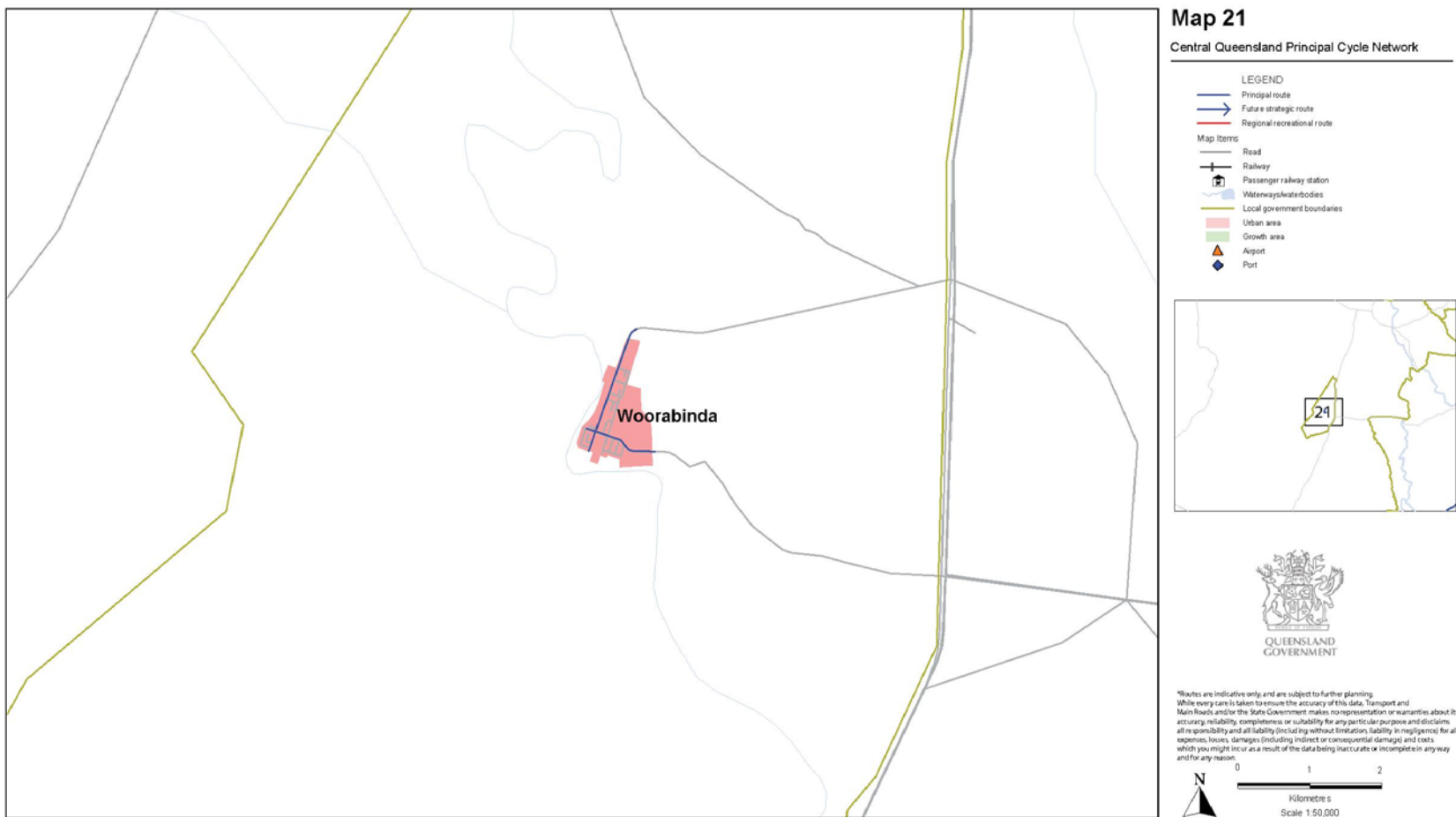
Similarly, the cycle network in Taroom provides for routes along Leichhardt Highway and Roma-Taroom Road to service most residential areas.

A route planned for Miller Street provides access to the hospital and services Taroom primary school. Principal route located along Morgan Ryan Street provides connection to St Mary's Catholic Primary School.

Woorabinda Aboriginal Shire Council network maps



Woorabinda Aboriginal Shire Council network maps



Woorabinda Aboriginal Shire Council analysis of routes

Map 21 - Woorabinda

Future residential development in Woorabinda is planned for the northern part of town, reinforcing the long narrow urban footprint of the township. Woorabinda Shire residents mostly walk to destinations around town; there is also a large number of horse riding trips undertaken in Woorabinda.

For Woorabinda, the important transport corridor through town is Munns Drive. Munns Drive connects the northern residential areas (future and existing) to the destinations on the southern part of town such as the school, hospital and community pool. Providing a route along the extent of Munns Drive will ensure safe connections through town, particularly providing safe connections for students to school. Similarly a connection along Rankin Street has been provided to service east-west trips through town.

A recreation route was suggested for inclusion in Woorabinda. This route would have been used as a recreation loop for occasional active transport events. The loop would have consisted of extensions off Munns Drive north and Rankin Street to the east along the Fitzroy Development Road, connected by a north-south route parallel to the west of Fitzroy Development Road on Woorabinda land. Given the dominant recreation function of this route it was decided it would be reviewed for inclusion at the five year review.

Delivery

6 Timing for delivery

While the PCNP does not determine specific time frames for delivery of the principal network, it is important for it to be developed in a connected and logical manner. A rigorous prioritisation process, in consultation with local governments, will result in a list of priority projects and ensure that the most critical routes are planned and developed first. The timing for delivery of priority projects will depend on funding availability and construction time frames for associated road and transport corridors.

7 Updating the plan

Alterations to the principal cycle network and the delivery of PCNP routes will be tracked throughout the life cycle of the plan. An update form will be sent to all councils and Transport and Main Roads' regional offices seeking details on proposed planning led alterations to the network and routes that have been delivered in the past year. Information requested will include:

- type of change (alteration, removal, addition or delivery)
- description of the route to be altered/that has been delivered
- planning document or construction project which has triggered the change
- description of the change and detailed justification for the change against the PCNP planning principles (including for infrastructure, a description of the facility and adherence to cycling standards for delivered infrastructure)
- maps and photos of the change
- contact person for required additional information.

This information will then be collected by the department, tested against the planning principles and included as input in future reviews of the PCNP.

8 More resources

There are a number of resources and guides covering the development of cycle networks in Queensland, ranging from state-wide target setting to technical specifications for infrastructure.

Practitioners are encouraged to review the following:

- Queensland Cycle Strategy 2011-2021
- Traffic and Road Use Manual
- A Guide to Signing Cycle Networks
- Manual of Uniform Traffic Control Devices
- TMR Cycling Infrastructure Policy
- AUSTRROADS guides
- Queensland Development Code.

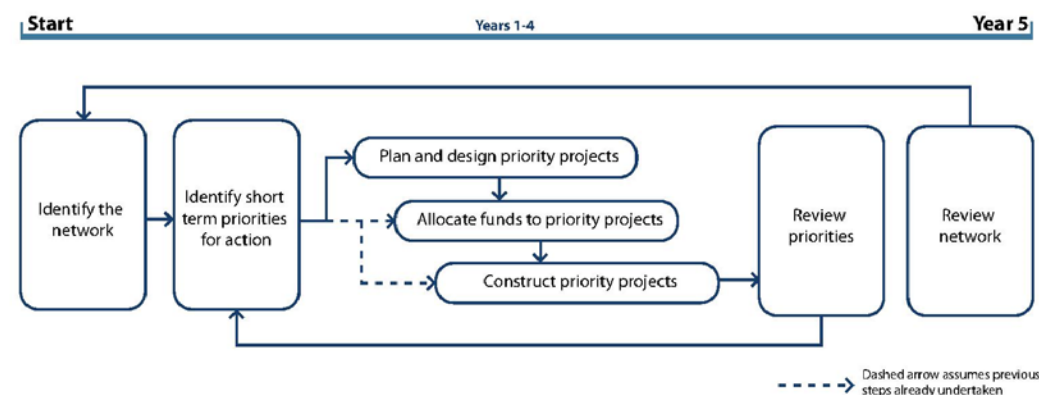


Figure 4 Indicative planning and prioritisation cycle

9 STRATEGIC REPORTS

9.1 ROCKONIA ROAD CULVERT DRAINAGE REVIEW

File No: 8055, 2479, 1740
Attachments: 1. Rockonia Road Culvert Report Summary
Authorising Officer: Robert Holmes - General Manager Regional Services
Author: Martin Crow - Manager Engineering Services

SUMMARY

A drainage review has recently been completed for the culvert crossing of Thozet Creek on Rockonia Road

OFFICER'S RECOMMENDATION

THAT the Rockonia Road Culvert Drainage Review report be received.

COMMENTARY

Engineering Consultants BMT WBM were recently appointed by Council to undertake a review of the concerns raised by a resident on Rockonia Road. This review was completed in February 2014. The conclusions and summary from this review (altered to comply with privacy regulations) has been attached to this report. Further to the conclusions and summary, additional relevant information is provided below.

Historical plans from 1969 indicate that the crossing at that time consisted of 2x600mm diameter piped culverts. Historical plans from 1975 indicate that the piped culverts were upgraded to 3x3.1mx1.2m box culverts. A comparison between the 1969 to 1975 culvert upgrade taken from the BMT WBM report is provided below.

Feature	1975 (m AHD)	1969 (m AHD)	Difference
Upstream Invert	12.26	12.45	-190mm
Downstream Invert	12.04	12.37	-330mm
Flow area	11.16m ²	0.57m ²	10.59m ²
Road level	13.62	13.42	200mm

BMT WBM concluded the following.

'From the table above it can be seen that the culvert upgrade provided a significant improvement to the flow area compared with the existing (i.e pre 1975) culverts arrangement. The road level has slightly raised compared with the previous road level, but it is believed the road was unsealed at that time.'

It is unclear as to whether Rockonia Road was sealed at the time however from a review of the plans, it is more likely that a sealed surface did exist but with gravel shoulders between the edge of seal and the Kerb and Channel. This would have no effect on flooding impacts.

Concerns were also raised in relation to the culvert causing siltation within the channel of Thozet Creek. A comparison was undertaken between survey data taken from the 1969 and 1973 historical plans and 2009 LiDAR survey information. The BMT WBM report indicates that the culvert invert level both upstream and downstream is approximately the same level indicating that no notable change has occurred since 1975. The report also indicates that channel levels further upstream has lowered by approximately 500mm and downstream approximately 250mm indicating that scouring of the channel has likely occurred over the last 40 years.

The report would seem to indicate that blockage is a concern with the culvert structure at this location and that Council should investigate the fitting of debris deflectors to the culverts and carry out a review of the collapsing mechanism for the culvert handrail to ensure that this mechanism can operate effectively. This could be the case for a number of existing culvert

crossings on creeks however investigations into the Rockonia Road Culvert can be commenced in the first instance.

An assessment of the impact of the development on Rockonia Road constructed in 2008/09 remains inconclusive. BMT WBM have been engaged by Council to develop a 2D hydraulic model to further assess this issue. This work is currently being undertaken.

BACKGROUND

For a number of years a resident in proximity to the Rockonia Road crossing of Thozet Creek has raised concerns in relation to the construction and performance of the culvert in times of flood. Concerns were also raised in relation to the impacts of a nearby development approved in 2006 and the lack of maintenance undertaken in the creek. Council has responded to these concerns but not to the satisfaction of the resident.

As part of recent correspondence, the resident requested an independent review of the concerns raised be undertaken. In an attempt to finalise this long standing matter, engineering consultants BMT WBM were contracted to undertake an investigation into the resident's concerns.

BUDGET IMPLICATIONS

At present, the installation of debris deflectors or modifications to handrails do not appear in the 2014/15 or future capital programs. Investigations and design can be accommodated in the future designs budget with the resulting project being listed for consideration in future capital works programs.

LEGAL IMPLICATIONS

The resident of Rockonia Road has initiated an insurance claim for damage to property resulting from the rainfall event in January 2013. The independent review undertaken by BMT WBM has been provided to Council's Insurers to assist in the determination of the claim. Investigation, design and prioritization of mitigation works in relation to the Rockonia Road culvert crossing of Thozet Creek will be carried out within the framework of the draft Flood Management Strategy.

RISK ASSESSMENT

The BMT WBM report indicates that blockages of the Rockonia Road Culvert could prematurely redirect flows towards properties located within the floodplain of Thozet Creek. The report indicates that overland flood flows in this region could cause isolation, potential inundation and/or a flood hazard of the dwelling for a short period of time.

CORPORATE/OPERATIONAL PLAN

Consult on, advocate, plan, deliver and maintain the range of urban and rural public infrastructure appropriate to the region's needs, both present and future.

CONCLUSION

The independent review undertaken by BMT WBM indicates that some of the concerns raised by the resident of Rockonia Road cannot be supported however there are some concerns that require further investigation. Further investigation is required into the impacts of development approved in 2006 and mitigating blockage impacts on the culvert.

ROCKONIA ROAD CULVERT DRAINAGE REVIEW

Rockonia Road Culvert Report Summary

Meeting Date: 4 June 2014

Attachment No: 1

7 Conclusions and Summary

Based upon the desktop review it is evident the Rockonia Road / Thozet creek crossing has the following attributes:

- A culvert capacity in the order of 5 year ARI;
- A total cross flow capacity (i.e. including flow over the road) in the order of 30 year ARI before the roadway conveys flow west along Rockonia Road towards the property at [REDACTED] Rockonia Road;
- it is susceptible to blockage, that significantly reduces the flow carrying capacity of the culverts and roadway, exacerbating the flood hazard to the Rockonia Road area to that significantly below the 30yr ARI; and
- Flood flows escaping from the Thozet channel in either a large flood and/or through blockage of the culverts causes overland flow to be directed toward the property at [REDACTED] Rockonia Road. Overland flood flows in this region could cause isolation, potential inundation and/ or a flood hazard of the dwelling for a short period of time.

The impact of the development at [REDACTED] Rockonia Road was assessed by McMurtrie (2009) and was reported to cause 70mm impact upstream of the culverts and expected to be dissipated by approximately 40m upstream. The resulting impact may adversely affect the property at [REDACTED] Rockonia Road through concentrating the flood flows within this property and increasing the existing flood hazard. To determine the quantum of increase in adverse impact resulting from the development, a detailed 2D hydraulic modelling assessment is required. This model may also be used to test options to alleviate any substantial impacts and / or improve the existing situation.

The gabion wall constructed along the Thozet Creek is currently protecting the existing channel bank. Whilst it cannot be established if the gabion wall encroached on the existing channel thus reducing its conveyance, it has prevented further scour to the existing bank and the potential for increased debris loads to the Rockonia Road culverts. In the authors opinion the gabion wall was likely built to protect the existing channel as would be required if in-stream works were undertaken to the right Thozet Creek bank which is also scouring in parts.

From the assessment of the drainage features of the Thozet Creek / Rockonia Road, blockage of the culverts and hand rails causes the greatest adverse flood impact to the area. From a practical sense, minimisation of blockage to the culvert and hand rails can be achieved through the following mechanisms:

- Ensure the hand rails can completely collapse and are unhindered by the adjacent gutter;
- retrofitting the existing structure with debris deflector wall;
- the removal or at least minimisation of potential sources of blockage matter through regular maintenance;
- educating the community to minimise their contribution to the supply of blockage matter. It was noted that a portion of debris material appears to have been recently cut and deposited within the creek confines that otherwise may not have contributed the debris load;

Rockonia Road Drainage Review
Conclusions and Summary

43

- Installation of debris traps upstream in the Thozet catchment if adverse impacts could be adequately managed from their installation.

An option may exist to capture and divert a portion of flood plain flows via a sub-surface drainage system commencing at or near [REDACTED] Rockonia Road. The sub-surface drainage system would be required to be diverted through the property at [REDACTED] Rockonia Road and directed south to a point some 100m downstream of the Rockonia Road culvert to join Thozet Creek. The option, although not expected to provide significant flood alleviation would need to be assessed through hydraulic modelling and costings to determine if it is a viable option both hydraulically and economically. Notwithstanding this, easements would also need to be made in favour of Council.

Document modified to remove property addresses
to comply with privacy legislation.

M. B.
14/5/14

9.2 CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JUNE 2014**File No:** 7028**Attachments:**

1. Civil Operations Section's Works Program May - June 2014
2. Customer Requests received by Civil Operations and Engineering Services Sections - April 2014
3. Urban and Rural Capital Projects Report - Financial Year to Date - April 2014

Authorising Officer: Robert Holmes - General Manager Regional Services**Author:** Russell Collins - Manager Civil Operations

SUMMARY

This report outlines Civil Operations Section's Works Program of planned projects for the months of May - June 2014, Customer Requests received and completed in April 2014 and also Urban and Rural Operations Capital Projects Report Financial Year to Date – April 2014.

OFFICER'S RECOMMENDATION

THAT the Civil Operations Section's Works Program for June 2014 report be received.

COMMENTARY

The Civil Operations Section submits a monthly report outlining the details of the programmed works for the upcoming month to assist Council's Executives and Councillors when they receive enquiries from their constituents in relation to road and associated road reserve works.

BACKGROUND

In April, 411 customer requests were received and of those 208 requests were completed. A total of 435 requests were completed for April and those received in previous months.

In April there were 341 requests for inspections received with 323 inspections completed in the month; 300 works orders were issued for staff to conduct action from these inspections received, with 351 works orders being completed in April.

BUDGET IMPLICATIONS

All works specified in this report are included in Council's current approved budget.

LEGISLATIVE CONTEXT

All works outlined in this report will be conducted in a manner to comply with all legislation.

STAFFING IMPLICATIONS

The works specified in this report have been programmed whilst taking into consideration current staffing levels.

RISK ASSESSMENT

Civil Operations and Engineering Services Section's staff conduct a risk assessment of their job site before work commences to ensure they have identified, assessed and controlled any possible hazards to ensure the safety of themselves and others.

CONCLUSION

This report outlines the planned works program and the customer requests received for Civil Operations and Engineering Services Sections and Urban and Rural Operations Capital Projects Report Financial Year to Date and are for the information of Councillors.

CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JUNE 2014

Civil Operations Section's Works Program May - June 2014

Meeting Date: 4 June 2014

Attachment No: 1

Construction and Works Program – May - June 2014

Council's Civil Operations Section advises the proposed road and associated road reserve network works and other planned projects to be conducted throughout the Region in May - June 2014, subject to weather conditions and other competing priorities. Please note that the information listed in the Potential Interruptions section is general information and does not override the information that is provided to the Emergency Services Personnel and Bus Company's etc.

Urban West Area				
Work Location	Work Description	Start Date	Expected Completion	Potential Interruptions
Razorback Road	Blackspot	Late January 2014	Late June 2014	Traffic controllers & speed restrictions
Gavial Creek	Bridge	Mid May 2014	Late May 2014	Traffic controllers & speed restrictions
Foster St-Capricorn St to Macquarie St	New Construction	Early May 2014		Traffic controllers & speed restrictions
13 River Street	Stormwater	Early June 2014	Late July 2014	Traffic controllers & speed restrictions
Rural West Area				
Work Location	Work Description			Potential Interruptions
Stanwell Waroula Road	Timber Bridge Replacement	Late June 2014	Early September 2014	Traffic controllers & speed restrictions
Urban Central Area				
Work Location	Work Description	Start Date	Expected Completion	Potential Interruptions
Dean St/Kerrigan St Int-Alter phasing	Blackspot	Mid May 2014	Late June 2014	Traffic controllers & speed restrictions
Campbell St-Denham St to William St	Reconstruction	Mid to late June 2014	Late August 2014	Traffic controllers & speed restrictions
Alma St-Archer St to Cambridge St	Footpath	Mid June 2014	Mid June 2014	Traffic controllers & speed restrictions
Berserker St-High St to Leamington St	Footpath	Mid May 2014	Mid June 2014	Traffic controllers & speed restrictions
Landfill	New Construction	Early July 2012	Early July 2014	
Pontoons Quay Street Boatramp		Mid May 2014	Late June 2014	
Archer St-Canning St to Quarry St	Road Construction	Mid June 2014	Late August 2014	Traffic controllers & speed restrictions
Archer St-Murray St to West St	Road Construction	Late March 2013	Mid June 2014	Traffic controllers & speed restrictions
High St /Dean St Int	Road Construction	Early February 2014	Late June 2014	Traffic controllers & speed restrictions
Musgrave St outside Centrelink	Road Construction	Mid June 2014	Late June 2014	Traffic controllers & speed restrictions
North St-Campbell St to Murray St	Road Construction	Mid March 2014	Late June 2014	Traffic controllers & speed restrictions
Replace Guardrail Albert St, Glencoe St, UDR		Mid May 2014	Late June 2014	Traffic controllers & speed restrictions
14 Miles St to Park	Stormwater	Late June 2014	Mid to Late August 2014	Traffic controllers & speed restrictions
Park St Stage 2-Glenmore RD to Tung Yeen St	Stormwater	Mid March 2014	Mid June 2014	Traffic controllers & speed restrictions

CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JUNE 2014

Customer Requests received by Civil Operations and Engineering Services Sections - April 2014

Meeting Date: 4 June 2014

Attachment No: 2

Pathways Customer Requests		Month 31/03/2014		
Regional Services		Received	Completed	Completed
Request	Issue	In April 2014	Received April 2014	Received April & Prior Months
Bridges	Bridge Maintenance	1	0	0
	BRIDGE Bridge Vandalism	0	0	0
	sub - total	1	0	0
Council Drainage DRAINAGE	Drainage Miscellaneous	28	7	22
	Drainage Inundation (Flooding Issue)	2		8
	Drainage Kerb and Channel	15	4	14
	Drainage - Gully Pits	6	1	1
	Drainage Pipes and Culverts	9		4
	Drainage Vandalism	0	0	0
	sub - total	60	12	49
Operation Works (Sub-divisions) etc Infrastructure OPERAT	Development Dust	1	1	2
	Development Erosion	0	0	0
	Development Miscellaneous	2	0	0
	Development Noise	0	0	0
	Development Drainage	0	0	0
	Infra Operations - General Enquiries	9	4	9
	IOU - Water & Sewerage	0	0	0
	sub - total	12	5	11
Roads ROADRE (Road Maintenance Issues)	Burn Off Advice - Reduction Burning	2		1
	Bus Stops/Seating & Bus Shelters	1	1	3
	Disaster Management - Gen Enquiry	0	0	0
	Engineering - General Enquiry	1		1
	FRW Reinstatements	0	0	0
	Grading-Unsealed Road Maintenance	18	6	16
	Guard Rails	1	1	1
	Guide Posts	0	0	0
	Illegal Dumping (Requires heavy machinery)	1		1
	Lime Spraying	0	0	0
	Miscellaneous	73	34	86
	Infrastructure - General Enquiry	15	11	20
	Petition	0	0	0
	Footpath & Offroad Cycle ways Maintenance	18	7	33
	Potholes / Sealed Roads	107	79	113
	Property Accesses	0	0	2
	Railway Crossings	0	0	0
	Rural Roadside Vegetation/Slashing	4	2	3
	Rural Property Addressing - Existing	1	0	0
	Rural Property Addressing - New	2	2	4
	Urban Addressing	5	5	5
	Signs & Lines (Already Existing)	39	20	35
	Street Lighting - OTHER	3	1	3
	Street Lighting - MAINTENANCE	1	0	1
	Street Sweeping - Cleaning	9	5	13
	Traffic Lights	7	6	7
	sub - total	308	180	348
Traffic Management TRAFFI (Not related to Maintenance)	Heavy Vehicles	0	0	0
	Roundabout/Medians	0	0	0
	Speed Limits/Traffic Volumes	2	0	0
	Signs & Lines (New)	27	10	20
	Traffic Signals (Stop Lights)	0	0	0
	Traffic Counts	0	0	0
	sub - total	29	10	20
VEHICL	Abandoned Vehicles (Asset)	0	0	5
	Nuisance Vehicles	0	0	0
	sub - total	0	0	5
Watercourse Foreshore WCOURS	Beach access	0	0	0
	Boat Ramps	1	1	1
	Jetties/Wharves	0	0	0
	Miscellaneous	0	0	1
	Vandalism	0	0	0
	Rock Walls etc	0	0	0
	Beach Erosion	0	0	0
	sub - total	1	1	2
TOTALS		411	208	435

CIVIL OPERATIONS SECTION'S WORKS PROGRAM FOR JUNE 2014

Urban and Rural Capital Projects Report - Financial Year to Date - April 2014

Meeting Date: 4 June 2014

Attachment No: 3

Name	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
OCRC-Alick Street-GlenmoreRoad t		1,842	N	
ORWC-GR-ConnorsRoad Ch 01 to Ch0.9	0	28,043	N	Commenced
ORWC-GR-StanwellWaroulaRd Ch 1.4km	0	24,037	N	Commenced
NC-FrenchvilleRdPileam Dr Carpark	10,000	4,055	N	In design
RWC GR North LangmorRoad 4.8 5.3	0	12,645	Y	Completed
RWC FW SouthUlamRoad Bajool Ch 3 165-5	294,600	363,799	Y	Completed
RWC-BR-BowlinRoad-Timber bridge on	50,000	232	N	Not Started
RWC-BR-Mount HopeUlamRoad-Six Mile C	400,000	436,524	N	Commenced
RWC-BR-Stanwell WaroulaRoad-Deep Cr	600,000	199,499	N	Commenced
RWC-FWUpperUlamRoad _Station Creek	0	9,051	N	Not Started
RWC-GR Six MileRoadBajool CH: 0.51km	26,000	26,248	Y	Completed
RWC-GR-ArembyRoad Bouldercombe CH.3.69-	31,800	31,772	Y	Completed
RWC-GR-Boulder CreekRoad Boulder Creek	38,000	37,695	Y	Completed
RWC-GR-BoysRoad Ch0.98km 2.2km AI	0	18,370	Y	Completed
RWC-GR-CalmorinRoadRidgeland Ch3.8 to	0	21,605	Y	Completed
RWC-GR-ComancheRd Glenroy Ch 2.42-2.8 &	12,700	12,638	Y	Completed
RWC-GR-CraighaughRd Monnish Ch: 0.38	17,100	17,022	Y	Completed
RWC-GR-DalmaRidgeland Rd Ridgeland C	20,000	15,294	Y	Completed
RWC-GR-Deep CreekRd Ch 0.075 to 0.575	0	16,640	Y	Completed
RWC-GR-GarnantRoad Ch 7.2km-8.7kmR	0	44,148	Y	Completed
RWC-GR-GlenroyRd Ch 21.12	0	34,869	N	Commenced
RWC-GR-GrantleighRd Gogango Ch: 0.475km	12,100	12,048	Y	Completed
RWC-GR-GravelResheet Program A	470,000	0	N	Commenced
RWC-GR-GravelResheet Program B	730,000	0	N	Commenced
RWC-GR-Half PennyRd Gracemere Ch 1.53	6,000	(2,834)	Y	Completed
RWC-GR-HardingRd Ch 1.29-1.39 to Ch 2.6	0	27,498	Y	Completed
RWC-GR-Hunter GullyRd Monnish Ch: 0.49	20,000	20,710	Y	Completed
RWC-GR-JacksonRd Gogango Ch: 0.0 0.2k	13,000	12,957	Y	Completed
RWC-GR-MonishRd Monnish Ch: 0.0 -	55,000	56,141	Y	Completed
RWC-GR-MosesRoad Ch 2.85-2.95 Ch3.0	0	33,986	Y	Completed
RWC-GR-MunnsRd Gogango Ch 2.17 2.75km	19,000	19,738	Y	Completed
RWC-GR-Port CurtisRiverRoad Chai	0	12,701	Y	Completed
RWC-GR-RedRoad Alton Down Ch3.31 to 5.	0	43,811	Y	Completed
RWC-GR-RiversleaRd Gogango Ch 4.61 5.	0	25,360	Y	Completed
RWC-GR-RosewoodRoad Monish south Vario	81,100	81,040	Y	Completed
RWC-GR-San JoseRoad Marmor CH: 6.8 7.	26,000	26,084	Y	Completed
RWC-GR-SmithRd Gogango Ch 1.4 2.2 km	46,800	46,829	Y	Completed
RWC-GR-Thirsty CreekRd Gogango Ch 0.1 -	50,000	36,900	Y	Completed
RWC-GR-WarrenRd Ch0.5 to Ch 1035	0	15,394	N	Commenced
RWC-GR-YarraRd Gogango Ch 0.0 1.4 km	40,400	40,416	Y	Completed
RWCNC-Albert Street-Stanwell-Ch 0-0	158,000	77,808	Y	Completed
RWCNC-BlackspotRazorbackRoad	370,000	234,923	N	Commenced
RWCNC-Bower Street-Stanwell-Ch 0.24	0	47,008	Y	Completed
RWCNC-Bruce HighwayRoopesRoad Int	0	1,229	N	Commenced
RWCNC-Bruce Street Bajool	0	0	N	Deferred
RWCNC-Earl Street-Stanwell-Ch 0-0.2	50,000	66,206	Y	Completed
RWCNC-John Street Bajool	0	0	N	Deferred
RWCNCRoopes Crossing floodwayUpgr	50,000	99,345	N	Commenced
RWCNC-Bruce Street & John Street (Bajoo	0	102	N	Deferred
RWCRCF-Signage & GPUgrades	20,000	23,582	N	Commenced
RWCRC-Bower St Stanwell CH: 0.00 -	0	3,904	Y	Completed
RWCRC-BucholzRd	11,700	11,659	Y	Completed
RWCRC-Carige Ave-Bouldercombe	0	19,059	Y	Completed
RWCRC-Cecil St Kabra Ch 0.00-0.1	0	3,979	Y	Completed
RWCRC-DalmaRidgeland Rd	0	19,008	Y	Completed
RWCRC-GoodsonRd-Bouldercombe	0	27,536	Y	Completed
RWCRC-Hewill Drive	0	11,219	Y	Completed
RWCRC-Isabella St Stanwell CH: 0.00	0	3,269	Y	Completed
RWCRC-KahRd Pink Lily	0	3,491	Y	Completed
RWCRC-Laurel BankRd	0	73,593	Y	Completed
RWCRC-MacphersonRd	11,700	11,659	Y	Completed
RWCRC-Main St Stanwell CH: 0.00 0	0	13,653	Y	Completed
RWCRC-Manion St Stanwell CH 0.00 -	0	5,901	Y	Completed
RWCRC-MUsherRd-Bouldercombe	0	18,496	Y	Completed
RWCRC-Nugget Ave Bouldercombe	0	4,133	Y	Completed
RWCRC-PetersenRd	0	1,123	Y	Completed
RWCRC-Poison CRd	0	40,137	Y	Completed
RWCRC-RiversleaRoad Formation Wide	0	0	N	Deferred
RWCRC-Sandy CreekRd CH: 2.28 2.5	0	5,446	Y	Completed
RWCRC-Six MileRd Pink Lily	0	55,021	Y	Completed
RWCRC-Stewart ParkRd	0	1,749	Y	Completed
RWCRC-WebbRd Bouldercombe	0	7,535	Y	Completed
RWCRC-Wiseman St Kabra CH: 0.00 0	0	7,300	Y	Completed
RWC-SSReseal Program Spray SealR	351,600	0	N	Commenced
RWC-SW-Alton Downs Nine MileRoad-Ch	0	0	N	Deferred
RWC-SW-DeeRiver Swinging BridgeUpg	96,000	103,895	Y	Completed
RWC-SW-GlenroyRoad-Ch 22.62	0	0	N	Deferred
RWC-SW-HardingRoad-Ch 5.92	0	0	N	Deferred
RWC-SW-SisalanaRoad-Ch 1.05	25,000	40,588	Y	Completed
RWC-SW-South YaambaRoad-Ch 5.58	60,000	0	N	Not Started
RWC-TM-QRN interface Agreement	100	4,680	Y	Completed
SSNormanRoadNagle Dr to COU entrance	4,924	4,924	Y	Completed
SW-Pileam Dr Inlet Grates	15,000	23,323	Y	Completed
UCC-ALL-Preproject planning and desi	308,757	0	N	Not started
UCC-AS-Annual AsphaltResurfacing Program	729,484	0	N	See yellow items included in the this budget
UCC-AS-Balaclava Street-#336/#334 to Robinson St	0	17,769	Y	Completed
UCC-AS-Bloxom St-ThozetRd to Wiltshire St	160,000	157,918	Y	Completed
UCC-AS-Bolsover Street-Derby Street	85,376	85,376	Y	Completed

Name	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
UCC-AS-Brecknell Street-Jessie Stree	53,651	54,338	Y	Completed
UCC-AS-Canning St-Voss St to south	(54)	(52)	Y	Completed
UCC-AS-Connor St-Stenhouse St to Rhodes St		42,188	Y	Completed
UCC-AS-Cowap St-#17 Cowap St to Alexandra St centre only		36,437	Y	Completed
UCC-AS-Earl Street-Dean Street to Ge	122,784	122,784	Y	Completed
UCC-AS-Eton Street-Denham Street Ext	379,867	382,635	Y	Completed
UCC-AS-Farm Street-Haynes Street to	6,203	6,203	Y	Completed
UCC-AS-Feez St Service Rd to #406 Norman		15,508	Y	Completed
UCC-AS-Geordie St-Frenchville Rd to Gill	14,700	15,702	Y	Completed
UCC-AS-Huet St-Lion Creek Rd to Ramsden St		80,446	Y	Completed
UCC-AS-Inkerman St-Balclava St Intersection only		6,491	Y	Completed
UCC-AS-Jagrad St-Farm St to Mackinlay St	130,000	128,087	Y	Completed
UCC-AS-Kent Lane Fitzroy St to Denham St		26,922	Y	Completed
UCC-AS-Lucas St-Berserker St to Nobbs St		51,502	Y	Completed
UCC-AS-Mansfield St-Herbert St to Jackson St		56,850	Y	Completed
UCC-AS-Meade St-Jardine St to Oakley St		63,482	Y	Completed
UCC-AS-Moones Ck Road Feez St to Enagom		200,560	Y	Completed
UCC-AS-Part St-Elphinstone St to Burnett St		68,493	Y	Completed
UCC-AS-Quarry St-#124 Quarry to Kidston St		28,430	Y	Completed
UCC-AS-Quarry Street-Denham St to Willie	279,028	310,196	Y	Completed
UCC-AS-Rhodes St-Stack St to Dee St		58,826	Y	Completed
UCC-AS-Richardson Road-MacNevin Stre	304,439	304,439	Y	Completed
UCC-AS-Robinson St-Dean St to Diplock St	32,516	32,516	Y	Completed
UCC-AS-Samuel Crescent-Belmont Road	130,109	130,109	Y	Completed
UCC-AS-Suthers Ave-Philp St to Marsh St		38,159	Y	Completed
UCC-AS-Weatherall St Norman Rd to cul-de		21,014	Y	Completed
UCC-BS-New Bus Shelters	80,000	38,132	N	Not started
UCC-FP-Alma Street-Archer St to Camb	40,000	408	N	Not started
UCC-FP-Archer Street-George St to Mu	0	0	N	Not started
UCC-FP-Archer Street-Kent St to Camp	0	0	N	Not started
UCC-FP-Berserker St High St to Leam	60,000	734	N	Commenced
UCC-FP-Brugom Street	0	88,126	Y	Completed see Job No C.1017235
UCC-FP-Brugom Street-Moones Creek Rd	84,188	0	Y	Completed see Job No C.0992766
UCC-FP-Kernigan Street	0	8,285	N	Design only-Deferred
UCC-FP-McLaughlin St-Carlton St to S	28,125	42,659	Y	Completed
UCC-FP-Moyle Street-Kernigan Street	0	0	N	Deferred
UCC-FP-Upper Dawson Road-King St to	0	0	N	Not started
UCC-G82-High Street Bridge Repairs	215,000	215,948	Y	Completed
UCC-LA-Land acquisition costs associ	70,000	0	N	Not started
UCC-Misc Traffic Light Upgrades (PAPL I	25,000	10,997	N	Commenced
UCC-Misc-Moones Creek Rd Roundabout Pede	5,443	5,741	Y	Completed
UCCNC-Blackspot-Intersection of Can	275,000	276,586	Y	Completed
UCCNC-Dean Street-High Street Inter	1,000,000	617,541	N	Commenced
UCCNC-Lion Creek Road Exhibition		1,978	N	Not started
UCCNC-Moones Ck Rd Kernigan Stree		1,083	N	Not started
UCCNC-Norman Road-Springfield Drive	2,262,434	2,311,687	Y	Completed
UCCNC-Wernbee St	(12,539)	(12,539)	Y	Completed
UCC-PMRPMs on 80 kmh Roads	20,000	10,780	N	Commenced
UCCRC-Archer St	630,000	688,472	Y	Completed
UCCRC-Archer Street-Canning Street	506,000	31,288	N	In design
UCCRC-Archer Street-Murray Street t	380,000	77,992	N	Commenced
UCCRC-Bean Street-Haynes Street to	0	0	N	Not started
UCCRC-Berserker Street-Leamington S	745,000	755,611	Y	Completed
UCCRC-Campbell Street-Denham Street to	830,000	19,332	N	Commenced
UCCRC-Cavell Street-New Exhibition	0	2,889	N	Not started
UCCRC-Dean Street / Elphinstone Street	22,739	22,739	Y	Completed
UCCRC-Kent Street Archer Street to	0	0	Y	Completed
UCCRC-Kent Street-Albert Street to	700,000	346,199	Y	Completed
UCCRC-Kent Street-Albert Street to		748	N	
UCCRC-Lion Creek Road-Luck Avenue t	480,000	537,050	Y	Completed
UCCRC-McLaughlin St-Splitters Creek to	434,000	448,523	Y	Completed
UCCRC-Musgrave Street-Outside centr	50,000	0	N	Not started
UCCRC-North Street-Campbell Street	665,000	91,879	N	Commenced
UCCRC-Quay Street-Denham St to Wil	11,250	12,053	N	In design
UCCRC-Quay Street-Derby to William	0	0	N	In design
UCCRC-Quay Street-Fitzroy St to Den	800,000	5,588	N	In design
UCCRC-Sedborough Street	250,000	269,324	Y	Completed
UCCRC-Talford Street Derby Street	616,000	584,462	Y	Completed
UCCRF-Enhanced School Zone Signage		535	N	
UCCRF-Moones Creek Road-Kernigan St Signs	20,000	32,406	Y	Completed
UCCRF-Replace guardrail at various	50,000	712	N	Not started
UCCRF-Richardson Rd	20,000	17,923	N	Commenced
UCCRS-Road Safety Minor Works Progr	60,000	12,963	N	Commenced
UCC-SL-Replace old light fittings at	10,000	5,105	Y	Completed
UCC-SL-Street Lighting Improvement Program	20,000	2,169	N	Not started
UCC-SW-Highway Street-Renshaw St to	5,000	2,801	N	Deferred
UCC-SW-Inlets Replacement	50,000	45,591	N	Commenced
UCC-SW-Miles Street-14 Miles Street	200,000	187	N	Designed
UCC-SW-Oakley Street-Dibden Street t	0	0	N	Defer to 2014/2015
UCC-SW-Park Street Stage 2-Glenmore	380,000	156,877	N	Commenced
UCC-SW-Ripalsford Park Flood Levy		3,562	N	
UCC-SW-Rodboro St-Dean St to Water St		748	N	
UCC-TL-Dean Street-Kernigan Street Inter	165,000	30,889	N	Commenced
UCC-TM-Fitzroy Street-Murray Street Inte	170,000	102,497	N	Commenced
UCC-TM-Pi-beam Dr	10,000	0	N	Commenced
UWC-AS/SS/SL-Annual Road Resurfacing	398,500	0	N	See green items included in the this budget
UWC-AS-Johnson Rd seal Floodway		19,286	Y	Completed
UWC-AS-Lewlie St east shoulder-Ranger St		51,072	Y	Completed

Name	Feb Revised Budget	Expenditure to Date	Completed (Y/N)	Status
UWC-ASRacecourseRd atUsher Street-Mt Morgan	11,102	11,423	Y	Completed
UWC-ASRosewood Avenue-Ash Court to	20,000	16,039	Y	Completed
UWC-AS-Zamia Way-Lillypilly Ave toR	25,000	16,704	Y	Completed
UWC-FP_ Stewart Street SomersetRoad to Bo	0	0	N	Deferred
UWC-FP-JohnsonRoad-End of Existing	226,000	219,318	Y	Completed
UWCNC-Elizabeth Street-Gracemere	16,000	15,089	Y	Completed
UWCNC-Macquarie Street-Foster Stree	16,000	395,024	N	Commenced
UWCNC-MiddleRoad-Capricorn Street	100,000	90,769	N	Deferred
UWCRC-Old BareeRoad	0	0	N	Deferred
UWCRC-Shell Crescent-Thompson Ave t	35,000	9,857	N	Not started
UWCRC-SomersetRoad-Stewart Street	1,260,000	1,254,479	Y	Completed
UWC-SLS-Capricorn St MiddleRd to Johnso	29,500	22,601	N	Not started
UWC-SLS-Lucas St #140 Lucas St to #184/I		13,176	Y	Completed
UWC-SLS-Lucas St Buxton Drive to #103 Lu		17,698	Y	Completed
UWC-SL-Streetlighting Improvement Pr	10,000	0	N	Not started
UWC-SS-Bymes Parade Piddicks Crossing t		24,234	Y	Completed
UWC-SS-Chenery St Shell Cresc to Thomps		16,310	Y	Completed
UWC-SS-Coronation Drive-Davis Street	22,000	9,934	Y	Completed
UWC-SS-Dobbs St Bymes Parade to east St		3,944	Y	Completed
UWC-SS-East St-Darcy St to Hall St	0	0	Y	Completed
UWC-SS-Ian Besch Drive east & west car p		3,904	Y	Completed
UWC-SS-Mt Morgan PoolRd to Mt Morgan	0	16,608	Y	Completed
UWC-SS-Railway Parade Central St toRail	0	2,742	Y	Completed
UWC-SS-Scott St Neil St to Daley St Mt	0	2,198	Y	Completed
UWC-SS-Thompson Avenue Shell Cresc to Th		12,385	Y	Completed
UWC-SW-11River Street	80,000	1,772	N	In design
UWC-SW-22River StreetRiver St to D	0	1,546	N	Deferred
UWC-SWEast Street Mount MorganWor	0	3,445	N	Deferred
UWC-SW-InletsReplacement	30,000	20,263	N	Commenced
UWC-SW-Sydney King Close	1,600	13,419	Y	Completed
UWCW & S-Lucas St Allen St to #197 Lucas		59,401	Y	Completed
UWCW&SChenery St Shell Cresc to Thomps		8,459	N	Not started
UWCW&S-Stewart St SomersetRd to Dougl		35,232	Y	Completed
UWCWden shoulders-JohnsonRd-Floodway to Gracemere Creek		52,418	Y	Completed
WOU Parks Kele Park Softball Electrical	(2,484)	(2,484)	Y	Completed

10 NOTICES OF MOTION

Nil

11 URGENT BUSINESS/QUESTIONS

Urgent Business is a provision in the Agenda for members to raise questions or matters of a genuinely urgent or emergent nature, that are not a change to Council Policy and can not be delayed until the next scheduled Council or Committee Meeting

12 CLOSED SESSION

In accordance with the provisions of section 275 of the *Local Government Regulation 2012*, a local government may resolve to close a meeting to the public to discuss confidential items, such that its Councillors or members consider it necessary to close the meeting.

RECOMMENDATION

THAT the meeting be closed to the public to discuss the following items, which are considered confidential in accordance with section 275 of the *Local Government Regulation 2012*, for the reasons indicated.

13.1 Access Roads to Moonmera Properties off Razorback Road Bouldercombe

This report is considered confidential in accordance with section 275(1)(h), of the *Local Government Regulation 2012*, as it contains information relating to other business for which a public discussion would be likely to prejudice the interests of the local government or someone else, or enable a person to gain a financial advantage .

13 CONFIDENTIAL REPORTS

13.1 ACCESS ROADS TO MOONMERA PROPERTIES OFF RAZORBACK ROAD BOULDERCOMBE

File No: 412

Attachments:

1. Attachment 1 - Existing Access
2. Attachment 2 - Deed of Settlement Map
3. Attachment 3 - Deed of Settlement Easements
4. Attachment 4 - Alternative Deed of Settlement Easements
5. Attachment 5 - Areas of Road Openings and Closures for Attachment 4
6. Attachment 6 - Use of Existing Works to Provide Alternative Access to Use of Easements
7. Attachment 7 - New Alignment and Easement Through Lot 25
8. Attachment 8 - New Alignment and Road Through Lots 1 and 2

Authorising Officer: Robert Holmes - General Manager Regional Services

Author: Bruce Russell - Senior Infrastructure Planning Engineer

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SUMMARY

Following the deputation by Clem Clarke to the April 2014 Infrastructure Committee Meeting, the report presented to that meeting was laid on the table, pending submission of a fuller report on the current situation and options available to Council.

14 CLOSURE OF MEETING