



Bega Valley Bike Plan

Version 1



PO Box 492, Bega NSW 2550
P. (02) 6499 2222
F. (02) 6499 2200
E. council@begavalley.nsw.gov.au
W. begavalley.nsw.gov.au

ABN. 26 987 935 332
DX. 4904 Bega

Bega Valley Bike Plan

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Foreword

The Bega Valley is quickly becoming a place to get on your bike and go for a ride. For locals cycling has taken on a new life with an increased interest in cycling in all forms from scenic on-road cycling to mountain biking along the challenging single track.

Many visitors are coming to the Bega Valley with their bikes in tow to experience the beautiful Bega Valley and Sapphire Coast from two wheels.

There are many community benefits to cycling; those that are most obvious are increased personal health, healthier environment and a stronger economy. These benefits will be addressed and enhanced through the ongoing promotion and awareness of cycling in our Shire.

When looking at the transformation of the Bega Valley as a place to cycle, it is essential that cyclists of all ages and abilities feel safe and comfortable. This plan endeavours to outline how this can be achieved, enabling the Bega Valley to reach its potential as a cycling destination.

Thank you to all of the enthusiastic members of the cycling community who have taken time out of their busy schedules to assist in the development of this Bike Plan



Cr Michael Britton
Mayor, Bega Valley Shire Council

Introduction

Bega Valley Shire Council has identified cycling as an increasingly important element in developing healthier, safer and more sustainable communities and endeavours to promote cycling as a legitimate and necessary mode of transport and recreation. Council acknowledge cycling as a form of sustainable transport which is growing rapidly in popularity. Cycling is a healthy, low cost and environmentally friendly alternative form of transport and recreation especially for short to medium length trips. People's motivation for cycling are varied including social and recreational purposes, health and fitness, commuting and environmental reasons.

The purpose of this Bike Plan is to demonstrate responsive management and planning for cycling and affiliated infrastructure. The Bike Plan will be used to communicate the direction of cycling in the Shire and identify the resources and commitment that is required for providing a safe and enjoyable cycling network now and into the future.

Vision

That the Bega Valley be recognised for the abundance of cycling opportunities.

Goals

The key goals of the Bike Plan are to:

1. Provide and manage a safe and enjoyable cycling experience through practical network development with improved facilities, connectivity and continuity.
2. Raise safety awareness and education amongst cyclists and road users.
3. Support and advocate cycling as an alternate mode of transport and recreation opportunity throughout the Shire.
4. Communicate promote and fund cycling and related facilities to user groups and the community.
5. Improve and advocate bicycle tourism and economic opportunities.

This Bike Plan has been divided into two sections. Those being:

Part 1 Why Cycle

Part 2 Cycling in the Bega Valley Shire

Part one demonstrates why people cycle and the benefits of cycling. This provides the reasons behind why a strategy is being developed allowing the identification of the shortfalls and resources required to cater for the increased demand of cycling infrastructure into the future.

Part two gives an indication of where cycling sits within the Shire and how people are using the transport network, where the missing links are and what people want in regard to cycling in the Shire.

Within the Bike Plan a cycleway hierarchy has been developed to aid cyclists in determining the best route options, as well as helping Council's managers to determine the resourcing priorities and works required. The Bike Plan Hierarchy is as follows:

- Bike Way
- Collector Streets
- Cycleways
- Recreation Routes
- Town Route

Bega Valley Bike Plan

- Proposed
- Unformed tracks and trails

Many people and groups were involved in the development of this Plan. The key stakeholders include Council staff, Tathra Mountain Bike Club, Bermagui Dirt Surfers, bike user groups and the Roads and Maritime Services (RMS). A community survey was also conducted in 2012 which helped guide the future outcomes and targets of the Bike Plan.

Program of proposed works

Based on consultation and identifies funding the short term works program for The Shared Path Network is outlined below;

Year	Town	Project
2014/15	Bermagui	Lamont St, refuge treatment
	Bega	East St, Bike Path extension
	Rural Roads	Shared Road warning signs on identified routes
	Merimbula	Arthur Kaine Dr Cycleway Renewal
	Bermagui	Information Sign, joint project Mumbulla Foundation, Bermagui Chamber of Commerce, BVSC
2015/16	Merimbula	Beach St, Shared path Replacement
	Tathra	Andy Poole Dr Cycleway Renewal
	Eden	Lake Curalo shared path construction continuation
	Pambula	Pambula Beach Rd Cycleway Renewal
	Merimbula	Boardwalk upgrade to shared path
	Bermagui	Lamont St cycleway construction
	Bega	Design Shared Path High St and Nelson St
2016/17	Bega	High St Shared Path construction (grant dependant)
	Merimbula	Boardwalk upgrade to shared path
2017/18	Bega	Nelson St Shared Path construction (grant dependant)
	Merimbula	Boardwalk upgrade to shared path

Part 1 Why Cycle

The Benefits of Cycling

Recreation and sport is an important contributor to the quality of life of individuals and the general community. The provision of cycling infrastructure supports the ideal of a healthy more connected community and assists in providing the community with the benefits of a sustainable, affordable and healthier alternative.

The National Cycling Strategy aims to double the number of people who ride a bicycle in Australia by 2016.

Increasing the number of people riding a bicycle for transport and recreation will benefit Australia by improving health, productivity, the environment and community liveability.

The national Cycling Strategy states that the more people riding a bicycle will:

- help reduce urban traffic congestion (estimated to cost Australia \$20 billion a year by 2020 if we do nothing)
- improve air quality and reduce noise in our neighbourhoods and cities (making us healthier and happier)
- reduce the carbon emissions from transport (currently responsible for 15% of Australia's carbon footprint and increasing)
- get more people in the community healthier and fitter and so reduce the cost we all bear for inactivity (estimated to cost Australians more than \$13.8 billion each year)

Riding a bicycle for transport and recreation benefits individuals by:

- improving their health and wellbeing (regular bicycle riding makes you happier, healthier and live longer)
- reducing personal and family expenses (ditching one family car and cycling to work can save up to \$800 a month)
- saving time, especially on short trips (when travel time is measured from door to door journeys up to 5 km are generally faster by bicycle)
- connecting people to their community and environment
- providing people of all ages with a sense of freedom and fun

Even if you don't ride a bicycle, you benefit when others do with less congestion, a cleaner environment and healthier, more liveable communities.

Cycling Trends

The Australian Sports Commission Exercise, Recreation and Sport Survey identifies the top 10 activities for people in 2010, aged between 4 and 15 and also people over the age of 15 throughout Australia. The survey results identify a strong trend towards individual activities rather than team sports. The provision of shared paths will assist people of all abilities to carry out their chosen activities whether they be walking, running or cycling which are all present in the top 10 activities for people over the age of 15, and walking and cycling are the top two preferred activities for children aged between 4 and 15.

The Australian Bicycle Council produced a comparison between regional and metropolitan populations indicating a greater percentage of regional Australians cycle mostly for the purpose of recreation. In regional areas it is understandable that using cycling as an alternate mode of transport may not be suitable due to long distances, lack of suitable cycling surfaces and lack of a road shoulder. However with the vast open spaces and minimal traffic congestion on the roads

our region is the perfect environment for recreational road cycling. The abundance of space and publicly managed land also allows for the creation of mountain bike parks which is becoming increasingly popular and a mainstream form of recreational cycling.

Transport Efficiency

Cycling and walking are considered to be the most energy efficient modes of transport, as they use no external energy sources. Research has shown that 55% of car trips and 67% of car shopping trips are less than 5km in length (NSW DoT 1995). As cycling and walking can be as quick for short trips, they are an extremely efficient alternative.

The cost of providing parking facilities for bicycles is significantly lower than for cars. As less space is needed for parking of cycles compared to cars, more facilities can be provided within the equivalent space.

Environmental

As noted in the National Cycling Strategy, 'increased transport use is one of the key issues facing Australian cities and towns'. Cycling and walking are truly sustainable.

Many studies, including those done by the NRMA have shown that short vehicle trips are the least fuel-efficient and therefore generate the highest pollution per kilometre travelled. Reducing vehicle trips will reduce greenhouse impacts and noise, improving the environment for all.

Health & Fitness

Cycling has many significant health benefits and is a sure way to increase an individual's fitness. At a time when it is recognised that our nation as a whole is getting unhealthier, the encouragement of fitness and health should be a priority. Additional effects are a reduction in stress levels and improved self-esteem.

It has been noted that *"the most effective fitness routines are moderate in intensity, individualised and incorporated into our daily activities (Toronto 2000)"*. Walking or cycling can easily provide this.

It is clearly recognised that there will be reduced health care costs from improved fitness and well-being, which is why governments of all levels are promoting cycling as a healthier alternative.

Economic & Social

The provision of cycling opportunities allows for an affordable alternative for all members of the community to access key community facilities, where public transport may not be convenient or be available.

Increased walking and cycling will have economic benefits for the individual through savings on running costs of motor vehicles, particularly with rising fuel costs. The National Cycling Strategy quotes figures from the Queensland Department of Transport and Main Roads which indicates that the cost of buying and maintaining a bicycle as being 1% to that of a car.

There are direct and indirect employment opportunities through revenue generated by retail sales of bicycles and related equipment and recreational tourism through events and cycle route promotion.

Many tourists visit the Bega Valley, often bringing their own bikes or having some available at accommodation or hire venues. The provision of improved cycling facilities will continue to increase the attractiveness of the region as a cycling holiday destination, and in return increase the economic return of the investment into cycling throughout the Shire.

Active living is an initiative that is being promoted by the state government. Through the development of the Bike Plan council has the ability to address many aspects of the following active living principles.

Bega Valley Bike Plan

Walkability and Connectivity – improve safe and easy active travel connections to local destinations.

Active Travel Alternatives – promote public transport use, cycling and walking to help reduce car dependency.

Legibility – make walking and cycling routes easier to find through signposting, direct walking/cycling routes and provision of public transport information.

Quality Public Domain – provide well-located and designed open space, with facilities for all community members.

Social Interaction and Inclusion – promote mixed retail districts that encourage walking and cycling for local short trips.

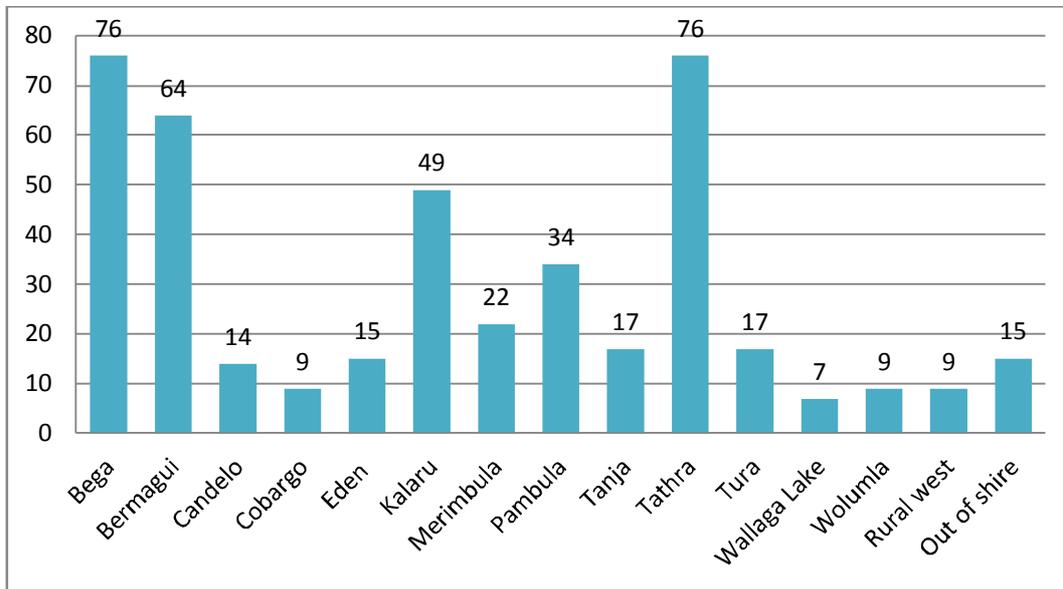
Active communities are likely to be more connected, to participate more in community activities, to be more productive, and to reduce the environmental impacts of car dependence. The provision of cycling infrastructure and catering for the demand of cycling through the Bike Plan is one of the many ways in which Council is endorsing these principles.

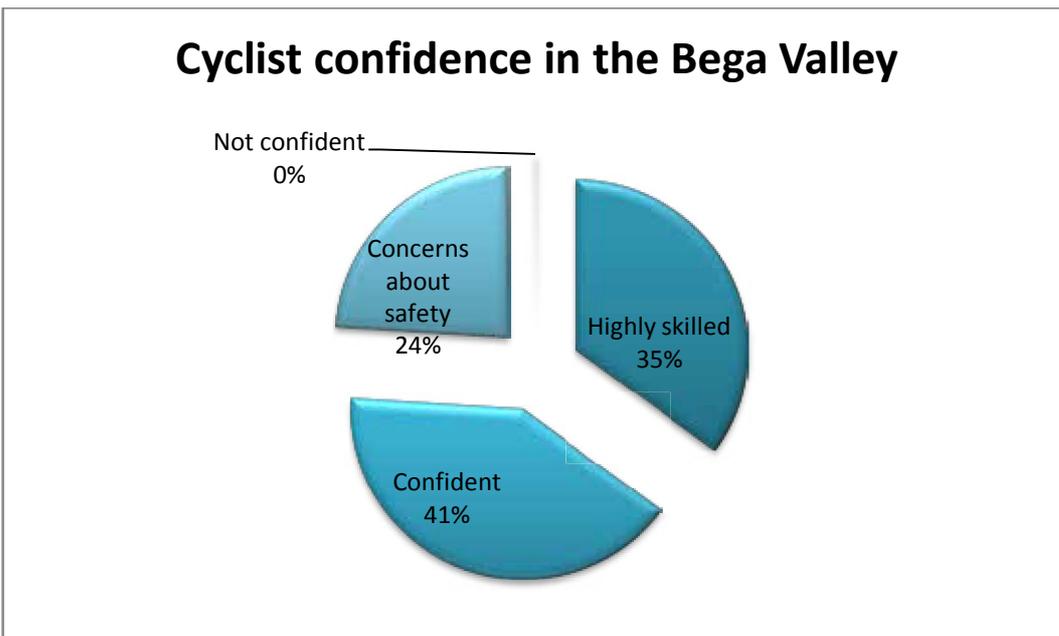
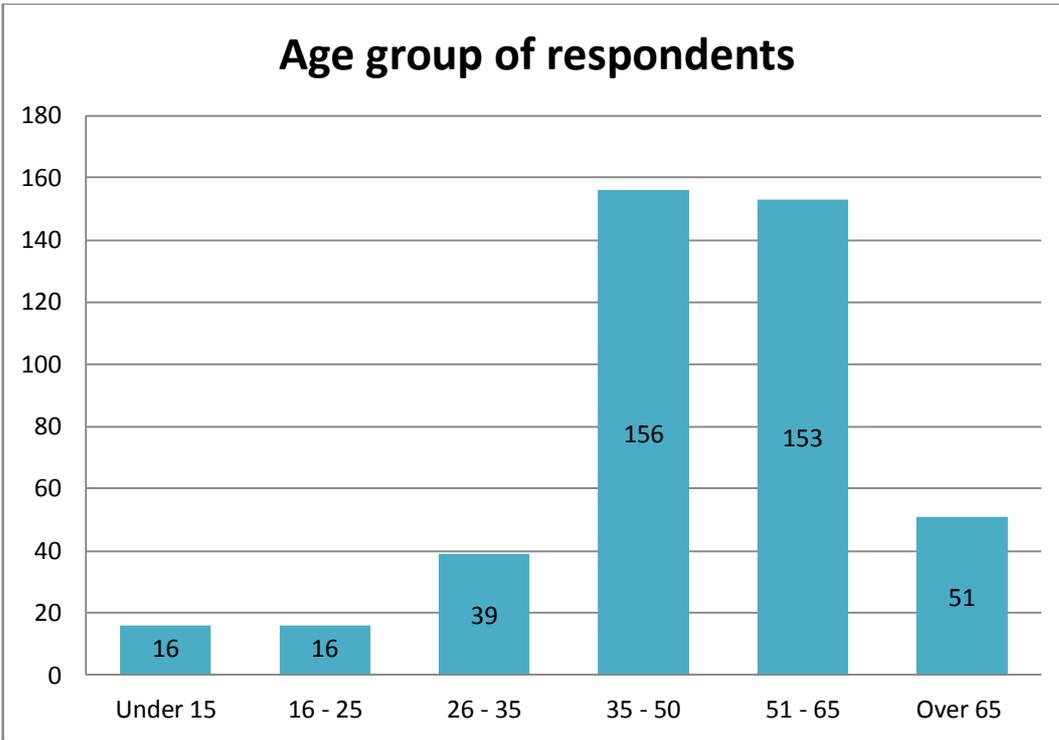
Part 2 Cycling in the Bega Valley

Customer research and expectations

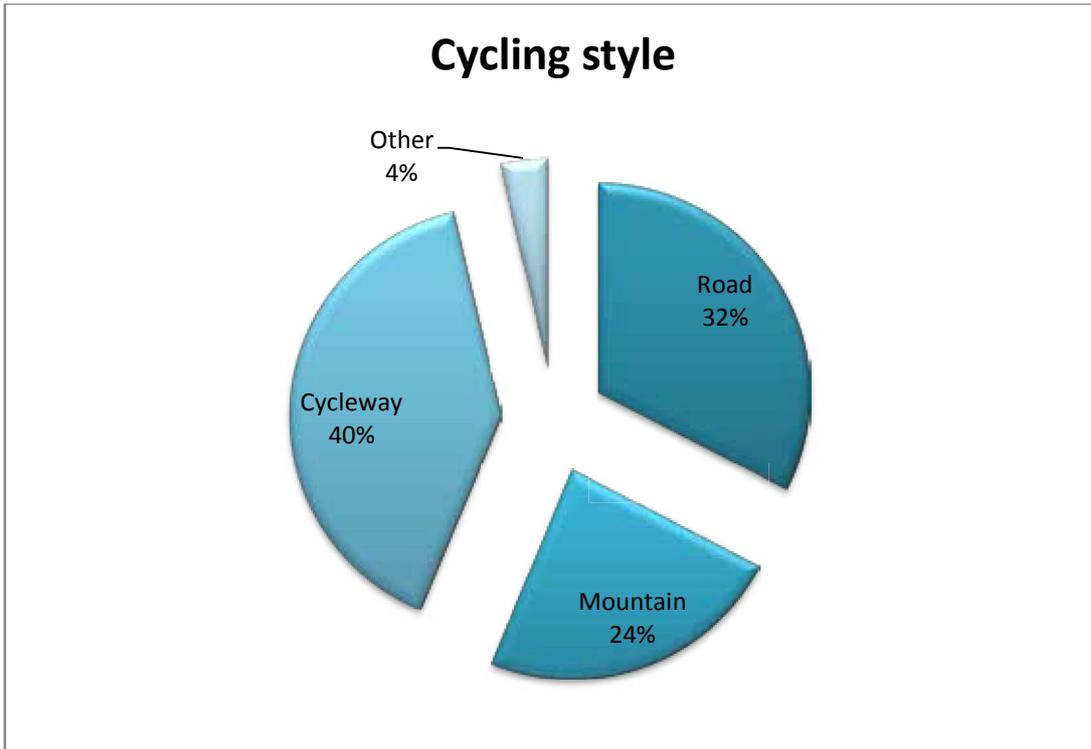
Targeted consultation with cycling groups throughout the Shire has been undertaken by Council staff, as well as a survey that was available for all members of the community. The surveys were distributed both electronically and via hard copy. Snapshots of the outcomes of the survey are outlined below.

The respondents of the survey were asked where they lived, their age as well as their confidence and preferences in cycling within the Shire, the results have been graphed below.

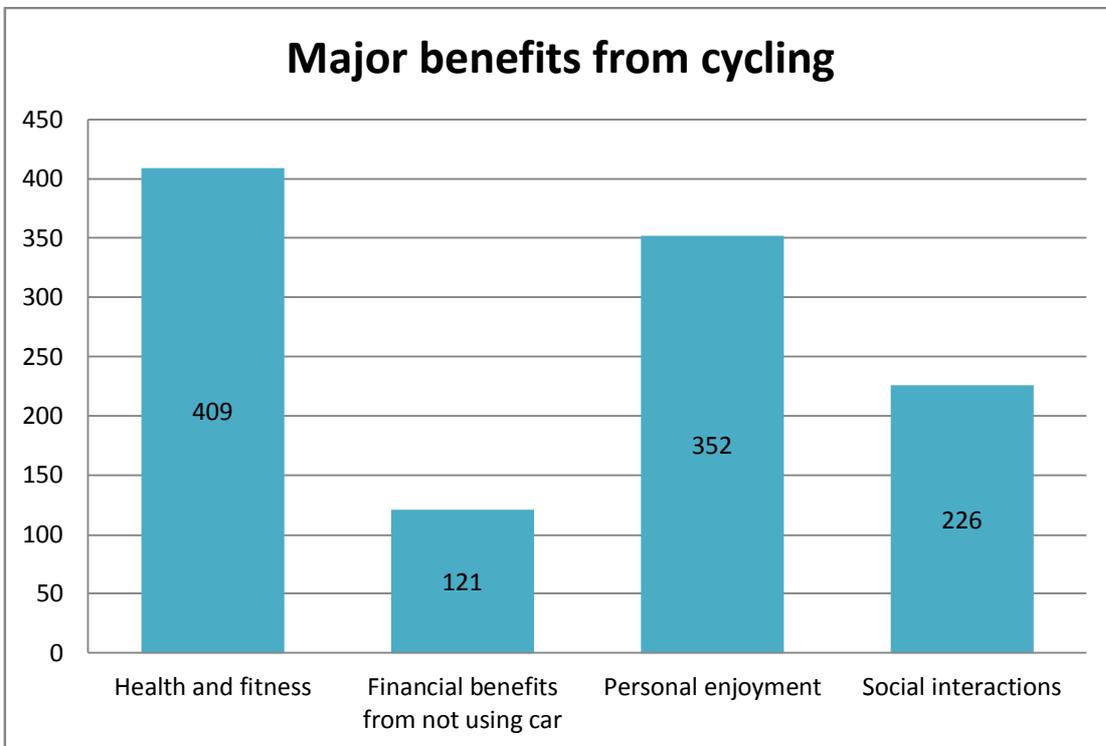




As can be seen there is a large proportion of people between the ages of 35 and 65 who responded to the survey, and of those who have responded many have concerns about safety when riding. The less confident group of riders will be a target group as Council strives to increase their confidence and ability to cycle to preferred destinations. This will be achieved through improved continuity and connectivity of the cycling network, as well as increased public awareness and education.

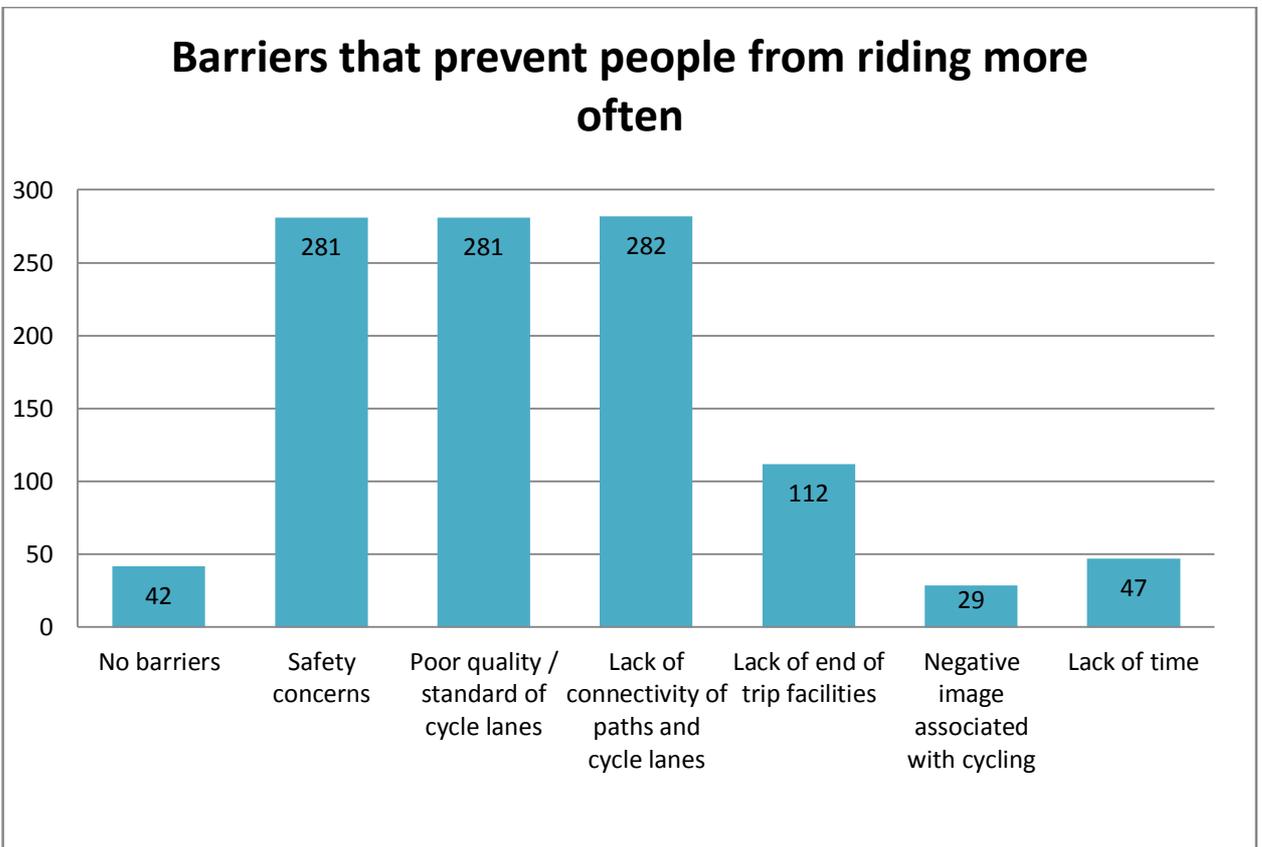


The preferred style of cycling was also asked in the survey, of which the outcome is graphed above. As can be seen the majority of cyclists in the Shire prefer to use cycle ways in preference to on road cycling. Mountain biking is also a very popular and mainstream recreation style of cycling.





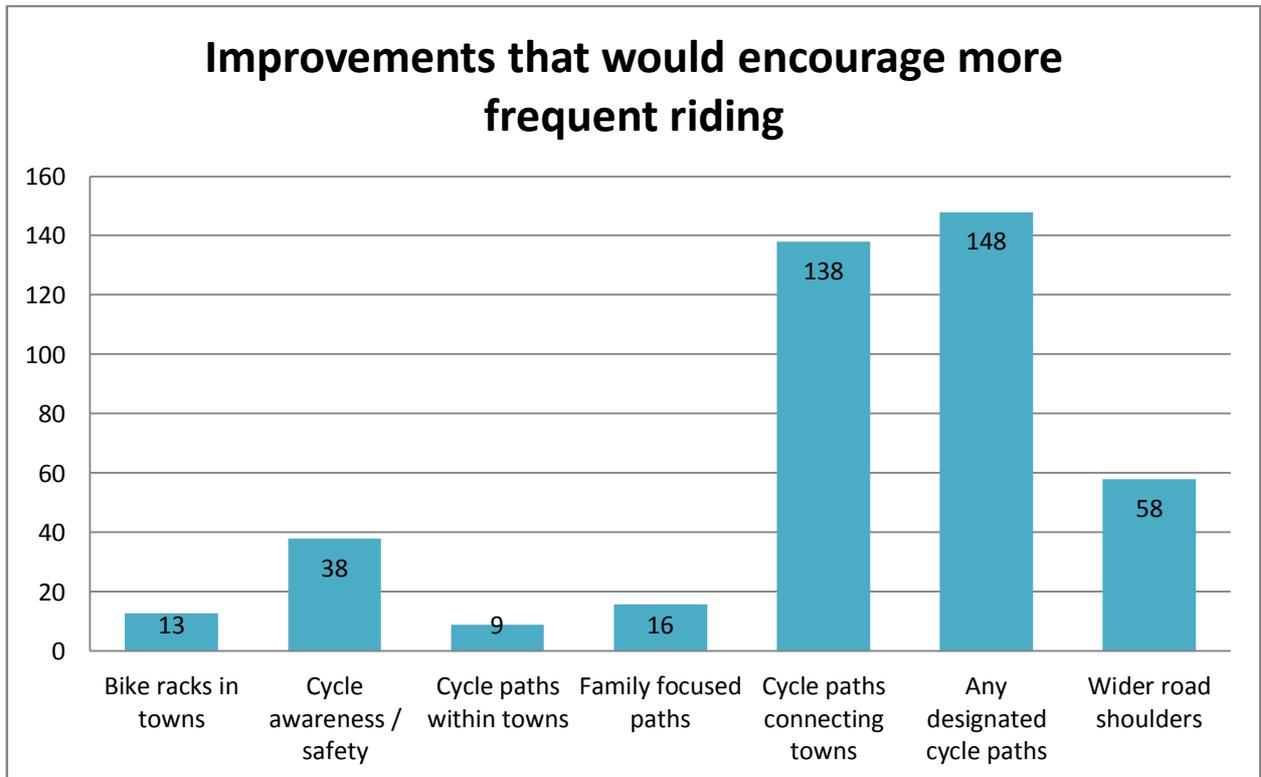
As can be seen from the results of the survey, the amount of people who cycle to commute in the Bega Valley is minimal. Cycling as a means of transport or commuting is an area of focus as this would allow people to have the opportunity to commute to work or school over short to medium distances. This would then enable school children the opportunity for a safe ride to and from school. Over the last twenty years the proportion of children driven to school in NSW has doubled to more than 50 per cent, while the share of children walking and cycling has almost halved to about 20 per cent. These car trips to school tend to be short and contribute significantly to the demand for families to have a second car.



There have been many barriers to cycling identified by the community through the consultation process undertaken for the Bike Plan. The main points have been included below and the plan shall endeavour to address many of these issues through the prioritisation of works as well as public awareness and education:

1. Actual and perceived lack of safety; narrow and poorly maintained roads, shoulders and footpaths, terrain, threatening behaviour of motorists.
2. Limited and fragmented cycling networks with a lack of continuity and connectivity.
3. Poor integration with general road transport system; narrow high speed roads with large heavy vehicles, along popular trip desire lines.
4. Lack of end of trip facilities.
5. Lack of confidence and cycling experience.

Tied in with the barriers to cycling are the improvements that would encourage people to ride, these largely relate back to continuity, connectivity and the ability to ride along a desired route.



Issues in developing Bike Plan

Some of the issues considered in developing the Bike Plan were:

- cyclist safety
- the topography, such as the steepness within Tathra and around our coastal settlements.
- bridges that don't have cycle lane width that divide a town i.e. Bermagui, Tathra and Merimbula
- sections of private land that divide sections of public land along desire lines i.e. Tura Beach to Mirador to Merimbula and Eden Cove to Eden
- the financial and resource constraints faced by Council
- existing infrastructure such as major roads that access the main shopping areas and recreational attractions such as parks and beaches
- integrating cycleway development with other Council works

- existing cycle routes and desire lines ensuring connectivity throughout and between towns and settlements
- increased demand for infrastructure caused by additional cycle/foot traffic, use of motorised scooters and an aging population
- the need for a cycle tourism strategy

Community Needs

Members of the Bega Valley cycling community have identified many issues as being of high importance to cyclists within the Shire. The Bicycle Plan should attempt to meet these requirements and find solutions to the issues raised. Therefore the Bike Plan should;

- lay the foundation for a comprehensive and safe network of Cycleways or Shared Use Pathways for commuter and recreation cyclists within the Shire
- increase the awareness and promotion of cycling to all road and shared path users
- identify Cycleway or Shared Use Pathway networks linking schools, community facilities, shops and recreational areas
- highlight the need for signage and facilities for cyclists using recreational and commuter bicycle routes
- inform transport asset managers when undertaking any road, street or footpath construction or upgrade, to consider the provision of shared pathways and wider road shoulders
- advocate for the provision of brochures and maps that promote cycling and identify cycling networks and tourism opportunities
- outline procedures relating to the recording and collating of information about cycling e.g. suggestions, complaints and use of facilities and services
- promote ongoing liaison with the RMS and neighbouring councils to provide satisfactory and safe access to and within neighbouring Local Government Areas
- consider the need to identify available parcels of land for future cycling purposes

Where we want to be

At present, indications for desired levels of service are obtained from various sources including the Bike Plan community survey, targeted group consultation, community feedback to Councillors and staff, service requests and correspondence. Council has yet to comprehensively quantify desired community levels of service. However it is evident from the consultation to date and referring to trends within Australia and overseas that cycling in all forms is increasing in popularity and skill level. The levels of service will have to be reviewed to mirror the changing demands of the community and to ensure that Council is improving the cycling network to reflect the recreation and transport needs of the Shires cycling community.

Existing Events/Culture

Based on the survey results the majority of respondents have become or are aware of cycling events or programs through the local Bicycle User Groups, Bermagui Dirt Surfers Mountain Bike Club and Tathra Mountain Bike Club or through local bike hire shops in Tathra and Merimbula.

The events listed are;

- Tathra Mountain Bike Club Events
- Tathra Mountain Bike Enduro
- Wharf to Waves ride from Bega to Tathra
- Campbell Page bike repair program
- Ride to school day
- Ride to work day

Goals and Actions

The goals that have been determined for the bike plan are;

1. Provide and manage a safe and enjoyable cycling experience through practical network development with improved facilities, connectivity and continuity.
2. Raise safety awareness and education amongst cyclists and road users.
3. Support and advocate cycling as an alternate mode of transport and recreation opportunity throughout the Shire.
4. Communicate promote and fund cycling and related facilities to user groups and the community.
5. Improve and advocate bicycle tourism and economic opportunities.

Prioritisation

The culmination of works proposed to create the Bega Valley Cycleway network is vast and ongoing. Clearly these works will need to be undertaken over an extended period of time, and will be largely dependent on the availability of funds and resources, principally through successful grant applications which also require matching contribution from Council and possible loan programs. As such prioritisation of the works is essential to ensure best use of available funding. The determination of priorities has been based on the following considerations:

- Public awareness and understanding
- Population catchment and anticipated usage
- Safety, i.e. addressing high risk “black spots”
- Connection of existing pathways / cycleways, i.e. filling in missing links, or extensions, to provide continuous routes
- Connectivity to local facilities and other key destinations
- Community needs and expectations
- Integration with existing Council programs

Practicality and Affordability

Based on the m of the consultation a priority list has been established and costed against a 5 and a 10 year program of works. Anything beyond the preference list goes onto an ongoing program of works.

Priority Works List 1 – 5 year timeframe

or 1 – 10 year timeframe

Ongoing Refers to ongoing maintenance and operation of existing sections,
as well as lower priority asset creation.

The actions required to address the goals of the plan are listed below.

Goal 1

Provide and manage a safe and enjoyable cycling experience through practical network development with improved facilities, connectivity and continuity.

Actions

Non Infrastructure Programs

Review Council’s planning instruments to reflect increased demand and need for cycleways, shared use pathways and bike facilities

- 1.1 Further investigation, assessment and design for off-road alternatives for Bega to Tathra, Bermagui to Wallaga Lake, Tura Beach to Merimbula

Bega Valley Bike Plan

- 1.2 Ongoing development and assessment of networks within towns integrating the footpath and boardwalk capital works and renewals programs with the Bike Plan and asset creation programs for cycleways
- 1.3 Liaise with other public land managers for the opportunity for off-road cycleway development, for example National Parks and Country Energy over power line easements
- 1.4 Liaise with RMS regarding cycle friendly infrastructure such as road shoulder widening and maintenance linking South Pambula to Eden and South as well as Bega to Bemboka and West and Bega to Cobargo and North
- 1.5 Continually look for additional funding sources to assist cycling programs
- 1.6 Promote cycling through the development of maps and events
- 1.7 Use research into cycling related issues to improve planning decisions

Infrastructure Programs

- 1.8 Ensure road defect inspections and accomplishments keep in mind cyclists i.e. maintenance of shoulders, edge breaks and drop offs, shoves and debris
- 1.9 Review future Footpath and Road construction programs to consider providing for cyclists through provision of road shoulders and cycleways
- 1.10 Develop an integrated works program for footpaths, boardwalks and cycleways, closing missing links and establishing a safe and comfortable cycling and pedestrian network, by creating eth shared network.
- 1.11 Assess and develop programs incorporating cycling infrastructure into road renewals and upgrades
- 1.12 Investigate options for ensuring cyclist safety on bridges
- 1.13 Prioritise uphill assistance through road shoulder widening in first instance where possible
- 1.14 Retain ongoing renewals program for existing cycleways
- 1.15 Develop a priority list for the development of cycling routes with appropriate consultation
- 1.16 Develop budget estimates and works schedule for the future development of proposed routes
- 1.17 Advertise and promote the use of identified bike routes
- 1.18 Allocate a construction budget for cycling routes and the shared network
- 1.19 Work with neighbouring councils to provide links and connections across boundaries
- 1.20 Identify and map all existing and proposed cycle routes
- 1.21 Ongoing consultation with community regarding existing and future needs
- 1.22 Explore opportunities to develop new commuter routes or recreational facilities for cyclists
- 1.23 Establish links, loops or circuits within the route network
- 1.24 Regularly sweep, maintain and ensure identified routes remain safe and free of obstacles
- 1.25 Develop with Council officers an ongoing and cyclic maintenance schedule to be recognised in Council's operational budgets

Goal 2

Raise safety awareness and education amongst cyclists and road users.

- 2.1 Develop partnerships with key stakeholders to educate and raise awareness of cycling issues among the general public and cyclists
- 2.2 Signpost cycleways and preferred road routes to improve cyclist safety and motorist's behaviour
- 2.3 Keep statistical information on complaints, bike use, safety and financial provisions
- 2.4 Develop and promote safety awareness campaigns relevant to the Bega Valley Shire
- 2.5 Promote the use of cycleways and shared paths where provided

Goal 3

Support and advocate cycling as an alternate mode of transport and recreation opportunity throughout the Shire.

- 3.1 Cycleways be provided in new subdivisions in accordance with Council subdivision codes
- 3.2 Council consider including cycleways in road and street reconstruction
- 3.3 The development of any new Section 94 Future Contribution Plans for the Bega Valley Shire to make explicit reference to bicycle facilities where relevant as a vital piece of local infrastructure
- 3.4 Upgrade existing footpaths to shared paths along designated urban cycling routes

Goal 4

Communicate, promote and fund cycling and related facilities to user groups and the community

- 4.1 Develop cycleway route maps for the Bega Valley showing existing and proposed cycleways
- 4.2 Utilise a variety of media sources to promote cycling locally and to tourists
- 4.3 Update cycleway maps as new routes are established
- 4.4 Develop and implement a plan for the signage and marking of cycleways
- 4.5 Support events which promote cycling among the general public
- 4.6 Work more closely with retail outlets and clubs to promote facilities and educate cyclists about safe and responsible cycling
- 4.7 Work with the Department of Education and individual schools to encourage students to ride to school
- 4.8 Promote existing trails and routes to residents and visitors
- 4.9 Council pursue joint funding with other local government and state transport and health agencies for the employment of a Regional Bicycle Promotion Office
- 4.10 Identify all possible sources for providing funding to support cycling initiatives
- 4.11 Review the bike plan goals and strategies annually
- 4.12 Work with neighbouring councils to create connections across boundaries

Goal 5

Improve and advocate bicycle tourism and economic opportunities.

- 5.1 Work with tourism organisations to look at opportunities to promote cycling tourism.
- 5.2 Encourage and support commercial providers to explore opportunities to promote cycling.
- 5.3 Develop and distribute a bicycle map of the Bega Valley for on and off road facilities.
- 5.4 Identify opportunities to develop and promote attractions for visitors on key trails.
- 5.5 Provide suitable car parking and cyclist facilities at the start and finish of selected recreation trails.
- 5.6 Provide and identify adequate access to water, toilets, seating and rest facilities along cycling routes.

The Bike Plan Hierarchy

The Bega Valley Bike Plan has categorised cycle routes into a hierarchy. The hierarchy assists in the determination of priorities and ensures that cycling facilities are fit for a specific standard and use.

Bike Way

This is the principle bicycle route. This is highlighted as the primary route that will be developed preferably through towns as an off-road facility.

Collector Streets

These are the feeder streets that feed cyclists to the Bike Way, or other biking facilities such as Mountain Bike Parks or Recreational Routes.

Cycleways

These are the rural roads connecting routes throughout the Shire. They are on road cycling routes. Upgrades along these routes will coincide with other programmed Council works or development.

Recreation Routes

These are additional routes through towns that form part of the cycleway network that are not a part of the principle bike way or collector streets.

Town Route

These are advisory routes, which will be printed on maps or promotional material, proposing a cycling tour around a particular town identifying places of interest.

Proposed

Identifies parts of the cycle network that is not part of any existing transport network. They are sections of cycleway that are identified as a missing link and are completely undeveloped.

Unformed tracks and trails

These tracks form part of the extended network, however are not maintained as part of the Bike Plan. They are quite often dirt tracks and trails.

Plan Philosophy

Integrated within the Cycleway hierarchy is the plan philosophy which further develops and promotes cycleways and cycling in the Bega Valley as follows:

Expanded Town Clusters

- Expanded town clusters are expansion of the internal town networks to link outlying population areas as follows:
 - Bermagui Cluster incorporating Wallaga Lake, Beauty Point, Barragoot and Cuttagee.
 - Tathra Cluster incorporating Mogareeka and Kalaru
 - Merimbula Cluster incorporating Tura Beach and Mirador
 - Pambula Cluster incorporating Pambula Beach and South Pambula
 - Eden Cluster incorporating Quarantine Bay and Boydtown

These will principally be a mixture of off-road shared use pathways or road shoulder widening. These are viewed upon in a regional or shire wide sense. These links will be used for the purpose of commuting or recreation and will usually form part of the Bike Way between clusters or feed into a town network.

Town Cluster Linkages

Town cluster linkages will link the above town clusters, through off road shared path or road shoulder widening. These may also form part of the principle Bike Way.

It is also proposed that a cycleway link from Bega to outlying villages is provided to link the major population centre of Bega to the NSW Coastline Cycleway route.

NSW Coastline Cycleway Section Linkages

NSW Coastline Cycleway Section Linkages will extend the above network to complete the remainder of the NSW Coastline Cycleway route as follows:

- Wallaga Lake to Eurobodalla Coastline Cycleway section at Wallaga Lake Bridge
- Eden town cluster at Boydtown to Victorian Border

This will principally be through road shoulder widening.

Bega Valley Cycleway Route Assessment

Bega Valley Cycleway Elements

The Bega Valley Cycleway network has been broken down into the following elements:

Rural Road Route Sections:

- Section 1: Wallaga Lake Bridge to Bermagui
- Section 2: Bermagui to Tathra
- Section 3: Tathra to Merimbula
- Section 4: Merimbula to Eden
- Section 5: Eden to Victorian Border
- Section 6: Bega to Kalaru
- Section 7: Bega to Pambula
- Section 8: Bega to Dignams Creek
- Section 9: Brown Mountain to Princes Highway
- Section 10: Mount Darragh to South Pambula
- Section 11: Bemboka to Candelo
- Section 12: Candelo to Wyndham
- Section 13: Candelo to Bega
- Section 14: Candelo to Wolumla
- Section 15: Cobargo to Bermagui
- Section 16: Lochiel to Eden
- Section 17: Dr George Mountain
- Section 18: Wyndham Lane
- Section 19: Nethercote Road

Town Networks:

- Bermagui
- Tathra
- Merimbula
- Pambula
- Eden
- Bega

The prioritisation of works is determined on the hierarchy and the philosophy of the cycleway network that is illustrated in the maps. The maps depicting these town networks / route sections, and the corresponding detailed information are detailed on the following pages.



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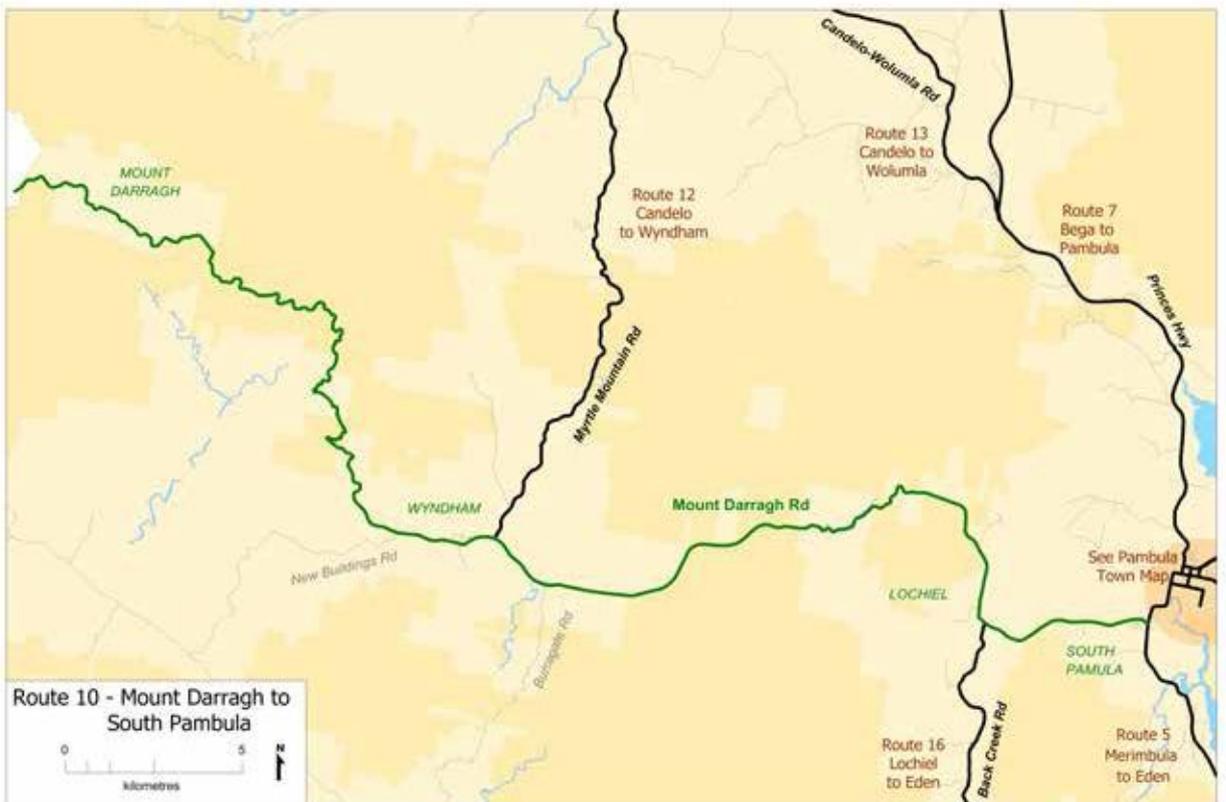
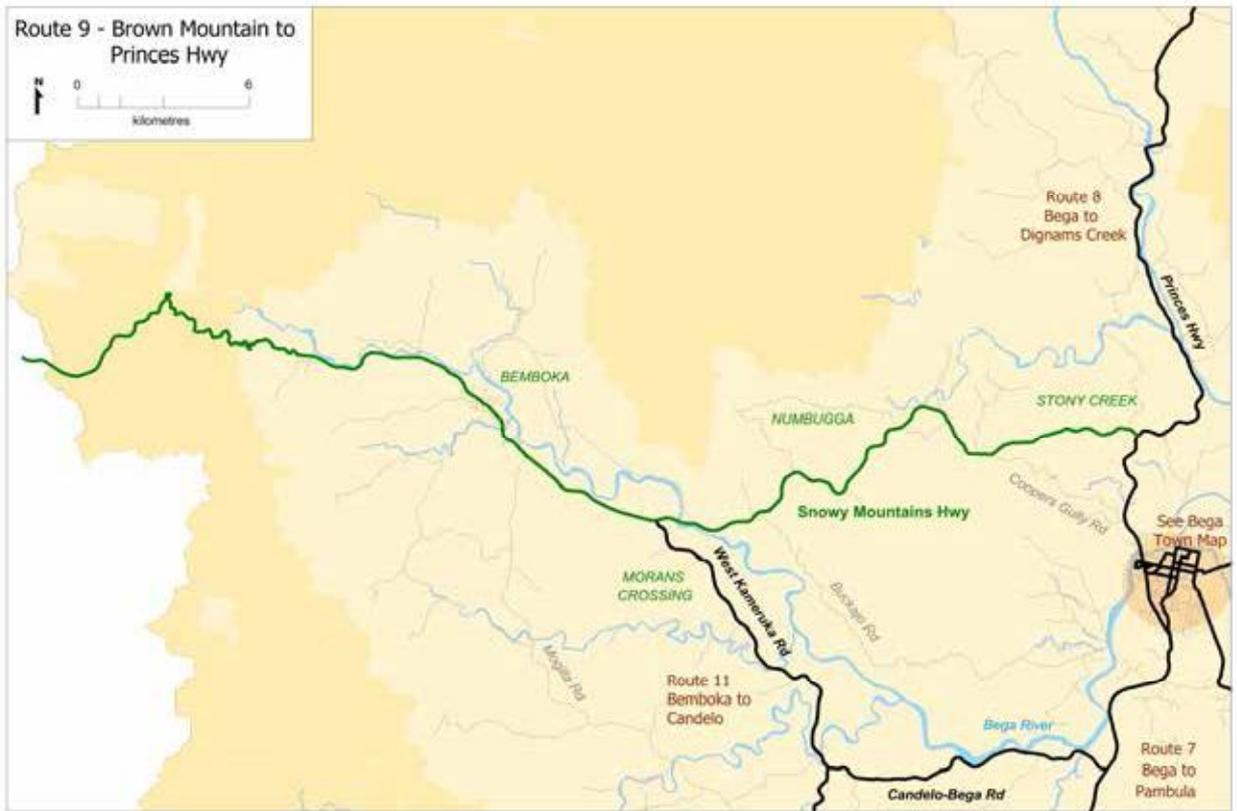




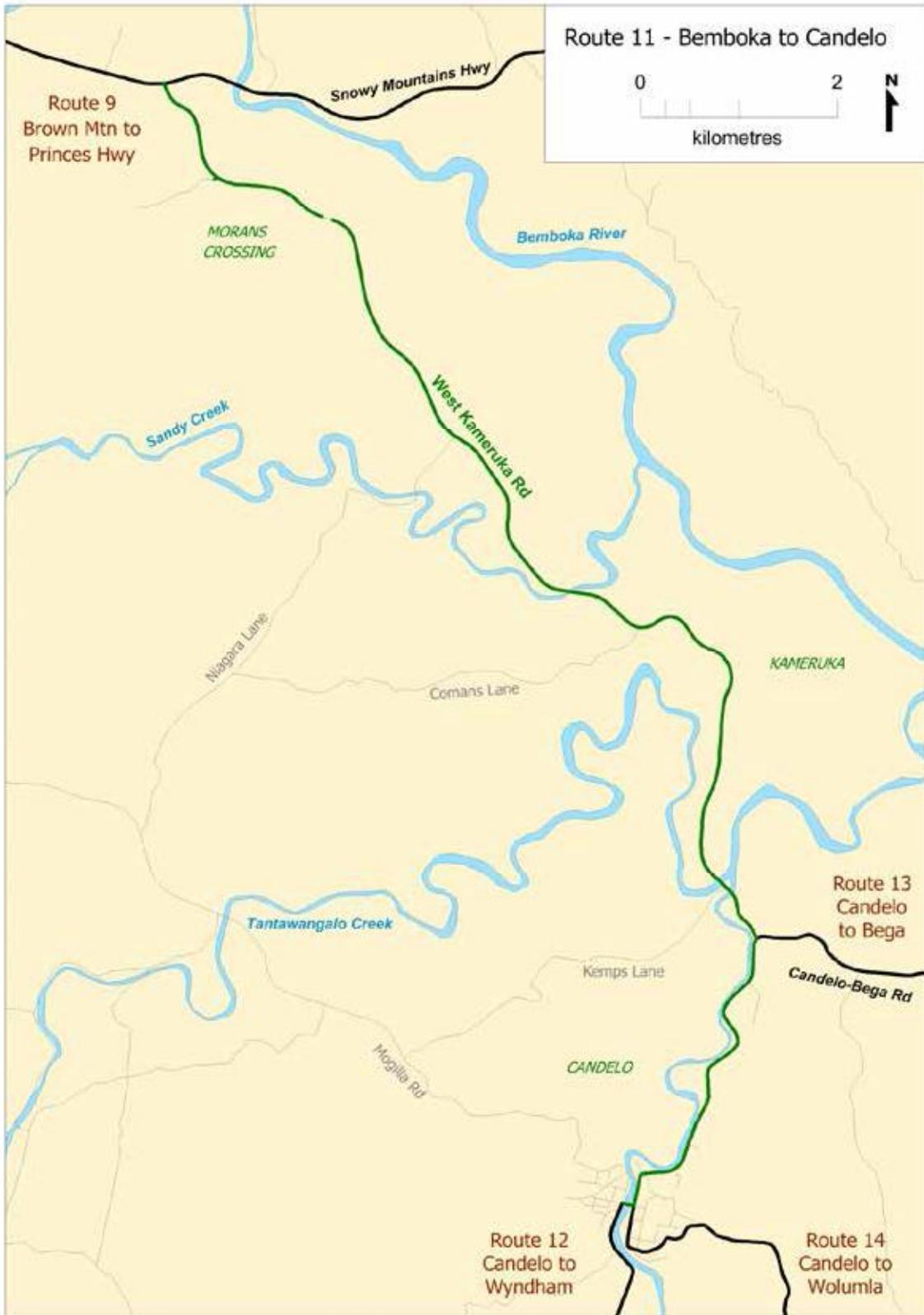
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Bega Valley Bike Plan



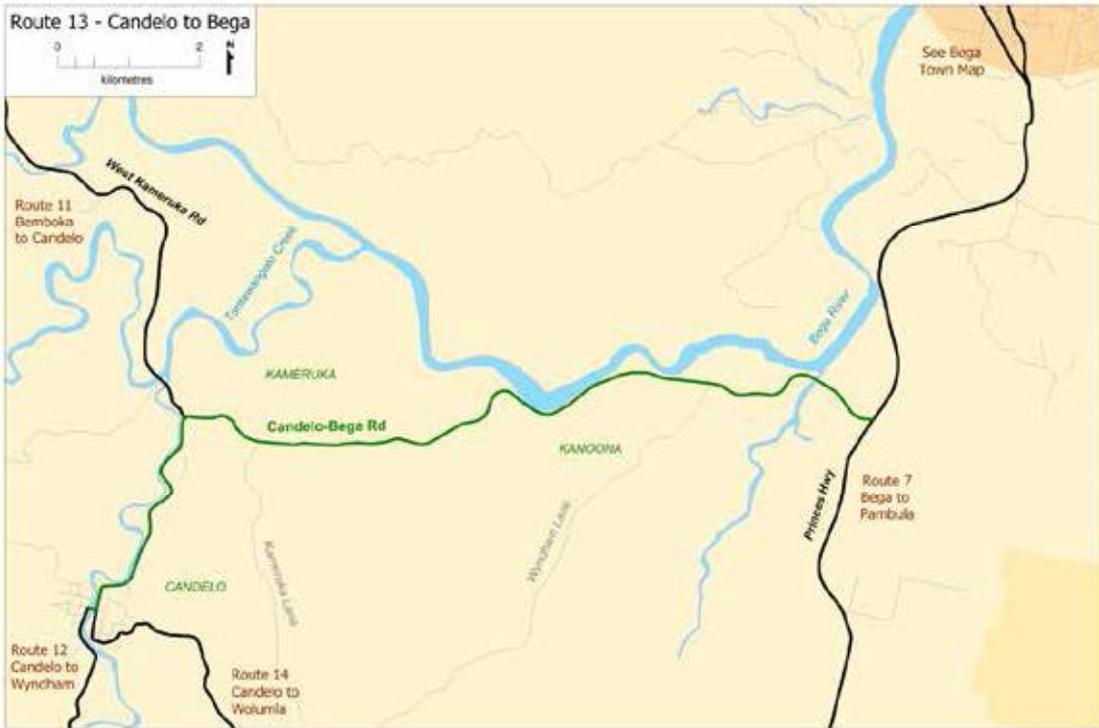
Bega Valley Bike Plan



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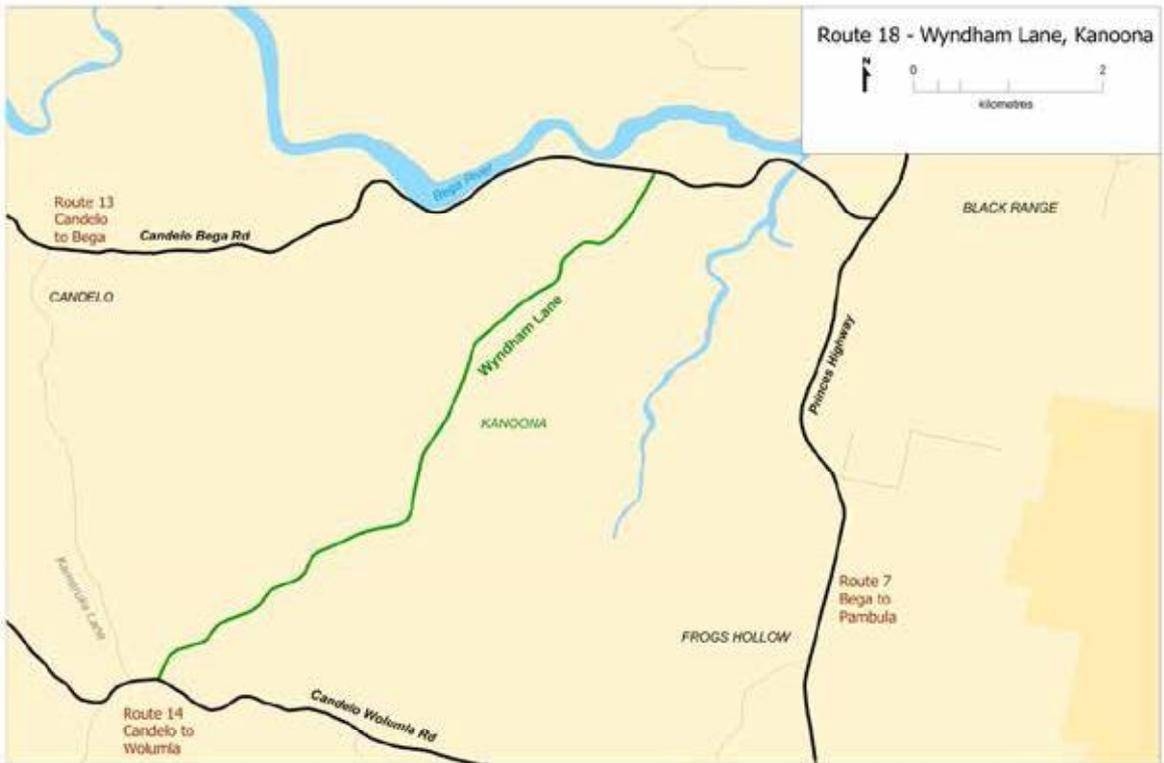


Bega Valley Bike Plan





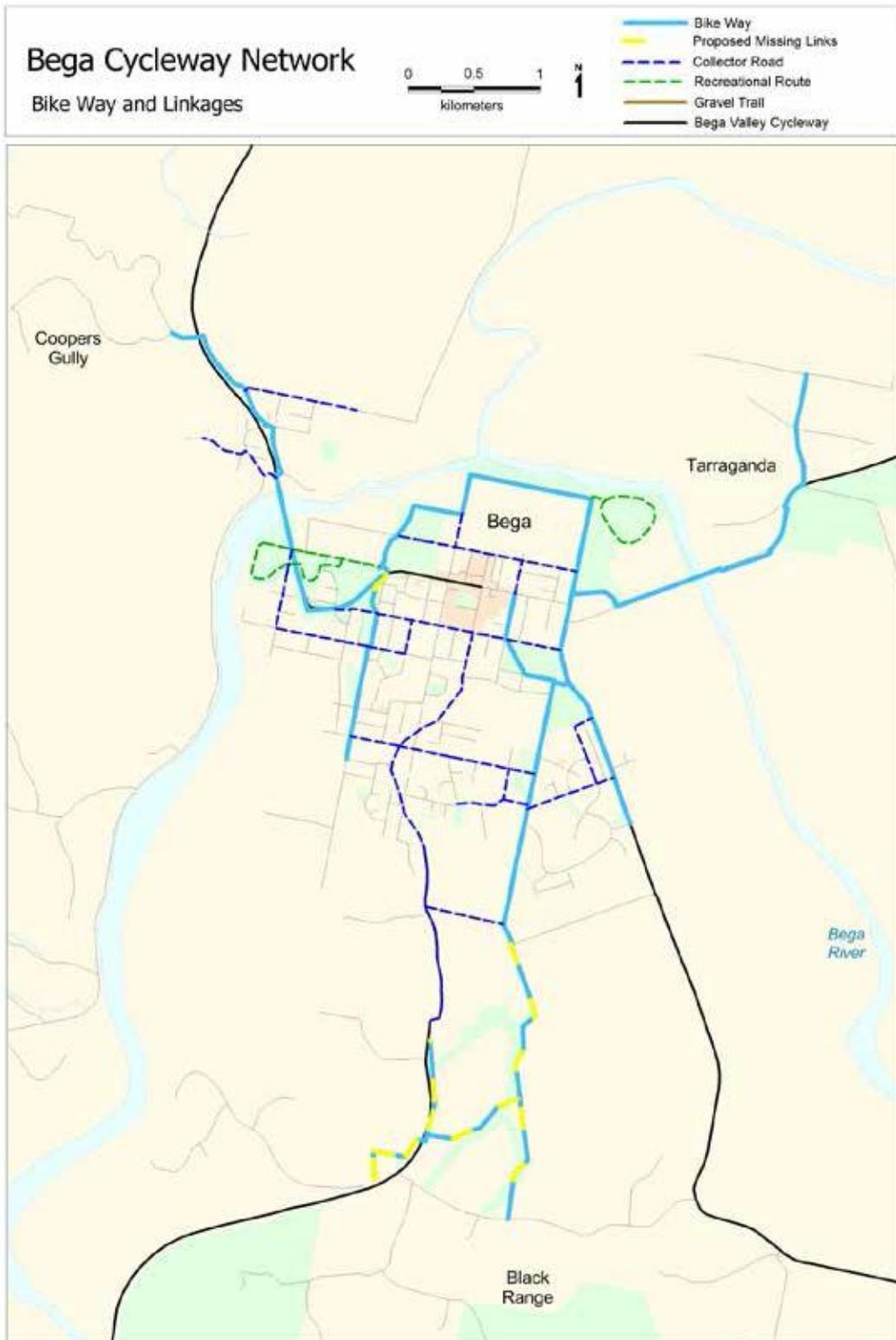
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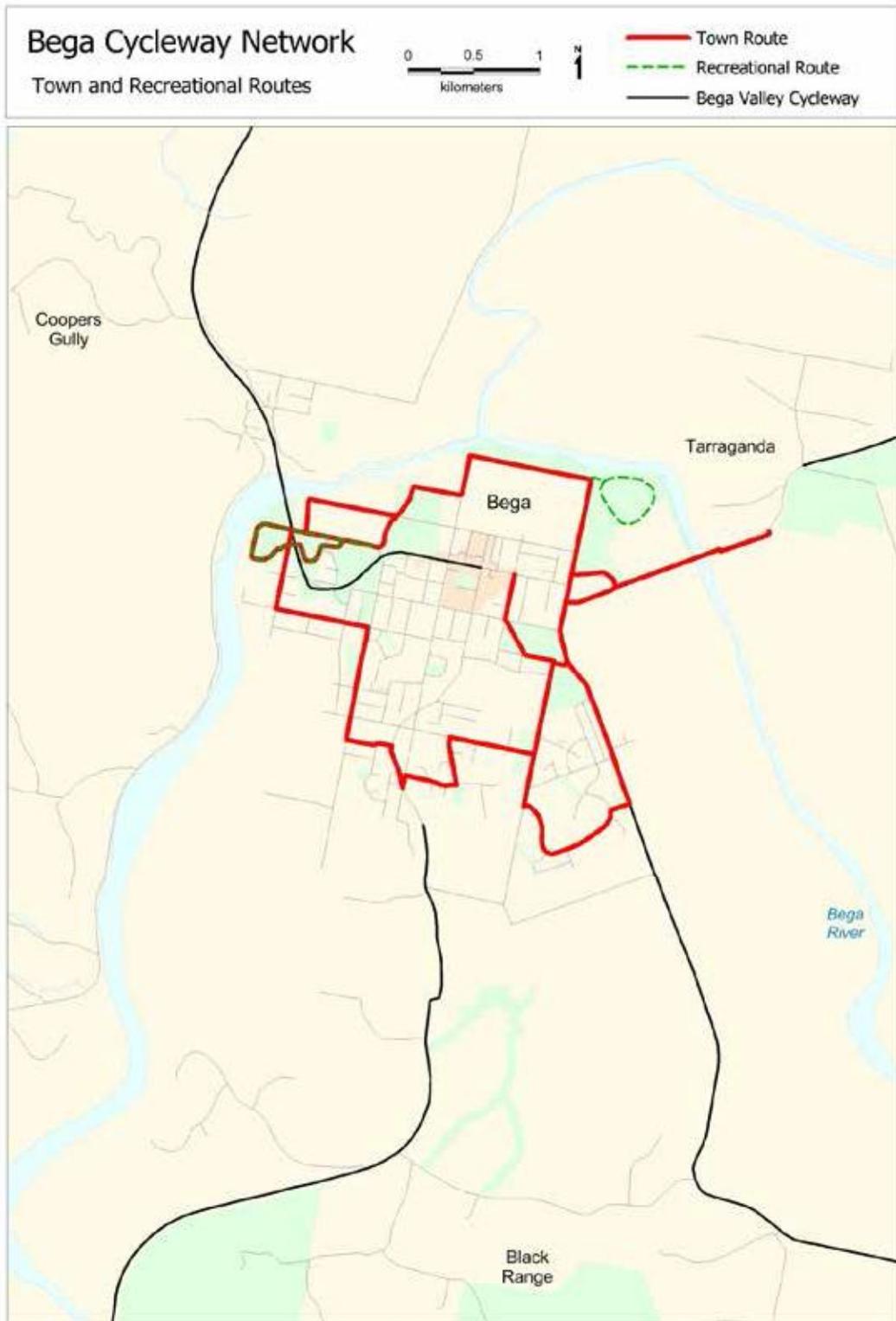


Bega Valley Bike Plan



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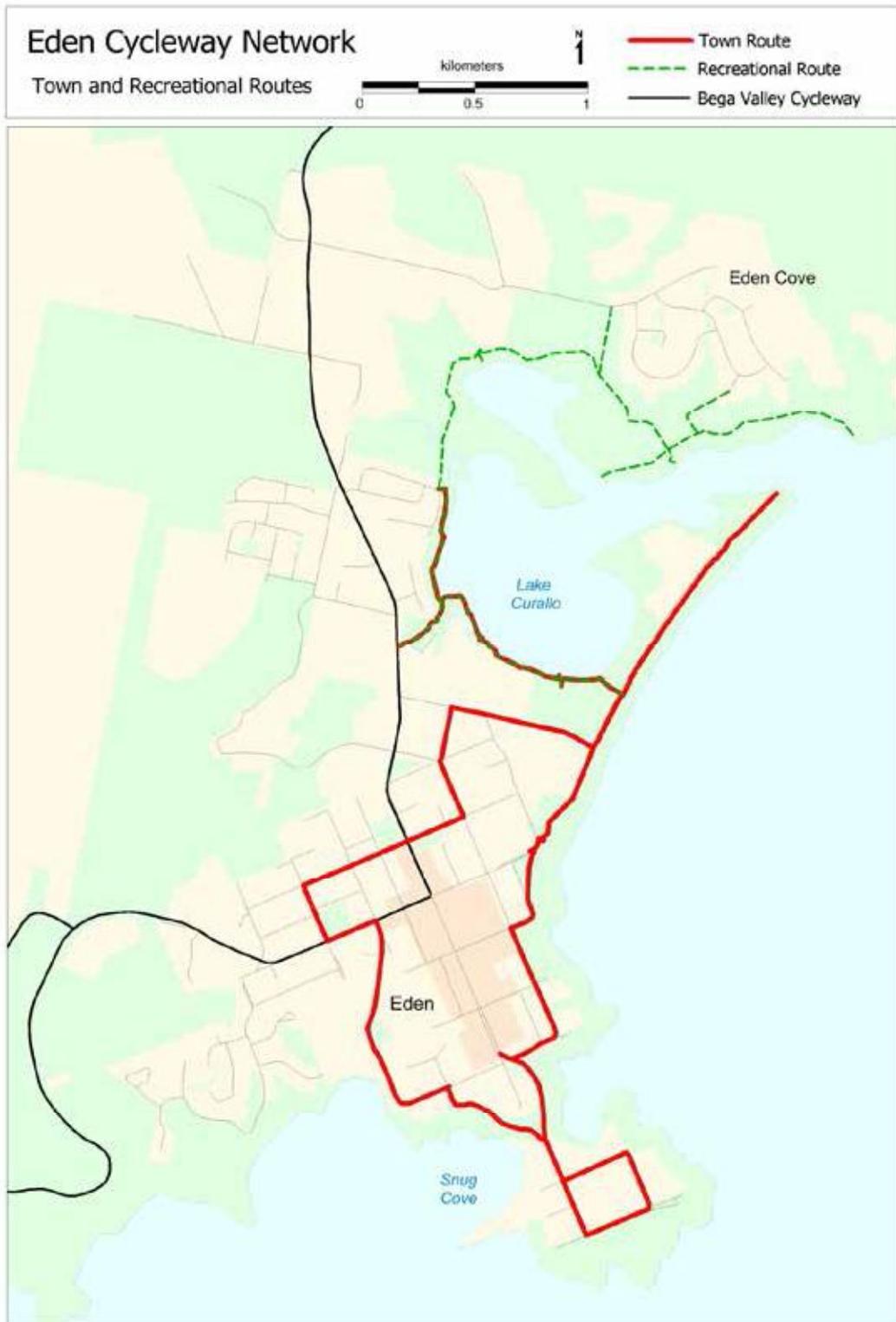


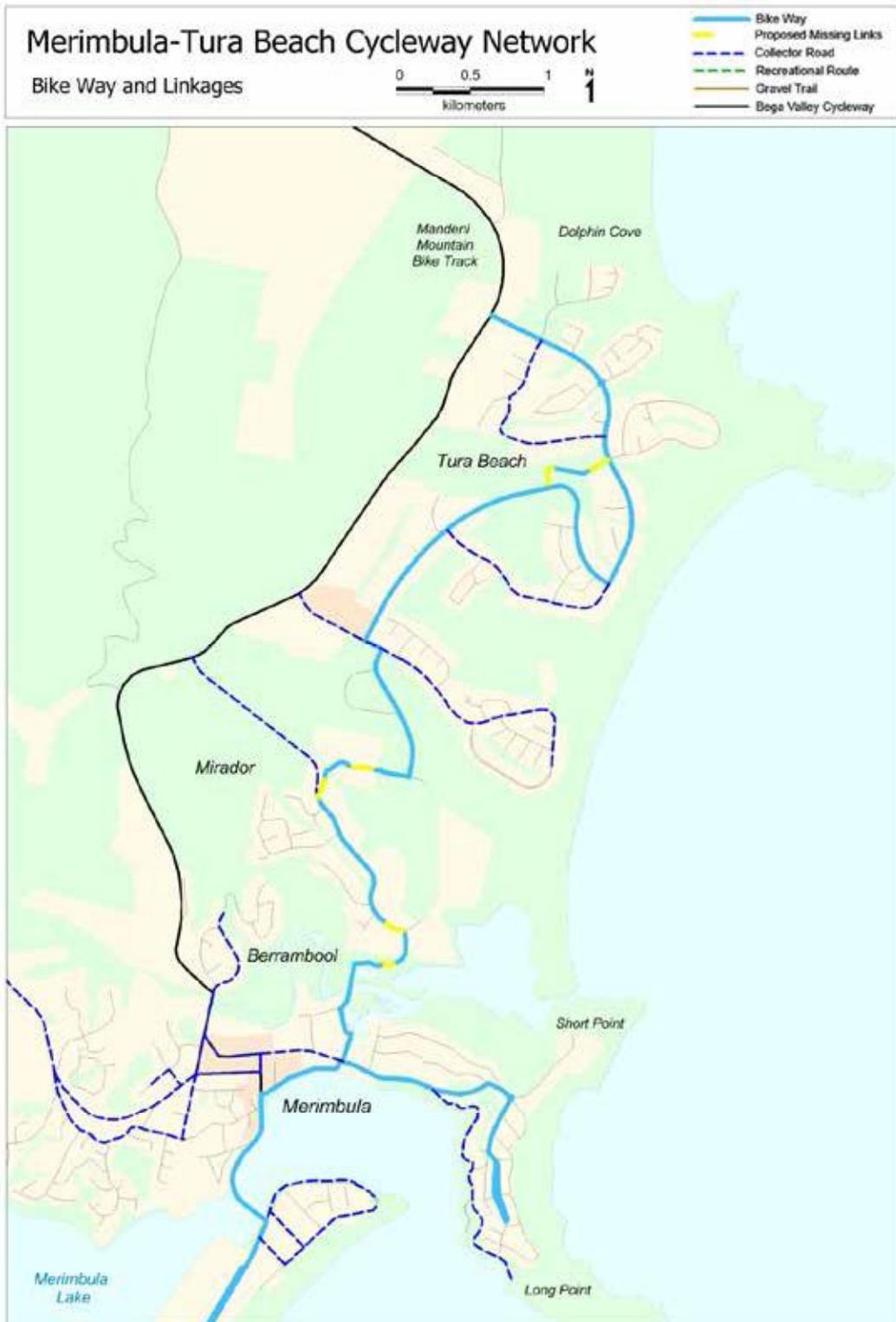






















Cycleway Design Standards

Cycleway Types and facilities

Shared use pathways and cycle ways, relevant to this plan, can essentially be categorised as follows:

- On-road – mixed traffic
- Shared parking / bicycle lanes
- Wide kerbside lanes
- On-road – with separation
- Sealed shoulder
- Exclusive marked bicycle lanes
- Off-Road – in road reserve
- Shared Use Bicycle / Pedestrian Pathway
- Exclusive Cycleway
- Off-Road –outside road reserve (as for in road reserve)
- Mountain Bike Parks
- Bicycle parking

Design Factors

Design factors considered in determining the appropriate cycleway type include:

- Estimated cyclist (and pedestrian) usage
- Vehicle traffic: type, volume and speed
- Topography: slope / grade, cross-fall and horizontal alignment
- Safety, sight distances and stopping distances
- Practicality, constructability, affordability

Cycle lanes, shoulders and pathways differ in width depending on several factors, but for planning purposes the following target widths should be used:

Cycleway / lane type	Vehicle Lane width	Bicycle Lane width
Road shoulder: 50 km/hr zone	3.0 m	1.2 m
Road shoulder: 60 km/hr zone	3.5 m	1.5 m
Road shoulder: 80 km/hr zone	3.5 m	2.0 m
Road shoulder: 100 km/hr zone	3.5 m	3.0 m
Shared Use Cycle-Pedestrian Pathway	n/a	2.5 m

Construction Methodology

On-Road Options

The construction materials for on-road cycleway options, i.e. kerbside lanes and road shoulder widening, will typically match that of the existing road pavement. In most cases in the Bega Valley this will mean a spray seal finish (bitumen spray and stone chip), however a combination of spray seal vehicle lanes and asphaltic concrete (“hot mix”) bicycle lane / road shoulder is an option.

The construction of on-road cycle ways can be undertaken using normal road construction plant or alternatively for road shoulder widening using an off-set paver. This could be undertaken as part of scheduled road maintenance and capital works programmes, however these works are prioritised and programmed according to road conditions and vehicle traffic needs, not according to cycleway priorities and cyclist needs.

On-road cycleway options also needs to include signage and line marking to define vehicle lanes and shoulders – the width of the lanes and shoulders varying depending on the road speed zone.

Off-Road Options

The typical construction options for off-road cycle ways and shared use pathways are:

- Asphalt concrete (“hot mix”), over fine crushed rock and gravel sub-base;
- Un-reinforced concrete over fine crushed rock sub-base; and
- Reinforced concrete over fine crushed rock sub-base.

The choice of option will be dependent on site specific considerations, vehicle crossings, budget, whole of life (maintenance) costs etc.

An off-road cycleway option also needs to include signage, line marking, and road crossing treatments and holding rails.

Cycleway Treatment Options

The proposed cycleway treatment options, based on the design factors previously listed, typically consist of off-road shared use bicycle / pedestrian pathway or road shoulder widening treatments.

Examples

On-Road – with separation: sealed shoulder / exclusive marked bicycle lanes



Existing wide sealed shoulder, Princes Hwy south of Pambula



Existing wide sealed shoulder, Princes Hwy, north of Merimbula, vicinity of Yellow Pinch



Proposed road shoulder widening treatment, Wallaga Lake Road



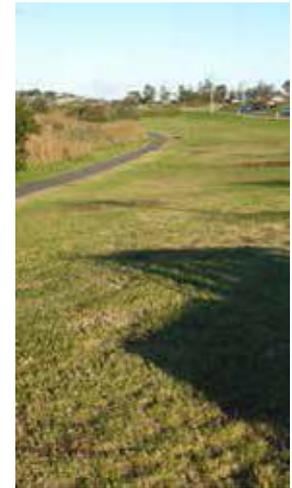
Proposed road shoulder widening treatment, Bega-Tathra Road, vicinity of Jellat Jellat.

On-Road – mixed traffic: share parking - bicycle lanes / kerbside lanes



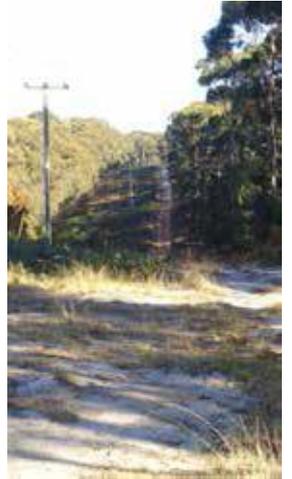
Existing shared parking – bicycle lanes / kerbside lane, Princes Hwy, Eden

Off-Road – Shared use bicycle / pedestrian pathway



Existing shared use pathway, Arthur Kaine Drive, Merimbula

Existing shared use pathways, Mogareeka (left) and Bermagui (right)



Proposed off-road – in road reserve, shared use pathways, Wallaga Lake Road, Bermagui

Proposed off-road, shared use pathways, along power line easement, Wallaga Lake Road, Bermagui (left) and Tathra (right)

Examples of Cycleway Treatment Option Challenges



Single lane bridge, Bermagui Tathra Road

Single lane bridge, Bermagui Tathra Road

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Steep slopes, sharp bends and limited scope for shoulder widening, Princes Hwy, Quarantine Bay



Steep slopes, sharp bends and limited scope for shoulder widening, Bega – Tathra Road, Jellat Jellat



Limited scope for only option of shoulder widening, Wallaga Lake Road.

Examples of Cycleway Ancillary Items



Bicycle / pedestrian bridge, Merimbula to Pambula shared use pathway.

Signage

Bicycle parking



Cyclist Holding Rail, Pambula

Line marking

Lighting

Cost Estimation & Budgeting Information

Item	Rate	Cost
Concrete Path 2.4m wide (material only)	Lineal metre	\$150
Bitumen Path 2.4m wide	Square metre	\$25
Asphaltic Concrete.2.4m wide (30mm thick)	Lineal metre	\$125
Road Shoulder	Square metre	\$20
Line Marking	Lineal metre	\$2
Other line marking	Square metre	\$30
Bike logo /symbol (thermoplastic)	Each	\$100
Traffic sign installed	Each	\$200
Traffic sign removed	Each	\$120
Kerb ramp	Each	\$1,800
Pedestrian refuge/splitter island	Each	\$5,000

These cost estimates are used as a guide to estimate the costs of projects further costs have to be added for the day labour and machinery components.

Programs

Based on the consultation undertaken, many of the Shires roads and streets have been identified as preferred cycling routes. It is through the assessment of the preferred routes and destinations that a list of preferred roads to be cycled has been established. Initially Council has recognised that there are cyclists on these roads and will signpost roads as a reminder to motorists to watch for cyclists, whilst congruently running a safety awareness campaign.

Along with the signage where possible Council will endeavour to construct off-road cycleways to allow for safer and more comfortable cycling experiences for a wider user group. The off-road cycling opportunities are primarily for the short to medium length trips in and around towns and to community facilities.

The programs that will be implemented to support bicycle use are identified below:

- Safety and awareness
- Signage
- Road widening/shoulder construction
- Off road cycleway / shared path construction
- Road and intersection crossings
- Line marking
- Cycle parking and facilities
- Identification of land for future expansion requirements
- Mountain Bike support

Cost Estimation and Budgeting

Cost estimation and budgeting is subject to a wide number of variables including site specific factors such as location, topography, site soil conditions, traffic; economies of scale; current market conditions etc.

For cost estimation and budget planning purposes, typical unit rates are detailed at Appendix 2, which have been used to calculate the budget estimate for each section of cycleway. These unit rate / item costs are based on 2013 prices

Funding Sources

In addition to the ongoing from NSW Roads and Maritime Services, the following are potential funding sources that could contribute to the development of the Bega Valley Cycleway network, depending on the treatment option proposed:

BVSC Roads Capital Works Programme (BVSC roads shoulder widening sections)

BVSC Special Rates Variation for Tourism

BVSC Special Rates Variation for Sports and Recreation

BVSC S94 contributions for identified regional facilities

Federal Government Programmes e.g. Better Regions, Jobs Funds, Regional Locals Community Infrastructure Programme.

Community Groups and Organisations e.g. Rotary, Lions etc.

Note though that most of these funding sources require BVSC to provide a dollar for dollar matching contribution.

The average CPI increase has been 2.9% so it is evident that the cost of Council carrying out works has exceeded the increase in Council funding sources. The recent special variation rate increases for infrastructure have only partially addressed the funding shortfalls. The special variation rate increases have generally been directed to infrastructure rehabilitation.

Proposed lengths of Cycleway throughout the Bega Valley Shire in kilometres

Bikeway	76.94
Collector	57.53
Cycleways	464.22
Recreational	10.58
Proposed	18.72
Mountain Bike	100.00
TOTAL	727.99

Based on an average cost of \$300,000 per kilometre of cycleway constructed either on or off road, it can be estimated that the cost of constructing the proposed facilities in the Bike Plan will estimate \$188,397,000, which on average is almost \$9,419,850 per annum for the next 20 years. This is for ultimate best practice, with a majority of the connecting rural cycleways being in 100km per hour zones, a minimum cycle lane width of 3m would be required. Understandably in real terms this is an unachievable goal and Council's Asset Management team will have an opportunistic approach to the upgrade of these cycleways to include works within other existing programs and developer contributions.

Short Term High Priority proposals for the Bike Plan

- Install Warning Cyclist's Ahead signage along preferred cyclist routes around Shire and engage in a public awareness campaign - cost \$30,000
- Design and associated works for Bega to Kalaru cycleway – cost \$20,000
The assessment will look into the feasibility of either on or off-road route and will determine whether sections of land acquisition are required as well as service location, geo-tech studies.
- Design Tathra to Kalaru off-road cycleway, then construct - cost \$1,500,000

Design assessment will determine capabilities of an off-road cycleway along the water main up Evans Hill.

- Design Bermagui to Camel Rock and construct - \$2,400,000
Heading south to north, join up to sealed path from latest work, then travel along South Tilba Rd shared zone along track off-road to North Tilba Rd (shared zone) come out then to an off-road cycleway to Camel Rock turnoff along Wallaga Lake Rd. This will require line marking, signage and construction of off-road cycleway.
- Install 8 pedestrian refuges on cycleway crossing points - cost \$200,000
- Construct off-road cycleway from Fisherman's Co-op to Bridge Lamont St Bermagui (partially designed) - cost \$100,000
- Investigate, Design and Construct route from North Tura Beach to Merimbula – off-road, then to South Pambula as a continuous link – cost \$3,000,000
- Investigate, Design and Construct allowing cyclists to safely travel from the Top to bottom of Tathra, preferably off road – cost \$300,000
- Design and Construct missing link East St, Bega – cost \$200,000
- Design and Construct missing link Baker St, Bega – cost \$100,000
- Pambula to South Pambula cycleway design then construct – cost \$600,000
- Investigate and design Eden Recreational route around foreshore and town, then construct linking to foreshore walk. – cost \$3,000,000
- Design safe path of travel for all Villages from Schools to CBD and places of recreational interest, off-road in most cases may involve upgrading existing footpath to 2.4m shared path cost \$20,000
- Liaise with RMS regarding upgrading sections of Highway from South Pambula to Eden and then further south allowing cyclist to travel safely.
- Construct Cycleway to all Mountain Bike Parks from nearest identified Bikeway.
- Support community Mountain Bike Groups for the maintenance and operation of Mountain Bike Tracks in the Shire. Cost - over 5 years \$100,000
- Ongoing road shoulder maintenance and improvement where possible

These short term costs equate to \$11,570,000 over the next 5 years in capital and design costs. This is a requirement of \$2,314,000 annually for the next 5 years or \$1,157,000 annually for the next 10 years.

Plan Improvement

The effectiveness of the bike plan can be measured in the following ways:

- The degree to which the required cash flows identified in the bike plan are incorporated into Council's Long Term Financial Plan and Community Strategic Plan;
- The degree to which 1-5 year detailed works programs, budgets, business plans and organisational structures take into account the works program trends provided by the bike plan.

Monitoring and review procedures

The Bike Plan is to be revised in 4 years and is due for revision and updating within 2 years of each Council election. This Bike Plan will be reviewed to recognise any changes in service levels and/or resources and cash flows as well community expectation and demand regarding the provision of cycling infrastructure and associated services.

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- Australian Bicycle Council, Why cycling matters Summary Sheet, 2011
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- BVSC, Bega Valley 2030, Community Strategic Plan
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- BVSC Transport Asset Management Plan, 2013
- BVSC Spaces and Places Recreation Facility Asset Management Plan, 2011
- BVSC Development Design Specification D9, Cycleway and Pathway Design
- NSW Coastline Cycleway Plan: Lower South Coast Study, May 1996
- RTA, NSW Bicycles Guidelines, Version 1.2, 2005
- Territory & Municipal Services, ACT, Design Standards for Urban Infrastructure 13, Pedestrian & Cycle Facilities.
- DVC, 'Asset Investment Guidelines', 'Glossary', Department for Victorian Communities, Local Government Victoria, Melbourne, 2006
<http://www.dvc.vic.gov.au/web20/dvclgv.nsf/allDocs/RWP1C79EC4A7225CD2FCA257170003259F6?OpenDocument>
- IPWEA, 2006, 'International Infrastructure Management Manual', Institute of Public Works Engineering Australia, Sydney, www.ipwea.org.au
- Standards Australia, Australian Standard AAS27
- RTA NSW Bicycles Guidelines, Version 1.2, 2005

Consultation

Council Staff

RMS

Bermagui Dirt Surfers

Tathra Mountain Bike Club

Targeted cycling groups

- Merimbula
- Eden
- Bega
- Bermagui

Survey Monkey Community survey