



Contents

1	Introduction		3
2	What is a principal cycle network?		3
	2.1	Types of journeys	3
	2.2	Types of routes	4
	2.3	What is the purpose of the plan?	4
3	How was the network identified?		4
	3.1	Planning principles	4
	3.2	Workshops and consultation	4
4	Implementation		4
	4.1	Timing of Delivery	4
	4.2	Principal cycle network infrastructure	4
	4.3	Planning and protection of cycling corridors	5
	4.4	Delivery Mechanisms	5
5	Network maps		6
	Gympie Regional Council		7
	South Burnett Regional Council and Cherbourg Aboriginal Shire Council		12
	Fraser Coast Regional Council		18
	Bundaberg Regional Council		26
	North Burnett Regional Council		35
6	Review of the plan		43
7	More	resources	43

Creative Commons information

© State of Queensland (Department of Transport and Main Roads) 2016



http://creativecommons.org.licences/by/4.0/

This work is licensed under a Creative Commons Attribution 4.0 Licence. You are free to copy, communicate and adapt the work, as long as you attribute the authors.



The Queensland Government supports and encourages the dissemination and exchange of information. However, copyright protects this publication. The State of Queensland has no objection to this material being reproduced, made available online or electronically but only if its recognised as the owner of the copyright and this material remains unaltered.

The Queensland Government is committed to providing accessible services to Queenslanders of all cultural and linguistic backgrounds. If you have difficulty understanding this publication and need a translator, please call the Translating and Interpreting Service (TIS National) on 13 14 50 and ask them to telephone the Queensland Department of Transport and Main Roads on 13 74 68.

Disclaimer: While every care has been taken in preparing this publication, the State of Queensland accepts no responsibility for decisions or actions taken as a result of any data, information, statement or advice, expressed or implied, contained within. To the best of our knowledge, the content was correct at the time of publishing.

1 Introduction

The Wide Bay Burnett Principal Cycle Network Plan (WBBPCNP or plan) provides a vision for the principal cycle network in the region to support, guide and inform practitioners involved in the planning, design and construction of the transport network.

The principal routes shown represent cycling desire lines. They indicate the most important routes and known missing links for cycling in the region. In most instances, further planning and design will be required to determine the precise route and design of cycle facility.

The plan should not be used for navigational purposes, since the maps provided do not distinguish between existing and future cycle facilities. Rather, the maps flag the demand for location and function of cycle routes to inform planning and design and construction of cycle facilities.

As shown in Figure 1, the plan covers the North Burnett, South Burnett, Bundaberg, Fraser Coast, Gympie, and Cherbourg Aboriginal local government areas.

2 What is a principal cycle network?

A principal cycle network is comprised of core routes designed to make it easy to use the bicycle as an everyday form of transport.

2.1 Types of journeys

The WBBPCNP identifies routes primarily for cyclists within urban areas, with a particular focus on the 5 km radius around trip destinations. Most urban areas in the region are within a 5 km radius of a town centre. At these distances, cycling is a viable mode of travel for many trip types.

The plan focuses on journeys to work, school, and social/utility trips. The principal cycle network connects residential areas with employment nodes such as suburban centres, industrial precincts, education facilities, and shopping and entertainment destinations.

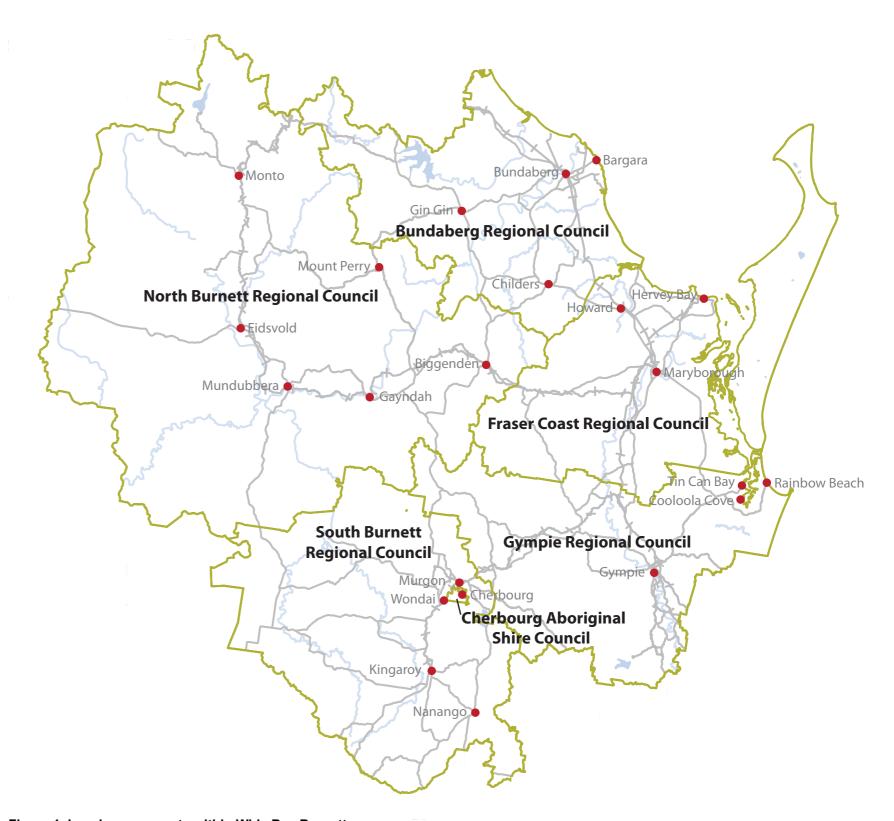


Figure 1. Local governments within Wide Bay Burnett.

2.2 Types of routes

The WBBPCNP 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 outlying suburbs.

Future principal 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.

Tourism 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 WBBPCNP is to present agreed desire lines for principal cycle routes in the region identified using the planning principles outlined in section 3.1. The routes shown are indicative and exist to guide further planning that will determine the precise routes and design of cycle facilities.

The plan draws on existing cycle planning, data on key origins, destinations and cycling demand, as well as knowledge from councils and bicycle groups. The plan provides for a principal cycle network that will connect residential areas to major trip attractors.

The plan represents the core cycle routes needed to achieve more cycling, more often, which is the vision of the Queensland Government's *Queensland Cycle Strategy 2011-2021*. As the network is delivered, Queenslanders will have increasing opportunities to cycle to work, school, shopping precincts, and other major destinations via safe, direct, and attractive routes.

Increasing levels of cycling will help contribute to Queenslanders' fitness and health, protect the environment, and manage traffic congestion. Encouraging people to replace some car trips with cycling can also extend the life of existing transport assets and reduce the need for road capacity upgrades.

3 How was the network identified?

3.1 Planning principles

The development of the WBBPCNP was guided by the following planning principles:

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 width 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, statecontrolled roads, higher order local government roads and through open space areas.

Principle '

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.

The plan identifies principal routes at a strategic network level that will deliver good cycling outcomes, recognising that to achieve this, further planning and design will be required. Although planned with a realistic level of feasibility in mind, the aim of the plan is not to exclude routes from the principal cycle network based entirely on their current level of feasibility.

A principal route may be identified within a corridor that is currently considered not conducive to cycling such as a priority freight route or highway. Further planning and design will consider the feasibility of cycling within the corridor and design of cycle facilities. In some

instances, this may result in a separated cycle facility within the corridor and, in others, a cycle facility on an alternative alignment in the vicinity.

3.2 Workshops 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, bicycle interest groups, and some local community groups.

During the workshops, stakeholders nominated major origins and destinations on maps of each town in their local government area. They drew preference lines to connect the origins and destinations, often using the shortest most direct route. The preference lines were transferred to preferred routes along existing and disused transport corridors and through open spaces/recreation corridors. Additional consultation and refinement resulted in a network supported by all parties.

The placement of the preferred routes considered hazards, constraints, land tenure, topography, the seven planning principles, existing cycle planning, and local knowledge of current and desired cycling routes.

4 Implementation

The WBBPCNP reflects a 'one network' approach, meaning the principal cycle network contains routes on state-controlled roads, local government roads, and in open space corridors. While the department has direct control of cycle infrastructure delivered on state-controlled roads, its influence over local government roads and land is less direct.

4.1 Timing of delivery

The WBBPCNP does not dictate specific time frames for delivery of the principal cycle network. The Department of Transport and Main Roads will collaborate with local governments to complete a rigorous prioritisation process that will result in maps of priority routes that will be published as an addendum to the plan and will be reviewed regularly to ensure they remain an up-to-date representation of investment priorities. The maps of priority routes will guide state planning and investment decisions as well as the assessment of state grants to local governments for cycle infrastructure.

4.2 Principal cycle network infrastructure

The WBBPCNP does not identify specific infrastructure solutions as this would require consideration of a range of factors beyond the scope of the plan such as available space, likely mix and volumes of users, surrounding land uses and trip attractors, traffic and crash data, physical constraints and hazards. Rather, the plan identifies the function of each route in general terms and leaves the detailed planning and design to those with a greater understanding of the local issues.

4.3 Planning and protection of cycling corridors

Further planning and design is needed to determine the precise routes and design of cycle facilities. On the state transport network, this planning will be undertaken as part of the Transport and Main Roads' Transport System Planning Program. Once completed, the future cycling corridors can be mapped and protected, and will be considered as part of the application process for any proposed developments on nearby land.

4.4 Delivery mechanisms

As shown in Figure 2, the WBBPCNP may be implemented through a variety of delivery mechanisms.

4.4.1 Queensland Government delivery

Transport and Main Roads' Cycling Infrastructure Policy (CIP) is a key delivery mechanism for the principal cycle network, requiring the department to consider the needs of cyclists in state-controlled transport projects. When on a principal route or a future principal route, the department is to include explicit cycle provision such as marked bicycle lanes, separated cycleways or signage in state-controlled transport projects.

When not on a principal route or future principal route, the department

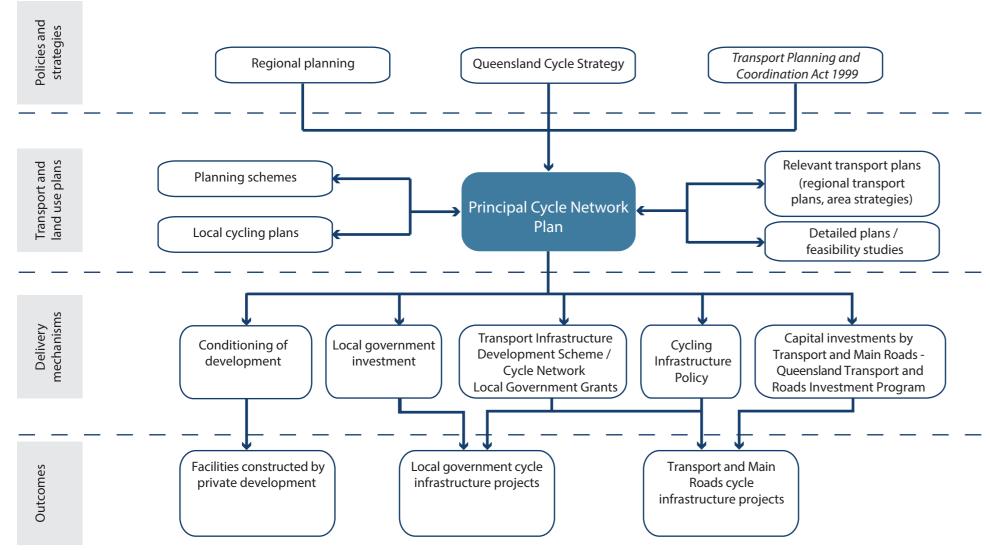


Figure 2. Policies and strategies influencing the principal cycle network.

is to include implicit cycle provision such as the widening of shoulders or elimination of squeeze points in state-controlled transport projects. Tourism routes are not principal cycle network routes for the purposes of the department's CIP. Tourism routes may be eligible for funding through other sources such as the Transport Infrastructure Development Scheme (TIDS) or tourism and recreation programs.

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

4.4.2 Local government delivery

Local governments can apply for funding to deliver principal cycle network infrastructure through the Cycle Network Local Government Grant (CNLGG) program. Funding is matched by local governments (50/50). Grants are awarded to projects that contribute to transport network outcomes that improve access to major attractors including activity centres, employment nodes, schools, universities, and public transport facilities.

Regional Roads and Transport Groups (RRTGs) receive an annual allocation of Transport Infrastructure Development Scheme (TIDS) funding which can be used to fund cycling infrastructure. RRTGs are responsible for allocating TIDS funding received to the highest priority transport projects in their regions, including cycle infrastructure. Local governments can champion cycling within their respective RRTGs and prioritise investment into cycle infrastructure. Local governments can also allocate funding for cycle infrastructure in their own budgets to deliver projects independently.

5 Network maps

This section presents the principal cycle network maps by local government area, as shown in Figure 3. This section also contains an analysis of routes, with an explanation of the rationale for most routes in each local government area.

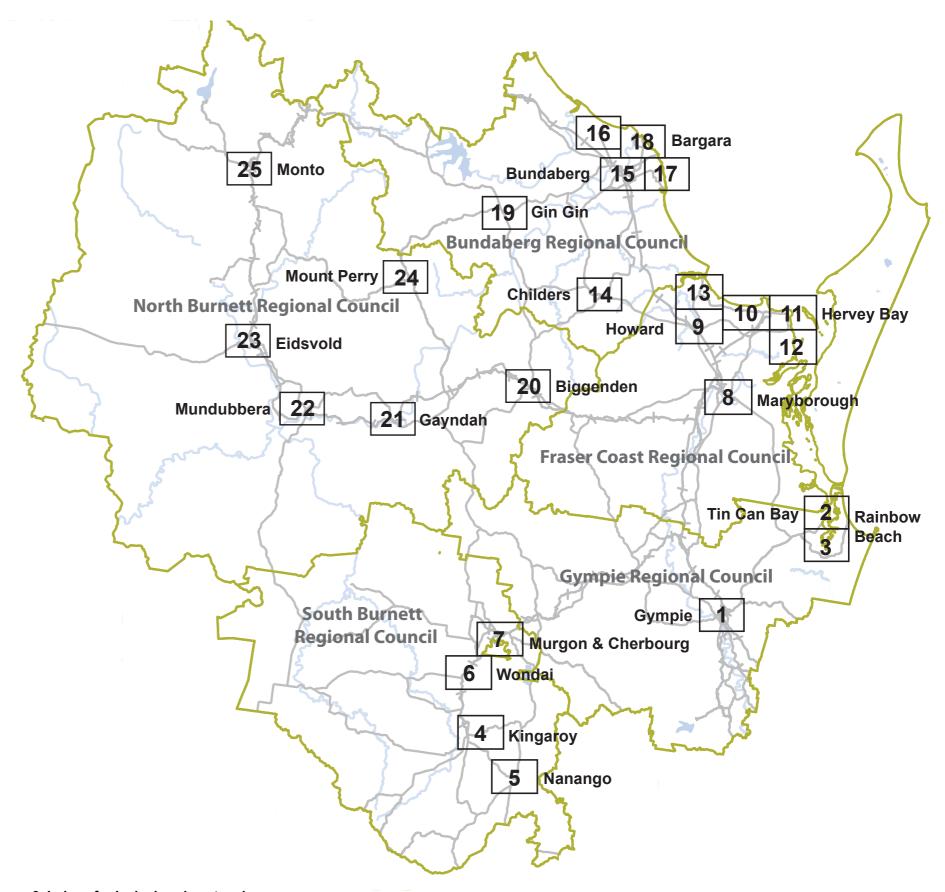
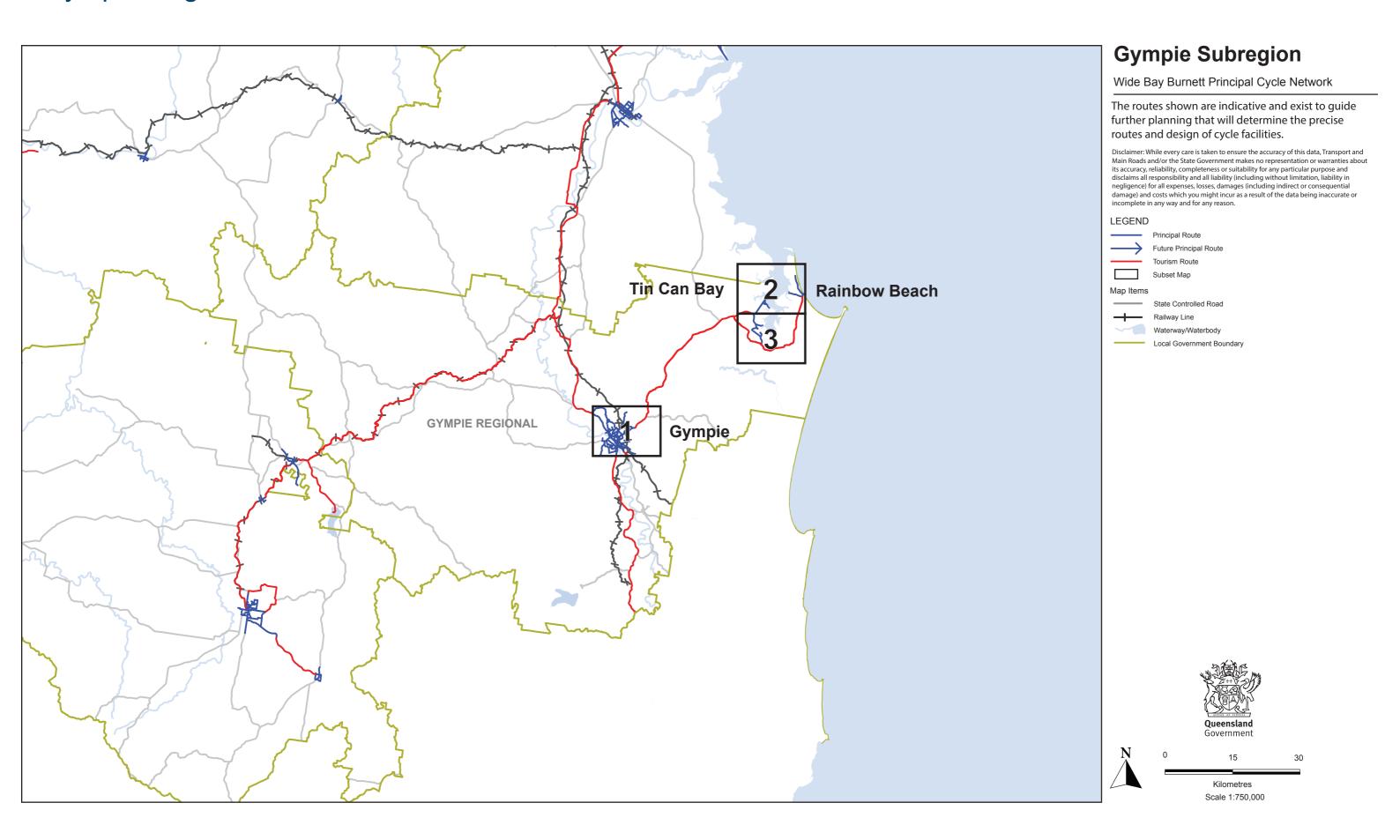
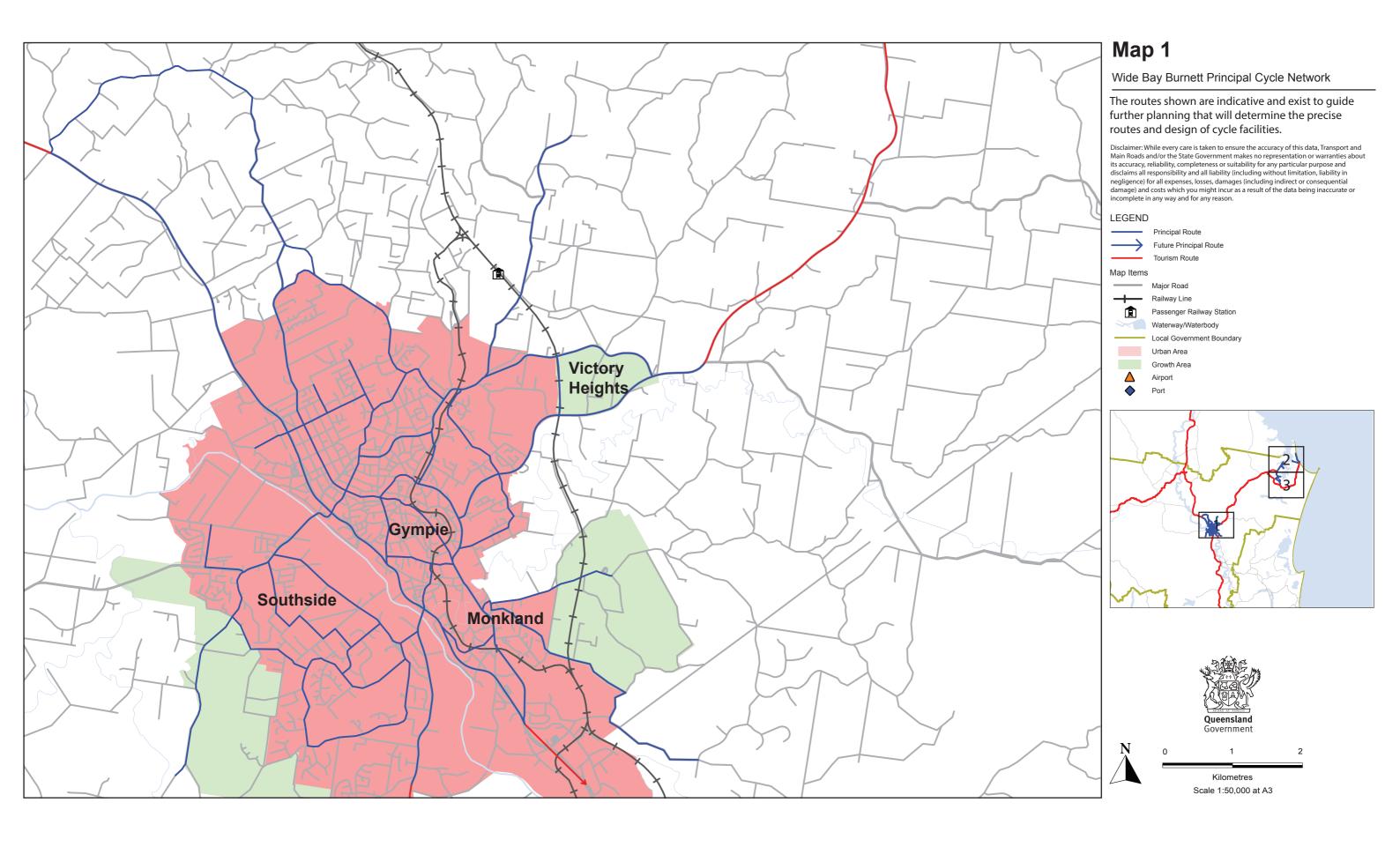
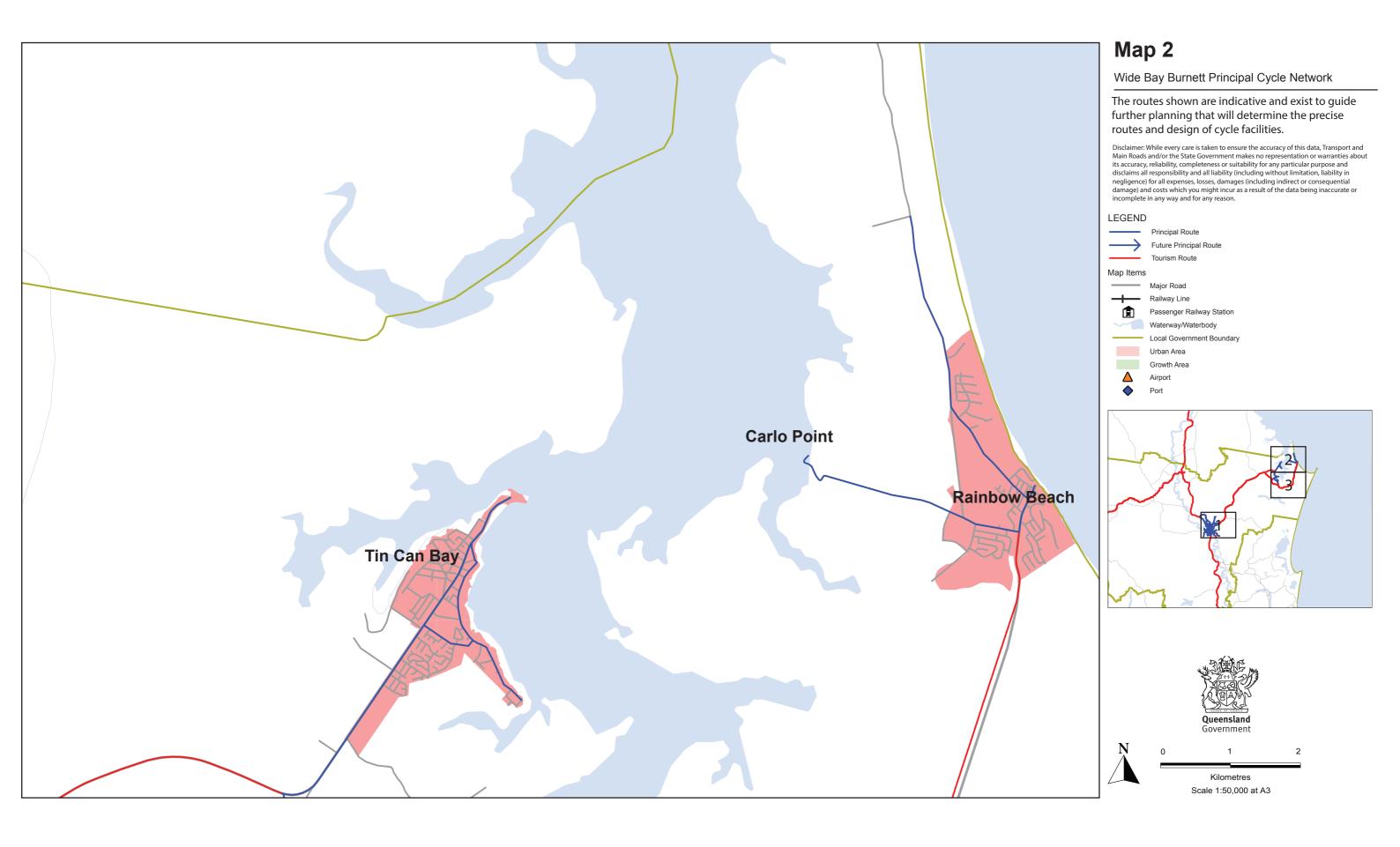
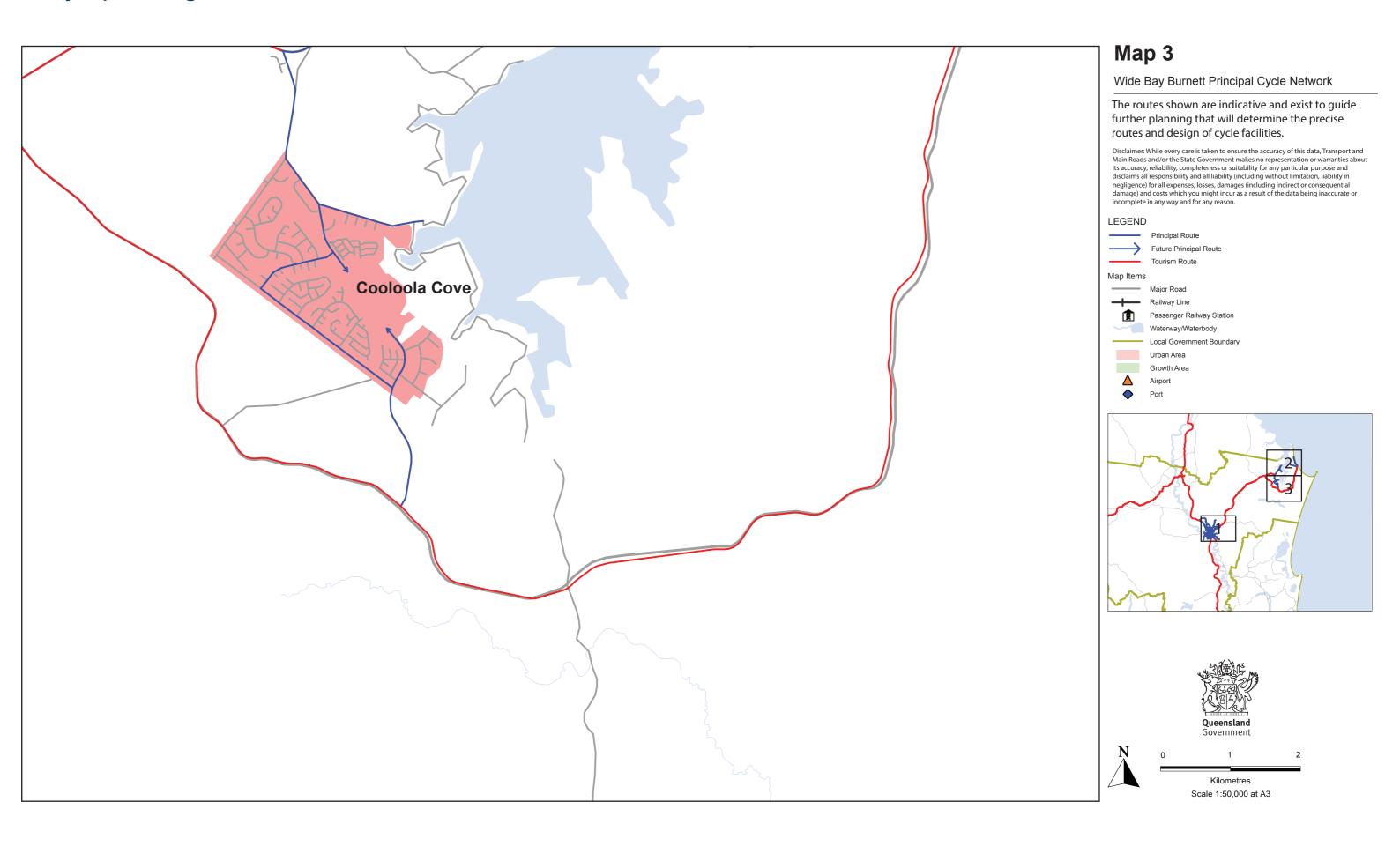


Figure 3. Index of principal cycle network maps.









Gympie Regional Council analysis of routes

Previous planning by council

In late 2011, Gympie Regional Council (GRC) developed the Gympie Regional Walk and Cycle Strategy. The strategy consolidates information on existing cycling infrastructure, potential land use scenarios and previous cycle planning into a strategic plan for the future walking and cycling network. It identifies all of the existing and potential future walking and cycling connections in Gympie, and refers to the following categories:

- · possible off-road paths
- · existing off-road paths
- possible on-road paths
- · existing on-road paths
- special projects (bikeway, etc)
- GRC trunk paths.

The principal cycle network maps reflect many of the routes in the Gympie Regional Walk and Cycle Strategy. In some cases, the two networks vary because the routes identified in the strategy serve a lower order neighbourhood and local function, and so connect into and support the higher order principal cycle network. However, where the intention of the strategy aligns with the principal cycle network planning principles, the Gympie Regional Walk and Cycle Strategy outcomes have been largely adopted as the base for the principal cycle network.

Longer distance and inter-centre routes

The length of Tin Can Bay Road between Gympie and the Cooloola Coast is identified as a tourism route, and is considered by local cyclists as a 'good touring route'. It connects Gympie to the key tourism destinations of Tin Can Bay and Rainbow Beach, opening up opportunity for tourism trips to benefit the local economy. For this reason, this route has been identified as a tourism route.

While principal routes are not usually identified along the Bruce Highway due to the high speed/high traffic conditions and long distances between destinations, a tourism route is shown on the Bruce Highway north of Gympie. It connects to Theebine (in conjunction with local roads) to support users of the proposed Kingaroy to Theebine Rail Trail and link to the tourism route which connects to Maryborough via Tiaro.

The rail trail, which connects the South Burnett region to the Gympie region, connects towns such as Goomeri, Kilkivan, Woolooga and Theebine. It is anticipated that the rail trail will service both recreational and touring cyclists, drawing both residents and tourists alike to the area. Access to the beginning/end of the trail will be via the town of Theebine. The Cooloola Coast Road (linking the Cooloola Coast to Maryborough)

was considered as a tourism route but was left out of the plan due to the length of the route and the lack of significant attractions along the way.

The Bruce Highway south of Gympie has been identified as a future tourism route. The completion of Section A of the Bruce Highway upgrade by the end of 2016 will make a tourism cycle route between Gympie and Cooroy possible within the next three to four years. This route would be via Gympie-Brooloo Road (identified), Mary Valley Link Road, and the old Bruce Highway. It is suggested that this route be reassessed for inclusion during the next WBBPCNP review.

Map 1 - Gympie south of the Mary River

Both Mary River crossings (Gympie Woolooga Road and Gympie Brooloo Road) have been identified as principal routes, with the aim of strengthening cycling accessibility between the north and south sides of Gympie. The majority of Gympie's employment and service destinations are on the north side of the river, but the south side of the river has a significant proportion of the residential population and is an emerging growth area. Safe and efficient cycle routes across the river will provide critical connections to services, employment, recreation and education destinations. Two river crossings have been included on the network, as having only one crossing would result in some people having to make a significant detour to reach a destination that is relatively close, but on the other side of the river. The Gympie Regional Council has suggested that the Normanby Bridge cycle/pedestrian link (Gympie-Brooloo Road over the Mary River) be noted as the highest priority.

A principal route along Glastonbury Road has been identified to connect to the Cooloola Christian College. Some routes, such as Eel Creek Road, have been retained to connect to low density urban areas and growth areas. However, these routes have not been extended significantly beyond the urban footprint because the patronage in the more rural areas would not warrant the investment in infrastructure.

Map 1 - Gympie north of the Mary River

The north side of Gympie's hilly topography has influenced the development of the street network, resulting in a non-grid street pattern that in many cases follows the ridge lines. It is therefore difficult to apply an even 1 km mesh grid to the cycle network. Consequently, the network has been developed to connect the major attractors by following the major corridors where possible. Some sections of the network may appear overly close because of the need to provide permeability and continuity.

Within the urban area, the Bruce Highway and Tin Can Bay Road to the south have been identified as principal routes connecting the town to key attractions such as Lake Alford Park, the Gympie Historical Museum,

as well as schools such as Monkland State School. These routes, along with a route on Noosa Road, also provide access for workers to the area to the south, which has a concentration of services and industrial land uses and is a significant employment generator.

The Bruce Highway is the predominant existing through-town thoroughfare for cyclists. The route is largely uninterrupted (except for traffic lights) and parts have an adjacent existing cycling path. While the Bruce Highway is identified as a principal route, it may not be possible to include a cycling facility in the future. If this is the case, an appropriate alternative could be provided on an adjacent corridor (subject to further detailed planning).

Sandy Creek Road (to the north) is identified as a principal route, as it indirectly connects the town to the Gympie North rail station and serves as a trunk route for a relatively significant rural residential population. However, the route is only identified along part of the road (close to the urban area) to ensure it is only developed where there is sufficient demand.

Old Maryborough Road (to the north) is identified as a principal route, connecting the urban area of Gympie to Victory College via an existing path. It also services a significant outlying rural residential population, similar to Sandy Creek Road. A route along Cartwright Road and Louisa Street is proposed to cater for trips to the Wide Bay Burnett Institute of TAFE.

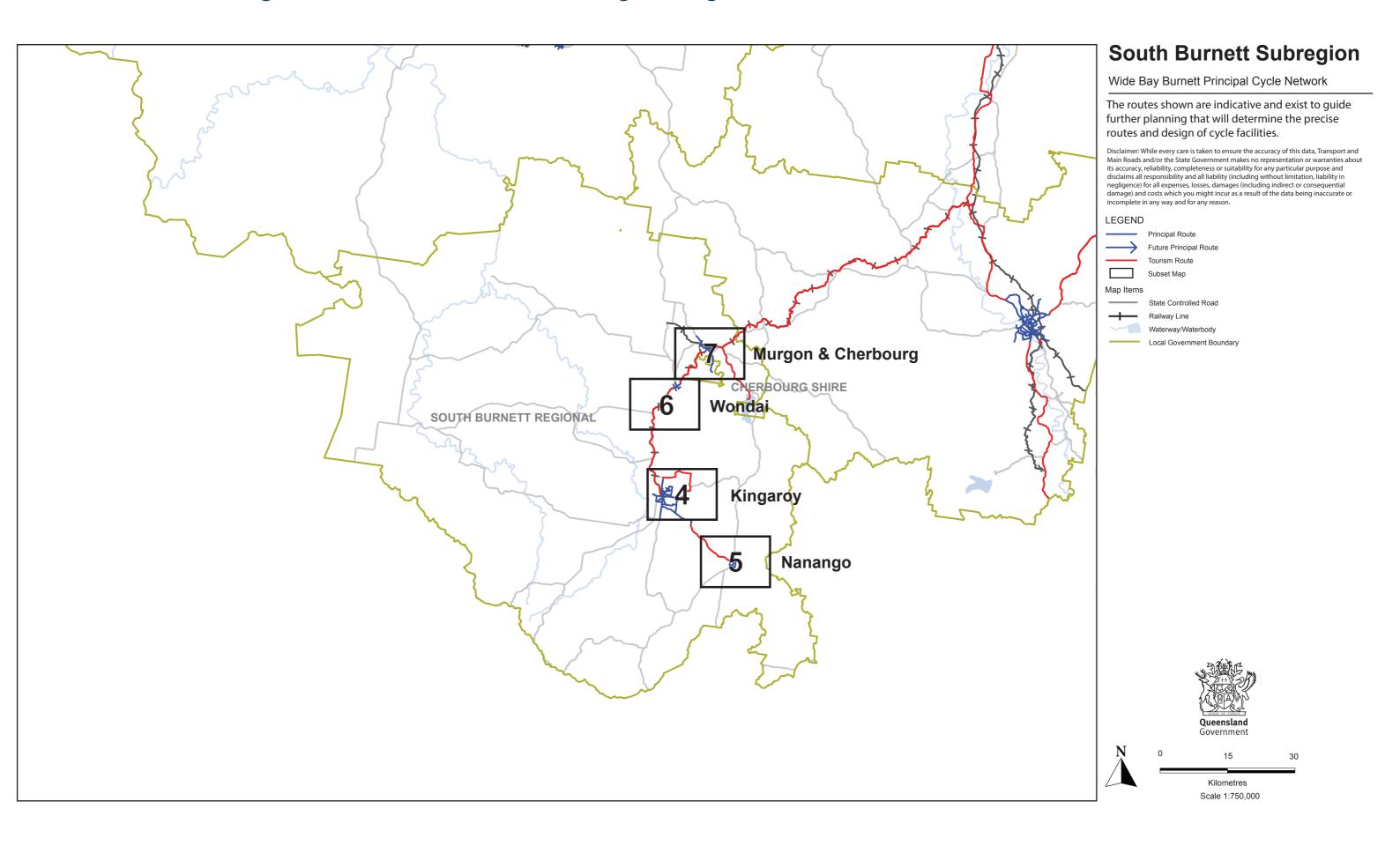
A third river crossing between the existing two was investigated, but has not been included in the network. It may be considered in a future update of the WBBPCNP.

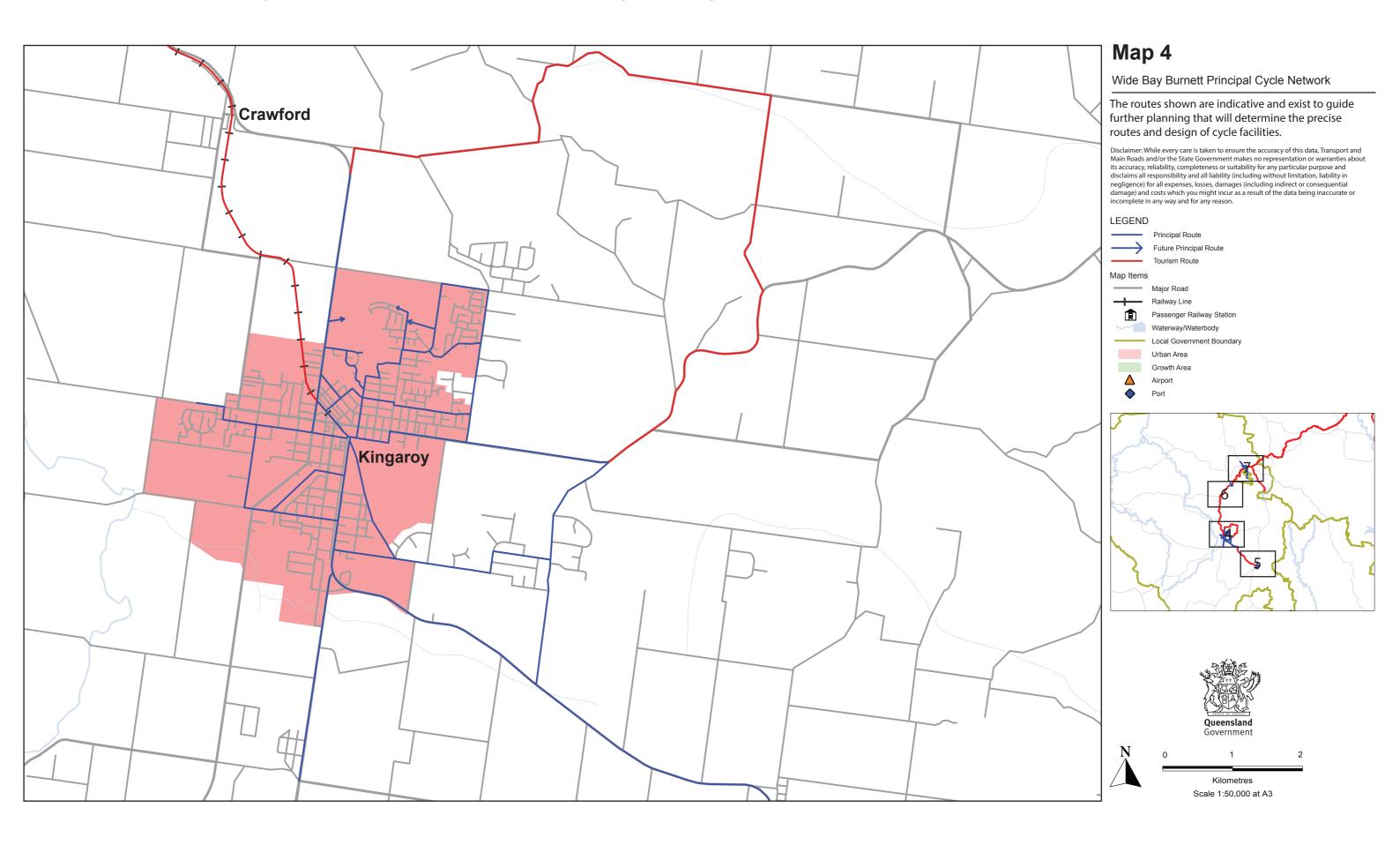
Maps 2 and 3 - Tin Can Bay/Cooloola Cove/Rainbow Beach

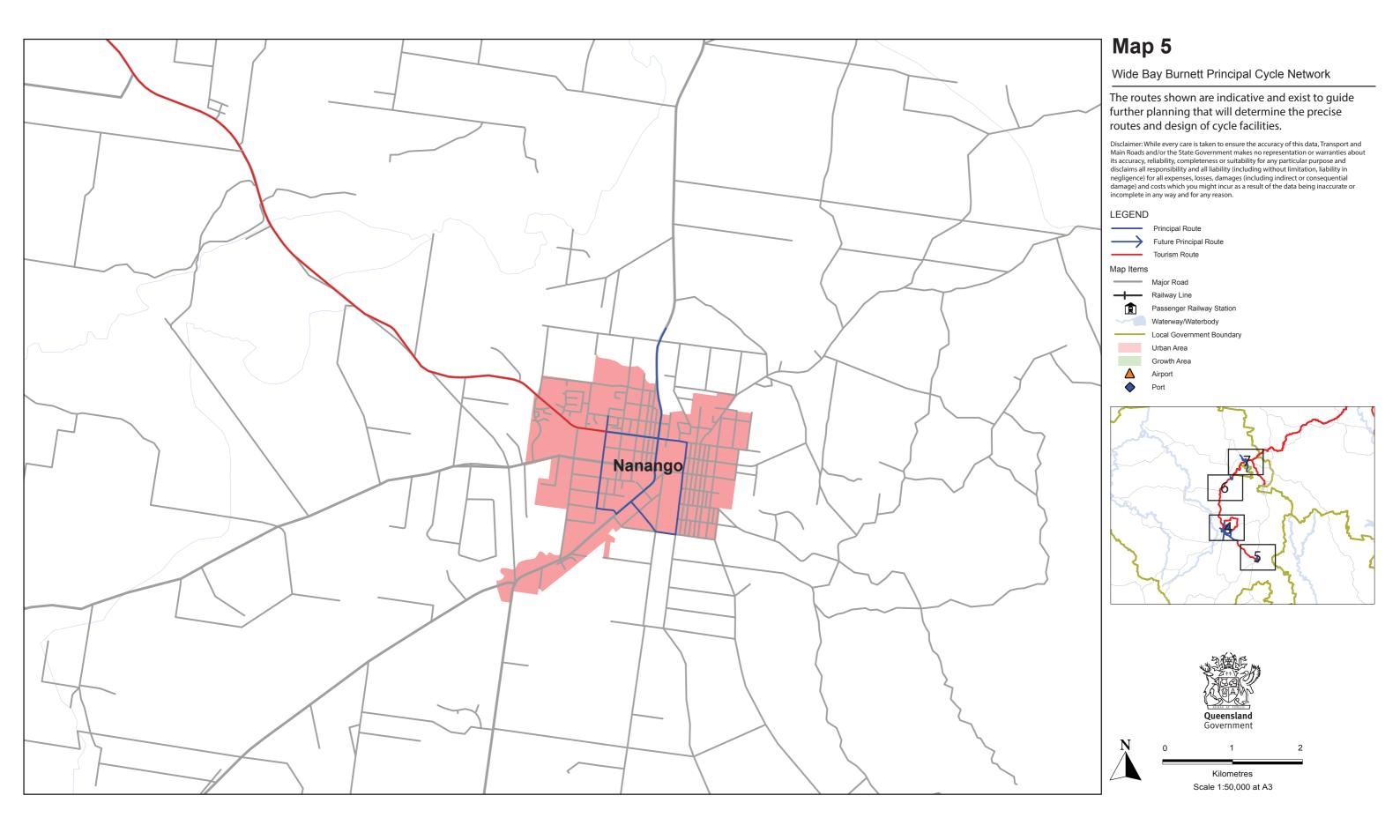
A principal route connecting the Rainbow Beach foreshore and retail precinct is envisaged along Rainbow Beach Road. Similarly, a route planned along Tin Can Bay Road will provide local cycling options for the community as a whole. Shops at Cooloola Cove will be accessed by a route on Nautilus and Queen Elizabeth Drives.

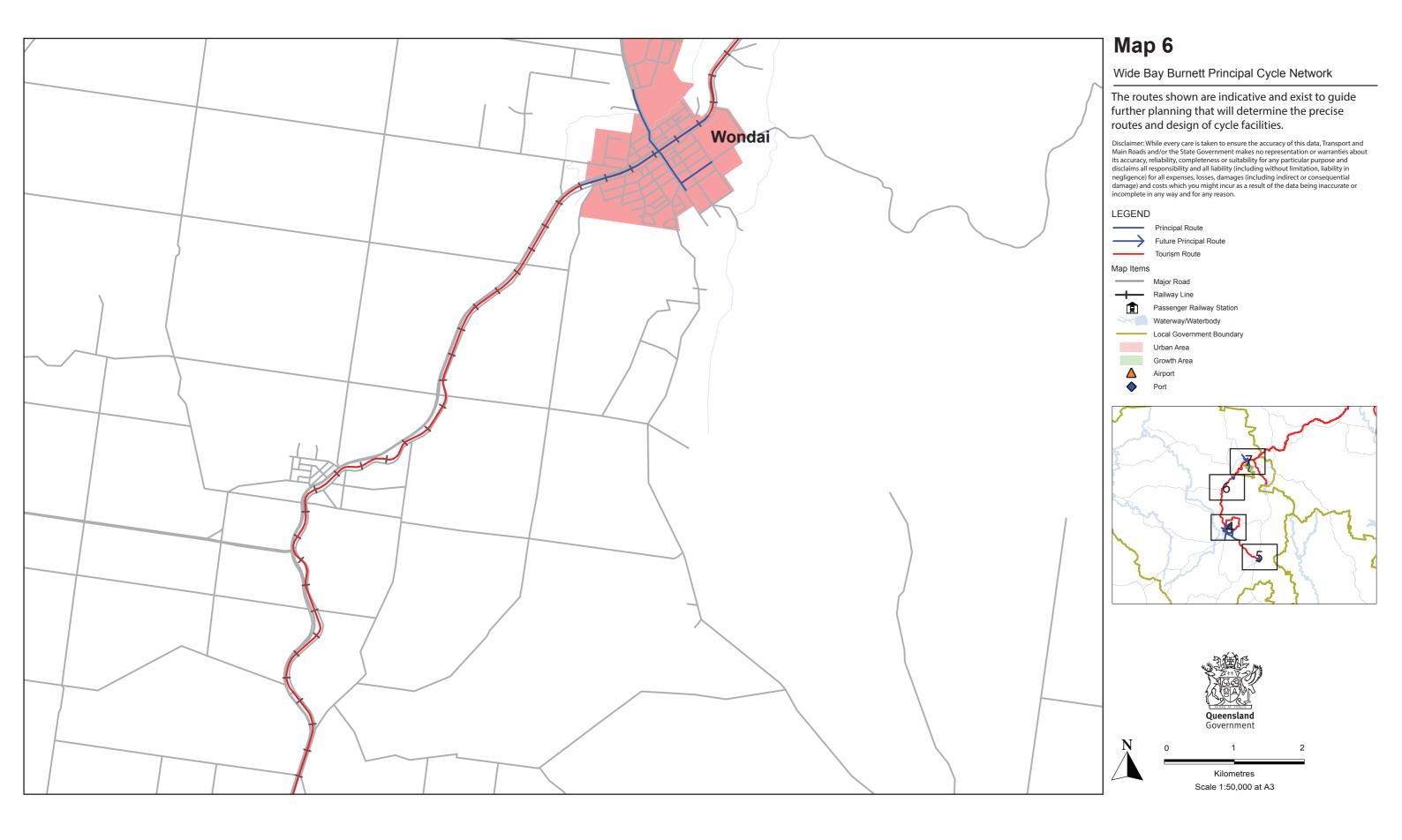
Routes catering for tourists are envisaged along Inskip Avenue to provide access to the camping area at Inskip Point and the Rainbow Beach Golf Course. Tourism routes along the lengths of Tin Can Bay Road and Rainbow Beach Road are intended to provide connectivity between towns for long distance cyclists.

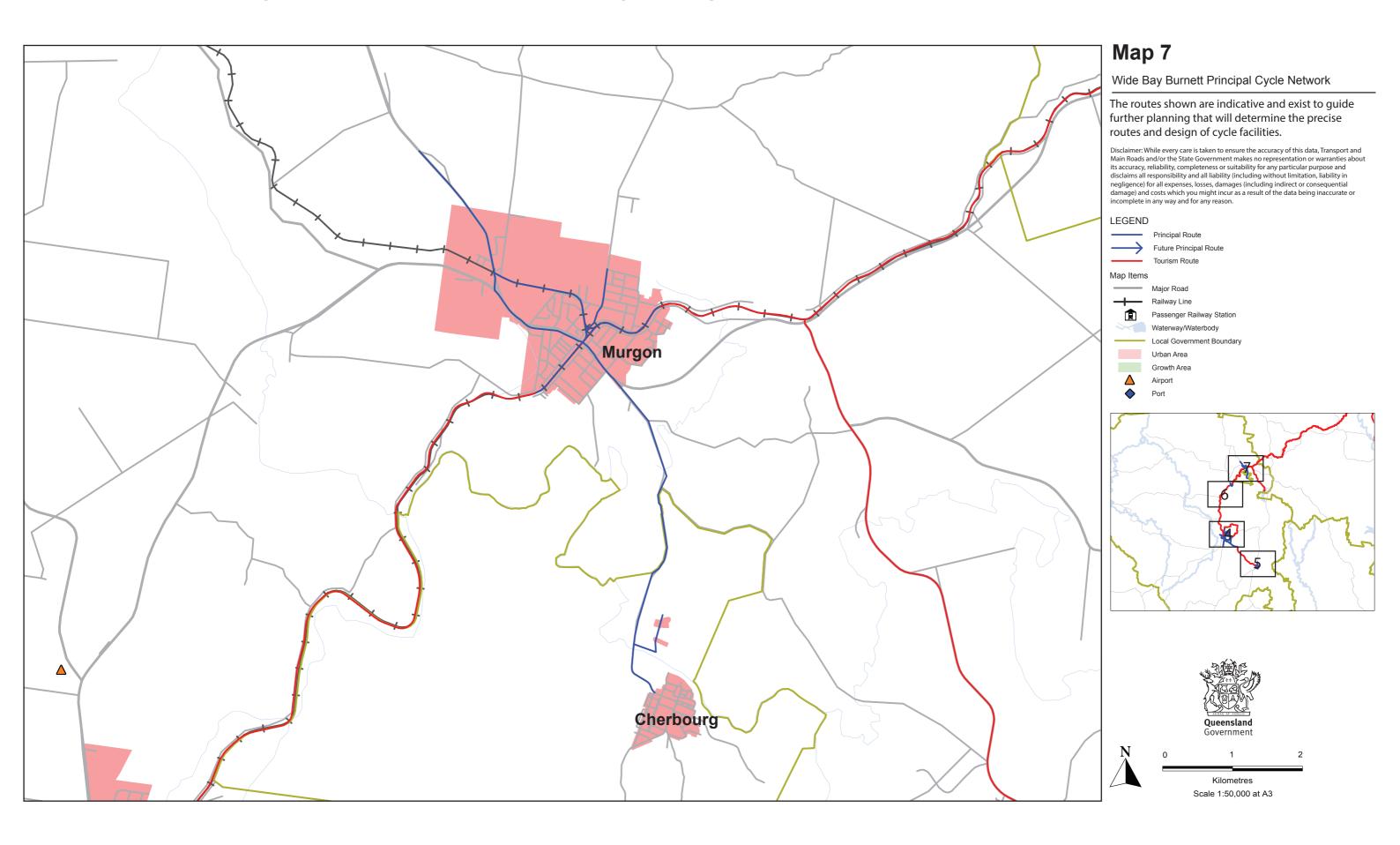
A principal route is identified along Carlo Road, connecting the Rainbow Beach township to the Rainbow Water Holiday Park. This will allow people staying at the holiday park to cycle to the town to access the beach, shopping or services.











South Burnett Regional Council and Cherbourg Aboriginal Shire Council analysis of routes

Longer distance and inter-centre routes

The proposed Kingaroy to Theebine Rail Trail would be the predominant long-distance tourism route in the South Burnett region, connecting through Murgon, Wondai and Kingaroy. There is significant community support for the development of this rail trail, as it will potentially benefit regional tourism and be relatively easy to implement given there is an existing, undeveloped corridor.

A principal route was investigated running parallel to the rail trail on the Bunya Highway. It was not included in the network as it would duplicate the function of the rail trail, and would be unlikely to cater for significant touring demand.

A tourism route identified along the D'Aguilar Highway between Nanango and Kingaroy is viewed as a natural extension to the rail trail, potentially linking up to additional recreational facilities to the south. The distance between the two towns (approximately 20 km) could cater for a small number of commuter cyclists, however it will mostly be utilised by recreation/touring cyclists.

A tourism route identified between the Bunya Highway east of Murgon and Lake Barambah would cater for recreational cyclists wanting to ride to the lake, and could also act as a branch for the rail trail. A potential loop was investigated on the Burnett Highway, connecting back to the Bunya Highway near Goomeri, but was not included due to potentially small demand, which would mostly come from sporting cyclists.

Other long distance routes not included due to low demand include:

- · Burnett Highway north from Goomeri
- Bunya Highway west from Kingaroy
- an alternative connection between Kingaroy and Nanango using Kingaroy-Cooyar Road and Nanango-Brooklands Road.

Map 4 - Kingaroy

Kingaroy's principal network appears to be relatively complex for a number of reasons. Firstly, the street network is not uniform, meaning that many routes need to meander to reach a destination. Secondly, pockets of relatively dense residential populations outside of the immediate urban boundaries (separated by agricultural land) means the principal network needs to include longer distance routes.

Harris Road and Bellavista Avenue on the southern edge of the town are identified as principal routes to service the residential area near Booie. While these may appear to be separate communities, the town centre is only a short 3-5 km ride, which is manageable for most cyclists. These areas are also likely to experience residential growth in the future.

North Branch Road and Crawford Booie Road north of the city are also envisaged in the network as a tourism route and potential high demand sporting circuit.

A number of future principal routes are identified to the north of the town, which is expected to have future residential growth.

A formed rail corridor heading south/south-east from the town is identified in the principal network, because of the opportunity to develop a good quality cycling facility along the existing cleared alignment. It would service residential areas to the south of the township.

The Bunya Highway heading south of the town to Taabinga was investigated but not included as a principal route. While there are some destinations along this stretch (including an 18-hole golf course), it was considered they would generate minimal cycling demand.

A principal route along Kingaroy-Cooyar Road has been included to connect to the airport and the D'Aguilar Highway. A section of this route was initially identifed along Peterson Drive but was not included as it duplicates the function of the route on the D'Aguilar Highway.

Map 5 - Nanango

Nanango's grid-like street network (excluding the D'Aguilar Highway) assisted with the even spread of cycling routes. A box-shaped cycle network is identified to serve the residential areas to the south of the town centre, and to provide access to destinations such as the Nanango High School via Cairns Street.

A principal route on the Burnett Highway north of the town will provide more efficient access for a limited rural residential population.

Map 6 - Wondai

Three routes (in addition to the proposed Kingaroy to Theebine Rail Trail) have been identified in Wondai, covering part of the Bunya Highway, Scott Street, and McCord Street. The Bunya Highway is identified so that a higher quality cycling facility can be provided for residents heading east-west along this relatively high traffic corridor.

Scott Street is identified to connect residents, particularly from the south, to the town centre and the Wondai Hospital.

Map 7 - Murgon

The Kingaroy to Theebine Rail Trail and a principal route along the Bunya Highway will provide important connections for the urban area of Murgon. The Bunya Highway, when combined with the rail trail, will

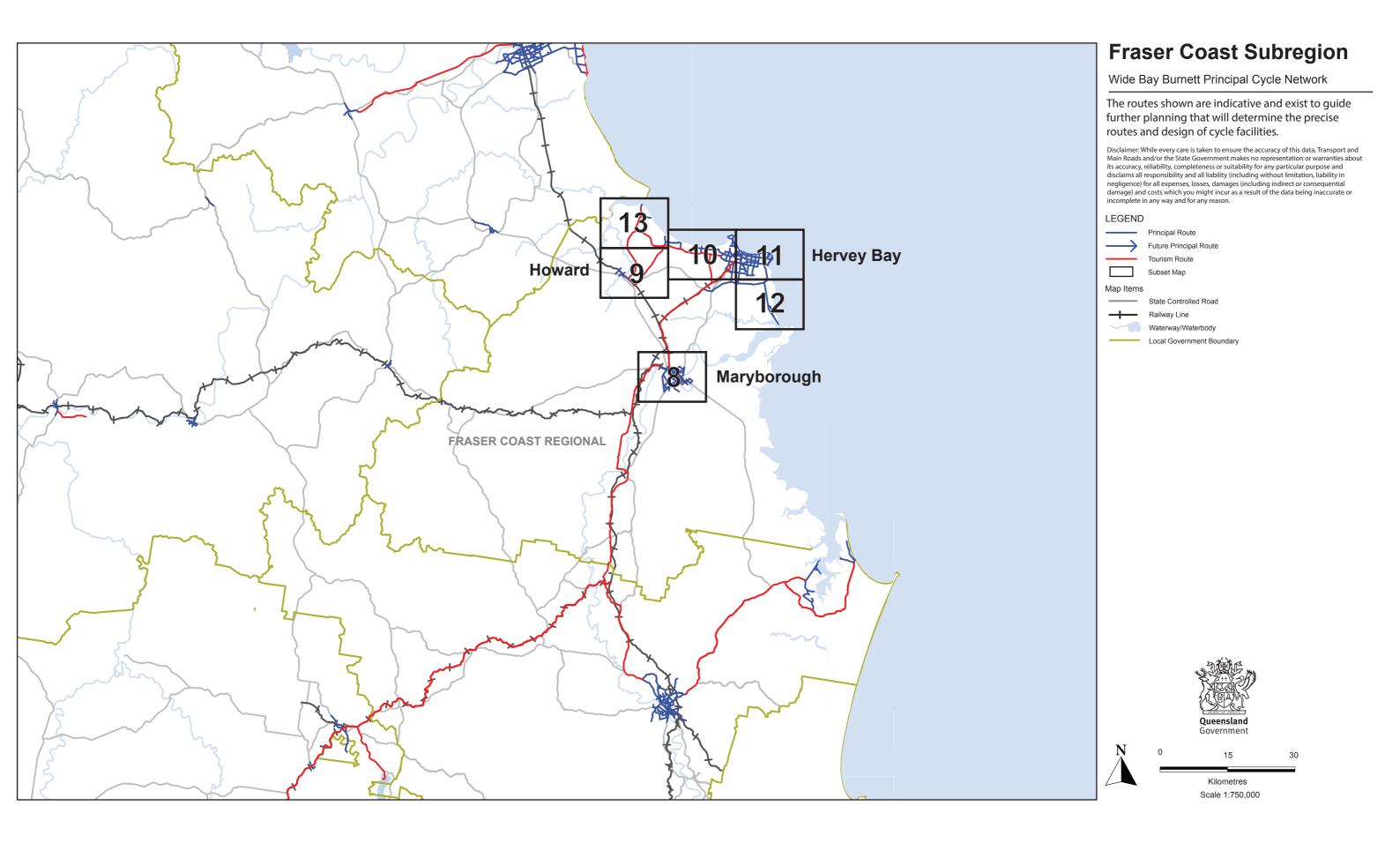
provide access to the town centre as well as recreation destinations such as the golf course. It will also connect to other parts of the network which link to employment destinations, such as Murgon-Gayndah Road, and the nearby commercial and industrial areas.

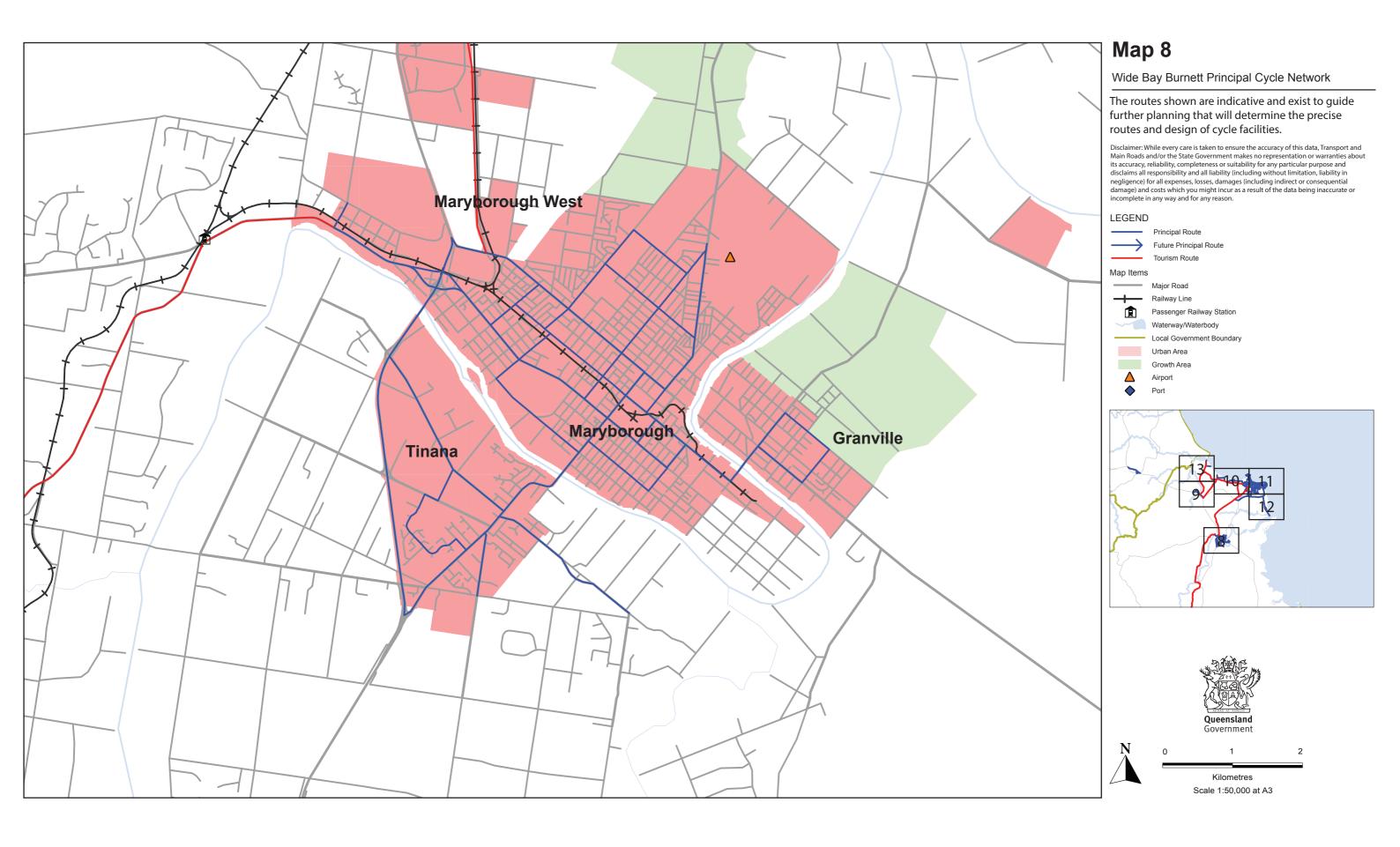
Gore Street is identified as a principal route to the limits of the urban area, to connect the town centre to schools and sporting facilities, as well as service the residential area to the north.

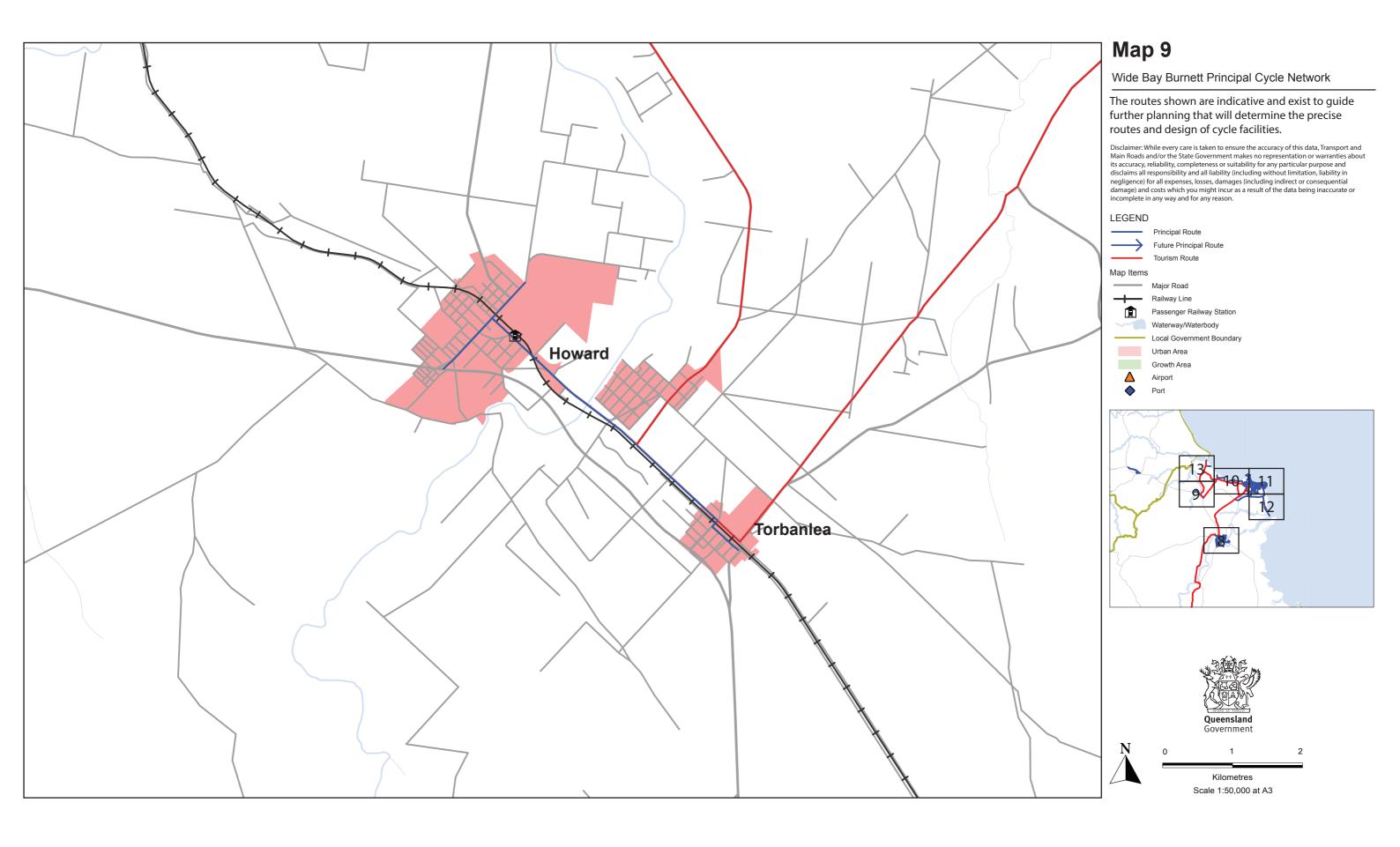
The network identifies a disused branch line going north from the rail trail, to provide both a commuter route and an off-road alternative for residents heading to employment areas to the north. A continuation beyond Murgon-Gayndah Road was investigated but not included due to the lack of destinations or attractors beyond this point.

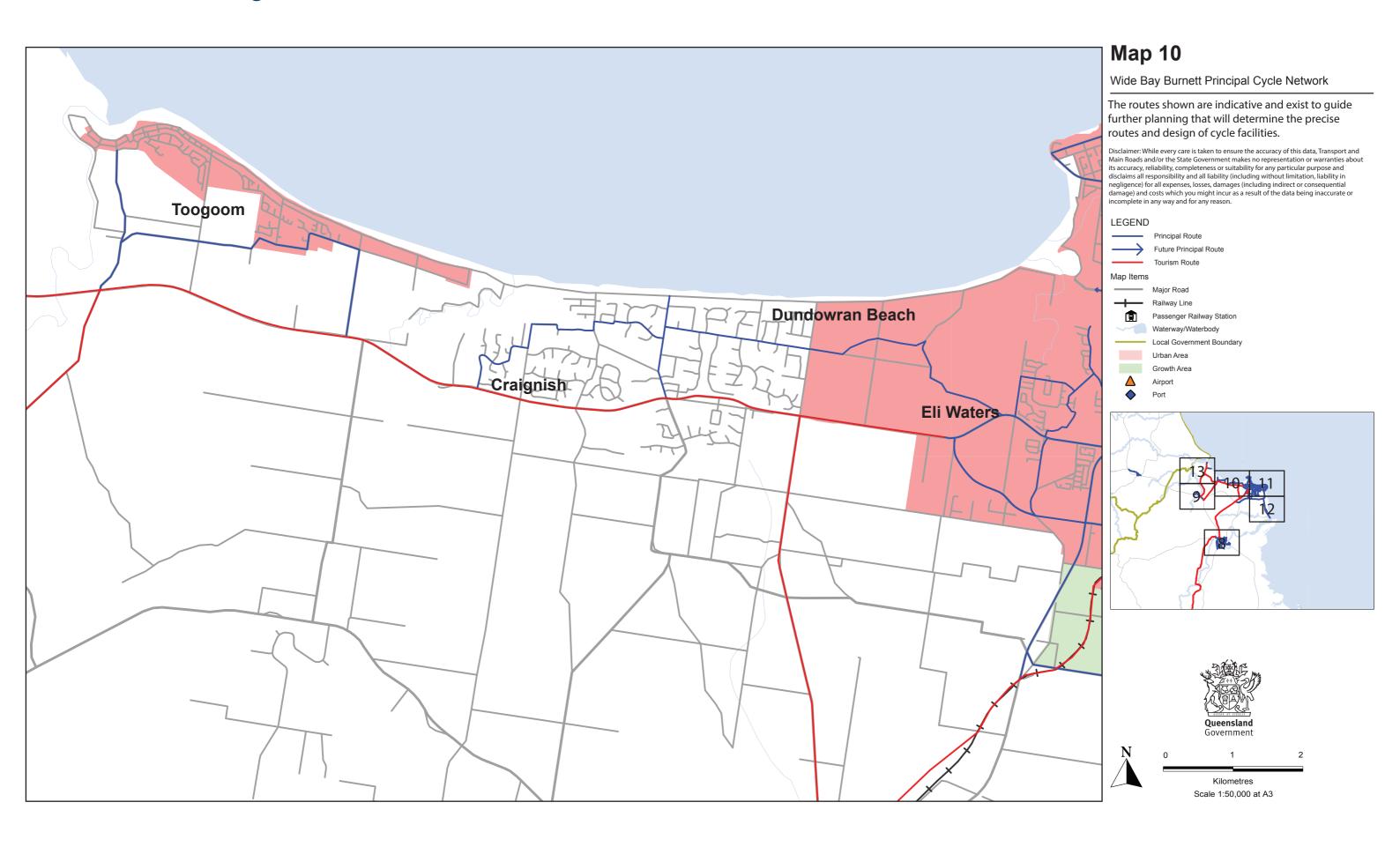
Map 7 - Cherbourg

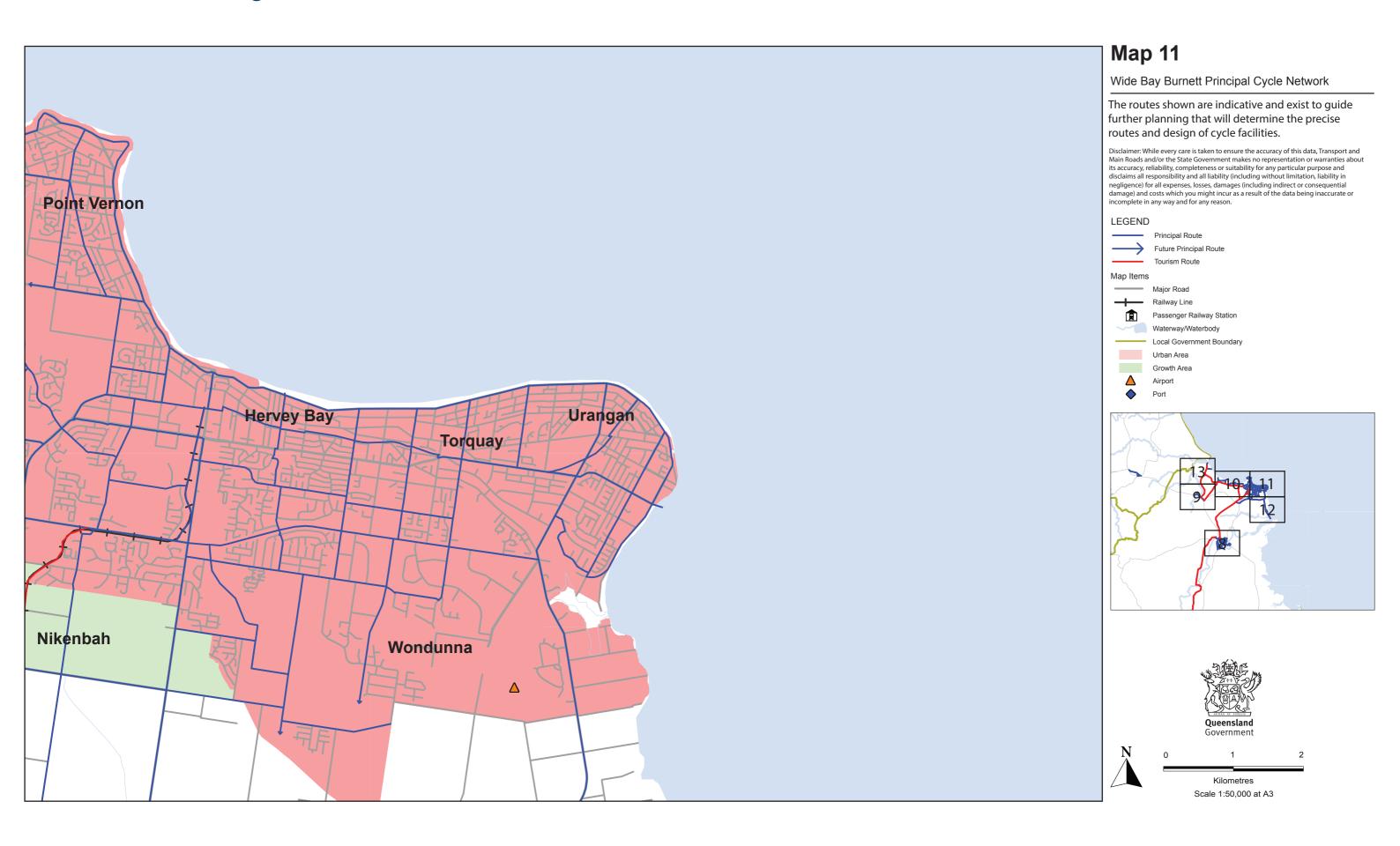
The Cherbourg Aboriginal Shire Council Planning Scheme identifies the walking and cycling intentions for Cherbourg. The planning scheme mapping shows a future cycling and walking route along Cherbourg Road. There is a high level of existing demand from Cherbourg residents who walk and ride along Cherbourg Road to access Murgon for services, employment and recreation. A principal route is shown on Cherbourg Road, consistent with the planning scheme, to facilitate cycling between the two towns.

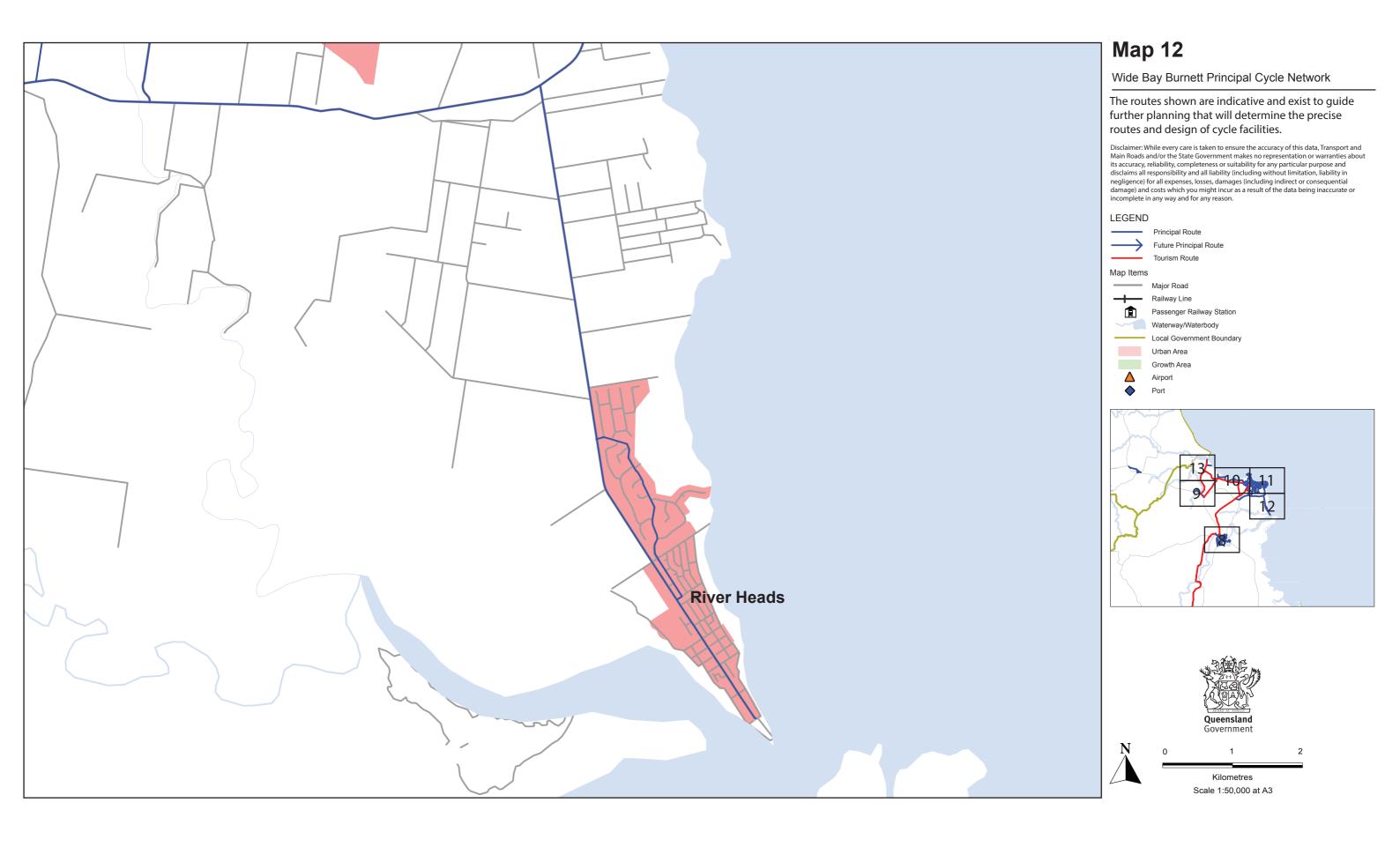


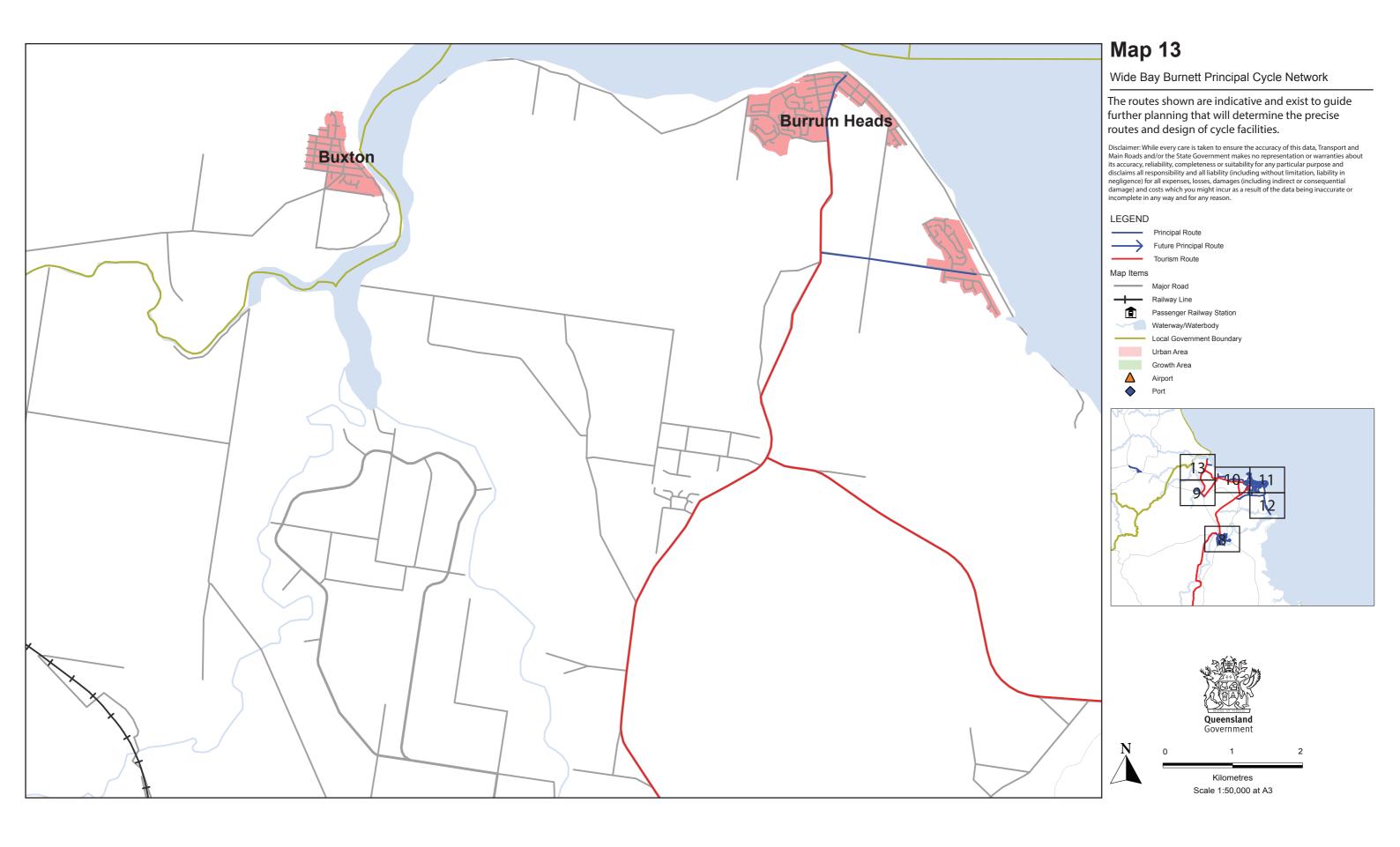












Fraser Coast Regional Council analysis of routes

A number of planning inputs from Fraser Coast Regional Council have informed the cycle network planning for the region. These include council's planning scheme background papers and structure plans, Mary to Bay Rail Trail planning and workshop outputs. Particularly, Council's Structure Plans have provided crucial input into how the cycle network will support the development of new residential growth areas, particularly around Hervey Bay.

Longer distance and inter-centre routes

A long distance tourism route between Maryborough and Gympie via Tiaro will connect the two adjacent major centres to the Kingaroy to Theebine Rail Trail. It can primarily be provided on lower volume roads adjacent to the Bruce Highway.

An indicative alignment for a rail trail is identified on an existing disused rail corridor between Maryborough and Hervey Bay. The Fraser Coast Council and local community groups support the Mary to the Bay Rail Trail as a safer and more efficient connection between Maryborough and Hervey Bay.

An additional connection between Maryborough and Hervey Bay was investigated along Hervey Bay Road. However, it was not included on the network due to the low demand for commuting between the two centres, and the potential duplication of the recreational function of the rail trail.

Principal routes between Howard and Hervey Bay (along Torbanlea-Pialba Road) and Howard and Maryborough (along the Bruce Highway) were also removed in the analysis process as the long distances meant they would likely provide a recreational or sporting function only. The Howard to Hervey Bay route would also duplicate the function of the tourism routes identified along Burrum Heads Road and Old Toogoom Road, which are more scenic and connect to the network at Burrum Heads and Toogoom.

Burrum Heads has been included in the principal cycle network as the population of this centre is larger than many of the towns included in the western area of the region.

Principal routes were initially considered along the Bruce Highway between Maryborough, Howard and Childers, but were removed following subsequent analysis as the distances were considered too vast and the demand too low. They would also be unsafe for cyclists without significant investment.

Map 8 - Maryborough, south of the Mary River

The network on the south side of Maryborough has been developed to

generally cover the urban area, and provide appropriate accessibility to the north side of town. Woongool Road was added to the network to service the population to the east. Teddington Road services a significant residential area, as well as linking the rest of the city to the caravan park.

The Bruce Highway north of the intersection with Gympie Road was identified as a principal route to provide a strong connection between the population base and services at Tinana and the north-western side of town.

Map 8 - Maryborough, north of the Mary River

The grid street pattern on the north side of the Mary River has resulted in a regular network which evenly services most of the residential area. The network has been located to connect to as many services as possible. For example, a possible route on Lennox St was moved to John St to connect to the medical centre and Maryborough Central Primary School.

Saltwater Creek Road and Pallas Street have been added to the extent of the urban area to service the Maryborough Airport and the sporting fields. North of the town, this connection will be serviced by the Mary to Bay Rail Trail.

The grid network generally stops at March Street due to lower residential densities to the east, but continues on Kent Street to provide access back across the river (if the corridor permits). An additional river crossing near Canning Park was investigated but removed due to a lack of planning and commitment for a crossing. A route going north on Walkers Point Road was also removed due to potentially low demand and the primary purpose servicing training cyclists.

On the western side of town, the Bruce Highway is identified to Maryborough West, to provide a connection (along with Walker Street) to the Maryborough Showgrounds, and to the south side of the river. It also links in with Maryborough-Biggenden Road, which is the start of the tourism route south to Theebine and Gympie.

Map 9 - Howard

A principal route along the Old Bruce Highway in Howard provides a river crossing between Torbanlea and Howard. Another route on the Bruce Highway through Howard was removed from the network as it duplicated the function of the Old Bruce Highway and experiences high traffic volumes.

Maps 10, 11, 12 and 13 - Hervey Bay and surrounds

While the street network in Hervey Bay lacks the regularity of Maryborough, a number of east-west spine corridors enhance local

permeability. The principal cycle network in Hervey Bay takes advantage of these spines and existing cycling infrastructure where possible. The spines are not entirely parallel, so additional routes have been identified to ensure an adequate mesh width where the spines diverge. For example, the routes identified along Boundary Road and Boat Harbour Drive/Links Mobility Corridor are sufficiently close together in the east but an additional route is identified along Colyton Street and Oleander Avenue to tighten the mesh width.

North-south principal and future routes have been identified south of Doolong Road, including Doolong South Road and Raward Road. When developed, these will connect to the Fraser Coast Anglican College, the existing residential areas to the east, and the potential residential growth area to the south.

An adjacent route connecting Samarai Drive to Doolong is identified as a future road in the Doolong Flats Structure Plan, and will eventually service a growing residential population in the immediate area.

North of Doolong Road, a route connects Urraween Road and Boundary Road along existing parkland. This parkland is a future road corridor that will include a cycling facility when constructed.

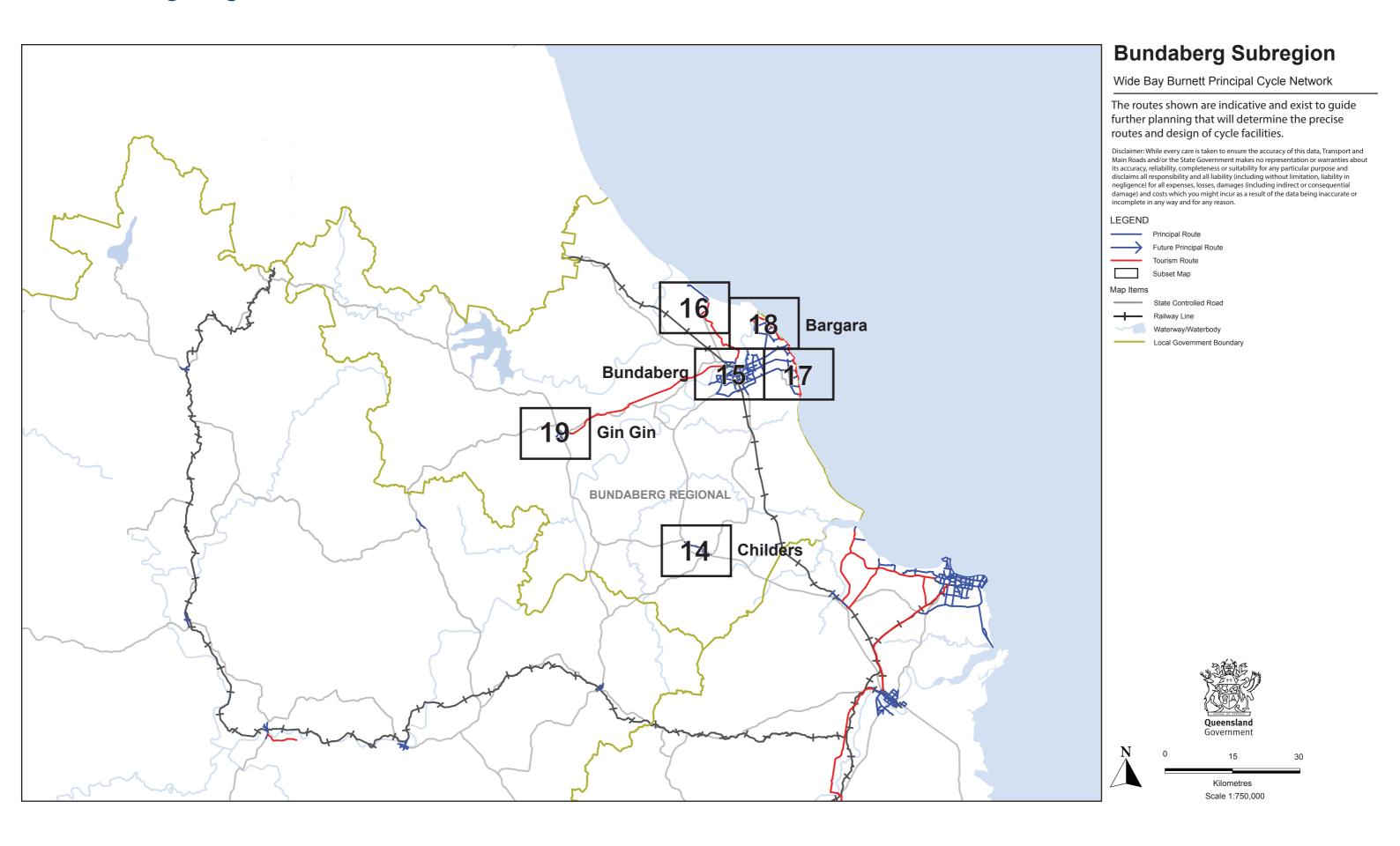
Booral Road, south of the Hervey Bay township, was identified as a principal route to connect Maryborough and River Heads. It also provides an option to ride to Urangan from the rail trail without passing through the town. Booral Road also connects to the Hervey Bay Airport and an industrial estate in the eastern section.

A short, no-through route is identified along Pulgul Street, finishing near the foreshore as a direct link to a number of attractions in this area, including Lions Park and Point Dayman Park.

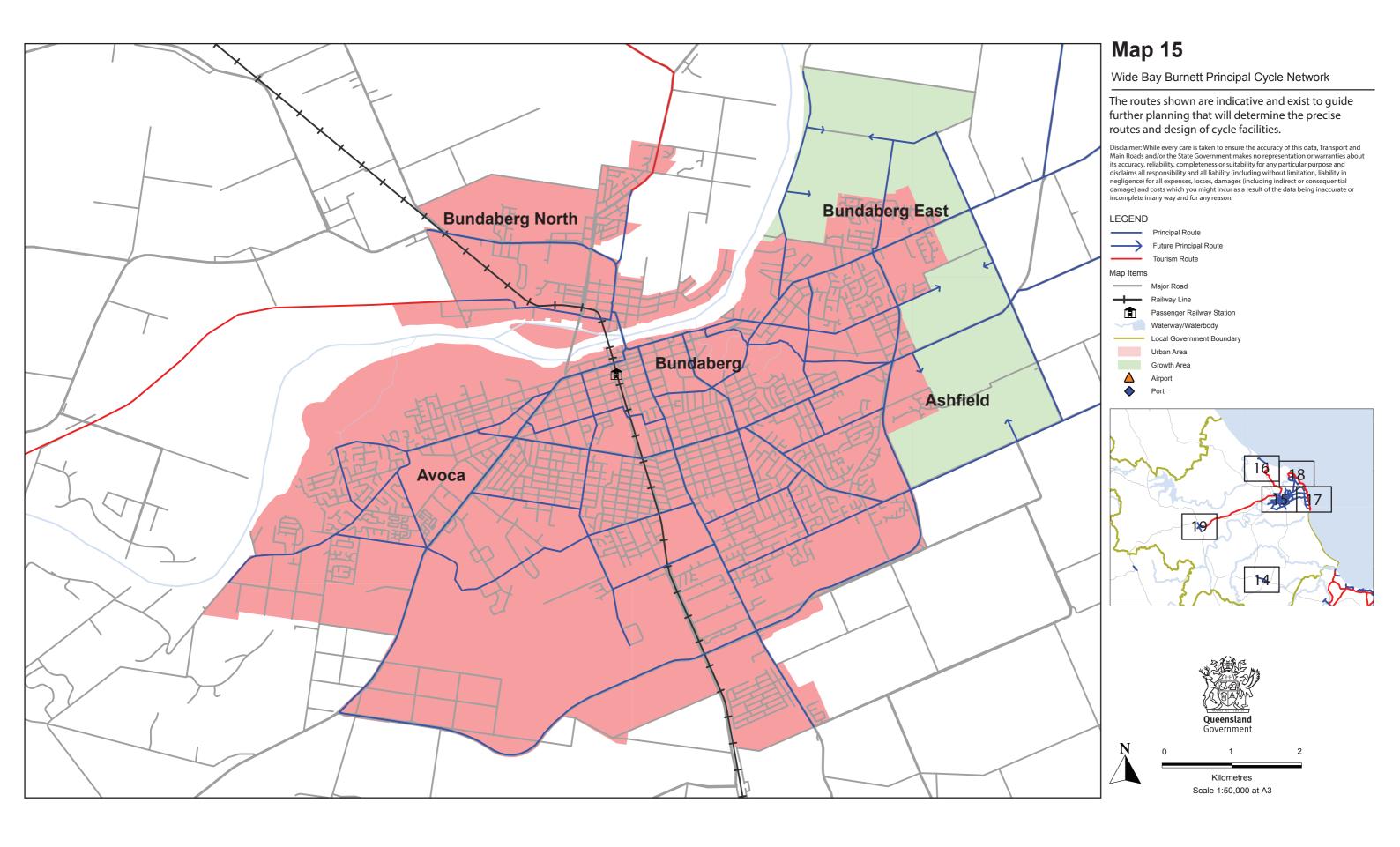
The principal route on Charlton Esplanade is shown clipped to the road alignment, despite an existing off-road facility along most of its length. This route could be either an on-road or off-road facility, depending on the suitability and requirements identified through further planning.

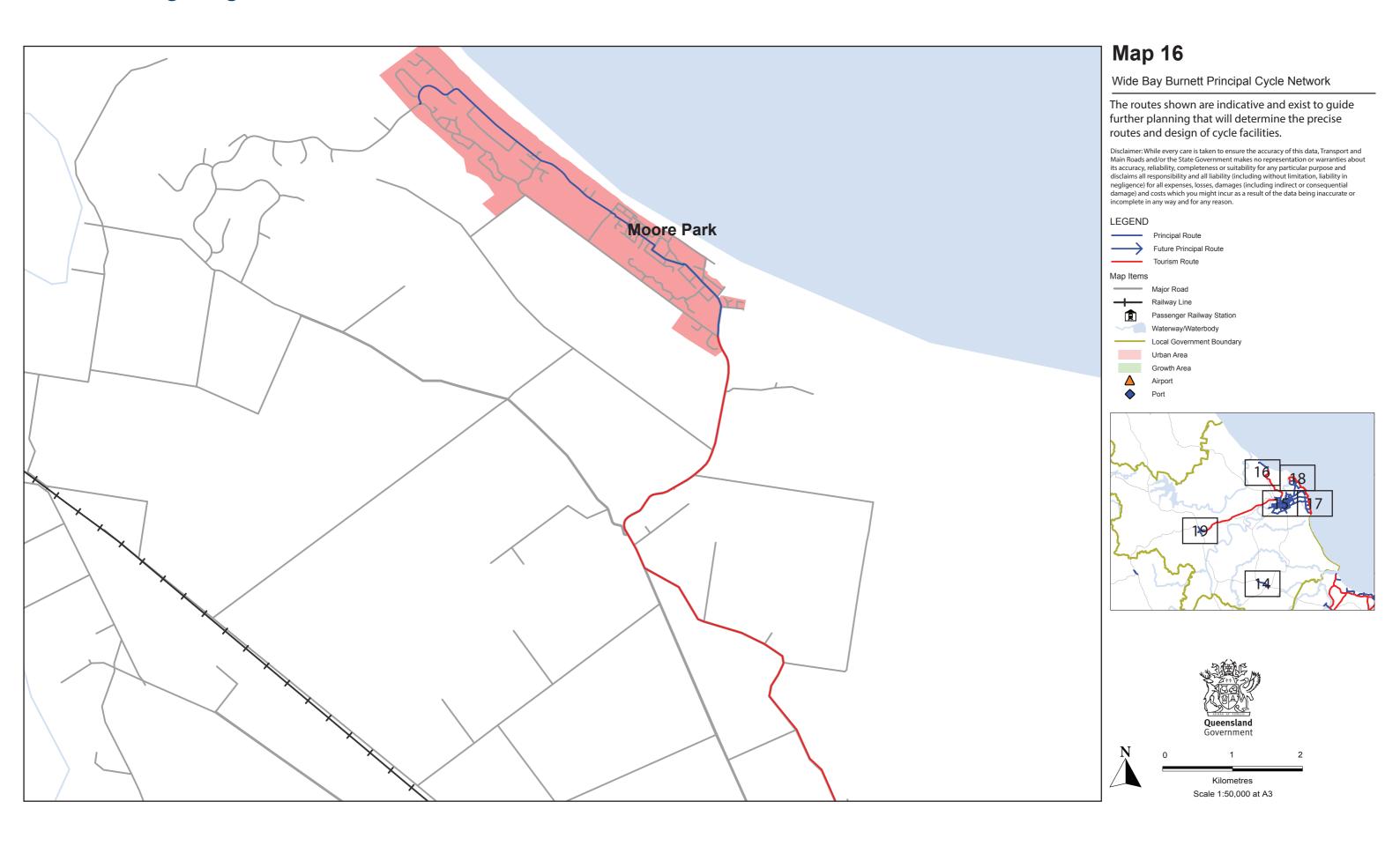
It is envisaged that the network will continue along Urraween Road to the intersection with Pialba-Burrum Heads Road (west of the intersection with Scrub Hill Road). Although there is no existing road alignment, planning has been undertaken for the extension of Urraween Road through this section.

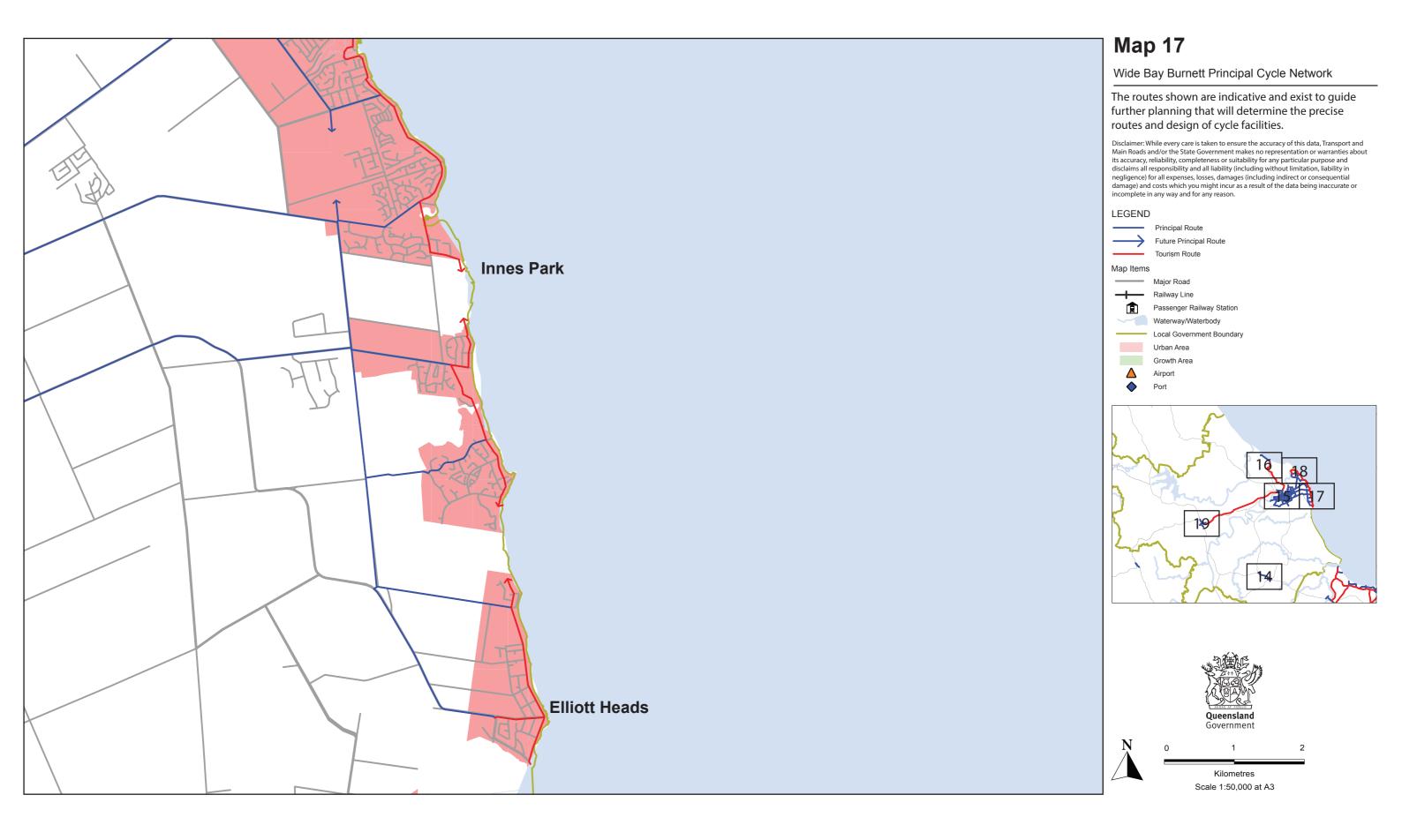
In Eli Waters, a route is identified along Grinsteads Road through to Sempfs Road, to align with the indicative primary pedestrian and cycling network identified in the council's Eli Waters – Dundowran Structure Plan. It will cater for the likely residential growth in this area.

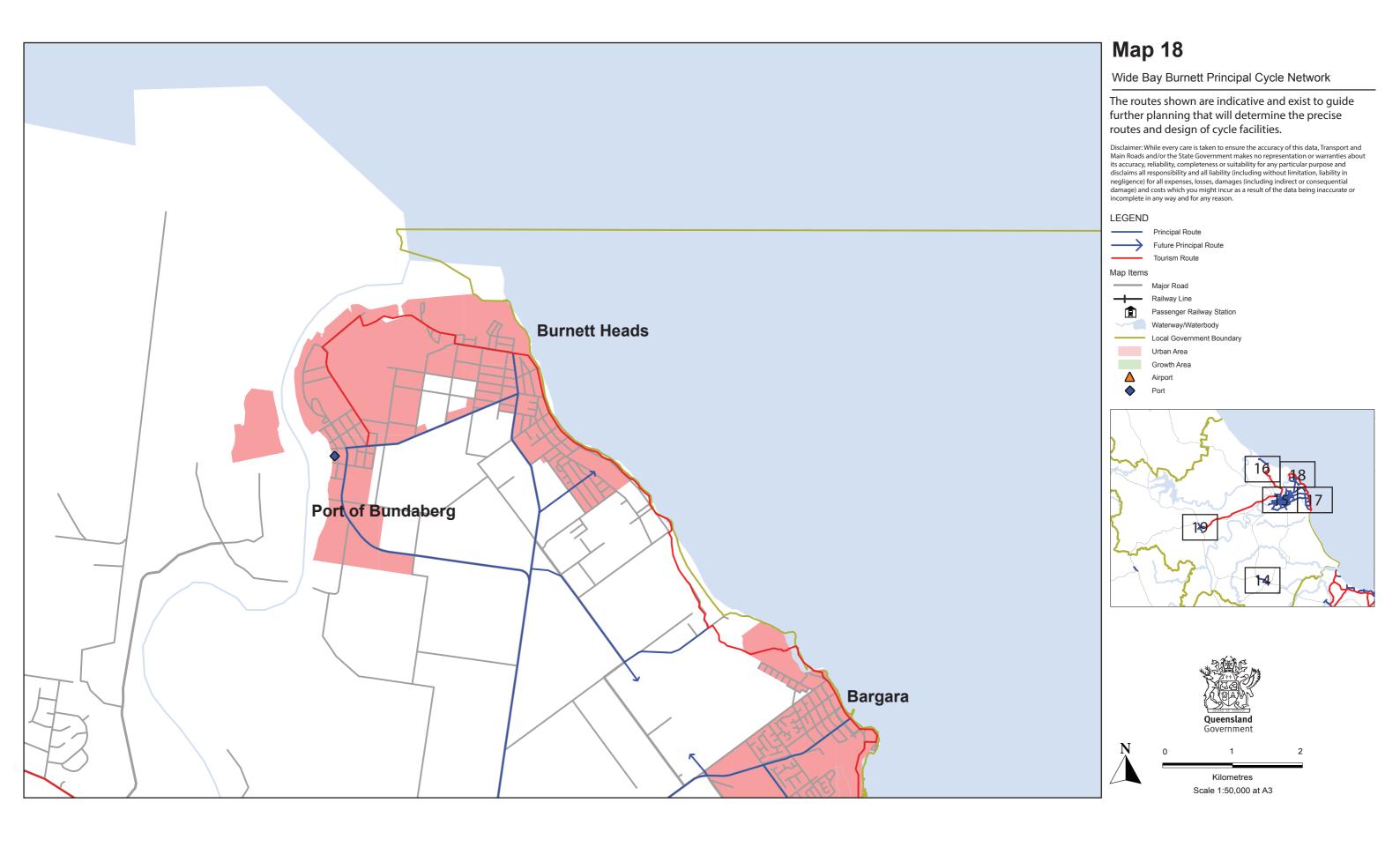














Bundaberg Regional Council analysis of routes

The Bundaberg Regional Council released its Multi Modal Pathway Strategy – Connecting Our Region in February 2012. The strategy aimed to assess the existing multi modal pathway network and recommended a staging strategy for the construction of paths that addressed locational criteria, hierarchy characteristics and design and construction standards.

The strategy identified a three tier hierarchy of pathway types:

- principal pathway primarily servicing commuter/tourist/recreation functions to provide access to local and regional attractors
- distributor pathways primarily providing access for students to schools, as well as linking alternative destinations
- collector pathways shared off-road paths which provide access in urban areas to the higher order paths as well as access in smaller townships.

The functions of the principal pathways and distributor pathways overlap with the intended network outcomes of the WBBPCNP. Therefore, the principal and distributor pathways developed by the council have informed the placement of the principal cycle network in the Bundaberg region.

However, there are some differences between the two networks. Some distributor pathways have not been included where their function was not aligned with the principal cycle network principles, and other alignments vary. In some instances, the principal cycle network extends council's network where an additional connection is required to service a demand.

Longer distance and inter-centre routes

A long distance tourism route is identified heading west from Bundaberg, linking to Gin Gin. This is intended to be a rail trail along a disused rail alignment, serving local residents wanting a longer distance ride and attracting tourists to the area. Given that a corridor already exists, the cost of implementing this rail trail should be relatively low.

An adjacent principal route on Bundaberg-Gin Gin Road was investigated but not included in the network as it duplicated the recreational function of the rail trail, and would be unlikely to cater for any commuter or utility trips between the two centres. There are also few suitable stopping destinations along the route.

A route between the north side of Bundaberg and Moore Park has potential for commuters, although the distance is probably too great for frequent use. There is also reasonable recreation and tourist demand for this route, so it is identified as a tourism route. Where possible, the route is identified off Moore Park Road to reduce conflicts with traffic and enhance its attractiveness.

Potential routes were also investigated between Bundaberg, Gin Gin, Childers and Woodgate. However, they were not included because the vast distances between centres (particularly Bundaberg and Childers) meant demand would likely be very low.

Map 14 - Childers

Part of the principal cycle network in Childers is identified on the Bruce Highway. It is the town's major corridor and centre, and connects to employment destinations such as the industrial and commercial area on Goodwood Road. CSR Depot Road, Huxley Road, and North Isis Road will provide a connection to the west, such as to Apple Tree Creek.

Broadhurst Street (along with Thompson Road and Taylor Street) is identified to provide cycling access to the town centre for residents to the south, and to connect to Childers Hospital.

Map 15 - Bundaberg

The Quay Street bridge is part of the network but the Don Tallon Bridge is not. Cyclists are not currently permitted to use the Don Tallon Bridge, and the length and tightness of the corridor mean that it is likely to be an unattractive route. Access to the street network on the northern side of the bridge is hindered by the current grade separation, limiting its ability to effectively connect to areas directly adjacent to the river.

The Bundaberg Ring Road is a principal route for its entire length from Bundaberg East to near the Bundaberg Airport. On the eastern end, it is a connective spine between a number of suburbs including Bundaberg East and Ashfield, and connects trip generators such as St Luke's Anglican School and the commercial centre on Bargara Road. In the west, it is an unbroken, efficient route for long distance trips to destinations such as the Glenlodge Caravan Park and the Bundaberg Airport.

The Isis Highway has been identified as a principal route. At present, the Isis Highway is a major corridor for commuters heading into town from the southern suburbs and a key connector to the airport, Sugarland Shoppingtown and other services.

This corridor also has a similar function for cyclists, as it is the most direct and uninterrupted connection to a number of trip destinations. The Isis Highway also connects indirectly to the Quay Street Bridge, strengthening the connection between the north and the south of the Burnett River.

Routes identified along Enterprise Street and Commercial Street provide connectivity to the adjacent major commercial precinct and the Bundaberg Airport. These roads have high proportions of commercial

traffic and are likely to have a significant cycling demand, so it is important to provide safe cycling facilities to minimise conflict between the modes.

Kay McDuff Drive at Thabeban is identified as a principal route, even though is has no through connection to other parts of the network. It will, however, service a growing commercial and industry precinct and is a natural continuation of Fitzgerald Street, to Shalom College.

Future principal routes are identified in Ashfield, near the Bundaberg Christian School, which is identified as a future growth area. It is therefore important that the plan indicates the intention to provide principal routes to the area when it is developed. Routes were investigated along the Isis Highway and Goodwood Road (south of the city), connecting to the area around Childers. However, they were not included as the long distance between Childers and Bundaberg cannot sustain a high level of commuting.

Branyan Drive in the west of Bundaberg is identified as a principal route to Gorlicks Road to service the growing population along this corridor. A longer length of Branyan Drive (to Louise Court) was investigated but was amended to the boundary of the urban area, as the residential density beyond this point is relatively low.

Routes along Bundaberg-Lowmead Road and Moore Park Road to the north of the city were also investigated. but not included. Bundaberg-Lowmead Road was considered too lengthy of a route, with little demand for long distance touring trips to the north. The route along Moore Park Road duplicated the function of the Gooburrum Road/Tantitha Road connection to Moore Park.

Maps 16, 17 and 18 - Burnett Heads/Bargara/Elliot Heads

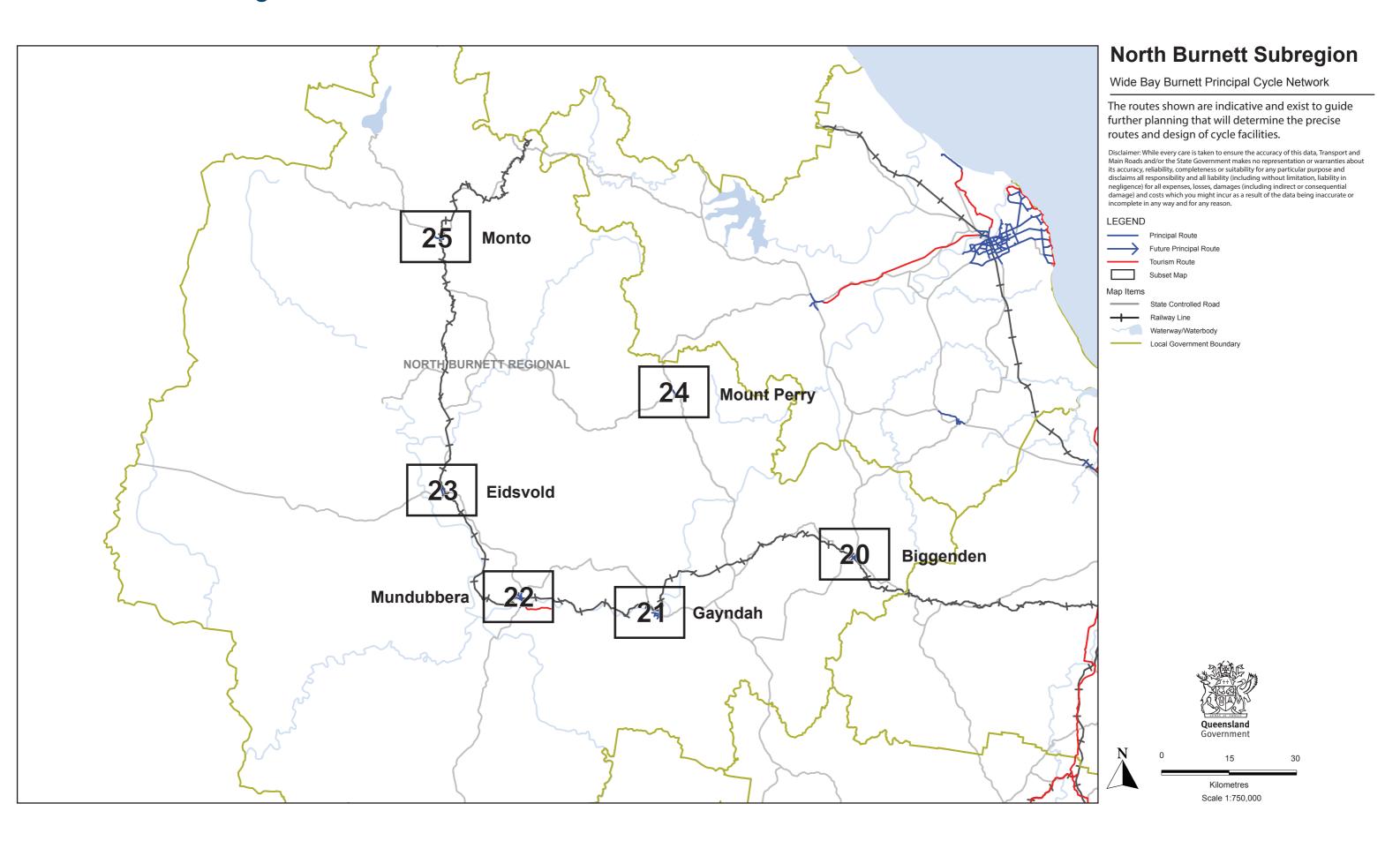
The coastal villages of Burnett Heads, Bargara and Elliot Heads are small towns that run north-south along the coastline. They have an important relationship with Bundaberg, with these towns dependent on it for higher-level services and employment. There is a need to provide direct cycling connections between the centres. Therefore, a number of routes between Bundaberg and the coastal areas will encourage high levels of patronage.

Two continuing north-south routes with separate functions have been identified along the coast. One is a tourism route along the coastline, and the other is a principal inland route using the existing road network where it is available and appropriate (such as Back Windemere Road). The coastal route is intended to cater for tourist and local recreational slower-speed movements, such as sight seeing. The principal route is intended to connect commuters and residents to services through a higher speed, more direct and efficient connection.

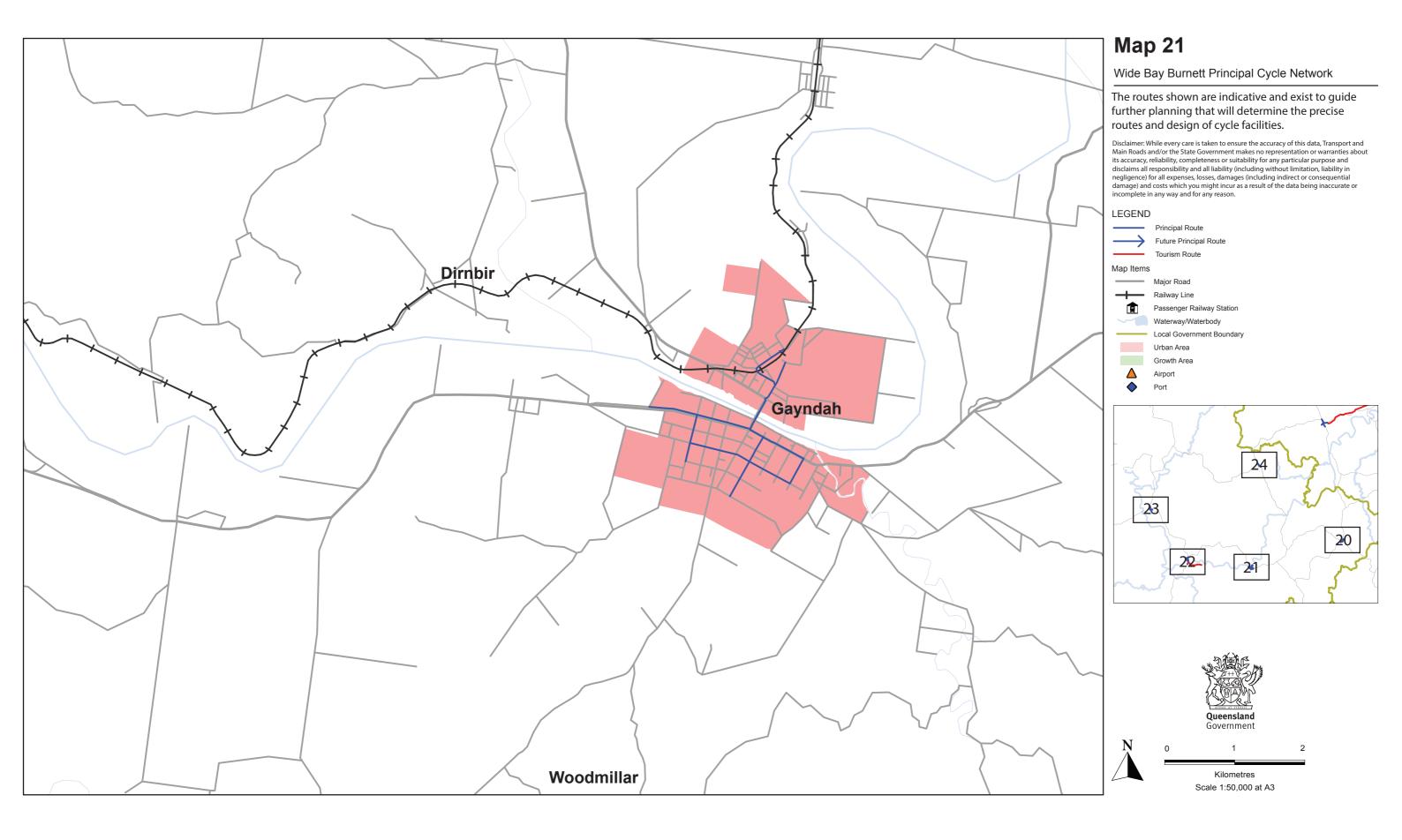
Bundaberg Regional Council analysis of routes

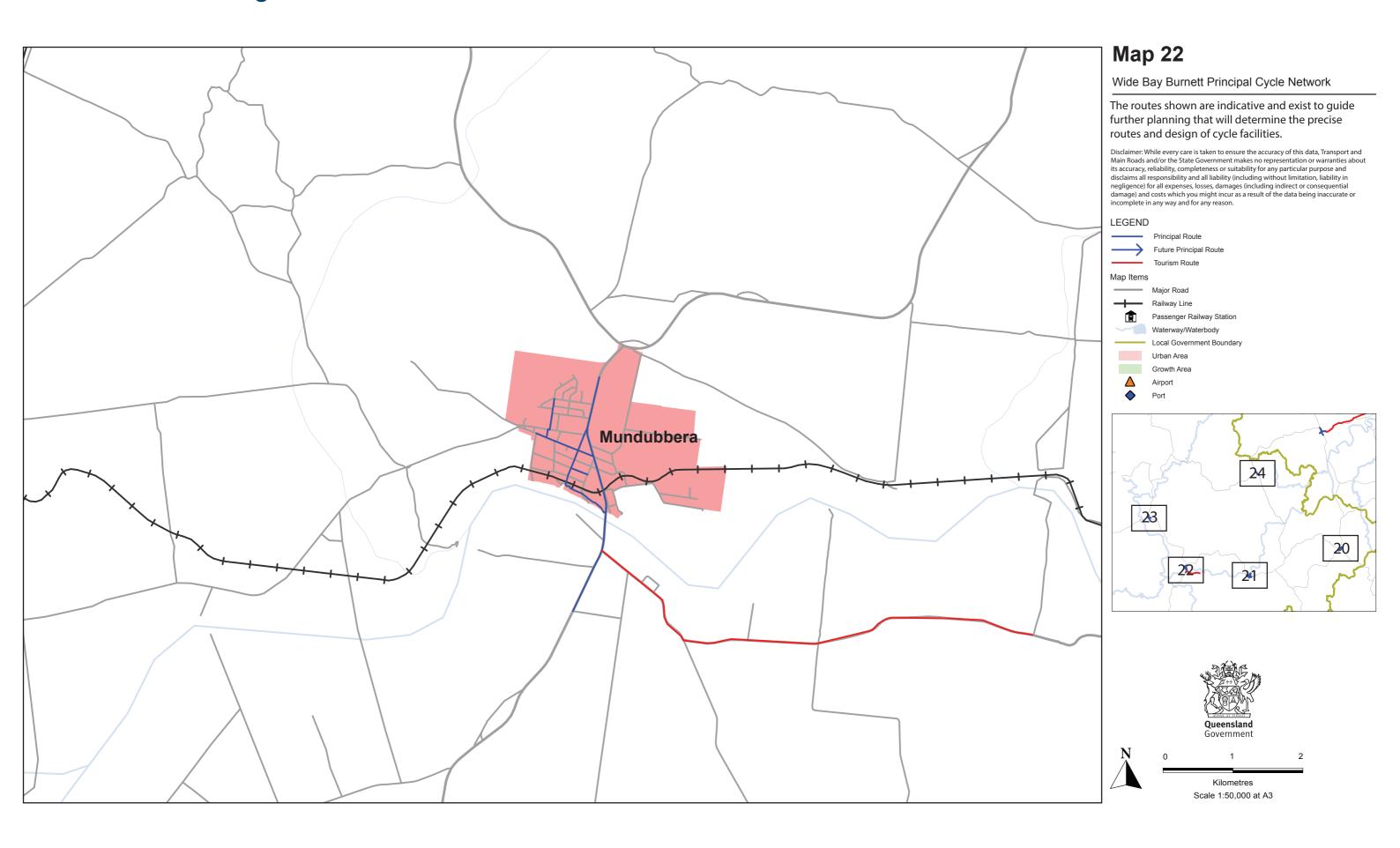
Map 19 - Gin Gin

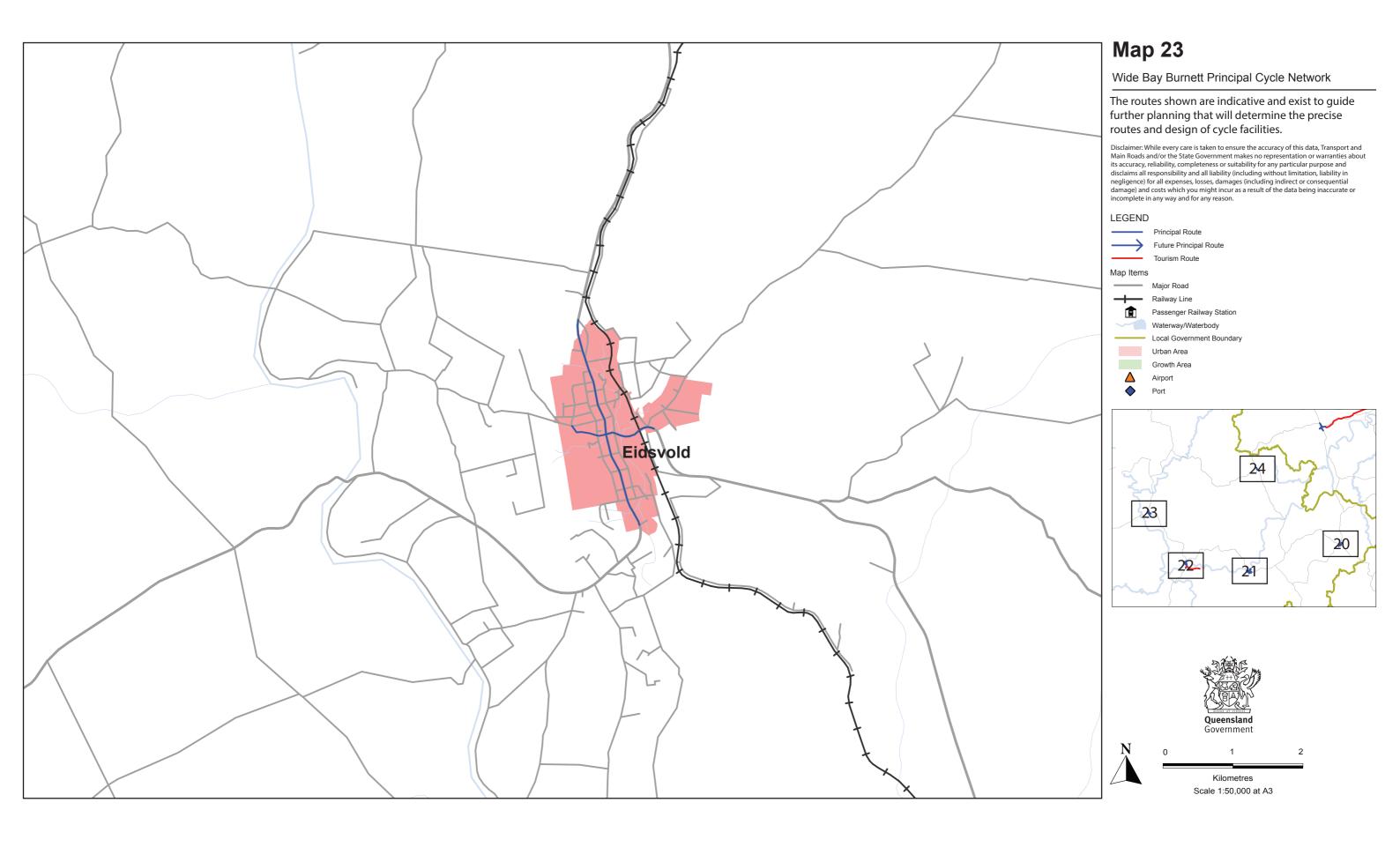
The Bruce Highway and Bundaberg-Gin Gin Road are the most important connections through Gin Gin, with many shops and services located along the corridor. Cycling on this corridor is supported by the reduced traffic speed through the town. It is identified on the network because it connects to the proposed Bundaberg-Gin Gin rail trail, and various destinations east and north of the town.

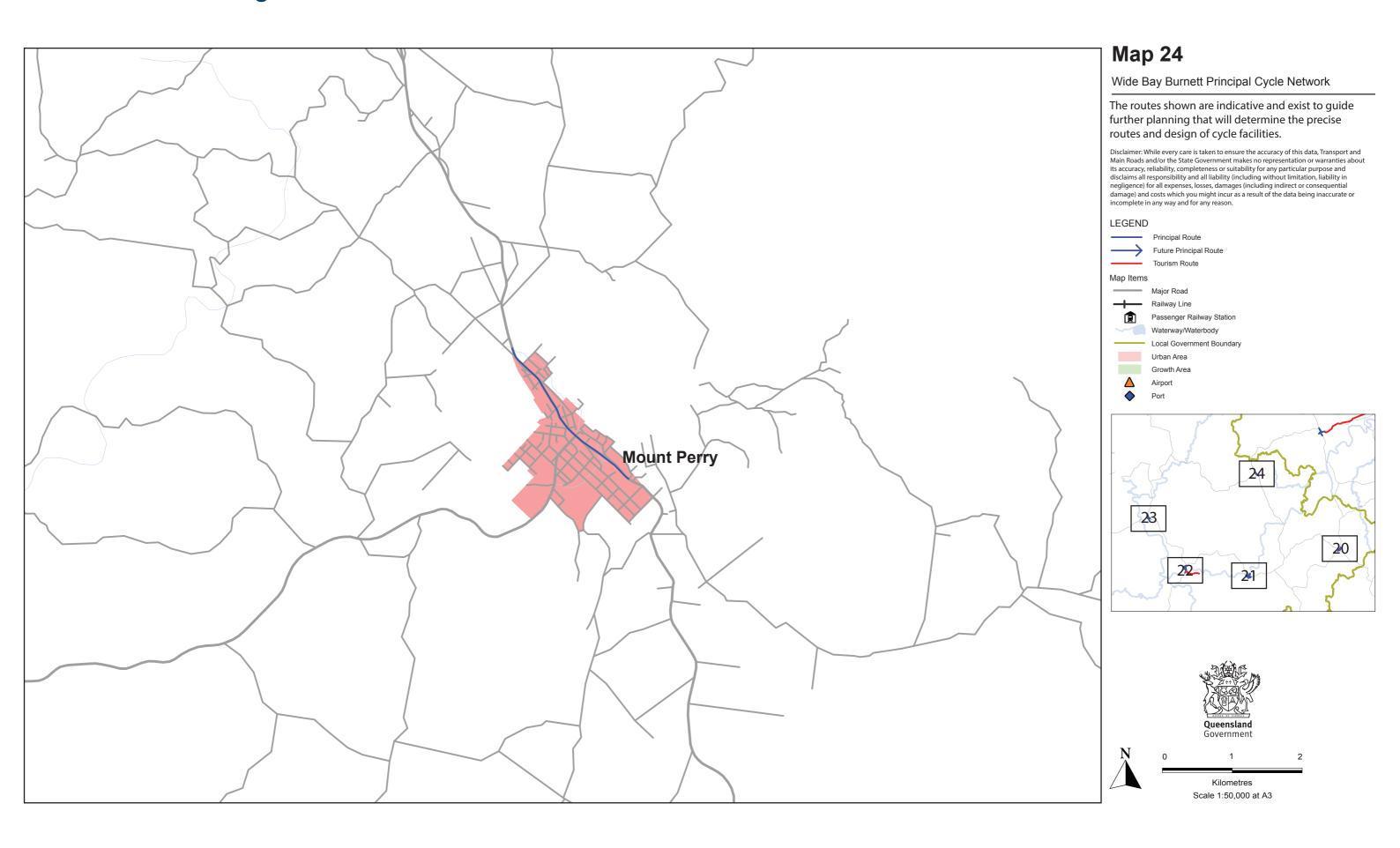


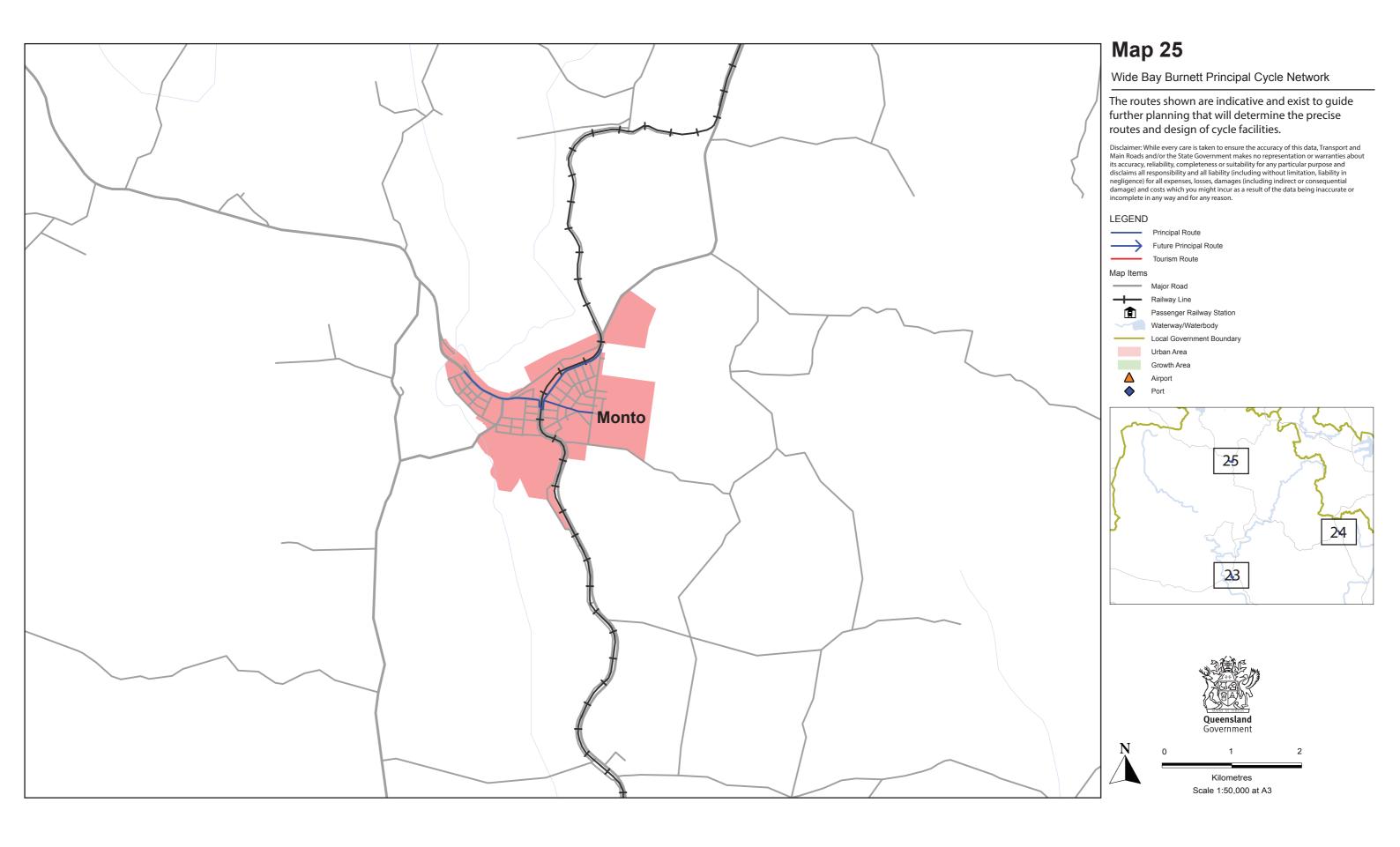












North Burnett Regional Council analysis of routes

Longer distance and inter-centre routes

The following tourism routes were investigated but were removed from the principal cycle network because the distances are too long and demand too low to warrant their inclusion:

- Gin Gin to Mount Perry (Gin Gin-Mount Perry Road)
- Monto to Mount Perry (Monto-Mount Perry Road/Burnett Highway)
- Biggenden to Childers (Isis Highway)
- Biggenden to Maryborough (Maryborough-Biggenden Road)
- Gayndah to Biggenden (Isis/Burnett Highway and Gooroolba-Biggenden Road)
- Mundubbera to Gayndah (Humphrey Road and Burnett Highway)
- Monto to Cania Gorge (Burnett Highway).

During consultation, the North Burnett Regional Council recommended the inclusion of the North Burnett Rail easement. The disused rail corridor connects through towns such as Monto and Eidsvold, and could in the future, potentially be designated as a rail trail.

Unfortunately, there is currently uncertainty regarding the future uses of the corridor, which may be designated for other purposes, or left unused. For this reason, the corridor has not been identified in the plan. However, its inclusion should be reconsidered when the WBBPCNP is next reviewed.

Map 20 - Biggenden

The network in Biggenden forms a general loop, using Victoria Street, the Isis Highway and Edward Street. Although close to the Isis Highway, Victoria Street is identified as there are a number of employment destinations along its length.

Map 21 - Gayndah

The network spans both sides of Gayndah, with a river crossing envisaged on Bridge Street. Stub-end principal routes are envisaged in places, such as on Barrow Street and Pineapple Street, to ensure access to town for local residents.

Bridge Street and Cordelia/Elliott Street are identified on the north side of town to service employment destinations. Although they are close together, both of these routes are required as the rail line separates the two adjacent industrial/commercial areas.

Map 22 - Mundubbera

A principal route is identified spanning the river on Mundubbera-Durong Road to Boynewood. It is envisaged that this will provide access to

employment on the southern side of the river.

Map 23 - Eidsvold

Eidsvold's principal cycle network consists of a north-south route along the Burnett Highway and Eidsvold-Theodore Road (providing access to the town centre), and an east-west route along the Burnett Highway and Hodgkinson St, running across the creek and past the Eidsvold State School.

A route along Spring Gully Road was investigated but not included as it served no clear or discernable purpose for the network.

Map 24 - Mount Perry

Gayndah-Mount Perry Road is identified as part of the principal network in Mount Perry. It will provide local access to the town's general store, and aid general recreational movements throughout the town.

Map 25 - Monto

Generally, the Monto principal network covers the immediate urban area, as the town is relatively self contained. Crossing the rail line is a key constraint to cycling in Monto. It can be crossed between Gladstone-Monto Road and Eyre Street, either by the road bridge or a pedestrian bridge. Of these, the road bridge is envisaged as the primary route, as it provides a safer and higher standard rail crossing for cyclists.

6 Review of the plan

As shown in Figure 4, the WBBPCNP will be regularly reviewed. On an annual basis, Transport and Main Roads will send an update form to all local governments and departmental regional offices seeking details on proposed planning-led alterations to the principal cycle network and details on routes that have been delivered in the past year. Information received will be included as input in future reviews of the plan. Information requested will include:

- description of affected route(s)
- type and description of, change (alteration, removal, addition or delivery)
- description of basis for change (planning document or construction project)
- detailed justification for change against the planning principles outlined in section 3
- description of delivered cycle infrastructure and adherence to applicable standards
- maps and photos of change
- contact officer for required additional information.

7 More resources

There are a number of resources and guides covering the development of cycle networks in Queensland, ranging from statewide target setting to technical specifications for infrastructure. Practitioners are encouraged to review the following:

- Queensland Cycle Strategy 2011-2021
- AUSTROADS Guides
- Traffic and Road Use Management Manual
- Transport and Main Roads' A Guide to Signing Cycle Networks, July 2009
- Manual of Uniform Traffic Control Devices
- Transport and Main Roads' Cycling Infrastructure Policy
- Transport and Main Roads' Technical Note 128, Selection and Design of Cycle Tracks, May 2015
- · Queensland Development Code.

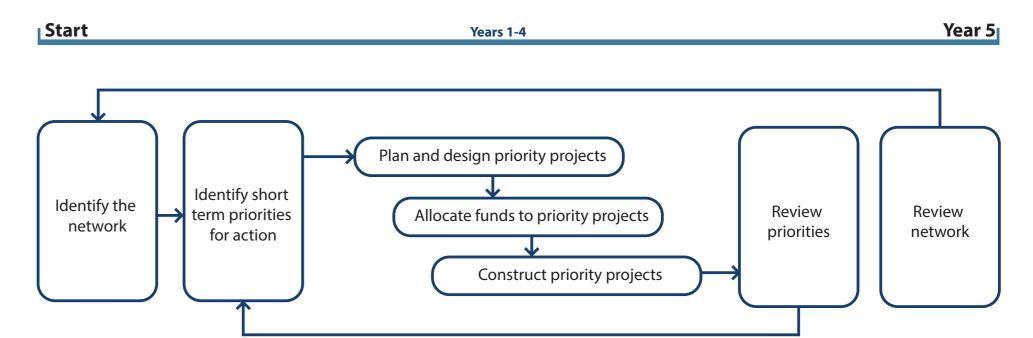


Figure 4. Indicative planning and prioritisation cycle for Transport and Main Roads.