



Draft Eurobodalla Pathways Strategy 2016

A strategy for safe walking and cycling pathways in Eurobodalla Shire



Adoption

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Definitions

The terms used in this document are generally as per the NSW Bicycle Guidelines and Austroads' Guide to Traffic Engineering Practice.

Annual Average Daily Traffic (AADT)	The total annual motor traffic volume in both directions at a road location, divided by the number of days in the year.
Attractors	A place that people desire or need to visit such as a shop, employment centre, recreational or natural feature,
Bicycle	A human powered vehicle with two or more wheels.
Bicycle route	Any marked route that forms part of a cycleway network. The route may be on-road (bicycle lanes or shoulder lanes) or off-road (bicycle paths, shared paths or separated paths).
Cycleway	A generic term used to describe a bicycle route, bicycle lane, bicycle shoulder lane or shared path.
Cyclist	Rider of a bicycle.
Footpath	A formal constructed pathway aimed mainly for pedestrians but also able to be used by children riding a bicycle under the age of 12, people in wheelchairs or on scooters. A standard width for new footpaths is 1.5m wide (where practicable).
Network	A defined set of routes that make it possible to travel around a region in a safe and connected manner.
Nature strip	The unpaved, often grassed or landscaped area within the road reserve of an urban road. Generally the area between the kerb or edge of the road and the property boundary.
Off-road path	A path that is located within the road reserve, parallel to the road or within a park or reserve or other public or private land that is not open to motor vehicle traffic.
On-road	A bicycle facility that forms part of the road such as a bicycle lane or road shoulder.
Pedestrian	A person of any age or ability walking. Also includes mothers with prams, joggers, those with a disability or mobility impaired as well as those in wheelchairs, on motorised scooters or recreational toys such as skateboards, foot scooters, and roller blades.
Road or carriageway	An area that is open to or used by the public and is developed for the driving or riding of motor vehicles.
Road reserve or road corridor	The entire street space from property boundary to property boundary.
Road shoulder	That part of the road adjacent to traffic lanes used for parking, cycling or clearance purposes.
Shared path	A paved and signposted off-road route designated for use by both cyclists and pedestrians. A standard nominal width for a shared pathways is 2.5m.
Toy vehicles	Skateboards and other vehicles, excluding bicycles, powered by human effort or a motor and with a maximum speed of 7km/h
85 th Percentile Speed	The speed that 85% of vehicles are driving at or below. Used extensively for road design purposes.

Executive Summary

This strategy is a guiding document for the development and implementation of new pathway facilities for pedestrians and cyclists within Eurobodalla. This includes both formal footpaths and shared pathways.

Council is responsible for an existing network of 106.2km of footpaths and shared paths across Eurobodalla with a gross replacement cost estimated at \$30.2M. Despite this Council has many existing urban areas that do not have a formal network of pathways. This is a significant gap in our infrastructure with Council receiving numerous requests to provide pathways.

To address this gap, Council has allocated \$3.5M in its long-term financial plan over the next 10 years to develop high priority sections of the pathway network. This pathway strategy identifies over \$11.8M worth of pathways works across Eurobodalla with a strong focus on improved road safety.

Council will continue to advocate to Government seeking grants, and work with community groups, property owners and developers, to maximise the works undertaken on a priority basis.

To aid in the prioritisation of works, a point score system is used to develop the annual program of works. The extent of works achieved is dependent on the total funding available. The recommended program of works will also take into account integration with other works and funding from other sources such as grants and community contributions.

Community groups have contributed significantly to our pathway network in the past through fundraising efforts, support for grant applications as well as undertaking physical works. Council greatly appreciates this significant contribution by our community. Council may consider community contributions when determining priorities for works.

The Council determines the draft annual program of works each year prior to advertising for broad community feedback as part of the annual Operations Plan. Councillors then consider this community feedback prior to the Council making its determination in adopting the final budget.

The analysis of each urban precinct, including identified deficiencies and gaps in the pathway network, and recommended solutions, is outlined in Appendix 1.

This analysis is summarised into a list of recommended works included as Appendix 2. Mapping showing the existing and proposed pathways is included as Appendix 3.

The works identified in this pathways strategy aim to:

- increase the safety of pedestrians and cyclists through separation with vehicles
- encourage walking and cycling as alternative modes of transport
- encourage greater use of public transport
- develop a practical network of facilities with continuous links to key destinations that reduce demand for motor vehicle use and parking
- improve accessibility for people with differing abilities and ages
- improve social outcomes for young people and those without access to a motor vehicle
- allow people improved opportunities to get out for a walk or bicycle ride to socialise with others, thereby helping their mental and physical well being
- promote the environmental, recreational and economic benefits of walking and cycling

For new subdivisions, modern urban design standards require the developer to provide appropriate infrastructure inclusive of footpaths and shared pathways at the developers' cost. For new medium and high density residential development, commercial and light industrial development, the developer is required to provide the appropriate pathway along the frontage of the development at their cost, and where a nexus exists, a connection to the existing pathway development.

Other measures are included in this strategy to address:

- ancillary facilities such as bicycle racks, seats and bubblers
- integrating transport modes
- pedestrian and cycle friendly streets
- promoting safe use
- promotion of the benefits of walking and cycling
- asset management

This strategy fulfils the requirements for a Pedestrian Access Mobility Plan for Eurobodalla. More specific PAMPs may be developed for specific locations should the need arise. The strategy may therefore be utilised to support grant applications to the NSW and Australian governments.

The on-going care, maintenance and eventual renewal of pathways and associated infrastructure, requires Council to set aside appropriate budgets covering the whole of life costs. The increase in pathway length is higher than other forms of infrastructure due to the on-going provision of pathways by both Council and developers. The asset management plans, long term financial plan and annual budgets will reflect this change.

Council's Pathways Risk Management Policy and Code of Practice is used to effectively manage risks of trips, falls and other potential risks from use of the pathway network once it is provided. This approach reflects Council's legal responsibilities under the Local Government Act 1993, Roads Act 1993 and the Civil Liabilities Act 2002.

The development of this revised pathway strategy has been aided by our Pathways Strategy Sunset Advisory Committee. This community based Advisory Committee consists of two Councillors and four community representatives from across Eurobodalla representing pedestrians, cyclists and people with a disability. Council is highly appreciative of the community members' input into the development of this pathway strategy. We record our thanks to community members Brad Rossiter, Elaine Heskett, Edward Proudfoot and Vicki Jones for the time they have volunteered to help develop this strategy.

To allow the broader community to review, comment and have their views presented prior to finalisation of the strategy, the Advisory Committee assisted Council to develop a community engagement plan. This engagement plan includes media releases advertising the strategy, drop in sessions, community surveys and written submissions to Council, over an extended exhibition period of 42 days. The Advisory Committee will review all information from the engagement process and make recommendations to Council for its determination.

KEY CONSIDERATIONS & RECOMMENDATIONS

1.1 Users and Needs

There is a broad range of users and user groups that need to be catered for and are likely to benefit from pathway infrastructure. Users of our facilities include residents (both young and older), tourists and holiday makers, casual visitors as well as sporting clubs and organisations. Other specific groups identified include school children, commuters, family groups and recreational users.

Even though there are a number of different user groups, there are basic requirements for them all. These requirements include safe facilities and adequacy of the facility to undertake the particular activity.

The population of Eurobodalla has been increasing at a steady rate for a number of years and is projected to continue to rise. This population increase in population will further increase demand for the provision of additional facilities.

Eurobodalla has below average bicycle ownership rates compared to New South Wales although this is considered to be on a par with other locations and is increasing in line with national trends.

Inventory

Desktop mapping of the existing network has been undertaken, identifying our pathways. Complementing our footpath networks are a number of shared paths in most of the main centres of the Eurobodalla.

To assist in the identification of needs, the Shire has been split into a number of catchments which have been reviewed and analysed in greater detail.

The mapping and review identified recommended pathway projects and these are included in Appendices 1, 2 and 3.

Solutions

An Integrated Network

Any network must have a focus. It is the aim of this strategy that routes will be developed using both existing and new paths that will link people to the main attractors of the region or other significant destinations. The Strategy outlines an integrated network of paths and routes that will have an important role in encouraging walking and cycling as well as improving road safety.

To achieve the objective of an integrated network with a low whole of life cost:

- 1) Shared pathways will typically be reinforced concrete and 2.5 metres wide. In special circumstances, a gravel pathway may be acceptable.
- 2) Footpaths will typically be reinforced concrete 1.5m wide.
- 3) Provision of additional lighting where appropriate, particularly in the vicinity of road crossing points and bus shelters
- 4) Directional signs will be considered on major pathway routes.

Where separate pathways are not provided, consideration will be given to progressively improving facilities for cycling on highly trafficked roads such as provision of sealed shoulders and warning signs to improve road safety.

To encourage greater use of the network, adequate information should be provided in the form of maps (both paper and electronic) and on-ground identification of routes including distance, destinations and features.

Recommendations

- N.1 Ongoing development of an integrated network of paths across the Shire in accordance with the priorities and needs
- N.2 Additional funding of the development of the network to be pro-actively pursued including lobbying the NSW and Australian governments for greater funding assistance for the provision of pathways and ancillary facilities
- N.3 Developers be required to provide footpaths and shared paths to cater for additional demand generated
- N.4 New shared pathways be a minimum of 2.5m wide and footpaths be a minimum of 1.5m wide
- N.5 Street lighting be provided to pathways within urban areas on a priority basis as funding permits

Ancillary Facilities

People who walk or ride to work or school or for other purposes need more than a defined network. Those who ride require a secure place to leave their bike once they reach their destination. Equally walkers need somewhere to sit to rest when walking significant distances or even to stop and enjoy the view.

Bicycle parking can be of two types – short-term facilities such as bike racks or longer-term storage such as bike lockers. For work trips, the most successful option is for workers to have a secure location within their place of work to store their bicycle during the day. Council should work with local businesses to encourage greater provision of bicycle facilities within work places. Similarly, new commercial and other similar developments should be required to provide secure bicycle parking facilities within their development as part of all approvals. Council has an opportunity to show leadership in this regard through auditing its existing offices, depots and community facilities and providing upgrades facilities for bicycle storage. This could then be promoted to the community as best practice.

Recommendations

- A.1 Council audit its office buildings, depots and other community buildings and develop a program to upgrade its bicycle storage facilities and promote this to the community as good practice
- A.2 Council develop a program to provide seating at regular intervals along selected pathways to provide rest and viewing spots for the community
- A.3 Provide bubblers and water filling stations at strategic locations along high use recreational routes
- A.4 The provision of secure bicycle storage facilities as part of all new commercial, industrial and medium/high density development be a requirement of all development approvals
- A.5 Work with the Chambers of Commerce and the business community to encourage provision of space of secure storage of bicycles for workers, and where practicable shoppers

Integrating Transport Modes

The provision of an integrated footpath and cycleway network will assist in the promotion of transport alternatives, including public transport via bus.

The majority of our bus routes are along collector, distributor or regional roads. To encourage use of public transport, access should be improved including the provision of pathways leading to transport stops and shelters provided where possible. The provision of a suitable pathway network, road crossing facilities, lighting and bus shelters will improve safety, comfort and amenity for existing users

whilst encouraging additional use of buses. This will lead to increasing viability and offering potential for increased levels of service in the future as well as reducing motor vehicle use and demand for parking.

Currently no facilities are known to exist for “bike-and-ride” trips. This option should be investigated in conjunction with local bus operators.

Recommendations

- I.1 The priority for new pathways give consideration to integration with bus services
- I.2 Council continue to assist in the development of a robust bus network by the provision of bus shelters, linked pathways and associated lighting
- I.3 Council lobby the NSW and Australian government to recognise the need for grant funding for public transport to include pathways, lighting and associated infrastructure to allow better integration and encourage greater use of alternate transport options

Pedestrian and Cycle Friendly Streets

Though this plan outlines a network of footpaths, shared paths and routes, not all trips will be made on formed paths. Many will also be made on or along low traffic volume local streets.

Council has developed a standard for new subdivision developments that requires appropriate provision of pathways by the developer. This includes:

- i) To cater for pedestrians, all new residential streets within subdivision developments should have a constructed path provided on at least one side of the street
- ii) Collector, distributor and arterial roads in urban areas carry larger volumes of traffic, typically at higher speeds. To reduce the need to cross these streets, pathways should be provided on both sides of those roads in all new subdivisions.

Within urban areas, footpaths/shared pathways and cycle lanes should be provided on all new bridges to allow the safe passage of pedestrians and other users.

To ensure pedestrians and cyclists are not disadvantaged, all signal-controlled intersections should include pedestrian activated buttons and cycle detection loops on side streets.

A program of identification and replacement of grates that are not cycle-compatible should be implemented.

Recommendations

- F.1 Implement a program of identification and replacement of non-cycle-compatible drainage grates
- F.2 Any additional traffic signals be provided with pedestrian activated buttons and where practicable cycle detection loops

Promoting Safe Use

The promotion of safe use of pathways can improve the safety of users.

By improving skills, attitudes and behaviour, trips can be made safer. Council has a Road Safety Officer (RSO), whose role encompasses education relevant to pedestrian and cyclist safety.

Road safety education is particularly important for school children, especially concerning pedestrian and cycling. This is the responsibility of the NSW Department of Education and NSW Police.

Opportunities for raising awareness such as Bike Week should continue to be undertaken. Activities should be aimed at encouraging more people to cycle and educating both cyclists and motorists of the benefits of cycling, road rules, safety and other related issues.

Recommendations

S.1 Continue safety campaigns outlined in Council's Road Safety Plan.

Promotion

Encouraging people to walk or cycle more often will have significant health benefits for the community. The key to this is through the provision of adequate infrastructure and promotion of the benefits, changing habits and attitudes. This includes increasing awareness of people about transport alternatives, reduction of impacts on the environment, and the health benefits gained from regular exercise.

The development of a walking and cycling section on Council's website should be pursued. This would include providing the latest information on the existing network, proposed works, current activities and safety information.

Bike Week activities, Active Australia, Walk to Work Day are all programs that promote walking and cycling. These need to be continued to be supported.

Council is seen by many to provide a leadership role for the community. By supporting initiatives by other employers or businesses, Council will be fulfilling that leadership role. The installation of cycle parking facilities for staff and customers at its facilities and at other public facilities will also demonstrate leadership within the community.

Tourism is the major industry in Eurobodalla. The production of brochures covering the pathways network should continue to be pursued.

Recommendations

P.1 Continue to seek funds to support programs that promote safe walking and cycling such as walk to work days, Bike Week and other promotional activities put forward and working with the community

P.2 Continue to provide walking and cycling information at Tourist Information Centres and accommodation centres for the use of visitors

Asset Management

Whilst this strategy primarily addresses the provision of new works, there is an on-going responsibility to inspect, maintain, replace and renew infrastructure to ensure an acceptable level of service to the community. To ensure adverse impacts on the community are minimised, Council undertakes maintenance activities in accord with its risk management policies and systems.

Council will need to consider this when determining future long term financial plans to ensure the network remains in an adequate condition and the burden of the current consumption of the asset is not transferred to future generations.

Council currently manages a network of pathways that includes:

- 66.9 km of footpath (1.8km of which are paths in walkways between streets)
- 36.4 km of shared pathways
- 2.9 km of boardwalk
- 16 pedestrian and cycle refuges
- 9 bicycle racks with a total capacity of 90 bikes

Of the 330km of urban roads that Council manages, only 23% of that length currently has a pathway on at least one side of the road. Another 48.7 km is without kerb and gutter. This means that often there is no reasonable flat walking area other than the road itself. Potential roadside hazards that people must negotiate then include deep table drains, piped driveway crossings and irregular surfaces.

Recommendations

- M.1 Annual maintenance and renewal budgets be increased to reflect the increasing size of the pathways network.
- M.2. The standard of initial construction of pathways considers the whole of life implications of managing the asset over the long term.
- M.3 Council consider the long term implications of the funding needed to sustain the pathways network when developing formal asset management and long term financial plans for its transport and other infrastructure

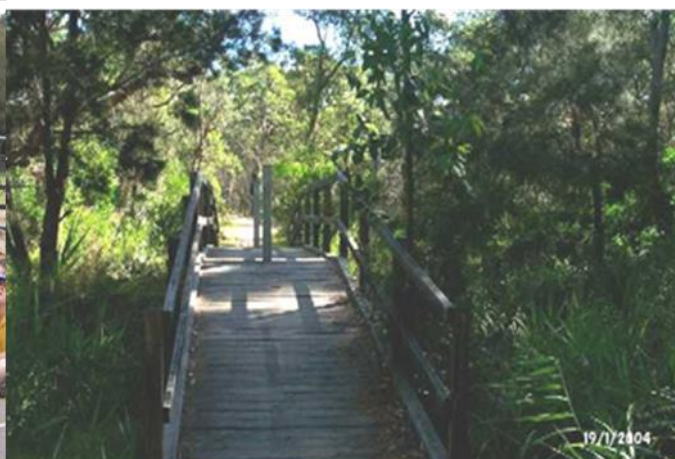
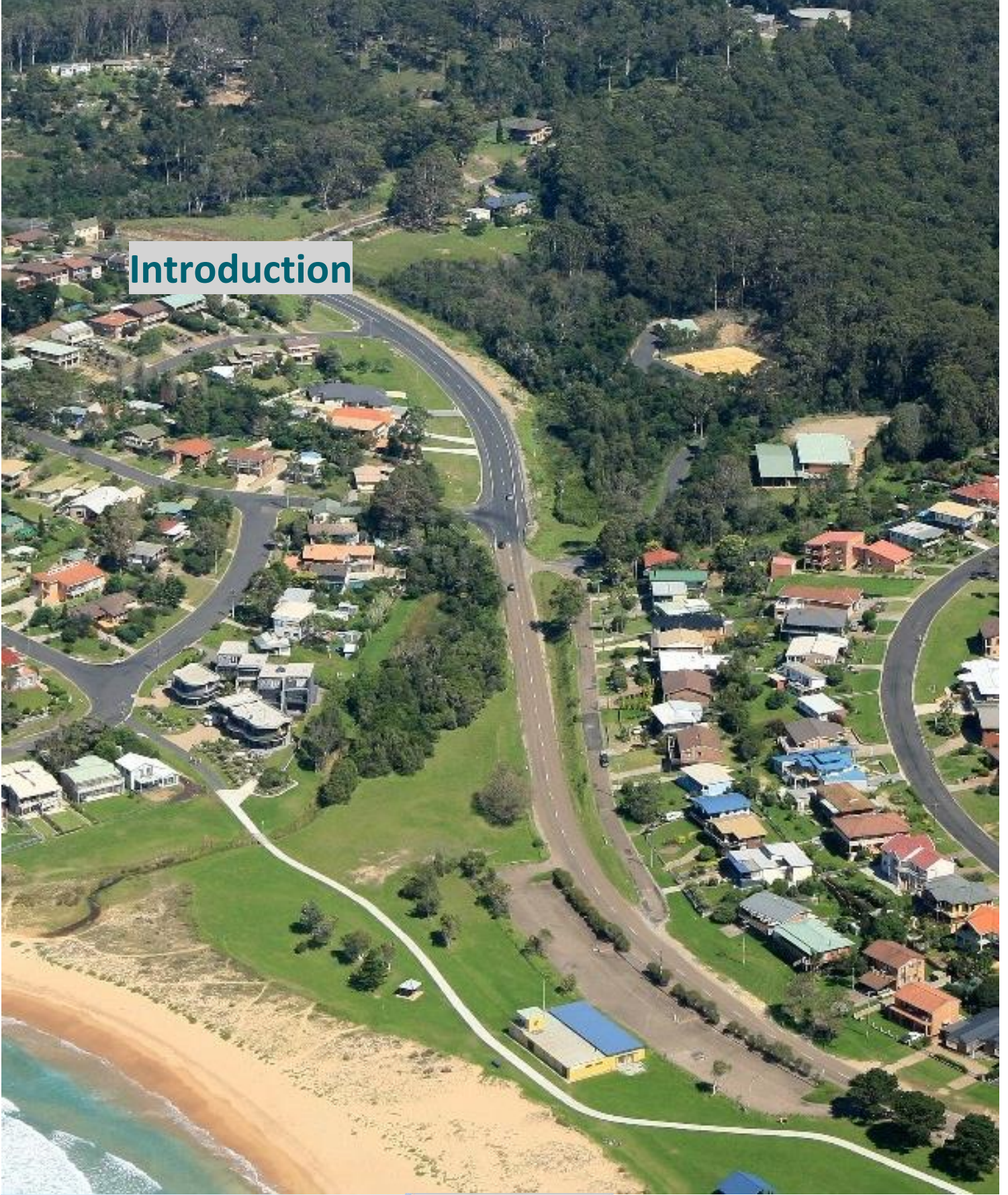
Implementation and Evaluation

This strategy has identified a number of actions and projects. These are aimed at providing a higher level of service and safety to the community as well as encouraging safe use of alternate transport options. The implementation of the strategy will involve a combination of community consultation, community education, construction, monitoring and evaluation to ensure the outcomes are achieved.

The extent of works identified in this strategy outweigh the funding available. Therefore, Council has to prioritise works and pursue all available opportunities to deliver pathways. Improved outcomes may be achieved by integrating pathways priorities with other transport infrastructure and community infrastructure works.

To ensure that the strategy is providing the facilities required and to assist on future revisions of this strategy, routine monitoring should be undertaken. This monitoring can include pedestrian and cyclist counts on popular routes, review of accidents statistics and customer service requests. Council also surveys residents as part of the preparation of each new Delivery Program to ascertain their satisfaction level with pathways.

Introduction



2 Introduction

Walking and cycling are important to Eurobodalla.

In the development of *One Community* (the Eurobodalla Community Strategic Plan) it was identified that the community desires a **liveable community** where we are healthy and active; that we have a **sustainable community**; that we are a **productive community** supported by planning and developing the right assets and infrastructure; and that we are a **collaborative community** that works together to achieve our goals. The provision of an integrated network of shared paths and footpaths, constructed in collaboration with the community helps us to achieve those outcomes.

With limited public transport available, cycling should be seen as an alternative option for moving around, whilst for a significant number of the Shire's residents, walking is seen as a major method of regular, low impact exercise. The Shire attracts a large number of people for holidays and they often bring their bikes so that they can enjoy the views to be had along our coastline.

The provision of appropriate facilities assists in creating the sustainable environment that we all desire, an environment that is in accordance with the outcomes espoused in NSW Planning's Guidelines:

"Creating a walkable and cycleable city is an important part of creating a sustainable city — one that is equitable, liveable, cost-effective, healthy, environmentally sound and safe". (DIPNR 2004)

The creation of a network of paths and facilities allows the community to move around the Shire along defined routes in a safe manner.

2.1 Why This Strategy

This strategy is a guiding document for the development and implementation of new pathway facilities for both pedestrians and cyclists within Eurobodalla. It establishes where Council wants to go, integrating safety, education, and promotion as well as infrastructure. It aims to expand on previous strategies and works by integrating current facilities, through the provision of linking paths, signposting of routes, and provision of ancillary facilities as well as expanding the network to reflect community desires and needs.

The Strategy caters for pedestrians, those with mobility issues and cyclists and addresses who uses the network, their capabilities and their needs in accordance with the requirements for delivering a Pedestrian and Mobility Plan for the overall shire, whilst more site and location specific plans will be developed as required. Examples of these are the recent North Narooma PAMP and the Batemans Bay PAMP that is currently being developed.

This strategy aims to address a number of issues, including the:

- wide range of activities and users;
- mobility of user groups;
- integration of walking, cycling and other transport modes
- significance of tourism in the area; and
- Population distribution throughout the Shire and therefore the competing desires of residents for the provision of facilities.

2.2 Context

As Council is part of a greater community, this strategy should align with the actions identified in its strategic plans (such as our Community Strategic Plan: Eurobodalla2030) as well as State and National strategies.

2.2.1 Role of Council

One of the prime roles of Council is the provision of services. These services need to be provided to its customers, the community, in a manner that is efficient, within the resources of the organisation, affordable, and in line with the expectations of that community. The provision of footpaths and shared paths to allow safe use is one of those services.

A planned approach to the provision of facilities encourages sound investment, while certainty and preparedness helps avoid under and over utilisation of facilities and ensures there are appropriate resources spread throughout the Shire. This includes identifying and responding to the needs of the community and providing a framework for setting priorities. Policy and planning provides a transparent and accountable process that enables the community to understand the Shire's position on certain issues, its strategic direction, the decision making process and its final actions. Examples of this role include the Local Environmental Plan, various management plans and various adopted strategies.

As well Council has a role in ensuring that the facilities are designed so that they are sustainable and of a safe standard.

In addressing this issue there are two main actions required:

- Development of a sound planning framework that acknowledges the differences found in settlement types across the municipality, and that identifies the function, setting type and catchment for each facility.
- Eurobodalla is a significant tourist region. Identifying and managing the needs of visitors is important to maximise local benefits.

Addressing Needs and Safety

Simply providing facilities often does not fully address the needs of users. An important part of providing facilities is to assess the type of user and provide appropriately designed facilities that will cater for future changes in usage.

As always the safety of the public is the most important factor. 'Road Safety 2000, the RTA Plan for Road Safety in New South Wales' had as its mission statement "*Aiming to make New South Wales roads the safest in the world*" (RTA 2000) whilst the vision of the 'NSW Road Safety Strategy 2012-2021' is '*Working towards Vision Zero*' (Transport for NSW 2015).

It is the aim of Eurobodalla Shire, through this Pathways Strategy, to assist the NSW Government to progress their vision.

Fiscal Management

The provision of new facilities is not the only consideration. New facilities are welcomed but good management over the long-term is essential. If this is not possible the removal of facilities must be seriously considered.

As with other organisations, the competing demands for Council resources are greater than the funding available. Adoption of a strategy enables Council to develop priorities to direct funds in a manner that will have the greatest overall benefit.

Levels of Service

Council has a significant role to play in setting the quality and scope of services for its residents. By the adoption of this strategy, Council is endeavouring to assist in the improvement of the quality of life for both its residents and visitors.

The provision of a basic path must not be the only consideration. As stated in our previous footpath strategy:

“...Cycling and walking are significant alternative recreational pursuits that require the provision of associated facilities. Items that need to be considered are the provision of toilet facilities, associated parking, seating and other resting alternatives, opportunities to take in scenic views that may be available along the route, and other numerous considerations as well as on-going maintenance.

The reduction of exposure to risk is also a significant requirement of Council. Activities undertaken by Council must be done in a way that risk to both the general public and staff is minimised.”

Co-ordination and Support

This role involves assisting organisations and individuals to undertake projects, become established, gain access to funds, advice and information and provide services. Resources and support can come from local government, State and Federal agencies or other organisations. Council is in a position to co-ordinate the provision of services and facilities to avoid duplication, shortfalls, and the development of joint projects and partnerships.

Encouraging Participation

The importance of physical activity is increasing in our society, and people’s expectation of the quality of facilities and services is increasing. These factors place some pressure on Councils to continue to support sport and recreation and enhance the standard of provision. An aging population, changing leisure behaviour and cultural change will add to the situation. The implications is that while Eurobodalla has invested considerable sums of money in developing open space and recreation facilities, it spends only relatively small amounts in informing residents and visitors about them, and directly encouraging greater utilisation of existing resources and enhance participation in physical and social activity to enhance the return on investment in facilities.

Council should expand its role in information dissemination and management, and actively encourage greater participation by all residents in active pursuits.

The key issues arising related to Council’s roles and resources are:

- Council can influence who is targeted and what is provided more directly through planning and funding. Council needs to make a more conscious connection between these activities and participation outcomes.
- The need to manage the portfolio of infrastructure and its quality so as to stimulate participation and positive leisure experiences. Planning and maintenance of much of this infrastructure has not been sufficient or strategic enough to maintain participation, and as the population ages increasing resources may need to be invested to continue to deliver the same participation outcomes.
- Council should continue to strive to increase its population. This is fundamental to retaining the range and quality of recreation resources. Promoting cycling and walking opportunities can assist in attracting new residents and increasing participation.
- A better understanding of costs and how and where resources are being allocated for what benefit is required. A greater emphasis on resourcing viable & sustainable opportunities can result from

planning and a better understanding of lifecycle costs and benefits. Life cycle costs need to be estimated and cyclic maintenance planned and adequately resourced.

2.2.2 What has been done so far

In 1999 the Eurobodalla Bike Plan was prepared for Council. At the same time Council prepared a Footpath Strategy. Subsequently, a Shared Path Strategy was developed in 2009, combining and distilling these plans and identifying additional works required. A large number of the works identified in those plans have since been completed.

Recent Works

During the last 5 years there has been an increased emphasis by Council on the provision of pathways across the Shire when compared to previous years. Significant projects either started or completed in that time include:

- Extension of the Durras Shared Path from Durras Drive northwards along Durras Lake Dr toward Durras Lake
- North Batemans Bay Shared Path from the Princes Hwy, along Wharf Rd to Batemans Bay Public School then across Surfside Playing fields to Surfside, with a connection back to Old Punt Road to serve the North Batemans Bay area
- Batemans Bay Foreshore Path from the Town Wharf to Clyde St (West)
- Commencement of the Catalina Shared Path with the construction of the path from Batemans Bay High School to Calga Cr
- Commencement of the construction of the Sunshine Bay Shared Path from Beach Rd along Sunshine Bay Rd to Edward Rd
- Upgrading of the Sunshine Bay to Surf Beach Shared Path by replacement of the existing gravel path along Hume Rd to Wills Cr
- Construction of the Malua Bay Shared Path from The Ridge Rd to Tallawang Ave and shopping centre, then through Malua Bay Beach Reserve to King St
- Commencement of the Tomakin Shared Path with the construction of a path from The Moorings along George Bass Dr and Sunpatch Parade to Jack Buckley Park, including a crossing of George Bass Drive
- Completion of the Broulee Shared Path from Candalagan Creek to McNee St
- Commencement of the Broulee Circuit by extension of the Shared Path along Heath Street from Banksia Village to Broulee Surf Club
- Commencement of the Moruya Central Shared Path with the construction from Ford St (Moruya Shared Path) to Vulcan St
- Completion of a footpath in Murray St from Vulcan St to Moruya PS
- Commencement of the Moruya West Shared Path with the construction of the path along River St from Shore St to Thomas St
- Commencement of the Gundry Shared path with the construction of a path from River St near the skatepark to Gundry Criterion Track
- Construction of the Moruya East Shared Path from Princes Hwy to Keightley St
- Commencement of the Moruya South Shared Path with the construction of a path from Moruya HS to the Princes Hwy then onto to John St, including a road crossing of the Princes Hwy to link to the Moruya Shared Path
- Construction of a footpath along Albert St from Evans St to Moruya HS
- Extension of the South Head Shared Path to The Anchorage

- Further extension of the Tuross Head Shared Path by construction of a path from Sandy Point/Lavender Bay adjacent to Nelson Parade to the Caravan Park
- Extension of a pathway in Bodalla from Sutcliffe St to Potato Point Rd and Bodalla Public School including a crossing of The Princess Highway
- Completion of the Dalmeny to Narooma Shared Path with the construction of an off-road path from Dalmeny Dr to Apex Park at North Narooma
- Construction of a link and stairs from Riverview Rd to Hillcrest Lane at North Narooma
- Commencement of the Narooma Flat Shared Path with construction from the Narooma Aquatic Centre to Bill Smyth Oval (McMillan Rd) including crossings of Bluewater Dr and Princes Hwy
- A footpath along Willcox Ave from the Southlands Shopping Centre to Ballingalla St and Narooma Surf Beach.

Characteristics of Eurobodalla



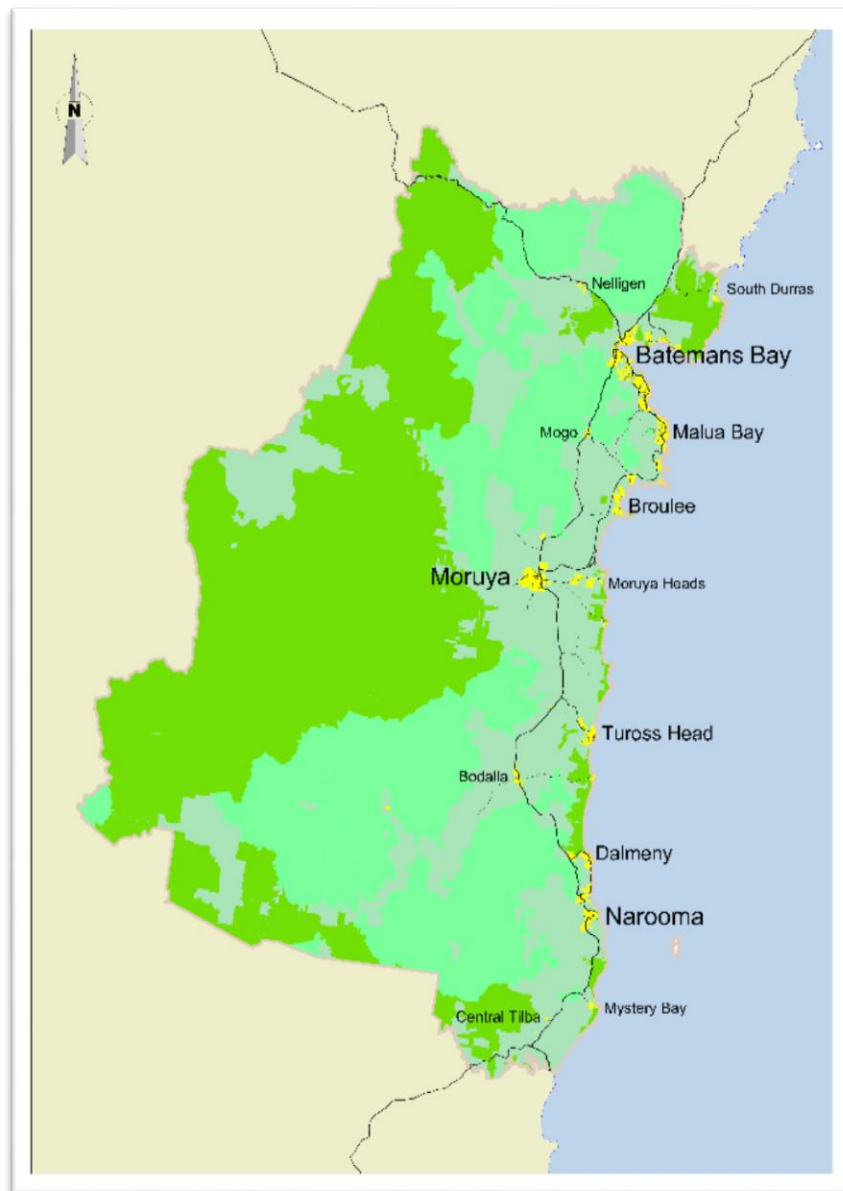
2.2.3 Characteristics of Eurobodalla

Eurobodalla Shire is a rural shire located on the South Coast of NSW. It is a popular holiday and retirement destination, known for its beaches, fishing, and other outdoor activities. In comparison to other locations it has a significant and growing older population that are seeking recreational opportunities as well as a younger population.

Located along approximately 110km of coastline, the Shire has an area of 3,420 sq. km with a permanent population of 37,700. They are primarily located in three main centres, being Batemans Bay, Moruya and Narooma, as well as a number of smaller towns and villages such as Tuross Head, Broulee and South Durras.

As a result of its proximity to the southern areas of the state and its coastal location, the permanent population is increased significantly by an influx of tourists and other holiday makers to around 120,000 during the main holiday periods.

Figure 1 - Eurobodalla Shire



2.2.3.1 Population Growth

The Shire’s population has until recently been increasing at one of the fastest rates in NSW. Although the annual growth rate has dropped from a peak of an average of 2.2% per annum for the 1996-2001 period, it is still above the state average at 1.7% for 2011-2015 (*idProfile 2016). It is anticipated that the shire’s population will grow to 42,640 by 2031.

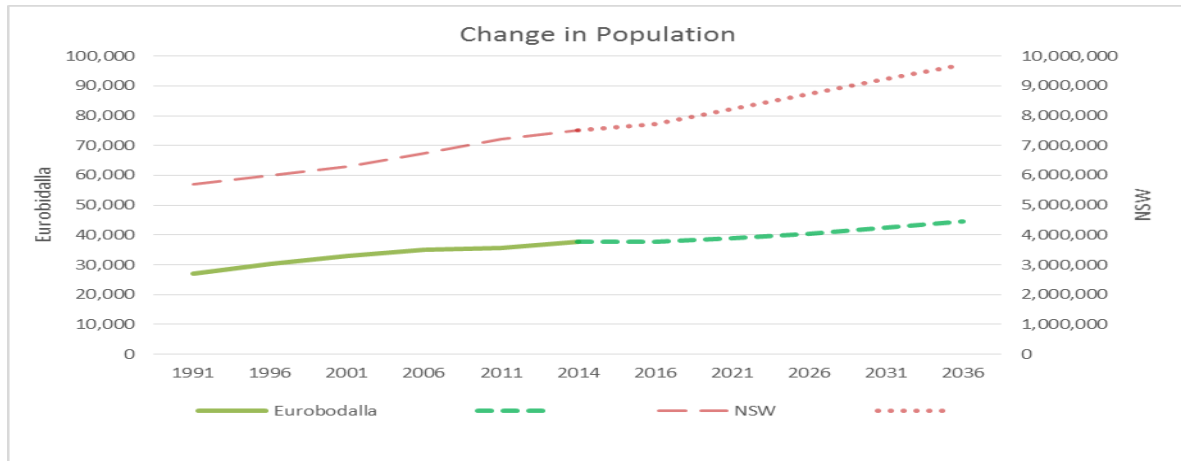


Figure 2 – ESC population growth

2.2.3.2 Population Demographics

Age Profile

The median age of Eurobodalla is greater than many other areas in NSW and increasing at more rapid rate than the average for the state. The median age in 2015 was 50, above the state median of 38 and a median age in regional NSW of 41 (*idProfile 2016). This is due, in part, to a large portion of the Shire’s population being older. The 2011 Census figures indicated that 26% of the Shire population was aged 65 or greater compared to 15% for all of NSW. The age distribution also indicated that 44% of the Shire’s population was over 55 years, compared to the NSW profile where only 29% were over 55.

Whilst there is a significant older population, the youth population (less than 15 years) represent about 17% of the community, below the percentage for NSW (20%).

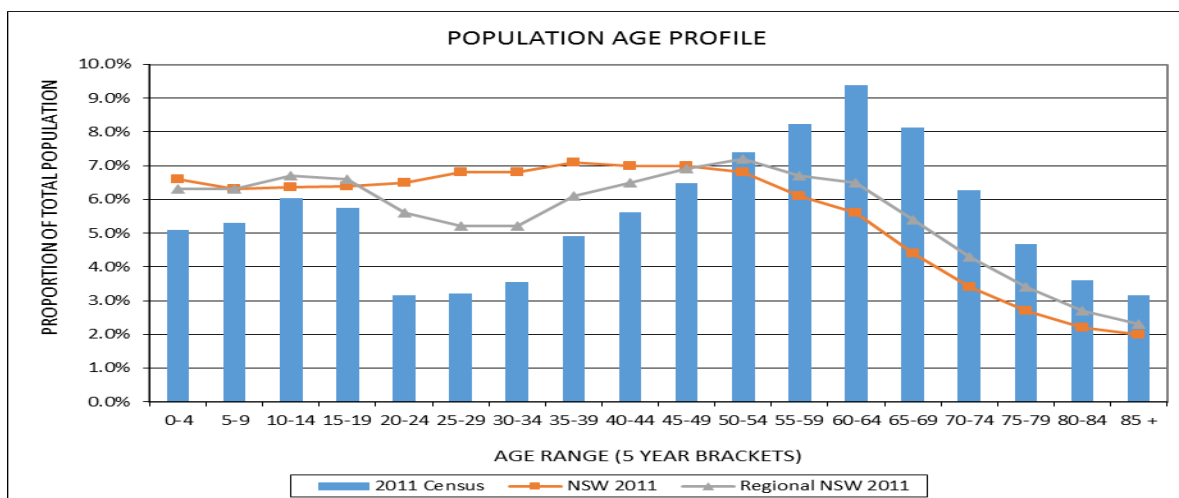


Figure 3 – ESC Population Profile

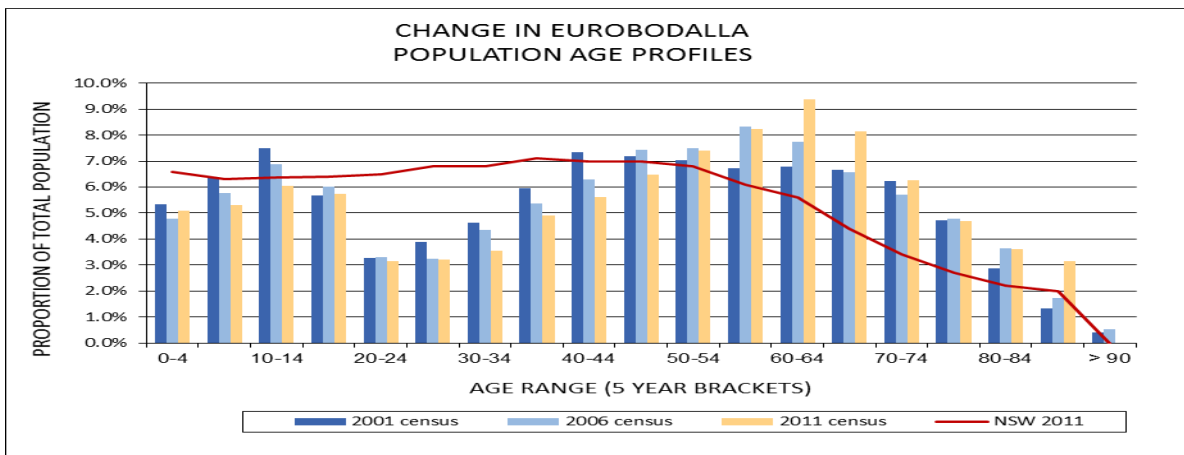


Figure 4 – Change in Population Age Profiles

Eurobodalla Shire forecast age structure, (5 year age groups), 2006, 2016 and 2031

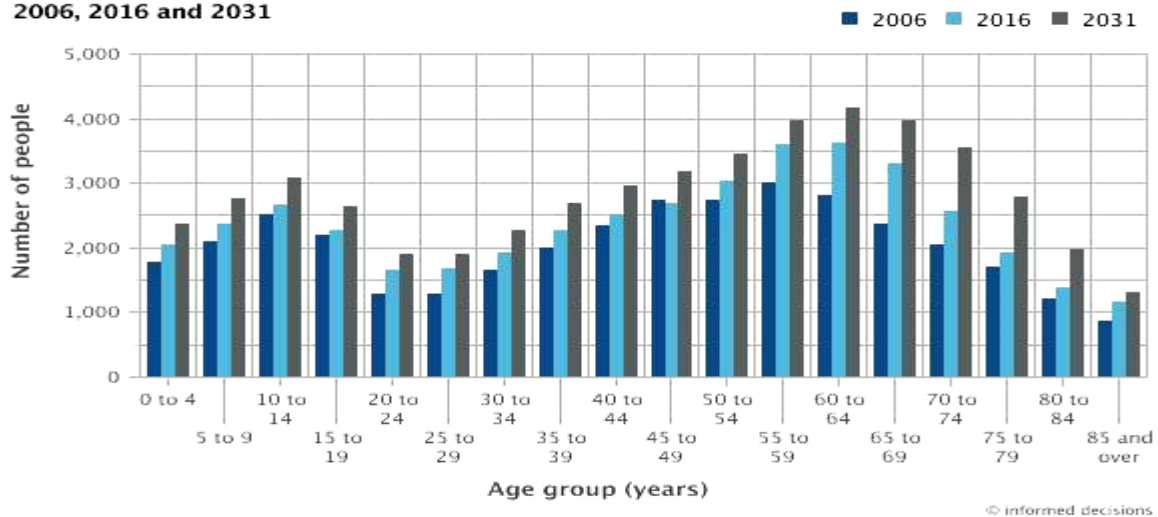


Figure 5 – ESC Projected Population Profile

Income

The median weekly income for Eurobodalla is lower than the state average.

It is widely accepted that communities with lower annual incomes tend to have less disposable income. This is often reflected in less private transport as well as a reluctance to use a public transport service that is perceived to be too expensive.

Permanency

Approximately 64% of the landowners within the Shire are permanent residents, whilst a further significant proportion lives within a 2 hour travelling distance and can be considered regular visitors.

2.2.3.3 Tourism Centres

Tourism is a major industry for the area. Visitors come to enjoy the natural beauty of the coast, participate in water-based recreational activities, as well as the significant national parks within the area. In 2008, research by Eurobodalla Tourism indicated that there was 1.3 Million visitors to the Shire.

A high percentage of the tourists and visitors who visit our region stay in either rented houses or caravan parks. Whilst many of the tourist facilities provide their own recreation facilities, such as tennis courts and swimming pools, visitors often use our path network for recreation and transport.

2.2.3.4 Shire Development

Eurobodalla was formed in 1905 from a number of other bodies. Comprising of a number of villages and towns, the 1960's saw significant development and expansion. Recently growth has again accelerated with Batemans Bay and its environs in particular being the site of much expansion and redevelopment.

The development that occurred in the 60's often did not take pedestrians or cyclists into consideration and so little relative infrastructure was provided, leaving significant gaps in the network which now require filling. Hence some infrastructure provided in more recent developments does not have existing infrastructure to connect to, leaving gaps that require filling.

Due to the isolated nature of the population centres and the heavy tourist influence, there has been little public transport provision and therefore there has been an increased reliance on motor vehicles.

2.2.4 History of Cycling and the Provision of Facilities

Cycling has a long history in the Eurobodalla, with formal activities dating back to the early 20th Century.

With the advent of the motor car, the bicycle lost its appeal as a transport vehicle but in the 1970's resurgence began. Since then, cycling has been seen increasingly as an alternative transport mode. This has been partly due to increased public awareness of the environment and health issues within the wider community.



Figure 6 - Eurobodalla Cycling Club

Council has been constructing shared paths for the last 25 years. Recently the amount provided has increased significantly through increased allocations and support for community groups undertaking construction works.

In 1984 Council constructed the first stage of the Beach Road Shared Path from Glenella Road to Catlin Ave. Council developed a Bike Plan in 1988 outlining what it sought to provide. A further section on Beach Road was completed in 1989. In 1991, construction of the Dalmeny Shared Path from Binalong St to George Noble Park commenced.

In 1993, the first stage of the Tuross Shared Path from the Caravan Park to One Tree Point was commenced, the next stage of the Dalmeny Shared Path was constructed and the first stage of the North Narooma Shared Path was commenced.

In 1995, the Moruya Shared Path from Moruya Hospital along the river to the CBD was commenced. This has subsequently been extended to the Moruya TAFE on the southern outskirts of town.

In 1996, as well as the Moruya project, the Durras Shared Path and Footbridge Project began. At this time also, support by Council was commenced of the voluntary group constructing the Tuross Shared Path, which has continued each year to date.

The NSW Bike Plan was developed in 1996, with the local Eurobodalla Plan following in 1998. A previous study was undertaken in 1997 with the purpose of developing Moruya as a cycle friendly town.

In 2000, the South Head Cycle Pathway group commenced construction of a shared path within the South Head township, which has continued each year. To assist, Council also provided portions of the pathway as it upgraded South Head Road between Native Place and The Anchorage.

In 2005 Council commenced the construction of the Broulee Shared Path along Coronation Drive. Subsequently the path has been extended to the southern outskirts (Old South Coast Road) and additional paths provided along Heath St linking South Broulee Beach with the path and the local retirement village.

In 2006 the Dalmeny-Kianga Cycleway Group was formed and commenced fundraising and construction of the Dalmeny-Narooma Shared Path. This has now been completed providing a path from North Dalmeny to Narooma.

Since then Council has developed and commenced the construction of a number of shared paths on identified routes including Durras, North Batemans Bay (to Surfside), Sunshine Bay, Malua Bay, Tomakin, and Bodalla.

2.2.4.1 Cycling Demographics

Ownership

The 2015 Cycling Participation Survey indicated that 55% of all households in 2015 owned at least one bike (50% for NSW and 65% for ACT). Ownership rates with Eurobodalla are considered to be on par with other locations and with these findings.

Whilst ownership is significant this appears to be mainly for recreational use as the 2006 Census indicated that only 0.7% of residents cycled to work (compared to 4.4% who walked). This is much lower than many other centres, for example in Canberra time 2.8% of the population rode to work on the day of the census and 0.9% in Sydney.

Type of Trips

A varied amount of research has been done on the type of trips that people do. In Toronto, Canada for example, of all the non-recreational cycling trips made by people 15 years or older it was reported in 2000 that only:

- 8% were to work
- 3% were to school, and
- 17% were for shopping, errands or visits.

Surveys of cyclists undertaken for the Pittwater Bicycle Plan (1997) found that cyclists primarily cycle on the road as 58% of trips were reported as being on-road due to topography and lack of off-road paths. Of the remainder of trips, only 25 were on off-road paths.

It is reasonable to assume that Similar figures could be expected for Eurobodalla.

As noted earlier, it was recorded in the 2006 Census that only 0.7% of residents cycled to work in Eurobodalla.

Intermodal Aspects

Eurobodalla has limited public transport in comparison with other centres within NSW and Australia therefore there is little opportunity to undertake journeys by mixed modes of travel, unlike the main cities within Australia and overseas. No public rail system exists within the Shire. The only public bus services are between Batemans Bay and Moruya; Dalmeny and Narooma; and a regular service around Batemans Bay. Intra-state and interstate bus services pass through Eurobodalla. None of the services provide bicycle carriage facilities. In addition to these public ruts, school services are available for the general public subject to capacity.

Air-services link Moruya with Sydney and Melbourne and the opportunity exists for interconnection of cycling and air services.

2.3 Overview

2.3.1 Scope of Strategy

Due to the existence of many facilities throughout the shire and numerous requests for additional facilities, there is often competing needs for funding. By the development of this strategy, some order is proposed for the spending of the funding allocated to the provision of pathways.

This Pathways Strategy has been prepared to provide direction for Council in the provision and maintenance of pedestrian and cycling facilities. As well it identifies programs to improve safety, awareness and enjoyment of the facilities provided. As the strategy is for the provision of pathways, it therefore does not directly address on-road cycling. Whilst opportunities for such facilities may be identified in the network assessment, the purpose of this document is the identification of pathways, whether these are for pedestrians or are shared paths.

This strategy is limited to the provision of facilities that will be used by casual users as opposed to organized sporting events. Therefore this strategy does not extend to the provision of formal sporting facilities such as the Bike track at Gundry Oval, Moruya or the ex-BMX track at Sunshine Bay, nor does it cover cycling opportunities in more remote areas such as National Parks, State forests and the like.

Similarly this strategy is not about the provision of tourist facilities. Whilst many of the paths will be utilised by visitors, the primary purpose is to provide active transport links and facilities for the use of residents and visitors for routine recreation and lifestyle. Examples of facilities not included are mountain bike trails and paths around natural features such as lakes that would be provided to assist access rather than regular recreation pursuits.

As indicated in the introduction to this document, the formulation of a Strategic Policy Document is not designed to go into detailed designs. Its role is to promote future development in locations that represent the best utilisation of resources for our community and to prioritize the expenditure of maintenance to obtain the maximum benefit.

It is considered a “*living*” document that will be, in accordance with Council’s adopted policy, reviewed on a 5-yearly cycle.

Vision

Eurobodalla Shire Council’s vision is:

Good Government, Better Living

It’s stated Strategic Objectives are:

“We want a shire where, in a balanced and sustainable way:

- The views of our diverse community are sought and valued in developing plans and projects for the future
- The needs of the community have been met by the provision of services and infrastructure;
- The ecological health and natural beauty of the environment is protected.
- The local economy, including Tourism, is characterised by steady, sustainable growth that builds on our strengths, and;
- People have a wide range of community services available because the council provided the leadership to access state and federal government programs.”

This Strategy has been developed in accordance with these objectives.

Primary Goals

The aim of this Strategy is to:

- Provide a co-ordinated management plan for the construction of footpaths and shared pathways within the Eurobodalla Shire Council area.

The objectives of this strategy are to:

- Develop a practical network of facilities that can be used by all of its residents and visitors.
- Implement the adopted priority system for provision of facilities, as funding becomes available.
- Promote the environmental, recreational, health and economic benefits of walking and cycling .
- Encourage walking and cycling as alternative modes of transport.
- Increase the safety of pedestrians and cyclists through:
 - ❖ Engineering
 - ❖ Education
 - ❖ Encouragement
- Identify programs that can improve pedestrian and bike safety in the region.

To ensure that these objectives are met, the following goals have been set:

- Use of the facilities on a daily basis through peak periods
- No received complaints regarding the use of the facilities
- Little evidence of vandalism of the facility
- A reduction in the number of reported accidents throughout the Shire

2.3.2 Strategy Overview

This strategy is divided into a number of sections.

- Section 1 (this section) provides an overview of the strategy, sets out the overall Goals, Principles, and Objectives
- Section 2 looks into the issues for consideration.
- Section 3 identifies the future demand and how this will be managed
- Section 4 addresses the types of facilities that can be provided, identifies what has been provided and identifies any gaps in provision, details a pointscore system for the prioritizing of projects, outlines users and their requirements and looks at the operational demands placed on Council
- Section 5 looks at each of the components of the strategy in detail
- Section 6 addresses the implementation and evaluation of the strategy

As well as the main body of the document there are a number of Appendices.

- Appendix 1 - Contains the catchment analysis done to identify what is already in place and what is required.
- Appendix 2 - Lists the works proposed,
- Appendix 2 - Maps and lists the networks proposed
- Appendix 3 – Maps the works proposed

In accordance with Council's adopted policy and format for its strategic documents, this strategy is based on the **Pressure-Response** model. In this model the following areas are addressed:

Issues - The community has certain desires and expectations. These are the issues that need to be addressed.

Condition - The strategy looks at what has been previously provided

Pressures - Here the needs of users are addressed

Direction - To achieve the goals and aims of this strategy, six identifiable areas have been addressed. Whilst each is independent, the integration of these areas needs to be done to ensure the overall goals are achieved.

The components of this strategy are:



Each facet is based on a guiding Principle that details the importance of the component to the overall plan. Each Principle is then supported by a set of objectives that measure the success of the component to achieving the overall goals of the Strategy.

Council's Response - For each direction or component, objectives have been set that outline how Council is going to address the direction identified.

Actions - For each component a number of recommendations are made

2.3.2.1 A Network of Paths and Routes

Principle: A network will be established that is in close proximity to the majority of residents and useable by the widest range of people

Objectives:

- Completion of an integrated network within 20 years
- Ensure the safe and year round operation of the network through design, signage, enforcement and maintenance; and

2.3.2.2 Pedestrian and Cycle Friendly Streets

Principle: Every street is available for walking or cycling

Objectives:

- Provision of footpath along every urban collector, distributor and regional road
- Policies and practices support increased pedestrian and cyclist safety and access for intersections, roadways and bridges
- Maintain and where possible improve maintenance practices to enhance safety, access and comfort
- Ensure safety, access and comfort and maintained through or around construction zones

2.3.2.3 Promoting Safe Use

Principle: Through education, create an environment where people can walk or cycle without fear of injury

Objectives:

- Work with other agencies to deliver safe pedestrian and cycling messages
- Find or develop ways to fund and sustain safety campaigns
- Investigate, develop and establish a protocol for the recording and response to cycling collisions and injuries to pedestrians

2.3.2.4 Promotion

Principle: Use of our network will improve the quality of life for all residents and users

Objectives:

- Encourage cycling as an alternative transport means
- Promote cycling and walking to a widest possible audience
- Demonstrate leadership through innovative policies and facilities

2.3.2.5 Integrating Transport Modes

Principle: Integration of transport modes increases choices for trips

Objectives:

- Improve access to public transport
- Work with public transport operators to improve bicycle accommodation on buses
- Seek to implement bike-and-ride in conjunction with bus operators.

2.3.2.6 Ancillary Facilities

Principle: Secure and convenient bicycle parking must be available at all cycling destinations to encourage and support cycling

Adequate and appropriate ancillary facilities along routes

Objectives:

- Instigate a bicycle parking program to serve all public cycling destinations
- Encourage the provision of bicycle facilities by the private sector
- Provision of adequate seating, lighting and other related facilities along pathways

2.4 Process

A standard methodology was employed in the development of this strategy.

2.4.1 Review

A review of selected strategies prepared for other Local Government Areas was undertaken to determine the issues of concern to other similar organisations and communities. These included Councils in NSW as well as other States and countries. Information from relevant government and non-government sources was also used to gain comparative information.

Sources such as community surveys and Management Plan submissions were reviewed to identify those areas of concern that the community had previously raised with Council.

The demographic information available to Council was reviewed to identify pertinent information such as population profiles and distribution.

2.4.2 Route options

Route options were identified through desktop mapping using Council's GIS. This included looking at attractors, landform and desire lines. Included in this was the mapping of the existing road, cycle and footpath networks to identify opportunities within the existing network.

2.4.3 Existing Facilities

Existing facilities were inspected to determine the apparent levels of usage and if users were developing alternative routes due to poor design, etc.

2.4.4 Consultation

To gain an appreciation of the extent of community input required, consultation was initially undertaken with Council staff.

Concurrently to the preparation of the draft review, a Sunset Advisory Committee comprising Councillors, members of the public and staff was formed to develop the communication engagement plan to be employed. The committee also provided input and review on the draft strategy as it was developed. The community members of the committee were able to provide representation on behalf of pedestrians, cyclists and people with a disability.

Upon completion of the preparation of the draft review, it was workshopped with Councillors and then placed on public exhibition. Appropriate organisations and associations including related businesses and community groups were also approached to seek their comments.

2.4.5 Prioritization

The relative need for the different identified facilities were assessed by determination of the possible number of residents, visitors and other persons in the locality and the potential for usage.

Having determined possible routes, a possible network developed. Further consultation was undertaken before the works were prioritised.

2.5 Review of Strategic Plan

As with all of Council's Strategies, this strategy will be required to be reviewed within 5 years of its adoption by Council. The initial strategy was prepared in 2009 with this version being a review and updating of that document.

What Do We Need to Consider



3 Issues For Consideration (Levels of Service)

3.1 Community priorities

Eurobodalla Shire is responsible for 983 kms of local and regional roads (not including the Kings and Princes Highway), 65 kms of footpath and 36 kms of shared paths. Currently only 51km of our urban road network has a footpath on at least one side. It is obvious that Council does not have the capacity or capability to have footpaths alongside all roads nor for cycleways to be built to cover the wishes of the total Shire. We therefore have to prioritize our needs.

Some of the priorities previously raised by the community are:

- **Safety of school children.** During the preparation of the 'Strategy for the Improvement of Public Transport' it was pointed out that the safety of school children and the provision of footpaths near schools was a key issue. This is reinforced in this strategy. The walking of large numbers of school children between recreational areas and schools is also a concern to teachers where there are inadequate or no footpaths available.
- **The elderly and people with a disability** are concerned with the quality or lack of footpaving in the commercial and business districts of the Shire.
- **Youth** raising concerns about difficulties with transport and access to facilities.
- **Hospitals and Nursing Homes** identified the need for footpaths as both an access issue and also a recreation benefit for their clients.
- **Heavy volumes of vehicle traffic** make some of our major roads potentially hazardous for cyclists and pedestrians to share the same pavement as the cars.
- Local shopping centres, neighbourhood parks and pre-schools attract the "mums and kids" to walk to those facilities. On busy streets this means that to do it safely there must be footpaths.

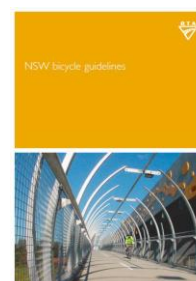
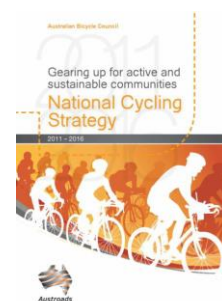
3.2 Strategic Framework

On a national basis, the Australian National Cycling Strategy 2005-2010 was prepared by Austroads on behalf of the Australian Bicycle Council to 'encourage and facilitate increased cycling in Australia'. The strategy had the vision of enhancing the wellbeing of all Australians through increased cycling for transport and recreation.

This strategy was revised in 2010 to become the National Cycling Strategy 2011-2016. The aim of the current strategy is to double Australian cycling participation by 2016. This strategy attempts to align with that strategy.

The NSW Government has adopted a series of planning guidelines, a Long-term Transport Master Plan and a Road Safety Strategy as well as regional planning guidelines and transport plans. This plan aligns with those state plans.

As well as planning, the NSW government requires that infrastructure management is to be in accordance with the NSW Integrated Planning Framework.



3.2.1 Integrated Planning Framework

The NSW Integrated Planning & Reporting Framework (IPR) has been developed and implemented to improve the way that local government in NSW plans for and meets the needs of the community. The framework requires Council to develop and adopt a 20 year Community Strategic Plan (CSP), which together with a 10-year resourcing strategy, formulates a 4 year Delivery Program. The CSP (Eurobodalla2030) expresses the long-term community aspirations whereas the Delivery Plan identifies what actions the council will undertake during its term to assist in meeting those community objectives and strategies.

Arising from the Delivery Plan is an Operational Plan for the financial year, which identifies individual actions and their corresponding budget allocation.

To identify the resources needed to deliver these actions, a Resourcing Strategy is required. This is based on a Long-term Financial Plan, a workforce plan and Asset Management Plans.

3.2.2 State Planning Framework

The NSW Department of Infrastructure, Planning and Natural Resources (DIPNR) in 2004 published the NSW Planning Guidelines for Walking and Cycling. These are to assist Council's in determining what to consider when preparing land-use plans and assessing projects. A draft

In NSW the RMS has developed the Action for Bikes (*BikePlan 2010*). This masterplan sets out to create a 'network of cyclepaths', to promote safer cycling, and increase awareness of cycling. By these 'the Government aims to ensure that cycling is a viable form of transport and a widely enjoyed means of recreation' (RMS 1999).

TransportNSW is currently developing a policy for "Providing for Walking and Cycling in Transport Projects" to which Council has recently made submission.

3.2.3 Settlement Strategies

Council has prepared settlement strategies for Greater Batemans Bay, Moruya and Narooma. These strategies are mechanisms for identifying and planning long-term (20 to 30 year) development within the Shire. Whilst these documents do not deal with pathways specifically, they do address the provision of infrastructure within each area.

3.2.4 Subdivision Development Guidelines

All subdivisions are required to incorporate cycleways and footpaths at the design stage in accordance with Council's Development Guidelines and Development Design Specifications.

Optimal cyclist/pedestrian routes require topographically favourable locations, which follow ridges, spurs and natural watercourses and cross terrain at crests, saddles and low points. In order to improve the overall cycleway network in accordance with the latest design standards, it is necessary to ensure that future development areas provide pathway that are:

- well planned in topographically favourable locations, prior to establishing road layout
- accessible, continuous and integrated
- connected directly to the external network and identified destinations
- located so as to provide a high level natural surveillance of the pathway for personal security reasons

3.2.5 Section 94 Developer Contribution Plan

Council is able to make contribution plans under Section 94 of the Environmental and Planning Assessment Act. This allows Council seek contribution for those improvements or additional services that will be required due to the development.

Council identified the need for the continuing provision of cycleways and footpaths throughout the Shire as one of the outcomes of its Section 94. As a result, it levies contributions upon developers to enable works to be undertaken. No particular routes have been identified in the Plan; rather the funds are applied to works identified in this Strategy.

3.3 Consumer Input

For a network of footpaths and shared paths to be successful, it must address the needs of those who will use it. It must address their concerns as well as providing facilities that they like and will use.

3.3.1 Expressed needs for improvements

As identified previously, the Eurobodalla community has expressed concerns regarding safety of children walking and riding, the need for more walking paths, and a desire for more ancillary facilities.

Cycling tracks

Surveys undertaken in other locations found that cyclists are most comfortable on bike paths¹. Research throughout Australia has found similar results. Therefore there is a clear desire for off-road tracks. The Eurobodalla Bicycle Plan previously identified that recreational and commuter cyclists desired improved cycle tracks. The facilities most preferred were (listed in order of preference):

- marked cycle lanes on roads.
- off-road cycle paths for commuters.
- safe bicycle routes to schools, shops and transport.
- recreational paths in parks.
- mountain bike trails.
- motor vehicle driver education.
- educational cycleway for children.
- bicycle parking for commuters.

With the existing level of development within the urban areas of Eurobodalla, this is still able to be accomplished.

Various community surveys have identified the need for:

- more tracks for walking, cycling, skateboarding and rollerblading, for children, youth, families, older people, and the community in general, in existing areas,
- extension of existing shared paths and footpaths,
- provision of, access to and maintenance of footpaths in general,
- walking paths along the foreshores,
- walking paths with seating, for older people,
- safe footpaths.

¹ 97% of people interviewed for the Toronto Bike Plan indicated a preference for off-road paths

3.4 Planning Requirements

The *Australian National Cycling Strategy 2005 -2010* identifies the need for the provision of “safe, affordable and enjoyable movement of people and goods” (Austroads 2005) whilst the *Austroads Guide to Road Design Pt 6 – Pedestrian and Cyclist Paths* discusses the needs and requirements for pathways.

Section 2.3 of the *Austroads Cycling Aspects of Austroads Guides* identifies that “*transport planning will be at its most effective if it is integrated with other types of planning. Planning in sectors such as transport, regional development, health and education should be considered to ensure decisions complement rather than conflict with each other. Consistent land-use planning decisions also need to be made across regions and jurisdictions*” (Austroads 2014). In this document they outline the requirements for provision of both footpaths and bicycle facilities.

Footpaths

A network of pathways that is integrated and linked to public transport networks (where available) is seen as having the potential to increase utilisation of those services and decrease the reliance on motor vehicles. The more viable public transport services become, the greater the opportunity exists to further extend these services. The provision of footpaths also has a significant positive effect on the level of exposure to hazards.

In respect of footpaths, Austroads refers to requirements promoted by TransportNZ. These are as follows:

Table 1 - When to provide urban and rural footpaths

Land use	Footpath provision			
	New roads		Existing roads	
	Preferred	Minimum	Preferred	Minimum
Commercial and industrial	Both sides		Both sides	
Residential (on arterial roads)				
Residential (on collector roads)				
Residential (on local streets)			Both sides	One side
Three to ten dwellings per hectare	Both sides	One side	One side	Shoulders on both sides
Fewer than three dwellings per hectare	One side	Shoulders on both sides		

Source: Land Transport NZ (2007a).

In Eurobodalla, footpaths have been provided in a targeted manner. Council has been providing footpaths where there is a significant demand or a risk to pedestrians.

Council’s transport system includes 330km of urban roads. Only 23% of this urban road network has a pathway on at least one side of the road. Of the urban road network, there is 48.7 km of road without kerb and gutter, often leaving no reasonable flat walking area other than the road itself and potential roadside hazards such as deep table drains, piped driveway crossings and the like for people to negotiate.

Of the 65.1km of footpaths that have been provided, 25.2km are on identified bus routes whilst a further 15.8km are on school bus routes.

Council’s design standards require the provision of a footpath on one side of all new streets. As well as new roads, Council has been attempting to improve the safety of it’s overall network by working toward all distributor roads having a path on both sides.

Bicycles

For bicycles, Austroads identifies two guiding principles:

- separating cyclists from motor vehicles; and
- providing a high level of priority for cyclists across driveways and through intersections

as well as identifying a mechanism for the selection of appropriate facilities based on a number of factors (Austroads 2014, p14).

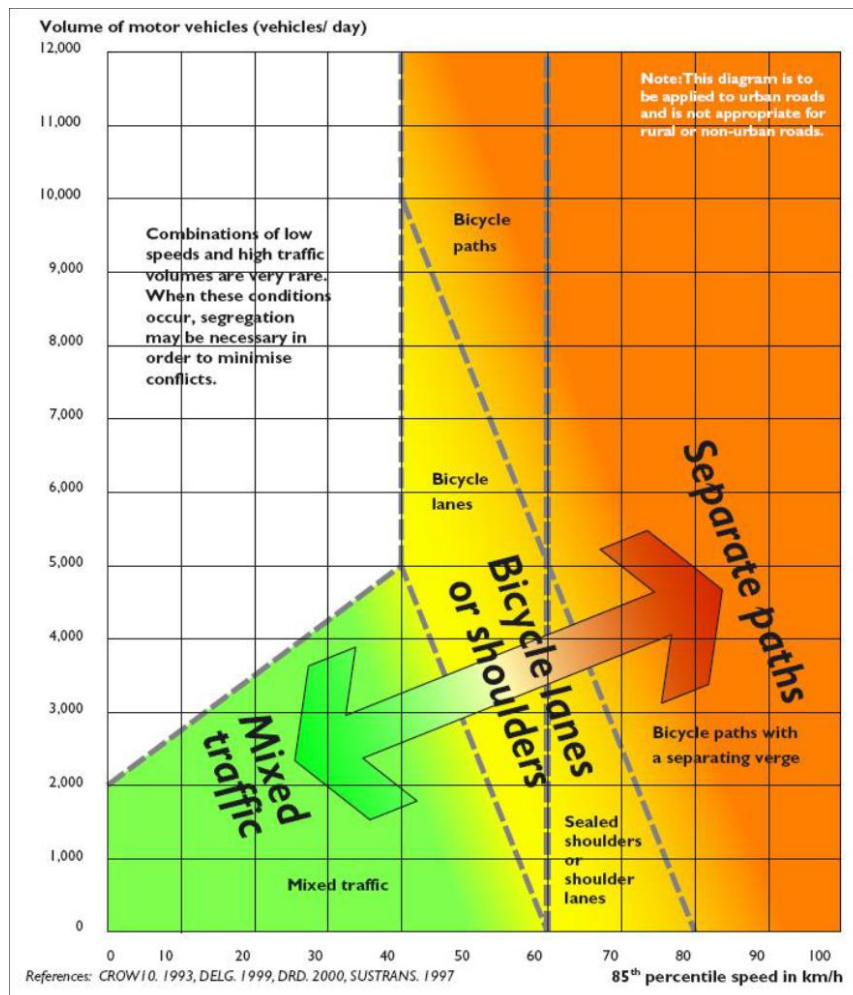


Figure 7 - Separation of cyclists and motor vehicles by speed and volume

3.5 Comparative Provision

Whilst there are no formal requirements for the provision of facilities, Eurobodalla compares favourably with other locations across the state.

In relation to the provision of cycle facilities, Eurobodalla is comparable to the rest of NSW in respect of average provision, as indicated in the following statistics:

Eurobodalla	11 km of cycle network for every 100 km of urban road network (2.7 km per 100km of total road network)
NSW	11.1 km of cycle network for every 100km of urban road network
ACT	19 km of cycle network for every 100km of road network

3.6 Safety

The RMS provides Council with annual crash analysis data for Shire. The latest data for accidents covers the period from 2010 to 2014

Pedestrians

Between 2010 and 2014 there 27 incidents reported involving pedestrians with two of those involving fatalities and a further 29 injuries occurring.

The following figures illustrate some key characteristics of incidents over this period.

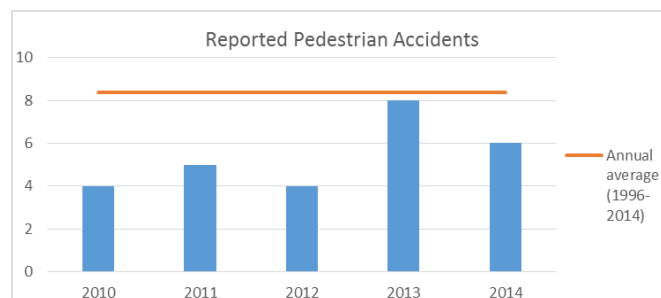


Figure 8 - Pedestrian Accidents ESC 2010-2014

By comparison, for the previous reporting period there was an average of 12.5 accidents per year and an average of 1.2 fatalities per year.

Cyclists

No cycle fatalities have been recorded in the last 5 years. There have been 16 reported accidents involving pushbikes in that period with 18 injuries reported.

The following figures illustrate some key characteristics of crashes over this period.

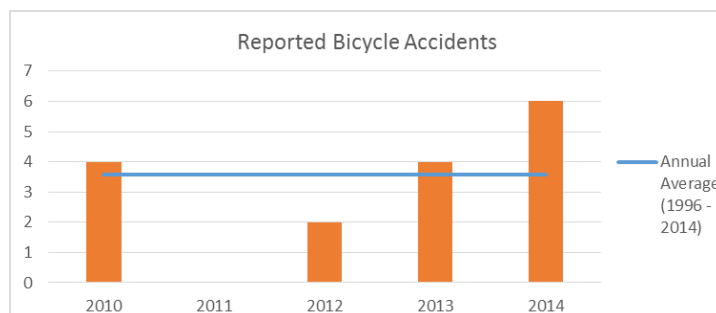


Figure 9 – Reported Bicycle Accidents ESC 2010-2014

By comparison, for the previous reporting period there was an average of 3.4 crashes involving injury reported per year.

The Roads and Maritime Services has noted in its annual reports that a substantial proportion of non-fatal cyclist accidents are not reported to police and consequently, these statistics may not accurately reflect the true situation.

Statistics for NSW indicate that the most significant issues are the predominance of young male cyclists injured in accidents and high-speed fatalities on rural main roads. Published statistics indicate that typically, accidents occur on-road, primarily with cars, with many occurring within the hour before or after normal school hours.

Council has already addressed many constraints on its rural road network through the provision of wide sealed shoulders, culvert widening and other measures. Council will continue to improve the rural road network in association with other roadworks to take account of cyclist riding on the road. These works are outside of the scope of this strategy.

3.7 Trip Attractors/Generators

Trip attractors are important for identifying the places which walkers and cyclists will most commonly visit and are useful in determining the main desire lines. They include, in summary, the shopping centre/commercial areas, transport nodes, schools or educational establishments, recreational areas, medical facilities (including doctors and dentist surgeries) and places of employment, and these are described in more detail below.

Transport Nodes

The main transport nodes of the Shire are located within the Batemans Bay, Moruya and Narooma town centres. The majority of the towns also have access to regional bus services and are therefore the main attractors for pedestrian traffic.

There appears to be little cross-transport usage by cyclists as there is no provision for taking your bicycle with you.

Educational Establishments/Schools

There are seventeen educational establishments within the Shire. Schools represent an area of real importance and opportunity for walking and cycling as encouraging and promoting walking and cycling at an early age can lead to a continuation of walking and cycling in future years, not to mention the immediate health benefits.

However, it is critical that parents recognise the limitations in cognitive skills of young children in perceiving and avoiding potential hazardous situations including conflicts with other path users and traffic at junctions. It is recommended that parents accompany children of primary school age but this is beyond Council's ability to control other than through the provision of information to parents and schools.

Recreational Areas (Open Space)

The Shire has many open space/park areas available, which are dispersed throughout the LGA. In particular, the foreshore area in each of the towns and villages provide many opportunities for cyclists and pedestrians.

The main towns each have major sporting facilities that attract users from throughout the Shire. In particular, junior sport participants are prime candidates for pedestrian and cycle traffic to and from those venues. The provision of connecting paths and cycle networks should be developed to provide access to these facilities.

Commercial Precincts

Each of the large towns within the Shire has their own commercial precinct. In addition, each of the villages has at least a neighbourhood shopping area, which is an attractor for local residents.

Medical Facilities

Doctors' and dentists' surgeries have often been recognised as trip attractors. These are generally located within the commercial areas of each of the towns and should ideally have footpaving available to them.

Tourist Facilities

All of the population centres have caravan parks with a significant number of motels in the greater Batemans Bay region and Narooma. The guests of these facilities often use our path network for accessing other venues and therefore need to be considered as significant attractors.

The following tables summarises the significant attractors and employers across the Shire and their locations.

Table 2 – Significant Attractors within Eurobodalla Shire

Type	Location	
Motels	Batemans Bay / Batehaven	173
	Malua Bay	1
	Broulee	2
	Moruya	4
	Tuross	1
	Narooma	11
Caravan Parks	Durras	2 of
	Nelligen	
	Batemans Bay / Batehaven	4 of
	Sunshine Bay	2 of
	Tomakin/ Broulee	3 of
	North Head Camp ground	
	Moruya	2 of
	South Head	
	Tuross	2 of
	Dalmeny Camping Ground	
Narooma	3 of	
Mystery Bay Campground		
Attractions	Birdland	Beach Rd, Hanging Rock
	Mogo Zoo	Tomakin Rd, Mogo
	Old Mogo Town	Annets St, Mogo
	Batemans Bay Mini Golf	Mackay Park Access Rd, Batemans Bay

Table 3 - Significant Employers within Eurobodalla Shire

Employer	Location	
ESC	Council Administration Centre Moruya Depot and Workshop Batemans Bay Depot Narooma Depot	Vulcan St, Moruya Araluen Road, Moruya Princes Hwy, Batemans Bay Glasshouse Rocks Road
Greater Southern Health	Moruya Hospital Batemans Bay Hospital Narooma Community Health Centre	River Street Pacific Street, Batemans Bay Field St, Narooma
IRT	Crown Gardens The Clyde Moruya Retirement Village Coastwatch Dalmeny Retirement Village	Guy Lane, Batemans Bay Beach Rd, Batemans Bay River Rd, Moruya Noble Parade, Dalmeny Ruth Place, Dalmeny
Other Aged Care and retirement facilities	Cooinda Retirement Village The Manor The Glen Maranatha Lodge Edgewater Park (Opal Aged Care) Banksia Village St James at Dalmeny (Estia Health)	Clyde St, Batemans Bay Beach Rd, Batehaven Correa Pl, Batehaven Calton Rd, Batehaven Beach Rd, Denhams Beach Heath St, Broulee Noble Parade, Dalmeny
Schools and Educational Institutions	Batemans Bay HS Batemans Bay PS St Bernards PS Sunshine Bay PS Broulee PS St Peters Anglican College (K-12) Carroll College (Yr. 7 – 12) Mogo PS Moruya PS St Marys PS Moruya HS Bodalla PS Narooma HS Narooma PS Moruya TAFE Batemans Bay TAFE Wollongong University (Hanging Rock)	Glenella Road, Batemans Bay Surfside Sunshine Bay Sunshine Bay Rd, Sunshine Bay Broulee Train Street, Broulee George Bass Drive, Broulee Princes Highway Evan Street Queen Street, Moruya Albert Street Potato Point Road Princes Highway Montague Street Princes Highway Hanging Rock Pl, Hanging Rock Hanging Rock Pl, Hanging Rock

Table 3 - Significant Employers (cont.)

<p>Childcare/Early Learning</p>	<p>The Learning Tree Children’s Centre Northside Early Learning Busy Bodies Pre-School Batemans Bay Pre-School Nippersville Child Care & Pre-school Surf Beach Child Care Centre Mogo Aboriginal Pre-school Hope Early Learning Centre Broulee Early Learning Centre Moruya Preschool Kindergarten Murray St Pre-School Northside (Moruya) Premier Early Learning Centre Tuross Child Care Centre Dalmeny Preschool and Long Day Child Care Centre Narooma Pre-School Kindergarten Octopus’ Garden Pre-school The Little Yuin Aboriginal Day Care Centre</p>	<p>The Outlook Rd, Surfside Kerang St, Surfside Fauna Ave, Long Beach Melaleuca Cr, Catalina Beach Rd, Denhams Beach Tallgums Way, Surf Beach Annett St, Mogo Train St, Broulee Train St, Broulee Campbell St, Moruya Murray St, Moruya Princes Hwy Albert St, Moruya Andrew Ave, Tuross Head Maculata Cct, Dalmeny Nichelsen St, Narooma Narooma Wallaga Lake</p>
<p>Clubs</p>	<p>Batemans Bay Services Club Catalina Golf Club Malua Bay Bowling Club Tomakin Sports and Recreation Club Moruya Golf Club Moruya Bowling Club Tuross Head Sports Club Dalmeny Bowling Club Narooma Services & Bowling Club Narooma Golf Club</p>	<p>Beach Road Beach Road Sylvan Street Sunpatch Pde, Tomakin Evans Street Shore Street Monash Avenue Ruth Pl, Dalmeny Princes Highway, Narooma Ballingalla Street, Narooma</p>

Table 3 - Significant Employers (cont.)

Supermarkets	<p>Woolworths</p> <p>Aldi</p> <p>Coles</p> <p>IGA</p> <p>Other</p>	<p>Bridge Plaza, Batemans Bay</p> <p>Church St, Moruya</p> <p>Narooma Plaza, Narooma</p> <p>Village Centre Batemans Bay</p> <p>Village Centre, Batemans Bay</p> <p>Edward Rd, Batehaven</p> <p>Beach Rd, Surf Beach</p> <p>George Bass Dr, Malua Bay</p> <p>George Bass Dr, Tomakin</p> <p>Ford Street, Moruya</p> <p>Noble Parade, Dalmeny</p> <p>Princes Hwy, Narooma</p> <p>Tuross</p>
Major Individual Retail	K-Mart	Village Centre, Batemans Bay

3.8 Road Safety

The safety of road users and pathway users is an important factor in managing assets and networks. 'Road Safety 2000, the RTA Plan for Road Safety in New South Wales' had as its mission statement "Aiming to make New South Wales roads the safest in the world" (RTA 2000) whilst the vision of the 'NSW Road Safety Strategy 2012-2021' is 'Working towards Vision Zero" (Transport for NSW 2015).

The NSW Road Safety Strategy identifies a number of key focuses for pedestrians and bicycle users including:

- Working with local government to undertake audits and address the maintenance of pedestrian facilities.
- Land-use planning guidelines to consider pedestrian requirements, especially at transport hubs, new residential developments and in regional NSW; and the requirements of bicycle riders.
- Working with local government to undertake audits to address maintenance and safety needs for bicycle riders, including standards and guidelines.
- Development of educational communications to target pedestrian behaviour and safety
- Development of educational communications to target bicycle riders to increase the use of helmets and to highlight bicycle rider rights, responsibilities, interaction with other road users, visibility and the need to share the roads.
- Consideration of the development of safe, dedicated routes for bicycle riders. (Transport for NSW 2015, p.25).

It is the aim of Eurobodalla Shire, to assist the NSW Government to progress their vision.

In respect of road safety this is dealt with in more detail in its Road Safety Strategy and that document should be referred to for further details.

Council recognises that the safety of the public is paramount in all of its activities. To assist in the undertaking of this Council has instigated a Risk Management Policy. Part of this Policy is a requirement to undertake works and manage infrastructure in a manner that does not put others at unacceptable risk.

3.9 Benefits of Walking and Cycling

Recreation and sport is an important contributor to the quality of life of individuals and the general community, providing benefits both to individuals and the general community. Walking and cycling are a significant way of providing these benefits.

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 extremely efficient alternative transport method for short trips.

With a life-cycle cost of \$130,000 per kilometre, footpaths compare very favorably with the provision of a bus service. At a one-off cost in the order of \$130 per lineal metre for a nominal 1.5m wide footpath, the cost of providing a footpath network is considerably less than providing a bus, which can be as much as six times more expensive.

The cost of providing parking facilities for bicycles is significantly lower than for cars. Depending on the location within Eurobodalla, the contribution charged to developers is approx. \$4,000 per car space. Provision for a number of bicycles can be less than \$1,000. As less space is needed for parking of bicycles 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. It has been estimated that the average Australian car emits about 4 tonnes of carbon dioxide every year (Wollongong City Council 2010). Reducing vehicle trips will reduce greenhouse impacts and noise, improving the environment for all.

Health & Fitness

Cycling and walking have many significant health benefits. They are a significant way to increase a person's fitness. It has been noted that "The most effective fitness routines are moderate in intensity, individualized and incorporated into our daily activities (Toronto 2000)". Walking or cycling can easily provide this.

The NSW Government, in their 2010 Bike Plan stated that the Government "considers it important to promote cycling as health initiative" (RMS 1999).

Economic & Social

Walking and cycling provide alternative transport options for those who don't have a car or cannot access existing public transport

Increased walking and cycling will have economic benefits for the individual through savings made on the running cost of motor vehicles. The National Cycling Strategy quotes figures from the Queensland Department of Transport and Main Roads that indicates that the cost of buying and maintaining a bicycle as being 1% of that of a car. Studies have indicated that the average running costs for small to medium sized cars are approx. \$200 per week and this is supported by costs determined for the ESC fleet. Cycling to work can substantially reduce car travel, enabling some families to reduce the number of cars in the household, though with the dispersant nature of our community this may be less than in major cities with well-developed public transport networks.

The Queensland Government study (2011) indicated that the operating cost for a concrete path is in the region of \$0.005 per passenger km as compared to an average rate of \$0.50 for buses and \$0.0194 for a car². When added to the operating cost for a vehicle (estimated at (\$0.35/km), it can be seen that there are significant benefits to cyclists for choosing to operate a cycle at minimal additional cost to council.

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

The Queensland study also found that a typical off-road path in an inner urban area generates an economic benefit totalling \$1.43 per kilometre cycled, per person.

² Interpolated from published figures that were based on a 3m concrete path with 1,000 cyclists per day on a soft subgrade

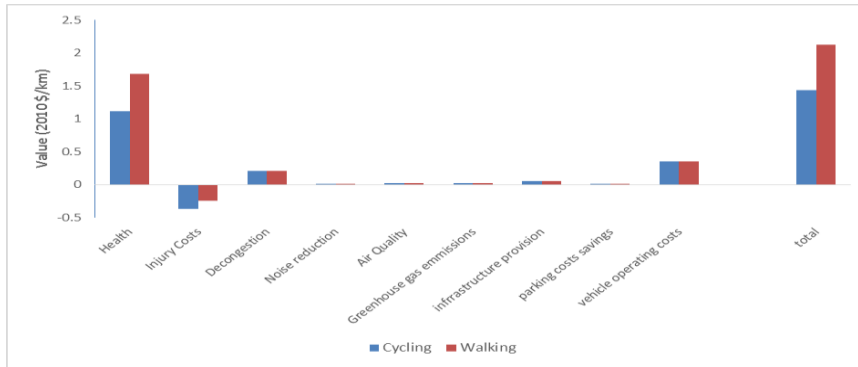


Figure 10 – Overall Economic Benefits of Bicycle Paths Per km Travelled
(Queensland Government 2011)

Tourism

Eurobodalla has been a traditional destination for family holidays and the like. Many family groups visit the region, often bringing their own bikes or having some available at their accommodation. The provision of improved walking and cycling facility will increase the attractiveness of the region as a holiday destination.

3.10 Funding

Council has identified the provision of pathways as a funding priority and has increased funding recently over traditional levels.

The provision and development of Council shared path and cycleway network is identified in Council's Delivery Plan as a key activity in response to the Community's priority for a liveable community. Council's identified actions for achieving this activity include the delivery of an identified capital and renewal program, and the seeking of grant funding and partnership opportunities to develop the network. To achieve these outcomes by undertaking these identified activities, Council has allocated funding of \$0.57M within the 2005/16 Operational Plan and on-going funding in the Long-term Financial Plan.

The provision of road safety programs (which includes cycling and pedestrian activities) is identified in Council's Delivery Plan as a key activity in response to the Community's priority for a productive community. Council's identified action for achieving this is the implementation of road safety programs.

To assist with provision of pathways, shared paths and associated infrastructure, Council continues to pursue:

- Government grants
- Developer contributions
- Direct works by developers (e.g. in new subdivisions)
- Landowner contributions under the Roads Act 1993
- Community fundraising and/or works
- Donations (e.g. for seats along pathways)

3.11 Equity and Accessibility

The need for facilities that are accessible to all members of the community is clearly stated in legislation and other controls.

Providing facilities that improves access for people with limited mobility or other disability is part of Council's obligations to the community. The design, operation and maintenance of any facility must be undertaken in such a manner that members of the community are not disadvantaged. Council has adopted a Disability Access Plan and any development should be done in accordance with this. Part of the requirements of this plan is the assessment of the needs of the disabled when strategies such as this are prepared. Included in this requirement is the need to determine the adequacy of existing structures, whether they comply with legislative requirements and what can be done to improve existing facilities.

3.12 ESD Principles

Council has an obligation to consider the Principles of Economically Sustainable Development in all its strategies. In accordance with its Sustainable Living Policy, the following Principles are addressed.

- **Precautionary Principle**

The provision of facilities throughout the shire in a co-ordinated manner ensures that development and usage occurs in a regulated manner, in locations that will have minimal ecological disturbance.

By the provision of facilities for use by a wide section of the community in an organized manner, the social fabric of the shire will be protected and nurtured.

The viability of the economic system within the shire will be enhanced by the reduction of maintenance that is necessary for a number of reasons. Provision of adequate, attractive facilities will assist in the continual growth of the important tourist market by the attraction of visitors through the provision of appropriate and required facilities

- **Inter-generational Equality**

By the provision of facilities in a regulated manner, the future health, integrity, ecological diversity and productivity of the environment will be maintained by the concentration of users into areas where least impact will be caused.

Pathways are long lived assets. Importantly the existing community should pay for the consumption of these assets over time to provide for the renewal and/or replacement of these pathways. If this is not done, then these costs are passed to future generations.

- **Conservation of Biological Diversity and Ecological Integrity**

The native biological diversity of the region will be protected by the location of facilities in appropriate locations, generally previously disturbed areas, where the outputs from the facility can be controlled. As well, by the controlling of any pathways or other access to the facilities, any impact on biological diversity and Ecological Integrity will be minimised.

- **Encouragement of a Strong, Growing and Diverse Economy**

The provision of facilities in a co-ordinated manner will encourage communities to be involved in the development of those facilities and their 'ownership'. This local development will encourage promotion of the community and its facilities, thereby developing its economy.

- **Principle of Credible Information**

This strategy will be the subject of public exhibition prior to its adoption, thereby encouraging the effective participation of local communities in decision making.

Future Demand



4 Future Demand

Any network of facilities will experience demand for growth. Factors that need to be considered include changes in population and population density, consumer preferences, materials and technology (NAMS 2007)

4.1 Demand Drivers

4.1.1 Growth

Eurobodalla Shire is a rural shire located on the South Coast of NSW. It is a popular holiday and retirement destination. It has a growing older population that are seeking recreational opportunities as well as a significant younger population. Council is also supporting accessible tourism and working with operators to increase market share in this space.

The population of Eurobodalla in 2013 was reported as 37,503 (iD 2015). Whilst the growth rate has dropped from a peak of 2.2% p.a., it is still well above the state average. Projections done by the NSW Department of Planning for the South Coast Settlement Strategy indicate that the Shire residential population is expected to increase to more than 50,000 by 2030. This growth though is not limited to “older” sections of the community. Research indicates that there was a 26% growth in those aged 45-64 between 1996 and 2001. This has meant that Eurobodalla’s population growth has been and will continue to be greater than many other regional areas in NSW.

Future growth in the Shire’s population will be catered for in a combination of new subdivisions and redevelopment of existing areas. In particular the Local Environmental Plan permits an increased density in areas close to existing commercial areas, which will lead to increased pressure for improved facilities. For new subdivisions, developers are required to construct appropriate infrastructure. Council will then accept on-going maintenance and renewal of these assets creating a need to increase maintenance and renewal expenditure with time.

As well as future growth, each weekend the population of the Shire increases dramatically, impacted in particular by an influx of visitors and non-resident home owners from Canberra, Queanbeyan and beyond. In peak summer periods the population can more than triple due to the high percentage of holiday homes and the attractiveness of the area as a holiday destination.

One of the results of this growth is the additional demand for facilities as well as a need to upgrade existing facilities to cater for increased use. This strategy attempts to focus on the better utilization of existing infrastructure and offer people an opportunity to choose alternate transport modes (e.g. walking and cycling over driving).

Demand factor trends and impacts on service delivery have been considered in Council’s Transport Asset Management (ESC 2015) and are summarized in the following table

Table 4 - Demand Factors, Projections and Impact on Services

(Source: ESC Transport Asset Management Plan)

Demand factor	Present position	Projection (2030)	Impact on services
Population	37,503	Population estimated to be more than 50,000 by 2030	<ul style="list-style-type: none"> Increased population will lead to additional infrastructure being gifted to Council through subdivision)
Summer population	120,000	To be determined	<ul style="list-style-type: none"> Lower levels of service will need to be tolerated during peak periods. Typically transport infrastructure will be designed to cater for the 90th highest hour. This means the level of service used for design will be exceeded on an average 36 days per annum
Demographics	35% of population over 60 16% aged between 50 & 60	Aging population	<ul style="list-style-type: none"> Due to a perceived lack of public transport, there is a high rate of car ownership. This will increase with population increase. As the age population increases there will an increased call for exercise opportunities (shared paths, footpaths) and increased public transport and associated facilities
Public transport	Commercial services in Batemans Bay and Narooma	Increased services with population growth in some areas	<ul style="list-style-type: none"> Some minor reduction in car usage can be anticipated as use of public transport grows Increased usage in public transport needs to be supported by improved bus shelter facilities, pathway connections and street lighting
Urban Consolidation	Average lot size 1000 m ²	Average lot size 800 m ²	<ul style="list-style-type: none"> Increased density in targeted areas has the potential to encourage greater use of alternative transport (e.g. walking, cycling and public transport) Overall increase in the traffic on the road network leading to higher risk for non-motorists Net reduction in cost per person serviced
Construction costs outstripping rate pegging limits set by State government	Rate pegging in NSW set by State government	Unknown	<ul style="list-style-type: none"> Maintenance and construction costs typically outstripping rate pegging and State grants by more than one percent per annum resulting in less work being achieved and a steady cost shift to local ratepayers
Climate change	Minor impacts due to extreme high tides. Inundation of paths along foreshores due to ocean inundation events	<+0.1m rise in sea levels by 2030 +0.9m rise in sea level by 2100	<ul style="list-style-type: none"> No additional short-medium term impacts Decisions need to give consideration to future long term impacts of sea level rise Future iterations of the Strategy to give further consideration to climate change Further research required into other impacts (eg temperature change impacts on asset life and performance, increasing potential for fire and flood)
Increasing levels of service via legislative requirements.	Compliance with Disability Standards	Higher standards for improved safety and amenity.	<ul style="list-style-type: none"> Higher levels of service may impact on the amount of maintenance and renewal able to be undertaken with allocated expenditure.
Increasing length of pathways	Existing asset base	Future more extensive asset base	<ul style="list-style-type: none"> Short term - need for increased maintenance allocation to inspect and repair defects Medium – long term – increasing need to provide for asset renewal

New assets required to meet growth will be either acquired from land developments or constructed by Council. Other assets may be gifted to Council.

The following graph illustrates the past and predicted increase in length of pathways (footpaths and shared pathways). The growth in pathway asset is based on the following assumptions:

- an increase in pathways network of 0.8% per annum resulting from development (0.4% for shared pathways and 0.4% for footpaths)
- an increase in length of pathways constructed by Council on average of 1km per annum of shared pathway and 1km per annum of footpath. The make-up and rate at which pathways are provided will vary from year to year depending on grant funds, the difficulty and cost of work and level of community input (fundraising and/or volunteer works)

Taking on these new assets will commit Council to fund ongoing operations and maintenance costs for the period that the service provided from the assets is required. These future costs are identified and considered in developing forecasts of future operating and maintenance costs.

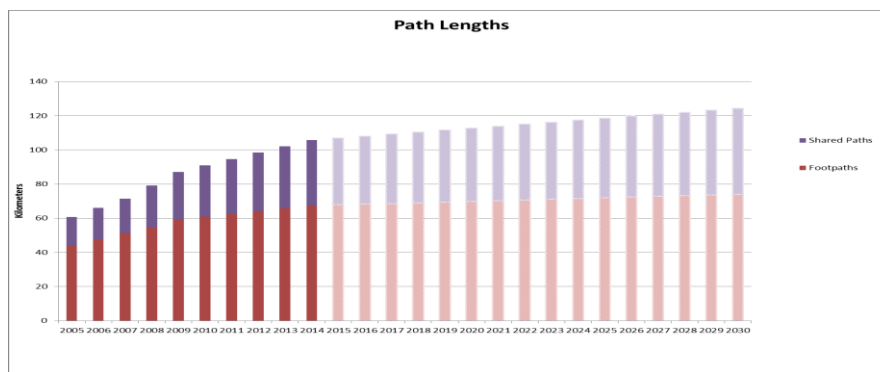


Figure 11 – Anticipated Changes in Path Area

4.2 Changes in Technology

Whilst the vast majority of pathways are constructed from concrete, technology changes are forecast to affect the delivery of some services covered by this strategy. Identified changes in technology include:

- Development of resurfacing materials more resistant to oxidation resulting in longer lives between resurfacing
- Implementation of road pavement management system and advanced pavement condition data collection methodology
- Better optimisation of decision making on a network basis to predict useful lives of assets and funding needed to deliver a specified level of service.

Types of Facilities



5 Facilities

5.1 Types of Facilities

Unfortunately, one type of facility does not suit all users. For example commuter cyclists and sports cyclists do not necessarily want to go along scenic paths; rather they prefer to go directly. Similarly, on-road cycle facilities are too dangerous for young children and not as appealing to recreational cyclists. Walkers prefer more level routes but are not concerned with directness whereas commuters and general pedestrians prefer paths that are direct. It is therefore necessary to try and provide a range of facilities to cater for all users. A mix of on and off-road facilities allows this goal to be achieved as well as making a comprehensive network more economically realistic. The types of facility discussed are in accordance with the NSW Bicycle Guidelines.

The different components of a road system offer a number of opportunities for the provision of cycle and walking facilities.

Highly trafficked urban roads: These are the primary roads in an area. As their main function is to provide for through-traffic, they tend to be busier and vehicular speeds are higher. Examples of these are Batemans Bay Bypass and Beach Road. Whilst for some these roads are not suited to pedestrian or cycling activities, they have several benefits for those experienced and comfortable enough in using them. They are often flatter than surrounding local roads and have better surface conditions and maintenance standards. They are coherent and direct, and intersections favour the major flow of traffic.

Local Urban Roads: Many cyclists undertaking inter-urban trips prefer quiet routes, especially if they are not confident mixing with busy traffic. Local road routes can provide this as long as they form a coherent pattern. Commuter cyclists will use them only if they are as convenient as the most direct route.

Backstreets are more readily available than off-road paths and do not require extra land, unless there are missing links that obstruct direct routes. As destinations are served directly from these routes, they can enable cyclists to avoid highly trafficked roads. They can also offer a lower-stress and enjoyable cycling experience owing to the streetscape and other attractions, and can be quite suitable as part of a leisure or tourist route.

Compared with highly trafficked roads, these routes usually have more hazards from side roads, driveways, parked cars and give-way requirements at intersections with busier roads.

Rural roads: These can provide a coherent route and be an excellent cycling alternative to more heavily trafficked rural arterials or state highways. They can also offer a better cycling experience than major roads, particularly for touring cyclists. Indications from other locations are that well-maintained unsealed roads may be adequate, as in some cases cyclists prefer them to adjacent sealed roads with heavy traffic.

Off-road paths are paths that are totally separated from roads, typically either parallel to the road or through parks and reserves. An example of this is the Beach Road shared pathway in Batemans Bay. The safety of off-road paths is perceived as being high owing to the absence of conflicts with motor vehicles. They are therefore attractive to less confident users and relatively safe for novice cyclists. Most cyclists prefer a traffic-free environment and will divert to enjoy one. These paths also encourage new trips, particularly by pedestrians, recreational riders and neighbourhood cyclists.

Road crossing points provide potential hazard points and it is important that suitable facilities and warning signs be provided at these locations. It is also important that parents acknowledge the limited

cognitive skills of young children in recognising and perceiving potential hazards, and accompany them on cycling trips, even if on off-road facilities.

One of the disadvantages of these routes is a poor perception of personal security, particularly at night and when there is little use. These paths must be well lit and need to be clearly signposted or only knowledgeable local cyclists will be able to find their way.

It is important that off-road pathways be sited to allow a high level of natural surveillance, thereby increasing personal security. Hence, some reserve locations where individual can be out of sight may not be appropriate.

5.1.1 Pedestrians

Pedestrians are generally catered for by the provision of footpaths though often, due to grade or terrain, stairs and bridges are required.

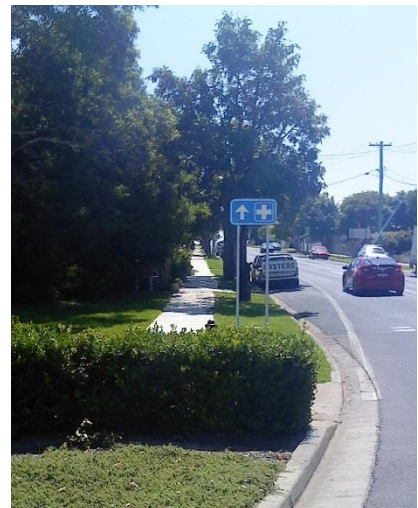
5.1.1.1 Footpaths

Footpaths are intended for use by pedestrians and not for cyclists although in NSW children under 12 years of age are lawfully allowed to ride on the footpath and adults accompanying them, unless prohibited by local jurisdiction.

As well as footpaths along streets, numerous pathways have been constructed recently through subdivisions, to provide connectivity to facilities. These primarily cater for pedestrian access but may also provide convenient bicycle access. They can be safe havens for children on bicycles and other wheeled toys as there is no conflict with vehicles.

There is also a greater use of footpaths by 'mobility scooters' which are becoming increasingly popular with the elderly.

To accommodate the use by children and scooters, Council increased the nominal width of footpaths to 1.5m some years ago. In some existing areas, where constraints make it difficult to achieve this width a lower width may be adopted.



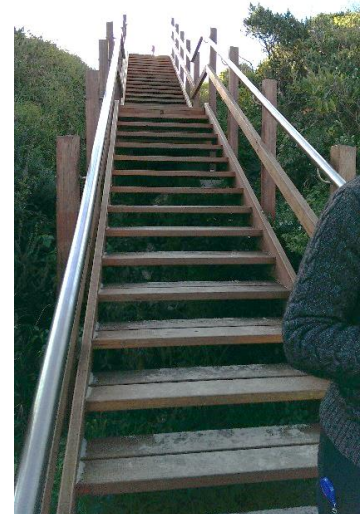
5.1.1.2 Bridges

Where possible, separate pedestrian bridges have been provided or, at a minimum when this is not possible, a path separated by railing. These are generally lightweight in construction.



5.1.1.3 Stairs

Mainly timber they are sometimes concrete.



5.1.1.4 Ancillary Facilities

To ensure the safe passage of users across more highly trafficked roads, specialised crossings are often required. These reduce the crossing distance. They can be either a kerb blister or refuge, the latter allowing the crossing to be made in two stages.

In conjunction with these at uncontrolled crossings, kerb ramps need to be provided wherever possible.



5.1.2 Cycling

Cycling is provided for by either separated facilities such as dedicated cycleways or shared facilities such as sealed shoulders or shared routes. There are a number of types of cycle facilities. These are documented in the adopted design guidelines. Facilities appropriate to Eurobodalla are briefly described below.

Sealed shoulder: A smooth sealed shoulder is the preferred treatment for non-kerbed roads. A sealed shoulder comprises space and an appropriate surface for cycling outside the main carriageway. Generally they are found along rural roads. Sealed shoulders also increase road safety for vehicles and reduce long-term maintenance costs.

Ideally, a sealed shoulder of 1.5-2.0m in width should be provided. Where this is not practicable or economically affordable, sealing the available shoulder is still recommend to provide additional respite for cyclist.

Sealed shoulders usually narrow at bridges, at passing lanes, and at intersections with turn lanes. Generally, motorists travel at high speeds along roads with sealed shoulders, so cyclists are at significant risk in these situations. Sealed shoulders are sometimes made of lower-quality pavements, contrary to cyclists' requirements.

Sealed shoulders contribute to all road users' safety. They are beneficial to cyclists, particularly along high-speed rural roads. They should be smooth, continuous and debris-free to encourage cyclists to use them.

As such a significantly higher standard of maintenance is required to provide for cycling on road shoulders. Additionally, on sealed roads, many cyclists prefer to ride in the wheel path of the travelling lane as this is generally smoother and free from debris, grass and loose stones.



Mixed traffic: Most roads are mixed traffic roads, where no formal cycle facilities are provided and cyclists share the roads with other road users.

There are two types of urban mixed traffic situations. These occur where:

- traffic volumes are low, traffic conditions are straightforward, and there is enough space for motor vehicles to overtake cyclists
- traffic is slowed to near cycle speeds, the road is narrow and cyclists and motor vehicles share the same space travelling in single file.



Source: NZ Cycle Network and Planning Guide
(Photo: Tim Hughes)

5.1.2.1 Off Road

Shared path: The majority of existing and proposed off-road paths within the Shire are shared paths. Here cyclists, pedestrians and other non-motorised forms of recreational activities share the same pathway. The previous strategy identified these as community paths though the adopted term is now shared paths.

This type of facility maximises the benefit of the path to the general community.

It is important that:

- the path's design is suitable for its use and demand
- the connections between path, road and driveways are carefully considered.



Unpaved roads and paths: Relatively cheap to install, this type of facility can help in integrated cycling with environmentally sensitive locations.

Unsealed facilities can be hazardous, depending on gradient, crossfall and surface. They also require regular on-going maintenance and a higher level of renewal to ensure a satisfactory level of safety and service.



Source: NZ Cycle Network and Planning Guide (Photo: Dan Burden
www.pedbikeimages.org)

5.1.2.2 Ancillary facilities

As with pedestrian users there is a need for ancillary facilities along shared paths. These include:

- Road crossings/refuges
- Holding rails at intersections and road crossings
- Water stations
-



5.1.2.3 End of Journey Facilities

End of journey facilities are an important aspect of good planning for cyclists. The convenience of being able to lock up your bike securely at the end of a trip makes the trip more attractive. This is especially the case for commuter and utility bicycle trips.

There are two types of parking for bicycles:

- Long-term for employees and students where the bicycle is left unattended for up to a day; and
- Short-term at shops and other places where the bicycle is not left unattended for a very long time.

Showers and clothes lockers are also important “End of Journey Facilities” for cyclists who commute to work. These facilities should be located near bicycle lock ups where practicable.

Businesses should be encouraged to provide facilities within their developments, particularly for workers. Ideally, adequate provision would also be made for shoppers, particularly as part of larger shopping precincts.

Council can show leadership in this regard by providing suitable facilities for storage of bikes at its own offices, depots and other community facilities.



5.1.3 Design Standards

Design standards are detailed in Part 14 of the AUSTRROADS Guide to Traffic Engineering Practice which recommends a number of cross sections depending on the type and frequency of use of the path.

In Eurobodalla, a standard width of 2.5m is adopted for all shared routes, recognising the typical usage rates on these pathways by both cyclist and pedestrians, whilst for footpaths a width of 1.5m has been adopted.

In accordance with Council's adopted hierarchy for assets, routes are classified in this Strategy as:

- Distributer – forming the primary routes connecting destinations with each other and with neighbouring local government areas
- Collector – utilising local roads and important off-road sections to connect with each other and to destinations
- Local – utilising quiet roads and/or off-road paths for recreational, touring and sports cyclists

5.2 Location

The environment that the facility is located in can often be a benefit and an encouragement to use.

Reserves and parks

Reserves and parks are popular cycling and walking environments. Whilst paths should ideally be several kilometres long to provide a meaningful experience, important links can be established through reserves and parks, which enhance the directness or coherence of a backstreet cycle route. The sealing of a route through a park or reserve also limits the maintenance required and reduces the risk to the public from worn surfaces.

It is important however that consideration be given to personal security when locating pathways within reserves. Sites which have a high level of natural surveillance are to be preferred where available.

Foreshores and Watercourses

Paths along the coastal foreshores and next to lakes and harbours are often popular for leisure walking and cycling and can offer unsurpassed leisure experiences.

Generally, foreshore paths should be located to provide attractive views for walkers and cyclists.

Routes adjacent to watercourses are often picturesque, relatively flat and therefore well used as recreational routes. If they provide access to central business districts, they are also popular commuter routes. If they are used by commuters, care should be taken to avoid meandering, indirect paths.

5.3 Surface Options

A number of surface options exist for footpaths, shared pathways and cycleways.

Concrete: more expensive initially but long lasting. Concrete pavement requires much less on-going maintenance and renewal costs than any other surface and is less susceptible to damage. It is also less susceptible to loss of width due to grass intrusion and damage from locally prevalent creeping grasses such as kikuyu and couch. Concrete provides an easy surface to edge. This is the preferred treatment for footpaths and shared pathways which are close to town centres and are likely to be highly trafficked. Care needs to be taken in vicinity of trees, etc. though as if they are forced out of vertical alignment due to roots, etc, this presents a major cause of falls and injury claims. Council now reinforces all concrete pathways including joints to limit differential vertical movement between concrete joints.

Pavers: Can also provide a lasting surface with a higher aesthetic appeal. They are typically reserved for use in main CBD areas due to cost and significantly higher levels of on-going maintenance.

Bitumen/Asphalt (hot mix): cheaper than concrete and also provides a smooth surface. Has the ability to be provided in different colours to enable delineation and differentiation. Can be relatively easily patched if new underground services are required to cross its surface. More susceptible to damage and grass and tree root intrusion. Requires significantly higher on-going maintenance than concrete. Preferred treatment for sealing shoulders alongside bitumen or asphalt roads.

Gravel/Unsealed: much cheaper than concrete and asphalt. Requires the most maintenance if a smooth surface is to be provided. Access along the paths can be slippery in wet weather and they are quickly worn in high traffic areas. Can be hazardous for bikes and is susceptible to grass and tree root intrusion as well as soft spots and potholes. Preferred treatment for long stretched of path where usage is low; e.g. in the more remote areas of the Shire. Acceptable for mountain bikes.

Inventory



5.4 Inventory

To understand what is required, we must know what is currently provided. Eurobodalla has an extensive network of facilities. Across the Shire there is 36.4km of shared paths, 65.1km of footpaths and 1.8km of access paths that link streets. There are also 15 pedestrian and cycle refuges and 6 bicycle racks, with a total capacity of 65 bikes.

5.4.1.1 Shared Pathways

Shared pathways, catering for a combination pedestrians and cyclist have been provided in various locations across the Shire. Facilities identified across the Shire are:

- Durras Shared Pathway – From Village Rd across Durras Creek, through Durras Sportsfield then from Durras Drive northwards along Durras Lake Rd
- North Batemans Bay Shared Path - from the Princes Hwy along Wharf Rd to Batemans Bay Public School then across Surfside Playing fields to Palana St
- Beach Road Shared Pathway - from Batemans Bay CBD to Batehaven
- Sunshine Bay – from Beach Rd along Sunshine Bay Rd to Hume Rd then along Hume Rd to Wills Cr
- Malua Bay Shared Path - from The Ridge Rd to Tallawang Ave and shopping centre, then through Malua Bay Beach Reserve to King St
- Tomakin Shared Path - from The Moorings along George Bass Dr and along Sunpatch Parade
- Broulee - Broulee Shared Path from Candalagan Creek to McNee St and Heath St Path from Broulee Surf Club to Banksia Village
- Moruya – Moruya Shared Path from Moruya Hospital along the riverbank to the Moruya Swimming Centre then by a variety of streets to Moruya TAFE; Moruya South from Moruya High School to Bergalia St; Moruya West from Shore St adjacent to Gundry Oval; and Myanora from Princes Hwy to Keightly St
- South Head Shared Path - from The Anchorage to Moruya Surf Club
- Tuross Head Shared Path - from Sandy Point/Lavender Bay adjacent to Nelson Parade to Tuross Caravan Park, from the carpark at the Tuross Entrance beach to One Tree Point, within the coastal reserve adjacent to Tuross Boulevard until Allenby Road, then via the reserve along the foreshore of Coila Lake to Kyla Oval (including a short gravel section)
- Bodalla from Sutcliffe St to Potato Point Rd and Bodalla Public School
- Dalmeny to Narooma Shared Path – from Ruth Place (Dalmeny Bowling Club) to Dalmeny shops along Mort Ave, along the headlands, Dalmeny Dr, Centenary Drive, Narooma boardwalk & link to Narooma bridge
- Narooma Flat – around lake foreshore from Narooma Wharf (Bluewater Dr) to Riverside Drive then through the foreshore reserve to McMillan Dr
- A shared path from Glass House Rocks Road to Narooma High School

As well as these facilities, the Old South Coast Road between Broulee and North Head has been closed to through motor vehicle traffic at Bengello Creek and so is only accessible by walkers and cyclists and acts as a shared route.

5.4.1.2 Boardwalks.

There are a number of boardwalks through mangroves, wetlands and bushland in Eurobodalla. They include:

- Narooma boardwalk, linking Mill Bay with Apex Park
- Parts of Tuross Shared Path - below the Tuross Golf Course and along Nelson Parade
- Batemans Bay Water Gardens, and
- Cullendulla wetlands (owned by NPWS)

5.4.1.3 Footpaths

A total of 65.1km of formal footpaths exist across the Eurobodalla network.

Of the urban road network only 23% has a footpath on at least one side of the road. This means the majority of urban roads are without pathways. This strategy therefore focuses on the development of footpaths that:

- Provide separation of pedestrians from traffic on collector, distributor and regional roads
- Provide links to other pathways
- Provide links to key destination points working out from that destination point

5.5 Identified gaps in provision

Desktop mapping of the existing network was undertaken to identify gaps in the current network.

The review identified a number of potential projects. Although many of these have been defined, further investigation is required as to their suitability and appropriateness. They have been prioritised against current projects to ensure that the most appropriate facilities are provided. This was done by use of a pointscore system.

5.5.1 Previous Strategy

A report was prepared for Council in 1997 that identified what shared pathway facilities had been constructed, what had been requested by the community and what was required. Of those identified projects, the following works are still outstanding:

- **Durras Village - Village Road to Durras Lake.** This has been completed to Canberra Ave. The remaining section to the Durras Lake Boatramp is outstanding.
- **Beach Road - Orient St to Pacific St (Southern Side).** A parallel bicycle path on the southern side of Beach Road has been raised on a number of occasions as being desirable whilst The Batemans Bay and South Traffic Strategy Report recommended bicycle paths each side of Beach Rd. This would require the replacement of the existing footpath on the southern side of Beach Road.
- **Beach Road - Batehaven Shops to Surf Beach. (One side only).** This area has had some consideration but the physical constraints prevent the construction of a shared pathway.
- **Tomakin to Broulee Rd.** This was considered at the time of construction of the Candalagan Creek Bridge and was used as part justification of the footway on the bridge. The Tomakin Community Association has made submissions to Council to improve cycling facilities between Tomakin and Broulee.
- **Broulee to Moruya River Bridge via old coastal road, George Bass Dr and North Head Dr** Initially supported by Moruya Rotary Club, the Club constructed a timber bridge over Bengello Creek. A section is missing between the end of the old South Coast Rd and the North Head Campground. Council has widened and sealed the shoulders on parts of North Head Drive in conjunction with other road works over the years. The section is considered too constrained to permit the construction of a separate shared pathway.
- **Riverview Rd, North Narooma** Some initial support by Council but no further discussion apparent. Council has since constructed a footpath in conjunction with the reconstruction of Riverview Road, noting the physical constraints did not permit the construction of a separate shared pathway.
- **Narooma Aquatic Centre to Forsters Bay via McMillan Rd, then to Highway via Riverside Drive.** A shared pathway has been constructed along the frontage of Bill Smyth Oval. The connection of this to Quota Park and the existing pathway is outstanding.

5.5.2 Recreation and Open Space Strategy

The catchment analysis in Appendix 1 lists recommendations of Plans of Management regarding cycle facilities.

5.6 Pointscore System

A pointscore system has been developed to prioritise capital works for footpaths and shared pathways.

A strong emphasis in the consideration of projects and the development of the network has been placed on provision of pathways within urban areas, in particular linkages to:

- Schools
- Educational facilities
- Commercial business districts
- Recreational facilities
- Clubs
- Hospitals and retirement villages

The pointscore system also provides weighting to reduce risk to users by allowing for the hierarchy of the adjoining road. With additional points available for those roads with greater traffic volumes, the separation of pedestrians and vehicles reduces the potential for conflict.

The system also caters and promotes the completion of linkages, improving integration with bus services, tourism and economic benefit as well as cost. This latter item is influenced by the availability of grants and other funding sources. This also allows community groups to influence the priority of works by fundraising or assisting with the construction under Council's supervision.

In regard to grants, Council must remain cognisant of the fact that spreading works such as shared pathways over a period of time can allow Council to attract a larger proportion of grant funding in the medium term. This is best achieved by Council allocating part of its funding to footpaths and part to shared pathways in each year.

Table 5 - Adopted Point Score System





	Issue	Criteria	Points
Safety & Accessible Convenience of Users	Access to schools ¹	<500m radius	10
		500-1000m radius	6
		1000-1600m radius	4
	Access to other – TAFE/Uni ¹	<500m radius	5
		500-1000 radius	3
		1000-2000 radius	1
	Access to main CBD areas ¹	<500m radius	7
500-1000m radius		5	
1000-2000m radius		3	
Access to local shops ¹	<500m radius	5	
	500-1000m radius	3	
	1000-2000m radius	1	
Access to sporting fields, clubs or major recreation ¹	<500m radius	5	
	500-1000 radius	3	
	1000-2000 radius	1	
Access to hospital ¹	<500m radius	5	
	500-1000 radius	3	
	1000-2000 radius	1	
	Uneven area or drop off ²	Additional points awarded if justified by Council Inspection.	2
Separation with Vehicles	Road type & function ³	Urban collector road	10
		Urban distributor road	12
		Urban regional road	12
		Rural distributor road	5
		Rural regional road	5
Provision of continuous Network	Linking villages	<1000m apart	7
		1000-2000 apart	5
	Missing Link	<200m long	5
Other Considerations	Cost to Council ⁴	<\$87,000/km	10
		\$87-145,000/km	7
		\$145-290,000/km	5
	Tourism/economic benefit	High	3
		Medium	1
Shared pathway benefit	Compared to footpath	1	
Duplication	Path on other side of road	-10	
Integration with bus routes	Commercial services	5	
	Other bus services	3	

Notes

- 1 Item has inherently taken safety into account. For example, enhancing the safety of children walking or cycling to school (near schools), and enhancing the safety in locations where there would typically be a high number of pedestrians and cyclists (around institutions, shops, CBDs, recreational facilities, etc). Pathway facilities need to be provided both for the convenience of users, and for safe access to these locations.
- 2 Does not apply to maintenance of existing formal pathways (eg removal of trip hazards). This is otherwise covered by Council's Maintenance Management System.
- 3 Use of hierarchy is to promote separation of pedestrians and cyclists with vehicles on higher volume roads. Refer adopted Road Hierarchy over page. There is a greater need to separate pedestrians and cyclists from vehicles on busier roads.
- 4 Cost to Council includes consideration to contributions by the community or government to reducing the cost of the project and therefore achieve greater output. High cost works in difficult situations are therefore a lower priority than achievable works that produce benefit. Community fundraising may also escalate a pathway's priority.



Council has adopted a hierarchical system for roads. This allows different levels of access and service based on anticipated usage and prominence. The allocation is as follows:

Table 6 – Council Adopted Road Hierarchy

Category of Road	Description	Typical Number of Vehicles Per Day (vpd)
<p>State Highways</p>  <p>(eg Princess Highway)</p>	<p>RTA controlled road</p>	<p>Variable</p>
<p>Regional Roads</p>  <p>(eg Beach Road, Batemans Bay)</p>	<p>Roads declared as Regional Roads with funding contribution from RMS. Links communities. No direct access from road to individual properties. All lots should be serviced via roads built off Regional Roads with an appropriate intersection treatment.</p>	<p>Variable</p>
<p>Distributor</p>  <p>(eg Campbell Street, Moruya)</p>	<p>Provide the connections between the Collector networks. May also service industrial areas and local facilities such as shopping centres and freight terminals. Direct access should not be provided for single allotments. On rural roads, access may be permitted subject to provision of an appropriate intersection treatment and clustering of accesses into a single access road.</p>	<p>>2000</p>
<p>Collector</p>  <p>(eg Bluewater Drive, Narooma)</p>	<p>Provides access to the Distributor network from local access roads. May provide access to individual industrial facilities and links to local shopping centres. May also be a bus route.</p>	<p>1000-2000</p>

Continues over page.

Table 6 – Council Adopted Road Hierarchy (Continued)

<p style="text-align: center;">Local</p>  <p style="text-align: center;">(eg Hillcrest Avenue, Narooma)</p>	<p>Sealed: Major function is to provide access to individual properties. May also provide access to local tourist sites. The dominant feature is low traffic volumes. In urban areas this is typically combined with low vehicle speeds and easy pedestrian and cycle movements.</p>	<p style="text-align: center;">200-1000</p>
<p style="text-align: center;">Local Minor</p>  <p style="text-align: center;">(eg Ryan Place, Moruya)</p>	<p>Sealed: Major function is to provide access to individual properties.</p>	<p style="text-align: center;"><200</p>
	<p>Unsealed: Major function is to provide access to individual farms and properties.</p>	<p style="text-align: center;">Low traffic <100</p>

Who Uses Them and What Do They Want?



5.7 Who Uses Them and What Do They Want?

5.7.1 Who Uses Them?

There is a broad range of user groups that need to be catered for in this strategy and are likely to benefit from the infrastructure. Whilst cycling is seen as a major exercise activity, walking is also a significant method for many of the population, as demonstrated by the popular use of Council's path network. As noted in the Eurobodalla Bike Plan (1999) users of our facilities include residents as well as visitors.



5.7.2 User Requirements

Even though there are a number of different user groups, there are basic requirements for them all. These requirements include safe facilities and adequacy of the facility to undertake the activity.

As bicycle riding is not regulated or licensed, the abilities and experience of individual cyclists vary substantially. Bicycle users range from young children to experienced adult riders and commuters. The bicycle is also used for a wide range of activities including leisure, sport, shopping, and commuting (at many levels). The range of rider ability must be taken into account when designing facilities for cyclists.

5.8 Operational Demands

5.8.1 Recreation Trends

Research has shown increasing trends in recent times in participation rates for sports and recreation in general. A number of causes for this can be identified though it can be shown that, to a large extent, it is due to the growing awareness of the lack of fitness within the wider community. Hill (2000) states that there is greater emphasis on preventative health care and an awareness that recreation can benefit general health, e.g. walking in its many forms is popular to develop and maintain fitness.

5.8.2 Increasing Population

As identified previously, the population of Eurobodalla has been increasing at a significant rate for a number of years. As a result of this increase in population, there will be a steady demand for the provision of additional facilities.



What Do We Want



Source: London Cycle Network Design Manual



6 The Strategy



6.1 An Integrated Network of Paths and Cycle Routes

This section outlines an integrated network of paths and routes that, through their design, markings and signs will have an important role in encourage walking and cycling within Eurobodalla.

6.1.1 Guiding Principles and Objectives

Any network must have a focus. It is the aim of this strategy that a network will be developed using both existing and new paths that will link people to the main attractors of the region or other significant destinations.

As identified earlier Eurobodalla Shire has three main service centres: Batemans Bay, Moruya and Narooma as well as a number of smaller neighbourhood business areas. Combined with the existing educational establishments, health-related centres and the wide range of natural attractors there are many focal points that draw both pedestrians and cyclists leading to a strong demand for walking and cycling facilities. These need to be connected in a holistic manner.

With growth through redevelopment, increased pressure will be placed on our roads and our transport networks. To alleviate this, additional or improved footpaths will be required linking these areas to attractors.

Consequently, a network of shared paths, on-road cycle facilities and footpaths is proposed in this strategy to link people to these attractors.

The guiding Principle for this section is:

A network will be established that is in close proximity to a majority of residents and useable by the widest range of people

The network will comprise of a combination of shared paths and footpaths along bus routes and highly trafficked roads. This network will be supported by the provision of sealed shoulders in rural areas for cyclists and walkers.

The primary objectives of this component are:

- Completion of an integrated network within 20 years;
- Ensure the safe and year round operation of the network through design, signage, enforcement and maintenance; and

6.1.2 Response

6.1.2.1 Planning and Design

As detailed previously there are a number of design guidelines including the NSW Bicycle Guidelines, the (draft) NSW Pedestrian Guidelines and the Austroads Guide to Traffic Engineering Practice. These provide comprehensive information for planning and design of pedestrian paths and cycling facilities. All paths need to be designed in accordance with accepted standards and best practice.

To achieve the objective of an integrated network, the following design principles are proposed for Eurobodalla:

- 1) Off-road facilities to be generally shared paths, preferably concrete and 2.5 metres wide.
- 2) Footpaths will typically be reinforced concrete 1.5m wide
- 3) Provision of additional lighting where appropriate, particularly in the vicinity of road crossing points and bus shelters
- 4) Directional signs to be included on major pathway routes.

Where separate pathways are not provided, consideration will be given to progressively improving facilities for cycling on highly trafficked roads through such measures as the provision of sealed shoulders and warning signs.

6.1.2.2 Complete within acceptable timeframe

A key element of this Strategy is the development of an integrated network.

The overall network is comprised a mixture of facilities. The current status and proposed works to achieve an integrated network is as follows:

	Proposed	Existing	Outstanding
Footpaths	111.24 km	65.10 km	46.14 km
Access paths	3.00 km	1.80 km	1.20 km
Shared Paths	49.32 km	36.40 km	12.92 km
Boardwalk	0.99 km	0.99 km	
Footbridges	0.50 km	0.50 km	
Stairs	0.13 km	0.13 km	
Refuges	23 of	16 of	7 of
Bike Racks	9 of	9 of	
	90 spaces	90 spaces	

Sections of the network have been selected using the following criteria:

- Connectivity/Continuity
- Directness
- Safety
- Roadway characteristics and operation
- Visibility/awareness of route

Whilst some 60 kilometres of new paths have been identified, it is recognised that not all of this is possible with the resources available. At the current rate of Council funding it would take approximately 30 years to provide this additional pathways network. However this can be accelerated through the use of alternate funding mechanisms.

These pathways will need to be provided on a priority basis making the most of funding sources other than Council funds.

In areas of redevelopment, it is considered appropriate that developers contribute to the transport network by the provision of footpaths as development occurs or through mechanisms such as s94 and s94A Contributions. Additional pathways will also be provided directly by developers as part of subdivisions and approvals of development. Whilst this does not require Council expenditure to create the pathways, it does have significant impact on Councils inspection, maintenance and renewal costs. Therefore Council must ensure these assets are provided to a high standard with low on-going costs.

6.1.3 Actions

- N.1 Ongoing development of an integrated network of paths across the Shire in accordance with priorities and needs
- N.2 Additional funding of the development of the network to be pro-actively pursued including lobbying the NSW and Australian governments for greater funding assistance for the provision of pathways and ancillary facilities
- N.3 Developers be required to provide footpaths and shared paths to cater for additional demand generated
- N.4 New shared pathways be a minimum of 2.5m wide and footpaths be a minimum of 1.5m wide
- N.5 Street lighting be provided to pathways within urban areas on a priority basis as funding permits

Ancillary Facilities



6.2 Provision of Ancillary Facilities

6.2.1 Guiding Principle and Background

People who walk or ride to work or school or for other purposes need more than a defined network. Those who ride require a secure place to leave their bike once they reach their destination. Equally walkers need somewhere to sit to rest when walking significant distances or even to stop and enjoy the view.

Bicycle parking can be of two types – short-term facilities such as bike racks or longer-term storage such as bike lockers. Council has provided some racks previously, mainly at its libraries, recreational facilities, CBDs and some beaches. These remain under-utilised due mainly to security concerns.

For work trips, the most successful option is for workers to have a secure location within their place of work to store their bicycle during the day. Council should, through the Road Safety Officer, work with local businesses encourage greater provision of bicycle facilities within work places.

Similarly, new commercial and other similar developments should be required to provide secure bicycle parking facilities within their development as part of all approvals.

Council has an opportunity to show leadership in this regard through auditing its existing offices, depots and community facilities and providing upgrades facilities for bicycle storage. This could then be promoted to the community as best practise.

6.2.2 Response

6.2.2.1 Planning and Design

As detailed previously there are a number of design guidelines including the NSW Bicycle Guidelines, the (draft) NSW Pedestrian Guidelines and the Austroads Guide to Traffic Engineering Practice.

6.2.2.2 Maintain network

The physical condition of the network is a major factor in any decision to use the facility. Maintenance therefore must be stringent if users are to be encouraged to use the facilities.

6.2.3 Actions

- A.1 Council audit its office buildings, depots and other community buildings and develop a program to upgrade its bicycle storage facilities and promote this to the community as good practise
- A.2 Council develop a program to provide seating at regular intervals along selected pathways to provide rest and viewing spots for the community
- A.3 Council continue to provide bubblers and water filling stations along high use recreational routes
- A.4 The provision of secure bicycle storage facilities as part of all new commercial, industrial and medium/high density development be a requirement of all development approvals
- A.5 Work with the Chambers of Commerce and the business community to encourage provision of space of secure storage of bicycles for workers, and where practicable shoppers

Integrated Transport Modes



6.3 Integrated Transport Modes

6.3.1 Guiding Principle and Background

Eurobodalla has limited public transport opportunities and therefore private vehicles are often the main transport choice for residents. For many trips, due to the significant separation of residential areas, walking or cycling is not seen as a viable alternative.

Council, has identified that alternative transport methods should be encouraged. To encourage this, transport networks need to be integrated. The provision of an integrated footpath and shared path network will assist in the promotion of transport alternatives, including public transport via bus.

Eurobodalla's transport system is privately owned with no trains or government services. The majority of bus services are either school services or intra-state services.

The majority of bus routes are along collector, distributor or regional roads. The provision of a suitable pathways network, road crossing facilities, lighting and bus shelters will:

- Improve safety, comfort and amenity for existing users
- Encourage additional use of buses increasing viability and offering future potential for increased levels of service

It is often claimed that bus services are not used as they do not run in locations convenient or accessible for residents, there is no protection from the weather and, for some, it is too difficult to board buses. The provision of an integrated footpath and shared path network will assist in the promotion of transport alternatives.

The guiding Principle for this section is:

Integration of transport modes increases choices for trips

To assist in achieving the outcomes desired, the objective for this section is:

- Improve access to public transport

6.3.2 Response

6.3.2.1 Improve Access to Public Transport

Pathways should be provided to encourage people to access regular services.

Where there is identified demand, bus shelters should be provided to provide protection to commuters in all weather conditions, therefore encouraging the use of public transport services.

The recent introduction of "low-rider" buses to the local public transport system will assist those with mobility problems to access services. Opportunities should be taken to improve bus stops by the provision of kerbing at the stop so that there is limited step onto the bus.

6.3.2.2 Bicycle Accommodation on Buses

Currently no facilities are known to exist for "bike-and-ride" trips. In other locations, bus operators allow bicycles on board or provide bike racks. This option should be investigated in conjunction with local bus operators to open opportunities for additional trips to be made.

6.3.3 Actions

- I.1 The priority for new pathways gives consideration to integration with bus services
- I.2 Council continue to assist in the development of a robust bus network by the provision of bus shelters, linked pathways and associated lighting
- I.3 Council lobby the NSW and Australian governments to recognise the need for grant funding for public transport to include pathways, lighting and associated infrastructure to allow better integration and encourage greater use of alternate transport options

Pedestrian and Cycle Friendly Streets



6.4 Pedestrian and Cycle Friendly Streets

6.4.1 Guiding Principle and Objectives

Under the Motor Traffic Act, bicycles are defined as a vehicle with two or more wheels. They are built to be powered by human effort and considered a vehicle. Therefore they should be given the same consideration on the road network. Balancing this is their vulnerability.

Though this plan outlines a network of footpaths, shared routes and cycle routes, not all trips will be made on formed paths. Many will be made on the existing road network and/or grass verges.

To achieve the primary goals of this Strategy, the design and operation of all roads must be made as safe and comfortable for all pedestrians and cyclists as possible.

This presents a considerable challenge to Local Government generally in an environment where rates have been capped at well below annual cost increases, and a significant funding gap already exists to sustain infrastructure on a whole of life basis. Therefore works must be undertaken on a priority basis.

Objectives:

- Policies and practices support increased pedestrian and cyclist safety and access for intersections, roadways and bridges
- Maintain and where possible improve maintenance practices to enhance safety, access and comfort noting the significant budget limitations prevailing in a rates capped environment
- Ensure safety, access and comfort are maintained through or around construction zones

6.4.2 Response

To ensure safety and improving access for pedestrians and cyclists, their characteristics must be considered in all decisions and designs.

Design and operation of roads

To encourage the sharing of urban roads, residential streets carrying local traffic should be designed to limit the speed environment to an acceptable range.

Prior to approval of new subdivisions, a traffic study should be provided outlining a network of pathways within and to the subdivision that provides:

- a footpath on one side of all local streets
- a footpath on both sides of all collector and distributor road
- a linked network of shared pathways including where appropriate, upgrading footpaths to shared pathways to complete the network
- appropriate and safe road crossing facilities including kerb ramps that comply with disability standards
- appropriate lighting, signposting and delineation
- appropriate bike storage facilities and seats along the pathway
- appropriate links to nearby destinations

Similarly, the approval of development applications should be subject to the provision of appropriate pathways construction and connections.

Payment of Section 94 developer contributions should also be applied at the appropriate rate.

Where possible, traffic calming measures should be cyclist compatible.

Bridges

Footpaths and cycle lanes should be provided on all bridges to allow the safe passage of pedestrians and other users.

Drainage Grates

A program of identification and replacement of grates that are not cycle compatible should be implemented.

Heel guards should also be provided in pedestrian areas.

Traffic Signals

To ensure pedestrians and cyclists are not disadvantaged, all signal-controlled intersections should include pedestrian activated buttons. Where possible the detection loops in side streets should be set to detect cyclists.

Construction Zones

Provision for pedestrians and cyclists at construction works are covered under RMS guidelines. Alternative arrangements for pedestrians and cyclists should always be provided. Surfaces should be safe and clear sight lines maintained.

6.4.3 Actions

- F.1 Implement a program of identification and replacement of non-cycle-compatible drainage grates
- F.2 Any additional traffic signals be provided with pedestrian activated buttons and where practicable cycle detection loops

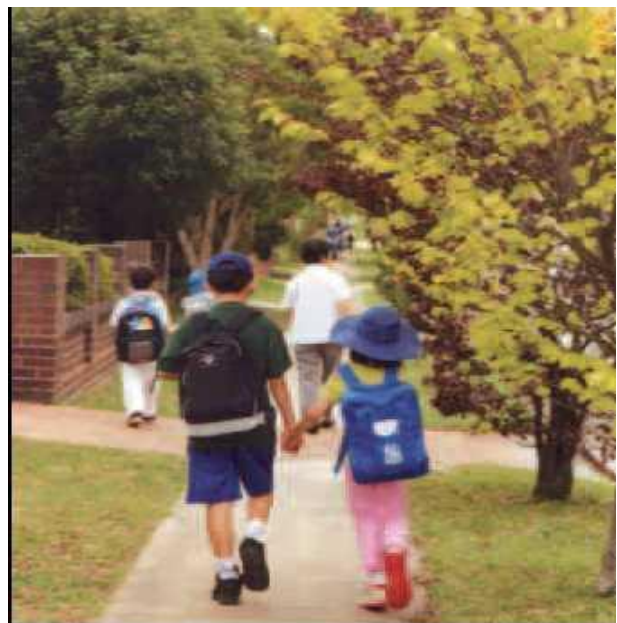
Safe Use



Source: Queensland Cycle Strategy



Source: NSW Guidelines for Walking and Cycling



Source: NSW Guidelines for Walking and Cycling

6.5 Promoting Safe Use

6.5.1 Guiding Principles and Background

Pedestrian and cycling are important activities for our community well being and to help people move around their neighbourhood and connect with other people. The many pathways and facilities already provided have encouraged greater use by residents and visitors with positive benefits to the community.

Both pedestrians and cyclist are at greater risk of injury if involved in an accident with a motor vehicle, or each other. This can discourage people from walking and cycling.

Some of the potential hazards for pedestrians and cyclists include:

- Conflict with cars (on roads and parking)
- Lack of separation from motor vehicles
- Rough or uneven surfaces or drop-offs
- Steep grades
- Poor lines of sight
- Lack of natural surveillance to users of pathways
- Lack of adequate street lighting

The benefits of pedestrian activity and cycling certainly outweigh the risks of death or injury. For instance, the risk of injury requiring hospital treatment is 2 to 3 times higher for football and squash, than for cycling (Roberts et al).

In Australia the majority of cycle paths are shared routes where pedestrians and cyclists share the space. Often though, pedestrians feel threatened by high-speed cyclists.

In Australia the majority of cycling accidents requiring hospitalisation actually occur off the road on footpaths or shared paths.

There is broad public support for road safety programs. Council has initiated a Road Safety Officer, whose role is not limited to vehicle drivers but also encompasses cyclist and pedestrian safety.

By improving skills, attitudes and behaviour, trips can be made safer. Therefore this section's guiding Principle is:

Through education, create an environment where people can walk or cycle with safety

Objectives:

- Work with other agencies to deliver safe cycling messages
- Find or develop ways to fund and sustain safety campaigns
- Investigate, develop and establish a protocol for the recording and response to cycling collisions and injuries to pedestrians.

6.5.2 Response

6.5.2.1 Education

Education programs for cyclists, pedestrians and drivers are essential. They are an integral part of Council's road safety initiatives. Education is particularly important for school children especially concerning cycling and pedestrian safety.

Many education campaigns are carried out by the NSW and Australian Governments. It is important to reinforce such information in the local area. Local education campaigns should include school groups, the Police, local community groups and clubs and Council. The RMS may give additional support.

Education programs are undertaken within schools by the NSW Government and Council does not propose to duplicate this service.

6.5.2.2 Bike Week

A promotional week for bikes, this is a great way to increase awareness of bicycle riding and associated issues. Bike Week activities should be aimed at encouraging more people to cycle and educate both cyclists and motorists of the benefits of cycling, road rules, safety and other issues for bicycle riding.

6.5.2.3 Respond to Accidents and Collisions

Creating a safer environment goes beyond injury prevention programs. Council needs to respond to incidents or accidents by mitigation of the factors where possible and modify their design criteria to limit the possibility of a similar event occurring.

To ensure that Council is recognised as being pro-active, the encouragement of reporting accidents should be done. Council's CSR system is an ideal vehicle for this as it has mechanisms in place to ensure that the report is followed up with action.

6.5.3 Actions

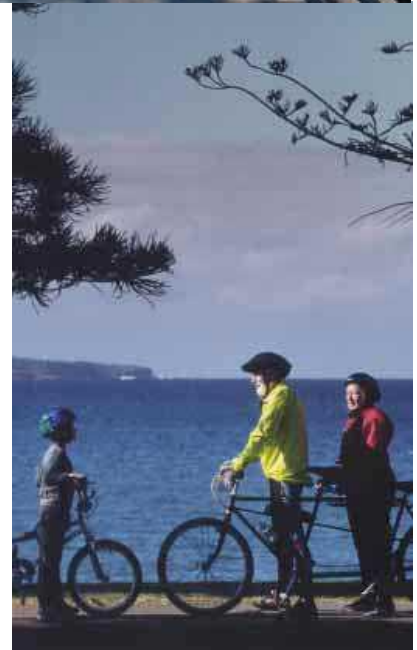
- S.1 Continue safety education campaigns outlined in Council's Road Safety Plan for pedestrians and cyclists

Promotion



cycling

eu obo dala
Land of many waters
U



Source: How To Prepare a Bike Plan, NSW RMS

6.6 Promotion

6.6.1 Guiding Principle and Background

Whilst no definitive figures are available for bike ownership in Eurobodalla, it is believed to be on par with other locations. Whilst the percentage of cyclists is relatively high, the vast majority do not consider cycling as a transport option. The same can be said of walking, with many residents using vehicles for short trips whereas walking would be a better option.

As identified previously, the encouraging of people to walk or cycle more often will have significant health benefits for the community. The key to this is promotion of the benefits, changing habits and attitudes. The guiding Principle is:

Use of our network will improve the quality of life for all residents and users

Promotion is more than getting people riding or walking for recreation. It is also making people aware of transport alternatives, reduction of impacts on the environment, and the health benefits to be gained from regular exercise.

The objectives of this segment are:

- Encouraging walking and cycling as alternative transport means
- Promote cycling and walking to a widest possible audience via effective use of available media and public outreach
- Demonstrate leadership through innovative policies and facilities
- Marketing of Eurobodalla as a cycling tourist destination

6.6.2 Response

6.6.2.1 Everyday Transportation

Whilst many can see the recreational benefits of walking or cycling, given the relatively small area of each of the population centres in comparison to other regional centres, walking or cycling can be seen as a viable transport alternative. The provision of infrastructure whether it be routes between population centres or even paths leading to the local bus stop/route or school will encourage people to make these trips.

6.6.2.2 Communications and Public Outreach

Effective communication is an important component of any promotional activity. To support this, the development of a cycling section on Council's website should be encouraged. Here would be found the latest information on existing network, proposed works, current activities and safety information.

Bike Week activities, Active Australia, Walk to Work Day are all programs that promote cycling and walking. These need to be continued to be supported.

6.6.2.3 Bike Week

A promotional week for bikes, this is a great way to increase awareness of bicycle riding and associated issues. Bike Week activities should be aimed at encouraging more people to cycle and educate both cyclists and motorists of the benefits of cycling, road rules, safety and other issues for bicycle riding.

6.6.2.4 Ride to work/school day

Many cities and towns across Australia participate in Ride to Work Days. Providing free breakfasts at major work centres and holding other special events on the day will encourage riding to work/school.

6.6.2.5 Leadership

Council is seen by many to provide a leadership role for the community. By supporting initiatives by other employers or businesses, Council will be fulfilling that leadership role. The installation of bike parking facilities for staff and customers at its facilities and at other public facilities will also demonstrate leadership within the community.

Bicycle User Groups are developing throughout Australia. In Eurobodalla there is the EuroBUG (Eurobodalla Bicycle User Group). Assisting and working with this group will demonstrate leadership and commitment for the cycling fraternity.

The RMS produces a number of brochures promoting cycling and cycling safety. The *Cycling to work, works!* brochure suggests employers prepare a Transport Access Guide (TAG) for their employees and visitors about how to travel to a workplace by walking, cycling or public transport. Council should take the lead and prepare a TAG to encourage its employees to travel to work by means other than cars.

6.6.3 Actions

- P.1 Continue to seek funds to support programs that promote safe walking and cycling such as walk to work days, Bike Week, and other promotional activities put forward and working with the community
- P.2 Continue to provide cycling and walking information at Tourist Information Centres and accommodation centres for the use of visitors

A well maintained network



6.7 Asset Management

This strategy primarily addresses the provision of new works. However, if new assets are to be constructed, then appropriate increases must be made to future maintenance and renewal budgets as Council has an on-going responsibility to inspect, maintain, replace and renew infrastructure to ensure an acceptable level of service to the community.

To assist in that management, Council needs to develop an asset management plan that identifies what it is responsible for, what standard it should be maintained at and what funds are available to do the work. This is outside the scope of this strategy. An asset management plan for Council's transport assets has been prepared which includes footpaths and shared paths.

To ensure adverse impacts on the community are minimised, Council undertakes maintenance activities in accordance with its risk management policies and systems. This includes inspecting pathways on a regular basis, prioritising defects and then actioning these defects as funding permits.

Council also provide funds for the replacement of damaged and/or assets in poor condition. This renewal work is undertaken on a priority basis. As with other infrastructure, the extent of funds currently available is insufficient to sustain the pathways network in the longer term.

Council will need to consider this when determining future long term financial plans to ensure the network remains in an adequate condition and the burden of the current consumption of the asset is not transferred to future generations.

6.7.1 On-Going Maintenance

Council utilises a maintenance management system (MMS) to assess and manage footpaths because they are considered assets with a high risk of injury.

Cycle assets have some additional features that require a higher level of maintenance than other road assets, including:

- Surface smoothness, e.g. no potholes or longitudinal joints in road shoulders.
- Shared path terminations at roads, e.g. adequate widths between bollards, and no unnecessary obstructions such as holding rails and chicanes.
- Signage that is appropriate and complies with current standards.

6.7.1.1 Inspections

Council currently carries out regular inspections of its road and footpath network. As well, Council relies on its Customer Service Request System to monitor problems with its infrastructure and to highlight any maintenance needs arising between inspections.

6.7.2 Actions

- M.1 Annual maintenance and renewal budgets be increased to reflect the increasing size of the pathways network.
- M.2 The standard of initial construction of pathways consider the whole of life implications of managing the asset over the long term.
- M.3 Council consider the long term implications of the funding needed to sustain the pathways network when developing formal asset management and long term financial plans for its transport and other infrastructure

The Way Forward



7 Implementation and Evaluation

This strategy has identified a number of actions and projects. These are aimed at providing a higher level of service and safety to the community as well as encouraging greater use of alternate transport options (walking, cycling and buses). The implementation of the strategy will involve a combination of community consultation, community education, construction, monitoring and evaluation to ensure the outcomes are being achieved.

The extent of works identified in this strategy and requested by the public outweighs the funding available. Therefore, Council has to prioritise works and pursue all available opportunities to deliver pathways. To ensure the most important works are undertaken first, a priority system has been developed based on a pointscore system.

Current opportunities for funding include:

- Council's annual budget allocation
- Grants from the NSW and Australian governments
- Section 94 Developer Contributions
- Direct funding of works by developers as a result of conditions of development consent
- Community fundraising and work
- Direct charges on landowners under the Roads Act, 1993 in accord with Council's policy

Analysis of previous projects indicates that the cost to construct an off-road shared pathway is in the order of \$250 per lineal metre and a footpath \$150 per lineal metre excluding any significant earthworks, clearing, drainage, environmental, pathway bridges, service alteration, driveway alteration or other significant work.

Significant savings can be made if pathways are constructed in association with other major roadworks activities. Where this strategy identifies a need for a pathway, this work will ideally be programmed to be undertaken in association with any major roadworks on this route.

The costs can also be reduced by the use of voluntary labour and/or fundraising provided by community groups, such as has been done at locations such as Tuross Head, South Head, South Durras, Broulee and Dalmeny-Kianga-Narooma.

It is to be noted that none of these funding sources allow their funding to be spent on routine maintenance and renewal works. Therefore, Council must be committed to allocating sufficient on-going funds to allow for the proper maintenance and renewal of any assets developed.

To ensure that the plan is providing the facilities required and to assist on future revisions of this plan, routine monitoring should be undertaken. This monitoring can include pedestrian and cyclist counts on popular routes, surveys of residents as part of Council's overall consultation program and review of accident statistics.

8 Summary of Actions

The actions identified in this strategy will assist in the provision of a network of paths that is useable, safe and addressing the needs of the community. Whilst no commitment to when these works and actions are undertaken, an indicative timeframe is shown in the following table.

Action	
An integrated network of Paths	
N.1	On-going development of an integrated network of paths across the Shire
N.2	Additional funding to be pro-actively pursued including lobbying NSW and Australian governments for greater funding assistance for the provision of pathways and ancillary facilities
N.3	Developers be required to provide footpaths and shared paths to cater for additional demand generated
N.4	New shared pathways be a minimum of 2.5m wide and footpaths be a minimum of 1.5m wide
N.5	Street lighting be provided to pathways within urban areas on a priority basis as funding permits
Provide Ancillary Facilities	
A.1	Council audit its office buildings, depots and other community buildings, develop a program to upgrade its bicycle storage facilities and promote this to the community as good practice
A.2	Council develop a program to provide seating at regular intervals along selected pathways to provide rest and viewing spots for the community
A.3	Provide bubblers and water filling stations along high use recreational routes
A.4	The provision of secure bicycle storage facilities as part of all new commercial, industrial and medium/high density development be a requirement of all development approvals
A.5	Work with the Chambers of Commerce and the business community to encourage provision of space of secure storage of bicycles for workers, and where practicable shoppers
Integration of Transport Modes	
I.1	The priority for new pathways gives consideration to integration with bus services
I.2	Council continue to assist in the development of a robust bus network by the provision of bus shelters, linked pathways and associated lighting
I.3	Council lobby NSW and Australian governments to recognise the need for grant funding for public transport to include pathways, lighting and associated infrastructure to allow better integration and encourage greater use of alternate transport options

Pedestrian and cycle friendly streets	
F.1	Implement a program of identification and replacement of non-cycle-compatible drainage grates
F.2	Any additional traffic signals be provided with pedestrian activated buttons and where practicable cycle detection loops
Promoting Safe Use	
S.1	Continue safety education campaigns outlined in Council's Road Safety Plan for pedestrian and cyclists safety
Promotion of Cycling and Walking	
P.1	Continue to seek funds to support programs that promote safe walking and cycling such as walk to work days, Bike Week and other promotional activities put forward and working with the community
P.2	Continue the provision of walking and cycling information at Tourist Information Centres and accomodation centres for the use of visitors
A well maintained network	
M.1	Annual maintenance and renewal budgets be increased to reflect the increasing size of the pathways network.
M.2	The standard of initial construction of pathways consider the whole of life implications of managing the asset over the long term.
M.3	Council consider the long term implications of the funding needed to sustain the pathways network when developing formal asset management and long term financial plans for its transport and other infrastructure

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NSW Centre for Road Safety – <http://roadsafety.transport.nsw.gov.au>

Australasian College of Road Safety – <http://acrs.org.au/>

NSW RMS – Active Transport Program – <http://www.rms.nsw.gov.au/projects/walking-cycling/>

Council's Road Safety Plan – <http://www.esc.nsw.gov.au/inside-council/community-and-future-planning/strategies/road-safety-strategic-plan>

Council's Pathways Risk Management Policy – <http://www.esc.nsw.gov.au/inside-council/council/council-policies/policies/Pathways-Risk-Management-Policy.pdf>