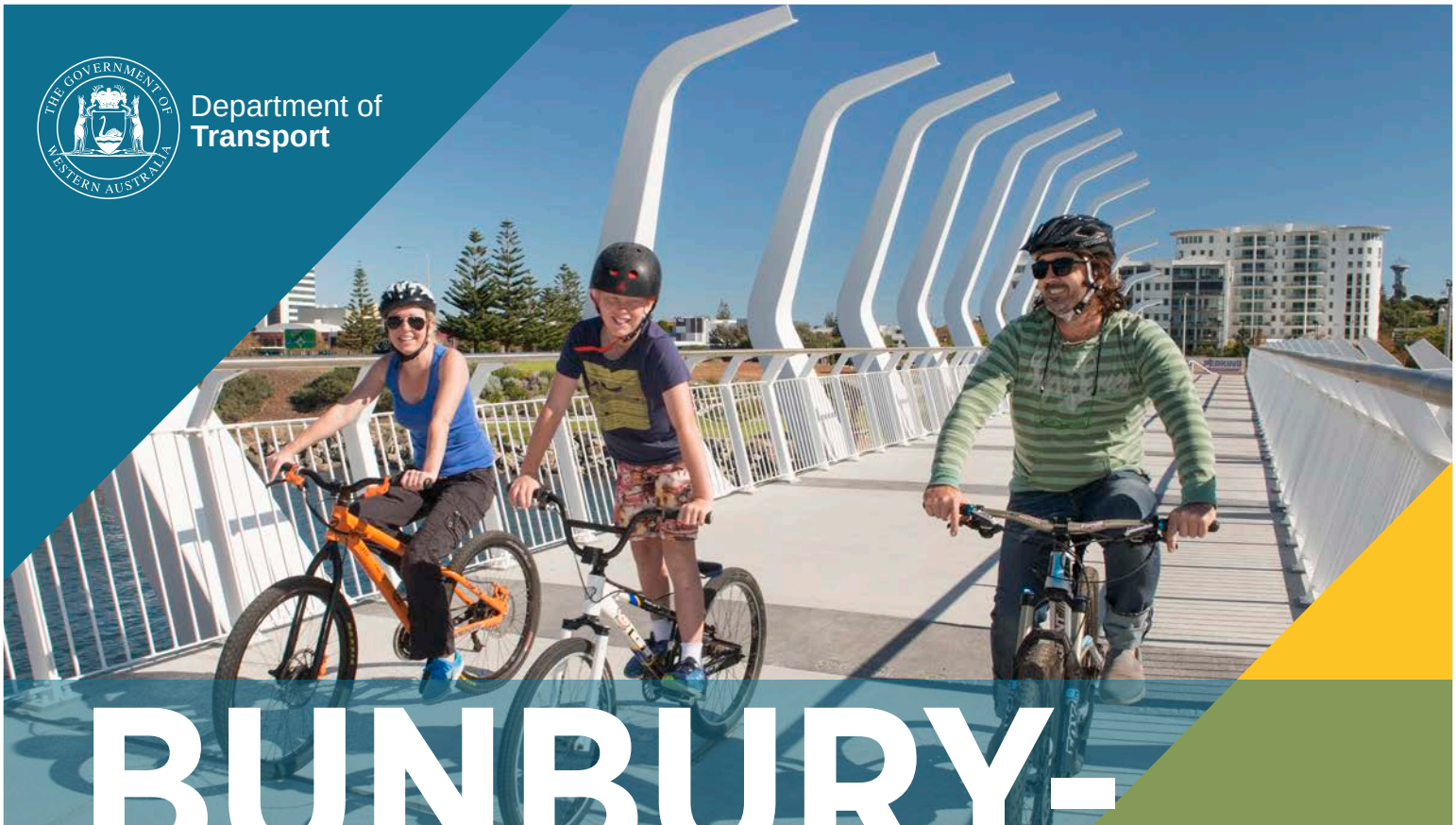
Department of Transport



BUNBURY-WELLINGTON 2050 CYCLING STRATEGY

CITY OF BUNBURY

Shire of Dardanup

SHIRE of CAPEL

SHIRE OF COLLIE
COLLIE RIVER VALLEY
www.collie.wa.gov.au

THE SHIRE OF DONNYBROOK BALINGUP

SHIRE OF HARVEY

EXECUTIVE SUMMARY

Cities and towns with high levels of cycling enjoy a range of economic, environmental and social benefits. Not only is cycling proven to reduce traffic congestion, improve air quality and provide significant health benefits, it also helps to create more vibrant and welcoming communities. From an economic perspective, cycling can help save families money and facilitate new forms of industry (such as cycle-tourism). Fundamentally, increasing cycling mode share is about improving quality of life – something that is critical for attracting and retaining people in regional areas.

The key to increasing cycling mode share is providing infrastructure which is not only safe and convenient, but also competitive against other modes of transport. To achieve this, cycling needs to be prioritised ahead of other modes in appropriate locations and integrated with adjoining land use. If we are serious about reducing car dependency and helping people make better travel choices, particularly for short trips, these priorities need to be reflected in the way our communities are planned.

Over the past five years, the six local governments which make up the Bunbury-Wellington subregion have collaborated in delivering a number of strategically important cycling projects. Despite this, cycling in some areas remains unappealing due to the network's lack of coverage, connectedness and separation from motorised traffic. This strategy sets out a blueprint for connecting, enhancing and extending the region's cycling routes through the development of an interconnected network of off-road shared paths, protected on-road bike lanes and low-stress residential streets. Opportunities to improve safety for road cyclists are also considered in this strategy.

The *Bunbury-Wellington 2050 Cycling Strategy* has been developed by the Department of Transport in collaboration with the South West Development Commission, the City of Bunbury, and the Shires of Capel, Collie, Dardanup, Donnybrook-Balingup and Harvey. This long-term, aspirational strategy reflects the priorities shared by local and State Government and is accompanied by a short-term action plan. Its aim is to help inform future investment through the Regional Bike Network Grants Program, as well as other funding sources.

In developing this strategy, extensive consultation was undertaken with key stakeholders and the local community. Not only did the consultation help to refine the overarching aims and objectives of the strategy, it also clarified the community's expectations in terms of where key routes are most needed and the requirements of different user groups.

In developing paths and trails, it is important to consider the potential environmental impact of development and ensure that the unique characteristics of the area are maintained. Some locations may be limited by legislation and policy which could result in alignments changing as further feasibility and planning is undertaken.

Going forward, there are a number of exciting opportunities to develop world-class cycling facilities in the Bunbury-Wellington subregion. Major road projects such as the Bunbury Outer Ring Road as well as planned upgrades to Forrest and Bussell highways will provide important opportunities to develop high-quality parallel cycling routes. For Bunbury and the surrounding suburbs, the development of paths and trails alongside rivers, coastal and estuarine foreshores will enhance cycling for both local residents and tourists.

This strategy also identifies a number of opportunities for inter-town and inter-regional cycling routes. Figure 1.1 highlights the enormous potential to create a world-class cycle-touring network, capitalising on the closed, disused and dormant rail corridors linking virtually every town in the South West.

The *Bunbury-Wellington 2050 Cycling Strategy* outlines how the subregion can realise its cycling potential, leading to a less car dependent, happier and healthier community.

According to the Australian Automobile Association, the average Bunbury household spends $15,300 per year on transport – more than any other regional city in Australia.

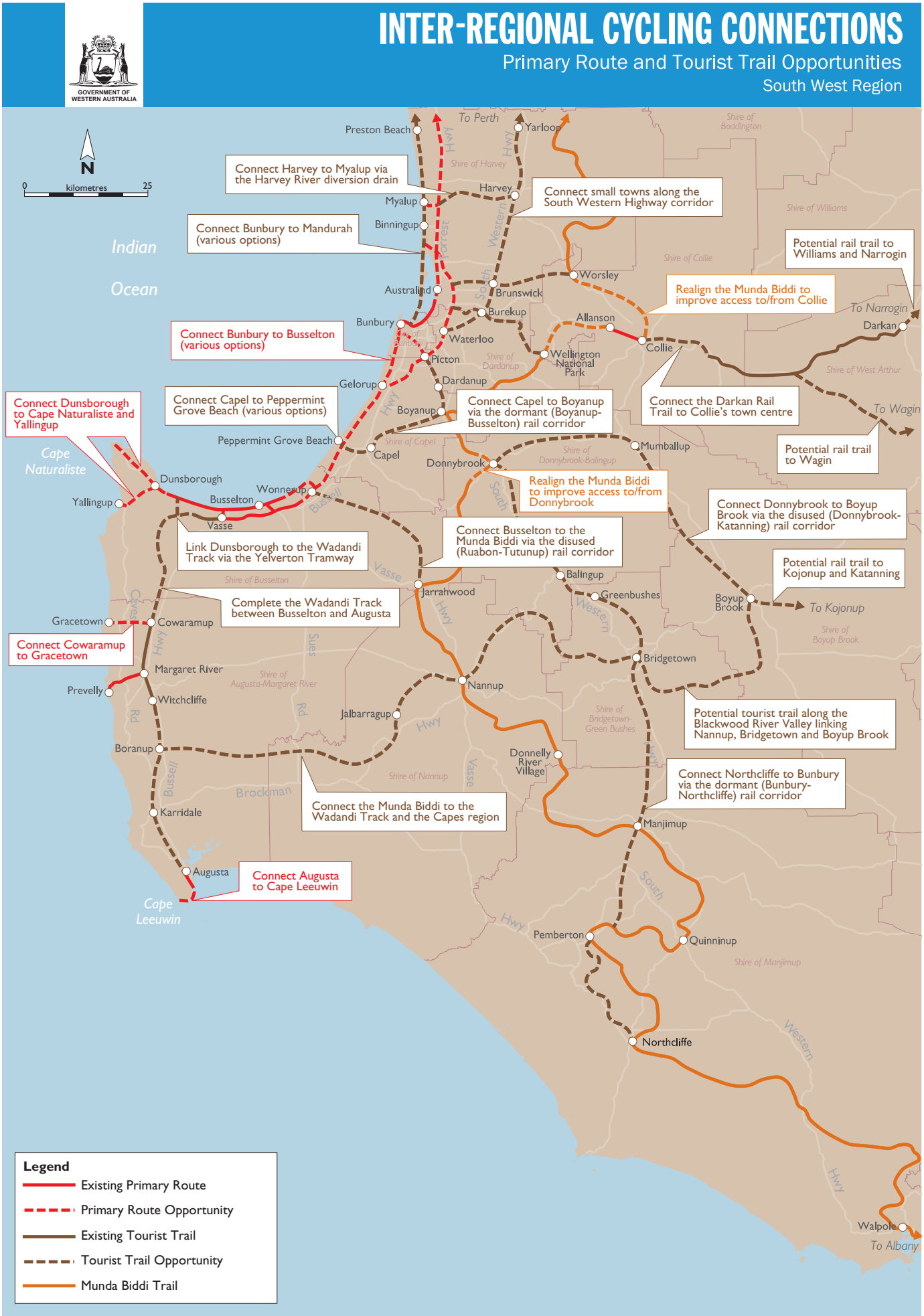
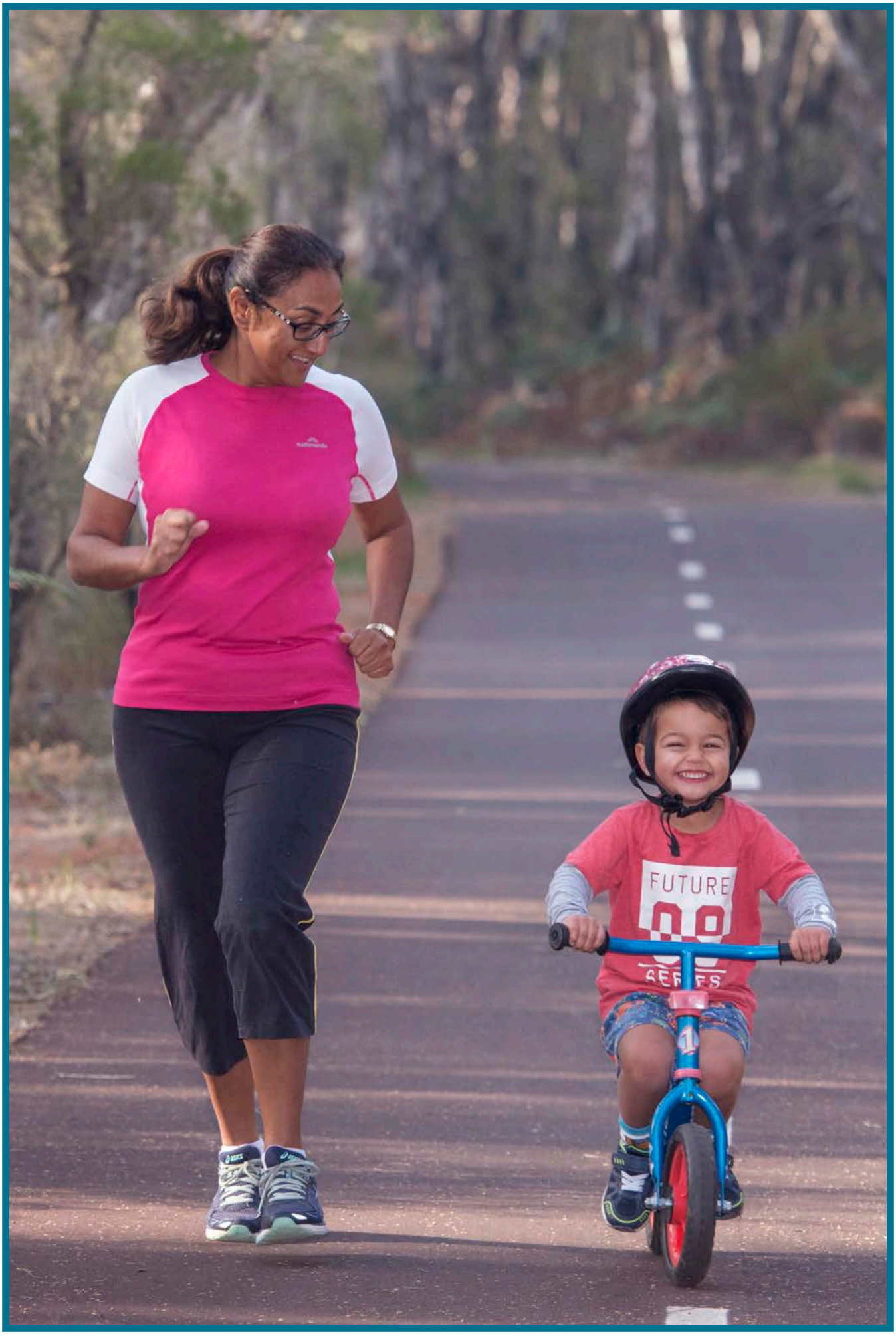


Figure 1.1 The south west of WA, with Bunbury at its centre, is well positioned to become one of Australia's best regions for long-distance cycling.


FUTURE

CONTENTS

WHY DO WE WANT MORE PEOPLE CYCLING

TO ENABLE PEOPLE TO ENJOY HEALTHIER AND MORE ACTIVE LIVES

Obesity rates are 10% higher in regional WA compared to Perth. As a result, people living in regional areas are 1.25 times more likely to suffer from cardiovascular disease and 1.4 times more likely to be hospitalised for diabetes.

TO IMPROVE MENTAL HEALTH AND SOCIAL INCLUSION

People who engage in regular exercise experience reduced stress, improved sleeping patterns, improved concentration and a better outlook on life. More people riding and walking provides greater opportunities for incidental interaction on the streets, enhancing a sense of community.

TO HELP FAMILIES SAVE MONEY, AND INCREASE TRANSPORT OPTIONS

Families who have at least one person commuting by bike (instead of car) save on average $8 per day which equates to nearly $2,000 per year. Cycling provides an economic and independent travel option for those who might otherwise have their travel options restricted.

TO IMPROVE THE STRENGTH AND RESILIENCE OF OUR REGIONAL COMMUNITIES

The popularity of outdoor and adventure tourism is increasing all over the world, with cycle-tourism identified as a key growth area . In 2015, almost 3 million people went cycling while on holiday in Australia.

TO REDUCE PRESSURE ON THE PUBLIC PURSE

A study commissioned by the RAC found that the economic, social, health and environmental benefits attributed to cycling infrastructure outweigh their costs incurred by between 3.4 and 5.4 times. In dollar terms, it is estimated that for every kilometre cycled, $1.42 of economic benefits are generated for the community.

TO REDUCE TRANSPORT IMPACTS ON THE ENVIRONMENT

Transport is Australia's third largest source of greenhouse gas emissions, with emissions from transport increasing nearly 60% since 1990, more than any other sector. In Australia, cars are responsible for roughly half of all transport emissions.

1. INTRODUCTION

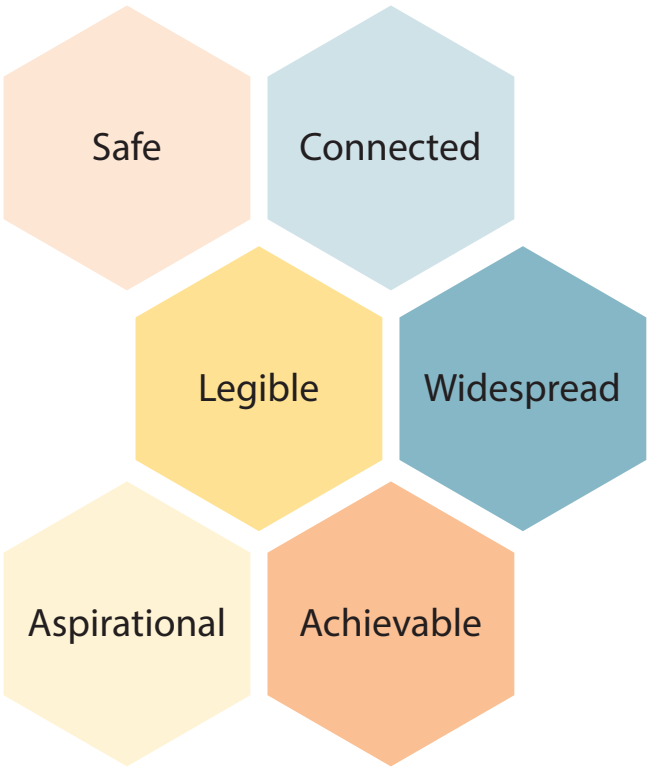
1.1 Guiding principles

The *Bunbury-Wellington 2050 Cycling Strategy* sets out a long-term vision to create a comfortable, direct and integrated cycling network for the Bunbury-Wellington subregion. The proposed network, which connects people to activity centres, key attractions and destinations, has been developed to facilitate cycling for transport, recreation and tourism purposes.

Cycling disciplines that are dependent on purpose-built facilities (such as BMX parks, downhill mountain bike trails and velodromes) typically perform non-transport functions and are therefore not considered in this strategy.

This document is one of three 2050 cycling strategies developed for the South West region. These strategies cover:

- The Bunbury-Wellington subregion, comprising the City of Bunbury and the Shires of Capel, Collie, Dardanup, Donnybrook-Balingup and Harvey;
- The Leeuwin-Naturaliste subregion, comprising the City of Busselton and Shire of Augusta Margaret River; and
- The Warren-Blackwood subregion, comprising the Shires of Nannup, Manjimup, Boyup Brook and Bridgetown-Greenbushes.



The "8 to 80" design philosophy is about creating people-oriented towns and cities which are suitable for everyone. It is based on the notion that if you design a cycle path (for example) that caters for the needs of an 8 or 80 year old, it is likely to be suitable for everyone.

The networks proposed in each of these strategies have been developed based on the following principles:

Safe: The 2050 cycling network should be built to a standard which reflects the "8 to 80" design philosophy. People of all ages should be able to cycle safely and comfortably to the places they need and want to go to. Unprotected cycling facilities located on busy roads are not considered suitable for vulnerable road users, and will not encourage more people to cycle, more often.

Connected: Like a road network, all cycling routes should connect to something at each end (whether that is a destination or another cycling route).

Widespread: In suburbs and towns, the network should be extensive enough for people to safely assume they can get to their destination without encountering hostile traffic conditions. When cycling networks reach a certain level of density it enables families to live comfortably without a second car.

Legible: The cycling network needs to be both intuitive and direct. To achieve this, it makes sense to locate major cycling routes parallel to natural land forms such as rivers and coastlines or within existing road and rail corridors. The development of coherent way-finding initiatives is also important in supporting legibility.

Aspirational: Given the long-term nature of this strategy, several ambitious ideas have been put forward to help position the Bunbury-Wellington subregion as one of Australia's best regions for cycling. This includes several long-distance cycle-tourism routes as shown in Figure 1.1.

Achievable: For the most part, the proposals put forward in this strategy adopt tried-and-tested planning principles. The case studies chosen provide local, interstate and international examples of similar projects undertaken in recent years.

1.2 Bunbury-Wellington in context

The Bunbury-Wellington subregion is spread across six local governments and is home to nearly 100,000 people. At the centre of the region is Bunbury itself, with a population of approximately 75,000 people. The Greater Bunbury urban area comprises the City of Bunbury as well as several suburban areas including Eaton, Australind and Dalyellup which are administered by the Shires of Dardanup, Harvey and Capel, respectively.

Surrounding Bunbury are a number of towns of varying size. These towns can be loosely categorised as either inland communities (such as Capel, Boyanup, Collie, Dardanup, Donnybrook, Brunswick and Harvey) or coastal communities (such as Myalup, Binningup and Peppermint Grove Beach). The inland towns, most of which are located along either active or inactive railways, tend to serve as the economic and community nodes for the surrounding agricultural, mining and forestry industries. The coastal towns, located to the north and south of Bunbury tend to be more focussed on tourism and lifestyle.

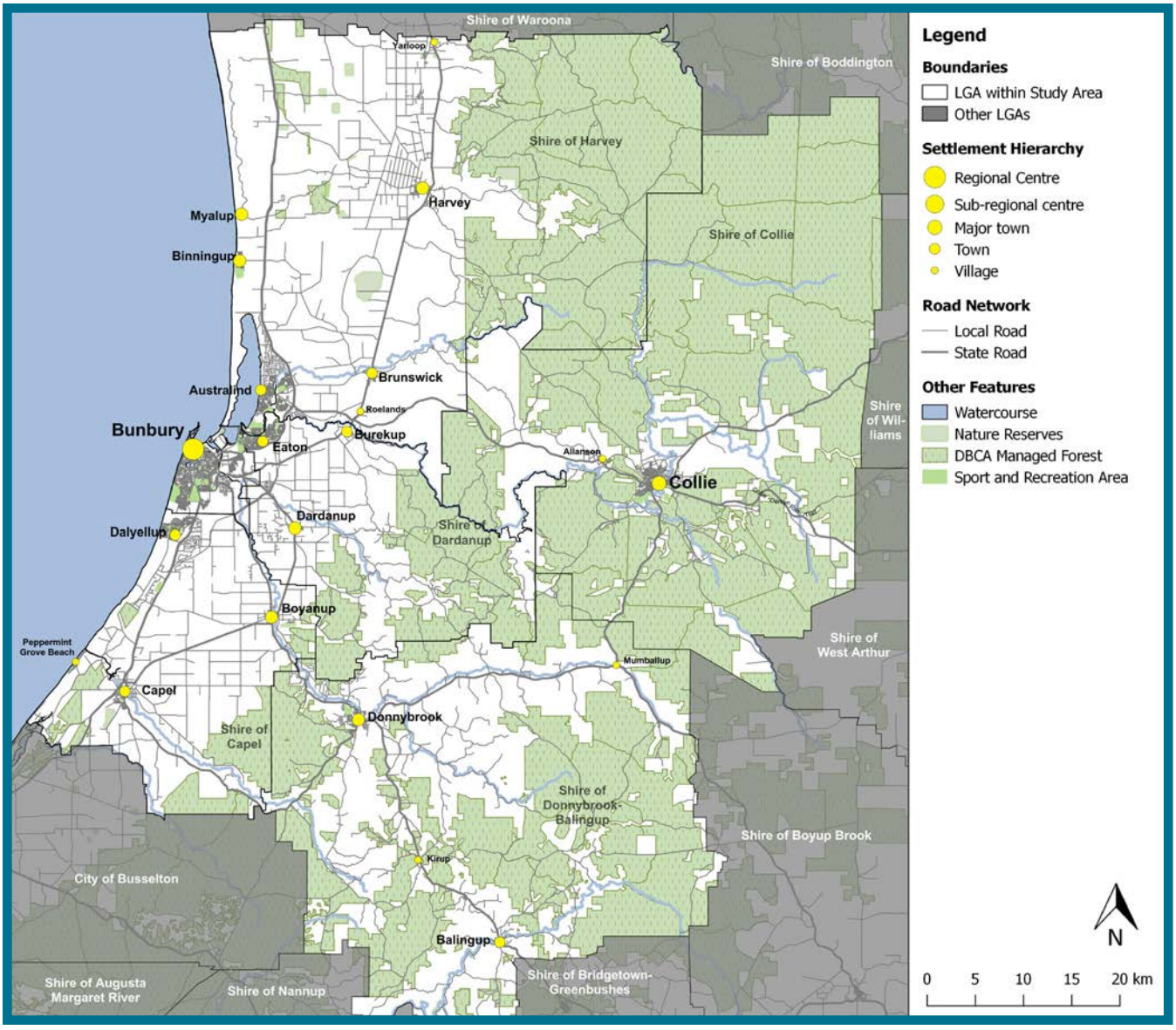


Figure 1.2 The Bunbury-Wellington subregion and settlement hierarchy.

The subregion's economy, which has traditionally been centred on the agriculture, forestry and mining sectors, now includes a diverse range of industries. The subregion is also home to a range of higher-order services and facilities, including the South West Health and Learning Precinct which includes Edith Cowan University, the South West Institute of Technology, Manea College and the South West Health Campus.

Additionally, the Bunbury-Wellington subregion serves as the focal point for various specialist industries servicing the wider South West region.

In recent years, there has been concerted effort to promote and grow the region's tourism sector. Although the subregion has traditionally marketed itself as the gateway to WA's south west, projects such as the redevelopment of the Bunbury Waterfront and the expansion of Collie's mountain bike trail network are helping position the Bunbury-Wellington subregion as a tourist destination in its own right.

Source: Remote Outback Cycle Tours

Figure 1.3 Collie has recently been identified as a mountain biking destination of national significance.

1.3 The need for a long-term regional cycling strategy

The subregion's most recent bike plan, the *Greater Bunbury Regional Bicycle Master Plan* was released in 2012. Although it has served the region well, many of the projects identified in the plan have now been completed which has been one of the motivations for developing this strategy. Other reasons for preparing this strategy include:

- To incorporate long-term cycle planning for the neighbouring shires of Collie and Donnybrook-Balingup;
- To address key opportunities which may have previously been overlooked, particularly in relation to future land use and transport developments;
- To help guide investment between neighbouring local governments, and between local government and State Government;
- To facilitate the planning and development of long-distance (inter-regional) cycling routes, especially those which connect with other regions and subregions;
- To ensure that the standard of future cycling facilities meets current best-practice; and
- To adopt a consistent approach with other long-term cycling strategies being developed across WA.

Going forward, it is imperative that this strategy is reviewed on a regular basis to ensure it keeps up with changes in the subregion and reflects future shifts in cycling as a mode of transport. An outline for maintaining this strategy over the long-term is provided in Section 6.

1.3.1 Expected changes in population

Bunbury-Wellington is a dynamic and rapidly growing subregion. Between 2006 and 2016, the population increased by almost 20,000 people. Although it is difficult to accurately forecast the subregion's population over the long-term, the extrapolation of existing population growth trends indicates that it could be home to an additional 100,000 people by the year 2050.

1.3.2 Expected changes in land use

Much of the population increase for Bunbury-Wellington is likely to be accommodated in existing suburbs and towns (by way of urban infill) and new greenfield developments such as Wanju, South Dalyellup and East Boyanup.

In terms of employment, major nodes such as the Bunbury CBD and the South West Health and Learning Precinct will continue to serve as economic hotspots for the subregion. Going forward, industrial expansion areas such as Waterloo and Preston are likely to accommodate many new jobs.

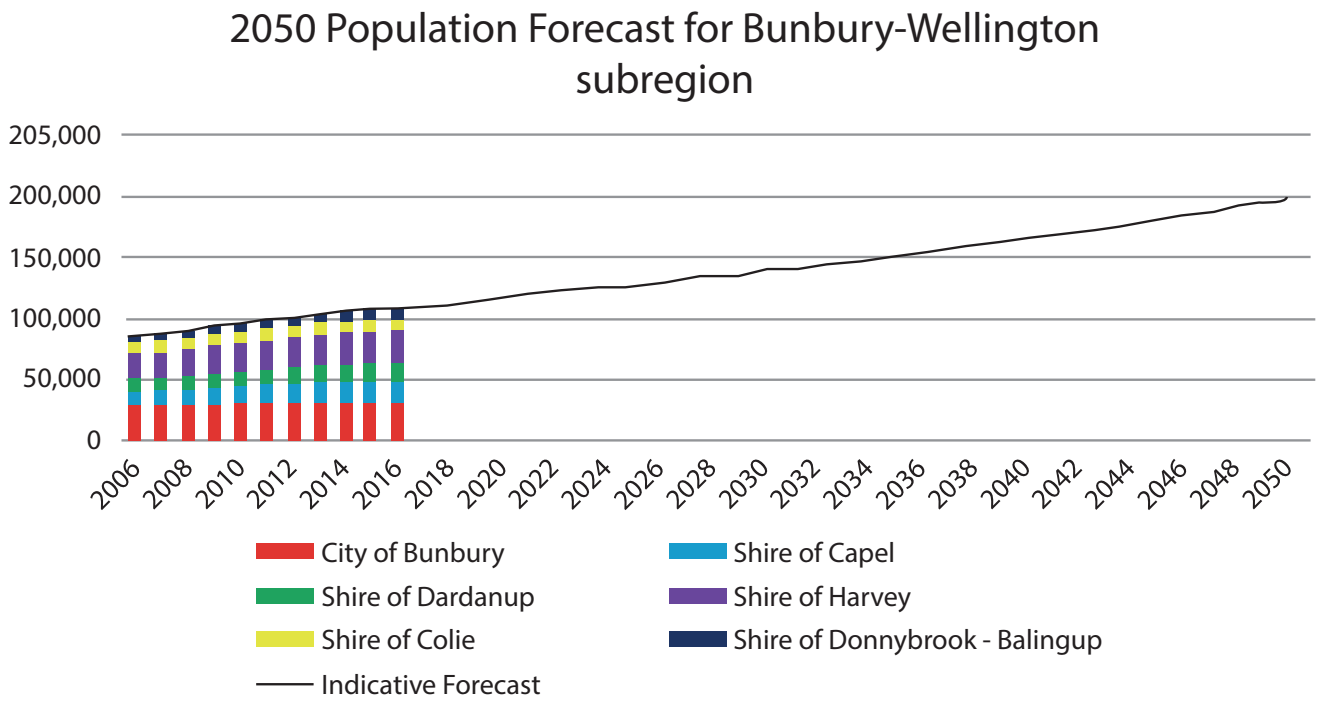


Figure 1.4 If current trends continue the population of the Bunbury-Wellington subregion may reach 200,000 people by the year 2050.

1.3.3 Expected changes in transport

Some or all of the following major transport projects may be undertaken prior to 2050:

- Upgrading of Forrest Highway to freeway standard between South Yunderup and Australind;
- Upgrading Bussell Highway to freeway standard between Gelorup and Vasse;
- The completion of the northern and southern sections of the Bunbury Outer Ring Road; and
- The potential development of a Perth-Bunbury high-speed rail link.

It is also possible that the Bunbury Inner Harbour may undergo significant expansion in coming years, potentially resulting in the realignment of both the Preston River and Estuary Drive.

With each of these major projects, appropriate consideration must be given to the provision of high-quality cycling facilities, noting that it can be difficult (and prohibitively expensive) to retrofit them at a later stage.

Figure 1.5 Major road and rail projects provide important opportunities to establish long-distance and high-quality walking and cycling facilities.

1.3.4 Relationship with other documents

The *2014-2031 Western Australian Bicycle Network (WABN) Plan* identifies the need to review cycling facilities in WA's regional centres. Although many regional local governments have their own local bike plans, it is recognised that there is a need to develop long-term regional strategies which span across entire regions or subregions. Key objectives of this process include improving connections to activity centres and schools, identifying inter-regional routes and harnessing the potential of cycle-tourism.

Funding applications for the development of key strategic projects within these areas are often made through the Regional Bike Network (RBN) Grants Program.

This program makes funds available for the planning, design and construction of cycling infrastructure to local governments in regional WA. As with the Perth Bike Network (PBN) Grants Program, funding is matched on a dollar-for-dollar basis.

Long-term regional cycling strategies such as this do not preclude local governments from preparing their own local bike plans going forward. While the purpose of this strategy is to provide a blueprint for Bunbury-Wellington's 2050 cycling network, local plans will remain important for identifying short-term priorities such as new local facilities, upgrades to existing infrastructure and maintenance requirements. They will also be used for outlining strategies around the activation of cycling infrastructure, behaviour change and education.

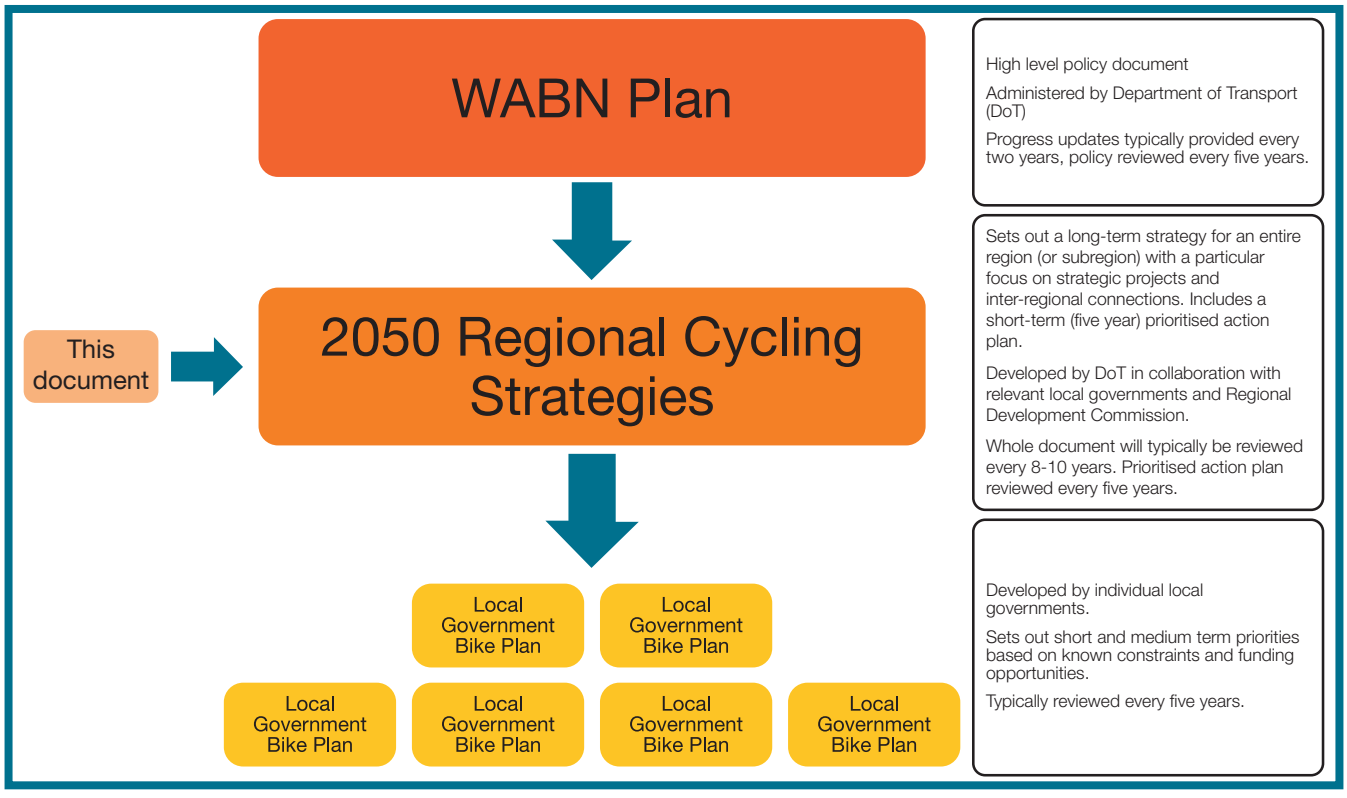


Figure 1.6 Flow chart illustrating the relationship between the *WABN Plan*, this document and local government bike plans.

1.4 Background research and analysis

1.4.1 Document review

In preparing this strategy several documents were reviewed pertaining to land use and transport in the Bunbury-Wellington subregion. Combined with extensive stakeholder engagement, these documents were critical to understanding each local government's current approach to bike planning and where planning and feasibility for certain routes has already been undertaken. A list of reviewed documents is contained in Appendix B.

1.4.2 Mapping of current and future trip generators

Before commencing the development of the 2050 network, all existing and known future trip attractors were mapped. Trip attractors are defined as any place that people could reasonably be expected to need or want to cycle to and include destinations such as schools, shopping centres, industrial areas, tourist attractions, health campuses and sporting precincts. The trip attractors are shown in the maps contained in Section 3.

1.4.3 Analysis of existing cycling network

In some areas the existing Bunbury-Wellington cycling network remains unappealing due to a lack of coverage, consistency and separation from motorised traffic. The subregion's existing cycling infrastructure typically consists of shared paths of varying quality and a small number of sporadic, unprotected bike lanes which in many cases remain unconnected to the wider network.

In terms of inter-town and inter-regional connections, most cycling currently takes place on low volume rural roads, with little to no dedicated cycling infrastructure. The exception to this is the (predominantly unsealed) Munda Biddi Trail which runs from Perth to Albany and links together Collie, Boyanup and Donnybrook.

Figure 1.7 Much of Bunbury-Wellington's existing cycling infrastructure does not meet current best practice. Unprotected facilities on busy roads are unlikely to attract new riders due to actual and perceived safety concerns.

1.4.4 Analysis of crash data

The most recent five-year crash statistics (2013–2017) were obtained from Main Roads Western Australia's (Main Roads) Crash Analysis Reporting System (CARS). Both pedestrian and cyclist crash data was obtained, noting that areas which are dangerous for pedestrians are often also dangerous for cyclists. An analysis of this data is provided in Appendix B.

1.4.5 Analysis of GPS travel data

The GPS mapping tool, Strava Labs, was used to better understand which parts of Bunbury-Wellington's road and path networks are most heavily utilised by cyclists. Strava is a website and mobile app which tracks athletic activity via GPS and can be used to highlight popular cycling routes in Bunbury and surrounding areas. Despite the usefulness of this information, it should be noted that GPS travel data is typically representative of people who cycle for training or high-intensity recreational purposes. An analysis of this data is contained in Appendix B.

1.4.6 Community consultation

Consultation with the local community was central to the development of the *Bunbury-Wellington 2050 Cycling Strategy*. The objectives of the consultation were to:

- Help refine the overarching aims and objectives of the strategy;
- Gain an understanding of the community's expectations when it comes to cycling infrastructure, as well as the needs of different user groups;
- Reveal the major issues and missing links associated with the region's existing cycling network;
- Provide the community with the opportunity to share their ideas; and
- Seek local buy-in and ongoing community support for the strategy.

The consultation was carried out in two distinct phases. Phase one was undertaken shortly after project commencement and involved several informal drop-in sessions. As part of this phase community members were also able to provide written submissions to contribute to the development of the strategy. Phase two consisted of a public comment period, during which 158 written submissions were received. A detailed analysis of the community consultation activities is provided in Appendix C.

1.4.7 Stakeholder consultation

This strategy has been developed in collaboration with the South West Development Commission, the City of Bunbury and the Shires of Capel, Collie, Dardanup, Donnybrook-Balingup and Harvey. Consultation was undertaken with various other government and non-government stakeholders, including:

- Department of Biodiversity, Conservation and Attractions
- Department of Local Government, Sport and Cultural Industries
- Department of Planning, Lands and Heritage
- Department of Water and Environmental Regulation
- Main Roads
- Public Transport Authority
- Arc Infrastructure
- Water Corporation
- Road Safety Commission
- Tourism WA
- WALGA

Input has also been sought from the Greater Bunbury Master Plan Working Group, the WA Trails Reference Group and the WABN Implementation Reference Group, all of which include additional stakeholders and interest groups.

2. REGIONAL ROUTE HIERARCHY

A hierarchy comprising five types of cycling route has been used to illustrate Bunbury-Wellington's 2050 cycling network. This hierarchy will be adopted for all future cycling strategies in WA. An important aspect of the hierarchy is that unlike many traditional cycling infrastructure plans, routes are defined primarily by function, rather than built form. The key differences between the five types of route are explained in Sections 2.1 to 2.5, with additional detail provided in Appendix A.

2.1 Primary routes

Primary routes form the backbone of Bunbury-Wellington's 2050 cycling network. Sometimes referred to as freeways for bikes, primary routes afford cyclists with safe and generally uninterrupted journeys.

Primary routes should be completely separated from motorised traffic. Due to this, major road and rail corridors, and river and ocean foreshores tend to be the most practical locations for these types of facilities.

In terms of built form, primary routes predominantly consist of high-quality shared paths at least 3 m in width. To ensure high levels of rideability and legibility, red asphalt is usually the preferred surface treatment.

An important consideration for shared paths is managing safety and ensuring etiquette between different users. In areas of high pedestrian activity, it may be necessary to provide separate walking and cycling facilities.

Shared path adjacent to a major road

Shared path parallel to active freight railway

Shared path along river foreshore

Shared path along coastal foreshore

Figure 2.1 Primary routes form the backbone of urban cycling networks and allow cyclists to safely undertake long, uninterrupted journeys.

2.2 Secondary routes

Secondary routes are typically located within urban or built-up environments. The aim of these routes is to provide users with access to and from important trip attractors such as shopping centres, industrial areas, as well as education, health and sporting precincts.

In most cases, secondary routes are located adjacent to arterial roads and take the form of protected on-road bike lanes. Going forward, it is important the design of all new cycling infrastructure (including secondary routes) incorporates the “8 to 80” design philosophy. To ensure that on-road cycling infrastructure is safe and attractive to such a wide range of users, separation in the form of kerbed medians is desirable to minimise the interaction between cyclists and vehicular traffic – particularly on busier roads.

Where this is not possible softer measures such as painted hatching, mountable plastic kerbing or flexible bollards can be considered, however these treatments are normally only acceptable in low-speed environments. In some cases, off-road shared paths are the best option for secondary routes.

Unlike primary routes, secondary routes do not necessarily provide users with uninterrupted journeys. Due to this, it is important that appropriate consideration is given to the design of secondary routes at all intersecting roads, but particularly those controlled by either traffic signals or roundabouts. Where possible, priority should be given to the cycling route at intersecting minor roads and driveways.

Bike lane protected with concrete kerb

Protected bi-directional bike lane

Bike lane separated with flexible plastic bollards

Shared path with priority over intersecting driveways

Figure 2.2 Secondary routes are typically found in busy, built-up environments, and can consist of either on-road or off-road cycling infrastructure.

2.3 Local routes

The objective of local routes is to collect cycling traffic from residential areas and distribute it to secondary and primary networks. Local routes are also used by cyclists to access a range of lower-order destinations such as local shops and parks. The look and feel of local routes is distinctively different from primary and secondary routes.

Examples of local route treatments include:

- 30 km/h safe active streets which adopt "self-explaining street" and "filtered permeability" urban design principles (refer to Section 4.6 for additional information);
- very quiet suburban streets, communicated using sharrows[1] and other signage and way-finding;
- sections of shared path (normally linking two or more quiet streets together); or
- on-road bike lanes (but only on quiet roads with low traffic volumes and where posted speed limits are less than or equal to 50 km/h).

In many cases, a local route may include of two or more types of treatment. When this is the case, the transition from one type of facility to another needs to be carefully considered.

30 km/h safe active street

Way-finding to direct cyclists along local routes

Shared path linking two quiet streets together

One-way slow point with bicycle-bypass facilities

Figure 2.3 Local routes are typically used to connect residential areas with higher-order cycling facilities.

[1]*Sharrows are pavement markings which assist cyclists in road positioning and alert motorists to presence of people on bikes*

2.4 Tourist trails

Tourist trails are long-distance, predominantly unsealed trails which are typically used to connect towns. Unlike downhill mountain bike trails, tourist trails are non-technical in design. While there is some level of crossover, tourist trails provide users with a more passive cycling experience.

In some cases, tourist trails cater for other types of user including bushwalkers, horse-riders and occasionally motorbike-riders. On such trails, it is essential that paths are managed appropriately to ensure the safety and satisfaction of all user groups.

In terms of their built form, tourist trails should ideally be wide enough to allow two people to ride side-by-side. As they are often located in remote locations, it is important that way-finding signage is used to direct people to, from and along the route.

Tourist trails are often constructed along the alignments of disused or closed railways; commonly referred to as rail trails. Other potential corridors for tourist trails include watercourses (such as rivers, drains and irrigation channels), utility corridors (such as electricity, gas or water supply), as well as fire breaks and other tracks through forested areas including nature reserves and national parks.

Depending on land ownership, the planning, design, construction and maintenance of tourist trails is typically led by local government or the Department of Biodiversity, Conservation and Attractions. Funding is often sought through the Department of Local Government, Sport and Cultural Industries or Lotterywest. Other government agencies such as the Department of Transport (DoT) and Tourism WA can assist in the planning, design and promotion of these facilities.

Trail along river foreshore

Trail along closed railway

Trail within utility corridor

Trail along firebreak adjacent to property boundary

Figure 2.4 Long-distance, predominantly unsealed tourist trails play an important role in connecting towns. They can also be used in areas where higher standard facilities cannot be justified or where they would spoil the natural environment.

2.5 Road cycling routes

Cycling is one of the most popular forms of recreation in Australia, ranking third for males and fifth for females[2]. There are two broad types of recreational cyclist in WA – leisure cyclists and sports cyclists. While investment has traditionally been directed towards providing infrastructure which supports leisure cycling, there is an emerging need to provide road cycling routes which cater for the needs and aspirations of people cycling long distances for training, sport or recreational purposes. For this user group, distances of 100 km or more are achievable. This type of cycling, which is often undertaken by groups or clubs, is commonly carried out on lower order, rural or semi-rural roads which tend to feature nice scenery, challenging terrain and low traffic volumes.

Around WA there is a growing need to review the key routes being used by road cyclists in order to improve safety and user-experience. Initiatives may include shoulder widening, pull-off bays, advisory signage, and electronic flashing warning signs which detect when groups of cyclists are using certain sections of road. A detailed assessment is required in partnership with cycling bodies and groups to determine appropriate locations and preferred safety measures, which will likely differ from route to route.

Further supporting the safety of road cyclists in WA is the introduction of safe passing legislation. From 30 November 2017, a driver of a motor vehicle must pass a bicycle travelling in the same direction at a safe distance (1 m on roads with a posted speed limit of less than 60 km/h and 1.5 m on roads with a speed limit of over 60 km/h.) While legislation for passing safely has always existed in WA, these amendments to the *Road Traffic Code 2000* clarify the minimum distance a driver is required to keep between their vehicle and a bicycle when overtaking. The results of the two-year trial will be evaluated by the Road Safety Commission in 2020.

Road cycling is often undertaken by groups or clubs

Advisory signage (Western Australia)

Advisory signage (Victoria)

Dynamic flashing warning lights (Victoria)

Figure 2.5 Road cycling routes are predominantly used by people riding for training, sport or recreational purposes over longer distances and can consist of advisory measures (such as signage and electronic flashing warning lights).

[2] http://www.abs.gov.au

3. PROPOSED NETWORK

The maps contained in Sections 3.1 to 3.6 illustrate the proposed 2050 cycling network for the Bunbury-Wellington subregion. The exact alignments of some routes may change following further feasibility assessment and consideration of local environmental, heritage and engineering constraints.

3.1 Entire subregion

Figure 3.1 provides an overview of the entire Bunbury-Wellington 2050 cycling network. Key features include:

- A dense core of primary, secondary and local routes centred on Bunbury and generally bounded by the Bunbury Outer Ring Road;
- Inter-regional primary routes extending north to Mandurah (along Forrest Highway) and south to Busselton (through the Tuart Forest);
- Tourist trails linking Bunbury to various smaller towns, often following the alignment of rivers or rail corridors;
- A connection between Harvey and Myalup along the Harvey River diversion drain;
- At least one connection between Capel and Peppermint Grove Beach;
- Links radiating from Collie providing connections to Brunswick, Burekup and Darkan; and
- Improved connections to the Munda Biddi Trail at Boyanup, Donnybrook and Collie.

A key consideration for tourist trails and paths in the South West region (particularly those connecting towns) are public drinking water source areas. Prior to development, it is critical that consultation is undertaken with the Department of Water and Environmental Regulation.

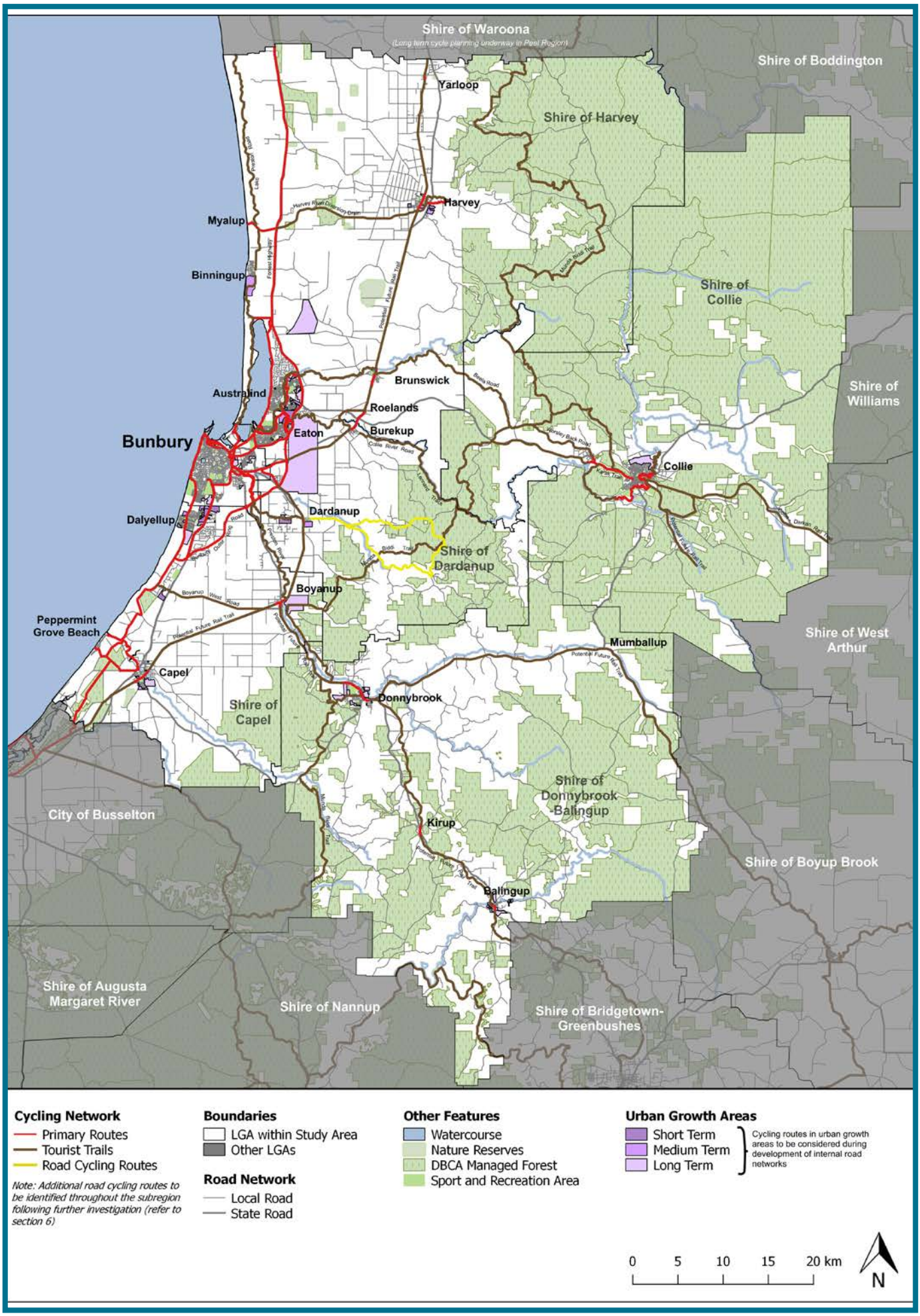


Figure 3.1 Proposed 2050 cycling network for the Bunbury-Wellington subregion.

3.2 Greater Bunbury urban area

Figure 3.2 provides an overview of the proposed 2050 cycling network for the Greater Bunbury urban area. Key features include:

- A series of primary routes running parallel to uninterrupted corridors such as highways and railways as well as river and ocean foreshores. In most cases these primary routes transition into tourist trails beyond the Bunbury Outer Ring Road and Forrest Highway;
- Secondary routes which run along various urban arterials;
- Numerous local routes linking residential areas to higher-order cycling facilities; and
- A bridge across the cut facilitating a future recreational loop around the Leschenault Estuary.

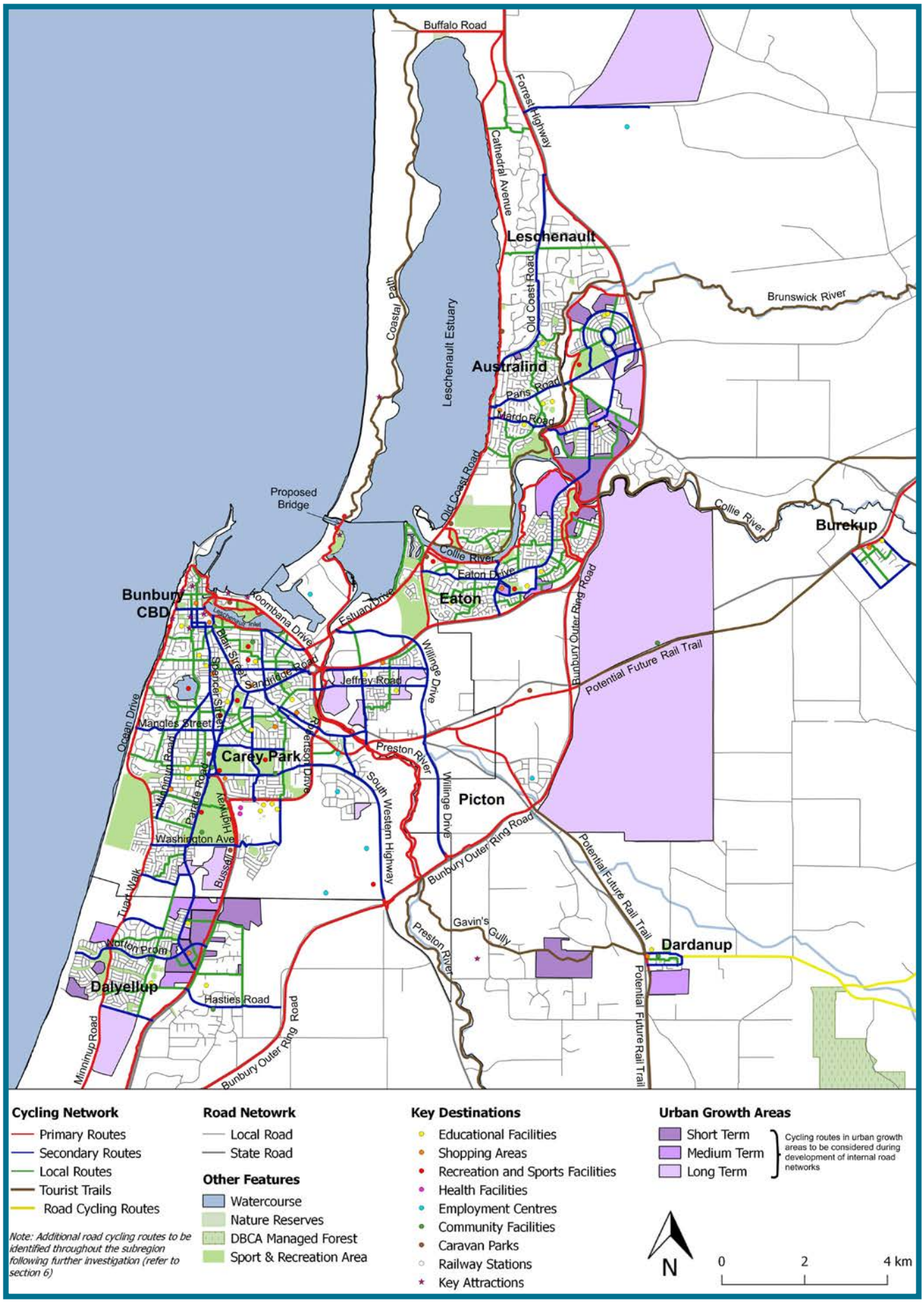


Figure 3.2 Proposed 2050 cycling network for the Greater Bunbury urban area.

3.3 Inner Bunbury

Figure 3.3 provides an overview of the proposed 2050 cycling network for the inner Bunbury area. Key features include:

- Primary routes providing access to and from central Bunbury via Ocean, Estuary and Koombana Drives;
- Secondary routes which run along various urban arterials including Spencer Street, Blair Street, Washington Avenue, Minninup Road, Parade Road, Hamilton Road, Willinge Drive, Sandridge Road and Hamilton Road;
- A potential future pedestrian and cyclist crossing of the Preston River linking Petherick Street to Jeffrey Road;
- New grade separations of Bussell Highway and Robertson Drive, improving accessibility to the South West Health and Learning Precinct; and
- Numerous local routes linking residential areas to higher-order cycling facilities.

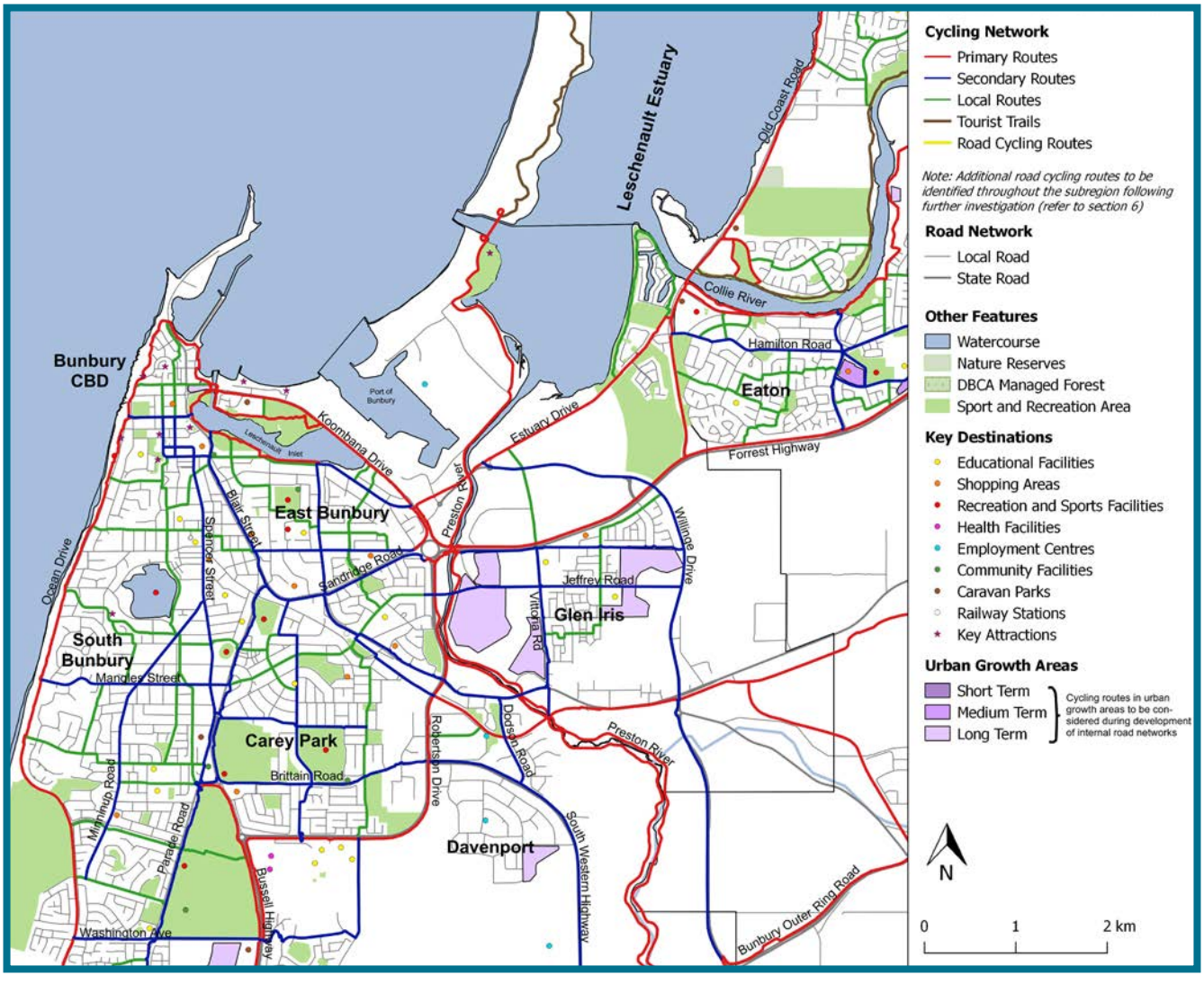


Figure 3.3 Proposed 2050 cycling network for inner Bunbury.

3.4 Collie

Figure 3.4 provides an overview of the proposed 2050 cycling network for Collie. Key features include:

- A dense core of primary, secondary and local routes centred on Collie;
- Extensions to the Collie River trail network, upstream to Booth Street and downstream to Minninup Pool, before continuing along Scenic Drive providing a link back to Alanson;
- A spur trail off the Karak Trail providing a link to Black Diamond Lake;
- Realignments to the Munda Biddi Trail, encouraging more people to visit Collie's CBD;
- A potential rail trail along the Collie–Cardiff rail corridor providing a link to the small Cardiff community and future Lake Kepwari recreational area;
- A connection to Collie–Darkan rail trail, most likely along Coalfields Highway providing access to the major employment hubs at the Premier and Griffin Coal Mines;
- A loop trail linking together the Collie–Cardiff and Collie–Darkan rail trails and providing access to and from Stockton Lake;
- A long-distance, inter-town connection to Brunswick via Worsley Back Road and Beela Road; and
- A long-distance, inter-town connection to Burekup via the Lennard Track and Collie River Road.

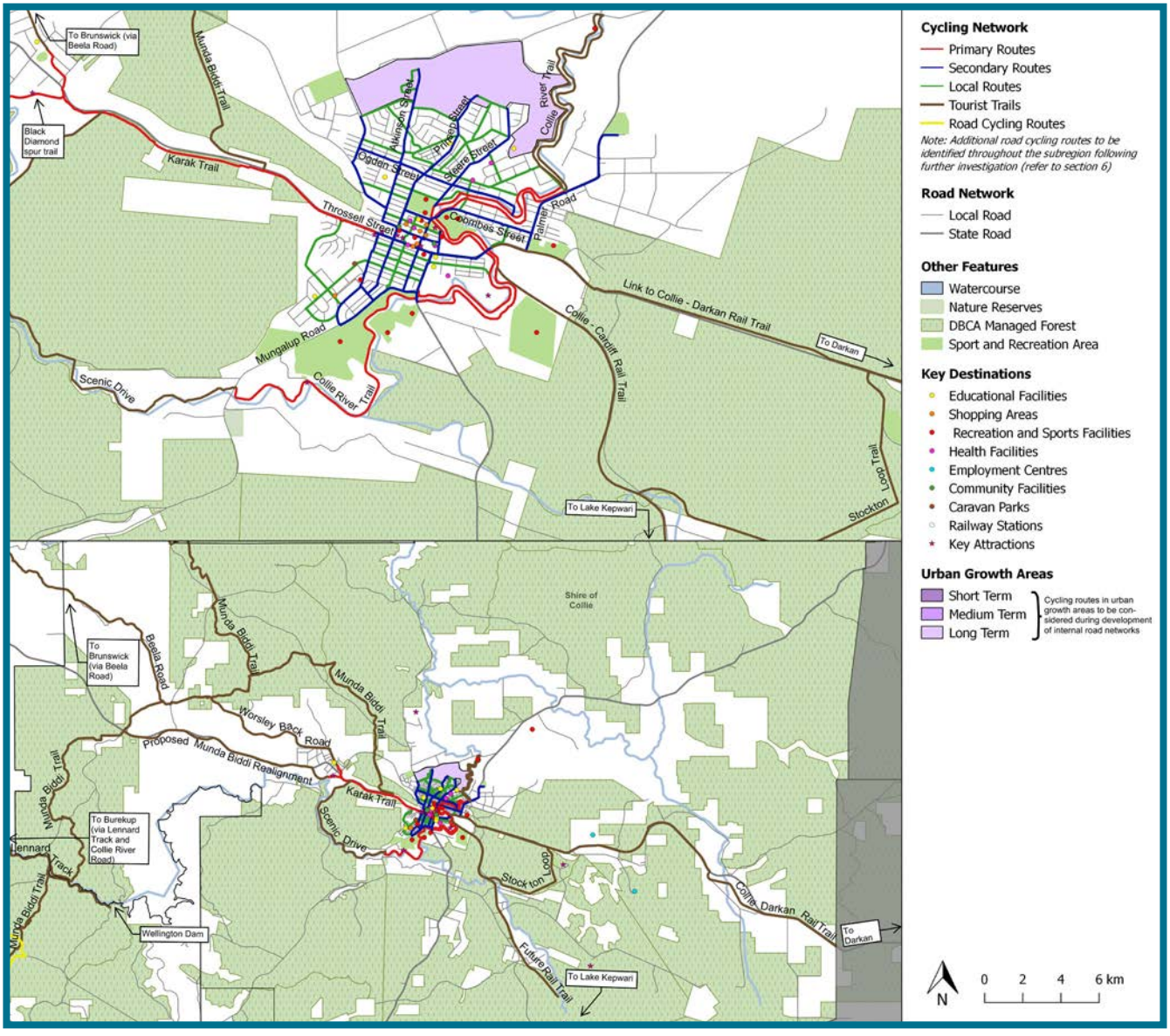


Figure 3.4 Proposed 2050 cycling network for Collie.

3.5 Towns north of Bunbury

Figures 3.5 and 3.6 provide an overview of the proposed 2050 cycling network for Bunbury-Wellington's northern towns. Key features include:

- An inter-regional primary route extending north to Mandurah (along Forrest Highway);
- A tourist trail extending north along the Indian Ocean coastline linking together Binningup, Myalup and potentially Preston Beach;
- A tourist trail between Harvey and Myalup alongside the Harvey River diversion drain;
- A tourist trail following the Perth–Bunbury railway (and/or South Western Highway); and
- Links extending from Brunswick and Burekup to Collie (via Beela and Collie River Roads, respectively).

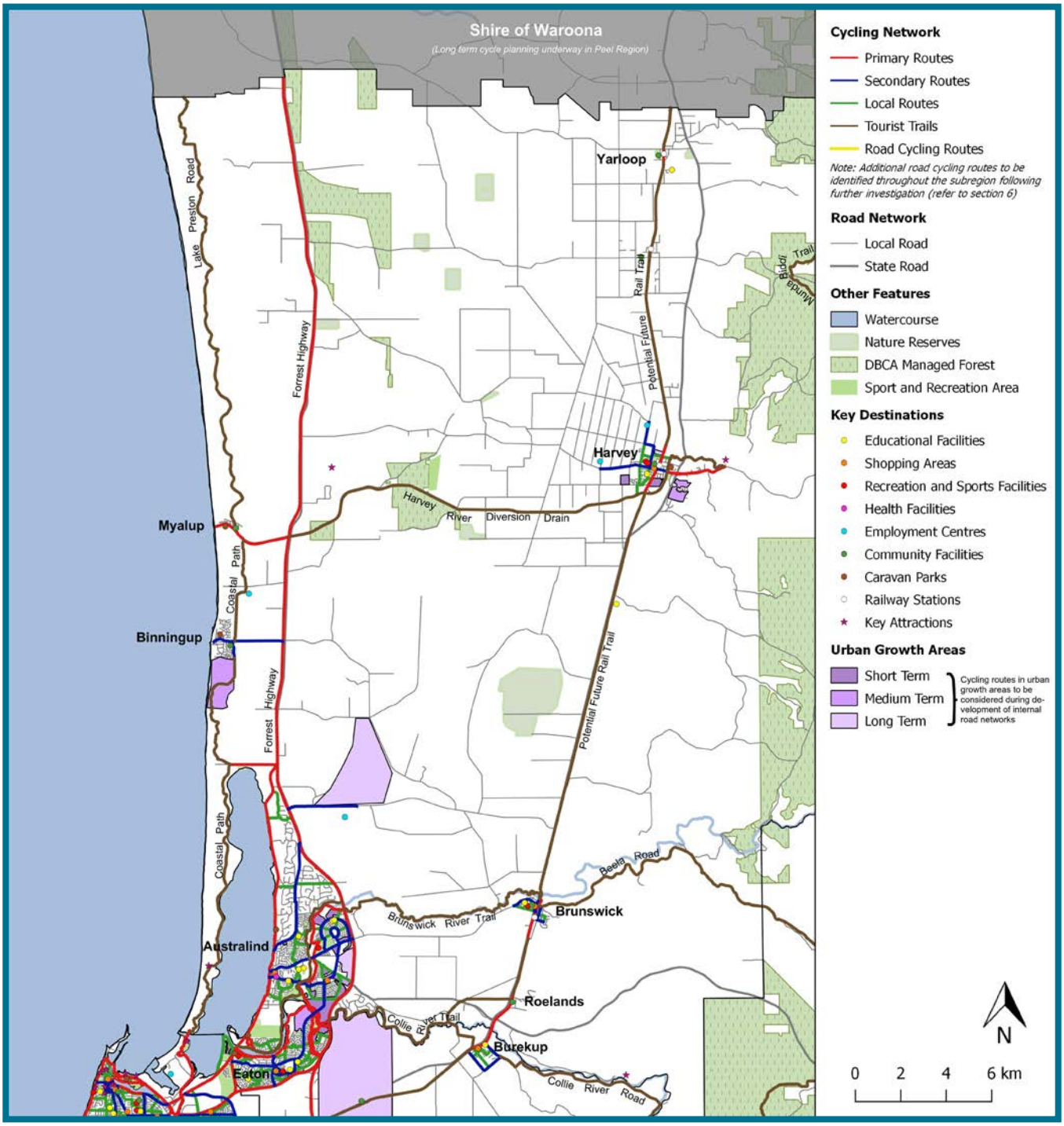


Figure 3.5 Proposed 2050 cycling network for Bunbury-Wellington's northern towns.

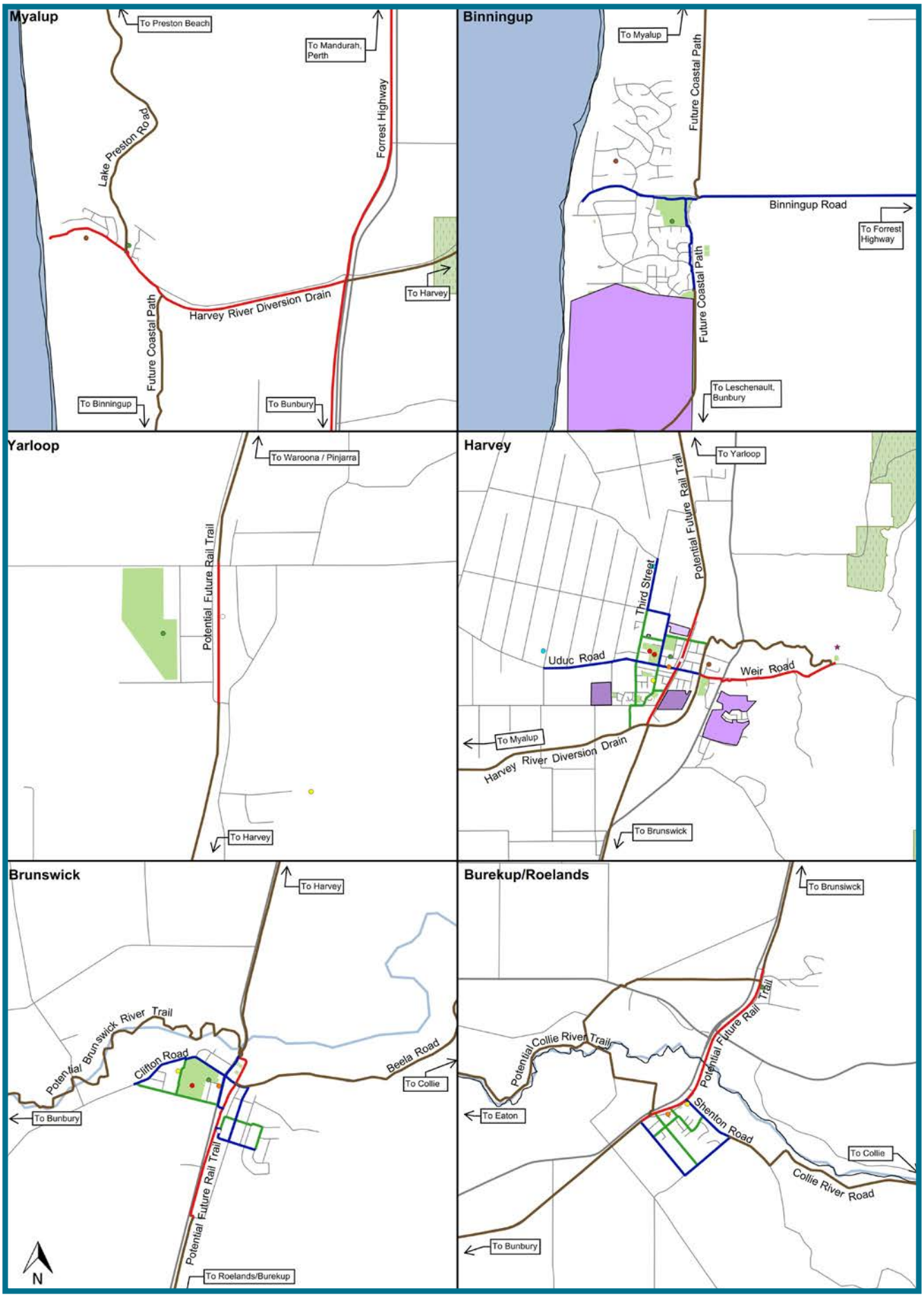


Figure 3.6 Proposed 2050 cycling network for Bunbury-Wellington's northern towns.

3.6 Towns south of Bunbury

Figures 3.7 and 3.8 provide an overview of the proposed 2050 cycling network for Bunbury-Wellington's southern towns. Key features include:

- An inter-regional primary route through the Tuart Forest linking Dalyellup to Capel, Peppermint Grove Beach and ultimately Busselton;
- At least one connection linking Capel and Peppermint Grove Beach;
- A tourist trail following the dormant Bunbury-Northcliffe railway (connecting Balingup, Donnybrook, Boyanup and Dardanup to Bunbury);
- A tourist trail following the railway linking Boyanup to Capel and ultimately Busselton;
- A tourist trail along the Preston River linking Boyanup to Bunbury;
- A tourist trail along Gavins Gully, linking Dardanup to the Preston River trail; and
- A tourist trail linking Donnybrook to Mumballup, and ultimately Boyup Brook along the disused railway.

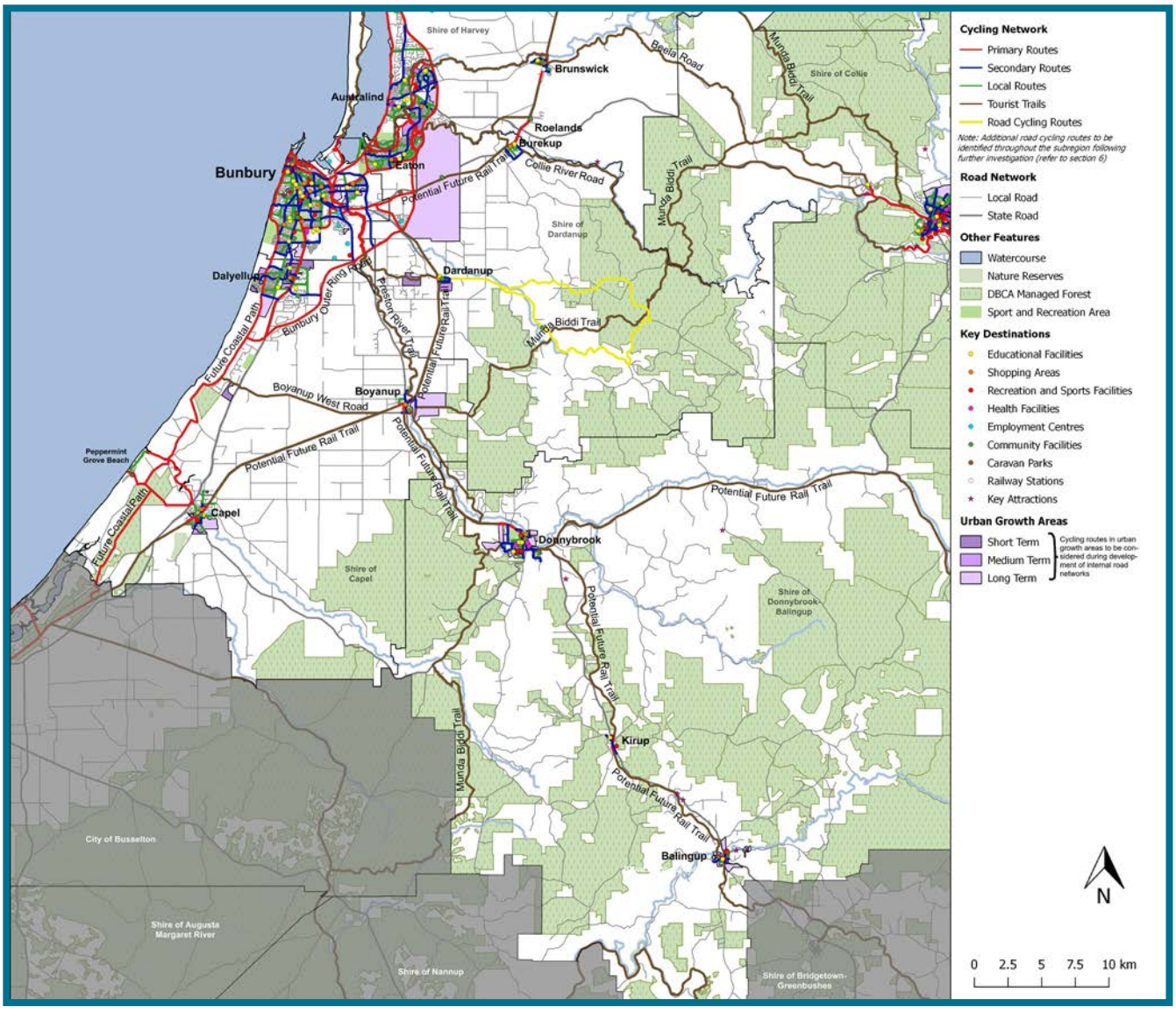


Figure 3.7 Proposed 2050 cycling network for Bunbury-Wellington's southern towns.

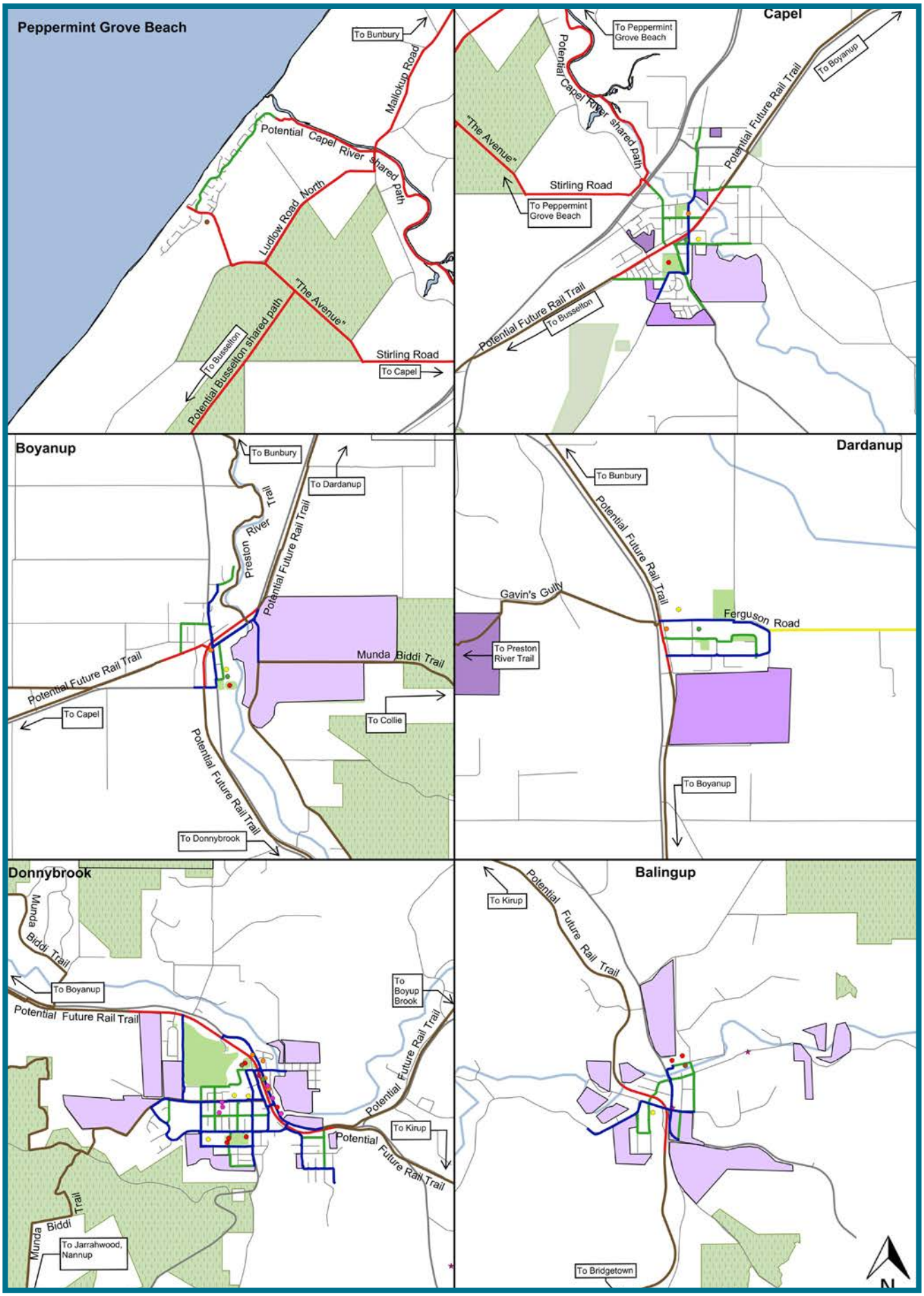


Figure 3.8 Proposed 2050 cycling network for Bunbury-Wellington's southern towns.

4. THE WAY FORWARD

This section outlines the way forward for Bunbury-Wellington through the identification of key themes and opportunities for cycling throughout the subregion. Case studies are used to illustrate where similar outcomes have been achieved elsewhere.

4.1 Enhancing waterfront cycling routes

High-quality cycling routes which follow waterfronts nearly always achieve high levels of ridership. In addition to providing considerable amenity, these routes are normally located away from motorised traffic, provide uninterrupted cycling conditions and possess relatively gentle topography.

For Bunbury-Wellington, developing high-quality cycling routes along waterfronts has the potential to showcase some of the subregion's best natural landscapes while also forming important recreational assets for the community. There are several opportunities to develop high-quality coastal cycling routes in the Bunbury-Wellington subregion. These include:

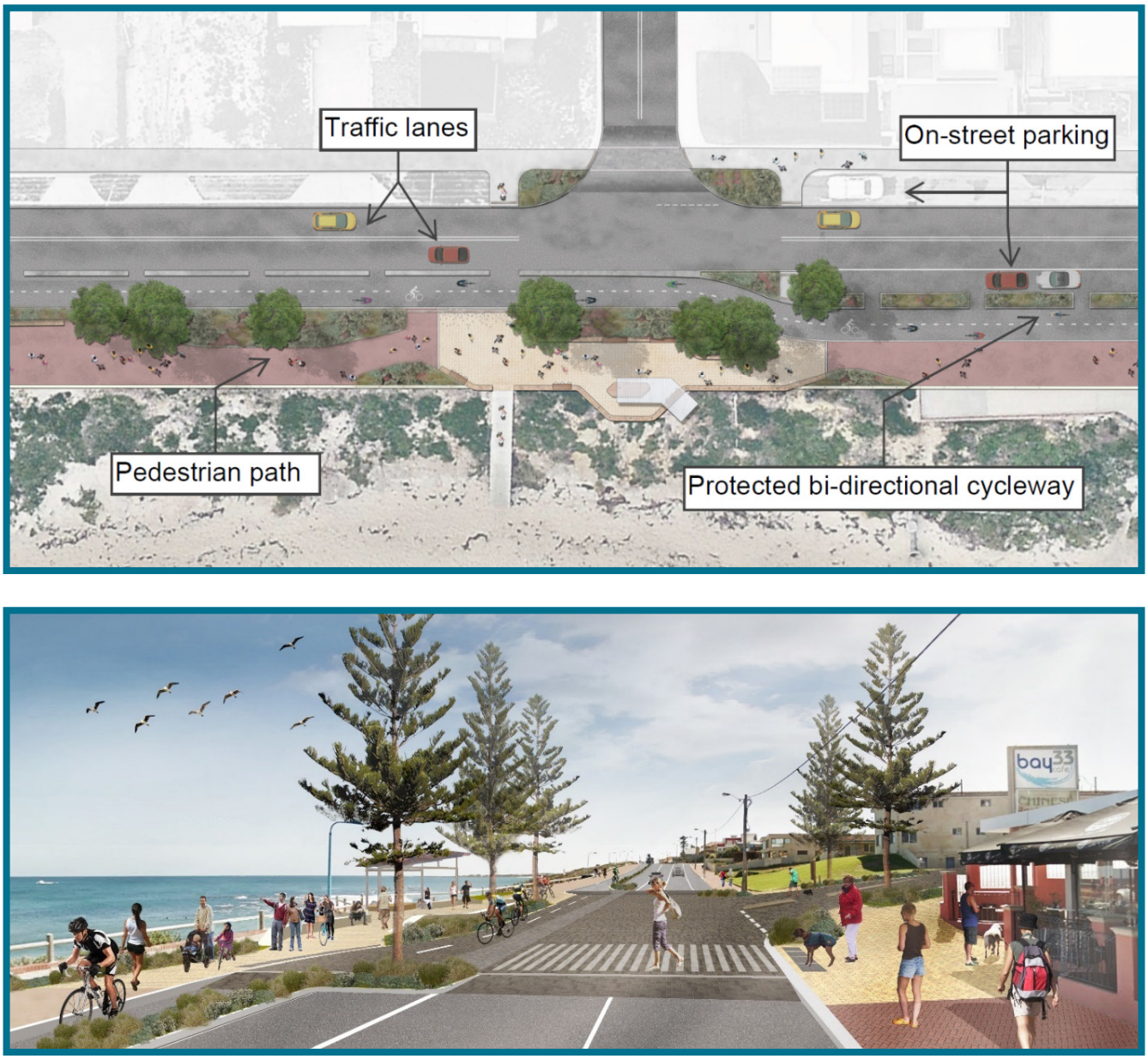
- Improving cycling conditions along Ocean Drive between Casuarina Point and Usher (before linking into the Tuart Walk to create a continuous path between Dalyellup and the Bunbury CBD);
- Enhancing or upgrading existing paths along the eastern side of the Leschenault Estuary (along Estuary Drive, Old Coast Road and Cathedral Avenue);
- Developing a tourist trail along the western side of the Leschenault Estuary, providing access to the Leschenault Peninsula Conservation Reserve and, in combination with the above route, creating a popular recreational and tourism loop (refer to Section 4.1.3);
- Developing a shared path or trail extending south from Dalyellup to Peppermint Grove Beach, potentially forming the first stage of a Bunbury to Busselton cycling route (refer to Section 5.1); and
- Developing a shared path or trail linking Leschenault Estuary to the coastal communities of Binningup and Myalup, potentially forming the first stage of a Bunbury to Mandurah cycling route (refer to Section 5.2).

Figure 4.1 People on bikes will continue to be attracted to Bunbury's beautiful coastline.

4.1.1 Opportunity: Upgrading cycling facilities along Ocean Drive

Ocean Drive already forms one of Bunbury's most important north-south cycling routes. At present, neither the existing shared path or on-road bike lanes are considered wide enough to adequately cater for all users.

It is recommended that over time, all three modes of transport are separated to ensure everyone can safely enjoy this scenic piece of coastline, whether walking, riding or driving.



Source: WSP, Hassell Studio, DoT, City of Joondalup and City of Stirling

Figure 4.2 The separation of pedestrians, cyclists and motorists – as illustrated in these concept images from the Cities of Joondalup and Stirling – should be the ultimate goal for popular waterfront cycling routes such as Ocean Drive in Bunbury.

4.1.2 CASE STUDY: BUSSELTON – DUNSBOROUGH SHARED PATH

A good example of a coastal cycling route in regional WA is the Geographe Bay Shared Path linking the towns of Busselton and Dunsborough. The 31 km facility provides a safe route for pedestrians and cyclists, parallel to Bussell Highway and Caves Road. It has been progressively developed by the City of Busselton over many years with the final section being completed in 2014. Key to its completion were the construction of several small bridges including those over the Buayanyup drain and Toby Inlet.

While popular with locals, the shared path also supports the local tourism sector by linking resorts, caravan parks and camping grounds to nearby attractions including shops, cafes and the popular Busselton Jetty precinct. In addition, the shared path is used by several community events, including the Busselton Half Ironman, Ironman WA, the Geographe Bay Pedal and the Spring Running Festival, which collectively are estimated to inject over $20 million into the local economy each year. While newer sections of the path have been built to a high standard (red asphalt and at least 3 m in width), there are many older narrow sections which the City of Busselton intend to upgrade over time.

Figure 4.3 Although well-utilised by locals, the coastal shared path linking Busselton and Dunsborough is particularly popular with visitors during tourist season.

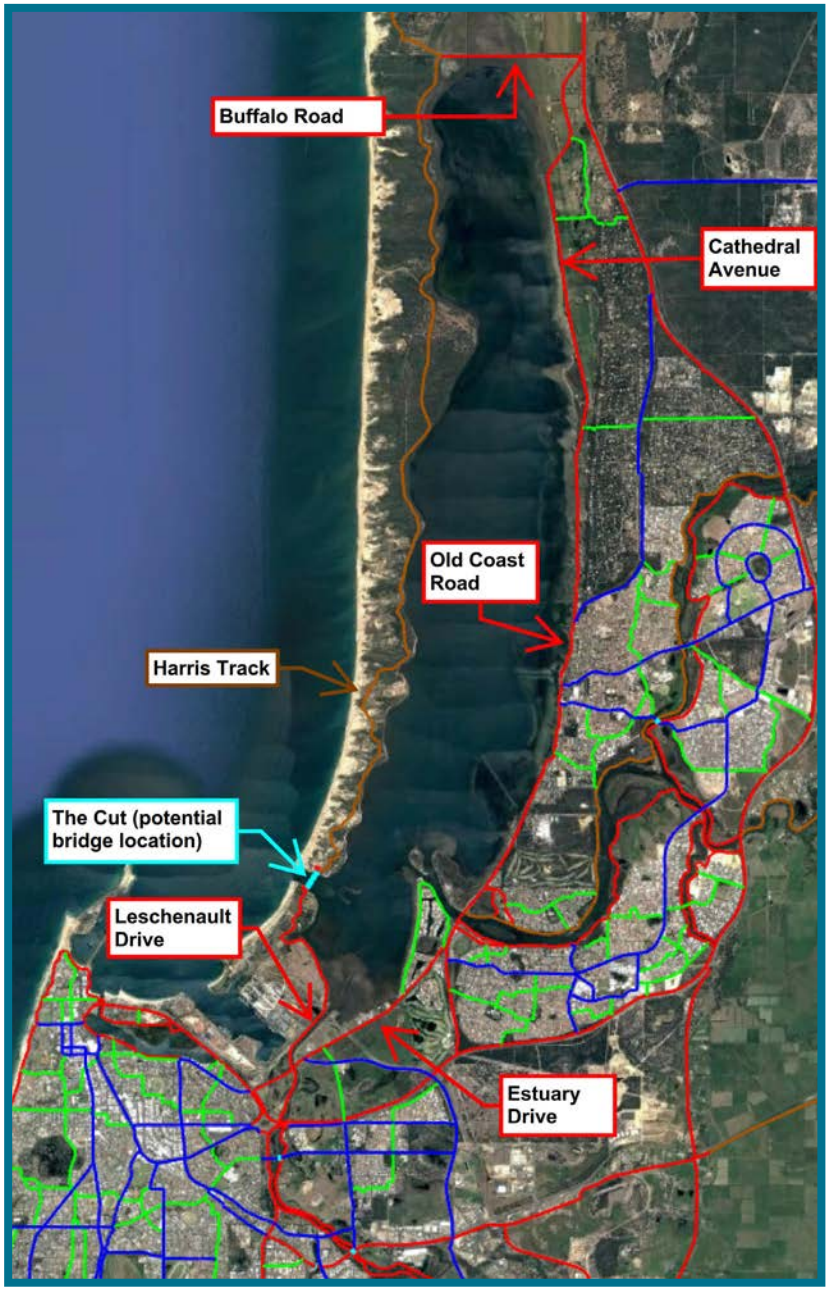
4.1.3 Opportunity: Creating a loop around the Leschenault Estuary

The Leschenault Estuary is an estuarine lagoon that lies to the north of Bunbury and forms the outlet for several important watercourses including the Collie, Brunswick and Preston rivers. In terms of surrounding land use, the estuary is flanked by the residential suburbs of Pelican Point, Eaton, Australind and Leschenault to the east, and the Leschenault Peninsula Conservation Park to the west.

As part of this strategy, a 32 km long recreational loop around the estuary has been proposed. The purpose of the loop is to enable locals and tourists to undertake passive recreational activities in this unique environment consisting of remnant bushland, natural wetlands and coastal vistas.

Development of this loop would require the upgrading of paths and trails around the estuary, as well as construction of a walking and cycling bridge across The Cut – an artificial channel dredged in the 1950s to connect the estuary directly to the Indian Ocean. Potential issues associated with the development of such a loop include environmental constraints (particularly on the western side) as well as potential changes to the layout of the Bunbury Inner Harbour and Preston River.

While certainly an ambitious proposal, planned upgrades to the Estuary Drive and Old Coast Road shared paths in the coming years will dramatically improve cyclist safety along the eastern side of the estuary. In addition to improving cycling accessibility for the residents of Eaton, Australind, Pelican Point and Lechenault, these upgrades will provide the beginnings of a world-class recreational cycling loop for Bunbury.



Several upgrades are planned for the Estuary Drive and Old Coast shared paths in the coming years

The narrow, tree-lined original alignment of Cathedral Avenue already forms a pleasant cycling environment

Potential bridge location at The Cut

Figure 4.4 The development of a walking and cycling bridge across The Cut would enable the creation of a 32 km long recreational loop around the Leschenault Estuary.

4.2 Making better use of watercourses

Cycling routes which follow rivers and creeks tend to provide a high-level of amenity to the people who use them. In addition to being relatively flat, such routes tend to be located well away from motorised traffic, making them attractive to a broader demographic of users. Although popular with recreational users, the development of routes along some watercourses can also enable people to ride to work or school, or travel safely between towns, depending on their location.

Opportunities to capitalise on the subregion's river systems include:

- A shared path alongside the southern bank of the Collie River extending from Old Coast Road to Forrest Highway, before transitioning into a trail between Forrest Highway and Burekup, and ultimately Collie;
- A tourist trail along the northern bank of the Collie and Brunswick Rivers, extending from Old Coast Road to Forrest Highway (with a potential future extension to Brunswick);
- A shared path alongside the Preston River, extending from the Eelup roundabout to the Bunbury Outer Ring Road, before transitioning into a trail between Forrest Highway and Boyanup, with a potential spur trail along Gavins Gully to Dardanup;
- A shared path or trail alongside the Capel River between Capel and Peppermint Grove Beach (refer to Section 4.4.1); and
- A shared path alongside Millars Creek extending from the Collie River to Forrest Highway.

Figure 4.5 Local governments are progressively upgrading the network of paths and trails along the Collie River.

Man-made corridors such as drains and irrigation channels have similar characteristics which make them excellent corridors for walking and cycling infrastructure. In addition to providing pleasant cycling environments, the development of paths or trails along drainage corridors can bring about positive environmental outcomes, as well as improved social amenity and neighbourhood safety for local residents (refer to Section 4.2.3 highlighting the Drainage for Liveability Program, a joint initiative of the Water Corporation and Department of Water and Environmental Regulation).

Potential opportunities to capitalise on the region's man-made watercourses include:

- The Harvey River diversion drain, linking Harvey to Myalup (refer to Section 4.4.2);
- Five Mile Brook, linking Hay Park to Big Swamp (refer to Section 4.2.3);
- Gavins Gully, linking the Preston River to Dardanup; and
- Various irrigation channels around Brunswick, Roelands and Burekup (and surrounding areas).

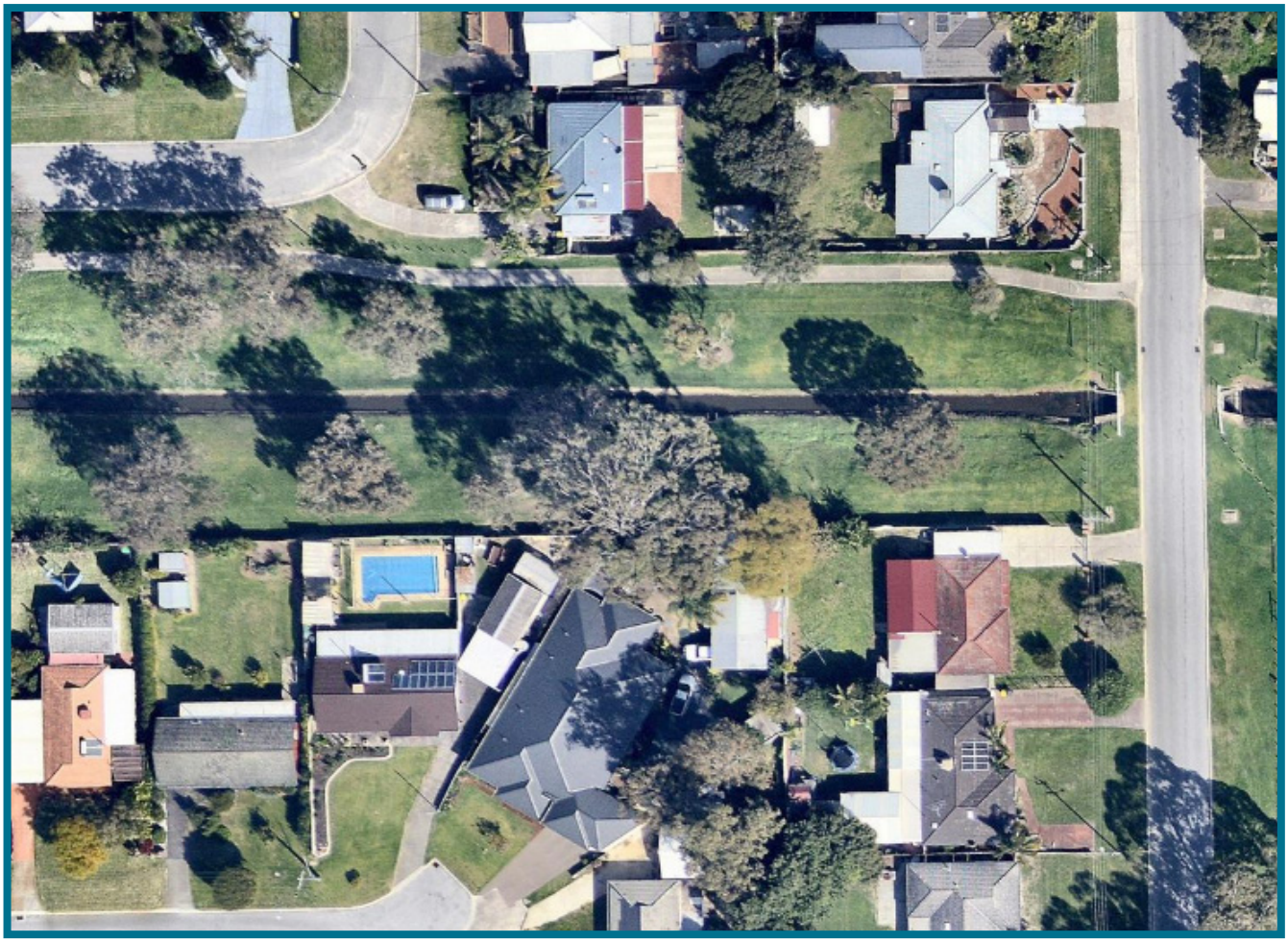


Figure 4.6 Like rivers, drains and irrigation channels can make excellent corridors for walking and cycling infrastructure, providing linear connections such as the path shown above.

4.2.1 Opportunity: Establishing a path network along the Collie, Brunswick and Preston Rivers

The Collie, Preston and Brunswick rivers are considered underutilised when it comes to cycling. Expansion of the path and trail network along the Collie and Brunswick rivers would be beneficial for both transport and recreational functions, particularly for people living in the Eaton, Millbridge, and Treendale areas. The development of a route along the Preston River has the potential to form a key link between Dardanup and Bunbury.

In developing such routes careful consideration needs to be given to issues including land tenure, environmental sensitivity, as well as each river's indigenous and non-indigenous heritage.

It should be noted that informal tracks have been established along some sections of the riverbank, indicating strong desire lines for both pedestrians and cyclists (as shown in Figure 4.7).

Desire lines are routes that people ride or walk informally rather than following a designated path or trail. Informal tracks appear as a consequence of repeated use. These are also commonly referred to as goat tracks, social trails and desire paths.

Figure 4.7 Providing shared paths or trails along both sides of the Collie, Preston and Brunswick rivers would enable people to ride safely from Bunbury's suburbs to the CBD, as well as to towns further away over the long-term. Informal tracks have already been established along some stretches, indicating strong desire lines for people walking and riding.

4.2.2 CASE STUDY:
SWAN – CANNING RIVER PARK SHARED PATH NETWORK

In recent decades, a network of high-quality walking and cycling paths has been progressively developed alongside Perth's Swan and Canning river foreshores. In addition to being a well-utilised community asset, these paths also form a key component of Perth's transport system, particularly during the morning and afternoon peak periods.

Although not yet complete, there is a long-term plan to have a network of high-quality walking and cycling paths alongside both sides of the Swan and Canning rivers. In situations where sufficient reservations do not exist along the river foreshore, or there are significant environmental or heritage constraints, solutions can be found in innovative treatments such as boardwalks and floating pontoons.

Large regional centres such as Bunbury should strive to develop riverfront cycling routes which provide a similar level of service to those in Perth.

Source:
https://www.bartvanbueren.com/architectureprojects

Source:
https://www.cityofparramatta.nsw.gov.au/cycling

Figure 4.8 Boardwalks and floating pontoons can be used to link up riverside pathways in locations where property boundaries go down to the high-water mark or in particularly environmentally sensitive areas.

4.2.3 Opportunity: Five Mile Brook

While stormwater drains and basins serve an important functional purpose, they also have the potential to contribute to the liveability of local communities. The Drainage for Liveability Program is a joint initiative of the Water Corporation and Department of Water and Environmental Regulation, which seeks to enhance the value of stormwater drains and basins to communities across WA[3].

Five Mile Brook (sometimes known as the Carson River) is a small watercourse located south of Bunbury, which has undergone significant reconfiguration since European settlement. Today the brook acts mainly as a drain, collecting stormwater from surrounding suburbs and discharging into the Indian Ocean near Hayward Street. An opportunity exists to use this corridor as an active transport route, providing users with a safe and attractive walking and cycling experience.

The corridor (which links Hay Park towards Big Swamp) ranges between 12 m and 25 m in width - which is wide enough to accommodate shared pedestrian and cycling facilities. In addition to providing a safe alternative to Minninup Road, the provision of an all-weather path along this corridor has the potential to improve access by service vehicles when accessing the drain for maintenance and water testing.

Figure 4.9 Urban drains such as Five Mile Brook present an opportunity to create passive walking and cycling routes away from busy roads.

[3] https://www.watercorporation.com.au/water-supply/ongoing-works/drainage-for-liveability-program

4.2.4 CASE STUDY: MOONEE PONDS CREEK TRAIL

The Moonee Ponds Creek Trail is one of Australia's best-known examples of a shared path located within a drainage corridor. The trail, which runs through land managed by Melbourne Water and TransUrban starts in the Docklands area just west of Melbourne's CBD. The facility extends for approximately 25 km north to Melbourne Airport, snaking its way under and around the City Link and Tullamarine Freeways. The trail is popular with both commuters and recreational joggers and cyclists, with the lower section forming part of the Capital City Trail (a shared use path which encircles Melbourne). Over 800 cyclists use the trail during a typical morning commute[4].

The path takes in a range of different landscapes from urban and industrial areas to natural parkland. The trail surface is predominantly asphalt and concrete and is grade separated from the road network by a series of underpasses. While the path is occasionally closed due to flooding, it continues to evolve with revegetation programs enhancing the biodiversity and habitat of the original creek system. Further planned infrastructure upgrades to the trail include an express route to bypass indirect sections and additional shared path linkages providing connections to the wider cycling network.

Figure 4.10 The Moonee Ponds Creek Trail follows the alignment of one of Melbourne's most important urban drains.

[4]*Bicycle Network Victoria*

4.3 Connecting people to places of education and employment

As the subregion's urban centres grow, it is imperative that activity nodes such as shopping centres, schools and industrial areas are serviced by safe, direct and legible cycling facilities. The most direct way to connect activity centres tends to be along busy arterial roads.

Secondary routes (as defined in Section 2.2) are typically located along urban arterials and can take the form of either on-road (protected) bike lanes or off-road shared paths. In both cases, it is critical that they are planned with the "8 to 80" design philosophy in mind.

Key secondary routes identified in this strategy include:

- Spencer Street, linking the Bunbury CBD to the South West Health and Learning Precinct and various suburbs to the south (refer to Section 4.3.1);
- Blair Street and Sandridge Road, linking the Bunbury CBD to the East Bunbury commercial area;
- Parade Road, linking the southern end of Spencer Street to Hay Park and various suburbs further south;
- Strickland Street, linking Blair Street to the Eelup roundabout, via the Bunbury Forum;
- Hamilton Road, Eaton Drive and The Boulevard, providing a feeder route into the suburbs of Eaton, Millbridge, Treendale and Kingston;
- Paris Road, Leisure Drive and Clifton Road, providing the residents of Australind, Kingston and Brunswick with a connection to the Estuary Drive principal route; and
- The Collie CBD Cycle Link connecting the Collie Visitors Centre to Soldier's Park via Throssell and Forrest streets.

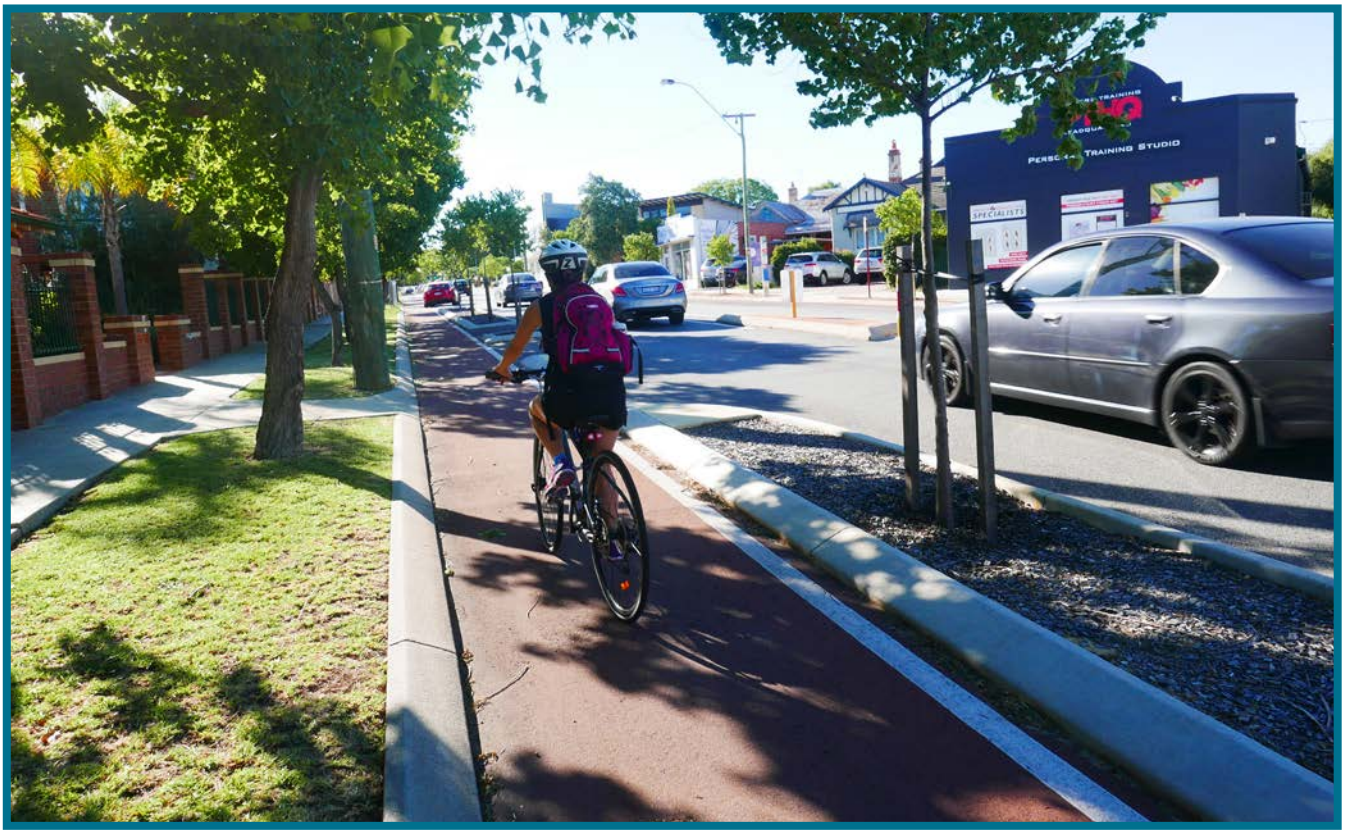


Figure 4.11 In built-up and town centre environments it is especially important that cycling infrastructure caters for people of all ages and abilities.

4.3.1 Opportunity: Enabling safe cycling along Spencer Street

Spencer Street has been identified as an important secondary route linking Bunbury's CBD with several suburbs and key destinations further south. At present, Spencer Street has existing unprotected on-road bike lanes between Minninup Road and Goldsmith Road.

To reflect the importance of Spencer Street as a key north-south cycling route, it is recommended that the existing on-road bike lanes are extended both north (to Stirling Street) and south (to Vasse Street) to allow people to safely ride between Bunbury's CBD and the South West Health and Learning Precinct.

Such a corridor would also form an important link to other future cycling routes including those alongside Parade Road and Bussell Highway.

If new or inexperienced riders are to be attracted to this corridor, both the upgraded and new sections of the bike lane will need to offer some level of protection from motor vehicles. As demonstrated in Figure 4.12, sufficient space is already available in certain sections to provide a protected facility.

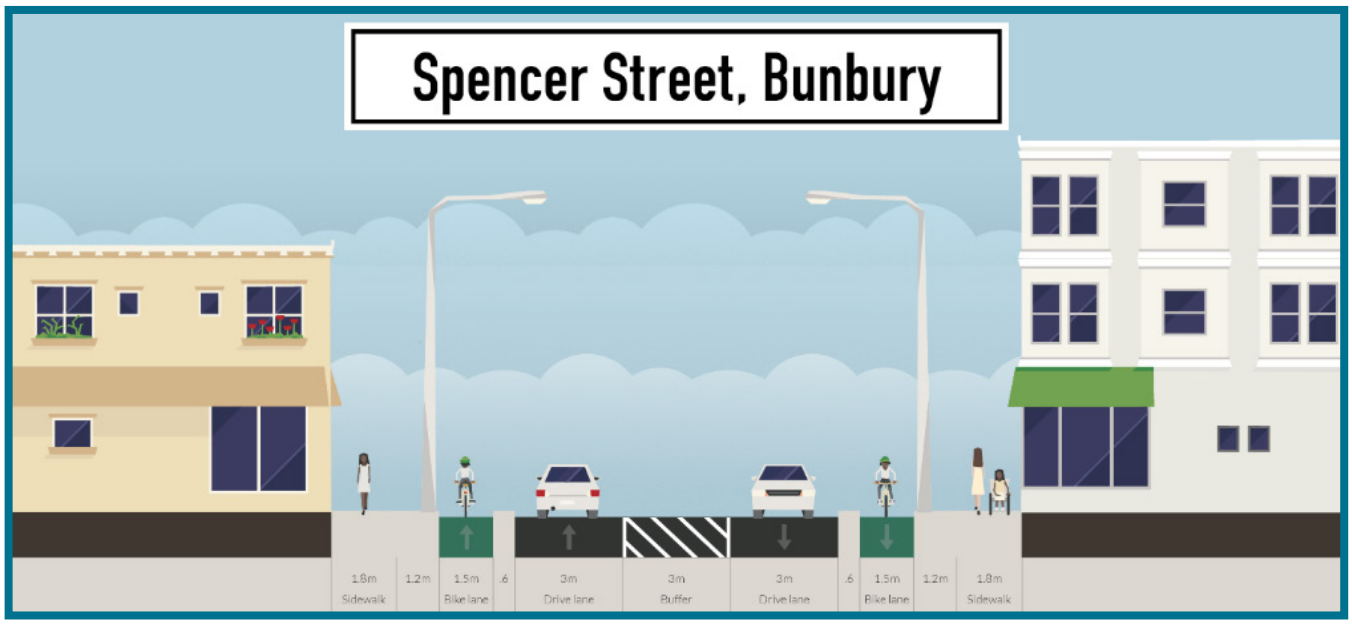


Figure 4.12 Cyclists currently share Spencer Street with vehicles, at times without any separation at all. North of Stuart Street, Spencer Street is sufficiently wide to accommodate protected bike lanes in addition to a central median to accommodate right-turn movements into local businesses. Alternatively, parking could be provided on alternating sides of the street.

4.3.2 CASE STUDY: BULWER STREET PROTECTED CYCLE LANES

Research shows the biggest barrier preventing more people from cycling is safety, both actual and perceived. Many cities around the world (including New York, Vancouver and London) with larger populations, greater density and more complex parking and traffic issues, are now establishing protected bike lanes to encourage more people to ride for transport.

In 2015, the City of Vincent progressed with the installation of protected bike lanes along a section of Bulwer Street, an important east-west cycling route across their local government area. The project was aimed at making the corridor safer and more pleasant for all road users, while simultaneously improving the visual and social amenity of the road environment.

The project involved reallocating road space to create protected bike lanes between Palmerston Street and Vincent Street, linking key destinations such as Highgate Primary School, Birdwood Square, Hyde Park, NIB Stadium and the urban villages located along Beaufort and William streets.

Several parking bays were embayed through reallocating verge space, while green pavement markings and head-start boxes were provided at signalised intersections and conflict points. Despite the loss of some existing street trees, there was an overall gain of 27 new trees. Where existing road widths did not allow for physical separation (in the form of 1 m wide kerbed medians), the city provided wider bike lanes to increase the distance between cyclists and passing vehicles.

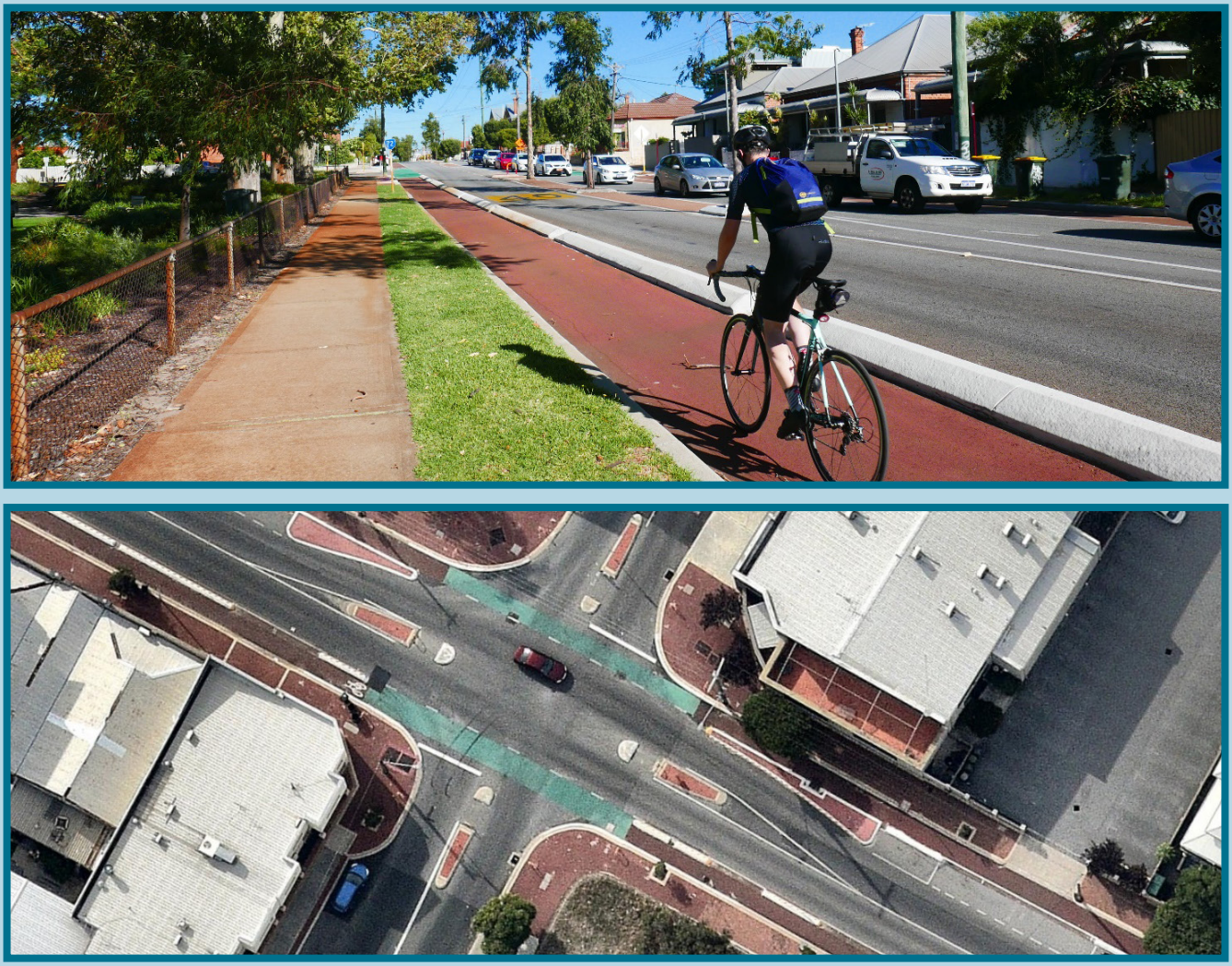


Figure 4.13 Protected bike lines such as these on Bulwer Street are critical to getting more people cycling for non-recreational purposes.

4.3.3 Opportunity: Improving access to the South West Health and Learning Precinct

The South West Health and Learning Precinct, comprising the South West Health Campus, Edith Cowan University, South Regional TAFE and Manea Senior College, is arguably one of the South West's most important activity centres. Access to the campus, which is bounded by busy roads on two sides, is highly car-centric. High traffic volumes and speeds on Bussell Highway and Robertson Drive, coupled with a lack of crossing facilities, make accessing the precinct difficult by active modes of transport.

A travel survey undertaken by the WA Country Health Service has identified the need to improve access to and from this important area for both safety and functional reasons. The survey reported that 50 per cent of staff at the South West Health Campus would consider alternative modes of transport if paths and crossing facilities were improved.

To encourage more people to walk and cycle to the campus consideration should be given to the provision of at least one grade separated pedestrian and cycling crossing.

Potential locations for such a crossing include:

- Robertson Drive (in the vicinity of Underwood or Ciara Streets);
- Bussell Highway (in the vicinity of the existing Hay Park access path); or
- Near the Bussell Highway roundabout.

Further investigation is required to assess feasibility and prioritisation.

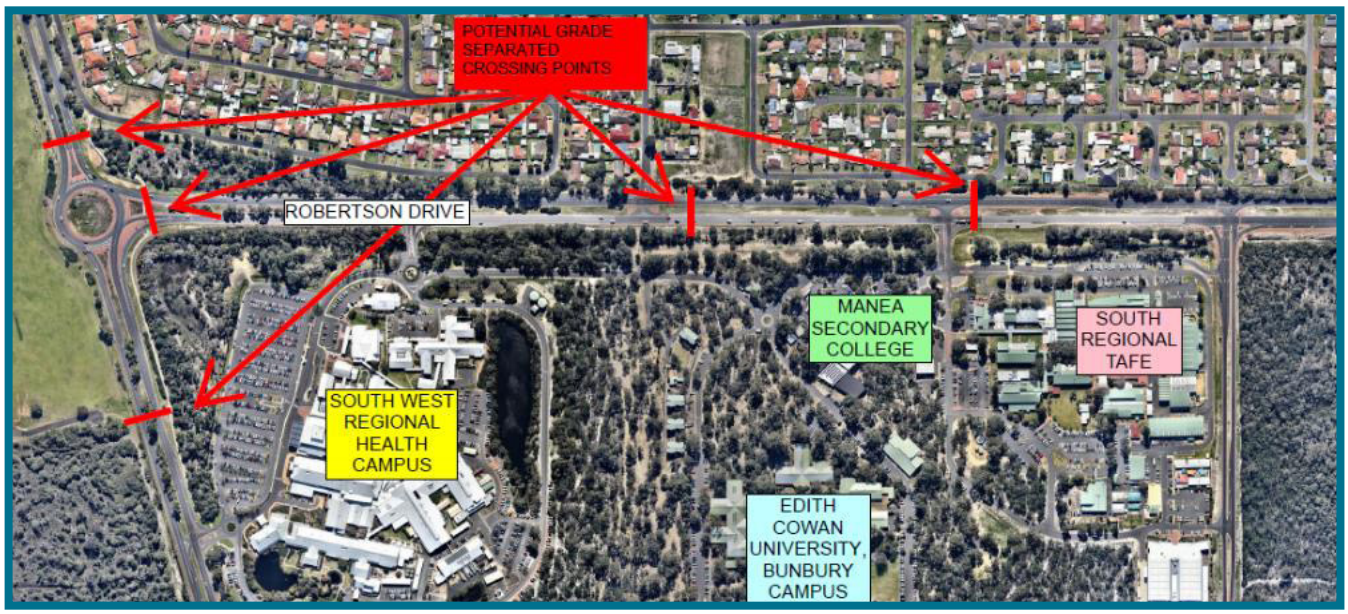


Figure 4.14 The provision of grade separated pedestrian and cyclist crossing facilities at Bussell Highway and/or Robertson Drive would dramatically improve accessibility to the South West Health and Learning Precinct.

4.3.4 CASE STUDY: THE EMERGENCE OF E-BIKE TECHNOLOGY

Until recently, cycling has relied solely on human power. This has limited the distance and type of terrain most people are prepared to make on bicycle, especially when commuting to work or school. E-bikes, or power-assisted bicycles, are fitted with small electric motors which provide mechanical assistance when pedalling. Under Australian road regulations, bikes sold for on-road use are limited to 250 watts, which enables them to travel at speeds of up to 25 km/h.

In recent years, the popularity of e-bikes has increased significantly, with many people finding them a quick, affordable and convenient way of getting to and from work or school. What makes them especially appealing for commuting in Australia's hot climate is their ability to alleviate a person's need to shower when they arrive at their destination, or carry a change of clothes. The Bunbury-Wellington subregion's 2050 bike network aims to capitalise on the potential of e-bikes, while recognising that regular (human-powered) cycling will continue to remain popular.

Figure 4.15 E-bikes enable people to commute from further away without needing to shower or bring a change of clothes.

4.4 Linking our towns to the coast

The Indian Ocean coastline is one of Bunbury-Wellington's most valuable natural assets. While residents of Bunbury's western suburbs can cycle to local beaches relatively easily, those living in smaller inland communities do not typically have the same opportunity.

Linking together coastal and inland communities has several advantages. This includes providing people living in small coastal towns with improved access to employment, education and shopping areas as well as providing residents of inland towns with better access to the beach for recreation. These relatively short intra-town connections also have the potential to facilitate new tourism opportunities, both for the towns themselves, as well as businesses along the route.

Key opportunities for linking inland communities to the coast include:

- Linking Capel to Peppermint Grove Beach (via either the Capel River or local roads), refer to Section 4.4.1; and
- Linking Harvey to Myalup (via the Harvey River diversion drain), refer to Section 4.4.2.

4.4.1 Opportunity: Linking Capel to Peppermint Grove Beach

Capel and Peppermint Grove Beach are two towns within the Shire of Capel. Located only 12 km apart, the two settlements share close social and economic links. While Capel serves as the main shopping and business centre for Peppermint Grove Beach residents, Peppermint Grove Beach is the closest coastal area for residents of Capel. The *Greater Bunbury Regional Bicycle Master Plan* highlighted the importance of creating a connection between the two towns.

Potential alignments for such a connection include establishing a shared path along the banks of the Capel River, formalising existing trails through the Tuart Forest or providing protected on-road cycling facilities along either Stirling or Mallokup roads. Potential challenges associated with establishing such a route may include land tenure and environmental issues. By creating two connections, it enables the development of a loop which is important for recreational cycling.

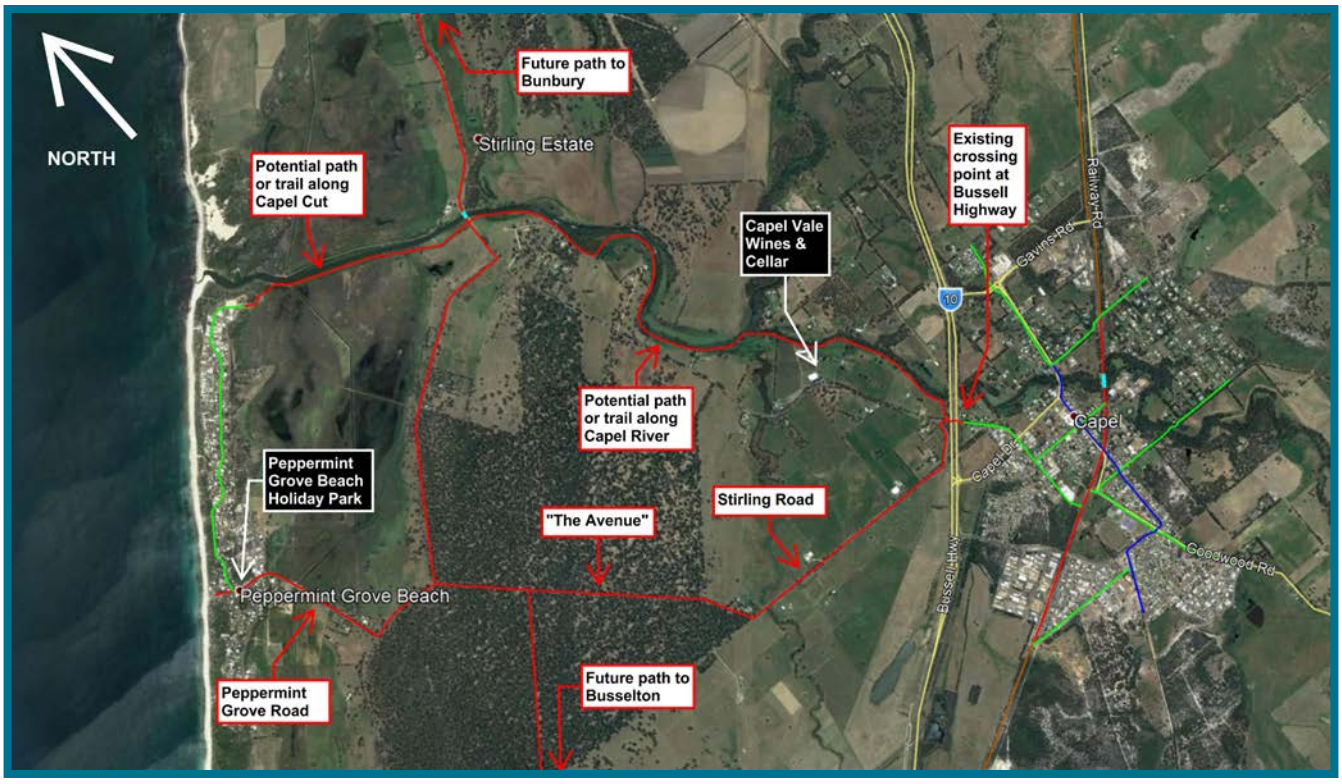


Figure 4.16 A dedicated walking and cycling facility between Capel and Peppermint Grove Beach would create an important recreational and tourism link between the two towns.

4.4.2 Opportunity: Linking Harvey to Myalup

The Harvey River diversion drain was constructed in the early 1930s as a way of reducing flood risk to Harvey and surrounding agricultural areas. The drain extends from the Harvey town site through farmland and State forest before breaking into the ocean just south of Myalup.

The corridor presents an opportunity to create a relatively flat and direct cycling connection between the two towns, and a safe alternative to Forestry and Uduc roads. There are also a number of popular attractions located along or near the drain.

Like other tourist trails proposed in this strategy, it is anticipated that such a facility could initially take the form of a simple, crushed limestone or gravel pathway suitable for bikes with wider tyres. Over time, and if demand is warranted, upgrading the unsealed trail to a higher standard facility could be considered.

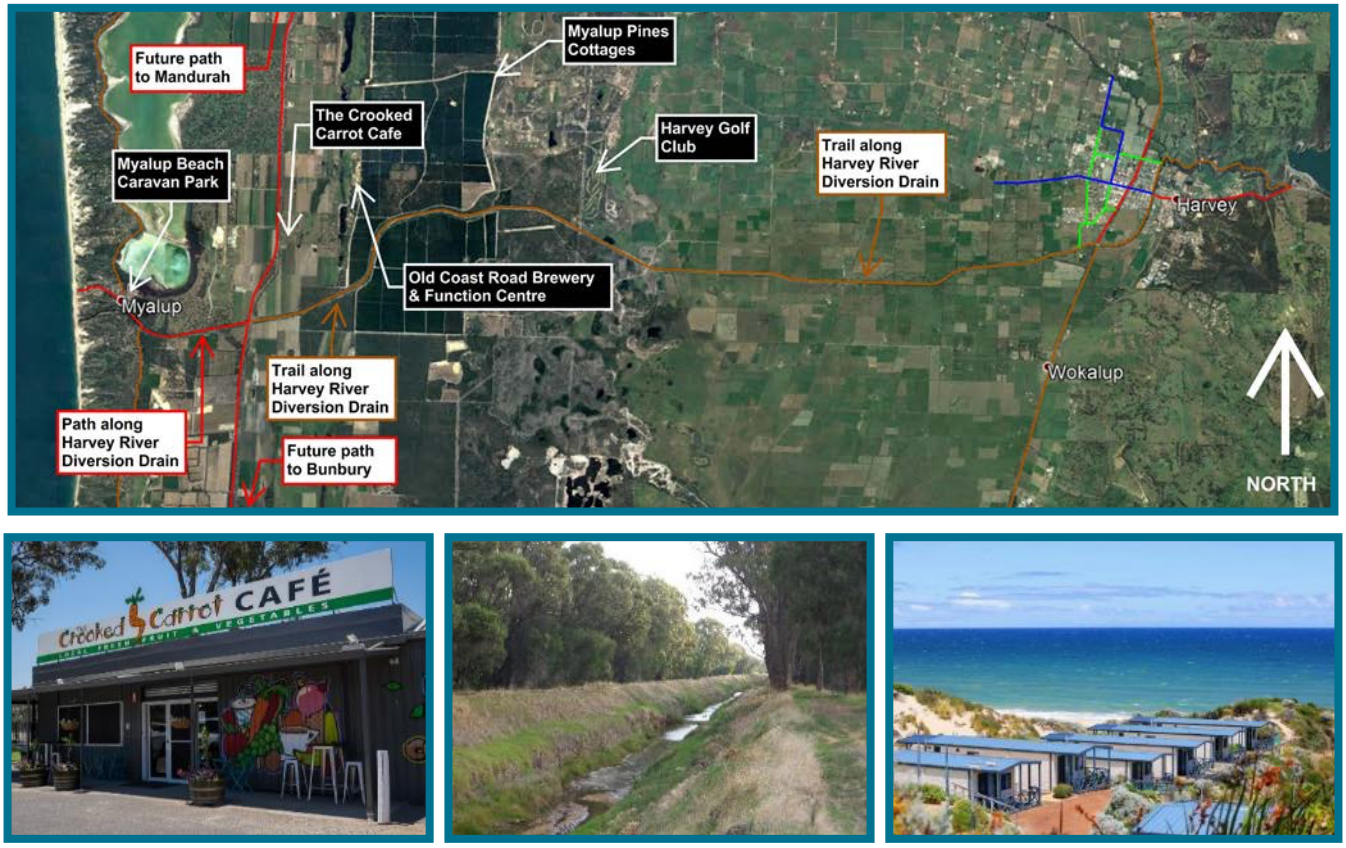


Figure 4.17 There is an opportunity to establish a walking and cycling trail alongside the Harvey River diversion drain linking the Harvey townsite with Myalup. Such a facility has the potential to open up tourism opportunities for both towns.

4.4.3 CASE STUDY:
MARGARET RIVER – PREVELLY SHARED PATH

The Margaret River-Prevelly Shared Path is a shared walking and cycling facility which runs parallel to Wallcliffe Road in the Shire of Augusta Margaret River. The path, which is 9 km long, links the Margaret River, Prevelly and Gnarabup population centres, which are collectively home to over 10,000 people.

The path was constructed in the 1990s and plays an important role for both locals and tourists.

In addition to providing an active transport connection between three communities, the path also links together various accommodation and recreational facilities. The current condition of the facility varies greatly along its length however the Shire of Augusta Margaret River has plans to progressively upgrade the older, narrower sections with a wider asphalt surface to cater for higher levels of use.

Figure 4.18 The shared path connecting Margaret River to Prevelly is a good example of a cycling facility linking an inland town to the coast. The Shire of Augusta Margaret River is gradually upgrading narrower concrete sections such as that on the left.

4.5 Harnessing the potential of rail corridors

The intrinsic characteristics of rail corridors make them especially appealing for cycling infrastructure. Not only do they provide continuous and uninterrupted routes, they also tend to have gentle gradients (normally less than three per cent) which make for a comfortable cycling experience over long distances. Other benefits associated with co-locating cycling infrastructure within rail corridors include:

- Highlighting the natural, cultural and heritage values of a local area;
- Providing additional connections between towns and suburbs;
- Increasing the profile of a region and providing new tourism opportunities (refer to Section 4.5.2); and
- Preserving rail corridors for future use, also known as railbanking (refer to Section 4.5.3).

4.5.1 Summary of rail trail opportunities

Within the south west corner of WA there is significant potential to re-purpose the extensive network of non-operational railways as a world-class system of walking and cycling trails.

There are over 500 km of closed, disused and dormant railways linking together virtually every town in the South West region.

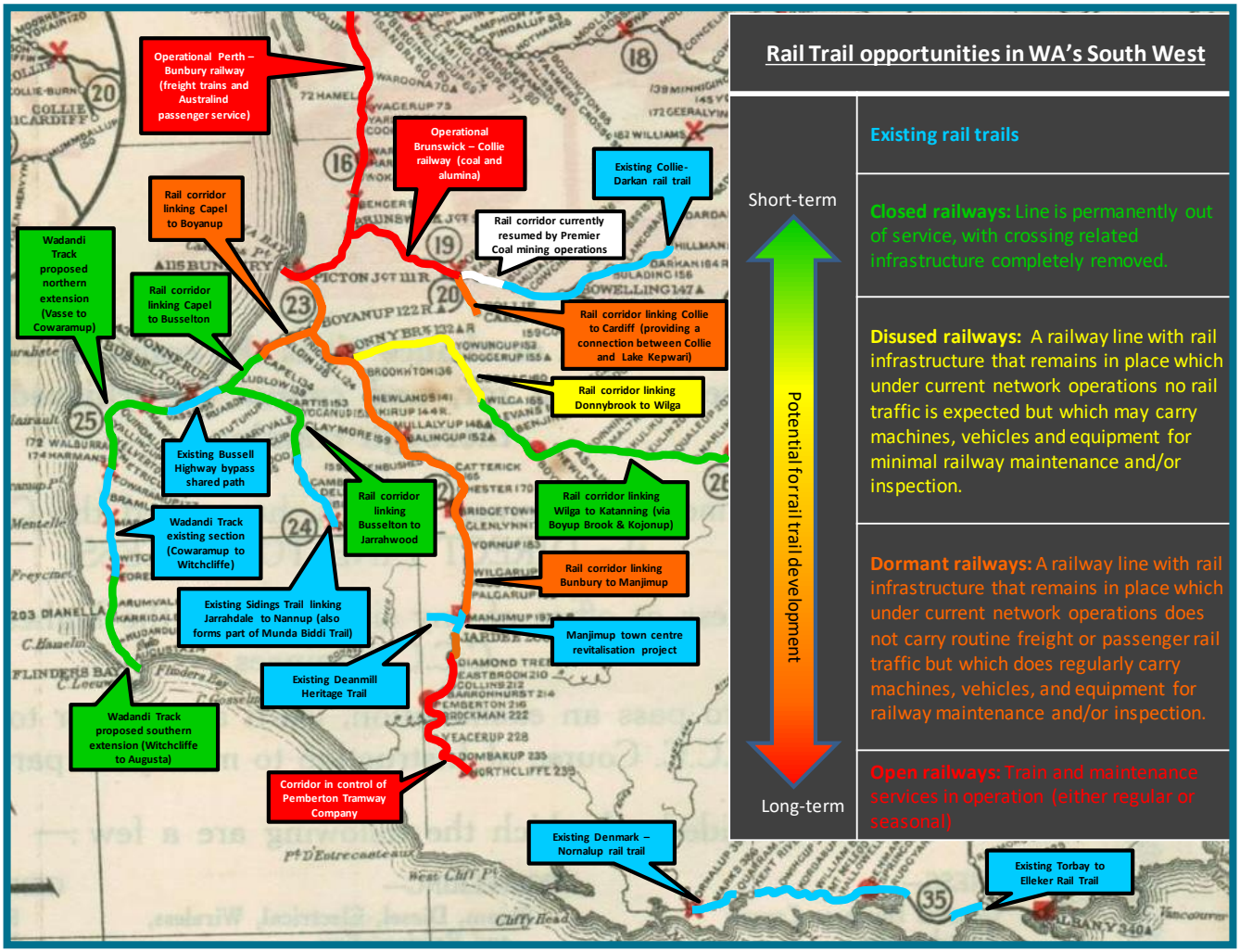


Figure 4.19 There are over 500 km of dormant, disused and closed railways located to the south and east of Bunbury.

Section	Status	Asset owner	Length	Potential opportunities
Bunbury to Dardanup	**Open** (freight and passenger services)	Arc Infrastructure	~17 km	- Connects Bunbury to nearby inland towns of Dardanup (gateway to the Ferguson Valley) and Boyanup (Bunbury's closest connection to the Munda Biddi Trail). - Provides cyclists with a safe alternative to South Western Highway and Boyanup-Picton Road.
Bunbury to Boyanup	**Dormant** (tracks, ballast and sleepers remain but non-operational since 2005)[5]			
Boyanup to Balingup	**Dormant** (tracks, ballast and sleepers remain but non-operational since 2005)[5]	Arc Infrastructure	~46 km	- Provides cyclists with a safe alternative to South Western Highway. - Has significant potential to extend further south providing connection to various towns in the Warren–Blackwood subregion (such as Bridgetown, Manjimup, Pemberton and Northcliffe).
Boyanup to Capel	**Dormant** (tracks, ballast and sleepers remain but non-operational since 1998)	Arc Infrastructure	~16 km	- Provides cyclists with a safe alternative to Railway Road which has high volumes of heavy vehicles. - Could form part of a future Bunbury–Busselton cycling link (mentioned frequently during the community consultation process).
Capel to Ludlow	**Closed** since 1985 (tracks, ballast and sleepers have been removed)	Arc Infrastructure between Capel and RGC21 PTA between RGC21 and Ludlow	~10 km	- Has potential to form a logical extension of the Wadandi Track (under development between Busselton and Augusta). - Opportunity for a potential spur trail to Jarrahwood/Nannup along the Ruabon-Tutunup rail reserve (providing an additional connection to the Munda Biddi Trail).
Donnybrook to Boyup Brook	**Disused** (tracks, ballast and sleepers remain in sections however the line has been non-operational since 1987)	Arc Infrastructure between Donnybrook and Wilga PTA between Wilga and Boyup Brook	~70 km	- Provides food and wine tourism opportunities for horticulture industries located within the Preston Valley. - Provides linkages to small communities at Lowden, Yabberup and Mumballup. - Opportunity for potential extension to Kojonup and Katanning.
Bunbury to Harvey (and beyond)	**Open** (freight and passenger services)	Arc Infrastructure	~40 km	- Creates synergies with the Australind passenger service, enabling people to undertake cycle-tourism journeys to and from central Perth. - In some sections low volume local roads and service tracks run parallel to the railway.
Brunswick to Collie	**Open** (freight trains)	Arc Infrastructure	~35 km	- Likely to remain an active rail trail for some years to come. - Beela Road and Worsley Back Road follow a roughly parallel alignment and could be used support cycling between Brunswick and Collie.
Collie to Cardiff	**Dormant** (tracks, ballast and sleepers remain but non-operational since 1999)	Arc Infrastructure	~12 km	- Provides a link between Collie and the nearby Cardiff community, Collie Motorplex and the potential future recreational area located at Lake Kepwari.
Collie to Darkan (and beyond)	Partially existing, partially incomplete	Arc Infrastructure between Collie and Muja 61 PTA between Muja 61 and Darkan	~68 km	- Existing rail trail runs between Buckingham and Daradine (64 km). - Section between Collie and Buckingham is located within an active coal mining area. - There are plans to complete the rail trail upon closure of the mine site, however it is proposed to investigate an alternative alignment in the interim.

Table 4.1 A summary of the status, ownership and opportunities associated with rail trails in the Bunbury-Wellington subregion.

[5] *This section of rail line forms part of the Picton-Greenbushes alignment which, in recent years, has received renewed interest for transportation of lithium. At the same time, expansion of lithium mining in the area is likely to generate increased traffic on South Western Highway (at least in the short-term), potentially further increasing demand for a cycling facility away from the highway.*

A leading example of a rail trail in WA is the Wadandi Track located in the Shire of Augusta Margaret River. The track, which utilises the former Busselton–Flinders Bay railway formation, currently extends approximately 23 km from Cowaramup to Witchcliffe. Although unsealed, the trail has a compacted gravel surface and good drainage, making it suitable for a wide variety of bikes.

In addition to being used for tourism and recreational purposes, the trail also forms an important transport link between various towns in the Capes region. Over time, the rail trail will be extended south to Augusta and north to Busselton, further enhancing the region's cycle-tourism opportunities.

Source: The UnCool Cycling Blog

Figure 4.20 The Wadandi Track, located on the alignment of the former Busselton–Flinders Bay railway, caters to a range of different use and is fast becoming one of WA's most iconic rail trails.

4.5.2 CASE STUDY: THE TOURISM POTENTIAL OF RAIL TRAILS

There is strong evidence supporting the economic and social benefits generated by rail trails for regional Australia. Although it is uncommon to charge access fees, users of rail trails contribute to the local economy in several other ways. In addition to food and hospitality industries, other businesses such as bike shops or those providing transport to and from trail heads can also benefit from the development of rail trails.

Rail trails also support slow travel – a term used to describe travellers who explore destinations more thoroughly, taking time to acquaint themselves with local people, culture and food.

People who adopt the slow travel philosophy tend to report higher rates of spending compared to the average population.

As identified in the *Western Australian Cycle Tourism Strategy*, cycle tourists are a high value visitor due to their propensity to stay longer, travel outside of urban centres and spend more. In Australia, the average daily spend of a cycle tourist is approximately $124 per day[6].

Some usage and economic statistics for a selection of Australia and New Zealand rail trails are provided in Table 4.2 below.

Rail Trail Example	Usage And Economic Statistics
Hauraki Rail Trail, New Zealand (opened in 2013)[7]	- Nearly 30,000 riders pass through Paeroa (a town on the trail) per annum. - It has been estimated that visitors spend an average of $172 per trip, up from $105 in 2012, with net expenditure between $2.1 and $3.3 million per annum. - Approximately 50 full time jobs have been created because of the trail. - 85 per cent of users are visitors to the region, with most being domestic visitors. - 80 per cent of users indicated that the rail trail was their main purpose of visit. - At least 50 per cent of users are in the 45 to 65 age bracket.
Otago Central Rail Trail, New Zealand (opened in 1994)[8]	- Nearly 15,000 people ride the trail end to end every year. In addition to this, it is estimated that 80,000 people use sections of the trail to commute or undertake short recreational rides. - The average age of riders is 45 for domestic and 37 for international. There is no significant difference between the number of male and female riders. - Most end-to-end users are first-time visitors to the area and spend an average of 3.8 nights in the region. - The largest international visitor market is from Australia, followed by Europe. Two thirds of domestic visitors are from the North Island. - In 2012 it was estimated that the trail created 120 full time jobs and contributed $12 million to the Central Otago economy per annum, creating business opportunities and energising small communities.
Murray to the Mountains Rail Trail, Victoria (opened in 2002)[9]	- Construction of the trail between Bright, Wangaratta and Beechworth was completed in 2002, with subsequent sections from Rutherglen to Wahgunyah and Wangaratta to Oxley completed in 2009 and 2011 respectively. - The trail attracts approximately 45,000 users per annum including walkers, with most people spending 2 or 3 days on the trail. - For the majority of visitors (59 per cent), cycling is the main reason for undertaking their trip to region. - In 2011 it was estimated that the trail contributed $26.2 million per annum in economic output to the region and created 23 full time jobs.

Table 4.2 Usage and economic statistics of regional rail trails in Australia and New Zealand.

[6] *Western Australia Cycle Tourism Strategy (2018)*
[7] *Information on the HRT sourced from https://haurakirailtrail.co.nz/, https://www.tcdc.govt.nz, http://www.hauraki-dc.govt.nz*
[8] *Information on the OCRT sourced from http://www.otagocentralrailtrail.co.nz, http://www.northernriversrailtrail.org.au*
[9] *Information on the M2MRT sourced from https://www.railtrails.org.au, North East Victorian Tourism Gap Analysis (2012), North East Rail Trail Preliminary Demand and Economic Benefit Assessment (2014)*

4.5.3 CASE STUDY:
RAILBANKING INACTIVE RAIL CORRIDORS FOR FUTURE GENERATIONS

Railbanking is the concept of preserving inactive rail corridors for possible future use. Allowing these corridors to be used for trail development enables bridges, culverts and other infrastructure to remain intact, while simultaneously preserving the corridor for future use should rail transport become economically feasible again. Depending on agreements between parties, railbanking can potentially relieve the asset owners from trespassing issues and ongoing maintenance costs.

Inactive railways in the Bunbury-Wellington subregion that could be suitable for railbanking initiatives include:

- Bunbury-Northcliffe railway (between Picton and various towns further south); and
- Boyanup–Busselton railway (between Boyanup and Wonnerup).

Figure 4.21 Using closed, disused or dormant railway alignments for trail development can help preserve these corridors for future use, should rail operations become economically feasible again.

Railbanking is a voluntary agreement between a railway asset owner and another agency to establish a trail within an out-of-service rail corridor until such time that the corridor is needed again for rail service. It works under the premise that if a public asset is not used, it is eventually lost.

4.5.4 CASE STUDY:
RAILS WITH TRAILS – PROVIDING CYCLING FACILITIES ALONGSIDE ACTIVE RAILWAYS

In other parts of the world, and particularly the United States, a growing number of walking and cycling trails are being established alongside active railways. These trails (sometimes known as rails-with-trails) now represent almost 10 per cent of all rail trails in America.

Although rail operators have traditionally opposed the development of trails either within or adjacent to such corridors (due to concerns with risk or liability) there is a growing body of evidence supporting the safety of such facilities.

A recent report undertaken by the United States Rail to Trails Conservancy found that over the past 20 years there was only one recorded fatality involving a rail-with-trail user and a train - and just two reports of injury[10].

In WA, high-quality shared paths have been established alongside much of Perth's suburban rail network. Many of these paths have involved the negotiation of land tenure to facilitate their construction. In the future it may be feasible to replicate a similar approach in the regions.

Figure 4.22 Riding alongside an active railway is normally much safer than riding on a busy road or highway.

Figure 4.23 Shared paths have been successfully developed alongside many parts of Perth's suburban rail network.

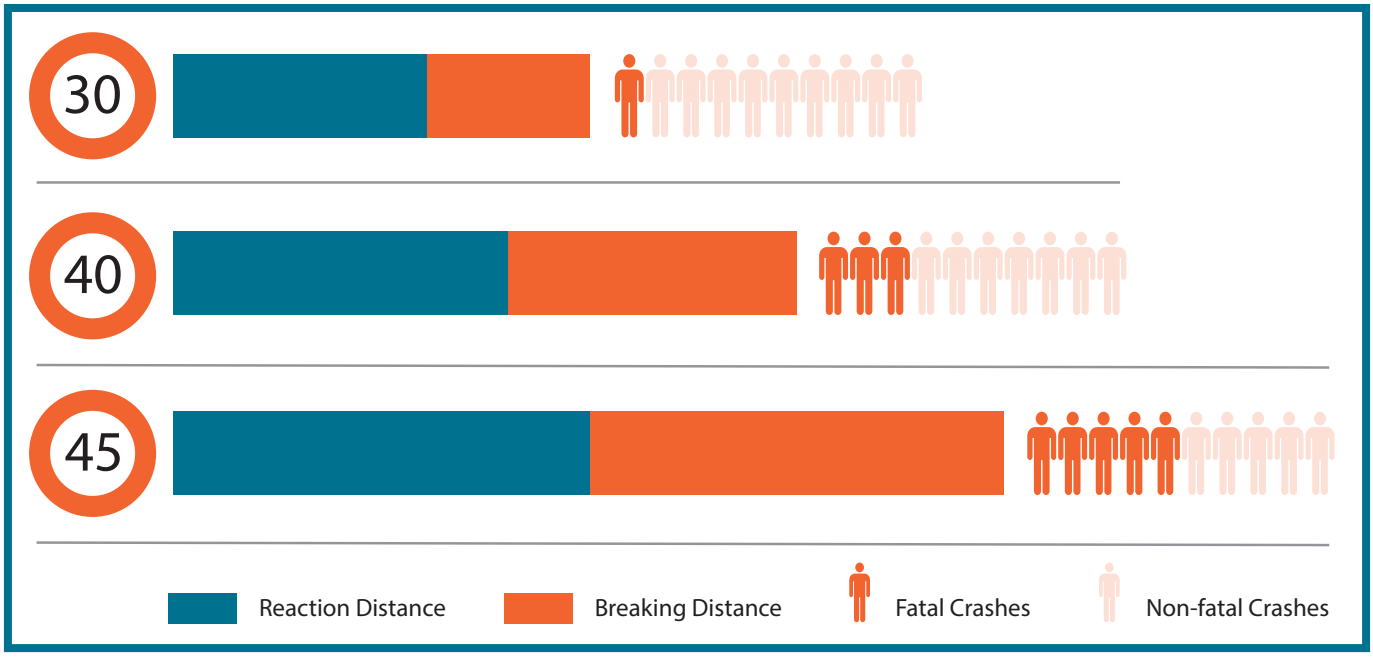
[10] https://www.railstotrails.org/resourcehandler.ashx?id=2982

4.6 Re-engineering local streets to create low-stress environments

When it comes to vulnerable road users such as pedestrians and cyclists, collision speeds have arguably the largest impact on whether someone is killed or injured in a crash. When impact speeds exceed 40 km/h the likelihood that a pedestrian or cyclist will survive reduces considerably. As shown in Figure 4.24, when impact speeds are less than 30 km/h the overwhelming majority of crash victims will survive, often sustaining only minor injuries. At 45 km/h, almost all crashes result in severe injuries and around half are fatal. At 70 km/h, more than 90 per cent of crashes involving a vulnerable road user are fatal.

Although relatively new to countries such as Australia, New Zealand and the United States, the concept of re-engineering local residential streets to reduce vehicle speeds to 30 km/h is already popular in many others parts of the world (especially Europe). In addition to making cycling safer for more people, low-speed street environments have various other benefits, including:

- Reducing rat-running by non-local traffic;
- Making crossing the road safer for children, the elderly, and people with disabilities;
- Reducing noise and air pollution;
- Increasing real estate values;
- Improving the economic vitality of local areas; and
- Creating a stronger sense of community.



Source: Auckland Transport

Figure 4.24 When impact speeds exceed 40 km/h the likelihood that a pedestrian or cyclist will survive a traffic crash reduces considerably.

Going forward it is expected that safe active streets will play an increasingly important role for cycling within residential areas. Safe active streets are local streets that have been modified in a way which makes on-road cycling safer and more attractive for people of all ages and abilities. Sometimes called low-stress cycling streets, this type of facility aims to provide a comfortable cycling experience while also increasing amenity for people walking. Additional measures such as increased tree planting and reduced speed limits help to re-imagine the street as a place for people, where those walking or cycling are prioritised over cars.

The fundamental principles of safe active street design include:

- Facilitating benign traffic conditions, using traffic calming measures to reduce traffic volumes and average vehicle speeds;
- Adopting self-explaining street principles - safe active streets should be designed in such a way that makes it intuitive to drive at low speeds, rather than relying on speed cameras or police enforcement; and
- Creating filtered permeability by strategically restricting some movements to just pedestrians and cyclists.

The WA safe active street pavement marking

Road narrowing achieved through formalised car parking

One-way slow point used for traffic calming and to switch formalised parking to other side of the road

Mid-block road closure used to reduce traffic volumes

Figure 4.25 In addition to making local residential streets quieter and more family-friendly, simple traffic calming treatments can encourage more people to walk or cycle for short trips.

4.6.1 Opportunity: East Bunbury safe active street corridor

There is a potential opportunity to establish an east-west safe active street corridor in East Bunbury linking the Estuary Drive Shared Path to the Bunbury CBD. The proposed corridor makes use of quiet streets and pedestrian cut-throughs to provide a safe alternative to Austral Parade.

There are a number of other opportunities for safe active streets throughout the Bunbury-Wellington subregion, as highlighted in the maps contained in Section 3.

It should be noted that this project is in the pre-conceptual phase and requires more detailed investigations, as well as consultation with the local community and other stakeholders.

The objectives of this project include:

- Completing a cycling loop around the Leschenault Inlet;
- Providing a cycling connection, suitable for all ages and abilities, between the existing Estuary Drive Shared Path and the Bunbury CBD;
- Providing improved cycling access to Bunbury Senior High School;
- Combatting rat-running along sections of Stirling Street; and
- Making East Bunbury a safer and more family-friendly place to live.

Figure 4.26 There is an opportunity to establish an east-west safe active street corridor in East Bunbury linking the Estuary Drive Shared Path to the Bunbury CBD.

4.6.2 CASE STUDY:
SHAKESPEARE STREET, MOUNT HAWTHORN

WA's first safe active street is now complete. The facility runs for around 3 km between Shakespeare Street and Scott Street in Mount Hawthorn and includes connections to other cycle paths via Bourke Street and Richmond Street at the southern end of the route. The project was undertaken in two stages. The first stage, between Green Street and Scarborough Beach Road, was officially opened in December 2016, while the second stage south of Scarborough Beach Road to Richmond Street, was constructed in mid-2018.

Key elements of the project include:

- A new 30 km/h speed limit complemented by one-way slow points and speed cushions aimed at reducing vehicle speeds and traffic volumes;
- Red asphalt with safe active street and 30 km/h pavement markings;
- Reversal of stop or give way controls along the route to provide priority to cyclists where possible;
- Improved crossing facilities, including at Scarborough Beach Road where wider traffic islands and a central median treatment are used to increase safety and highlight the presence of cyclists; and
- Landscape enhancements to provide shade and improve the overall amenity of the street.

Connecting schools, parks and activity centres to higher-order cycling facilities, the Shakespeare Street project has been well received by the local community as well as cyclists travelling through the area on their way to Mount Hawthorn, Leederville and onwards towards the Perth CBD.

Project evaluation is ongoing however initial monitoring and data collection has shown a reduction in vehicle speeds and traffic volumes, and an increase in the number of cyclists and pedestrians using the street. The number of cyclists using the road (instead of footpaths) has also increased, indicating improved amenity for pedestrians.

Figure 4.27 The Shakespeare Street Safe Active Street connects schools, parks and other trip generators to higher-order cycling facilities.

4.7 Developing safe routes for road cyclists

There is an emerging need to develop formalised routes for the subregion's local and visiting road cyclists. Road cycling (as described in Section 2.5) is popular on lower order, rural and semi-rural roads on the outskirts of cities and towns which have lower traffic volumes, scenic landscapes and changes in elevation. Road cyclists do not typically require (or use) dedicated or protected cycling infrastructure along these routes, such as shared paths. There is an opportunity to review the key routes being used by road cyclists in order to improve safety and user-experience.

4.7.1 Opportunity: Ferguson Valley Loop

One such route is that between Dardanup and the Ferguson Valley, utilising local roads including Ferguson, Pile, Wellington Forrest and Wellington Mill roads, as highlighted in Figure 4.28.

Already popular with cycling groups, the route also has the potential to attract tourists, given the surrounding scenery and numerous connections to accommodation and hospitality businesses around the Ferguson Valley.

Potential safety enhancements could include shoulder widening (particularly on uphill sections) and advisory signage. There may also be opportunities to consider other, more sophisticated measures such as time/day activated warning lights (similar to school zone signage) and button activated warning lights.

Further feasibility and consultation is required to identify training routes throughout the Bunbury-Wellington subregion, as outlined in Section 2.5 of this strategy.

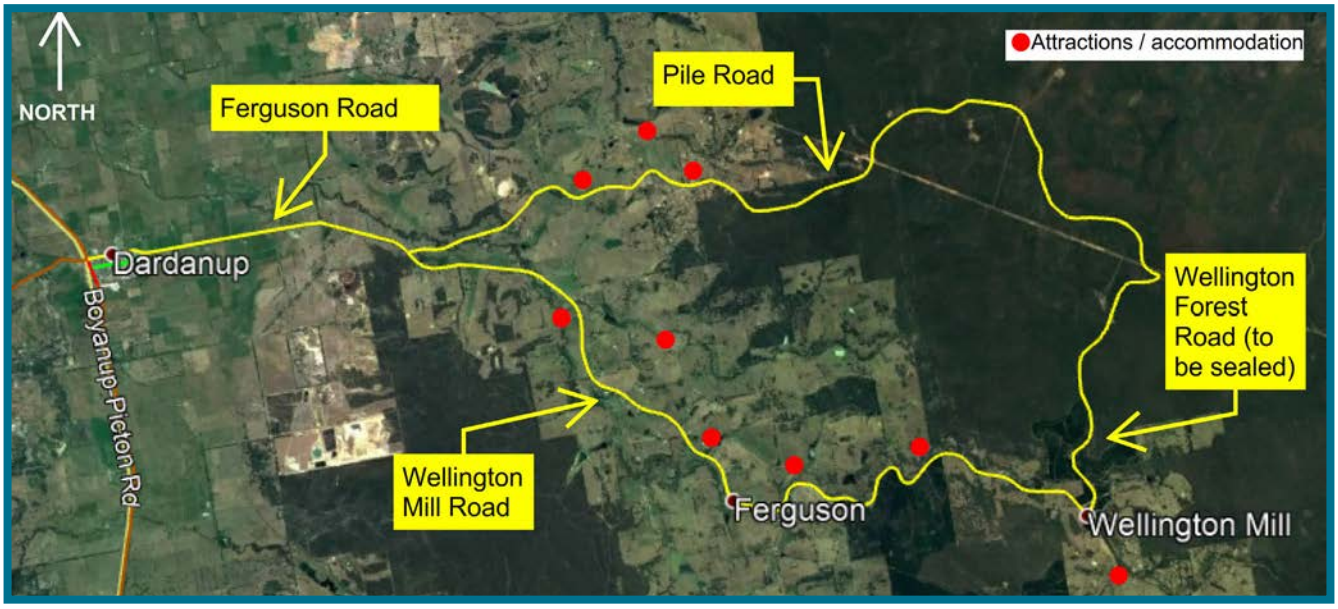


Figure 4.28 Potential route for Ferguson Valley loop.

Figure 4.29 Advisory measures such as warning lights could help improve cyclist safety along routes frequently used by road cyclists.

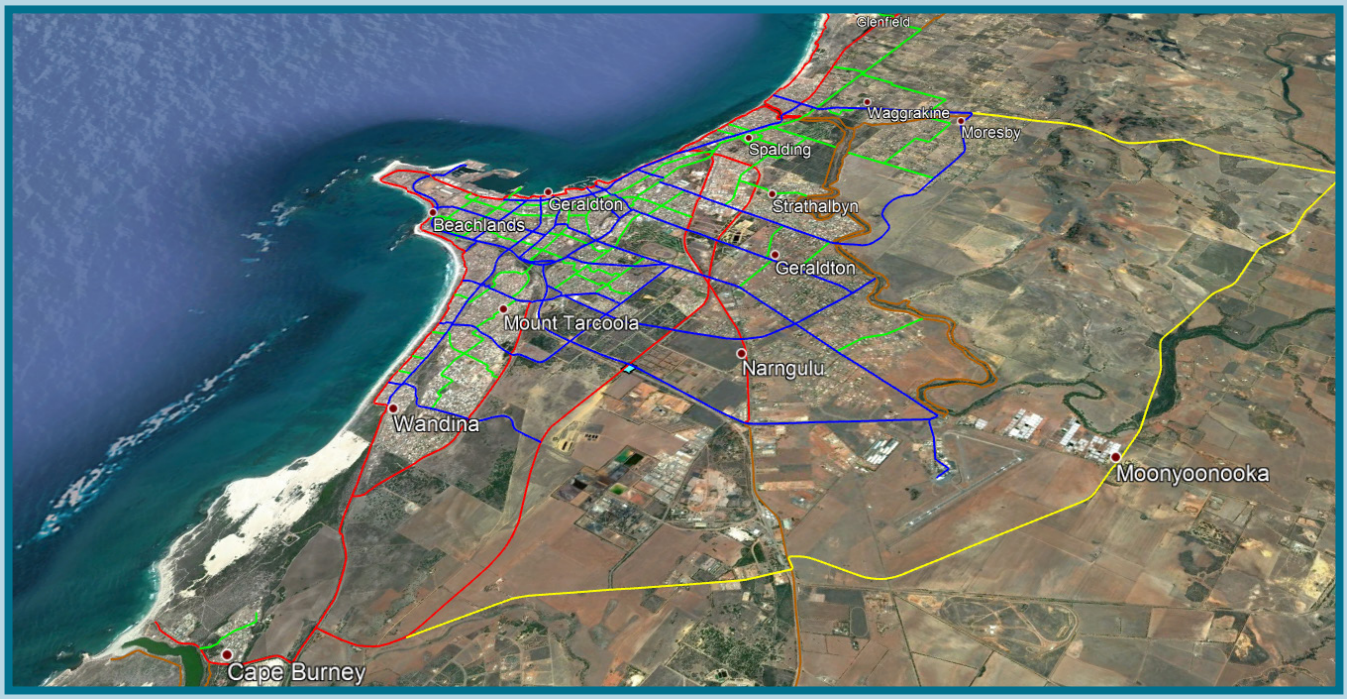
4.7.2 CASE STUDY: THE WOLF PACK ROUTE, GERALDTON

The Road Safety Commission is currently working with the City of Greater Geraldton and Shire of Chapman Valley to improve outcomes for road cyclists along the Wolf Pack Route (shown in yellow in Figure 4.30).

The initiative has involved installing static "Share the Road" signage along sections of the route to help raise awareness of cyclists and prevent and reduce conflict between cyclists and drivers.

Outcomes of the initiative will be evaluated by the Road Safety Commission and may result in the signage being installed along the entire route.

There may also be opportunities to install more sophisticated measures in the future, such as shoulder widening (particularly on uphill sections) and activated warning lights.



Source: Road Safety Commission

Figure 4.30 In Geraldton, a formalised road cycling route is in the early stages of development.

4.8 Getting cycling infrastructure right from the start

Retrofitting cycling infrastructure to existing urban areas can be slow and expensive. Due to this it is critical that new urban growth areas incorporate a dense and interconnected cycling network from the outset. When planning the street networks of urban developments, consideration should be given to:

- Providing primary routes alongside all main roads, railways and watercourses;
- Providing secondary routes along all urban arterials which is important for providing access to local shops, schools and community facilities; and
- Providing local routes along key local access streets.

Over the next three decades it is likely that a number of new greenfield developments will take place in the Bunbury-Wellington subregion. Key opportunities include Wanju in the Shire of Dardanup (refer to Section 4.8.1), as well as East Boyanup and Dalyellup South, both in the Shire of Capel.

Figure 4.31 When new developments adopt a safe and interconnected network of primary, secondary and local routes, cycling becomes an attractive and natural part of everyday life.

4.8.1 Opportunity: Wanju

By the year 2050, Wanju in the Shire of Dardanup is expected to be home to around 50,000 people. Key to this development are contemporary urban design principals such as medium to high density land use, a diverse range of housing opportunities and a focus on cycling, walking and public transport.

Wanju has a number of features which will help enable cycling to become a key mode of transport. These include:

- High density land use (especially in the town centre);
- A potential train station as part of a future Perth–Bunbury high-speed rail link;
- Major transport links such as the Bunbury Outer Ring Road and South Western Highway bordering the development;
- Waterways such as Millars Creek and the Collie River bordering the development;
- Drainage corridors, provided as part of the development's water-sensitive urban design; and
- Proximity to the future Waterloo Industrial Park.

DoT will work closely with the Department of Planning, Lands and Heritage to ensure that best-practice cycling infrastructure is incorporated into new developments such as Wanju.

Source: http://wanju.dardanup.wa.gov.au/

Figure 4.32 The Wanju development in the Shire of Dardanup has the opportunity to become a truly bike-friendly urban community.

4.8.2 CASE STUDY:
LEARNING FROM THE BEST – DUTCH APPROACHES TO SUBURBAN DEVELOPMENT

Australia's suburbs (and particularly those developed from the 1960s onwards) have typically been designed in a way which makes car use the dominant mode of transport, even for very short trips. Design features such as 50 km/h speed limits along local streets, intersections with large radii and streets with non-contiguous (or no paths) contribute to reducing the appeal of walking and cycling.

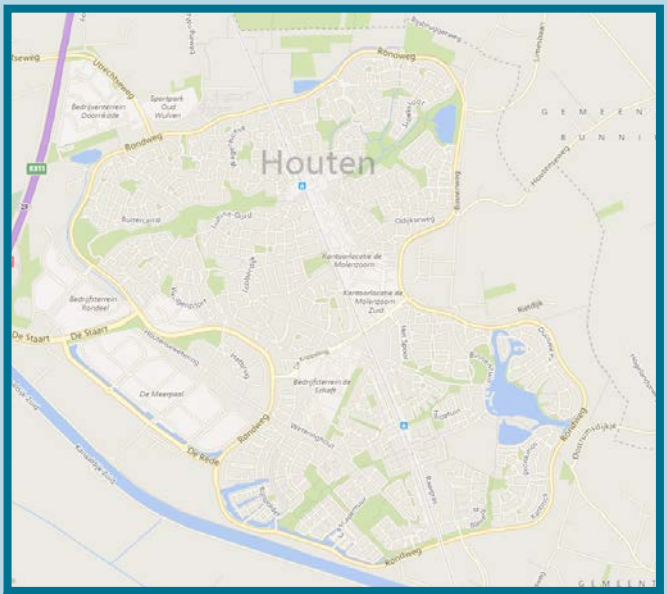
Houten, a city in the province of Utrecht in the Netherlands is an exemplary model of low-density, suburban development. In the late 1960s, Dutch government officials recognised Houten – then a small town of a few thousand people – as a potential area for major population growth. Unlike other suburban developments taking place at the time, planners carefully prioritised pedestrians and cyclists over cars.

The defining feature of Houten is the extensive use of filtered permeability which discourages people from making unnecessarily short trips by car.

The city is divided into a number of smaller residential districts, each of which is only accessible to cars via a peripheral ring road which encircles the city. To get to another district by car, you must use the ring road.

The rest of the city is covered by an extensive network of high-quality walking and cycling routes. Importantly, these routes provide direct access between residential areas and key destinations such as shops, schools and community facilities. This feature makes walking and cycling the most attractive way to get to and from most local destinations.

Houten's innovative design (and corresponding mode share) has resulted in numerous measurable benefits, including better air quality, fewer incidents of road trauma and higher levels of population health and well-being when compared to other similarly sized cities.



Map of Houten highlighting the peripheral ring road (needed for most car-based journeys).

Map of Houten highlighting the dense network of protected cycling routes.

Figure 4.33 Houten, a modern but low density suburban development in the Netherlands, has been designed in such a way that it simply makes sense to walk or cycle for local trips.

4.9 Taking advantage of Bunbury-Wellington's cycle-tourism potential

Globally, the popularity of outdoor and adventure tourism is increasing, with cycle-tourism accounting for a significant part of this growth[11]. In the year ending June 2016, 68 per cent of international visitors to Australia engaged in some form of nature-based activity, contributing $23 billion to the national economy[12].

In recognition of cycle-tourism as a growing niche market, Westcycle and Tourism WA recently developed WA's first cycle-tourism strategy. The *Western Australian Cycle Tourism Strategy* identifies two main segments within the cycle-tourism market:

Destination Cycle Tourists - cyclists who are motivated to travel to destinations primarily or solely because of the routes, trails and riding experience; and

Cyclists While on Holiday - those who will ride while on holiday in a destination, although bike riding is not their primary reason for their holiday.

Research undertaken by Tourism WA found that:

- In the last three years, 29 per cent of Australians had a holiday that involved a cycling experience. Of these, 28 per cent were *Destination Cycle Tourists* while 72 per cent were *Cyclists While on Holiday*;
- In the last three years, 7 per cent of Australians had a cycle holiday experience in WA. In addition, 26 per cent of Western Australians undertook a day trip in WA involving cycling.
- The South West region was identified as the most popular cycle-tourism destination in WA outside of Perth; and
- A lack of knowledge is the key barrier preventing more people from the eastern states (and overseas) visiting WA for a cycling experience.

There are several factors which make the Bunbury-Wellington subregion particularly conducive to cycle-tourism, including:

- A mild mediterranean climate, making outdoor recreation possible year-round;
- Picturesque scenery encompassing a diverse range of landscapes;
- Short distances between towns, enabling people to undertake cycle-tourism without necessarily needing to carry camping equipment or food supplies; and
- A selection of high-quality food and wine producers, particularly in the Ferguson and Preston River Valleys.

Figure 4.34 The Bunbury-Wellington subregion has the right ingredients to become a world-class cycle-tourism destination.

[11] *Global Report on Adventure Tourism (2014)*
[12] *WA Strategic Trails Blueprint (2017-2021)*

4.9.1 Summary of cycle-tourism opportunities

Cycle-tourism has been used successfully in diversifying tourism industries in other parts of Australia. While infrastructure plays an important part of attracting visitors, marketing and promotion also play an integral role, as does the availability of information such as maps, way-finding and digital resources.

The *Western Australian Cycle Tourism Strategy* identifies the three main types of cycle-tourism as recreation, touring and events. These categories can be further broken down by cyclist type, reflecting the broad nature of the cycle-tourism industry. For example:

- **Recreational cycle-tourism** can include mountain biking and road cycling, as well as a range of ad-hoc cycling trips that people undertake while on holiday, such as riding to the beach, the local shops or around wineries.
- **Cycle-touring** is characterised by long-distance, multi-day journeys. Cycle-touring is typically defined as either on-road or off-road but in some circumstances may include a combination of both. Some cycle-touring journeys are self-supported, while others depend on local businesses for support and bespoke services.
- **Events tourism** refers to people who travel to a town or region specifically to participate in a cycling event ranging from road races and track cycling to BMX and mountain bike competitions.

Each of these classifications can be further divided by user type, such as leisure (where riding is additional to an existing trip), enthusiast (where riding is often the reason why a certain destination is chosen) or sport (where riding is the sole reason why a destination is chosen).

Table 4.3 provides a summary of cycle-tourism opportunities in the Bunbury-Wellington subregion, with comparable examples from around regional WA, interstate and overseas.

Type of cycle-tourism	Opportunities in the Bunbury-Wellington subregion	Examples from elsewhere
Recreational cycle-tourism (ad-hoc cycling) - Normally involves short (<10 km) long routes with minimal interactions with motorised traffic - Users may or may not ride on a regular basis and tend to use a wide variety of bikes (including e-bikes) - Conducive to path/ trails along coastal and river foreshores	- Enhancing the safety/continuity of the coastal cycling route between Bunbury and Dalyellup (refer to Section 4.1.1) - Completing a network of trails/paths along the subregion's river systems (refer to Section 4.2.1) - Creating a cycling loop around the Leschenault Estuary (refer to Section 4.1.3) - Linking Collie to Black Diamond Lake via a Karak Trail spur path, and onwards towards Wellington National Park 	- Geographe Bay Shared Path (linking Busselton to Dunsborough) - Twilight Beach Shared Path (following the coastline for approximately 10 km west of Esperance) - Rottnest Island - Turquoise Way Trail (which will eventually connect Jurien Bay to Cervantes) - Swan and Canning River shared paths (offering scenic rides around Perth's river systems) 

Type of cycle-tourism	Examples of opportunities in the Bunbury-Wellington subregion	Examples from elsewhere
Recreational cycle-tourism (road cycling) - Tends to take place on low volume roads and/or sealed bike paths - Users tend to be experienced and typically use either road or hybrid bikes	- Formalising the Dardanup to Ferguson Valley loop (refer to Section 4.7.1) - Formalising the popular Donnybrook–Upper Capel–Kirup–Brookhampton cycling loop 	- Perth Hills road cycling routes - Adelaide Hills road cycling routes - Great Ocean Road cycle routes 
Cycle-touring (on-road) - Involves long-distance, multi-day journeys on relatively uniform surfaces (typically sealed) - Strong focus on reaching a destination at the end of each day but visiting a variety of experiences along the way	- Developing a safe cycling connection linking Bunbury to Busselton and Bunbury to Mandurah – refer to Sections 5.1 and 5.2 - Developing a network of routes across the South West region, as illustrated by Figure 1.1 	- EuroVelo trail network (refer to Section 5.5) - National Cycle Network (United Kingdom) - Adventure Cycling Route Network (United States) 
Cycle-touring (off-road) - Involves long-distance, multi-day journeys on a variety of surfaces (typically unsealed) - Strong focus on reaching a destination at the end of each day but visiting a variety of experiences along the way - Can include rail trails, access/fire roads and single-track	- Harnessing the potential of rail corridors in developing a network of rail trails around the south west (refer to Section 4.5) - Capitalising on the Munda Biddi Trail and improving linkages to the Collie, Donnybrook and Boyanup townsites (refer to Section 4.9.2) 	- Munda Biddi Trail (Mundaring to Albany) - The Wadandi Track (Cowaramup to Witchcliffe, via Margaret River) - Murray to Mountains Rail Trail (Victoria) 

Table 4.3 Summary of cycle-tourism opportunities in the Bunbury-Wellington subregion.

4.9.2 Opportunity – Improving linkages to the Munda Biddi Trail

The Munda Biddi Trail is a 1000 km long cycling trail linking Mundaring (near Perth) to Albany. The completed trail, which opened end-to-end in April 2013, is one of the longest off-road cycling trails in the world. Frequently mentioned in the top ten cycling holidays globally, the trail is becoming increasingly popular with cycle tourists from both interstate and overseas. Several towns in the Bunbury-Wellington subregion are well placed to capitalise on the growing popularity of the Munda Biddi Trail. These include:

- Collie and Donnybrook – by realigning the trail so that both towns are stopping points on the mainline rather than accessed via a spur trail;
- Boyanup – by realigning the trail so that riders are directed through the centre of town, supporting local businesses; and
- Harvey – by investigating a formal linkage to the trail, providing users with the option of starting or finishing a stage in Harvey and taking advantage of the Australind passenger rail service (noting that changes to this service would be required to enable people to board/alight the train in Harvey with their bicycles).

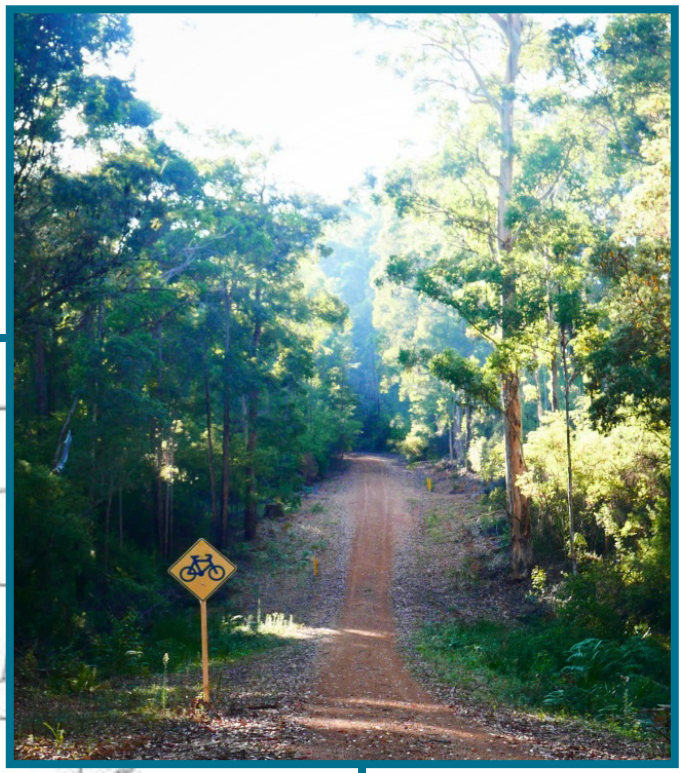
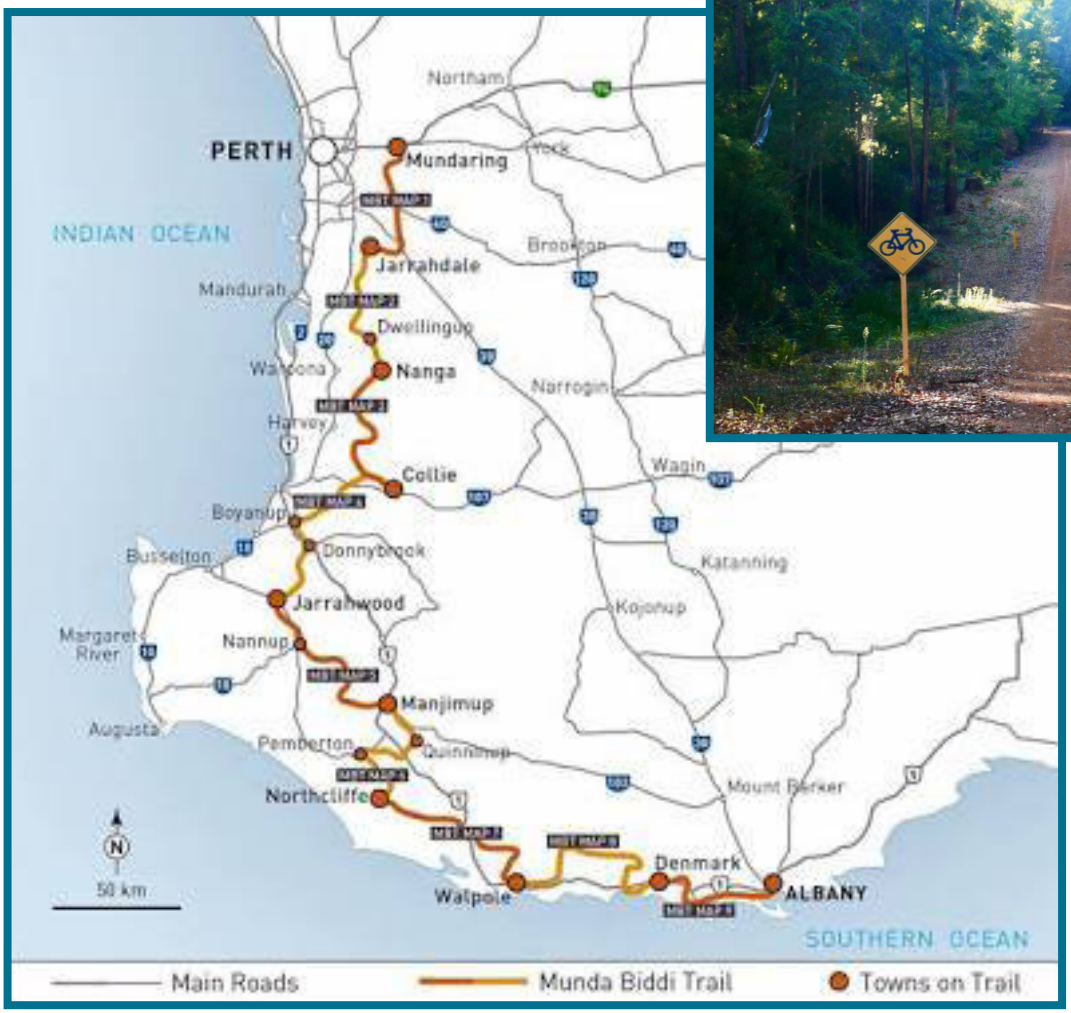


Figure 4.35 Various towns in the Bunbury-Wellington subregion could better capitalise on the growing popularity of the Munda Biddi Trail.



Recent upgrades undertaken by the Shire of Manjimup have improved accessibility and safety for Munda Biddi users entering the town. For the southbound approach, the unsealed Manjimup–Deanmill Heritage Trail (a former railway) has recently been upgraded to a red asphalt path on approach to the town. For the northbound approach into Manjimup, sealed shoulders have been provided on Muir Highway to create a safer connection.

Figure 4.36 North and southbound entry points into Manjimup have been upgraded to provide a safer and more comfortable experience for Munda Biddi riders entering the townsite.

4.9.3 Opportunity – Improving access to Collie's mountain biking trails

The popularity of mountain biking has increased significantly in recent years. The *2015 South West Mountain Bike Master Plan* identified Collie as one of three nationally significant mountain biking areas in the South West (along with Margaret River and Pemberton).

The plan recommends the development of a trail centre in Collie – a single site with dedicated visitor services and mountain bike facilities, serving multiple signed and mapped trails of varying type and classification. The immediate development of a 30 km trail network in the Wellington National Park is recommended, as well as the medium-term development of 50 km of trails through the Westralia Conservation Park, the town's primary recreation area connecting to the Collie township and Collie River.

As these trails are developed, it is important that appropriate linkages between them, the Collie townsite and the Munda Biddi Trail are provided. In addition to helping people get to the trails without needing access to a car, the development of these linkages will help solidify Collie's aspiration to become the first accredited Trail Town in WA, and a well renowned cycle-tourism destination.

Figure 4.37 Improving connectivity between Collie and the nearby Arklow and Wellington National Park mountain bike trails should be investigated.

5. INTER-REGIONAL OPPORTUNITIES

Community consultation on this strategy revealed a strong desire among residents to create cycle routes that connect towns throughout the South West region. This demand is also evidenced by the GPS mapping outputs included in Appendix B2.

Key inter-regional opportunities for the Bunbury-Wellington subregion include:

- Linking Bunbury to Busselton (and the Leeuwin–Naturaliste subregion), refer to Section 5.1;
- Linking Bunbury to Mandurah (and the Peel region), refer to Section 5.2;
- Linking Bunbury to Donnybrook (and onwards to the Warren–Blackwood subregion), refer to Section 5.3; and
- Linking Bunbury to Collie (and onwards to the Wheatbelt region), refer to Section 5.4.

Around the world, cycle-tourism is also growing in popularity. Due to the relative proximity of towns and settlements within the South West, the region is arguably better suited to long-distance cycling than any other part of WA.

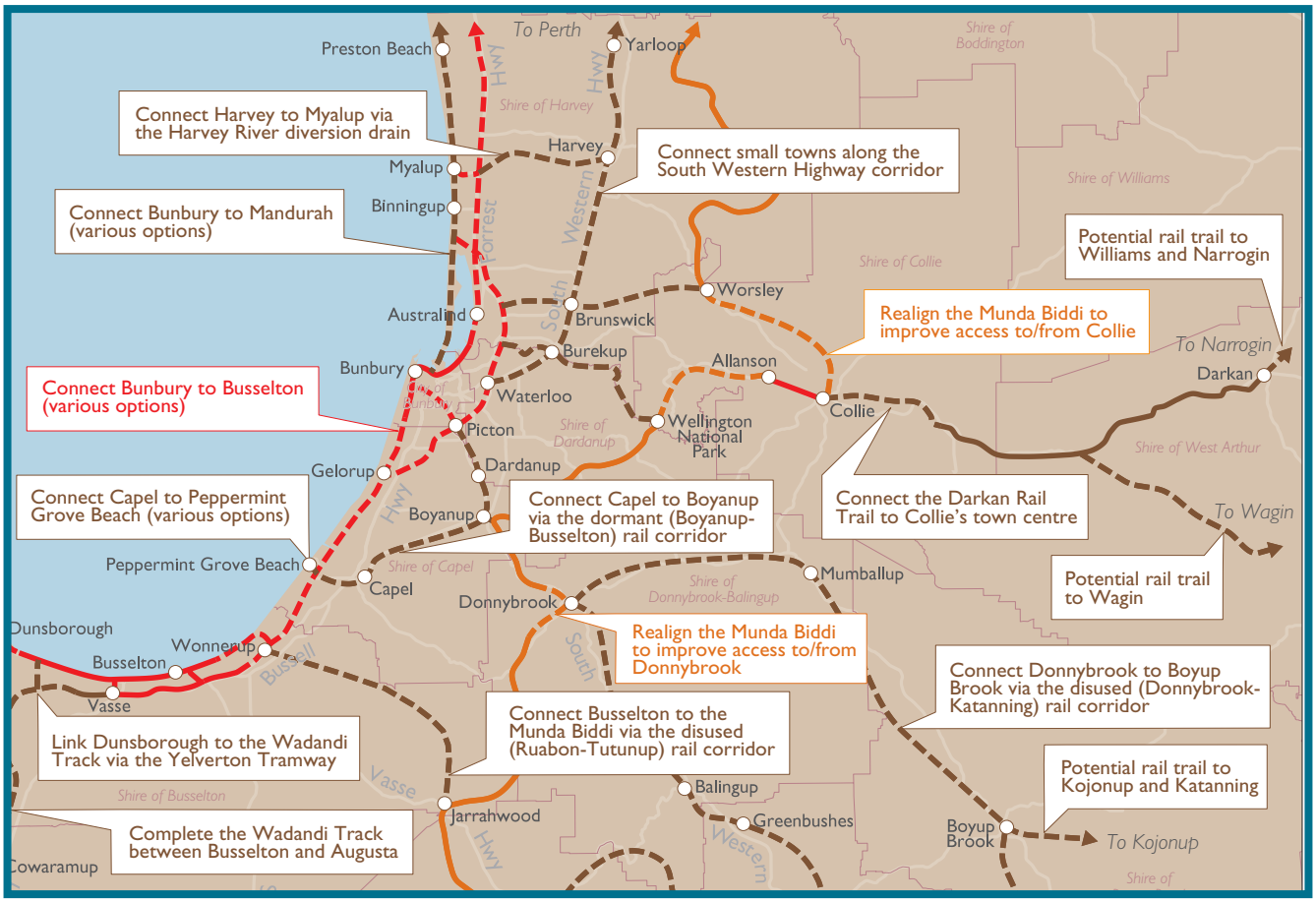


Figure 5.1 With sufficient investment, the Bunbury-Wellington subregion could become one of Australia's best destinations for cycle-tourism.

5.1 Linking Bunbury to Busselton

Feedback received during community consultation indicated a strong desire to create a safe cycling link between Bunbury and Busselton, two of WA's largest regional centres located approximately 50 km apart. There are several options to link Bunbury and Busselton with cycling facilities, as demonstrated in Sections 5.1.1 to 5.1.4.

5.1.1 Option 1: Connecting local roads

The idea of linking Bunbury to Busselton by connecting a series of local back roads (including Maidment Parade, Minninup Road, Fishermans Road and Mangles Road) is already well established and acknowledged in the *Greater Bunbury Regional Bicycle Master Plan* from 2012. Although unlikely to cater for young and inexperienced user groups, linking these roads together would provide experienced cyclists with a safer, less hostile and more comfortable alternative to Bussell Highway.

Over the longer term it would be prudent to strive for a cycling route which is completely separated from motorised traffic (in the form of a trail, or ideally, sealed shared path). The next three sections explore potential options for such a facility.

Figure 5.2 In the short-term there is an opportunity to create a cycling route between Bunbury and Busselton which completely avoids Bussell Highway by connecting a series of local back roads.

5.1.2 Option 2: Along the coast

Coastal paths tend to be well utilised and popular with a large variety of users. Developing a coastal path would ensure consistency with the existing Geographe Bay Shared Path linking Dunsborough and Busselton (refer to Section 4.1.2). Peppermint Grove Beach would become a desirable stopping location due to its position roughly halfway between Bunbury and Busselton.

Possible disadvantages with such a route include exposure to the wind, mosquitos, land-ownership issues and potential inundation resulting from climate change. Further investigation is required to determine whether appropriate setbacks are available.

Figure 5.3 A route which hugs the coast may be the most scenic option for linking Bunbury and Busselton with cycling facilities.

5.1.3 Option 3: Through the Tuart Forest

Located between Dalyellup and Busselton remains a narrow strip of Tuart Forest. Important to the early European settlers and local indigenous groups, the area is both historically and ecologically significant.

Using the Tuart Forest corridor to link Bunbury and Busselton would be beneficial in terms of providing protection from the weather, tourism opportunities (particularly around the old Ludlow Mill and Limekilns recreation site) and providing almost equal levels of accessibility to the path for residents of Capel and Peppermint Grove Beach.

Constraints in this corridor include the area's environmental and aboriginal heritage sensitivity, passive surveillance and maintenance issues, especially during winter months when branches and leaf litter may regularly fall on any potential path.

Source: Capel Trails Masterplan (2009)

Source: https://www.margaretriver.com/members/possum-spotlighting-trail-busselton-tuart-forest/

Figure 5.4 Due to protection from the sun and wind a route through the Tuart Forest may offer the highest level of amenity.

5.1.4 Option 4: Along the former rail corridor

The railway line between Capel and the Ludlow Forestry Settlement has been closed for several decades. As described in Section 4.5, disused railways make excellent corridors for multi-use paths and trails.

Advantages of using this corridor to link Bunbury and Busselton include the ability to capitalise on the region's rail heritage and potential synergies with other existing and proposed rail trails in the area, including the Wadandi Track and a potential future rail trail linking Wonnerup and Nannup (via Jarrahwood).

The primary challenge associated with this option pertains to land-tenure. The corridor is currently leased by Arc Infrastructure from the PTA and at present it is understood that both parties are firm on maintaining the corridor for future use. A wide road reservation running parallel to the rail corridor may provide a viable alternative should the rail corridor alignment not be possible.

Figure 5.5 The disused rail corridor linking Capel to Busselton could also be used to link Bunbury to Busselton.

The indicative locations of the three off-road corridors mentioned above are shown in Figure 5.6. In deciding the most appropriate route it is recommended that a detailed feasibility study be undertaken to quantify the costs and benefits associated with each option. In the short-term, a low-cost way-finding strategy which allows cyclists to easily navigate their way along the quiet rural roads should be considered.

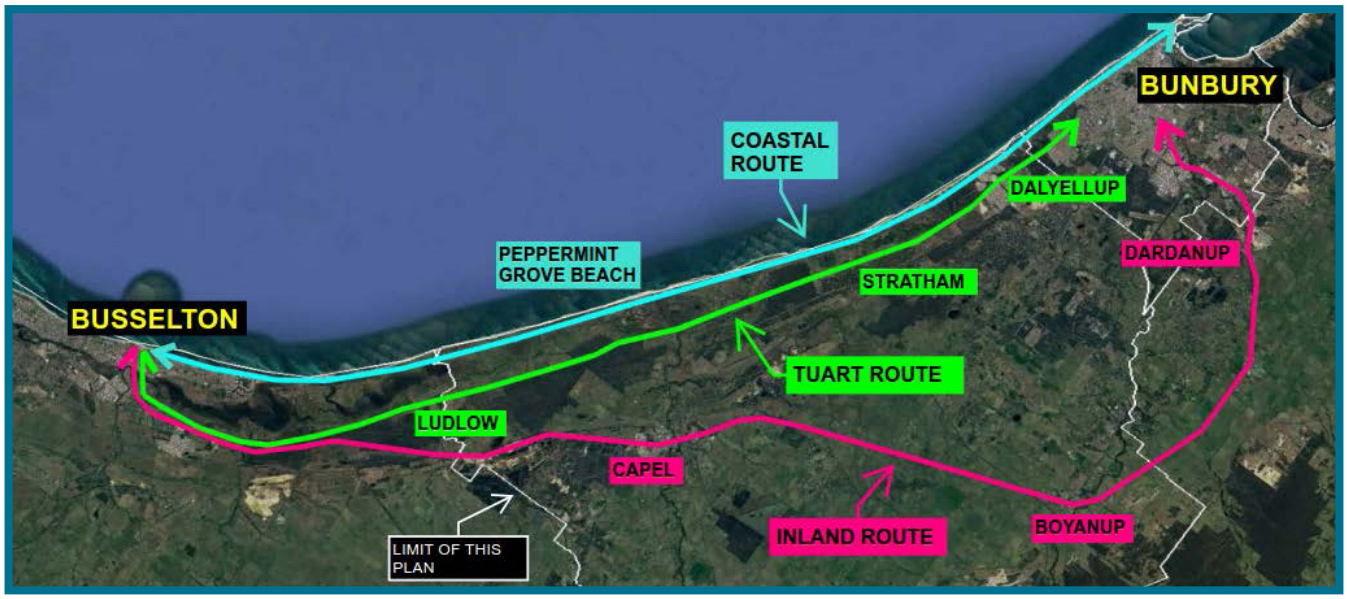


Figure 5.6 There are several schools of thought on how best to link Bunbury and Busselton with cycling facilities.

5.2 Linking Bunbury to Mandurah

Linking Bunbury to Mandurah was also identified as a priority during the community consultation process, with opportunities to link smaller coastal settlements such as Myalup, Binningup and Preston Beach strongly supported. There are several schools of thought on how best to link Bunbury and Mandurah with cycling facilities, as outlined in Sections 5.2.1 to 5.2.4.

5.2.1 Along Forrest Highway

Over time, it is expected that the Forrest Highway will be upgraded to freeway standard between Pinjarra Road and Bunbury. When this occurs, the provision of a safe, separated cycling facility away from the main carriageway could be considered. If funding constraints prohibit the development of a dedicated facility it may instead be practical to link together parallel service roads with short sections of shared path, complemented by way-finding where necessary.

Figure 5.7 Service roads, which are likely to be provided as part of an upgraded Forrest Highway, could be linked together to create a low-stress cycling route between Bunbury and Mandurah.

5.2.2 Along the coast

A coastal shared path or trail linking Bunbury with the coastal communities of Binningup and Myalup was identified in the *Greater Bunbury Regional Bicycle Master Plan*. If developed, this route could be extended further north to link up various communities within the Peel region including Preston Beach, Lake Clifton and Dawesville (and onwards to Mandurah via the Dawesville Cut).

Although environmental and land tenure constraints may prove challenging to overcome, the development of a coastal cycling route between Bunbury and Mandurah is likely to have significant tourism potential. In addition to providing a pleasant cycling environment away from highway traffic, this route would also run through the Yalgorup National Park, home to the Thrombolites and the Peel-Yalgorup Ramsar Wetlands System.

Source: https://parks.dpaw.wa.gov.au/park/yalgorup

Figure 5.8 A coastal cycling route between Bunbury and Mandurah could pass through the Yalgorup National Park.

5.2.3 Inland route

An inland cycling route following either the South Western Highway or the Perth-Bunbury railway (or potentially a combination of both) could be used to connect Bunbury and Mandurah. A key advantage of this route is its ability to connect various small inland towns including Burekup, Roelands, Brunswick, Harvey, Yarloop, Waroona and Pinjarra.

In addition to providing locals with a safe cycling connection between towns, the route also has the potential to create new tourism opportunities for these communities, particularly if linkages between the Munda Biddi Trail and towns along the Perth–Bunbury rail corridor are improved (refer to Section 4.9.2).

This route could also be complemented by the Australind passenger rail service, enabling people to catch a train back to their starting point (noting that changes to the service would be required to enable people to board and disembark the train at various locations with their bicycles).

Figure 5.9 A cycling route located parallel to either South Western Highway or the Perth–Bunbury rail corridor would enable towns such as Brunswick, Harvey and Pinjarra to capitalise on their cycle-tourism potential.

5.2.4 Future high-speed rail corridor

Preliminary planning has been undertaken around a potential high-speed rail link between Perth and Bunbury. Superseding the existing Australind service (which is under increasing pressure from freight traffic), the proposed corridor is likely to be different to the current Perth to Bunbury alignment.

Although potentially beyond this strategy's horizon, should more detailed planning for high-speed rail between Perth and Bunbury progress, a high-quality cycling link should be considered alongside the new alignment, in place of the existing rail line, or potentially both.

Figure 5.10 The development of a high-speed rail corridor could also be used to link Bunbury and Mandurah with cycling facilities.

The indicative locations of the four corridors discussed are shown in Figure 5.11. In deciding the most appropriate route for development it is recommended that a detailed feasibility study be undertaken which quantifies the costs and benefits associated with each option. In the short-term, a low-cost solution which directs cyclists along low volume rural roads should be considered.

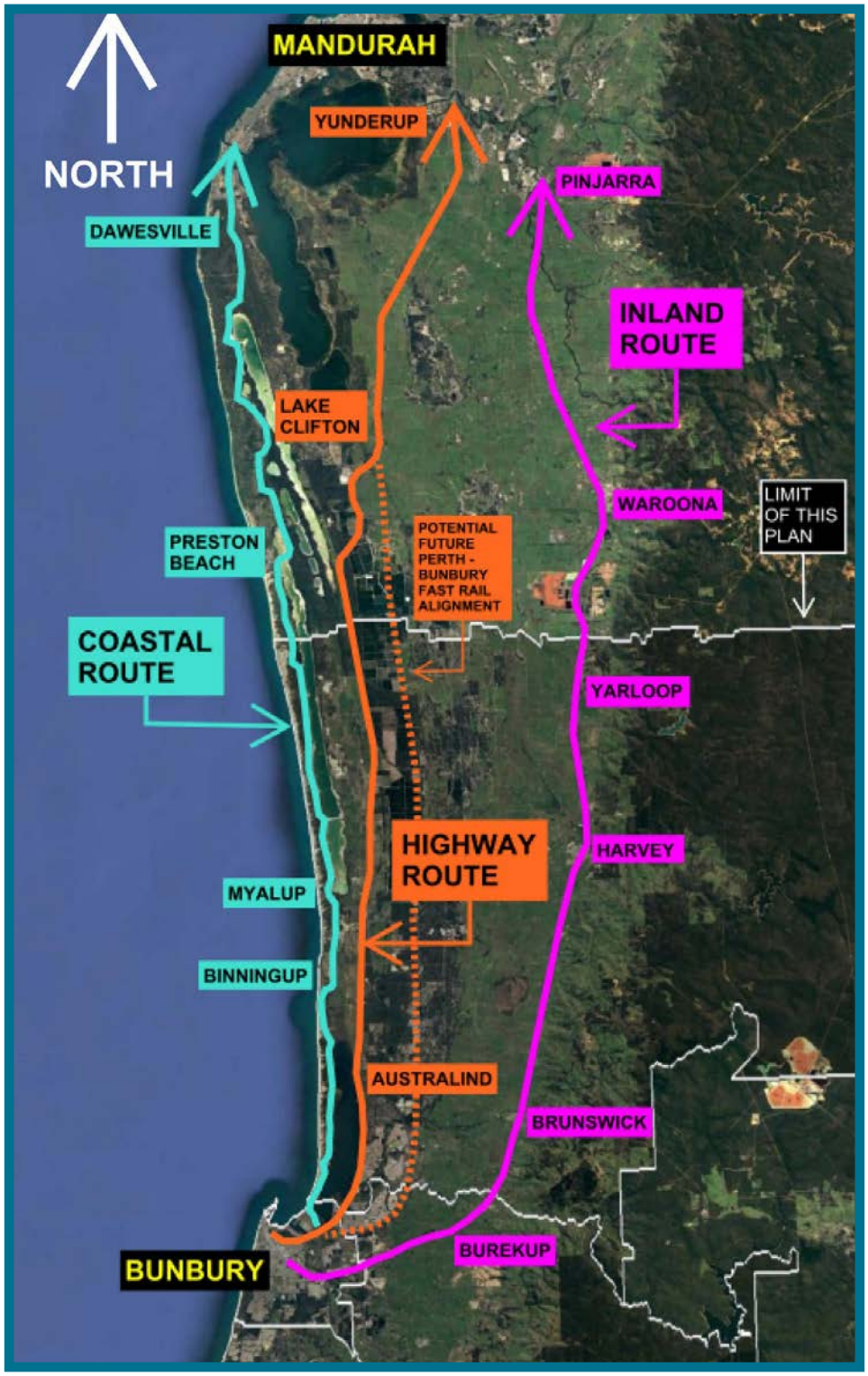


Figure 5.11 There are several schools of thought on how best to develop a cycling connection between Bunbury and Mandurah.

5.3 Linking Collie to Bunbury

Cycling between Collie and Bunbury is currently unfeasible for most people. Coalfields Highway, although recently upgraded, involves a steep climb over the Darling Escarpment and has high volumes of heavy vehicles. Two potential alternatives for providing a cycle route between Bunbury and Collie are described below.

5.3.1 Via Brunswick

One potential option for linking Collie and Bunbury is along Beela and Worsley Back Roads (via Brunswick). Approximately 90 per cent of this corridor is already available for cycling however a short (approximately 5 km long) unconstructed section exists between the two sections of Beela Road. Advantages of this route include low traffic volumes, scenic countryside and a relatively gentle gradient given the majority of the route follows the Brunswick–Collie rail corridor.

5.3.2 Via Burekup

The Collie River Valley, which extends from the Wellington Dam downstream to Burekup (and onwards to Eaton) presents another attractive opportunity to create a cycling link between Collie and Bunbury. This alignment would involve following the Karak Trail between Collie and Alanson and then joining the Munda Biddi Trail (when realigned) which will take cyclists to Wellington Dam. From there, cyclists could follow the Collie River towards Burekup using the Lennard Track.

A short (approximately 800 m long) section of path or trail would need to be constructed to bypass a particularly steep section of the Lennard Track, located just east of the Burekup Weir. From there cyclists could follow the relatively quiet Collie River Road down to Burekup. Between Burekup and Bunbury there is potential to develop a trail along the Collie River (as discussed in Section 4.2.1).

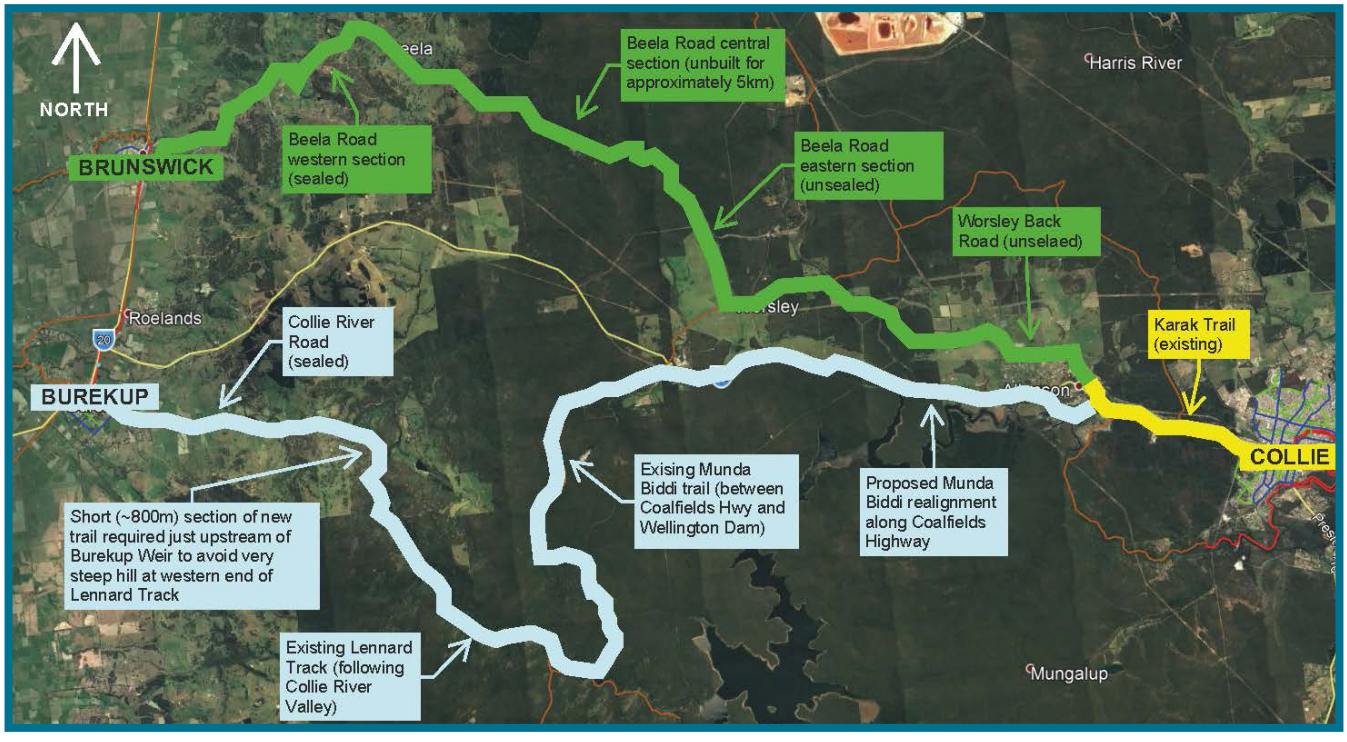


Figure 5.12 There are at least two potential options for creating a safe (and not too steep) cycling connection between Collie and Bunbury.

5.4 Linking Donnybrook to Bunbury

Creating a safe, all ages cycling connection between Donnybrook and Bunbury was mentioned heavily in the Donnybrook-Balingup consultation sessions.

Two potential options, both of which run through Boyanup (Bunbury's closest connection to the Munda Biddi Trail) are as follows:

5.4.1 Via the railway

As discussed in Section 4.5, the Bunbury–Northcliffe rail corridor could be used to develop a walking and cycling connection between Donnybrook and Bunbury. Currently leased by Arc Infrastructure (from the PTA), the railway has been non-operational since the early 2000s. If realised, this corridor would provide the Donnybrook, Boyanup and Dardanup communities with a connection into central Bunbury.

If extended further south, this rail trail would link together a number of interesting and diverse towns including Balingup, Bridgetown, Manjimup, Pemberton and Northcliffe.

5.4.2 Via the Preston River

Using the subregion's river systems to create a network of paths is discussed in detail in Section 4.2. The Preston River, which runs between Donnybrook, Boyanup and central Bunbury has the potential to provide a safe and pleasant cycling environment suitable for people of all ages.

Before developing such a route, it is important that a constraints analysis is undertaken considering land tenure, environmental sensitivity as well as Aboriginal and European heritage.

The development of a cycling route along either of these corridors would enable the realignment of the Munda Biddi Trail between Donnybrook and Boyanup. In addition to relieving trail users from needing to negotiate busy roads, the realignment would take the Munda Biddi Trail through the centre of each town, helping local businesses to capitalise on the steady stream of tourists passing through.

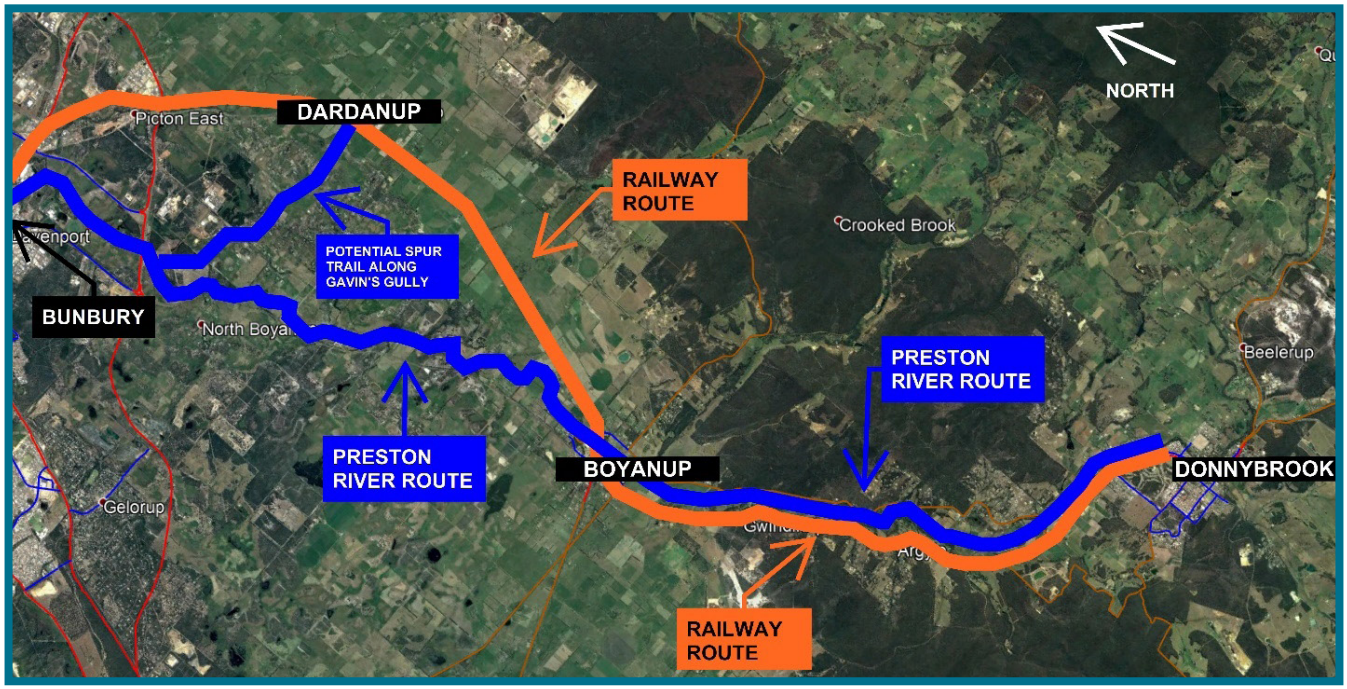


Figure 5.13 Potential options for creating a cycling link between Donnybrook and Bunbury.

5.5 CASE STUDY: EUROVELO

The European cycle route network, known as EuroVelo, is a network of 15 long-distance cycling routes that traverse the European continent. Substantial completion is scheduled by 2020 and when finished, the network will exceed 70,000 km[13].

The network is comprised of a combination of low traffic roads and car free infrastructure, including shared paths, dedicated cycleways and unsealed trails such as rail trails. As infrastructure is upgraded to a high standard, or new and safer alignments are delivered, EuroVelo routes are formalised and corresponding branded signage installed.

Although investment in cycling infrastructure is pivotal to the success of EuroVelo, spending on bicycle-friendly public transport connections, supporting services and comprehensive marketing and promotion are also essential. This includes providing up-to-date and easily accessible information and promotional tools. Providing way-finding that is complete, consistent and clearly themed is also critical to EuroVelo's success.

The total economic impact of cycle-tourism in Europe is estimated to be €44 billion per year, with an approximate direct economic benefit of €100 per year per inhabitant[14].

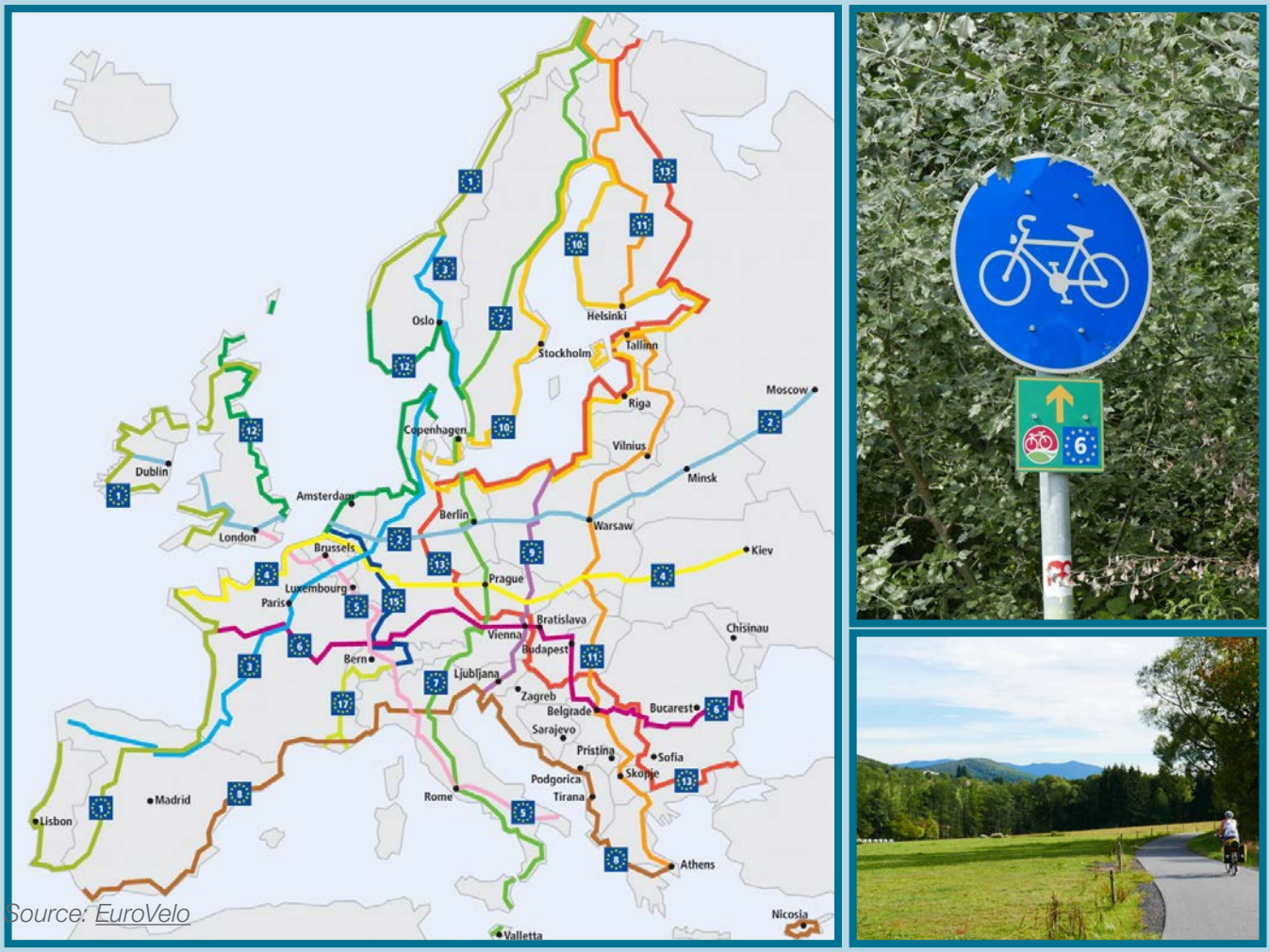


Figure 5.14 The South West region of WA is well positioned to develop a cycle-tourism network similar (but smaller in scale) to that found in Europe.

[13] European Cyclists Federation (2016)

[14] The European Cycle Route Network EuroVelo – Study (2012)

6. ACTION PLAN

This section outlines the strategic priorities that are proposed to be progressed over the next five years. While not possible to develop a comprehensive 8-80 cycling network immediately, this approach will help enable the Bunbury-Wellington subregion to realise its cycling potential over time. The priorities identified have been informed by community and stakeholder consultation throughout the project, as summarised in Appendix C.

6.1 Maintenance of the strategy and action plan

To inform the action plan's strategic priorities, each route within the 2050 cycling network was classified as one the following:

- **Existing (adequate)** – the level of service reflects current best practice for this type of cycling route (as defined in the route hierarchy);
- **Existing (needs improvement)** – although possible to cycle along this corridor, the level of service provided does not reflect current best practice for this type of cycling route (as defined in the route hierarchy); or
- **Non-existent (proposed)** – it is either not possible to cycle along this route due to the corridor being non-existent or, because of existing road conditions, most people are unable to cycle comfortably.

These classifications are reflected in the maps on the following pages, with each route considered in the context of the five-year timeframe of this action plan.

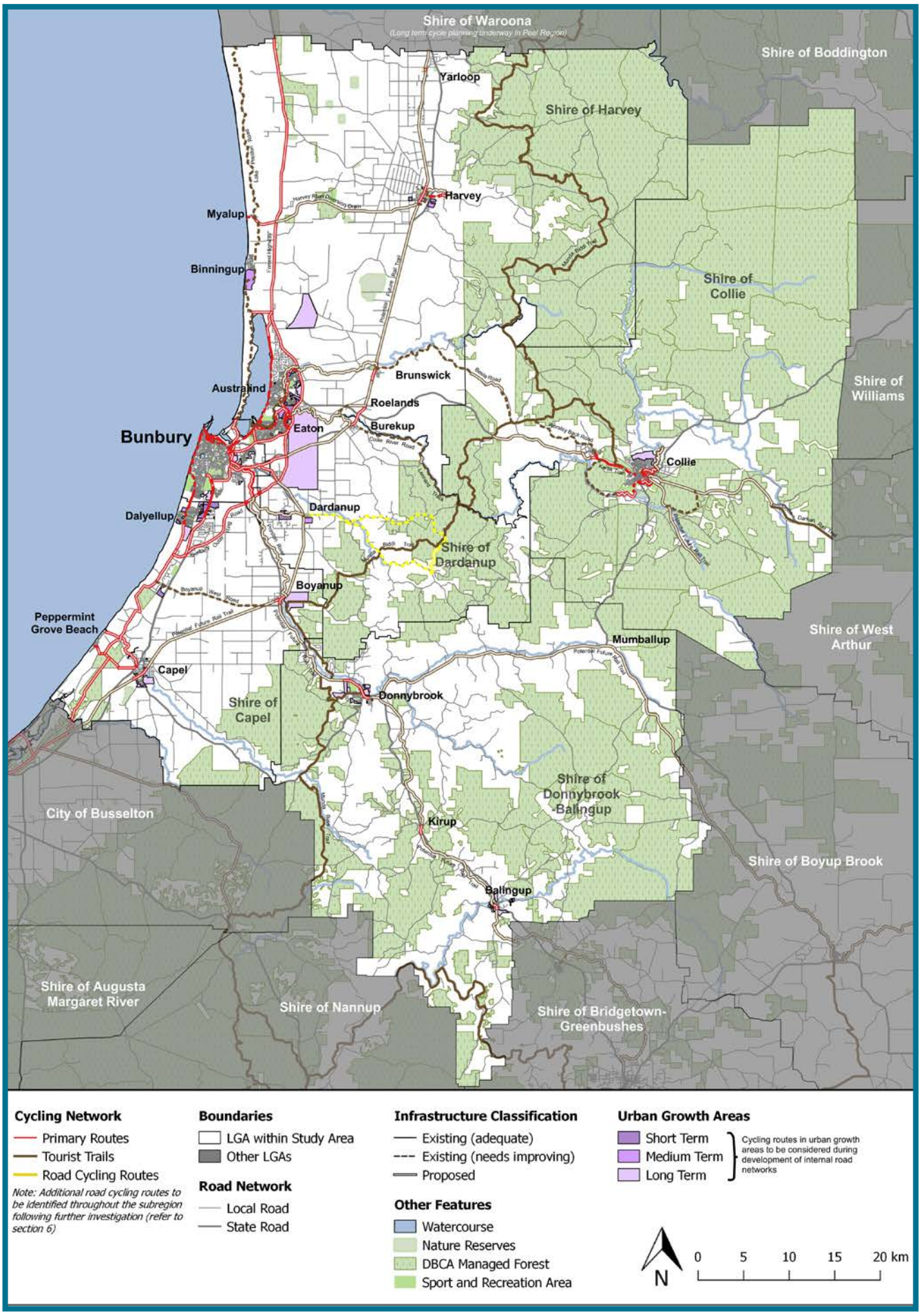


Figure 6.1 Overall 2050 cycling network for Bunbury-Wellington subregion, with each route classified as either existing (adequate), existing (needs improving) or proposed.

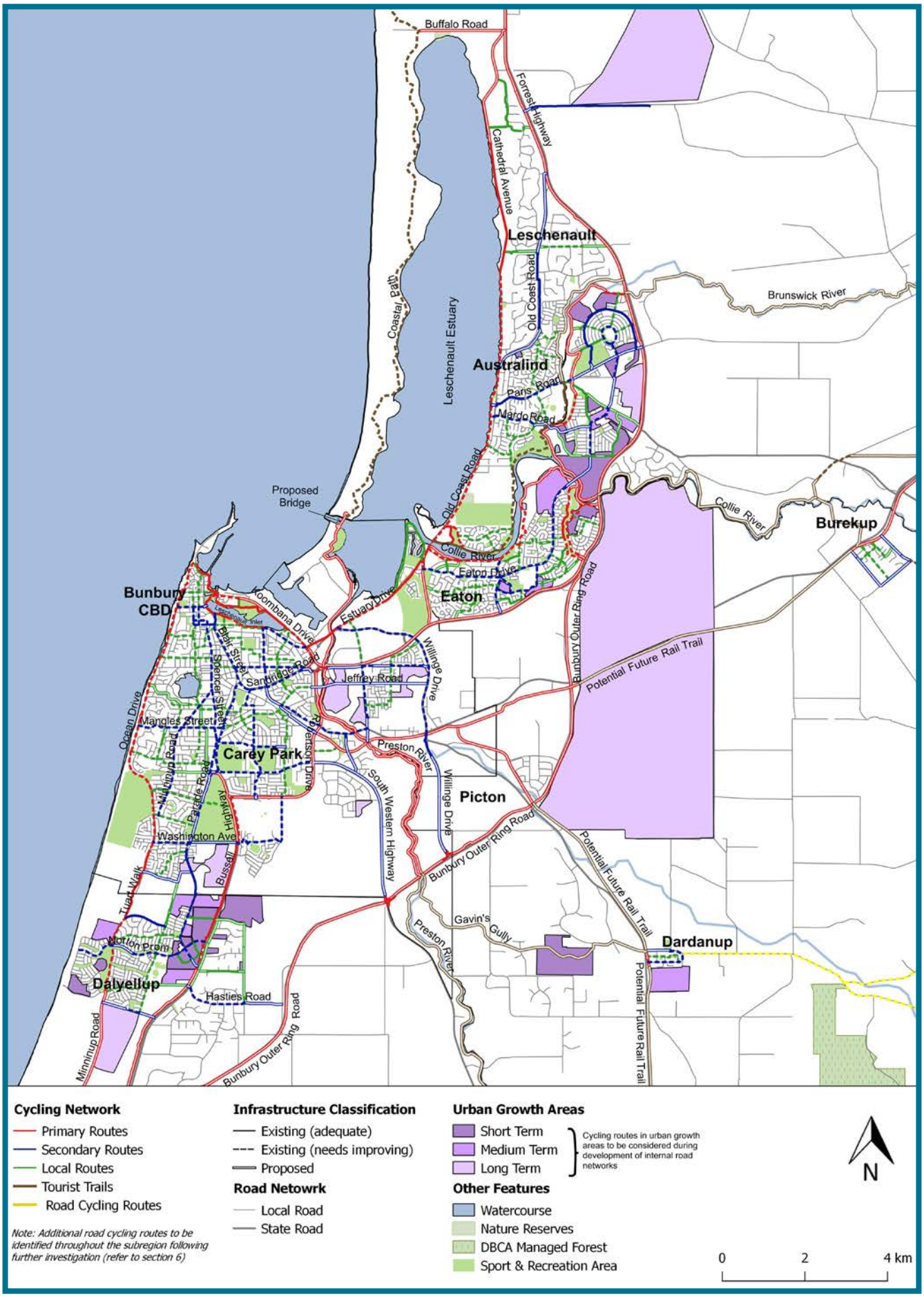


Figure 6.2 Proposed 2050 cycling network for the Greater Bunbury urban area, with each route classified as either existing (adequate), existing (needs improving) or proposed.

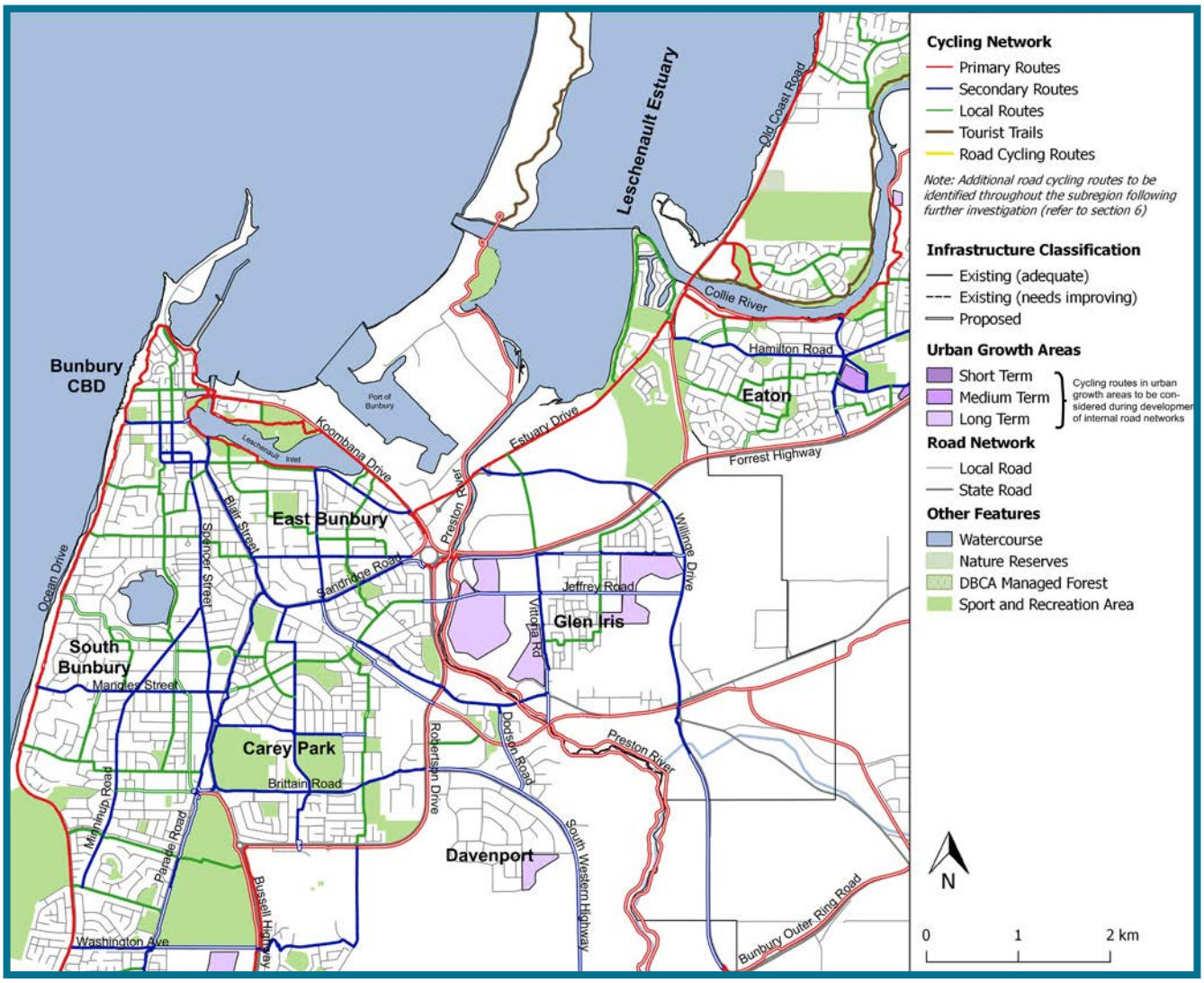


Figure 6.3 Proposed 2050 cycling network for inner Bunbury, with each route classified as either existing (adequate), existing (needs improving) or proposed.

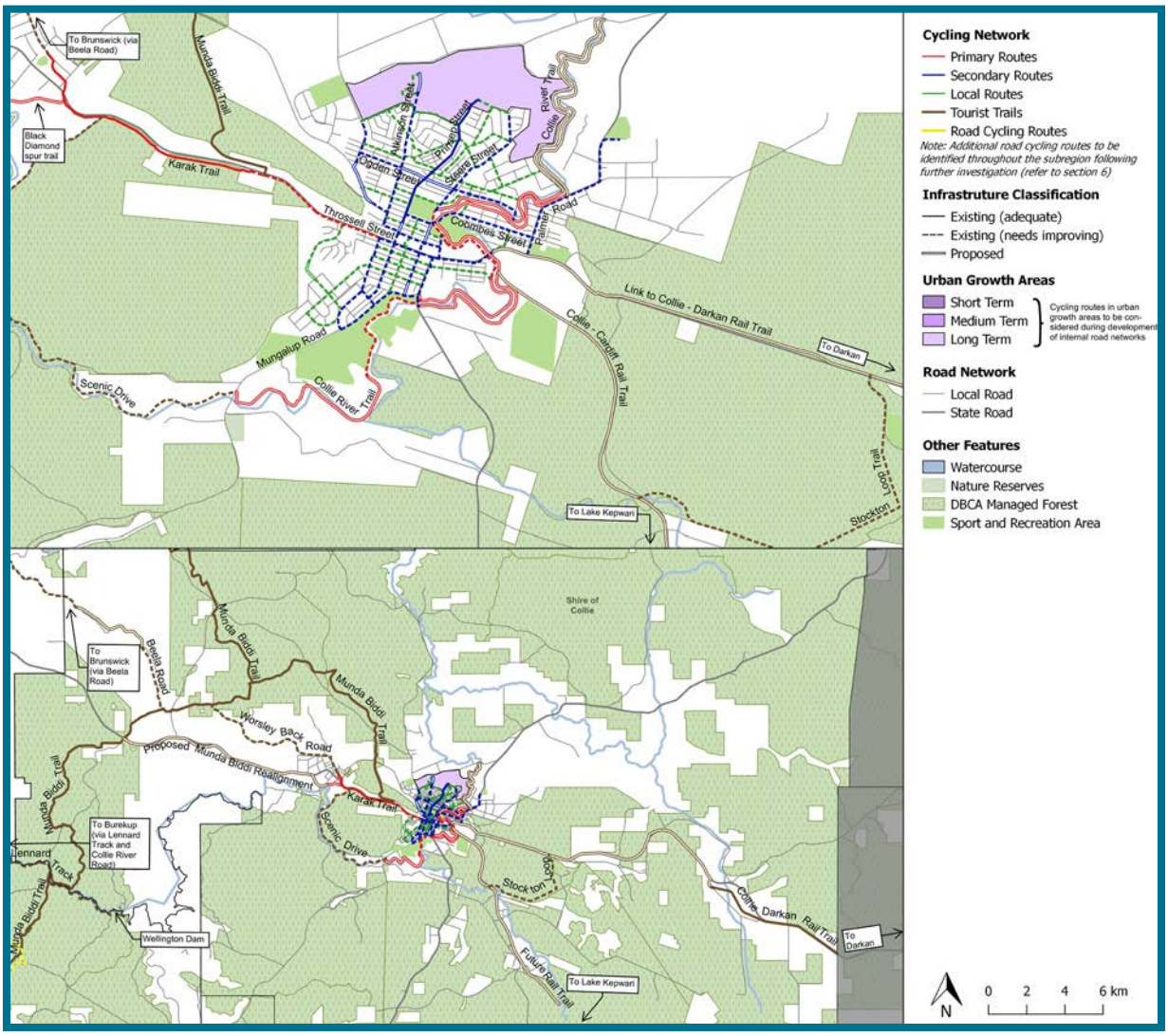


Figure 6.4 Proposed 2050 cycling network for Collie and the surrounding area, with each route classified as either existing (adequate), existing (needs improving) or proposed.

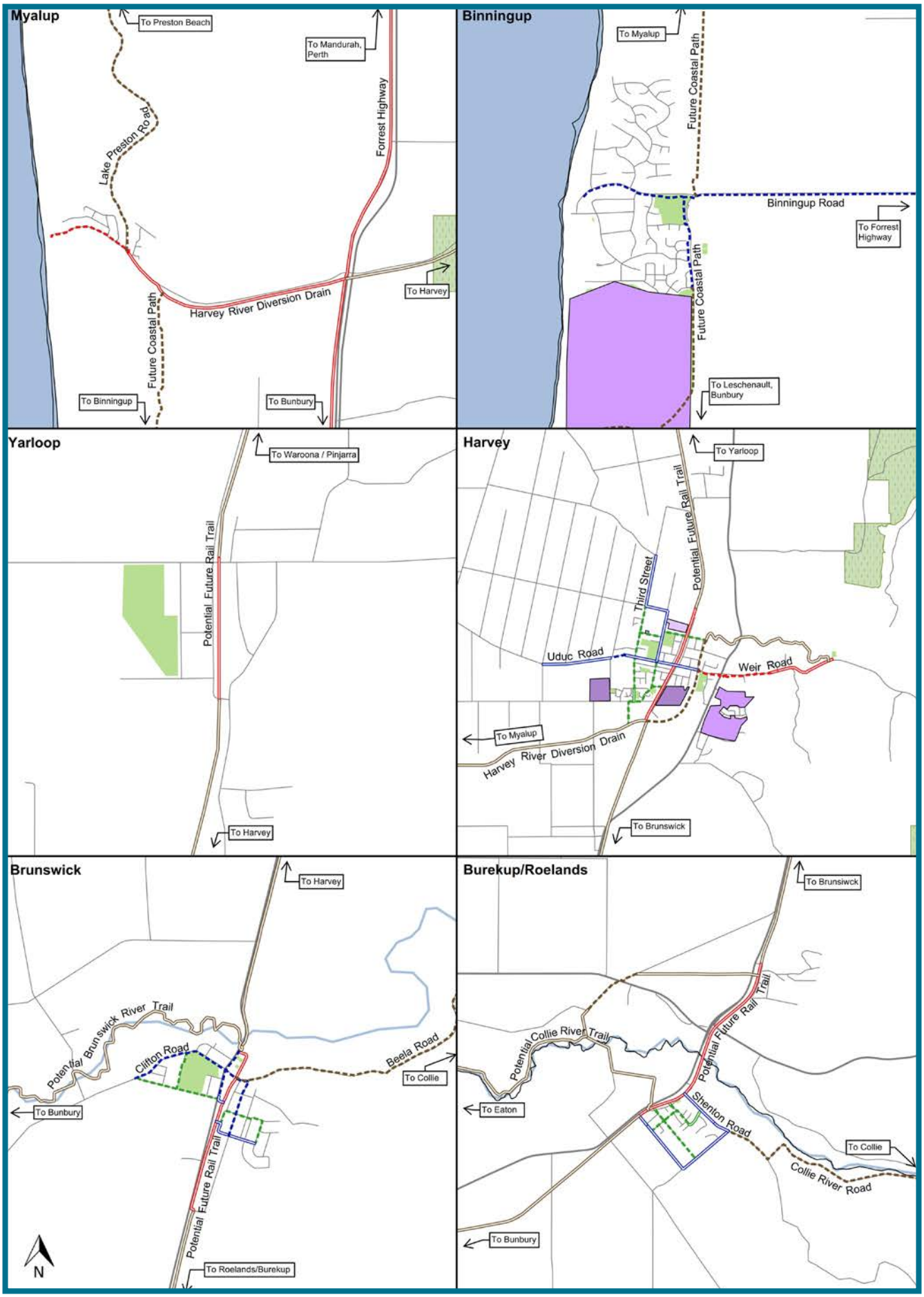


Figure 6.5 Proposed 2050 cycling network for northern towns, with each route classified as either existing (adequate), existing (needs improving) or proposed.

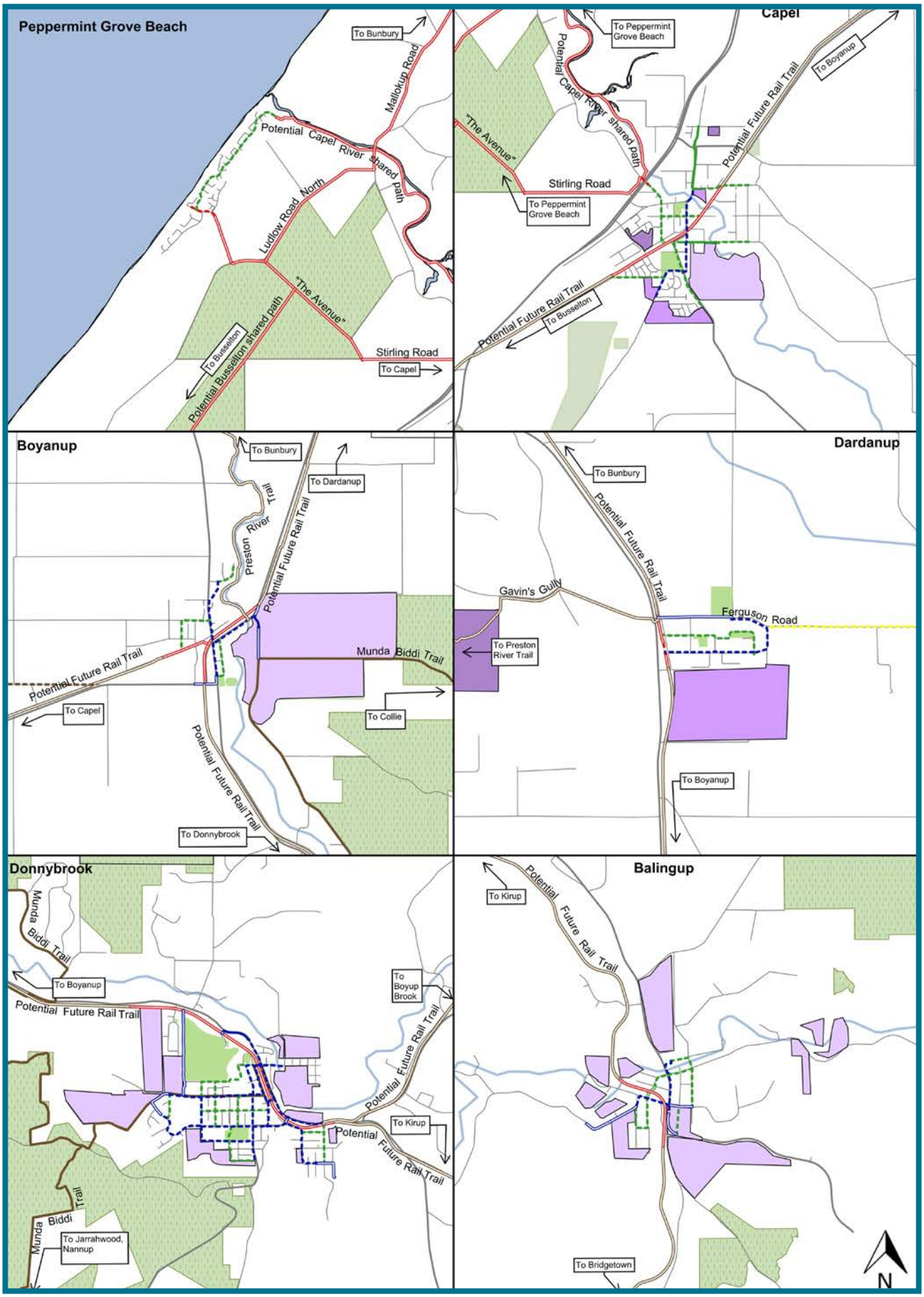


Figure 6.6 Proposed 2050 cycling network for southern towns, with each route classified as either existing (adequate), existing (needs improving) or proposed.

6.2 Priority projects

The following tables identify the strategic priorities for cycling in the Bunbury-Wellington subregion over the next five years.

LEGEND

DoT	Department of Transport
PTA	Public Transport Authority
SWDC	South West Development Commission

6.2.1 Developing the primary network

#	Action	Type	Objective / Justification	Lead agency	Timeframe
1	Estuary Drive Shared Path	Construction	City of Bunbury to upgrade the Estuary Drive Shared Path between Willinge Drive and Lakes Entrance, improving safety for people cycling to and from Eaton and Australind.	City of Bunbury	Within three years
2	Ocean Drive cycling facilities	Construction	City of Bunbury to continue developing Ocean Drive as a primary cycling route with a combination of on-road and off-road cycling facilities. Short-term upgrades to include the installation of bike lanes (between Hudson Road and Washington Avenue and between Hastie Street and Hayward Street) and upgrading the existing shared path (between Hudson Road and Hayward Street) to primary route standard. A new shared path is proposed between Washington Avenue and Westwood Street.	City of Bunbury	Within five years
3	Koombana Drive cycling facilities	Construction	City of Bunbury to continue developing Koombana Drive as a primary cycling route with a combination of on-road and off-road cycling facilities. Short-term upgrades to include the installation of bike lanes (from Richmond Street to Austral Parade) and the installation of an off-road shared path linking Austral Parade to the Eelup Roundabout.	City of Bunbury	Within two years
4	Improving cycling access to the South West Health and Learning Precinct	Planning	City of Bunbury to work with DoT and Main Roads in assessing the feasibility of improving access to and from the South West Health and Learning Precinct (including potential grade-separation of Bussell Highway and/or Robertson Drive).	City of Bunbury, DoT, Main Roads	Within five years
5	Bunbury Outer Ring Road Shared Path	Planning and liaison	Relevant local government authorities and the DoT to liaise with Main Roads to ensure that a primary cycling route is provided as part of the Bunbury Outer Ring Road. This will ultimately enable the creation of a cycling loop around the Greater Bunbury urban area.	City of Bunbury, Shire of Capel, Shire of Dardanup, Shire of Harvey, DoT, Main Roads	Within two years

#	Action	Type	Objective / Justification	Lead agency	Timeframe
6	Bunbury to Busselton cycling link	Planning	Shire of Capel (in conjunction with DoT and City of Busselton) to undertake a route selection/ feasibility study regarding a future cycling link between Dalyellup and Wonnerup. Shire of Capel to commission feature surveys for the unbuilt sections of Minninup Road and Mangles Road.	Shire of Capel, City of Busselton, DoT	Within three years
7	Capel to Peppermint Grove Beach cycling link	Planning	Shire of Capel to undertake preliminary planning and route selection regarding a future cycling link between Capel and Peppermint Grove Beach.	Shire of Capel	Within five years
8	Karak Trail - extension to Black Diamond Lake	Construction	Shire of Collie to extend the Karak Trail from the intersection of Coalfields Road and Fergusson Road to Black Diamond Lake.	Shire of Collie	Within five years
9	Karak Trail - upgrading connection at eastern end	Construction	Shire of Collie to upgrade the Karak Trail to primary route standard between the Collie Cemetery and Collie Visitors Centre.	Shire of Collie	Within five years
10	Improvements to Central Collie River Loop	Construction	Shire of Collie to upgrade the Central Collie River Loop (between the Throssell Street Bridge and Coombe Street Bridge) to primary route standard.	Shire of Collie	Within five years
11	Soldier's Park to Minninup Pool Shared Path	Construction	Shire of Collie to construct a primary route standard shared path from Soldier's Park to Minninup Pool.	Shire of Collie	Within five years
12	Minninup Pool to Mungalup Bridge Shared Path	Construction	Shire of Collie to construct a primary route standard shared path from Minninup Pool to Mungalup Bridge. This path will form an extension of the Soldier's Park to Minninup Pool Shared Path and will provide a safe connection to Scenic Drive (and future Munda Biddi realignment).	Shire of Collie	Within five years
13	Millars Creek (western path upgrade)	Construction	Shire of Dardanup to upgrade the shared path on the western side of Millars Creek to primary route standard (between Chamberlain Grove and Millbridge Boulevard).	Shire of Dardanup	Within three years
14	Collie River foreshore (south side)	Planning and construction	Shire of Dardanup to develop a primary route along the Collie River's southern foreshore linking the bridges at Old Coast Road and Eaton Drive.	Shire of Dardanup, SWDC	Within five years
15	Meldene Estate linkage	Planning and liaison	Shire of Donnybrook-Balingup to develop a shared path linking Donnybrook to Meldene Estate.	Shire of Donnybrook-Balingup, DoT	Within two years

#	Action	Type	Objective / Justification	Lead agency	Timeframe
16	Old Coast Road Shared Path	Construction	Shire of Harvey to upgrade the existing Old Coast Road Shared Path on the eastern side of the Leschenault Estuary (between Collie River Bridge and Christina Street) to primary route standard. A new path, also to primary route standard, to be built on the western side of Old Coast Road between Christina Street and Paris Road.	Shire of Harvey	Within two years
17	Cathedral Avenue Shared Path	Construction	Shire of Harvey to construct a shared path along the northern section of Cathedral Avenue linking the existing cycling-friendly service road up to Buffalo Road. This connection will help complete the primary cycling route along the eastern side of the Leschenault Estuary.	Shire of Harvey	Within five years
18	Weir Road Shared Path	Construction	Shire of Harvey to construct a shared path along Weir Road linking Harvey townsite to Harvey Dam.	Shire of Harvey	Within two years

6.2.2 Developing the secondary network

#	Action	Type	Objective / Justification	Lead agency	Timeframe
1	Forrest Highway Shared Path	Construction	City of Bunbury to construct a shared path linking the Eelup Roundabout to Vittoria Road. This path will form an important connection to and from the Bunbury Farmers Market.	City of Bunbury	Within two years
2	South Western Highway Shared Path	Planning and construction	City of Bunbury to undertake planning/feasibility for a secondary cycling route along South Western Highway between Bunbury Bypass and Bunbury Outer Ring Road, including consideration of appropriate staging. City of Bunbury to construct the section between Bunbury Bypass and Dodson Road.	City of Bunbury	Within three years
3	Dodson Road Shared Path	Planning	City of Bunbury to undertake preliminary planning/feasibility regarding a shared path along Dodson Road, linking to the two portions of South West Highway and improving safety and accessibility for people who work in Davenport light industrial area.	City of Bunbury	Within five years
4	Spencer and Blair Street Corridor Study	Planning	City of Bunbury to undertake a corridor study along Spencer Street (between Stirling Street and Timperley Road) and Blair Street (between Clarke Street and Brittain and Parade Road). Study to investigate measures that can be put in place to improve safety and amenity for cyclists.	City of Bunbury	Within two years
5	Washington Avenue cycling facilities	Construction	City of Bunbury to develop a secondary cycling route on Washington Avenue (between Ocean Drive and Bussell Highway).	City of Bunbury	Within three years
6	Parade Road Shared Path	Construction	City of Bunbury to extend the Parade Road Shared Path to provide a connection into Spencer Street.	City of Bunbury	Within five years
7	Harewoods Road cycling facilities	Construction	Shire of Capel to develop a secondary cycling route along Harewoods Road as part of the Dalyellup South residential development.	Shire of Capel	Within two years
8	Collie CBD cycle link	Construction	Shire of Collie to develop a two-way cycle link between the Collie Visitor Centre and Soldier's Park (via Collie CBD), connecting the Karak and Wagyl Biddi trails.	Shire of Collie	Within five years
9	Ferguson Road Shared Path	Construction	Shire of Dardanup to construct a new Shared Path on the northern side of Ferguson Road linking Charlotte Street to Dardanup Oval.	Shire of Dardanup	Within two years

#	Action	Type	Objective / Justification	Lead agency	Timeframe
10	Eaton Drive Shared Path (south end)	Construction	Shire of Dardanup to construct several sections of shared path along Eaton Drive (linking the Australind Bypass to the Eaton town centre).	Shire of Dardanup	Within two years
11	Eaton Drive shared paths (north end)	Construction	Shire of Dardanup to construct a shared path at the northern end of Eaton Drive linking Millbridge Boulevard to the new bridge over the Collie River.	Shire of Dardanup	Within three years
12	Hamilton Road cycling facilities	Planning	Shire of Dardanup to investigate the feasibility of including protected cycle lanes on Hamilton Road as part of a future major road upgrade project.	Shire of Dardanup	Within five years
13	Leisure Drive Shared Path	Construction	Shire of Harvey to construct a shared path along Leisure Drive (from Paris Road to Forrest Highway).	Shire of Harvey	Within five years
14	Forrest Highway crossing points	Planning and liaison	Shire of Harvey to work with Main Roads to improve crossing points of Forrest Highway (potentially at Leisure Drive/Clifton Road and Ditchingham Place/Raymond Road)	Shire of Harvey, Main Roads	Within five years

6.2.3 Developing the local network

#	Action	Type	Objective / Justification	Lead agency	Timeframe
1	East Bunbury Safe Active Street	Planning	City of Bunbury to investigate the development of a safe active street (potentially in east Bunbury).	City of Bunbury, DoT	Within two years
2	Bussell Highway Shared Path (Lot 1 to Frances Road)	Planning and liaison	Shire of Capel to liaise with Main Roads and developers to obtain land for the construction of a shared path along the eastern side of Bussell Highway (between Lot 1 and Frances Road), including the potential installation of pedestrian signals at Norton Promenade.	Shire of Capel, Main Roads	Within three years
3	Jules Road and Sleaford Avenue shared paths	Construction	Shire of Capel to construct a shared path along Sleaford Drive (linking the existing Jules Road Shared Path to Bussell Highway) and Jules Road (linking the existing Jules Road Shared Path to Hasties Road).	Shire of Capel	Within three years
4	Chamberlain Grove Shared Path	Construction	Shire of Dardanup to construct a shared path on Chamberlain Grove in Millbridge (from Illawarra Drive), providing a connection to the Millers Creek path system.	Shire of Dardanup	Within four years

6.2.4 Developing tourist trails

#	Action	Type	Objective / Justification	Lead agency	Timeframe
1	Potential Bunbury-Northcliffe Rail Trail	Planning and liaison	Local governments along the Bunbury-Northcliffe Rail Corridor to undertake preliminary discussions with rail custodians and determine the feasibility of using this rail corridor as a tourist trail (between Bunbury and Northcliffe).	Local governments along the Bunbury-Northcliffe rail corridor	Within two years
2	Potential Boyanup-Busselton Rail Trail	Planning and liaison	Shire of Capel and City of Busselton to undertake preliminary discussions with rail custodians and determine the feasibility of using the Boyanup-Busselton rail corridor as a tourist trail (between Boyanup and Busselton).	Shire of Capel, City of Busselton, SWDC, DoT	Within two years
3	Munda Biddi Trail realignment through Boyanup	Planning and liaison	Shire of Capel to investigate re-routing the Munda Biddi Trail through the centre of Boyanup.	Shire of Capel, Munda Biddi Foundation	Within five years
4	Collie-Darkan Rail Trail connection	Construction	Shire of Collie to design and construct a shared use trail providing a connection between the Collie town centre and the existing western terminus of the Collie-Darkan Rail Trail.	Shire of Collie	Within five years
5	Munda Biddi Trail realignment through Donnybrook	Planning and liaison	Shire of Donnybrook-Balingup to investigate re-routing the Munda Biddi Trail through the centre of Donnybrook.	Shire of Donnybrook-Balingup, Munda Biddi Foundation	Within five years
6	Potential Donnybrook-Boyup Brook Rail Trail	Planning and liaison	Shires of Donnybrook-Balingup and Boyup Brook to undertake preliminary discussions with rail custodians and determine the feasibility of using the Donnybrook-Boyup Brook rail corridor as a tourist trail (between Donnybrook and Boyup Brook).	Shire of Donnybrook-Balingup, Shire of Boyup Brook, SWDC, DoT	Within two years
7	Harvey River diversion drain tourist trail	Planning	Shire of Harvey to investigate the feasibility of developing a tourist trail alongside the Harvey River diversion drain linking Harvey to Myalup.	Shire of Harvey, DoT, Department of Water and Environmental Regulation, Water Corporation	Within five years
8	Leschenault-Binningup-Myalup coastal tourist trail	Planning	Shire of Harvey to undertake preliminary investigations surrounding a potential future link between Leschenault, Binningup and Myalup.	Shire of Harvey, Department of Biodiversity, Conservation and Attractions, DoT	Within five years

#	Action	Type	Objective / Justification	Lead agency	Timeframe
9	Potential Bunbury-Perth Rail Trail	Planning and liaison	Shire of Harvey to undertake preliminary discussions with rail custodians and determine the feasibility of providing cycling infrastructure along the Bunbury-Perth rail corridor.	Shire of Harvey, SWDC, DoT	Within five years
10	Collie and Brunswick River foreshore (north side)	Planning and initial construction	Shire of Harvey to develop a tourist trail along the Collie River's northern foreshore linking the bridges at Old Coast Road and Paris Road.	Shire of Harvey	Within five years

6.2.5 Developing road cycling routes

#	Action	Type	Objective / Justification	Lead agency	Timeframe
1	Ferguson Valley road cycling routes	Planning and liaison	Shire of Dardanup to trial a formalised road cycling route through the Ferguson Valley utilising local roads including Ferguson Road, Pile Road, Wellington Forest Road and Wellington Mill Road.	Shire of Dardanup, Main Roads, Road Safety Commission, DoT	Within five years
2	Shire of Collie road cycling routes	Planning and liaison	Shire of Collie to develop a number of road cycling routes as outlined in *Collie River Valley Trails Strategy (2018-2021).* Potential routes include those to Harris River Dam, Wellington Dam, Donnybrook, Coolangatta Hill, Stockton Lake and Mumballup.	Shire of Collie, Main Roads, Road Safety Commission, DoT	Within five years
3	Shire of Donnybrook-Balingup road cycling routes	Planning and liaison	Shire of Donnybrook-Balingup to investigate opportunities to trial a formal road cycling route(s).	Shire of Donnybrook-Balingup, Main Roads, Road Safety Commission, DoT	Within five years
4	Other road cycling routes	Planning/ liaison	Additional road cycling routes to be considered following implementation of one or more of the above trials. Routes to be identified both within the Bunbury-Wellington subregion and linking to adjoining subregions.	All LGAs, South West Development Commission, Main Roads, Road Safety Commission, DoT	Within five years

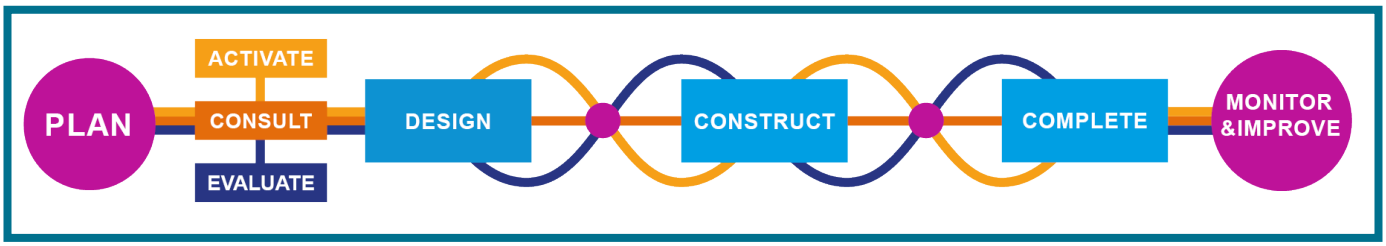
6.3 Activation, consultation and evaluation (ACE)

This strategy outlines how new cycling infrastructure can support greater participation in cycling in the Bunbury-Wellington subregion. However, planning and building infrastructure in isolation will not necessarily lead to significantly more people riding.

There needs to be an emphasis on creating inclusive infrastructure projects so that the product delivered fully serves the needs of local communities as well as people visiting the region.

This can be achieved through a range of engagement and monitoring activities as projects are planned, designed and constructed, and as the infrastructure continues to be used after construction.

Ongoing engagement and evaluation starts by incorporating three essential elements into project delivery - activation, consultation and evaluation.



Activation includes promotions and programs designed to encourage people onto the infrastructure by raising awareness and appeal. This can be anything from highlighting the new facilities in media releases and creating local maps, to making cycling trips more pleasant through added amenities such as end-of-trip facilities, bike parking, natural landscaping, art works, and other initiatives. Activation can take place throughout all phases of an infrastructure project – starting well before a project is built – and can be temporary (one-off activities), intermittent (such as a monthly group ride) or permanent (such as way-finding signage).

Consultation is a crucial part of the delivery of inclusive cycling infrastructure to ensure that the facilities meet the needs of users, stakeholders and the local community. Consultation can be undertaken in a variety of formats, and is informed by a local government's Community Engagement Policy.

Evaluation of the infrastructure is essential to measuring the impact it is having, both for people using the infrastructure and for the wider community experiencing the outcomes of increased transport mobility. These outcomes may include better local liveability, improved congestion and parking management, growth in cycle-tourism and increased spending at local businesses. Ongoing monitoring will ensure facilities are well maintained and that the planning and delivery of cycling initiatives undergo continuous improvement.

All three of these elements are inherently linked and some activities will deliver outputs for more than one, such as a community workshop where people are asked to review existing facilities (evaluation), help prioritise new ones (consultation), and participate in the delivery and promotion of new facilities and amenities (activation).

At its core, this approach acknowledges that cycle networks are part of a richer local landscape and should be delivered in an inclusive way that invites participation and supports a range of community outcomes.

6.4 Plan maintenance

Progress on the priority actions identified in Section 6 of this strategy will be reported to DoT on an annual basis by local government and other lead agencies.

The strategic priorities will be reviewed every five years to ensure current conditions are reflected and relevant projects are prioritised. This review will include reassessing each route's classification as either existing (adequate), existing (needs improving), or non-existent (proposed) and updating the existing network maps.

The 2050 Bunbury-Wellington cycling network should remain consistent over the medium term. A review of the whole strategy every 8-10 years will allow any new opportunities to be identified and incorporated into a revised document.

APPENDIX A
ROUTE HIERARCHY SUMMARY

A1. ROUTE HIERARCHY SUMMARY

NETWORK PRINCIPLES

The Cycling Network Hierarchy is arranged by route function. The function pertains to the type of activities that take place on the route. A routes' built form is based on the physical characteristics of the location. Each form, apart from those supporting training routes, is designed with the "8 to 80" design philosophy in mind.

1 PRIMARY ROUTE

Function

Primary routes are high demand corridors that connect to major destinations. They provide high quality, safe, convenient (and where possible uninterrupted) routes that form the spine of the cycle network.

These routes are conducive to medium or long distance commuting/utility, recreational, training and tourism trips.

Form

Primary routes are high quality cycle only or shared paths, located adjacent to major roads, rail corridors, rivers and ocean foreshores.

Where the environment allows, these are in the form of a Principal Shared Path (PSP). A PSP is a fully lit and separated facility. In locations where vehicles have been grade separated the cycle route will also be grade separated. PSPs are to be designed in accordance with the WA Transport Portfolio's PSP Policy.

2 SECONDARY ROUTE

Function

Secondary routes have a lower demand than primary routes, but provide similar levels of quality, safety and convenience.

These routes provide connections between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities.

Form

Secondary routes can take on a number of forms and are designed to suit the environment in which they are located.

These forms include:

- High quality shared paths;
- Bi-directional protected bike lanes;
- Protected on-road bike lanes; and
- Safe Active Streets (Bicycle Boulevards).

3 LOCAL ROUTE

Function

Local routes are low demand and are predominantly located in local residential areas.

They provide access to higher order routes and local amenities and recreational spaces.

Form

Local routes can take on various forms depending on the environment in which they are located.

These forms include:

- Shared paths;
- Bi-directional protected bike lanes;
- Protected on road bike lanes; and
- Safe Active Streets (Bicycle Boulevards).

In some locations, quiet residential streets incorporating signage and wayfinding may be appropriate for local routes.

COMPLEMENTARY NETWORK

While not all areas will include Road Cycling Routes and Tourist Trails, they play an important part in the overall network. These routes are typically used by smaller and more select user groups for recreational purposes.

ROAD CYCLING ROUTE

Function

Road cycling routes are designated routes for training, sports or recreational cyclists to undertake long distance rides in on-road environments.

Form

Road cycling routes are predominantly located on lower order, rural or semi-rural roads on the outskirts of cities and towns. Sections may follow busier roads, particularly as road cycling routes typically begin and end in built up areas and often follow scenic roads popular with other road users.

These routes support cyclists undertaking challenging longer distance rides by raising awareness and encouraging safe behaviour by all road users.

This is achieved through advisory signage, warning technology and other road safety initiatives.

TOURIST TRAIL

Function

Tourist trails provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. They often support recreational and tourism trips between regions.

Form

Trails are typically located within underutilised transport and service corridors in rural areas. Due to their relatively gentle gradients, former railways make excellent candidates for trails. Purpose built trails may be constructed to connect existing corridors.

Trails should be constructed from well drained, compacted gravel with supporting infrastructure such as way-finding signage. They can be sealed when they run through towns, busy road crossings or in special circumstances.

Dedicated cycling infrastructure - five typologies of route						
		Primary Routes	Secondary Routes	Local Routes	Tourist Trails	Road Cycling Routes
Type of trips	Commuting	✓	✓	✓	✗	✗
	Utility	✓	✓	✓	✗	✗
	Recreation	✓	✗	✗	✓	✗
	Touring	✓	✗	✗	✓	✓
	Training	✓	✗	✗	✗	✓
Responsible agencies (planning, delivery and support):		Department of Transport Main Roads Public Transport Authority Local Government	Department of Transport Main Roads Local Government	Department of Transport Main Roads Local Government	Department of Biodiversity, Conservation and Attractions Local Government Public Transport Authority Department of Transport Department of Local Government, Sport and Cultural Industries Department of Water and Environmental Regulation LotteryWest Main Roads	Department of Local Government, Sport and Cultural Industries Road Safety Commission Department of Transport Main Roads Local Government
Infrastructure should be designed for:		8 to 80 design philosophy	8 to 80 design philosophy	8 to 80 design philosophy	8 to 80 design philosophy	Confident cyclists

Other supporting cycling infrastructure – footpaths	
Footpaths	Since April 2016 all cyclists, irrespective of age, are permitted to ride on footpaths in Western Australia (unless otherwise signposted). Footpaths support low speed, low-volume cycling, and are particularly important for young and inexperienced user groups. However there are some reasons why people choose to not ride on footpaths. These include: - Speed: Footpaths are rarely afforded priority across intersecting side roads, riding on footpaths is slow, and stop-start. The geometric design of footpaths at many intersections often results in cyclists needing to deviate from their intended desire lines. - Ride quality: As footpaths are typically constructed from concrete slabs or bricks, the ride quality is lower than that of parallel roadways, or purpose-built (asphalt) shared paths. - Blind driveways: Riding on footpaths can be dangerous, particularly on streets which contain large numbers of driveways. At walking speed this isn't normally a problem however for cyclists it is often impossible to see reversing vehicles until the last minute, particularly where paths butt-up against property boundaries. Despite footpaths not forming part of the official cycling network, it is important that developers and local governments design, construct and maintain footpaths that provide a safe alternative for people who prefer to ride at low speeds and away from motorised traffic.

Figure A.1 Poor ride quality, parked vehicles, blind driveways and unfavourable intersection designs make riding on footpaths unattractive for many people.

Other supporting cycling infrastructure – roads without dedicated cycling infrastructure	
Roads without dedicated cycling facilities	Cyclists are, and will continue to remain, legitimate users of all roads in Western Australia (with the exception of freeways and controlled access highways). It is important to remember that roads without purpose-built cycling facilities serve an important function for some cycling journeys. Way-finding signage can be a valuable tool to direct cyclists (particularly novice cyclists) to the most suitable streets or corridors.

APPENDIX B
DESKTOP ANALYSIS SUMMARY

B1. ANALYSIS OF PEDESTRIAN AND CYCLIST CRASH DATA (2013-2017)

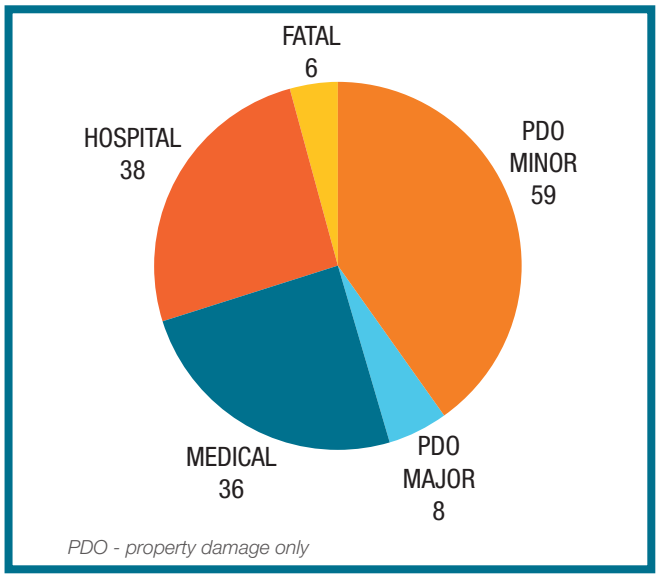
Contained on the following pages are maps showing the location and severity of pedestrian and cyclist crashes occurring in the Bunbury-Wellington subregion between January 2013 and December 2017. Figure B.1 provides a breakdown of these crashes by severity and mode.

The following trends and generalisations were noted in the data:

- In the five years to 2017 there has been one fatal crash involving a cyclist (compared with five fatal pedestrian crashes) in the Bunbury-Wellington subregion. The crash took place in the suburb of Glen Iris in 2013.
- There were however, 14 reported crashes where cyclists required hospitalisation and a further 21 where cyclists required some form of medical attention.
- Unsurprisingly, cyclist crashes resulting in either minor or major property damage far exceeded those for pedestrians.
- There were several clusters of pedestrian and cyclist crashes around central Bunbury, South Bunbury, Australind, Dalyellup and Collie.
- There were a number of pedestrian and cyclist crashes recorded along the busy urban roads through Inner Bunbury, including Spencer Street, Blair Street, Picton Road and Robertson Drive.

As mentioned, the available data set only covers the period between 2013 and 2017. There have been two cyclist fatalities in the Bunbury-Wellington subregion in 2018 which are not captured.

The data set also only captures reported incidents. It has been estimated that cycling incidents reported to police make up only 20 per cent of all cycling related incidents that result in hospitalisation. At present there is no reliable data available on near missies, accidents between cyclists and pedestrians, and or single cyclist crashes.



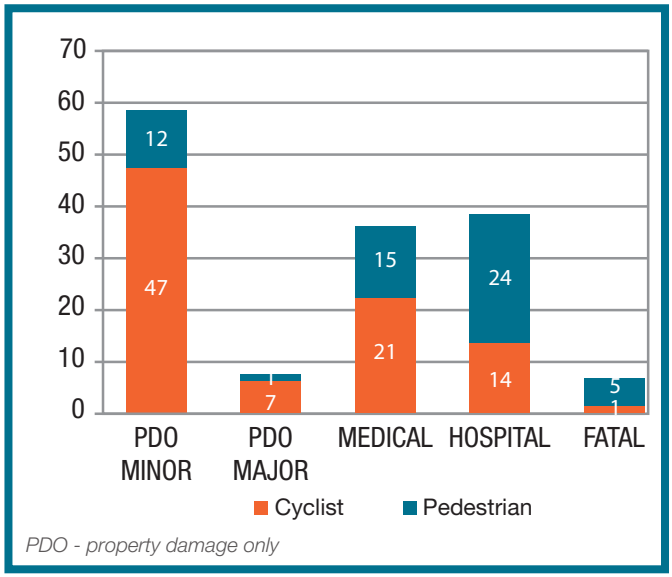


Figure B.1 Bunbury-Wellington subregion cyclist and pedestrian crashes by severity (2013-2017).

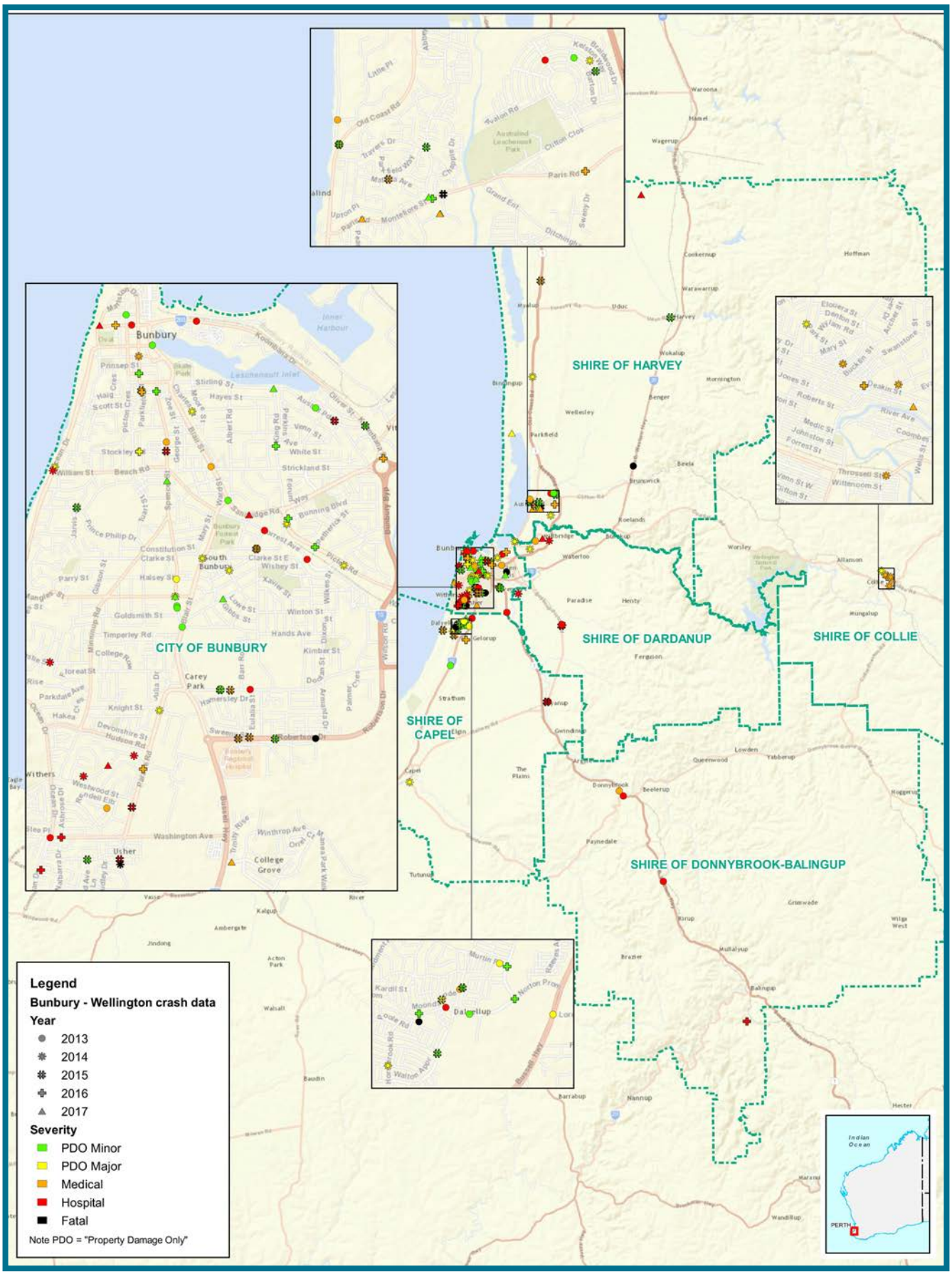


Figure B.2 Cyclist and pedestrian crashes by year (2013-2017)

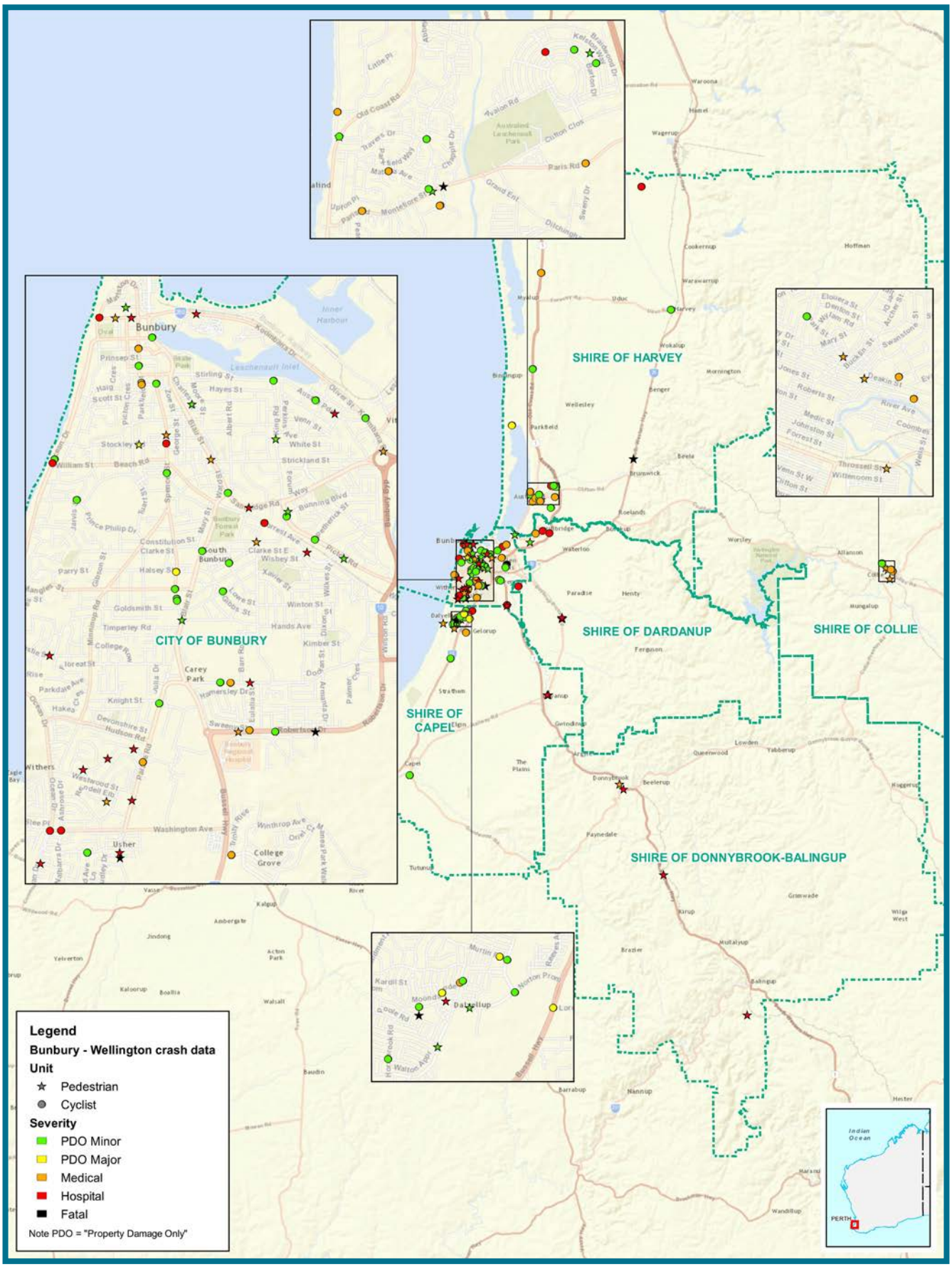
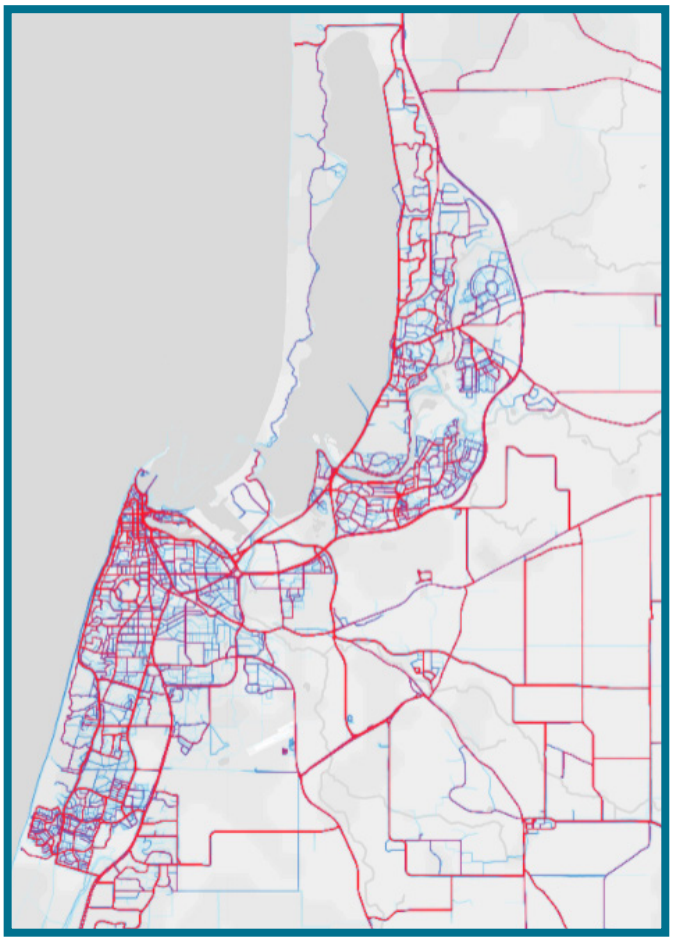


Figure B.3 Cyclist and pedestrian crashes by type (2013-2017)

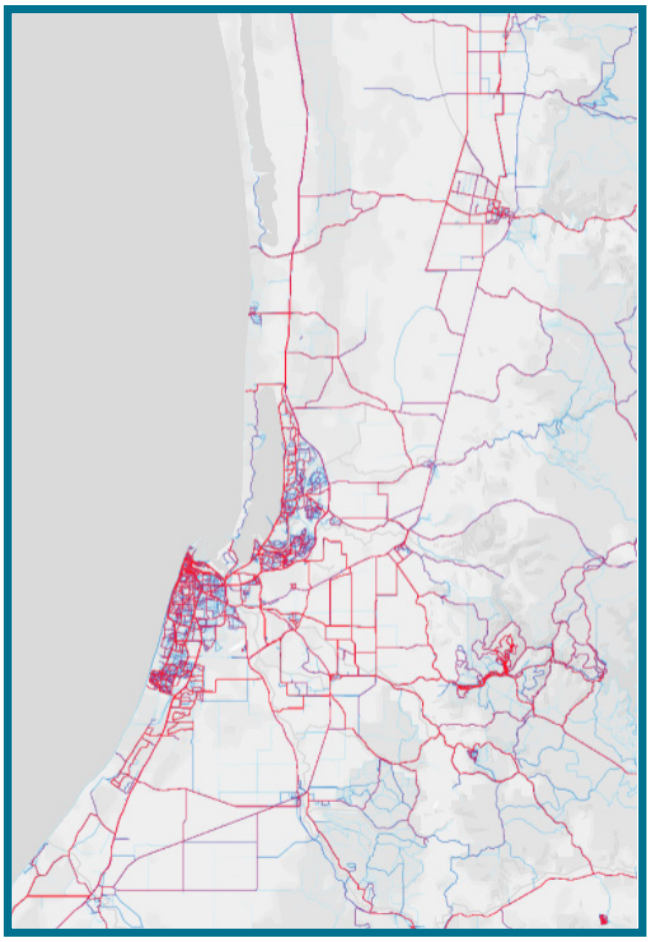
B2. ANALYSIS OF GPS TRAVEL DATA

The GPS mapping tool, Strava Labs, was employed to better understand which parts of the Bunbury-Wellington subregion's road and path networks are most heavily utilised by cyclists. Strava is a website and mobile app used to track athletic activity via GPS.

The figures below highlight popular cycling routes in Bunbury and surrounding areas. Despite the usefulness of this information, it should be noted that GPS travel data is typically representative of people who cycle for training or high-intensity recreational purposes.



GPS heatmap for Inner Bunbury

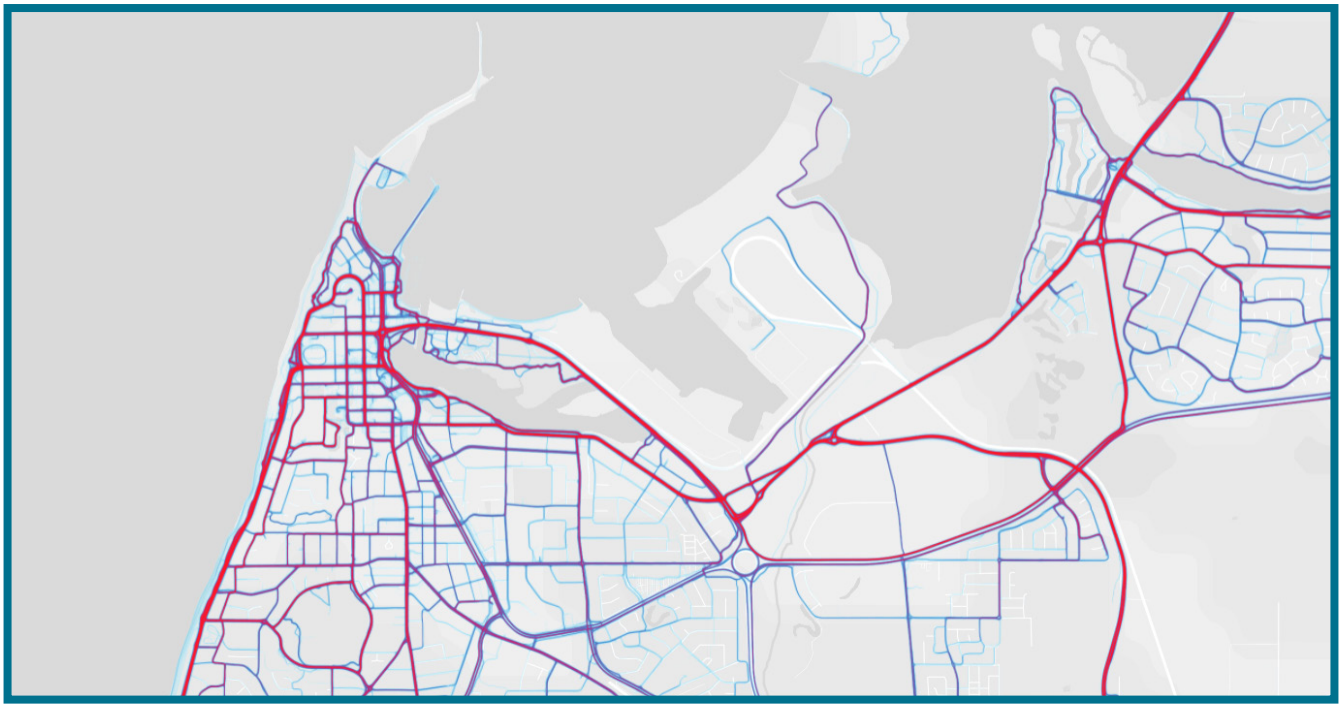


GPS heatmap for Bunbury-Wellington subregion

Figure B.4 Tools such as Strava Labs are important in understanding the demand side of Bunbury's existing cycling network.

The following trends and generalisations were noted with respect to the GPS travel data:

- The most popular cycling routes within urban Bunbury tend to be those that follow the Indian Ocean and Leschenault Estuary foreshores.
- Where high-quality, separated cycling infrastructure exists (e.g. Parade Road,) it is frequently used.
- Very few people are prepared to cycle on either the Bussell or Forrest highways (with the exception of the section between Dalyellup and Gelorup where there is no alternative).
- The roads in and around Bunbury's CBD are heavily used by cyclists, which suggests that many cycling trips are made for non-recreational purposes.
- Semi-rural roads such as Lilydale Road, Harris Road and Willenge Drive form key routes for road cyclists heading inland from Bunbury towards locations such as Dardanup and the Ferguson Valley.
- The quiet meandering roads through suburbs such as Leschenault and northern Australind are well used by cyclists.
- Several quiet rural roads between Harvey and Yarloop appear to be quite popular, presumably used by cycling clubs as an alternative to the busy South Western Highway.



GPS heatmap for Inner Bunbury

Figure B.5 Ocean Drive, Koombana Drive, Austral Parade and Spencer Street are the most heavily used cycling corridors leading to and from Bunbury's CBD.

B3. DOCUMENT REVIEW

The following documents were considered as part of the literature review:

- Activity Centres for Greater Bunbury Policy (2012)
- Austroads National Cycling Strategy (2010)
- Bunbury–Geographe Regional Growth Plan (2016)
- Bunbury-Wellington and Boyup Brook Regional Tourism Development Strategy (2015-2019)
- Capel Trails Master Plan (2009)
- City of Bunbury Bicycle Plan (2010)
- Collie River Valley Trails Strategy 2017 – 2020 (Draft)
- Cycling Aspects of Austroads Guidelines (2017)
- Greater Bunbury Regional Bicycle Master Plan (2012)
- Leschenault Inlet Master Plan Report (2013)
- Our Bike Path 2014 – 2020 – Westcycle
- Perth and Peel @ 3.5 Million – Transport Network
- Shire of Capel Bike Plan (2016)
- Shire of Collie Bike Plan (2016)
- Shire of Donnybrook-Balingup Pathways and Trails Expansion Strategy (2017 update)
- Shire of Harvey Local Bike Plan (2012)
- South West Mountain Bike Master Plan (2015)
- South West Region Economic and Employment Land Strategy (2014)
- South West Regional Blueprint (2014)
- South West Regional Planning and Infrastructure Framework (2015)
- Western Australian Bicycle Network Plan (2014)
- Western Australian Mountain Bike Strategy 2015-2020 (2015)

APPENDIX C
COMMUNITY CONSULTATION SUMMARY

C1. PHASE ONE (DROP-IN SESSIONS AND IDEAS-SHARING)

To help inform this strategy five consultation sessions were held with local residents from around the Bunbury-Wellington subregion. The sessions were promoted through online and print media, with assistance from the six local governments and the South West Development Commission. Several cycling groups and bike shops were also contacted and promoted the drop-in sessions through their internal networks.

The sessions involved talking with community members in an informal, roundtable setting. Participants were encouraged to highlight routes which they currently made by bike as well as ideas they had for expanding or improving the existing network.

Participants were also given the opportunity to record what they considered to be the most important small, medium and large scale projects through a prioritisation exercise.

During Phase one, members of the public were also given the opportunity to make written submissions. This was done to ensure that people who were unable to attend the drop-in sessions could still voice their ideas while also enabling people with particular areas of focus to provide structured written responses.

Community consultation was recently undertaken in Collie as part of the development of their Local Bike Plan and Local Trails Strategy. Information gathered at these sessions has also informed the development of this strategy.

C1.1 Findings from Greater Bunbury

In April 2017, four community consultation drop-in sessions were undertaken in the Greater Bunbury area, staged over two days at community centres in Harvey, Eaton, Capel and Bunbury. Approximately 50 people attended the four sessions. Key themes from this process included:

1. **Providing a safe cycling link between Bunbury and Busselton:** This idea was identified the most during both the community consultation drop-in sessions and written submissions. It was noted that such a facility would not only be a key recreational asset for residents but could also help capitalise on the burgeoning cycle-tourism industry in the South West. In terms of built form, there were two general schools of thought. Some parts of the community hoped to see Bunbury and Busselton linked with a high-quality shared path facility (similar to that linking Busselton and Dunsborough). Others – presumably confident cyclists – simply saw the need to complete several missing sections of the local road network which would enable them to undertake long-distance recreational and training rides without using Bussell Highway.
2. **Improving cycling access to the South West Health and Learning Precinct:** The second most discussed issue was the difficulty to ride or walk to the South West Health and Learning Precinct (comprising the South West Health Campus, Edith Cowan University, Manea Senior College and South Regional TAFE). Respondents noted that the precinct, which is one of the largest employment hubs in the South West, is currently very difficult to access by walking or cycling from neighbouring suburbs located to the north (Carey Park), west (Withers) and south (College). The most frequent reasons cited as restricting access were incomplete paths and poor crossing facilities.

3. **Completing and improving the shared path along Estuary Drive:** Safety issues associated with the Estuary Drive Shared Path, connecting Bunbury to Australind, was a commonly cited problem at all four drop-in sessions (and in the written submissions). Participants noted that the path, which varies significantly in terms of its build quality, also lacks adequate separation along much of its length. Some respondents recognised the complexity of upgrading the shared path along this corridor, noting that Estuary Drive remains under the jurisdiction of the Bunbury Port Authority in certain sections. Extending east from the Eelup roundabout along Forrest Highway before heading north along Old Coast Road was an alternative put forward by some members of the community.
4. **Completing and improving the cycling facilities along Ocean Drive:** The existing shared path and on-road cycle lanes along Ocean Drive were highlighted as providing a poor level of service compared to similar coastal stretches in Perth and Busselton. The community consultation process emphasised the fact that Ocean Drive provides both transport and recreational functions due to it being one of the least undulating north-south linkages between Bunbury's CBD and the suburbs to the south.
5. **Providing safer (and more) crossing facilities of Bussell and Forrest highways:** The feedback received at both the drop-in sessions and through the written submissions highlighted the crossing issues created by the Bussell and Forrest highways for the Bunbury urban area. It was noted that there are presently no grade separated crossings on the highway, and very few of the signalised intersections have adequate path connections or dedicated pedestrian and cyclist phases.
6. **Providing a safe cycling link between Bunbury and Mandurah:** Like the proposed link between Bunbury and Busselton, Phase one of community consultation identified the desire for a link between Bunbury and Mandurah. Participants highlighted how such a link could be used to reach the small coastal settlements located further north (such as Myalup, Binningup and Preston Beach) as well as eventually connecting to the existing Perth-Mandurah Principal Shared Path, which currently terminates at South Yunderup. Respondents highlighted how the Forrest Highway is not conducive to cycling due to its very high traffic volumes and 110 km/h speed limit.
7. **Establishing a network of shared paths along the Collie River:** There was a general feeling among drop-in session participants that the three main rivers within Bunbury (i.e. the Collie, Preston and Brunswick rivers) remained poorly utilised for recreational purposes. Unlike the Swan and Canning rivers in Perth, the foreshores in Greater Bunbury currently have very few paths which are suitable for cycling. The expansion of the path network along the Collie River was identified as being particularly beneficial for both transport and recreational functions, particularly for people living in the areas surrounding Eaton, Millbridge, and Treendale.

Other key project ideas mentioned in the drop-in sessions included:

- Linking Harvey to Myalup using the Harvey River diversion drain corridor;
- Improving way-finding in and around Bunbury;
- Ensuring that cycling facilities are included as part of the Outer Bunbury Ring Road development;
- Constructing a footbridge across The Cut enabling people to cycle all the way around the Leschenault Estuary;
- Using space within rail corridors to create an outer linkage between towns such as Harvey, Brunswick, Boyanup, Dardanup and Capel;
- Providing better linkages to the cruise ship terminal; and
- Creating a north-south bike boulevard or safe active street between central Bunbury and the South West Health and Learning Precinct.

C1.2 Findings from Donnybrook–Balingup

In November 2017, an additional drop-in session was undertaken at the Donnybrook Recreation Centre, which saw approximately 20 community members attend. Key themes which arose from the Donnybrook session included:

1. **Harnessing the potential of the Shire's disused rail corridors:** It was evident from the drop-in session that there is strong community interest to see the Shire's disused rail corridors transformed into rail trails. In addition to the Bunbury-Northcliffe railway (which forms a link between the Donnybrook, Kirup, Mullalyup and Balingup townsites) there was also some support to see the former Boyup Brook railway transformed into a rail trail. It was noted that many locals are already using the service tracks alongside the railway tracks as a means of safely riding between towns. The tourism potential of rail trails was also discussed, with some participants having experienced similar trails in New Zealand, Canada and Europe.
2. **Developing and formalising a series of on-road training routes for sports cyclists:** Several participants at the drop-in session were there representing the on-road cycling community. In addition to local cycling groups, it was noted that several clubs from Bunbury regularly made use of the quite rural roads in the hills around Donnybrook.

   Discussion was had around what measures could be put in place to improve the safety of road cyclists along certain routes, including:

   - Donnybrook to Kirup, via Upper Capel Road;
   - Kirup to Donnybrook, via Brookhampton Road and Sandhills Road;
   - Donnybrook to Capel, via Gavins Road;
   - Donnybrook to Boyanup, via Gemmell Road and Hurst Road; and
   - The Balingup–Grimwade Road Circuit.

   There was a general feeling among participants that certain roads around the Shire (such as South Western Highway, the Donnybrook–Boyup Brook Road and the Preston–Collie Road) are not particularly suitable for cycling due to their high traffic volumes (and especially trucks).
3. **Enhancing and extending the trails along the Preston River:** Like the Shire's disused railways, the Preston River was identified as another corridor that could potentially support the development of walking and cycling trails. Due to its gentle topography, pleasant scenery and separation from motorised traffic, trails along the river have the potential to cater for cyclists of all ages and abilities.

   Although there are already some good trails along the foreshore in the Donnybrook townsite, participants supported the formation of a recreational loop extending from Bridge Street to Dale Street. It was also mentioned that over time these trails could be extended upstream and downstream to facilitate longer recreational journeys.
4. **Providing better connections to mountain biking hubs:** As in many other parts of the South West, the popularity of mountain biking in Donnybrook–Balingup has grown significantly in recent years. Several participants present at the Donnybrook session were there representing the mountain biking community and saw an opportunity for certain trails to be better connected to residential areas (particularly those around Donnybrook itself). This would allow more people (and especially children) to use the trails without needing access to a car.

   It was also highlighted that the privately owned Cycletrek@Kambarang mountain bike park located in Lowden had grown in popularity in recent years. Located approximately 20 km east of Donnybrook, the mountain bike park is situated only 4 km south of the disused Donnybrook-Boyup Brook railway – which could be used to form a link back to Donnybrook. Opportunities around linking Linga Longa Bike Park (situated south of Balingup) were also identified.

5. **Developing pump tracks:** Some discussion was had around building pump tracks in the Donnybrook and Balingup townsites. It was noted this could be an effective way of getting children interested in bike riding from a young age.
6. **Creating better links to outlying communities:** Although Donnybrook and Balingup are the two largest towns in the shire, it was pointed out that many people reside in various smaller settlements including Argyle, Irishtown, Kirup, Brookhampton, Newlands and Mullalyup. Consideration needs to be given to how to safely link these settlements to the bigger towns. The disused railway is the most obvious way of achieving this.

C2. PHASE TWO (FORMAL COMMENT PERIOD)

Local community members and key stakeholders were invited to provide feedback on the *draft Bunbury-Wellington 2050 Cycling Strategy* over a three-week period commencing on 9 July 2018. The draft document was made available online, hosted on the DoT website and promoted through each local government authority (LGA) online and print media channels.

A total of 158 submissions were received, with a good spread across the six local governments. Seventeen people from outside the Bunbury-Wellington subregion also provided comment on the strategy.

The submissions were grouped into a number of themes as summarised on the following pages. The themes are listed in the order of frequency with which they arose in the submissions.

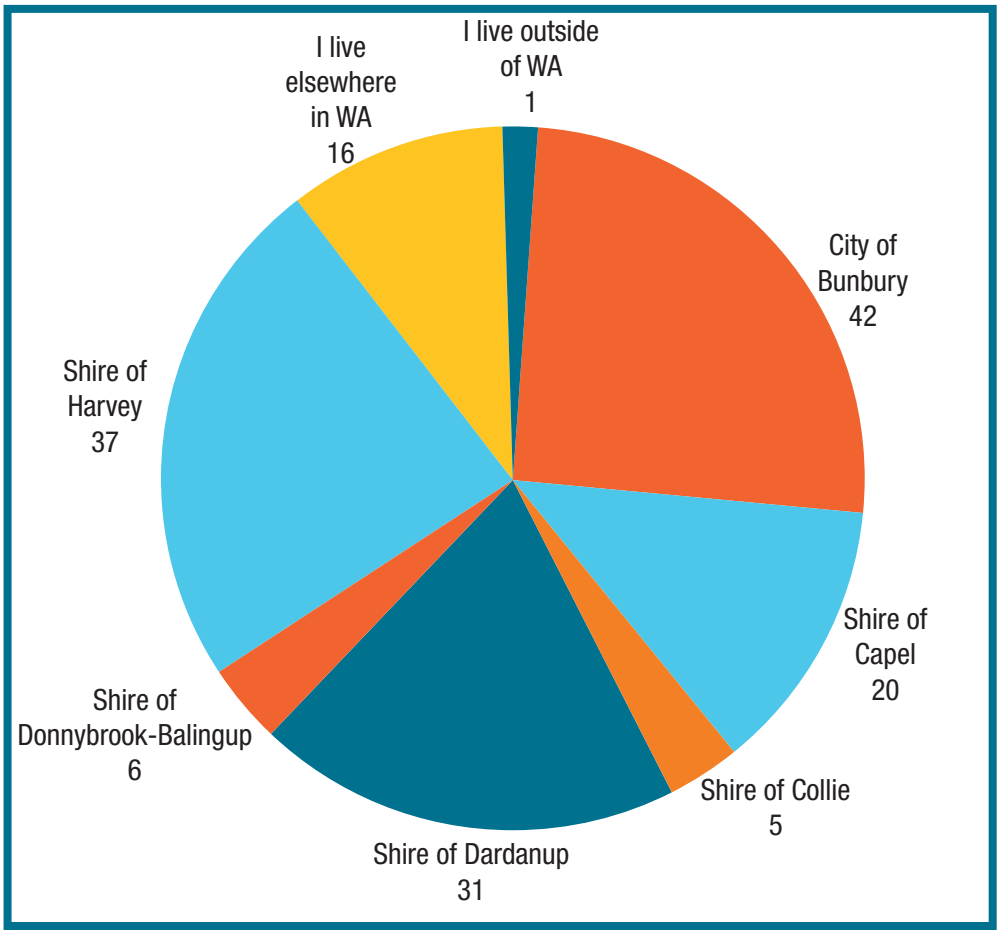


Figure C.1 Breakdown of submissions received by location

Community consultation theme	Response	Relevant LGA(s)
Strong support for developing a cycling link between Bunbury and Busselton. The short-term option of connecting local back roads is supported however many respondents agree that it would be better to strive for a completely separated facility over the long term. Utilising the Tuart Forest corridor for this connection appears to be well-supported by the community.	The importance of this route is reflected in Section 5.1 of this strategy and included as a priority project within the action plan (refer to Table 6.2.1).	Shire of Capel (and City of Busselton)
Provide additional safe (and ideally grade separated) crossing points on key roads throughout Bunbury including the Bussell, Forrest and South Western highways. Specific comments around the need for grade separated links across Bussell Highway and Robertson Drive to improve access to the South West Health and Learning Precinct.	Priority projects have been included in the action plan to help address this issue at various locations.	City of Bunbury, Shires of Capel, Dardanup and Harvey
Develop high-quality cycleways (i.e. primary routes) alongside various major roads including the Forrest, Bussell and South Western highways. Extending the Bussell Highway Shared Path (north and south) and linking the Bunbury Farmers Market to the Preston River Bridge were both specifically mentioned.	Routes along each of these corridors are identified in the future aspirational network. Extensions to the Bussell Highway Shared Path and improved linkages to the Farmers Market have been included as priority projects in the action plan.	City of Bunbury, Shires of Capel, Dardanup and Harvey
Strong support for developing a walking/cycling path along Dodson Road, providing access to the Davenport light industrial area. Respondents mentioned that the large number of trucks and poor geometry/sightlines makes cycling along this corridor particularly unsafe.	A secondary route along Dodson Road is included in the future aspirational network and included as a priority project in the action plan.	City of Bunbury
Support for improving the Bunbury-Australind cycling connection by upgrading the Estuary Drive, Old Coast Road and Cathedral Avenue shared paths along the eastern edge of the Leschenault Estuary.	Several projects are already underway to see this connection upgraded. These (and future projects) are included in the action plan.	City of Bunbury, Shires of Dardanup and Harvey
Support for developing formalised road cycling routes (and in particular to use the Ferguson Valley loop as a pilot project).	The potential of a formalised road cycling route through the Ferguson Valley is captured in Section 4.7.1. Other potential trial locations have been identified. Refer to Table 6.2.5.	Shires of Dardanup, Collie and Donnybrook-Balingup
Support for using cycling as a means of attracting more tourists to the Bunbury-Wellington subregion. Some respondents pointed towards certain towns (such as Margaret River, Nannup and Collie) which are already beginning to capitalise on this growing market.	Noted. This opportunity is captured within the strategy.	N/A
General support for developing bike paths within (or alongside) rail corridors. Ministerial direction is needed to fast-track negotiations between local government, Public Transport Authority, and Arc Infrastructure.	Noted. This opportunity is captured within the strategy. Specific actions are outlined in Table 6.2.4.	N/A

Community consultation theme	Response	Relevant LGA(s)
Develop a safe cycling connection between Bunbury and Donnybrook (via Boyanup and/or Dardanup) via the rail corridor and/or Preston River.	This opportunity is captured within the strategy and relevant actions included as priority projects. Refer to Table 6.2.4.	Shires of Capel, Dardanup and Donnybrook-Balingup
Support for developing a rail trail alongside the entire Bunbury-Northcliffe rail corridor.	This opportunity is captured within the strategy and relevant actions included as priority projects. Refer to Table 6.2.4.	Shires of Capel, Dardanup, Donnybrook-Balingup (Bridgetown-Greenbushes and Manjimup)
Develop a high-quality (sealed) cycling facility linking Bunbury to Mandurah, preferably away from Forrest Highway to improve amenity for users.	The development of cycling route between Bunbury and Australind is under development. Between Australind and South Yunderup, a connection is likely to be provided when Forrest Highway is upgraded to freeway standard – whether that be along the Forrest Highway or in an adjacent corridor. This opportunity is identified in the strategy however it is not considered to be a priority project.	Shire of Harvey (City of Mandurah, Shires of Murray, Waroona)
Sections of the Munda Biddi Trail should be realigned enabling trail to go through the Boyanup, Collie, Donnybrook town centres.	This opportunity is captured within the strategy and relevant actions are included as priority projects. Refer to Table 6.2.4.	Shires of Capel, Collie and Donnybrook-Balingup
Support for developing more mountain bike trails, pump tracks, skill tracks, etc. (including supporting facilities such as toilets and showers).	The development of technical mountain bike trails, pump and skills tracks is outside the scope of this strategy, however the importance of linking such facilities to towns is captured in Section 4.9.3.	N/A
Develop a cycling connection between Bunbury and Collie via Burekup, Brunswick, or (potentially) Dardanup.	Beyond the five-year horizon. Requires further investigation in terms of best alignment. The Burekup alignment is supported by the Bunbury Bicycle Users Group.	Shires of Collie, Dardanup and Harvey
Connect Busselton to the Munda Biddi Trail (via the Ruabon-Tutunup rail reserve).	Not relevant to this strategy. Refer to the *Leeuwin-Naturaliste 2050 Cycling Strategy*.	N/A
Create a cycling link extending north from Australind towards Binningup and Myalup.	Included in *2012 Greater Bunbury Regional Bicycle Master Plan*. Shire of Harvey to undertake planning/ investigative work over the next five years.	Shire of Harvey

Community consultation theme	Response	Relevant LGA(s)
Support for improving cycling provisions along Ocean Drive with many respondents suggesting that separate facilities are needed for motor traffic, pedestrians and cyclists.	It is agreed that in isolation, neither the existing on-road bike lanes or off-road paths provide an adequate level of service for cyclists (in terms of safety or amenity). Several actions are included in the priority actions to upgrade this key corridor to primary route standard.	City of Bunbury
Develop a safe cycling connection between Harvey and Myalup, potentially alongside the Harvey River diversion drain.	This opportunity is captured in Section 4.4.2 of the strategy and initial steps included as a priority. Refer to Table 6.2.4.	Shire of Harvey
Support for developing a loop around the Leschenault Estuary (including a bridge over The Cut).	This is a long term aspirational project, already captured in strategy (refer to Section 4.1.3). Priority has been given to completing a high-quality path on the eastern side of the Leschenault Estuary, as detailed above and outlined in Table 6.2.1.	City of Bunbury, Shires of Dardanup and Harvey
Support for developing paths and trails alongside the Collie, Brunswick and Preston rivers.	This opportunity is captured in Section 4.2.1 of the strategy and various path sections identified as priority projects.	City of Bunbury, Shires of Dardanup and Harvey
Complete the Wadandi Track between Busselton and Augusta.	Not relevant to this strategy. Refer to the *Leeuwin-Naturaliste 2050 Cycling Strategy*.	N/A
Improve cycling provision along Koombana Drive, particularly in terms of safety and connectivity.	Koombana Drive is designated as primary route in strategy and priority projects have been identified to improve cycling safety and connectivity. Refer to Table 6.2.1.	City of Bunbury, Shires of Dardanup and Harvey
Concerns about the long-term nature of this strategy, 2050 seems too far away. Need to ensure that certain priority projects come to fruition quickly.	The effective coordination and delivery of infrastructure requires a combination of short-term and long-term planning. The five-year action plan outlines short term priorities which will help achieve the long-term vision.	N/A
Support for developing a cycling link between the northern inland towns of Burekup, Roelands, Brunswick, Harvey and Yarloop, parallel to South Western Highway and/or the rail corridor.	This aspirational alignment was included in the *Greater Bunbury Regional Bicycle Master Plan* in 2012 and is captured this strategy. An initial action is outlined in Table 6.2.4.	Shires of Dardanup, Harvey (Murray and Waroona)

Community consultation theme	Response	Relevant LGA(s)
Support for completing the Collie – Darkan Rail Trail, extending from Buckingham to Collie and from Darkan to Williams.	The existing rail trail would benefit significantly if it was connected through to the Collie townsite. The preferred alignment (along the rail corridor) is restricted by an existing mine site which is likely to remain in place for the foreseeable future. A priority action is included in Table 6.2.4 for the construction of an alternate alignment.	Shire of Collie
Support for implementing more education and behaviour change measures, potentially starting with school aged children.	Specific measures are outside the scope of this strategy however some overarching guidance for activation, consultation and evaluation is provided in Section 6.3.	N/A
Support for installing high-quality cycling infrastructure along key urban arterials leading to Bunbury CBD (Spencer Street and Blair Streets both mentioned).	This opportunity is captured in Section 4.3 of the strategy. A corridor study will be undertaken to determine the preferred solution. Refer to Table 6.2.2.	City of Bunbury
Improve bike parking in town centres and other key destinations.	Noted. Outside the scope of this strategy.	N/A
Consider moving away from shared paths as they can be unsafe in certain situations. Where cycling-only paths cannot be justified, make sure shared paths are sufficiently wide for pedestrians and cyclists to mix comfortably.	It is agreed that cyclists should be provided with dedicated infrastructure in some instances, particularly in busy areas where there are high pedestrian volumes. This is captured in the Route Hierarchy Summary in Appendix A1.	N/A
Improve cycling access to industrial areas of Halifax, Davenport and Picton.	Existing cycling provision is poor in these areas. Several routes have been proposed to improve accessibility to and mobility around these areas.	City of Bunbury, Shire of Dardanup
Improve way-finding in the form of maps, signage and online resources.	Specific measures are outside the scope of this strategy however some overarching guidance for activation, consultation and evaluation is provided in Section 6.3.	N/A
Ensure that new bike lanes/paths are sufficiently wide.	DoT is developing state wide guidelines surrounding best-practices for cycling infrastructure.	N/A
Ensure bike lanes/paths are maintained properly and regularly swept of debris, broken glass, etc.	Noted. Outside the scope of this strategy.	N/A

Community consultation theme	Response	Relevant LGA(s)
Ensure that future bike routes are located away from busy traffic, with as few road crossings as possible.	A combination of facilities is required to suit a range of different scenarios. Road crossings should be provided as safely as possible as avoiding them is not always possible.	N/A
Ensure that all levels of government allocate more funding to the delivery of cycling infrastructure in regional areas.	Funding for cycling infrastructure is currently at record levels in WA. The RBN grants program enables local government to receive 50:50 grant contributions from State Government to deliver strategic cycling infrastructure.	N/A
Some routes have poor passive surveillance, which can a negative impact on ridership due to personal safety concerns.	Noted. During detailed project scoping and design, these issues will be identified and addressed where possible. In certain circumstances this may result in a slightly different alignment to improve safety and amenity issues.	N/A
Extend the shared path along Parade Road to link into Spencer Street.	Noted. This path is included in the strategy's aspirational network and is programmed for completion by City of Bunbury in 2020/21.	City of Bunbury
Ensure that strategy is accepted by Department of Planning, Lands and Heritage, and incorporated into the South West Regional Planning and Infrastructure Framework.	The Department of Planning Lands and Heritage have been engaged during the development of this strategy and are represented on the WA Bicycle Network Implementation Reference Group.	N/A
Extend the Old Coast Road path from Hamilton Street to Forrest Highway.	This connection is captured in the aspirational network but is not considered to be a priority link for the next 5 years in comparison to other projects identified.	City of Bunbury, Shire of Dardanup
Reference should be made to the Department of Water's Regional Estuaries Initiative.	Section 4.1.3 has been updated.	N/A
Concerns surrounding the development of a bike path on the eastern side of the Leschenault estuary with regards to impacts on nesting areas, native vegetation, seagrass, and private properties.	Relevant local governments to work through these issues and concerns during the planning and design process.	City of Bunbury, Shires of Dardanup, Harvey
Improve cycling access to/around Big Swamp.	These paths are captured in the aspirational network but upgrades are not considered to be a strategic priority in comparison to other projects identified.	City of Bunbury

Community consultation theme	Response	Relevant LGA(s)
Seal Campbell Road allowing people to safely ride from Harvey to Bunbury.	Shire of Harvey to seal the remaining 1.3 km gravel section of Campbell Road with construction to commence in early 2019.	Shire of Harvey
Construct a path along South Western Highway linking Uduc Road to Stirling Cottage near Harvey.	Not a current priority for Shire of Harvey. Discussions needed with Main Roads WA to ascertain funding and land requirements.	Shire of Harvey
Develop a cycling link between Capel and Boyanup, potentially along the old rail corridor.	This opportunity is captured within the strategy (refer to Table 4.1) however it is not considered to be a priority project.	Shire of Capel
Ensure that future cycling routes are suitable for road/hybrid bikes (as not everyone has access to a mountain bike).	Primary, secondary and local routes should all be suitable for road bikes. Tourist trails should be suitable for hybrid bikes (as mentioned in Appendix A1).	N/A
Improve cycling safety along Binningup Road.	This opportunity is captured within the strategy (refer to Table 4.1) however it is not considered to be a priority project.	Shire of Harvey
Strive to improve the integration of cycling with rail services (i.e. by having more spaces for people to take bikes on trains, and better infrastructure connecting people to/from train stations).	Noted. Mentioned in Table 4.1 with respect to Australind train service.	N/A
Seal the gravel sections of Brockman Road so that people can ride safely from Harvey to Pinjarra.	Not a current priority for Shire of Harvey but will be considered in future capital works forward planning.	Shire of Harvey
Greater support needed from State Government in coordinating priorities.	DoT now has a dedicated team working with regional local governments across WA to help plan, design and deliver strategic cycling infrastructure. This document details the strategic cycling priorities for the subregion over the next 5 years.	N/A
Other general comments: - Glad to see the health and wellbeing benefits of cycling are mentioned in the strategy. - Pleasing to see that e-bikes are mentioned in the strategy. - Cycling infrastructure should be planned/designed by skilled professionals. - Cycling routes should be combined with improved urban tree cover.		

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