traffic + transport

Shoalhaven Active Transport Strategy Report

including Pedestrian Accessibility & Mobility Plan Update and Bike Plan Update

for

Shoalhaven City Council

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Acknowledgement *of Country*

Walawaani (welcome),

Shoalhaven City Council recognises the First Peoples of the Shoalhaven and their ongoing connection to culture and country. We acknowledge Aboriginal people as the Traditional Owners, Custodians and Lore Keepers of the world's oldest living culture and pay respects to their Elders past, present and emerging.

Walawaani njindiwan (safe journey to you all)

This acknowledgment includes Dhurga language. We recognise and understand that there are many diverse languages spoken within the Shoalhaven.

1 Introduction

1.1 Overview

The Shoalhaven Local Government Area (**Shoalhaven**) is an exceptional place to live, work and play, but our growing population, older demographic, vibrant tourist industry and broader spread of towns and villages over some 4,500 square kilometres make our transport challenges, well, challenging!

As Shoalhaven moves towards a population of more than 120,000 people by 2031, and with no indication of that growth slowing, it is critical that our transport networks continue to provide a high level of accessibility and efficiency. At present, over 350,000 individual trips are made across Shoalhaven every weekday, 75% of which are by private **vehicle**, either as a driver or passenger; without intervention, the demand for new road and parking infrastructure will continue to increase, leading to further congestion across the road network, and within our town and village centres.

Increasing the use of **active transport** will play a critical role in reducing vehicle trips and their associated costs. **Active trips** also provide enormous benefits to the health and wellbeing of individuals, and to the broader community, in turn allowing the preservation and creation of more spaces across Shoalhaven that people can simply enjoy.

Over the past 20 years, Council has implemented many elements of the 2002 and 2005 Pedestrian Accessibility & Mobility Plans (**PAMP 2002** and **PAMP 2005**) and 2013 Bike Plan (**Bike Plan 2013**), which have provided significant improvements to active transport and accessibility in many of our towns and villages. We have also created many new recreational paths providing access for residents and visitors alike to our precious natural attractions.

But there is always more to do, particularly in the context of ongoing growth and demographic changes, to make active transport available to our entire community!

1.2 The New Active Transport Strategy (PAMP & Bike Plan Retained Within!)

Wondering what happened to our existing PAMP & Bike Plan? They still exist – but they've been updated and pulled together under the banner of the new **Active Transport Strategy** (the **Strategy**). So why did we need a new strategy when we already had a PAMP & Bike Plan…?

The NSW Government released its new Active Transport Strategy in December 2022 (**NSW ATS**), which draws on the NSW Future Transport Strategy, also released in 2022 (**NSW FTS**). The purpose of the NSW ATS is to double active transport trips in 20 years, following the NSW Government's vision for safe, healthy, sustainable, accessible and integrated journeys in NSW. Given these significant targets, and moreover the significant changes to the underlying means by which these targets can be achieved, it was necessary to development the new Strategy so as to be consistent with the NSW ATS, and more take advantage of the new thinking in regard to active transport as detailed in the NSW ATS.

While the PAMP and Bike Plan remain fundamentally important elements within the Strategy, the current PAMP Maps needed to be better integrated into the Council mapping, and it was also not helping Council's cause having separate criteria to rank PAMP projects against Bike Plan projects.

Accordingly, the overarching Active Transport Strategy has been updated and incorporates the PAMP and Bike Plan; and a single set of "**Active Transport Scoring Criteria**" developed for application to all active transport projects.

Developing the strategy in line with the NSW Government's latest strategy, policy and guidelines, will also help to maximise grant funding opportunities under the plan.

1.3 Active Transport Strategy Objectives

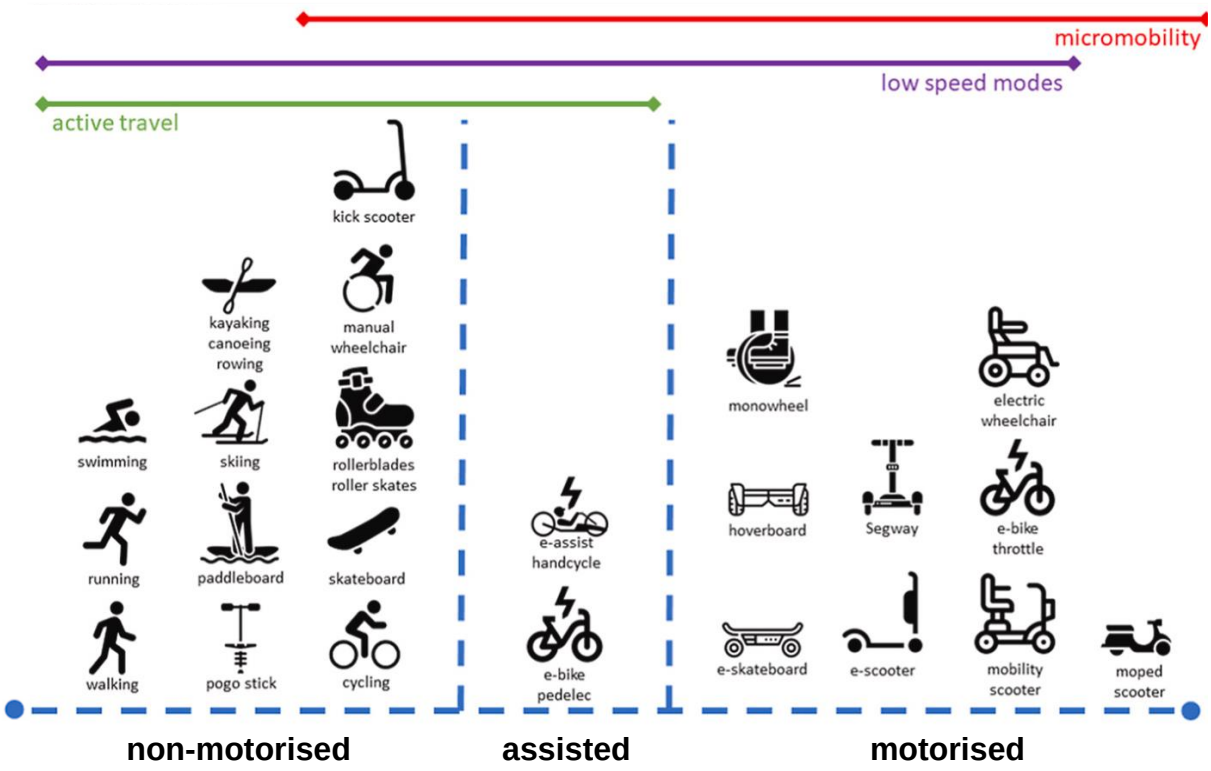
The Strategy from the outset considers that active transport is suitable for people of all ages and abilities, without any special equipment, and it's pretty much free (once the active transport infrastructure is built and maintained!).

The primary objective of the Strategy is to get more people out walking and bicycle riding, improving health and environmental outcomes, and more sustainable transport networks for the future.

This can be achieved by creating a safe and connected active transport environment that is attractive to all potential users, with a focus on providing viable alternatives for local trips. This primarily targets walk trips of up to 1.5 km, and bicycle trips of up to 10km, i.e. generally for trips of up to 20 minutes between home and work; school; mixed use centres; and community and recreational facilities.

For the purposes of the Strategy, active transport describes walking, bicycle riding and the use of mobility devices (e.g. wheelchairs, walking aids, scooters) and small wheeled transport (e.g. skateboards, skates) on paths, roads and trails, for the whole or part of a journey.

It is noted that the Strategy uses the term "***bicycle rider***" rather than "***cyclist***" in most instances. While standards and guidelines tend to interchange both, and both are still being used to varying degrees, the term "bicycle rider" is being used more and more, primarily to be more inclusive of the wider range of bicycle riders across the varying demographics and levels of capability. The term "cyclist" is used occasionally but generally only when referring to more serious or competitive bicycle riders.



While the tyranny of distance between many of our towns and villages means that vehicle trips will still dominate into the future, there is significant potential for an increase in active trips for all journey purposes. Creating safe, connected and attractive active transport networks is therefore essential, as are strategies that promote the benefits of active trips wherever possible.

Shoalhaven already provides significant active transport infrastructure, including footpaths, shared user paths (**SUP**s), cycleways and formal road crossings.

However, of the current length of the Council maintained road network – some 1,822km in total - the length of our **path networks** is just 275km, or 15% of the length of the road network. Extending these path networks; providing more crossing facilities and other active transport related infrastructure; and improving connectivity and accessibility is essential in order to influence a significant shift to active trips.

Another key part of the Strategy is identifying where there are "***missing links***" in our path networks, particularly in locations where active transport demand will increase, for example in new residential and commercial areas; or where maximising safe active transport opportunities is paramount, for example around our schools, aged care facilities and activity centres.

Ancillary active transport infrastructure is also important, for example **End of Journey** facilities and bicycle parking; additional security provisions (such as lighting and CCTV); and the simple things that will make active trips a preferred option, such as shade, shelter, rest points and the occasional bubbler!

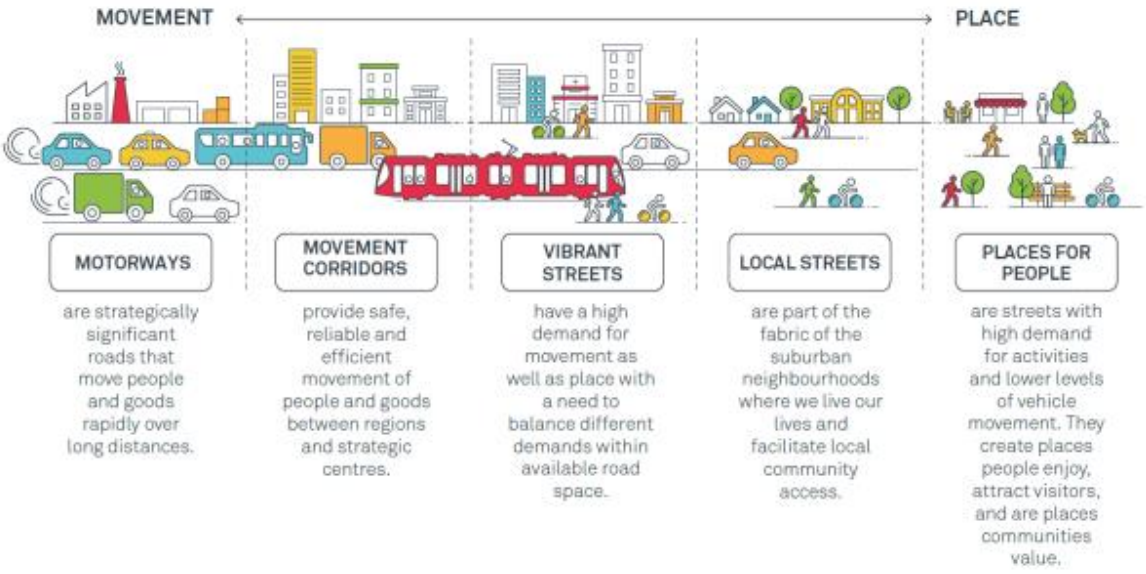
Council is also closely monitoring the development of new active transport modes such as e-bikes and e-scooters. These may not be a preferred option for all, and will require careful assessment as the technology evolves, but anything that reduces the use of vehicles - and moreover the costs, emissions, and larger concrete footprint that comes with the use of vehicles - has and will continue to be considered in the overall transport mix.

The Strategy also prioritises the inclusivity of active transport, not only in providing for those with limited mobility or different levels of confidence using different active transport modes, but more broadly by ensuring that active trips are seen as the norm rather than the exception, particularly bicycle riding, which in many instances requires that the road be shared with vehicles to some degree.

The Strategy has been developed to fully integrate with Council's broader planning priorities and strategic outlook. It also references new and evolving guidelines and frameworks relating to the provision of high quality active transport infrastructure, including not only the design of that infrastructure, but also the ways in which pedestrians and bicycle riders interact in and with different environments, be they village centres, quiet residential streets or busy roads.

This is integral to the broader **Movement & Place** framework which has been a key reference in the development of the Strategy.

The Movement & Place framework is designed to identify which roads serve what purpose, recognising that some transport facilities are more about the ***movement*** function, and others about the ***place*** function, and that roads can in and of themselves act as places as well as movement corridors.



"***Place-based***" planning aims to build and support thriving communities through collaboration, partnering, shared design, shared stewardship, and shared accountability. Well-designed places make people want to interact with them; this applies to everyone who uses a place, allowing people to choose how they will move around and where they will spend time, while also making simply taking ones time to travel to, through and from places more attractive.

Not that any of the above is not already observed across Shoalhaven!

While active trips to/from work may not rate highly at present, look around any of our towns and villages and you will see people of all ages and abilities walking and riding for fitness, health and for trips to local services/shops etc. Shoalhaven is also blessed with a wide range of walks in our national parks and forests, and of course who doesn't like the opportunity to get sand between their toes!

Finally, it is critical that the Strategy be endorsed and continuously improved further to consultation with the broader community, and moreover that the community actively participates in the ongoing evolution of the Strategy.

We want everyone in the community, as well as all who work in and visit Shoalhaven, to have the opportunity to take real ownership of developing and encouraging active trips – and particularly walk trips - in our move towards a more sustainable transport future.

It is only through our work together that we will be able to meet the needs of the community, and ensure that active transport plays a greater role in our daily transport needs. So…

1.4 Active Transport Benefits

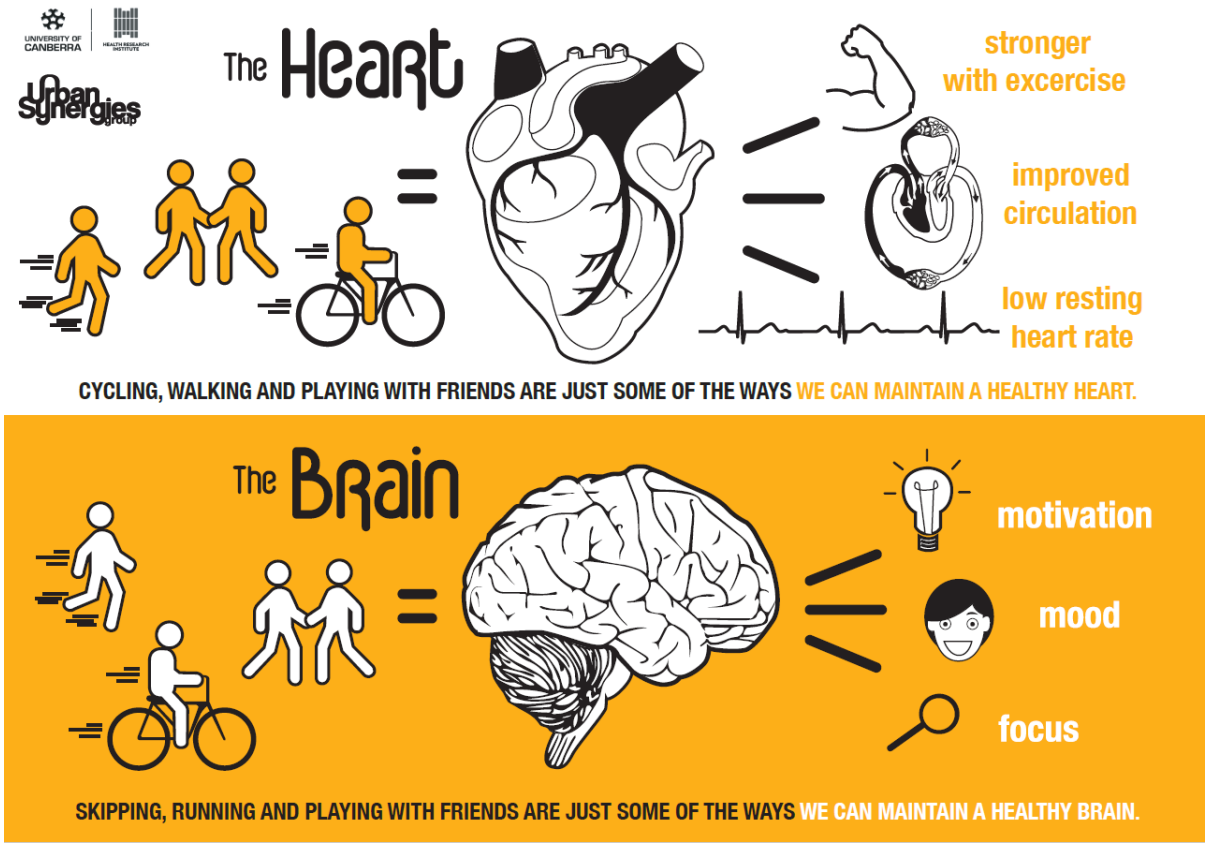
Active transport provides enormous benefits for individuals, including improved health and wellbeing outcomes; increased physical activity; and greater tourism and economic opportunities. Of course, reducing traffic also provides benefits for the whole community!

Active trips as part of a daily travel routine are the most reliable way to incorporate this form of exercise into our lives. Daily travel is a foundation on which to increase confidence, fitness and habit changes. Active trips also support mental health in many ways; exercise, fresh air, seeing beautiful views, and social contact. With increased confidence over time, walking and riding can become a healthy strategy for self-care during times of stress and can replace unhealthy habits.

With reference to numerous Australian and international studies of the economics of active transport, it is estimated that the provision of new active transport infrastructure has an average Benefit Cost Ratio (**BCR**) of 5:1, i.e. every $1 invested in active transport infrastructure returns some $5 in benefits. This BCR recognises the significant value of:

- A healthier population.
- Lower levels of carbon emissions.
- Less congestion on our roads, and in turn shorter journey times, which provides more time for people to do the things they want (or things they don't want to do, but hey, you have to get to the dentist some time!).
- People not needing to own a vehicle, or at least own fewer vehicles, and in turn reducing vehicle purchase and operating costs.

- If local shops are only a walk away, people will access the local shops more frequently, resulting in increased patronage of local businesses.
- If work is only a walk away, housing with access to active transport infrastructure becomes more attractive.



A summary of all of the benefits (and costs) of a move to active transport is provided in **Table 1**.

Table 1: Active Transport Benefits and Costs

Benefit/Cost Category	Benefit or Cost
Improved Infrastructure	**Benefits from improved walking and bicycle riding conditions.**
User benefits	*Increased user convenience, comfort, safety, accessibility and enjoyment*
Option value	*Benefits of having mobility options available in case they are ever needed*
Equity objectives	*Benefits to economically, socially or physically disadvantaged people*
More Active Transport Activity	**Benefits from increased walking and bicycle riding activity**
Fitness and health	Improved public fitness and health
Reduced Vehicle Travel	**Benefits from reduced motor vehicle ownership and use**
Vehicle cost savings	*Consumer savings from reduced vehicle ownership and use*
Avoided chauffeuring	*Reduced serve passenger responsibilities due to improved travel options*
Congestion reduction	*Reduced traffic congestion from vehicle travel on congested roadways*
Reduced barrier effect	*Improved active travel conditions due to reduced traffic speeds and volumes*
Roadway cost savings	*Reduced roadway construction, maintenance and operating costs*
Parking cost savings	*Reduced parking problems and facility cost savings*
Energy conservation	*Economic and environmental benefits from reduced energy consumption*
Pollution reductions	*Economic and environmental benefits from reduced air, noise and water pollution*
Land Use Impacts	**Benefits from support for strategic land use objectives**
Pavement area	*Can reduce road and parking facility land requirements*
Development patterns	*Helps create more accessible, compact, mixed, infill development (smart growth)*
Economic Development	**Benefits from increased productivity and employment**
Increased productivity	*Increased economic productivity by improving accessibility and reducing costs*
Labor productivity	*Improved access to education and employment, particularly by disadvantaged workers*
Shifts spending	*Shifts spending from vehicles and fuel to goods with more regional economic value*
Support specific industries	*Support specific industries such as retail and tourism*
Costs	**Costs of improving active travel conditions**
Facilities and programs	*Costs of building non-motorised facilities and operating special programs*
Vehicle traffic impacts	*Incremental delays to vehicle traffic or parking*
Equipment	*Incremental costs to users of shoes and bicycles*
Travel time	*Incremental increases in travel time costs due to slower modes*
Accident risk	*Incremental increases in accident risk*

It is worth briefly highlighting some of the health benefits. Data provided by Health NSW indicates that some 45% of Shoalhaven's population are identified as overweight (27%) or obese (18%). 33.9% of adults do not do enough physical activity; more alarmingly, only 22.6% of children do adequate physical activity (defined as 1 or more hours of activity outside of school hours each day), with sedentary activities (defined as 2 or more hours of sedentary activity each day) at 54.5%.

According to NSW Health:

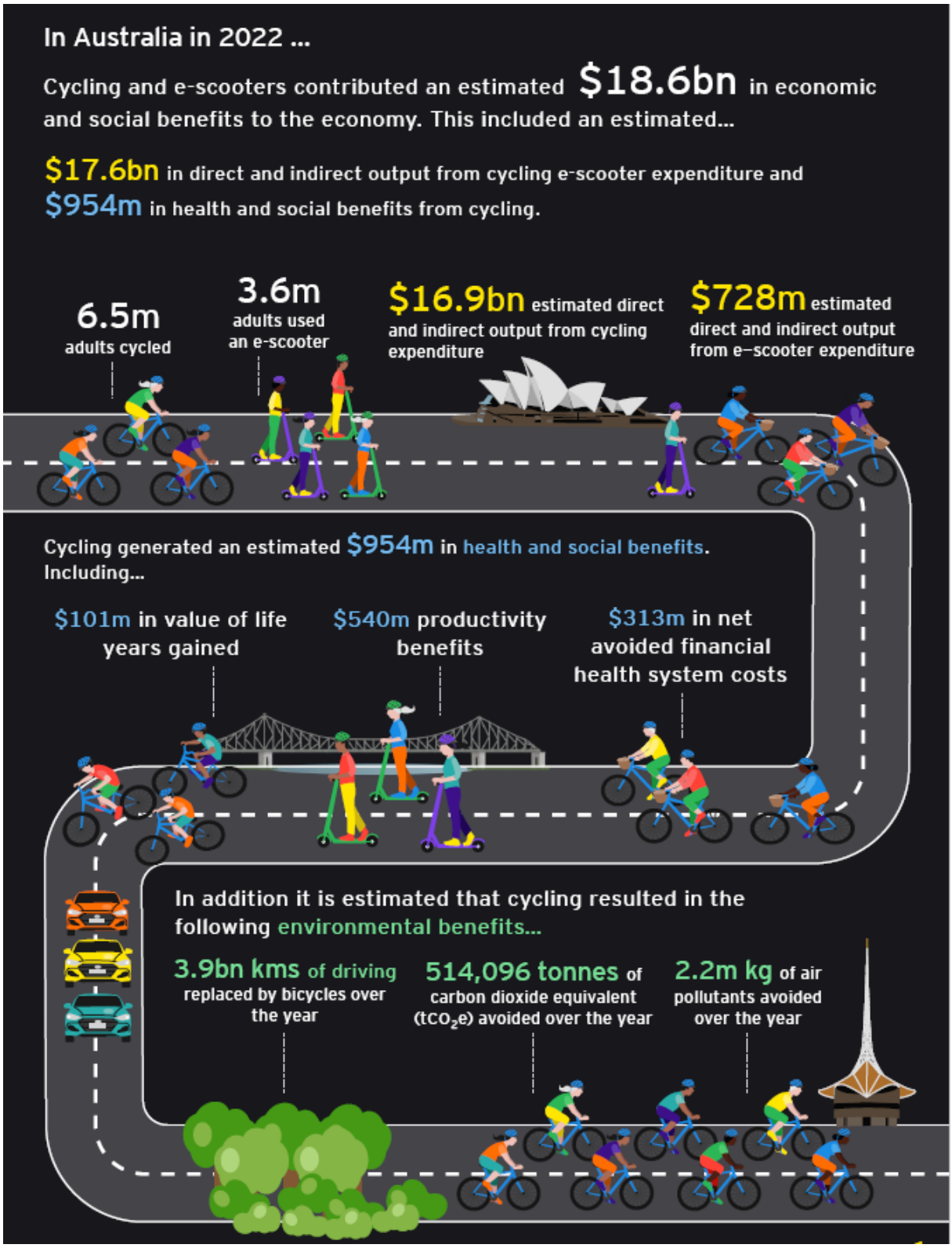
> "*continuing a car-centric approach will lead to greater congestion, increased parking competition, and reliance on private vehicles, potentially worsening health issues like childhood asthma and cardiovascular diseases linked to pollutants. In contrast, active transport to work or school is associated with improved cardiovascular health and lower body weight.*"

NSW Health's endorsement of the Strategy identifies the ongoing importance of increasing the number of pedestrian crossings throughout the LGA, which will greatly encourage more people – and particularly the vulnerable (children, the elderly and the less mobile) - to walk safely to more locations such as schools, shops and local services.

Simply, there are very broad health, social, and environmental benefits associated with active transport, and the proportion of active trips (to overall travel demand) has to increase for a sustainable future.

In 2022, bicycle riding in Australia is estimated to have avoided the release of 514,096 tonnes of carbon dioxide equivalent (tCO2-e) and 2.2 million kg of air pollutants into the atmosphere.

New technologies are also assisting our move to active transport; 2023 research prepared by Ernst & Young indicates that in 2022, bicycle riding and e-scooters alone generated an estimated $18.6b (yes, that's billion with a 'b'!) in economic and social benefits.



Source: Ernst & Young

Given that there was only a moderate percentage of the Australian population legally able to use e-scooters at the time of the Ernst & Young, it can only be concluded that these benefits will continue to rise and rise when (not if!) e-scooters are legalised for use across all Australian states.

1.5 Active Transport Responsibilities

Council is responsible for the provision and maintenance of active transport infrastructure in local government owned roads, parks and open space areas; this also extends to planning controls in the Shoalhaven Development Control Plan (**Shoalhaven DCP**) ensuring that new developments – and particularly residential developments – include high standard active transport infrastructure.

Prior to, but primarily since, the preparation of PAMP 2002, Council has developed extensive path networks focused on key towns and villages, including off-road footpaths, SUPs and formal road crossings.

The Strategy seeks to turbo-charge the provision of new active transport infrastructure, as the opportunity for active trips to replace vehicle trips has never been better!

Council also shares responsibility with Transport for NSW (**TfNSW**) to provide off-road active transport infrastructure along State Roads, a partnership that in the last ten years has resulted in a significant increase in active transport infrastructure that is provided as a part of all NSW Government led projects.

This has resulted in an extensive expansion of our path networks; examples include SUPs in Berry and Burrill Lake, and most recently the new SUPs provided as part of the Nowra Bridge Upgrade, which Council hopes will be further expanded in the near future following a successful design grant awarded by the NSW Government to extend SUPs further up/and down-stream to address safety and accessibility along this part of the Shoalhaven River.

SUPs were also provided through South Nowra as part of the Princes Highway upgrade (McKay Street to Warra Warra Road), and each successive Princes Highway upgrade project will now incorporate Movement & Place assessments up front, to ensure that active (and public) transport outcomes are integral to the development and delivery of each successive Princes Highway upgrade.

More of this great collaboration can be expected as further NSW Government led projects are delivered across Shoalhaven into the future!

1.6 Developing the Strategy

A significant amount of work has been undertaken to ensure that the Strategy provides a robust, workable and meaningful resource for the whole community; this has included:

- A review of PAMP 2002, PAMP 2005 and Bike Plan 2013 to determine how far we have progressed, as well as what strategies/initiatives worked (and which didn't!).
- A detailed literature review to understand current trends in walking and bicycle riding in Shoalhaven, NSW and across Australia.
- Ensuring that the Strategy compliments and indeed enhances broader Council and NSW Government planning strategies.
- Comprehensive community engagement to establish issues and priorities for consideration in the Strategy.
- A comprehensive review of the opportunities and constraints in developing our active transport networks.
- Detailing well-defined standards and priorities for our active transport networks.
- Establishing clear and measurable goals for the future of active transport in Shoalhaven.

Perhaps most importantly though, the Strategy has been developed at the same time as we have prepared our PAMP Update and Bike Plan Update.

While the Strategy provides the overarching guide for future active transport in Shoalhaven, individual chapters of the Strategy are still dedicated to updates of the PAMP and Bike Plan Update, therefore providing a full suite of strategies to help us achieve realistic active trip targets.

1.7 The Vision

Ultimately, our vision is that more and more people use active trips every day, even if only for short walk or bicycle trips.

At present, 2021 Household Travel Survey data indicates that 1 in 7 trips (not including a shared walk trip, i.e. from a vehicle parking space to a destination) is an active trip.

Our goal is to increase active trips to account for 1 in 5 trips, or 20% of all trips in Shoalhaven, over the next 10 years, which is consistent with the NSW Government's Active Transport Targets.

To achieve these active transport targets there needs to be a joint focus on flexible, practical and affordable local solutions to get ***more people off the road in more locations*** and provide ***more safer crossings in more locations***. And while the primary focus to achieve this needs to be reducing shorter trips by private vehicles, i.e. to encourage people to use active transport for trips by making them safe and efficient for pedestrians and bicycle riders, we will continue to chip away at the staged delivery of an expanded active transport network over time to achieve enhanced accessibility and connectivity for all of our communities.

1.8 References

1.8.1 Planning in Shoalhaven

As discussed, the Strategy is not only part of broader active transport planning for Shoalhaven, but will assist in achieving the broader objectives of numerous Council strategies that guide future planning across Shoalhaven. The Strategy references the following:

- Shoalhaven Local Strategic Planning Statement 2040 (**LSPS 2040**).
- Shoalhaven 2032 Community Strategic Plan (**Community Strategic Plan**).
- Shoalhaven Disability Inclusion Action Plan 2022 – 2026 (**Disability Plan**).
- Shoalhaven Community Wellbeing Strategy 2022 (**Wellbeing Strategy**).
- Shoalhaven Affordable Housing Strategy 2017 (**Affordable Housing Strategy**).
- Shoalhaven Community Satisfaction Surveys 2020 and 2023 (**Satisfaction Survey 2020** and **Satisfaction Survey 2023**).
- Shoalhaven Liveability Census 2023 Strategic Performance Report (**Liveability Census**).
- Flourishing Shoalhaven Communities 2022 (**Flourishing Communities**).
- Shoalhaven Destination Management Plan 2018 – 2023 (**Destination Plan**).
- Shoalhaven Growth Management Strategy 2019 - 2041 (**Growth Strategy**).
- Shoalhaven Delivery Plan Operational Plan (**Shoalhaven DPOP**).
- Shoalhaven Local Environmental Plan (**Shoalhaven LEP**).
- Shoalhaven Development Control Plan (**Shoalhaven DCP**).

The typical focus of an Active Transport Strategy, and perhaps more specifically a PAMP or Bike Plan, is to identify and prioritise active transport projects. However, it is acknowledged that Council's Asset Management Plans (**AMP**s) are also in need of review, and in turn this may trigger the need for further refinements of the PAMP and Bike Plan, in particular to develop a framework for assessing active transport infrastructure that is currently in need of maintenance or replacement; or indeed infrastructure that could be considered for decommission on the basis of lower relative levels of utilisation.

A review of the relevant AMPs was not part of the current scope of work, which at this time provides for the PAMP Update and Bike Plan Update in the first instance under the broader umbrella of the Strategy.

However, it is critical to note that the PAMP and Bike Plan will be "***live, evolving documents***" to ensure that they provide the community with the most up-to-date active transport information into the future.

1.8.2 NSW Government

There are many NSW Government resources available to assist in the planning of active transport networks, as well as to ensure that these networks are integrated into broader NSW wide active transport strategies. The Strategy references the following:

- NSW Active Transport Strategy (**NSW ATS**).
- Illawarra Shoalhaven Regional Plan 2041 (**IS Regional Plan**).
- Illawarra Shoalhaven Regional Transport Plan 2021 (**IS Transport Plan**).
- Strategic Cycleway Corridors: Illawarra Shoalhaven Overview 2024 (**IS Cycleway Corridors**).
- Regional NSW Services and Infrastructure Plan (**Regional Services Plan**).
- NSW Movement and Place Framework (**M&P Framework**).
- Practitioners Guide to Movement & Place 2023 (**M&P Guide**).
- NSW Connecting with Country Framework (**Connecting Country**).
- NSW Built Environment Indicators (**Built Environment Guide**).
- Network Planning in Precincts Guide (**Precincts Guide**).
- Best Practice Guidance and Tools for Planning Walking Infrastructure (**Walking Guide**).
- Pedestrian Crossings: A Best Practice Guideline for Local Governments (**Crossing Guide**).
- Australasian Pedestrian Facility Selection Tool (**Pedestrian Selection Tool**).
- How to Prepare a Pedestrian Access and Mobility Plan (**PAMP Guide**).
- How to Prepare a Bike Plan (**Bike Plan Guide**).
- Walking Space Guide (**Walking Space Guide**).
- NSW Strategic Cycleway Corridors Program (**Strategic Cycleways**).
- NSW Bicycle Guidelines (**Bicycle Guide**).
- NSW Cycleway Design Toolbox (**Cycleway Toolbox**).
- NSW Healthy Streets Design Check Tool (**Healthy Streets**).
- NSW Great Places Toolkit (**Great Places Toolkit**).
- Get Active NSW Program Guidelines (**Get Active Guide**).
- TfNSW Safe Town: Road Safety Education for Primary Schools (**Safe Town**).
- TfNSW Road User Space Allocation Policy 2021 (**RUSA Policy**).

1.8.3 Austroads Guidelines

Austroads provides the most contemporary set of active transport guidelines which are applicable across Australia; key Austroads guidelines and other publications referenced in the Strategy include:

- Guide to Road Design Part 2: Design Considerations (**GRD Part 2**).
- Guide to Road Design Part 3: Geometric Design (**GRD Part 3**)

- Guide to Road Design Part 4: Intersections and Crossings General (**GRD Part 4**)
- Guide to Road Design Part 6A: Paths for Walking and Cycling (**GRD Part 6A**)
- Guide to Road Safety Part 1: Road Safety Overview (**GRS Part 1**)
- Guide to Traffic Management Part 7: Activity Centre Transport Management (**GTM Part 7**)
- Guide to Traffic Management Part 8: Local Street Management (**GTM Part 8**)
- Guide to Traffic Management Part 10: Transport Control Types of Device (**GTM Part 10**).
- Guide to Traffic Management Part 11: Parking Management Techniques (**GTM Part 11**).
- Austroads Safe System Assessment Framework (**Austroads SSAF**);
- Austroads Publication AP-R492-15 Bicycle Wayfinding (**Bicycle Wayfinding**).

1.8.4 Additional Resources

Additional resources reflecting current active transport thinking referenced in the Strategy include the following:

- Australian Standards.
- The Australian Cycling and E-Scooter Economy in 2022, Ernst & Young 2023 (**2022 Cycling Economy**).
- Pedestrians First: Tools for a Walkable City (**Pedestrians First**).
- Australian Urban Observatory's **Walkability Index**.
- Evaluating Active Transport Benefits and Costs: Guide to Valuing Walking and Cycling Improvements and Encouragement Programs 2024, Victoria Transport Policy Institute (**Evaluating Active Transport**).

1.8.5 Ongoing Review

In the world of active transport, designs and standards are continually evolving; the resources above provide a snapshot of available and relevant resources at the time of preparing the Strategy, but as a live, evolving document, we will continue to review new and emerging resources to keep the Strategy constantly updated to provide the best opportunity to achieve our active trip targets.

1.9 Paths & Crossings Review

A key part of the development of the Strategy and updates to the PAMP and Bike Plan was a comprehensive assessment of existing and proposed active transport projects across Shoalhaven. This has assisted in identifying missing or sub-standard active transport infrastructure; and in providing a rating for all projects so as to identify which might be prioritised.

Importantly, the **Paths & Crossings Review** is intended to provide an objective and risk mitigating starting point for prioritising projects, as Council also needs to consider many other factors before resolving which projects to ultimately include in its delivery program.

Notwithstanding, the outcomes of the Paths & Crossing Review provide a key starting point for the prioritisation of active transport projects into the future.

More details of the Paths & Crossings Review are provided in **Section 10**.

1.10 Building to a Budget

From the outset, it must be acknowledged that we - like many regional Councils – are faced with some significant constraints when providing active transport infrastructure.

These including not only very tight budgets, but physical challenges such as narrow road reserves; difficult topography; vegetation; utilities; parking; and driveways etc. A times, these constraints can prevent the construction of new active transport infrastructure in full accordance with come current design standards.

Moreover of course, it is simply not practical or economically viable to continually redesign our existing active transport infrastructure to higher standards…

As such, in developing the Strategy, and more particularly updated PAMP and Bike Plan, Council has taken a view that when it comes to addressing the potential conflicts between pedestrians/bicycle riders and vehicular traffic - particularly for the young and the vulnerable - in many instances it is far safer to provide an off-road path physically separated from the roadway that may fall short of current standards, than it is to provide no path at all.

Council acknowledges that it can at times be difficult to have these conversations with the community, but we have, and will continue to take, a "***common sense***" approach to ensure that the provision of active transport infrastructure is as fair and equitable as possible across Shoalhaven, even if that means certain minimum design parameters may not at times be met in all respects.

In some instances therefore, while it may not be possible to provide off-road paths that strictly meet the most up-to-date standards, it is Council's position that in some locations it is almost always better to provide a slightly below standard off-road path than to provide no off-road path at all!

A more detailed discussion of these challenges is provided in **Section 7**.

2 Community Consultation

2.1 Stakeholders

Key user groups consulted prior to and through the development of the Strategy include:

- Councillors and Council staff.
- Shoalhaven's 24 current recognised Community Consultative Bodies (**CCB**'s) and 8 Chambers' of Commerce.
- Workplaces/businesses, their customers and employees.
- Residents participating or wanting to participate in active transport for sport, recreation and leisure.
- School children, parents and staff.
- External bodies and other external user groups, for example the Shoalhaven Bicycle Users Group (**SBUG**) and other local active transport interest groups.
- TfNSW.
- Developers building the City's future infrastructure through subdivision.

We would particularly like to acknowledge the insights and resources provided by SBUG, including many of the great photos you will see throughout the Strategy.

2.2 Community Engagement

2.2.1 Pre-2024 Consultation

Prior to the preparation of the Strategy, a significantly level of consultation and engagement was undertaken by Council; in all instances, the insights of the community and key stakeholders are carefully considered and incorporated into the Strategy to as great a degree as possible. This consultation included:

- **Extensive community engagements undertaken as part of the preparation of previous active transport strategies**, including:
  - Cycleway Strategy 1997.
  - PAMP 2002.
  - PAMP 2005.
  - Round the Bay 2012.
  - Bike Plan 2013.

  Unless individual project components were subsequently amended (following more detailed investigations), the lion's share of these earlier strategy works remain included and integral to current strategies.

- **The National Cycling Participation Survey**, a national biennial survey in which many Council participate. The 2020 survey was a great success for Council and provided invaluable feedback as preparatory work leading into the PAMP Update and Bike Plan Update.

  The survey format has now been extended to a National Walking & Cycling Participation Survey; while it is intended that we will continue to participated in the survey over time so as to continually benchmark/compare active travel habits with the 2020 results, the frequency for repeating the survey is yet to be determined.

  See more at (https://www.shoalhaven.nsw.gov.au/Planning-Development/Development-Plans-and-Policies/Pedestrian-Access-and-Mobility-Plan#section-8

- **Annual Shoalhaven DPOP engagement**, where Council consults with the community every year in its annual Shoalhaven DPOP review, informing the Shoalhaven DPOP for subsequent financial year budgets. The community feedback received annually in this space always includes suggestions for new active transport infrastructure, which is given careful consideration and absorbed into annual PAMP and Bike Plan reviews wherever possible.

- **Annual Community Strategic Plan Engagement**, where Council consults with the community in the ongoing development of the Community Strategic Plan. This community feedback again always includes suggestions for new active transport infrastructure, which is given careful consideration and absorbed into annual PAMP and Bike Plan reviews wherever possible.

- **Satisfaction Surveys**, whereby independent consultants provide an evaluation of the community's opinion of Council's customer services, communication, community engagement and broader priorities, with the objective of:

  - Measuring and tracking the performance of Council in delivering services and facilities.
  - Uncovering Council's areas of improvement and priorities for the near future.
  - Understanding community perceptions regarding Council's customer services, communications, and community engagement.
  - Understanding community perceptions regarding liveability and personal wellbeing.

Importantly, one of the key metrics determined in the Satisfaction Surveys is the community's perceptions of how Council is supporting "***active and healthy communities***", which includes detailed responses in regard to how often people are walking each day, and how they might be encouraged to walk more often.

More information in regard to the Satisfaction Surveys is provided in **Section 6.1**.

- **Australian Livibity Census**, whereby Council commissioned Placescore to undertak a metrics assessment to help measure the delivery of certain aspects of the Community Strategic Plan (see **Section 4.1.2)**, and assist with data-driven decision making, and evidence based planning and policy development based on the needs and priorities of the community.

SUSTAINABLE, LIVEABLE ENVIRONMENTS		
Place Score Metric	**Priority level**	**Score /10**
Elements of natural environment (natural features, views, vegetation, topography, water, wildlife etc.)	Nurture	8.3
Walking/jogging/bike paths that connect housing to communal amenity (shops, parks etc.)	Prioritise	5.7
Access and safety of walking, cycling and/or public transport (signage, paths, lighting etc.)	Prioritise	5.6
Protection of the natural environment	Manage	6.3
Landscaping and natural elements (street trees, planting, water features etc.)	Manage	6.7
Evidence of recent public investment (roads, parks, schools etc.)	Maintain	4.3
Sustainable urban design (water sensitive design, transport-oriented design, sustainable building design, density etc.)	Maintain	5.1
Sustainable behaviours in the community (water management, solar panels, recycling etc.)	Maintain	6.4
Range of housing prices and tenures (low to high $, buy or rent etc.)	Maintain	5.1
Quality of buildings (design and construction of homes, shops, schools etc.)	Maintain	6.8
Range of housing types and sizes (houses, terraces, flats; number of bedrooms etc.)	Maintain	6.9
Physical comfort (including noise, smells, temperature etc.)	Monitor	7.6

With specific references to the objectives of creating ***"Sustainable, Living Environments"***, the Australina Livibity Census highlights the need for more investment in walking and bicycle paths, and connecting them to the wider network and neighbourhoods. Indeed, it specifically identifies the need to "***prioritise***" access to walking and bicycle paths as these are highly valued by the community.

Council of course acknowledges the importance of providing as much active transport infrastructure across Shoalhaven as possible, and of elevating this component of the broader livibility score metrics to as great a degree as possible.

- **Flourishing Communities**, whereby Council (through the Bushfire Community Recovery and Resilience Fund) undertook surveys with affected communities to develop an understanding of the strengths and opportunities of affected communities, and to provide an evidence base for community use for advocacy, funding applications, and for developing their own initiatives.

  Surveys were conducted with both younger residents (under 25) and older residents (over 25) so as identify any differences in the core priorities of these two community groups, but when considering specific foundations such as "***Healthy & Active Communities***" and "***Transport Connections to Access our Community's Opportunities***", both groups were unanimous in highlighting the need for more active (and public) transport infrastructure to improve the health of the community, and the opportunities for the community arising from efficient and equitable connectivity between our towns and villages.

- **Customer Liaison**, whereby customers (residents, property and business owners, and visitors) regularly provide Council with feedback and requests for broader infrastructure improvements; each year, this feedback includes numerous requests for new active transport infrastructure.

- **Annual feedback from the 24 recognised CCBs** that represent the residents/rate paying members of local communities.

- The **preliminary consultation process** undertaken in April and May 2023 with all CCBs and Chambers' of Commerce, whereby all stakeholders were sent the latest **PAMP Maps** and **Bike Plan Maps**, and the current [at that time] **Scoring Criteria** to rank future project, for review prior to the process being rolled out more publicly. In addition, the PAMP Maps, Bike Plan Maps and Scoring Criteria were also sent to 18 Council staff; 15 TfNSW staff; and other local active transport interest groups seeking their feedback.

  Since that time, all feedback has been absorbed into the PAMP Maps and Bike Plan Maps wherever possible, and of course fully considered in the development of the Strategy.

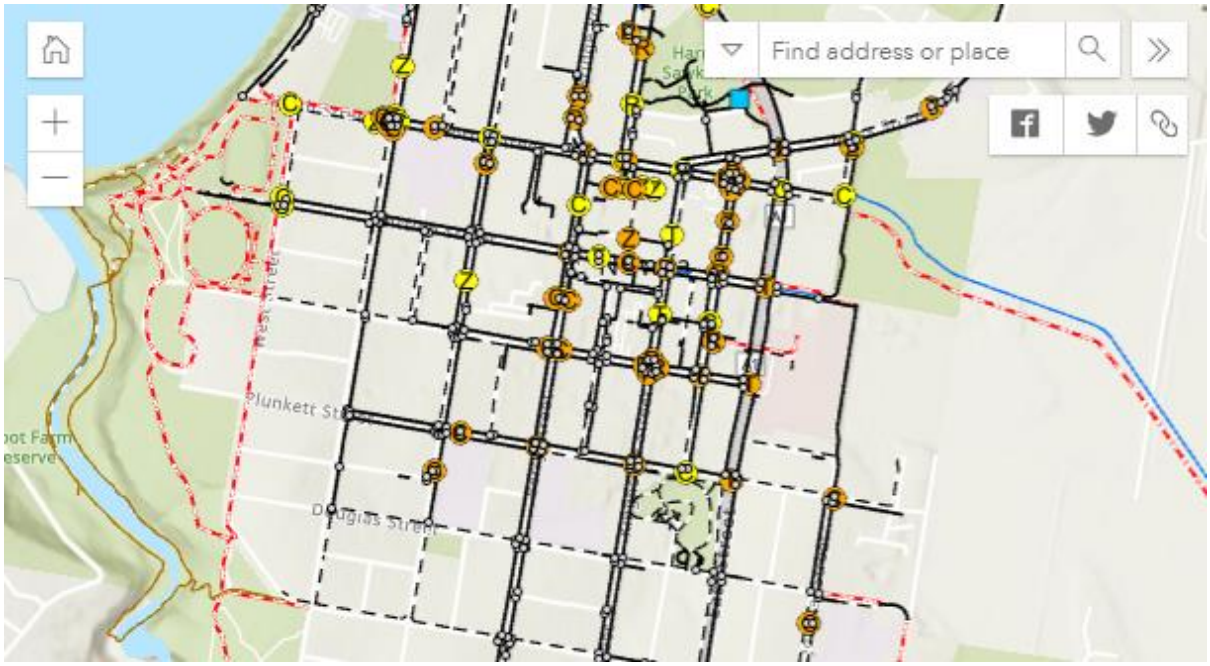
  It is noted that the feedback from this consultation process generally agreed that the current Scoring Criteria (revised between 2010 and 2023) are too detailed and complicated, and as such more simplified Scoring Criteria are required that can be adapted for the assessment of all active transport projects. All this feedback has been taken on board as part of the development of the new and updated strategies; a more detailed discussion of the Scoring Criteria is provided in **Section 10**.

- Other Council departments also continuously engage with the community, and the community often takes the opportunity to provide feedback to staff on a range of different issues, not just in regard to targeted projects or the like. Requests for new paths and crossing are common subject of that feedback, and indeed normally feature as one of the top requests for broader infrastructure improvements across Shoalhaven.

- On 16 June 2021, the **PAMP Interactive Mapping Tool** was made live to the community through Council's **PAMP web page**, which has continuously been updated since that time.

One of the key benefits of the PAMP Interactive Mapping Tool – which includes interactive mapping of all existing and proposed active transport infrastructure across Shoalhaven - is that our future plans have effectively been out for consultation 24/7!

While there is much more to be done to continue to refine the maps, the PAMP Interactive Mapping Tool nonetheless allows the community access to our plans at any time for review, and the ability to provide us with immediate feedback.



Notwithstanding the significant community engagement that has occurred to date specifically related to the Strategy, additional consultation undertaken by Council in regard to other planning strategies has also been considered where relevant, including:

- Disability Plan (https://www.shoalhaven.nsw.gov.au/For-Residents/Community-Support/People-with-a-Disability).
- Community Wellbeing Strategy (https://www.shoalhaven.nsw.gov.au/Projects-Engagement/Major-Projects-Works/Shoalhaven-Community-Wellbeing).
- As discussed, the Satisfaction Surveys (https://www.shoalhaven.nsw.gov.au/Council/Future-Planning/Reports/Community-Survey).

Clearly, to date - and as part of the development of the Strategy (and PAMP and Bike Plan update) - Council has maximised the potential for all members of the community to express their views on active transport, which is again essential to the success of the Strategy for everyone across Shoalhaven.

2.3 Draft Strategy Exhibition

2.3.1 Overview

Pursuant to the 15 August 2024 Council resolution, on 26 August 2024 the Draft Strategy documents were placed on exhibition on Council's "Get Involved" webpage. To maximise public awareness of the exhibition, immediately following posting of the exhibition, a Media Release was sent to 105 key communications contacts, as well as key stakeholders including TfNSW; Bicycle NSW; the Shoalhaven Bicycle Users Group (SBUG); all CCBs; and local health authorities amongst others.

In addition, given recent consultation between Council and local landholders/residents in regard to a potential bicycle track proposal in Falls Road, Falls Creek, all 6 property owners/residents at the western end of Falls Road, and all 6 property owners/residents in Hillside Ridge, were also specifically contacted to make them aware of the exhibition, and invite their feedback, as originally assured by Council.

The Draft Strategy was available to the public and other stakeholders for review and comment for 5 weeks between Monday 26 August 2024 and Sunday 29 September 2024.

A detailed report on the outcomes of the exhibition is provided as **Appendix I** (**Exhibition Outcomes Report**), while sections below provide a summary of the response to the Draft Strategy and how issues raised by respondents have been considered by Council and arc traffic + transport, and how these issues have been addressed in the final Strategy.

2.3.2 Exhibition Views and Responses

During the exhibition period, there were over 1,700 visits to the Get Involved webpage, with approximately 55% of visitors downloading one or more of the Draft Strategy documents. A total of 97 responses were provided through the Get Involved webpage, and an additional 5 responses from the public and stakeholders were received by email during and immediately after the exhibition period (102 total responses).

2.3.3 Exhibition Survey Questions

The Get Involved webpage provided a short survey to determine the level of support for the Draft Strategy's principles; key projects; and overall support for a greater focus on active transport in Shoalhaven. The survey requested that the visitor indicate whether they "***support***", "***support – but with some changes***", or "***No***" (i.e. did not support) the following:

- The newly adopted Active Transport Scoring Criteria;
- The ranking of paths projects based on the Active Transport Scoring Criteria;
- The ranking of crossings projects based on the formula Pedestrian x Vehicle (**P x V**) whereby the ranking specifically considers pedestrian and traffic volumes at project locations;
- The ranking of shared user path bridges (**SUP bridges**) based on P x V;
- The ranking of paths for investigation projects based on the Active Transport Scoring Criteria; and

- The Draft Strategy overall.

The overwhelming majority of those who responded live in Shoalhaven (88%), with a small number of responses also received from those who work (3%), visit (3%) or have property (6%) in Shoalhaven.

A summary of the responses to each of the survey questions is provided in **Table 2**.

Table 2: Summary of Responses to Draft Strategy Survey

Do You Support…	Yes	Yes but with some changes	No
Active Transport Scoring Criteria	48%	26%	26%
Ranking of Crossings	48%	20%	32%
Ranking of Paths	40%	24%	36%
Ranking of SUR Bridges	61%	10%	29%
Ranking of Paths for Investigation	51%	20%	30%
The Draft Strategy	34%	41%	25%

With reference to **Table 2**, the responses from the surveys were very positive, with the majority providing a positive response to each question. Considering that only 6% (i.e. 102 out of 1,700) of those who viewed the Get Involved webpage made a submission (i.e. 94% of those that viewed the Draft Strategy didn't make a submission); that some 70% of submissions supported the Draft Strategy (including those who suggested some changes); and that most of the requested changes that can be accommodated have already now been addressed in the final Strategy, the effective support for the Draft Strategy of 70% of submissions is very pleasing.

2.3.4 Level of Support

Unqualified Support

A relatively high percentage of respondents supported most components of the Draft Strategy without change; typical written responses from these respondents include:

Need to have as many places for people to walk and cycle around as possible. Need to get people active and healthy. Less reliance on private cars.

> *Keep it up! More, more, more! I would honestly ride to work if it was safe. 8 minute drive. Imagine one more car off the road multiplied by everyone else in the same boat*.

Bikes and bikes are the way of the future, the more paths the better.

> *Prioritise commuter safety and access, encouraging more local workers to ride and reduce all day car parking in our towns/villages*.

Qualified Support

Many respondents who chose "Support - but with some changes" in response to the survey questions were simply unhappy with the prioritisation of projects in the ranking spreadsheets, and more specifically unhappy with the prioritisation of paths projects of specific interest to them.

Some of the other common themes of these written responses include:

The priority list is upside down. Places with highest population densities should be creating more pathways to get to other areas or places of nature. i.e. Berry to SHH. Bomaderry to SHH via Bolong. Council should see these investments as assets for tourism, not just serving local communities.

> *The criteria should reflect the importance of substituting active transport for car use. Paths and crossings need to support cycling to shops, services and work, by making it safe and straightforward - otherwise we're accidently making active recreation easier, but not active transport, which is good for health but has very little environmental impact.*

Since we have very poor public transport across the Shoalhaven, making cycling (including e-bikes) a viable transport option is a vital environmental initiative.

> *Link the villages! This should be a catch phrase. Create aspirational pathways connecting the Shoalhaven villages to each other and villages to beaches, rivers, parks where possible*

There needs to be shared paths to and from town, towns, and a bike path in town, along with undercover storage areas for bicycles.

No Support

The majority of respondents who answered "No" to the survey questions did not support the provision of funds to active transport infrastructure or strategies at the expense of funding other infrastructure, and specific roads in Shoalhaven. Typical written responses from these respondents include:

We don't have basic infrastructure like kerb and guttering yet the Shoalhaven is scoping active transport strategies

> *Council need to fix the existing infrastructure, especially roads*

Councils main focus should be on improving the condition of existing roads not new bike and pedestrian paths

> *An overreaction and quite unnecessary*

Notwithstanding, it is also important to note that over 50% of respondents to answered "No" to the survey questions were nonetheless in favour of active transport initiative. In most instances the "No" response was again based on the project of importance to the respondent not being highly ranked, or – in the instance of some Falls Creek respondents for example – the potential for paths to be located near to (or indeed across) private land.

2.3.5 Most Discussed Projects

Key projects where respondents stated that active transport infrastructure should be given a higher (or in some cases lower) priority generally align with the number of respondents per suburb; these projects include (in alphabetical order):

- **Badagarang:** Moss Vale Road between Main Road and Princes Highway (SUP).
- **Berry:** Safer connections to Nowra; Beach Road (Berry to Seven Mile Beach SUP).
- **Callala Bay/Callala Beach Villages:** Expansion of the SUP network.
- **Cambewarra Village:** Main Road link to Moss Vale Road and Bomaderry (SUP).
- **Conjola Park and Lake Conjola:** Lake Conjola Entrance Road from Princes Highway to Conjola Park, from Conjola Park to Lake Conjola, and through the village of Lake Conjola to the beach (SUP).
- **Falls Creek:** Very negative responses received to the concept of providing any public bicycle access along Falls Road, Falls Creek.
- **Nowra/Bomaderry urban area:** Expansion of the SUP network.
- **Sanctuary Point:** Complete the missing link between Paradise Beach Road and Loralyn Avenue via Walmer Avenue or Macleans Point Road (SUP).
- **Vincentia (to Hyams Beach):** Expansion of the SUP network.

It should be noted that in addition to Get Involved survey responses, there were many other projects also strongly supported by the community (or verbally communicated but not represented in the survey responses) primarily where people were already satisfied that their projects of interest were already ranked highly in the Strategy.

2.3.6 Key Stakeholder Submissions

TfNSW

A submission was received from TfNSW's Get NSW Active team (**GNA Team**) which overall provided strong support for the Draft Strategy, but highlighted TfNSW's position that all paths should be constructed in accordance with the most up-to-date guidelines, i.e. with widths significantly greater than currently provided for both footpaths and SUPs. In responding to the GNS Team, it is important to note that TfNSW itself has constructed many paths with widths lower than the GNA guidelines such, including most recently the SUPs as part of the Nowra Bridge upgrade; these paths have widths of 1.8m and 2.0m in most instances, whereas the current GNA guidance requires 4.0m wide SUPs.

As discussed throughout the Strategy, Council – like TfNSW – will always consider the specific constraints relating to the provision of a new path, and adopt a common sense approach whereby the provision of any formal off-road paths, even if narrower than the GNA guidance – is better than providing no path at all.

A submission was also received from TfNSW's Milton Ulladulla Bypass Team (**MU Bypass Team**), which highlighted the fact that the PAMP Maps indicate a SUP along the length of the MU Bypass, whereas TfNSW has not committed to an adjacent corridor to provide a SUP.

In ongoing discussions, Council will continue to advocate for an off-road path as part of the MU Bypass, even if in the short term this is simply providing an adjacent corridor that may – for example – provide a gravel track before being further upgraded in the future. The response to the MU Bypass Team has also identified TfNSW's own "Providing for Walking and Cycling in Transport Projects Policy", which requires that:

> *Every transport project funded by Transport for NSW must include provision for walking and cycling within the core scope of the project.*
>
> *In order to deliver the best outcomes for our customers in line with Future Transport 2056, the walking and cycling components of a project must be incorporated from the outset and followed through to delivery and maintenance.*

Bicycle NSW

A detailed submission was received from Bicycle NSW; while Bicycle NSW fully supports the underlying strategy to increase active trips, their submission also raised a number of issues for further consideration as part of the finalisation of the Strategy. These issues include greater advocacy for State Government funding; maximising path widths; reducing speed limits in local roads; and removing parking from town and village centres to provide more pedestrian and cycle infrastructure.

These issues have all been considered in the Strategy, but it is noted that removing parking from town and village centres will require more detailed consideration of the potential impacts of local businesses and the cost of relocating parking; and again Council's objective or providing more off-road paths even if constructed to a narrower width than current design guidelines.

Illawarra Shoalhaven Local Health District

A detailed submission was received from the Illawarra Shoalhaven Local Health District (**ISLHD**). While the ISLHD fully supports the underlying strategy to increase active trips, particularly noting the significant health benefits from greater exercise (and lower vehicle emissions), the ISLHD submission raises a number of issues for further consideration as part of the finalisation of the Strategy. These include focusing on changing travel modes for short trips (up to 1km); increasing densities in centres in line with the principles of the 15 Minute Neighbourhood; prioritising pedestrians at signalised crossings; and reducing speed limits in local roads.

Most of these strategies are included in the Strategy, but it is noted initiatives such reducing vehicle speeds in local roads (also raised by Bicycle NSW), or increasing densities in centres, will require a "***whole of government***" approach rather than the actions of Council alone to achieve.

Community Consultative Bodies

While formal submissions were received from only a small number of CCBs, many have separately advocated active transport projects which have been considered in ranking projects.

These submissions strongly support the objectives of the Strategy, but more broadly raise concern in regard to the ranking of some (specific to each CCB area), and moreover their opinion that some projects should be allocated a high priority than is current the case.

A further review of all of the projects specifically raised by the CCBs has been undertaken as part of the finalisation of the Strategy so as to properly consider projects that have been specifically identified by the CCBs in the ranking of all projects. Council will continue to work closely with all CCBs as part of their commitment to ensure that the Strategy goes forward as a live document where projects can be revised/prioritised as new information (or funding) becomes available.

Shoalhaven Bicycle Users Group

A submission was received from the Shoalhaven Bicycle Users Group (**SBUG**) that strongly supports the Draft Strategy in its current form. The only concern raised by SBUG relates to the means by which funding for bicycle projects will be made available so as to ensure safer, connected active transport corridors across Shoalhaven.

As discussed, Council will continue to advocate for more funding for active transport projects from both the NSW and Federal Government, and press for active transport to remain a key consideration in all TfNSW (and other) major road infrastructure projects.

2.3.7 Amendments to the Strategy

Further to a comprehensive review of all submissions, a number of amendments have been made in the final Strategy. These include:

Heavy Vehicle Volumes

A number of respondents identified an issue with the use of P x V for the assessment of crossings and SUP bridges, and specifically that the percentage of heavy vehicles in the traffic volume should be considered rather than total average daily traffic (**ADT**) volumes. This is considered to be a valid criticism of the Active Transport Scoring Criteria, particularly given the number of roads with a large percentage of heavy vehicles, and/or roads where heavy vehicle volumes have increased over time.

As such, the Active Transport Scoring Criteria has been modified to provide additional consideration of the percentage of heavy vehicles in the ADT volume, and the score for relevant projects in the ranking spreadsheets has been appropriately revised (see **Section 10.3**).

PAMP Maps

A number of respondents identified that some path and crossing projects were (at the time of the exhibition) not shown or not shown correctly on the Interactive PAMP Maps (**PAMP Maps**), or - for example - a path is shown as a footpath rather than a SUP.

During and subsequent to the exhibition period, Council has addressed as many of these mapping issues as possible; however there is much more work to be done! As discussed in the Strategy, Council will continue to regularly update the PAMP Maps (and future Interactive **Bike Maps**) to ensure that the community is provided with the most up-to-date information possible.

Active Transport Scoring Criteria - Community Advocacy

The new Active Transport Scoring Criteria (detailed in **Section 10.3**) awards additional points to projects that have been specifically identified by CCBs (or other key stakeholders) as having "***community support***". However, in the Paths and Paths for Investigation ranking spreadsheet, arc traffic + transport was not aware of this advocacy for some projects, and as such these additional points had not been allocated.

The Paths and Paths for Investigation rankings have now been updated to include the additional points for these projects, and Council encourages CCBs and other key stakeholders to continue to advocate for local projects so that Council can appropriately prioritise the most in demand community projects.

Structure of the Strategy

One of the points made in the submissions from ISLHD and Bicycles NSW was that the new Strategy was too long, and that the "***Actions***" were not succinct and easy to find. Given the constraints of the project, at this point in time the Strategy's "***Principles***" have simply been extracted and provided as a separate Appendix, with some context provided around those Actions. This summary is provided as **Appendix A** of the Strategy.

The way individual elements of the Strategy were provided to the community via the Get Involved webpage (which received great feedback from the community) will also be replicated via an updated Active Transport Strategy webpage; this will be constructed as soon as possible once the dust settles on the new Strategy. This includes the addition of the new Appendices, being the Active Transport Strategy Action Priorities Report (**Appendix A**); and the Exhibition Outcomes Report (**Appendix I**).

Again for ease, each of the separate Strategy appendices will again be made available for viewing/download from the Active Transport Strategy webpage.

Falls Road, Falls Creek, Bike Track

As discussed previously, a number of exhibition responses related to a proposed bicycle track along Falls Road, Falls Creek. This matter was raised as Item 4 in the Ordinary Meeting of Council held on 15 August 2024 (MIN24.451), which resolved *That Council:*

4. *Report back on a temporary bicycle access along the gated Falls Public Rd alignment due to the safety issues associated with the Jervis Bay Road intersection works and that this temporary legal access be subject to review in any future investigations for permanent access and any environmental impacts.*

Pursuant to Item 4 of the Resolution, a separate report to the new Council on the Falls Road bicycle track proposal is currently being prepared (date still to be determined). It is intended that once the Falls Road matter has been considered by the new Council, any subsequent resolution of Council could also be addressed as a final amendment to the Strategy, subject to the Council meeting outcome.

2.3.8 Summary

The exhibition responses indicate wide support for the Strategy from both the community and key stakeholders. All submissions have been carefully considered, and as discussed amendments have been made to the final Strategy to account for these responses to as great an extent as possible.

Again, the more detailed Exhibition Outcomes Report is provided in **Appendix I**.

3 Key Characteristics of Shoalhaven

3.1 The Study Area

The **Study Area** encompasses the entire Shoalhaven Local Government Area (**LGA**), including towns such as Nowra, Berry and Milton; tourist centres such as Ulladulla, Jervis Bay, Sussex Inlet and Huskisson; and smaller villages and hamlets such as Tomerong and Wandandian.

The Study Area encompasses an area of some 4,570 square kilometres, which itself highlights the challenges in providing active transport infrastructure for everyone!

Trying to fairly balance the needs of all 49 towns and villages is a major challenge for Council, but the Strategy has kept a focus on ensuring that the needs of all of residents and visitors have been identified and are fairly and equitably considered.

Primary growth areas in Shoalhaven remain in the broader environs of major centres such as Nowra, Bomaderry and Ulladulla, but growth in areas somewhat removed from these centres is also occurring, with key examples being Cambewarra, Badagarang, Vincentia, St Georges Basin, Sussex Inlet and Milton.

Shoalhaven is generally characterised by low density residential development with centralised retail and commercial centres; industrial precincts located outside of the urban (residential) areas; and a thriving tourist and lifestyle economy scattered very broadly right along the Shoalhaven coastline.

In general the provision of active transport infrastructure outside of our key towns and villages has been somewhat slow to meet community expectations for a number of reasons, including:

- The rapid growth of some areas means that Council is not able to provide active transport infrastructure at the same rate as development progresses.
- Many new residents to Shoalhaven have migrated from larger metropolitan cities such as Sydney and Wollongong where high quality active transport infrastructure is a given, and as such expectations of active transport infrastructure of a similar standard are high.
- It is simply not economically viable in some instances to provide comprehensive active transport infrastructure.
- Again the tyranny of distance, whereby the provision of active transport connectivity between some towns and villages is simply impractical and/or not economically viable.

The Strategy specifically responds to these issues by targeting means by which we can ensure fairness and equity in the allocation of scarce resources across Shoalhaven while maximising "***bang for buck***", and encouraging the greatest possible shift to active trips with the funds available.

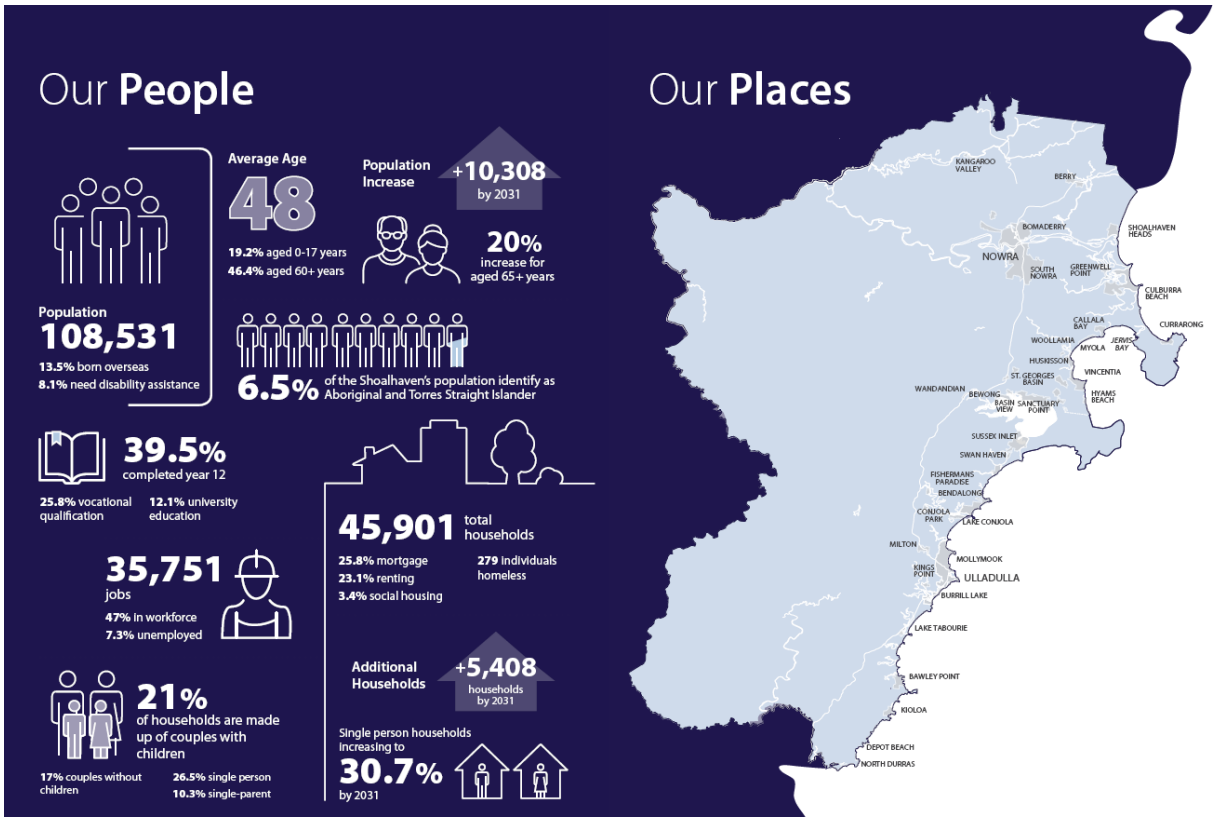

Let's
Get
Active
Shoalhaven!
Note that the icons shown do not represent actual project locations; don't read too much into it, it's diagrammatic only! Rest assured though, we want to reinforce the "Get Active" message right across Shoalhaven!

3.2 Shoalhaven Demographics

3.2.1 Snapshot

A snapshot of the key demographics of Shoalhaven is provided in **Figure 1**, and discussed further in sections below.

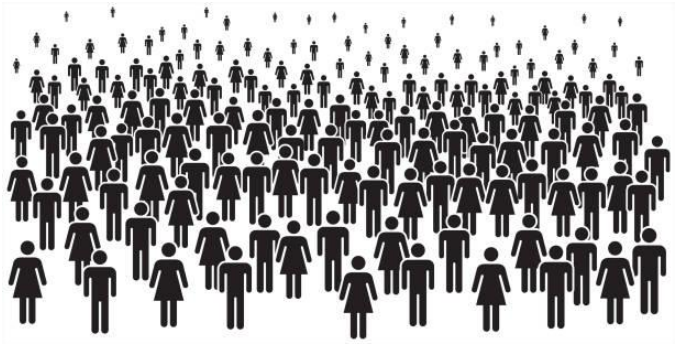
Figure 1: A Snapshot of Shoalhaven



Source: Community Plan 2032

3.2.2 Population Growth

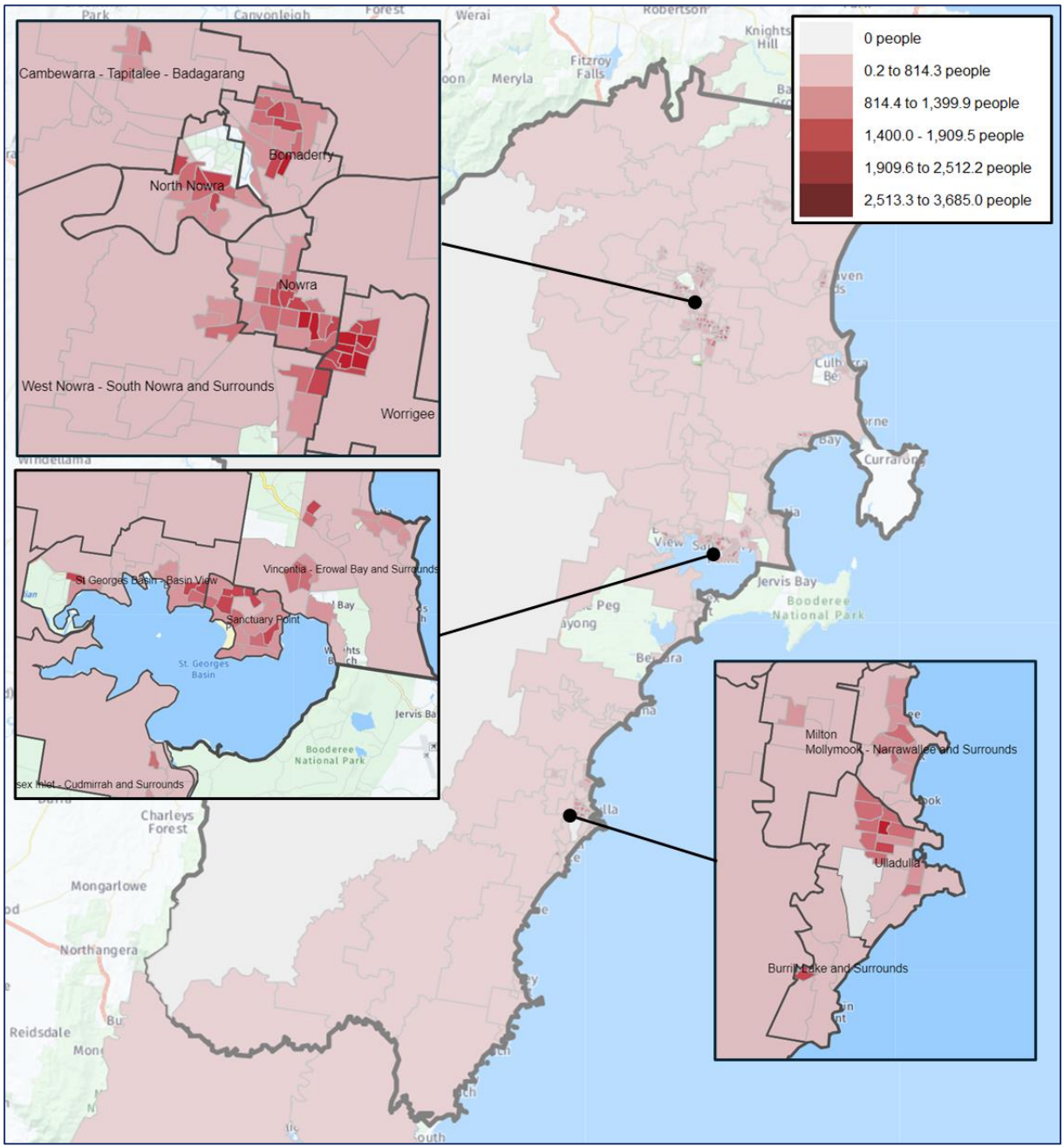
Shoalhaven has experienced relatively significant growth over the past two decades, with the population increasing from approximately 90,000 in 2006 to 98,000 in 2016, and just under 110,000 in 2023. This represents a linear growth rate of over 1% per year, and there is every indication that this level of growth will continue – and potentially increase – in decades to come.



3.2.3 Population Density

Population density (people per square kilometre) across Shoalhaven is shown in **Figure 2**, and clearly identifies our key urban areas, as well as how much of Shoalhaven has no significant residential population.

Figure 2: Population Density 2021



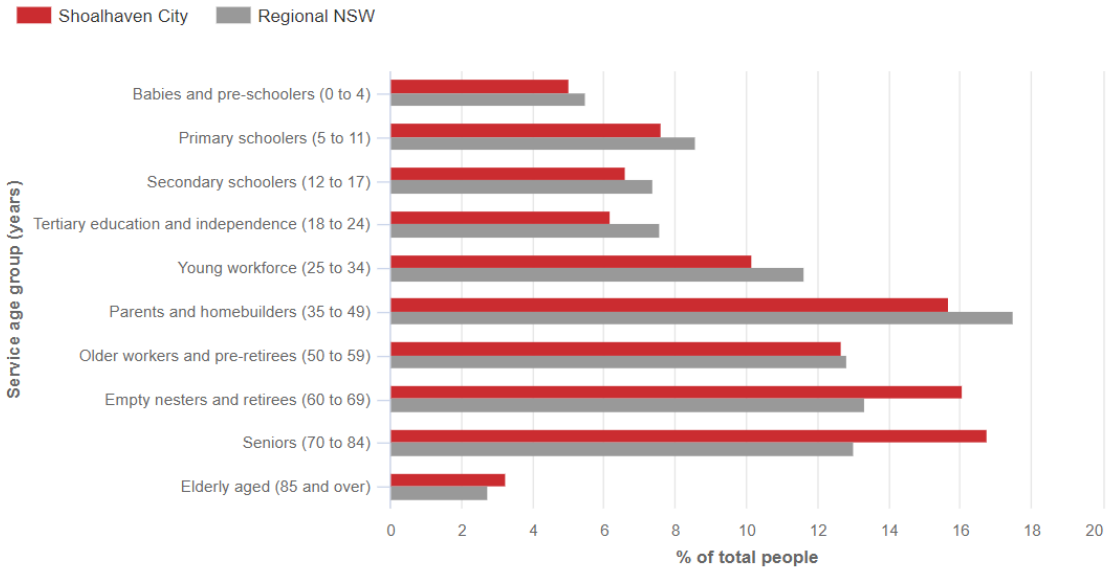
Source: id.community

3.2.4 Age Groups

When considering the prioritisation and type of active transport infrastructure required by the community, it is not only important to look at basic active trip demand, but also different types of pedestrians and bicycle riders, with a key focus on our younger demographic (for example school students) and elderly residents and those with mobility impairments.

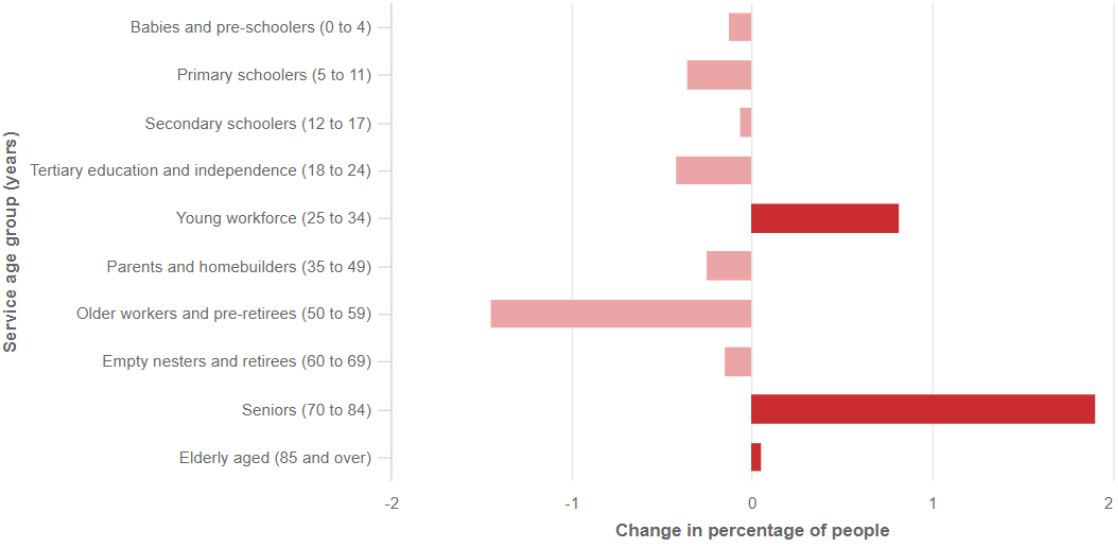
The 2021 age structure in Shoalhaven, and the change in age structure between 2016 and 2021, are shown in the figures below.

Figure 3: Age Structure 2021



Source: .id Community

Figure 4: Change in Age Structure 2016 - 2021



Source: .id Community

With reference to **Figure 3**, when compared to NSW Regional averages, Shoalhaven has a higher number of elderly residents (60+ years); an almost identical proportion of those aged 50 – 59 years; and lower numbers of those aged 0 - 49 years. Importantly, **Figure 4** reinforces these differences, with the highest percentage of growth between 2016 and 2021 being elderly residents (70+ years), and the majority of younger residents in all age groups (other than 25 – 34 year olds) being reduced.

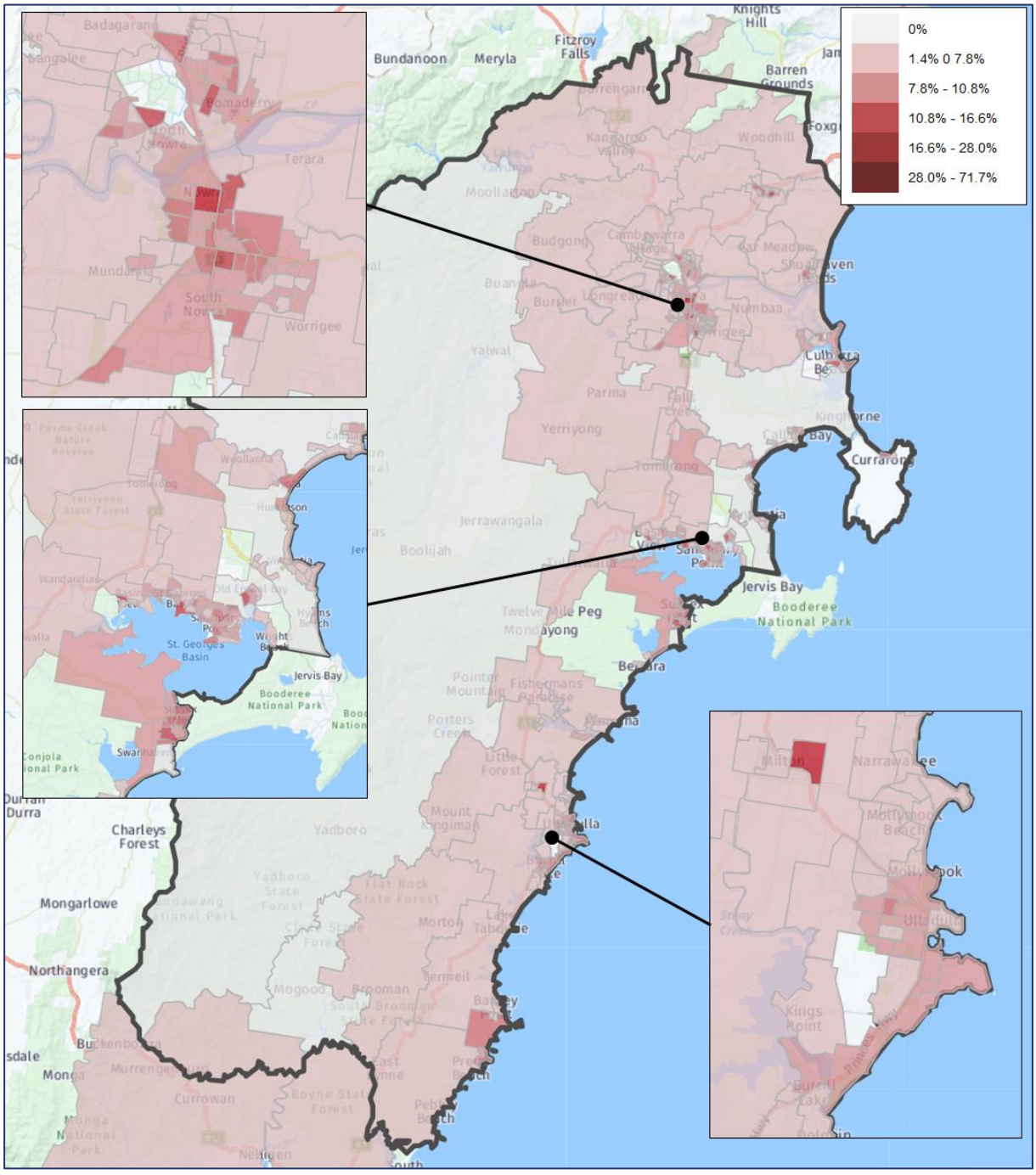
While there was growth in all age groups (other than 50 – 59 year olds), and in turn the need for strategies for all age groups, the data indicates the need for special consideration of active transport facilities that meets the needs of an aging population.

3.2.5 Elderly Residents and Residents with a Disability

While there are numerous forms of disability – some of which relate to a persons' ability to utilise active transport – the 2021 Census data provides a broader definition of those who "***need assistance due to a disability***"; importantly, the location of these members of our community matches almost exactly the location of those aged 60 and above. Improvements to active transport accessibility in these locations can benefit both seniors and those with a disability.

These locations are shown in **Figure 5**.

Figure 5: Residents Aged Over 60/Disability Assistance Needed



Source: .id Community

3.2.6 Employment Industries

A summary of the 2021 employment industries across Shoalhaven, as well as a comparison with 2016 employment industries, is provided in **Table 3**.

Table 3: 2021 and 2016 Employment Industries

Shoalhaven City - Employed persons (Usual residence)	2021			2016			Change
Industry sector	Number	%	Regional NSW %	Number	%	Regional NSW %	2016 to 2021
Agriculture, Forestry and Fishing	850	2.0	5.1	761	2.1	5.7	+89
Mining	199	0.5	2.4	162	0.4	2.4	+37
Manufacturing	1,977	4.7	5.6	1,885	5.2	6.0	+92
Electricity, Gas, Water and Waste Services	430	1.0	1.2	388	1.1	1.3	+42
Construction	5,039	11.9	9.4	3,959	10.9	8.7	+1,080
Wholesale trade	597	1.4	2.0	497	1.4	2.0	+100
Retail Trade	4,519	10.7	9.4	4,279	11.8	10.3	+240
Accommodation and Food Services	4,016	9.5	7.5	3,495	9.6	7.9	+521
Transport, Postal and Warehousing	1,282	3.0	3.7	1,226	3.4	4.0	+56
Information Media and Telecommunications	263	0.6	0.8	273	0.8	0.9	-10
Financial and Insurance Services	618	1.5	1.9	516	1.4	2.0	+102
Rental, Hiring and Real Estate Services	642	1.5	1.3	588	1.6	1.4	+54
Professional, Scientific and Technical Services	2,047	4.8	4.9	1,611	4.4	4.5	+436
Administrative and Support Services	1,645	3.9	3.2	1,508	4.2	3.3	+137
Public Administration and Safety	4,148	9.8	7.2	3,683	10.1	7.2	+465
Education and Training	3,498	8.3	9.2	2,846	7.8	9.0	+652
Health Care and Social Assistance	6,777	16.0	16.3	5,356	14.7	14.4	+1,421
Arts and Recreation Services	533	1.3	1.2	510	1.4	1.2	+23
Other Services	1,618	3.8	3.8	1,373	3.8	3.9	+245
Inadequately described or not stated	1,607	3.8	3.9	1,420	3.9	3.8	+187
Total employed persons aged 15+	42,305	100.0	100.0	36,336	100.0	100.0	+5,969

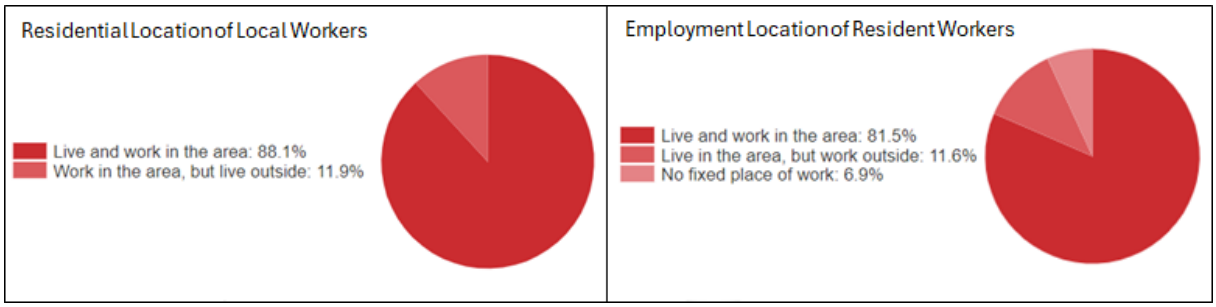
Source: .id Community

With reference to **Table 3**, the Shoalhaven workforce grew relatively significantly in the period 2016 to 2021, with just under 6,000 additional jobs. Key employment growth sectors including construction (reflecting the high amount of development – and particularly residential development – across Shoalhaven) and health care and social assistance (reflecting to some degree the increase in older residents).

3.2.7 Place of Work

The overwhelming majority of people working in Shoalhaven also live in the Shoalhaven (88.1%), which is not surprising given the distance between Shoalhaven and other employment centres, as shown in **Figure 6**.

Figure 6: Employment Locations



Source: .id Community

This highlights the likelihood of there being a high proportion of short distance trips, i.e. trips that could potentially be made as active trips if appropriate active transport infrastructure is available!

3.2.8 Car Ownership

The overwhelming majority of residents in Shoalhaven own at least one motor vehicle (95.8%), and indeed this number has increased from 2016, as shown in **Table 4**.

Table 4: Car Ownership

Shoalhaven City - Households (Enumerated)	2021			2016			Change
Number of cars	Number	%	Regional NSW %	Number	%	Regional NSW %	2016 to 2021
a No motor vehicles	1,930	4.2	5.3	1,922	4.7	5.8	+8
1 motor vehicle	16,816	36.6	33.8	15,179	37.1	33.4	+1,637
a 2 motor vehicles	16,323	35.6	35.2	13,747	33.6	34.0	+2,576
3 or more motor vehicles	8,144	17.7	19.5	6,243	15.3	17.2	+1,901
Not stated	2,688	5.9	6.3	3,846	9.4	9.5	-1,158
Total households	45,901	100.0	100.0	40,937	100.0	100.0	+4,964

Source: id.community

Notwithstanding therefore the fact that most residents live and work in the Shoalhaven, the lack of quality public transport services (see **Section 3.4**) and the relative remoteness of some key attractors (such as shopping centres and business/light industrial areas) requires a higher use of vehicles.

3.2.9 What are the Demographics Telling Us?

In a region where over 4% of households have no access to a car and many struggle to afford one, "***transport poverty***" is a serious issue. The median household weekly income is $1,250, much less than the NSW average of $1,829. 23% of households have a weekly income below $650, more than the NSW average of 16%, and inequality is likely to widen further with rising housing and transport costs.

If education facilities, workplaces and community facilities can be accessed safely via an active trip, families can be released from the financial burden of owning multiple cars.

In addition, Shoalhaven has a much older population than the NSW average; 28% of residents are over 65, compared with the NSW average of 18%. As people age, they become less likely to drive, and as such it is essential to provide alternative ways to get around so they can remain healthy, active and connected to community and services.

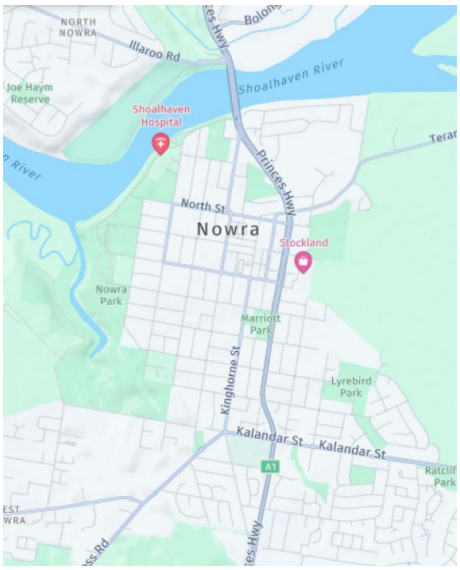
The Strategy responds to these challenges and aims to provide more paths and more crossings in more locations, not only supporting our most vulnerable population, but allowing and encouraging more of our residents and visitors to Get Active; connect safely; and move around sustainably.

3.3 Road Network

The road hierarchy in Shoalhaven (and indeed in LGAs everywhere) can generally be described using three types of road, including:

- **Arterial Roads:** Arterial roads have traffic volumes greater than 10,000 vehicles per day (**vpd**) with a principle function of moving vehicular traffic.

  The primary arterial road in Shoalhaven is of course Princes Highway, which in some locations also forms the main activity road in centres including Ulladulla, Milton and South Nowra. This is turn increases the potential for conflicts between pedestrians/bicycle riders and vehicles, regardless of the active transport infrastructure available for safe movement along and across Princes Highway.



- **Collector Roads:** Collector roads have traffic volumes up to 10,000vpd (through most have less than 5,000vph) and in most instances provide off-road paths and formal crossings. Collector roads generally provide the most direct access through and between local suburbs.

- **Local Roads:** Local roads have traffic volumes up to 2,000vpd, and generally provide footpaths on one or both sides of the road; however, in many of the older suburbs in Shoalhaven no footpaths are provided, meaning pedestrians and bicycle riders will use the verge (generally grass) or the road carriageway for active trips.

  In most instances this can be done safely given that local roads have low traffic volumes and low vehicle speeds. However, this does not mean that off-road paths are not still important - particularly for those with mobility difficulties who are otherwise also forced to travel along informal verges or within the carriageway.

It is important to note that the Movement & Place framework provides a more nuanced hierarchy of roads that better defines the way in which each can provide a Movement and/or Place function.

The Strategy accordingly considers the hierarchy of roads within the Movement & Place framework context, which includes **Main Roads**, **Main Streets**, **Local Streets** and **Civic Places**. A more detailed review of our roads in the context of Movement & Place is provided in **Section 5.5**.

In this regard, the "***Road User Space Allocation Policy***" (**RUSA Policy**) first published by TfNSW in early 2021, has recently been updated with a much stronger mandate to find a better balance between movement and place. The RUSA Policy means that TfNSW must adhere to these principles ahead of any guidance that seeks to protect or maintain private vehicle level of service.

The RUSA Policy provides local governments with a powerful lever to prioritise road space for active transport; however, the right balance must be found at the local level, and Councils take many factors into consideration when determining user space allocation. Finding that right balance has been inherently considered in the Strategy in the context of Movement & Place and moreover the common sense approach to allocating active transport funds that benefit the most road users.

Finally, it is important to note that it is not the role of the Strategy to present a new road hierarchy for Shoalhaven, but only to put the principles of Movement & Place into their proper context, and to ensure that - going forward - further improvements to our active transport networks pay due consideration to those principles as we strive to achieve more connected and accessible communities.

Moreover, by considering our roads in the context of both a standard hierarchy and a Movement & Place hierarchy, we are better able to identify the function and characteristics (such as traffic volumes) of all roads when objectively ranking active transport projects, particularly from a risk mitigating perspective.

3.4 Public Transport

3.4.1 Existing Public Transport Services

Existing public transport services across Shoalhaven are relatively poor, largely again as a function of the distance between our towns and villages.

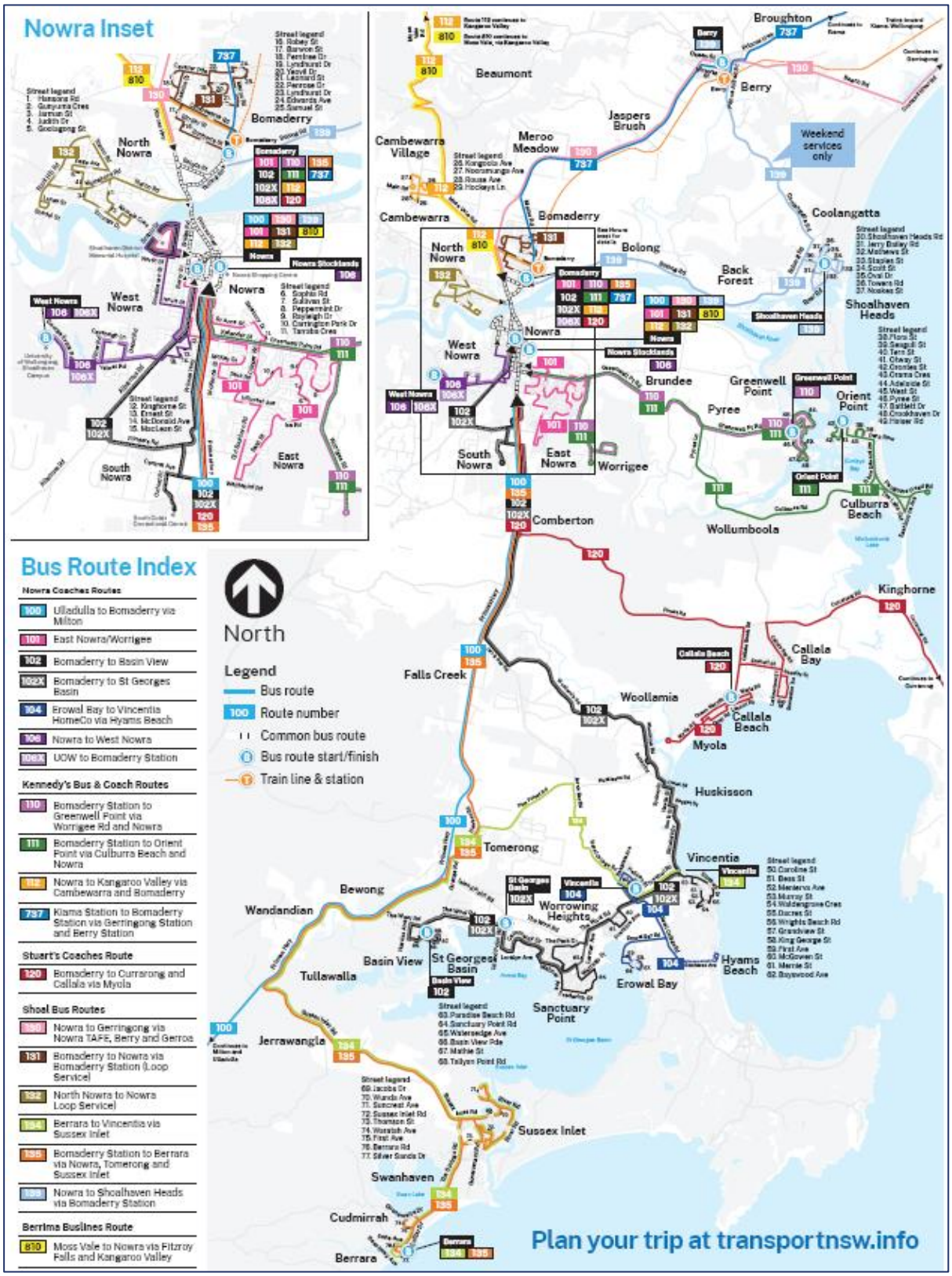
South Coast Line trains operate between Bomaderry and Kiama, and then from Kiama to Bondi Junction. Services run every 1 – 2 hours each day, but the travel time between Bomaderry and Kiama is over an hour by rail compared to 35 minutes by vehicle; and the travel time between Bomaderry and Sydney is some 3 hours and 20 minutes by rail compared to 2 hours and 15 minutes by vehicle. There are similar disparities between rail and vehicle trips between Nowra and Wollongong.

As such, the use of rail for commuter [or general daily] trips is very limited.

There are numerous bus routes available within Nowra and Bomaderry, but services outside of these areas are infrequent and – quite simply – again have a travel time that is significantly longer than a vehicle trip.

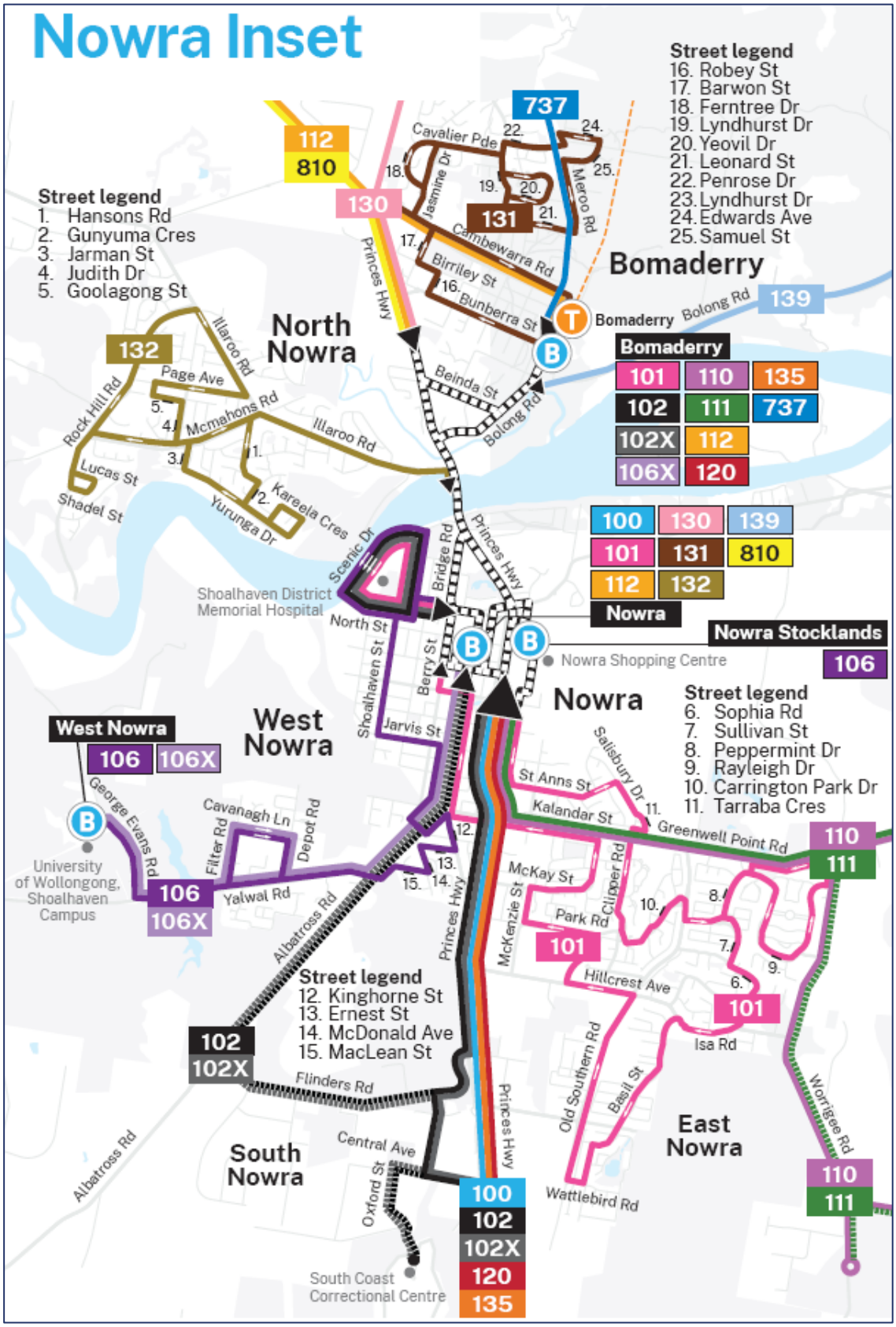
Existing bus services across Shoalhaven are shown in the figures below.

Figure 7: Northern and Central Shoalhaven Bus Services



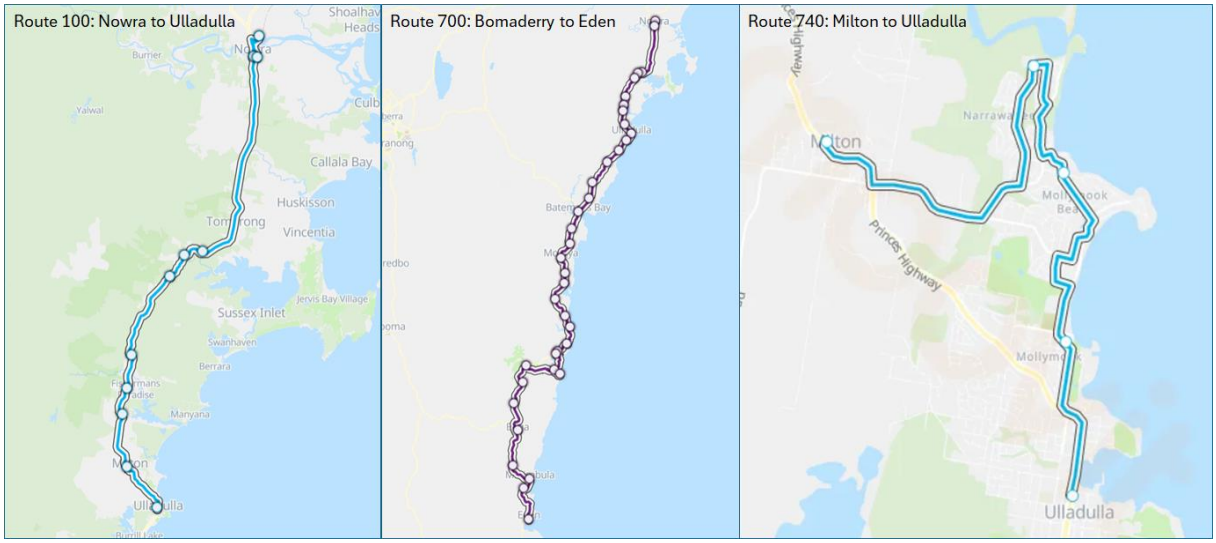
Source: TfNSW

Figure 8: Nowra and Bomaderry Bus Services



Source: TfNSW

Figure 9: Southern Shoalhaven Bus Services



Source: moveit

Bus routes within Nowra and Bomaderry have expanded in recent years, and generally provide good local connectivity; however, residents in many locations such as Ulladulla, Milton and growing suburbs around Georges Basin and Jervis Bay have very limited services, often operating only every 2 hours, with even fewer (if any) services on weekends. Even where bus services are available, a trip from Nowra to Ulladulla for example would be 1 hour by vehicle, but over 2 hours by bus; while a trip from Nowra to Georges Basin is around 20 minutes by vehicle, but over 1 hour by bus.

The use of buses for both work and everyday trips is therefore limited, which in some instances also means that the provision of footpaths linking to bus stops are not always prioritised other than when these bus stops are also servicing (for example) school buses or higher demand retail and community destinations.

3.4.2 Future Bus Services

Shoalhaven was selected as a participant in the 16 Regional Cities Services Improvement Program (**16 Cities Program**), where the NSW Government committed to improving bus services across regional NSW; the 16 Cities Program delivered bus service improvements designed to better meet customer travel needs; ensure equitable access to public transport; and provide for integrated, multi-modal end-to-end journeys.

After undertaking some initial improvements to bus services in 2021, in August 2022 over 250 new services were introduced to the Greater Nowra region, providing faster and more direct bus trips; better connections to Bomaderry Station; new weekend services; and better accessibility to work, educational and health facilities.

Further to the completion of the initial 16 Cities Program, the NSW Government is now in the early planning phase of its **Integrated Service Plan** project which - in a nutshell - will see even further improvements to public transport across regional NSW, including Shoalhaven.

Council will continue to work with the NSW Government and TfNSW to ensure that both active and public transport projects continue to be coordinated at both a State and Council level; that there is an integration with all forms of planning; and that we work in collaboration to achieve sustainable outcomes that tackle congestion, improve connectivity and accessibility and encourage travel modes that will provide a more sustainable transport future.

3.5 Parking

Given the high use of vehicles for all trip purposes, it is often the case that off-street parking can be at a premium, and in turn on-street parking demand can extend out of centres and into adjacent residential areas, which has negative amenity impacts. Moreover, unless the use of vehicles is reduced over time, there will be increasing demands for off-street parking, and/or greater encroachment into adjacent residential areas.

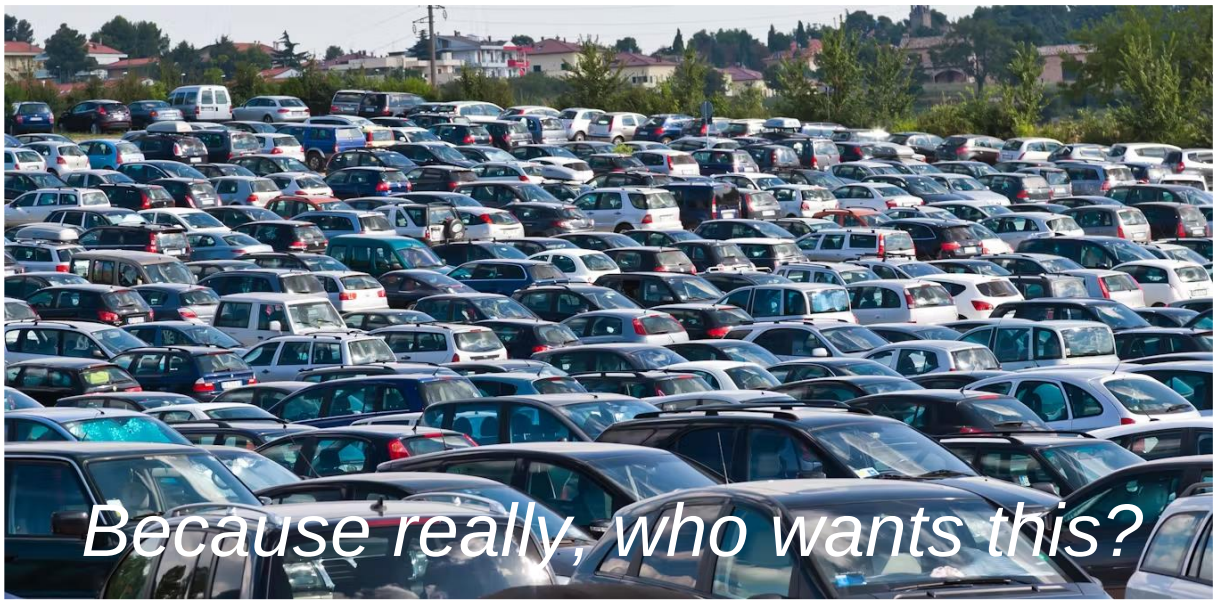
As importantly, higher on-street parking demand reduces our ability to provide more active transport infrastructure within existing road reserves (see also **Section 9.6.3**).

To address this issue, Chapter G21 of the Shoalhaven DCP (**DCP Chapter G21**) has been progressively updated to ensure that sustainable outcomes are achieved by adhering to the principles of "***Active and Public Transport Planning***", and incorporating these principles more broadly throughout the Shoalhaven DCP as part of an "***Integrated Transport Planning***" approach.

As such, to more provide sustainable parking rates, the underlying objectives of DCP Chapter G21 include:

- Ensuring that adequate off-street parking is provided in conjunction with development across Shoalhaven, including where necessary any overflow parking, to reduce parking demand extending into residential areas, while at the same time discouraging an oversupply of parking (particularly in mixed-use centres) that can sometimes encourage greater vehicle use.
- Discouraging the use of on-street parking in new developments.
- Ensuring that car parks are visually attractive; functional; operate efficiently; safe; and meet the needs of users.
- Ensuring that all vehicles enter and leave a site in a forward direction, and that the manoeuvring of vehicles does not take place within the road reserve, but rather within a subject site.
- Actively encouraging developments that contribute to vitality and liveability within our towns and villages.
- Addressing the principles of ecological and environmental sustainable development.

- Ensuring that the traffic and road safety implications of development are adequately assessed in accordance with current guidelines and standards.



As part of all transport assessments for new development, Council requires parking analysis to ensure that Shoalhaven's town and village centres meet their minimum parking requirements (pursuant to DCP Chapter G21) in a sustainable manner, as well as ensuring integration with other complementary strategies including the PAMP and Bike Plan. This specifically includes (for example) requirements for bicycle parking and end-of-journey facilities for some types of development.

Some of this more detailed parking demand analysis has been undertaken by Council (for example in Nowra and Huskisson) to determine how a greater turnover of parking might be achieved rather than simply providing more parking; this analysis will be extended to other towns and villages, and be ongoing, to ensure an integrated approach in all forms of planning.

Notwithstanding, and again in the context of Integrated Transport Planning, the DCP Chapter G21 parking rates to some extent reflect the parking required in larger metropolitan centres that have a much greater use of public (and active) transport; this means that parking rates are set at the absolute minimum levels because they assume a future shift to other sustainable transport modes. While there can therefore be times (in the short term) where this can result in a marginal undersupply of parking, this approach is more sustainable and consistent with industry best practice to encourage a greater shift to alternative travel modes over time.

Shoalhaven of course is also subject to significant seasonal fluctuation in traffic and parking demands such as during summer tourist peaks. These demands are "***over and above***" typical base level parking demands, and are not captured in the DCP Chapter G21 parking rates. Whether to provide additional parking in towns and villages subject to seasonal impacts is a challenging matter for Council, because Council's **Contributions Plans** don't capture any of the additional seasonal demand by traditional means.

This means that there is no demonstrated nexus between seasonal demand for individual developments, nor consistency of parking rates to some extent across Shoalhaven, due to these demand fluctuations and moreover of course the sky-rocketing cost of providing more parking!

It is generally a Council's responsibility to determine whether to require/fund parking that is over and above typical base demand levels, and how to do this in a way that is also consistent with a longer term incremental shift to alternative travel modes. For coastal Councils like Shoalhaven, this is an even greater challenge, and it will remain a significant challenge going forward.

GTM Part 11 states that in areas subject to seasonal fluctuation, it is simply not economically viable to expect that Councils cater for the highest annual demand; to the contrary, industry best practice (as reflected in GTM Part 11) suggests that targeting the 85th percentile demand level is appropriate, i.e. to supply parking at a level that won't be exceeded for more than 15% of the year.

Council's own studies undertaken to date (in Nowra and Huskisson) confirm the position that there is no current need to change the DCP Chapter G21 parking rates, which already factor in a shift to alternative transport modes.

The takeaway?

While seasonal impacts will continue to be challenging to manage for Council, the current DCP Chapter G21 rates (set at the minimum level) already reflect sensible and sustainable parking planning, in that the minimum rates already reflect a future shift to active and public transport, and also satisfy the recommended minimum GTM Part 11 targets for locations with seasonal demand.

Accordingly, it is Council's view that the approach to parking rates in DCP Chapter G21 does not require any amendment to base level parking rates, in that the rates are already set at levels that support a longer-term shift to alternative modes that the Strategy is designed to promote.

The core objectives of ensuring higher parking turnover and pedestrian friendly town and village centres, with longer term parking around the periphery of these centres, underpins Council's adopted parking approach, which is consistent with industry guidelines and standards, and is reinforced in our active transport initiatives.

4 Strategic Framework

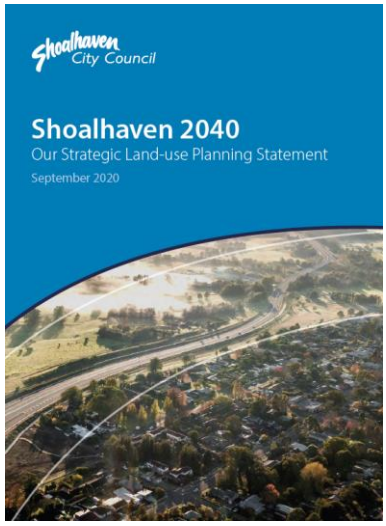
A multi-level framework of policies, standards and guidelines are available to inform the Strategy, as detailed in sections below.

4.1 Shoalhaven Planning

While the Strategy is designed to guide the future of active transport in Shoalhaven, it also responds to the broader suite of Shoalhaven planning policies that describe the aspirations of Council and the community, and as such the development of the Strategy has specifically referenced our current planning policies as detailed further below.

4.1.1 Shoalhaven Local Strategic Planning Statement 2040

LSPS 2040 outlines Council's program of land-use planning to best realise the community's vision for the next 20 years, and how that vision can be realised.



LSPS 2040 specifically focuses on the issues that the community has identified as being the most important to them, including new homes and housing choice; transport infrastructure; communal places; local employment opportunities; protecting and adapting to the environment; and celebrating our deep rooted culture and heritage.

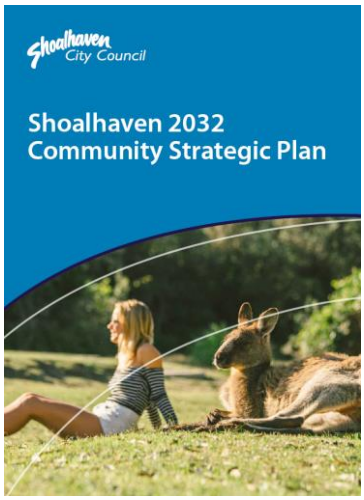
The planning framework provided in LSPS 2040 – along with Community Strategic Plan and the Shoalhaven DPOP - allows Council to plan, coordinate and implement the community's vision for the next 20 years.

As noted, a key objective of LSPS 2040 is the delivery of new transport infrastructure, including active transport infrastructure, with Planning Priority 2 stating:

The changing way communities exercise, socialise and spend time outdoors tells us we need to better integrate urban areas with the landscape to allow people to be physically active where they live and work, reduce car use, and encourage community interactions. This can be achieved with open space, walkways and cycleways.

It is noted that LSPS 2040 provided the recommendation for the preparation of the Strategy, as well as the PAMP Update and Bike Plan Update.

4.1.2 Shoalhaven Community Strategic Plan 2032



The Community Strategic Plan was developed further to a comprehensive engagement program with the community and stakeholders seeking to determine key priorities for Shoalhaven through 2032, based in essence on the following simple questions:

What do you love about Shoalhaven City?

What would you like to see in Shoalhaven City by 2032?

What would you like to see less of in Shoalhaven City by 2032?

What are the challenges facing Shoalhaven City in the next 5-10 years?

With regard to transport, the Community Strategic Plan correctly identifies the challenges we face in light of the distance between our towns and villages, as well as our limited public transport services. However, it does recognise the need to facilitate the ongoing provision of active transport infrastructure, and moreover the need to continually improve the way we roll out that active transport infrastructure in an equitable and transparent was across Shoalhaven.

4.1.3 Shoalhaven Disability Inclusion Action Plan

The Disability Plan provides a 4 year framework (through 2026) by which Council will continue to improve access, services, activities, employment and information for people living with a disability, as well as their families and carers.

Council is committed to improving opportunities for people of all ages with a disability to access the full range of services and activities available.

In some instances, this can only be achieved by ensuring "***access equality***", which in turn means the provision of active transport infrastructure specifically designed for those with mobility impairments. This commitment includes new active transport infrastructure as well as retrofitting of existing active transport infrastructure, and specifically focuses on:

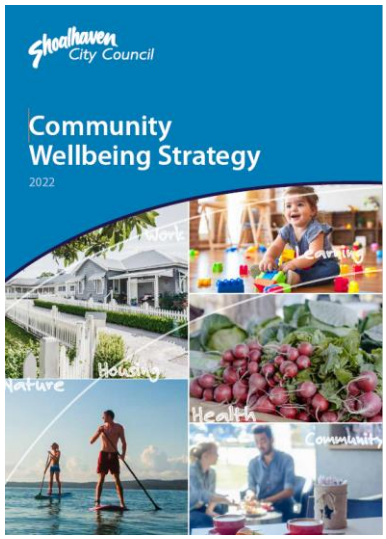
- Identifying projects that will address access improvements (as part of the Paths & Crossings Review).
- A commitment to annual workshops with the Inclusion & Access Advisory Group (**IAAG**) and key stakeholders.
- Using kerb ramp budgets to continuously deliver priority kerb ramp projects, particularly in towns and villages.
- Working with TfNSW to improve the accessibility of all transport modes across Shoalhaven.

As discussed it is Council's position that in some instances it is better to provide an off-road path that doesn't meet current standards than it is to provide no path at all. However, this is no way means that we have not considered the needs of those with mobility impairments; on the contrary…

it is precisely these users – for example those in wheelchairs – that will specifically benefit from a formal off-road path even if it is (for example) slightly narrower than current standards suggest.

This may mean that two wheelchairs are not able to pass each other at every point along a path, but a compromise that means occasionally waiting on a driveway or the like to allow passing still provides in our view a far superior outcome to no path at all (see also **Section 7**).

4.1.4 Shoalhaven Community Wellbeing Strategy



The Wellbeing Strategy is a framework to guide Council in making business-planning decisions to improve community wellbeing.

*"**Wellbeing is the ability to thrive**"*, an objective that should be available equally to everyone in Shoalhaven. Community wellbeing is a shared responsibility that requires all community stakeholders to work collaboratively to achieve shared goals and aspirations for wellbeing, particularly in accordance with Foundations 4.2, 5.0, 5.1, 6.0, 6.2, 6.3 and 7 of the Wellbeing Strategy.

The Wellbeing Strategy identifies a number of foundations upon which to create wellbeing, with one of the highest ranked by the community being transport connectivity. Indeed, when asked for a big idea to improve wellbeing, "***increased active transport***" was the second highest response!

"We need to improve active transport connections to the beautiful destinations in our LGA, since having a kid recently I've noticed a lot of the natural areas, open spaces or recreation facilities I want to go to aren't accessible in a pram". (Wellbeing Strategy survey participant).

4.1.5 Shoalhaven Destination Management Plan

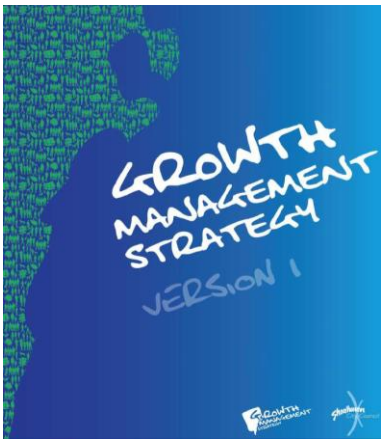
The Destination Plan is designed to prioritise key focus areas and actions to ensure that the tourist industry continues to thrive across Shoalhaven, already one of the most highly visited tourist regions in NSW, with visitors bringing in just under $1 billion and employing over 5,000 people each year!

Of specific reference to the Strategy, the Destination Plan recognises the need for efficient travel to and within Shoalhaven, and particularly within towns and villages; and new infrastructure to activate parts of Shoalhaven ready with additional possibilities.

In this regard, the Destination Plan identifies the need for:

- New and improved walking trails that highlight our natural resources.
- Identifying the missing gaps in our transport networks that hinder access to recreational and tourist facilities.
- Creating walkable and legible precincts.

4.1.6 Shoalhaven Growth Management Strategy



The Growth Strategy is designed to guide the future growth of Shoalhaven to accommodate its growing population, while maintaining and protecting our social, economic and environmental values.

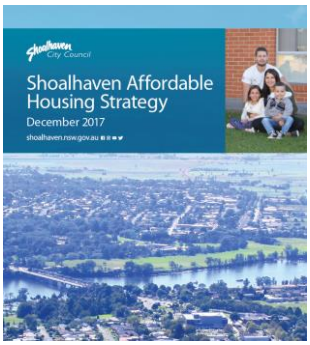
This will be achieved by establishing a clear policy framework for land use planning, to then be implemented through revisions and adjustments to the Shoalhaven LEP and Shoalhaven DCP.

The outcomes and actions identified within the Strategy are based on the social justice principles of ***equity, access and connectedness; participation; and equal rights for all***.

With specific regard to the Strategy, the Growth Strategy acknowledges that there is limited active transport infrastructure in Shoalhaven, but also that improvements continue to be made both within and between towns and villages.

Equally, and in the context of a "**15 Minute Neighbourhood**", the Growth Strategy identifies the need to provide more day-to-day regional and local services within our existing towns and villages respectively, i.e. to locate these everyday destinations within a short walk or cycle distance (see also **Section 5.4**).

4.1.7 Shoalhaven Affordable Housing Strategy



The availability of affordable housing across Shoalhaven is essential so that the flow-on opportunities that come from simply having a place to call home can be realised.

Although Shoalhaven has historically been an affordable area, a range of factors have now made it one of the least affordable areas for both low income purchasers and renters. More worryingly, it now has the highest level of housing stress in the Illawarra-Shoalhaven Region.

There are significant opportunities for Council to support the creation and maintenance of affordable housing through core planning legislation and policies, and we have an implicit role in encouraging affordable housing through land use zoning; planning controls; the timing of land release; the location of services and facilities; and the levying of rates and development contributions.

With specific reference to the Strategy, a core consideration in locating affordable housing is access to everyday services, as it is often the case for some that the cost of owning and operating a vehicle can be prohibitive. As such, one of the key principles of the Affordable Housing Strategy is to ensure that affordable housing is appropriately located in close proximity and easy access to our key towns, in turn providing access to daily services and easy commutes to work for a low income and aging population via an [inexpensive] active transport trip.

4.2 NSW Government

4.2.1 NSW Active Transport Strategy

The NSW ATS provides a framework by which to guide planning, investment and priority actions for active transport across NSW. With specific reference to the Strategy, it focuses on the following:

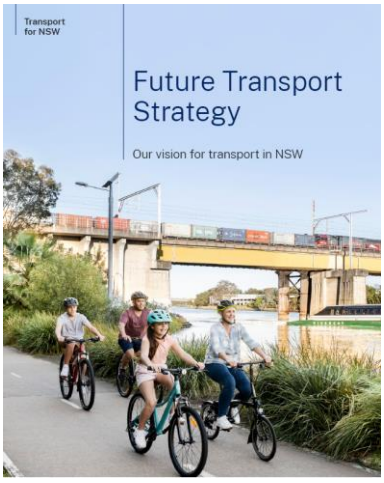
- Continuous and connected bicycle networks.
- Providing active transport networks for users of all abilities.
- 15 Minute Neighbourhoods.
- Improving safety and comfort of active travel.
- Supporting multi-modal journeys by integrating active and public transport.
- Promoting behavioural change to how active transport is perceived.
- Supporting emerging active transport modes such as e-bikes and e-scooters.
- Enhancing visitor and tourism experiences.

The NSW ATS also provides a de facto set of priorities that have been specifically considered in developing the Strategy; these include:

- Enabling 15 Minute Neighbourhoods.
- Delivering connected and continuous bicycle networks.
- Providing safer and more accessible precincts and main streets.
- Promoting walking and riding, and specifically encouraging travel behaviour changes.

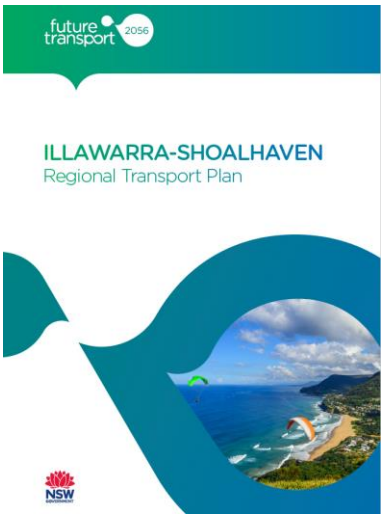
4.2.2 NSW Future Transport Strategy

The NSW FTS provides a long-term plan for transport in NSW, focusing on strategic directions by which to achieve world-leading mobility for all. With specific reference to the Strategy, the NSW FTS again focuses on 15 Minute Neighbourhoods, which are underpinned by:



- Improving amenity in towns and villages where possible by moving car parking away from main streets, i.e. adopting Movement & Place principles that make main streets places where people want to be rather than vehicle dominated environments.
- Ensuring that there are footpaths on both sides of all roads within 400m of a local centre or main street, and all roads within 800m of a strategic centre.
- Where possible, limiting the volume and speed of vehicles in roads that can be activated to provide a place function.
- Providing/upgrading safe bicycle routes that establish or complete local bicycle networks.
- Providing low-speed traffic environments to make walking and bicycle riding safer.

4.2.3 Illawarra Shoalhaven Regional Transport Plan



The IS Transport Plan was developed in conjunction with NSW Future Transport 2056 (now superseded by NSW FTS), and provides the strategic framework for how TfNSW proposes to proactively respond to anticipated changes in land use, population and travel demand across the Illawarra-Shoalhaven region.

As with the NSW FTS, the IS Transport Plan recognises the need to make walking and bicycle riding an attractive alternative to vehicle trips regardless of age, ability and income, and sets targets for an increase in the use of public transport trips (supported by pedestrian connectivity) from 6% to 12% by 2041; **and an increasing in walking and bicycle riding trips from 4% to 8% by 2041**.

The IS Transport Plan also details a number of key priority projects for Shoalhaven; active transport related projects being delivered, planned or for future investigation in Shoalhaven are summarised in **Table 5**.

Table 5: Illawarra-Shoalhaven Regional Transport Plan Priority Projects

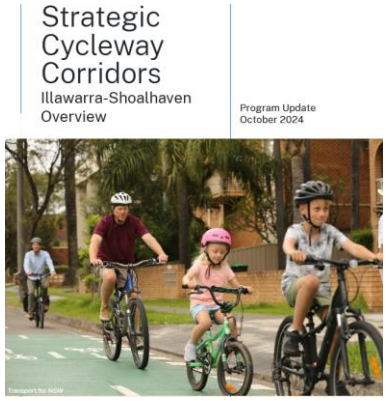
Project	Status	Active Transport Benefits
Regional Services Improvement Program	Delivered	Walkable Towns
Nowra Bridge Project	Delivered	New Links
Transport Connected Bus Program Nowra - Bomaderry	In Planning	PT Accessibility
Princes Highway & Moss Vale Road Intersection Upgrade	For Investigation	Active Transport Safety
30 minute Public Transport Catchments Milton-Ulladulla	For Investigation	Walkability
Bus HeadStart Program Nowra - Bomaderry	For Investigation	PT Accessibility
Improved bus services between Ulladulla and Nowra	For Investigation	PT Accessibility
Nowra Safety and Reliability Improvements	For Investigation	Walkability and Safety
Place Based Transport Plan for Nowra City Centre	For Investigation	Movement & Place

Source: IS Transport Plan

While many of the projcts identified in **Table 5** have been further progressed or captured in other bodies of work, an updated IS Transport Plan will be developed and placed on exhibition in 2025 by TfNSW, and will be called the Illawarra-Shoalhaven "Strategic Regional Integrated Transport Plan". All nine Regions in NSW will have these new plans, which will have the same framework, although tailored locally to outline each Region's individual transport priorities.

4.2.4 Shoalhaven Illawarra Strategic Cycleway Corridors Overview

The focus of the strategic cycleway network for Illawarra-Shoalhaven is to provide safe cycleways for people of all ages and abilities. It will provide better connections between existing key centres, schools, and points of interest, along with emerging centres that will serve an important function in the future.

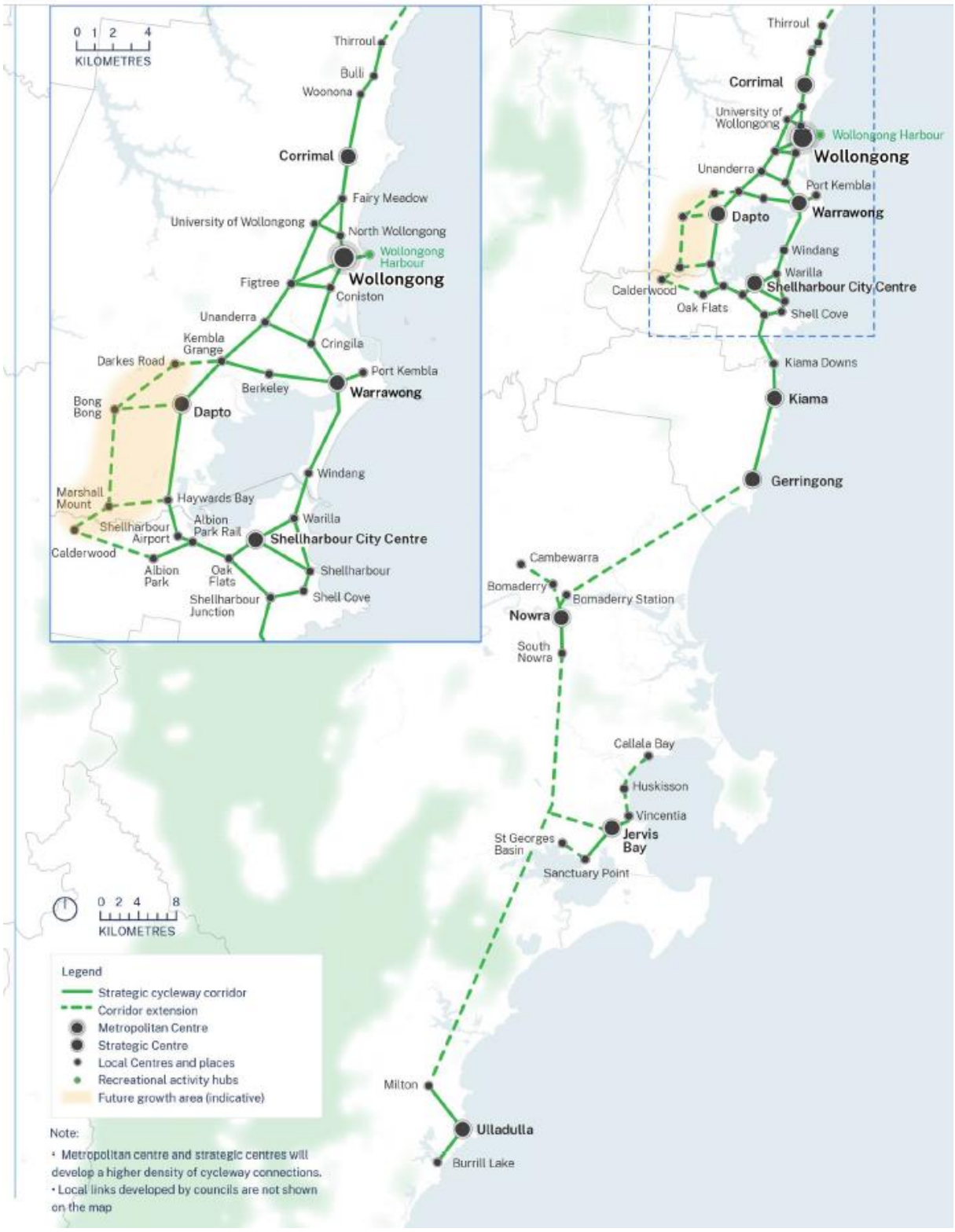


To improve the network and enable more people to ride, the Program will:

- *Consider leveraging existing and proposed active transport connections in Illawarra-Shoalhaven.*
- *Work with government agencies and planning processes to coordinate infrastructure commitments.*
- *Create cycleways that are well integrated with our public transport hubs, with secure bike parking facilities to enable seamless multimodal journeys.*

- *Apply the design guidance in Transport for NSW's Cycleway Design Toolbox*.

The key pieces of cycleway infrastructure identified in the IS Cycleway Corridor Strategy at this time are shown below.



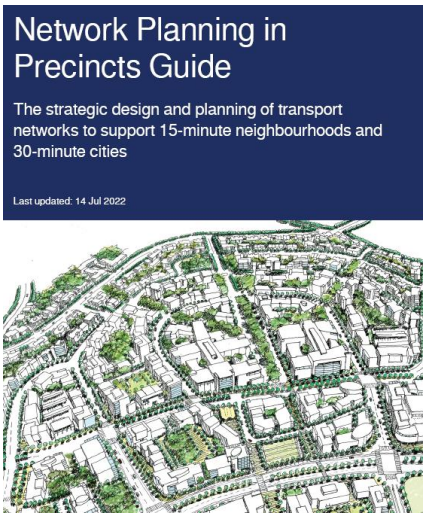
Source: IS Cycleway Corridor Strategy

Importantly, a number of key pieces of cycleway infrastructure that Council has previously discussed with TfNSW (and are shown in the PAMP Interactive Mapping Tool) are not included in the IS Cycleway Corridor Strategy at this time; these include:

- An extension of a cycleway south of Burrill Lake.
- An extension of a cycleway south of Vincentia to Hyams Beach.
- The route from "Jervis Bay to the Highway" shown as a future extension of the network, but the alignment of this route is not detailed.

Noting that the IS Cycleway Corridor Strategy is at this time provided only as an "Overview" document, Council will continue to consult with TfNSW to ensure that these (and other) key pieces of cycleway infrastructure are appropriately considered as the IS Cycleway Corridor Strategy evolves.

4.2.5 Network Planning in Precincts Guide



The Precincts Guide provides best practice principles, tools, examples and case studies of a transport network that facilitates the efficient movement of people and goods while supporting the creation of the 15 Minute Neighbourhoods and the **30 Minute City**, as well as desired place, safety, public health and wellbeing, environmental and economic outcomes.

With specific reference to the Strategy, the Precincts Guide focuses on the following:

- Movement & Place functions.
- Achieving best outcomes as set out in strategies and plans.
- Appropriately considering the limited amount of space available in some roads and verges.
- Prioritising the safety of the most vulnerable users.
- Recognising that while some locations may be car-dependent today…

there is no reason why we cannot move towards maximising the potential for active trips in the long term.

4.2.6 NSW Connecting with Country Framework

Consideration of Country allows a different way of thinking about how we fit within the built and natural environments, and how we shape and are shaped by those environments. After all, many of what are now our main thoroughfares in Shoalhaven were established when local Aboriginal people showed colonists the best route through the landscape. These travel routes had been used by Aboriginal people for thousands of years.

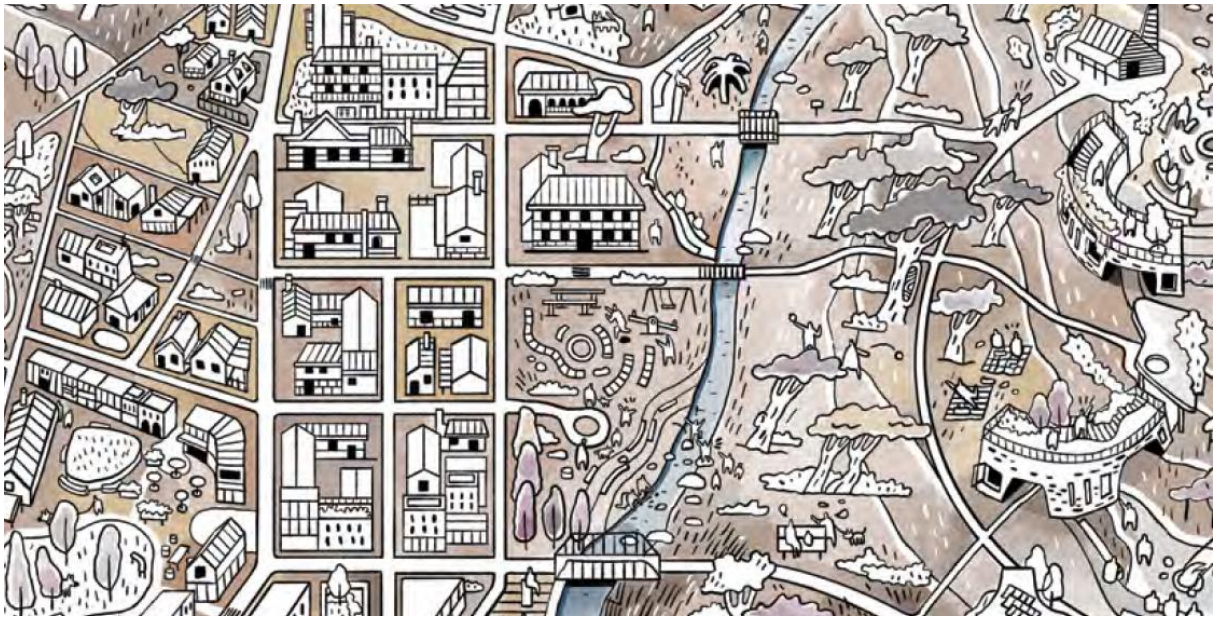
With specific reference to the Strategy, Connecting with Country focuses on:

- Reducing the prioritisation of people and their needs where the outcome is that the landscape and nature are reduced to second-order priorities.
- Design and planning processes that consider systems that include people, animals, resources and plants equally – similar to an indigenous world view – so as to make a significant contribution to a more sustainable future.

Connecting with Country also stresses the importance of "***in-between spaces***" - an important aspect of indigenous culture and spirituality – in the context of active transport.

The identification and importance of "***spaces as places***" is therefore by no means a new concept, but has been appropriately elevated as one of the fundamental objectives of Movement & Place as bland, unsafe or simply insignificant in-between spaces may in many instances reduce the use of active trips (via these in-between spaces).

Properly recognising these in-between spaces, and imbuing them with significance and value, is therefore an essential part of the Strategy, as can be seen locally at Rex Worrell Shorebird Park, River Road and Shoalhaven Heads where an SUP terminates in a wheelchair pad with a view of Cullunghutti Mountain, with an interpretive sign explaining its significance to Local Aboriginal people.



4.2.7 Local Planning Directions

Section 5.1 of the Minister for Planning's Local Planning Directions stresses the important of "***Integrating Land Use and Transport***" for all types of development so as to achieve the fundamental planning objectives of:

- *Improving access to housing, jobs and services by walking, cycling and public transport, and*
- *Increasing the choice of available transport and reducing dependence on cars, and*
- *Reducing travel demand including the number of trips generated by development and the distances travelled, especially by car, and*
- *Supporting the efficient and viable operation of public transport services, and*
- *Providing for the efficient movement of freight.*

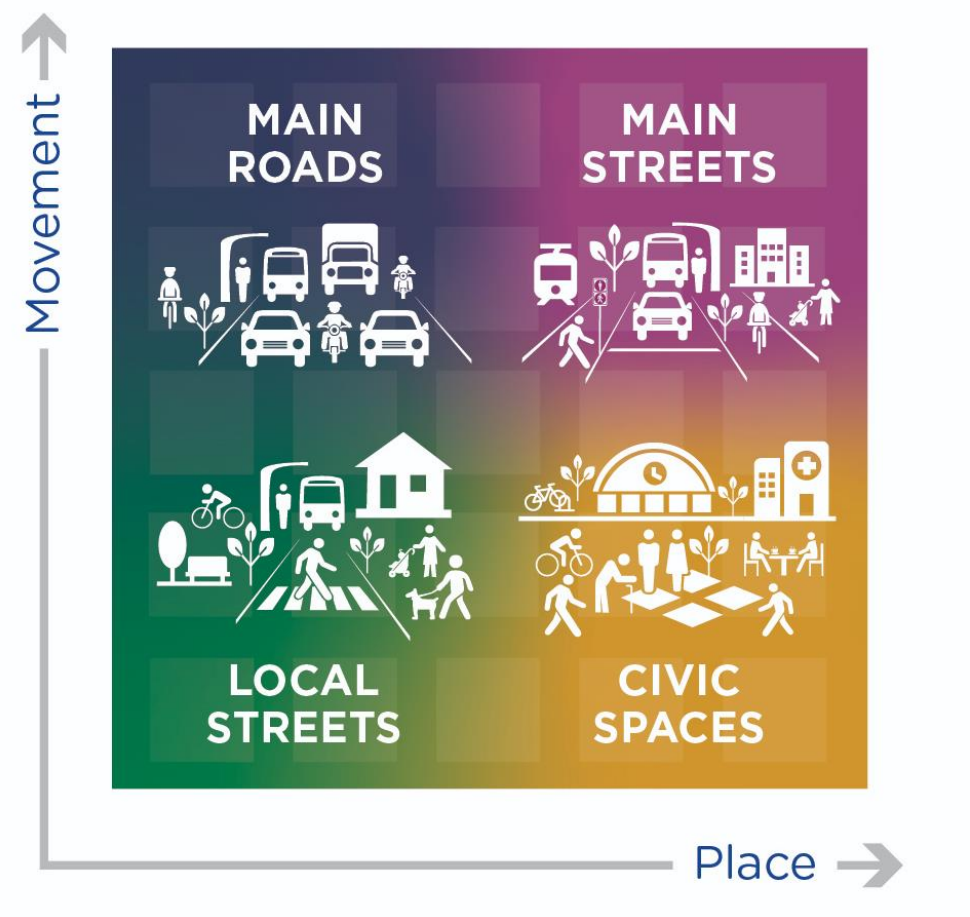
The Strategy is of course very much aimed at identifying the active transport infrastructure that will be required to achieve the required quantum shift away from vehicle trips that underpins the integrated approach of the Local Planning Directions, and moreover an intent to apply these objectives to both existing and new development areas.

5 Movement & Place

5.1 Overview

As discussed, a significant consideration in planning all active transport infrastructure is the way in which that infrastructure aligns with the objectives of Movement & Place.

Movement & Place is a multi-disciplinary, place-based approach to the planning, design, delivery and operation of transport networks that recognises and looks to optimise networks of places for people formed by roads and streets, and the spaces they adjoin and impact.



5.2 What is Movement and what is Place?

Movement is how people get about to access their jobs, education and services, as well as the movement of goods required for our towns and villages to function.

Places are the spaces where we get together, relax, celebrate, work and participate in civic life.

In the past, we've considered roads as just a way to get vehicles from A to B; Movement & Place recognises that roads are not just about moving people and goods – they are also places for people to live, work and spend time. Movement & Place is about getting the right mix of transport in the right locations to create places we can all enjoy, such as the wonderful mural in Egans Lane…

By broadening our thinking about our roads and streets beyond their functional role in supporting movement, places can better deliver social, environmental and economic improvements for the entire community. Likewise, by broadening our thinking about movement to include both mobility and access, we can promote the right mode for each trip purpose, and plan places that serve local areas and minimise the need to travel long distances.

The underlying objective of Movement & Place is therefore to provide roads and streets that:

- Contribute to the network of public space within a location, where people can live healthy, productive lives; meet each other; interact; and go about their daily activities.
- Are enhanced by transport, and have the appropriate space allocation to move people and goods safely and efficiently, and connect places together.

A place-based approach to planning also involves taking a collaborative, spatial, long-term approach to develop contextual responses that better meet the needs of local communities and their environments. Place-based planning aims to build and support thriving communities through collaboration, partnering, shared design, shared stewardship, and shared accountability.

With specific reference to the Strategy, place-based planning focuses on:

- Creating well designed places that make people want to interact with them.
- Aligning Movement & Place in the design of roads and streets to provide all of those that use these spaces better, safer and healthier travel options.
- Aligning integrated and efficient movement of people and goods with amenity and quality of places.

5.3 Place Analysis

In developing active transport strategies, as well as fulfilling the objectives of Movement & Place and moving towards 15 Minute Neighbourhoods, it is important to identify places, i.e. the spaces which people inhabit for everyday tasks. As the Strategy evolves over time therefore, it is important that the community and key stakeholders consider the fundamental type of place they want to inhabit, and how advocacy for active transport projects can also address these places, such as the 10km/h Shared Zone in Junction Street east of Kinghorne Street…

So ask yourself…

- **Where do we to live?**

  While residential development is spread out across Shoalhaven, it is actually located across a very small area, including Nowra and environs, and towns and villages along the east coast (including Jervis Bay and St Georges Basin).

To accommodate future growth, current Council strategies focus on new residential areas in close proximity to established towns, and particularly in close proximity to Nowra, with major residential development occurring in Badagarang and Mundamia/Nowra Hill.

In time, it is anticipated that additional medium and even high-density dwellings could be provided in close proximity to town centres; this is starting to happen already, and is likely to intensify to meet Federal and State Government housing targets. Active transport infrastructure needs to be a focus of these proposals to influence active transport participation up front, linking to schools, shops, services, recreational areas and public transport.

Consideration also needs to be given to the different requirements of active transport networks in proximity to housing for the elderly or mobility impaired, and as discussed it is fundamentally important that affordable housing is provided in locations with access to good active (and public) transport networks and everyday services.

At the end of the day, most people want to live somewhere where they have easy access to work, services, retail and recreational facilities, including parks and open spaces. As such, increasing densities around our larger towns without impacting open space provisions, is paramount, as is providing more housing choice for new and existing residents. In addition, it will be just as important to start providing more of our everyday destinations within our villages so that they are again within easy reach for residents.

- **Where do we work?**

Key employment locations are generally limited to Bomaderry (heavier industries), Nowra and South Nowra (light industry), but there are also significant employment opportunities in all towns and villages, particularly when considering the full array of employment types. It is also the case that there will be increases in key employment areas including health and retail which - while focused on existing health and retail precincts - can also be provided (in smaller format) in towns and villages.

While the opportunities to encourage more active trips in some of these locations is good, a broader "***whole of transport***" approach will be required when considering new employment areas such as the Aviation & Technology Park and expansion in South Nowra, with a specific focus on providing better public and active transport opportunities for those working in these areas.

- **Where do we play?**

Excellent parks, recreational, sports and other entertainment hubs are located right across Shoalhaven, such that the majority of everyday play requirements can be met in close proximity to where people live.

The provision of recreational walking and bicycle paths is an integral part of Open Space planning, and is managed in conjunction with the PAMP and the Bike Plan. Walking paths, SUPs, pump tracks (BMX riding) and Learn to Ride Tracks are featured within Shoalhaven's open spaces, and connecting these locations within the broader PAMP and Bike Plan networks is essential in creating an integral active transport network.

As an example, Boongaree Park is located two blocks from the main street of Berry, but is linked by a SUP along the northern side of North Street all the way to the western end of Queen Street, and a formal footpath also links Boongaree Park with Queen Street in the middle of the Berry town centre. These are strong and direct connections, and the Strategy envisages even more active transport improvements over time across Shoalhaven to provide similar connectivity to the places where we play.

From an active transport perspective, providing direct and safe connections to these locations is vital to enforce their high level of accessibility, and of course it is important to continually identify more places to play across Shoalhaven, to be provided with similar high quality active transport connectivity.

- **Where do we learn?**

Pre-school, schools and higher education facilities are located across Shoalhaven, and generally provide good quality active transport connectivity in surrounding roads, with active transport infrastructure having been prioritised as part of past active transport strategies and general best-practice school planning.

Of course active transport provisions for education facilities need to be continually monitored given the potential for larger catchment areas (particularly for high schools and higher education) as our urban areas expand. Moreover, the safety of students – and particularly younger students - is paramount, and as such our prirotisation of active transport projects will continue to elevate those projects providing greater safety around our schools and other places of education.

Connectivity between schools and local homes will offer ease of opportunity for parents/ carers to teach children road crossing and walking and bicycle riding skills as part of daily active travel. Improving active transport to schools can reduce driving and parking congestion near schools, which reduces traffic crash risks.

Incorporating daily travel into a visit to a local playground or park is a great way to reduce the intensity and road safety risk within school environments. Schools themselves can encourage families to plan play dates at playgrounds after school, as a way to get to know each other, and allowing students to let off a bit of steam at the playground before travelling home makes the afternoon more relaxed!

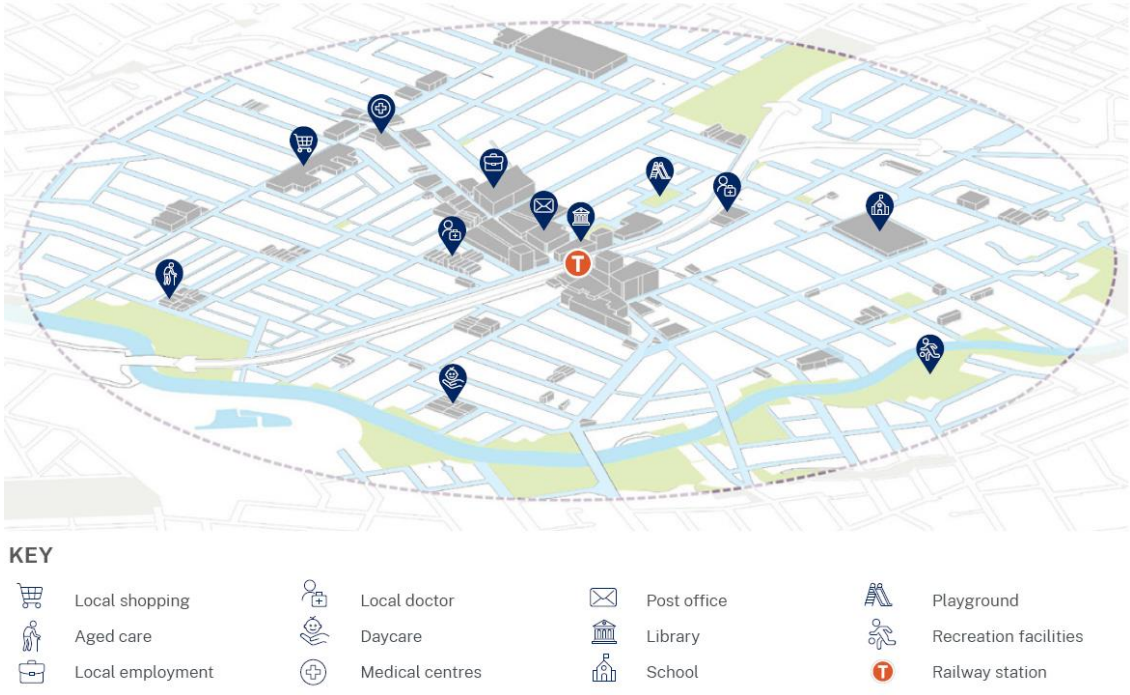
- **Where do we go for our daily services?**

The Nowra Town Centre, Nowra Centre Plaza and smaller shopping centres in towns and villages will continue to provide for the majority of the population's everyday services. Improvements to existing active transport links will continue to be addressed according to priority, but given that local centres are often located near Council's Open Spaces, it is sometimes possible to "tick" a number of active transport boxes with grant applications for such locations, including shopping, personal business, commerce etc.

Providing more of these everyday services within new (and to the extent possible existing) suburbs will encourage greater use of active and public transport in line with the principles of the 15 Minute Neighbourhood.

5.4 The 15 Minute Neighbourhood

Recognising the differences in travel times between [private] vehicles and buses, much of the planning for future transport networks – and more environmentally friendly transport networks – focuses on developing active transport infrastructure around and within existing centres rather than an expansion of active and public transport to longer routes servicing satellite developments.



As an adjunct to Movement & Place, the 15 Minute Neighbourhood objectives are to provide a higher proportion of the population with access to key services within a 15 minute active trip; an extension of the concept also provides for a 30 Minute City whereby regional centres are accessible within a 30 minute bus or train ride.

As such, larger residential developments will be encouraged to provide internal villages or town squares where a variety of everyday services are available and are accessible by a purpose built active transport network; this does not necessarily mean a full-line supermarket or the like, but smaller supermarkets, cafes and restaurants, as well as medical centres, child care and other smaller commercial or community service providers. This also helps create smaller but still significant civic places for the local community.

While the 15 Minute Neighbourhood therefore specifically improves the potential use of active transport for short distance trips, there will also need to be a focus on providing pedestrian facilities that ensure accessibility to bus stops for services to larger centres per the 30 Minute City.

While the concept of 15 minute and 30 minute catchments are incorporated into the Strategy, given the scale and separation of the Shoalhaven's many towns and villages we have also addressed the potential for longer active trip opportunities so as to close the gap wherever practical for currently isolated communities.

Table 6: Actions to Enable 15 Minute Neighbourhoods

	Actions to Enable 15 Minute Neighbourhoods	Timing	
1	Integrate safe and separate, first and last mile walking and cycling connections and trip facilities into plans and projects to promote active transport for all travel purposes for people of all ages and abilities.	●	○
2	Partner with councils, Local Aboriginal Land Councils and other NSW Government agencies to support 15 minute neighbourhoods.	●	○
3	Ensure 15 minute walking, cycling and micromobility networks are planned or under development within the catchment prior to new train stations, major bus stops and other transport hubs opening; and from the start of new developments, enabling people to establish active transport behaviours from the outset when they move into a new home.	●	○
4	Investigate options to support council-led walking, cycling and place making initiatives, to make it easier to activate local streets and centres.	●	○
5	Establish Neighbourhood Deals to invest in making our streets and public places safer, greener and more liveable.	●	○
6	Partner with the Department of Education and key stakeholders to improve safe walking, cycling and public transport access to schools.	●	○
7	Improve priority for walking trips in centres, towns and villages, such as reallocating road space to widen footpaths and providing more frequent and longer duration pedestrian crossing phases at traffic signals.	●	○
8	Engage with Department of Planning and Environment to ensure active transport infrastructure planning is included as part of precincts.	○	●
9	Prepare a guidance framework for increasing public transport patronage and access equity by helping improve public transport interchange layouts.	○	●

● Immediate actions (completed or initiated within 5 years) ● Progress Planning

Over time, as alternative active transport modes (such as e-bikes and e-scooters) become more prevalent, longer route options will be available to more people, so while it remains important to maintain an inner focus on vibrant communities with everyday services, workplaces and open space within a 15 minute active trip, it is important not to lose focus on longer term opportunities to connect more towns and villages in the future.

The Strategy very much fosters these initiatives, and seeks to ensure that all transport projects are designed with an eye to a more accessible, connected and sustainable future.

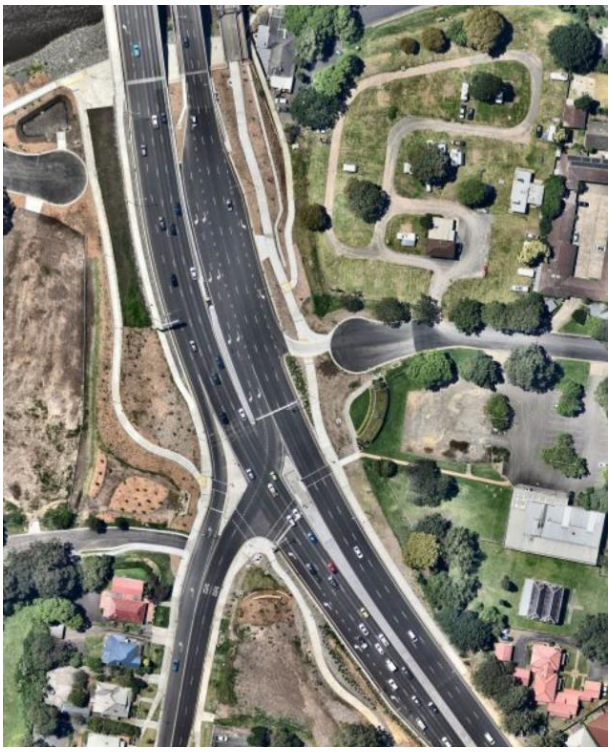
5.5 Road Network

As discussed in **Section 3.3**, it is important to consider the hierarchy of roads within the Movement & Place framework, which provides 4 primary types of road, being:

- **Main Roads**.
- **Main Streets.**
- **Local Street**.
- **Civic Places.**

Within these broader road categories, Movement & Place then provides for a more nuanced approach to the function of roads, and the identification of the specific role of each in providing Movement and/or Place, noting of course that appropriate active transport links can specifically enhance the sense of space and place!

By adopting the Movement & Place framework, there are few roads in Shoalhaven that can be completely consigned to the primary Main Road typology, i.e. roads where there is little potential to create any sense of place.



This include sections of Princes Highway outside of towns and village (where it often also functions as the Main Street), as well as sections of key roads providing access to coast villages such as Beach Road; Gerroa Road; Bolong Road; Moss Vale Road north of Cambewarra; Greenwell Point Road; Culburra Road; Coonemia Road; Currarong Road; Forest Road; Jervis Bay Road; Naval College Road; The Wool Road; Sussex Inlet Road; Bendalong Road; Lake Conjola Entrance Road; Bawley Point Road; and Murramarang Road.

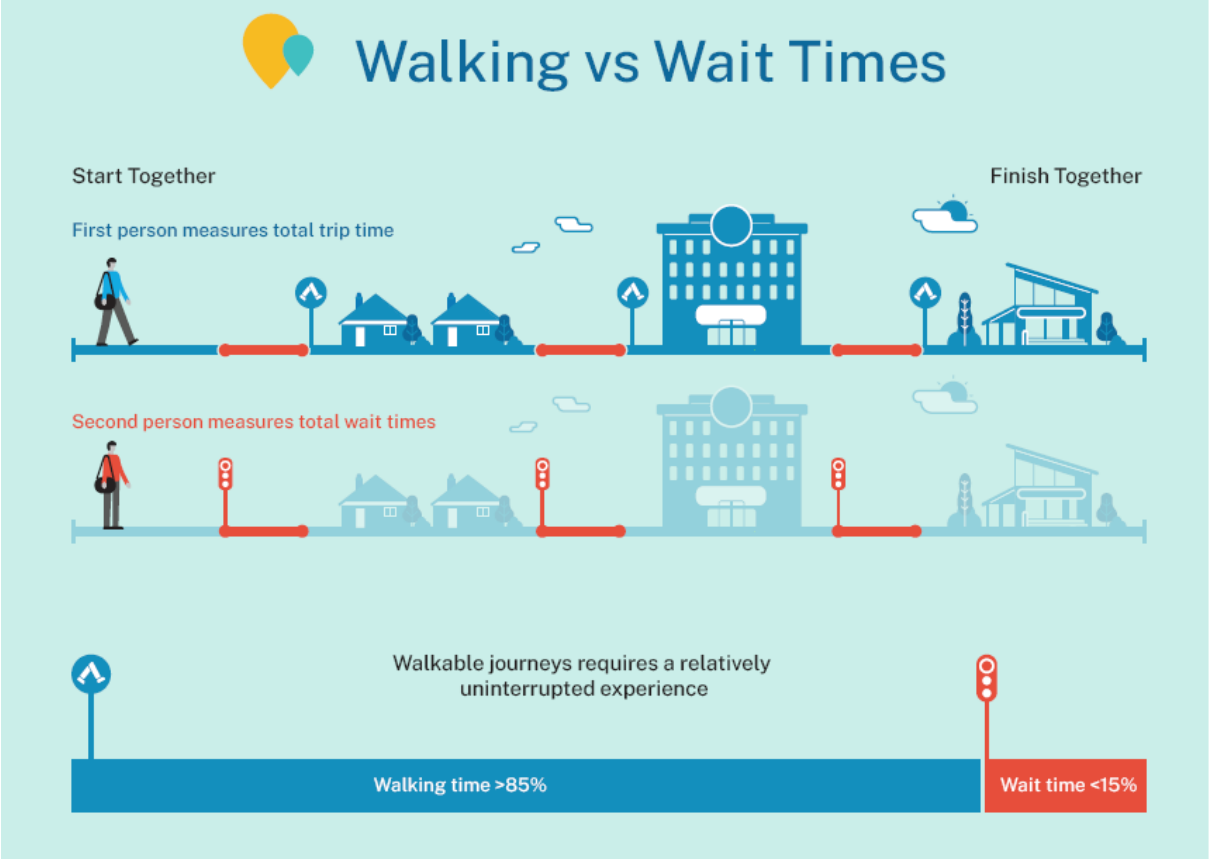
As such, almost all roads across Shoalhaven can be considered as having a potential role within the Movement & Place framework, and moreover being capable of fulfilling an active transport function.

This is not to downplay constraints in some of these roads, whether it be traffic volumes or speeds (potentially affecting crossings and the kerbside environment) or spatial constraints (narrow verges or the like), but if properly adopting the Movement & Place framework, active transport can be prioritised to at least some degree over vehicular traffic almost everywhere.

For example:

- The inclusion of a longer pedestrian phase at a signalised intersection (where warranted) would under most conditions add no more than a few seconds to average vehicle delays at the intersection, but more significantly reduce the time a pedestrian/ bicycle riders is waiting to cross, and of course the safety of crossing.
- Drivers can be prompted to drive more slowly by, for example, introducing additional crossing points; using kerb extensions and parking lane lines to visually narrow the road; and widening footpaths. Lower speed High Pedestrian Activity Areas can also be considered, as in most instance even slowing vehicles further for a short section of high street would have no measurable impact on motorists.

Overall, while all projects need to consider the operation of the road network, and the suitability of proposed facilities based on factors such as vehicle volumes and speeds, there should be few impediments to the creation of vibrant, active transport orientated environments even along higher order roads that prioritise movement.



6 Active Transport in Shoalhaven

6.1 Setting The Scene

6.1.1 Are We Currently Walking & Riding?

It is important to acknowledge that walking and bicycle riding already plays a huge role in people's lives every day across Shoalhaven, whatever the specific purpose of the active trip.

An excellent overview of our current active transport habits – and specifically walking – is provided in Satisfaction Survey 2023, where residents were asked specific questions in regard to why, where and for how long they walked in an average week, as well as how satisfied they are with the active transport infrastructure available to them. These types of surveys are typically undertaken by Council every few years as a useful yard stick, and to obtain invaluable community feedback.

Based on the Satisfaction Survey 2023 results, 88% of residents walked for recreation, exercise or transport at least once in the week prior to the survey, and 47% of residents stated that they had walked more than five times during the week prior to the survey.

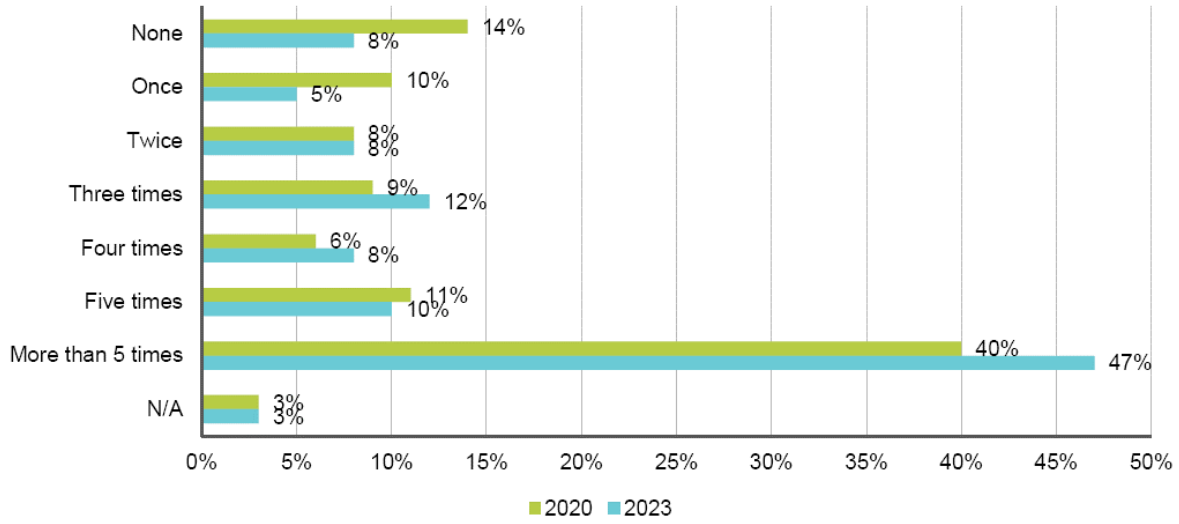
These percentages represented increases of 5% and 7% respectively from the responses provided in Satisfaction Survey 2020.

A summary of some of the key findings of Satisfaction Survey 2023 are provided in sections below.

6.1.2 Frequency of Walk Trips

The frequency of resident walk trips, and a comparison between the number of walk trips reported in 2023 and 2020, is provided in **Figure 10**.

Figure 10: Frequency of Walk Trips



Source: 2023 Satisfaction Survey

As discussed, the overall number of residents walking each week, and the number of residents walking on multiple occasions, increased in 2023, perhaps most notably in the number of residents walking more than 5 times per week, and the reduction in the number of residents not walking at all.

Notwithstanding, there was a decline in walk trips for some sub-groups, as shown in **Table 7**.

Table 7: Frequency of Walk Trips Sub-Groups

	Total	Gender		Age			Property Ownership	
		Male	Female	18–49	50–64	65+	Owns property	Does not own
None	8%	9%	7%	6%	6%	11%	6%	12%
Once	5%	6%	3%	0% ↓	5%	9% ↑	5%	4%
Twice	8%	11%	5%	9%	4%	10%	9%	5%
Three times	12%	11%	13%	10%	13%	13%	11%	14%
Four times	8%	9%	7%	7%	8%	9%	8%	7%
Five times	10%	9%	12%	15%	9%	7%	10%	10%
More than 5 times	47%	44%	50%	54%	54%	34% ↓	47%	47%
N/A	3%	2%	4%	1%	2%	6%	3%	1%

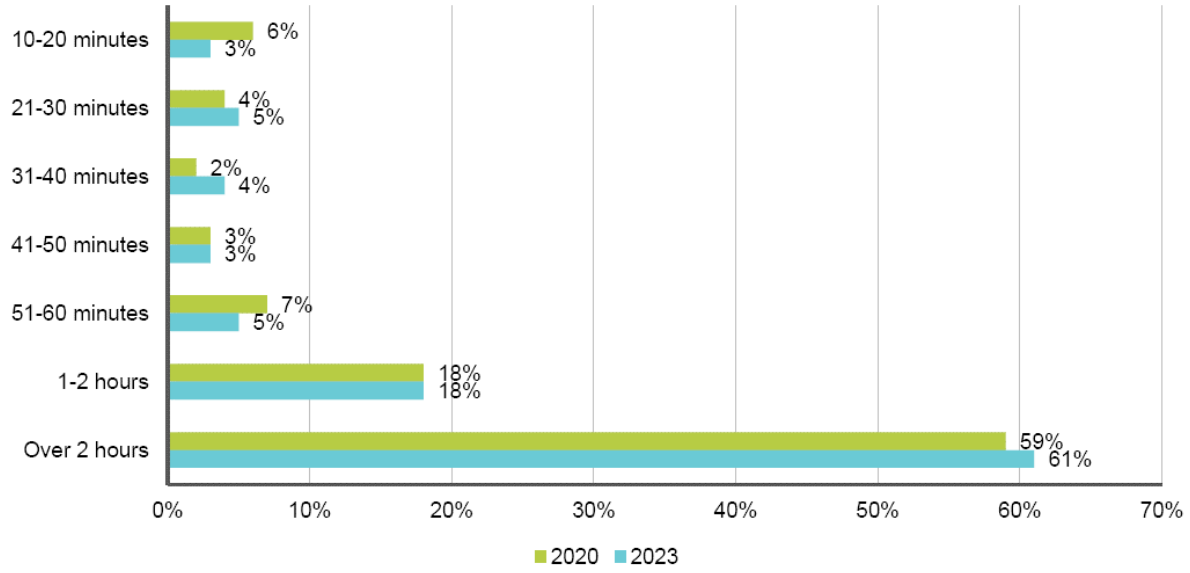
Source: 2023 Satisfaction Survey

As shown in **Table 7**, while there was a small increase in those over 65 years walking at least once a week, there was a significant fall in the number of those over 65 years walking more frequently (more than 5 times per week).

6.1.3 Duration of Walk Trips

Residents who walked for recreation, exercise or as a means of getting from A to B at least once during the week were also asked to indicate the total time spent walking in the past week; a summary of the duration of walk trips is provided in **Figure 11**.

Figure 11: Duration of Walk Trips



Source: 2023 Satisfaction Survey

With reference to **Figure 11**, overall there was little change in the duration of walk trips between 2023 and 2020, nor were there any significant changes in the duration of walk trips for different sub-groups.

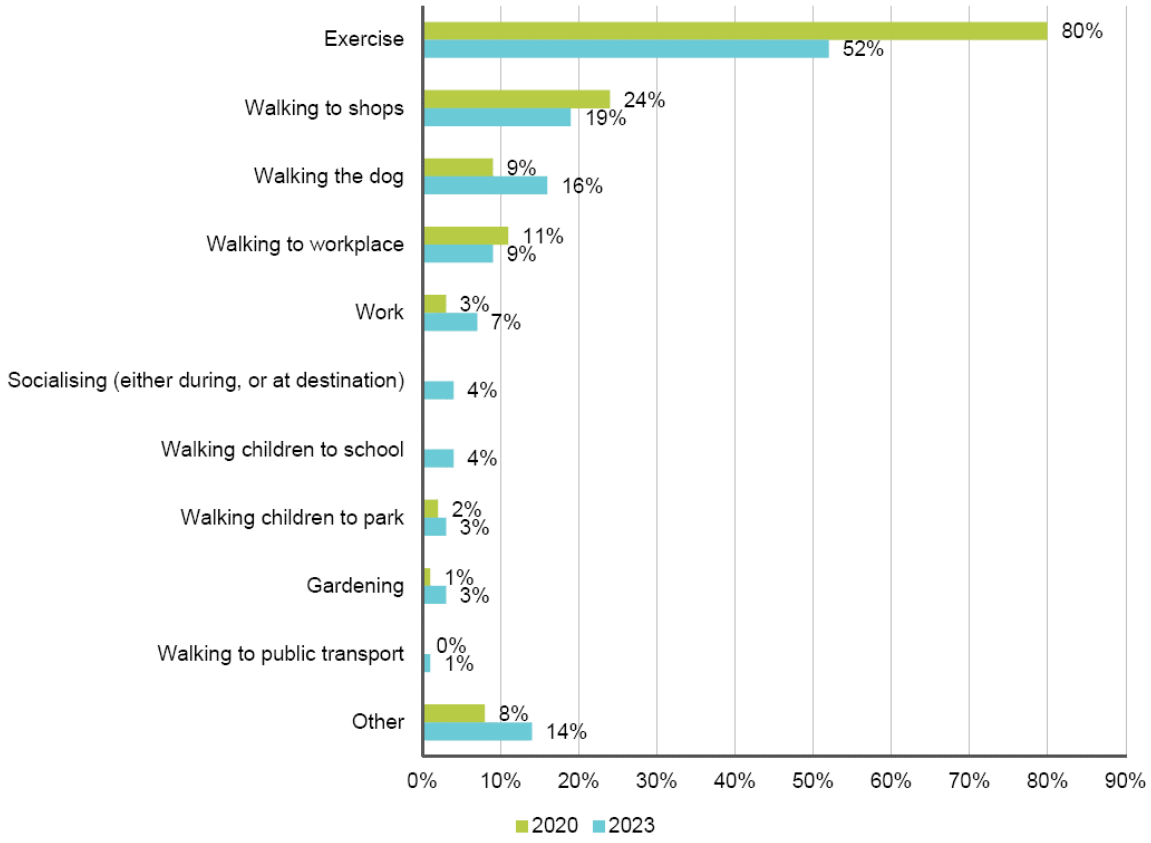
6.1.4 Purpose of Walk Trip

With regard to the purpose for walking, the most common response was walking for exercise (52%), followed by walking to the shops (19%) and walking to work (9%). Importantly, while more residents were walking, there was a decrease in all of these walk trip purposes, with walking for exercise significant lower than the 80% of residents walking for exercise in 2020.

Happily though, more people were walking the dog (up from 9% to 16%) - looks like Rover is also more satisfied!

A detailed breakdown of walk trip purposes is provided in **Figure 12**.

Figure 12: Purpose of Walk Trip



Source: 2023 Satisfaction Survey

It is worth giving some potential context to these responses.

Satisfaction Survey 2020 was undertaken in the immediate aftermath of COVID lockdowns ending and the easing of other restrictions, but it is likely that many people's habits from during the worst of the COVID period were unchanged.

For example, walking was one of the few means of getting out of the house (literally!), as well as being an exercise alternative given the cancellation of sporting fixtures and gym closures etc. Anecdotally, it is also the case that fewer residents would have been using public transport, and in turn may have instead chosen a walk trip to the shops or work.

There were also some changes in walk purpose in sub-groups, as summarised in **Table 8.**

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Table 8: Purpose of Walk Trip Sub-Groups

	Total	Gender		Age			Property Ownership	
		Male	Female	18–49	50–64	65+	Owns property	Does not own
Exercise	52%	51%	53%	50%	56%	51%	54%	44%
Walking to shops	19%	13%	24%	18%	17%	21%	19%	19%
Walking the dog	16%	15%	17%	22%	15%	10%	15%	20%
Walking to workplace	9%	8%	9%	17% ↑	7%	0% ↓	8%	12%
Work	7%	9%	6%	7%	13%	4%	6%	11%
Socialising - either as destination or during the walk	4%	5%	4%	5%	3%	5%	4%	6%
Walking children to school	4%	1%	6%	7% ↑	2%	1%	4%	2%
Walking children to park	3%	0% ↓	6% ↑	6%	2%	0%	4%	1%
Gardening	3%	3%	2%	1%	2%	5%	3%	1%
Walking to public transport	1%	0%	1%	2%	1%	0%	1%	1%
Other (please specify)	14%	16%	13%	12%	14%	17%	16%	10%
None of the above	0%	0%	0%	0%	0%	0%	0%	0%

Source: 2023 Satisfaction Survey

With reference to **Table 8**, one of largest changes was the number of people walking to work within the 18 – 49 age group; however, there is not enough information available to indicate whether this was a result of more people working within a reasonable walking distance of their home, or whether other factors were at play.

6.1.5 Summary

It is certainly encouraging that more people are walking every day, and walking for longer each day. However, the Satisfaction Survey 2023 data also indicates that more work needs to be done in some target areas, including:

- Encouraging more walk trips for exercise.
- Encouraging more of our elderly residents to start walking more often, which of course also highlights the need to ensure that active transport infrastructure is designed to provide for pedestrians of all ages and abilities.
- Planning to provide more homes within walking distance of town and village centres which provide work opportunities and everyday services.

6.2 Journey to Work Travel Modes

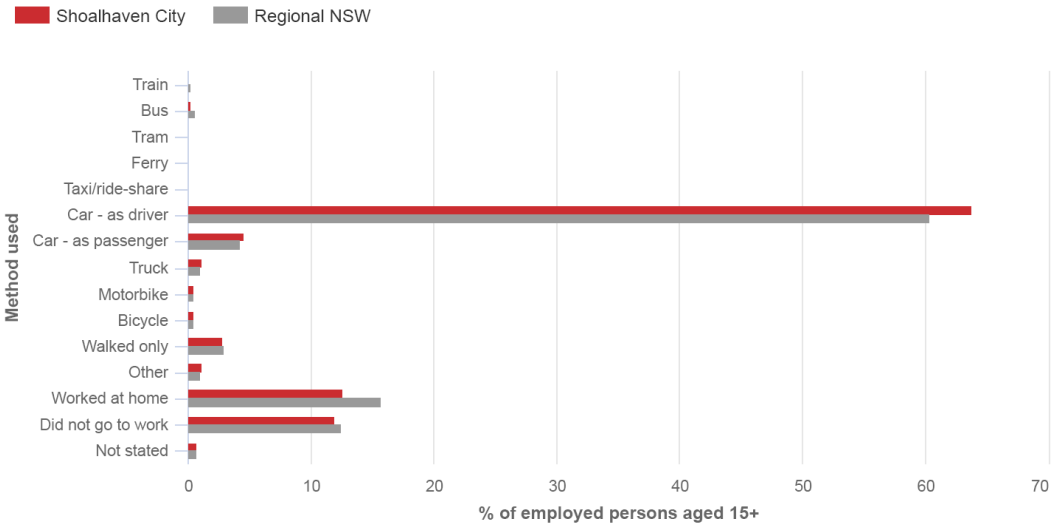
6.2.1 Journey To Work

Journey to Work (**JTW**) data from the 2021 Household Travel Survey (**HTS 2021**) generally provides a good indication of broader travel modes.

With reference to the HTS 2021 data, 80% of JTW trips in Shoalhaven were made by vehicle, either as driver or passenger, with the next highest mode being walk trips (3%); 15% of employees worked from home (i.e. did not make a JTW trip).

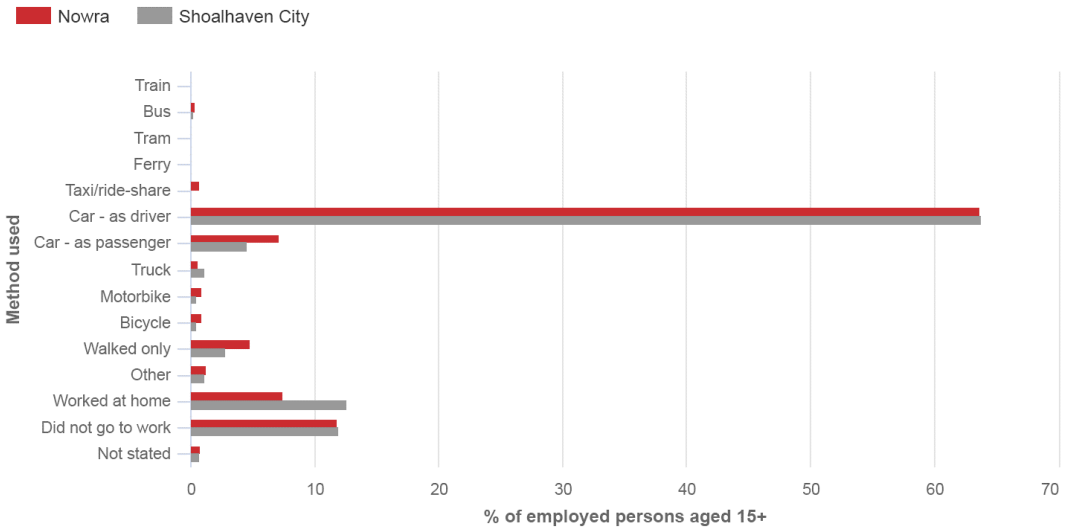
A summary of JTW travel modes across different parts of Shoalhaven are provided in the figures below.

Figure 13: Shoalhaven Journey to Work Travel Mode 2021



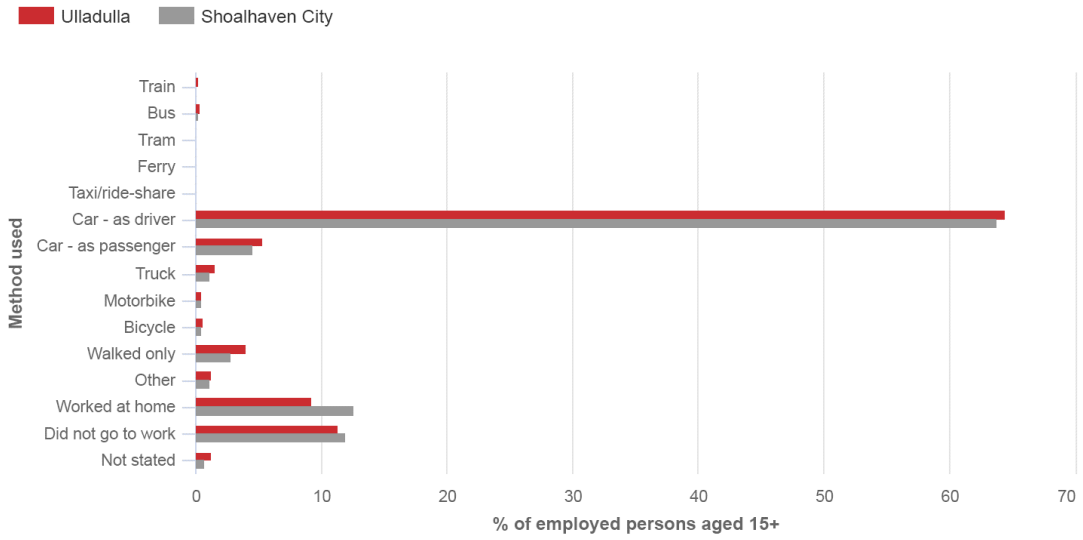
Source: HTS 2021

Figure 14: Nowra Journey to Work Travel Mode 2021



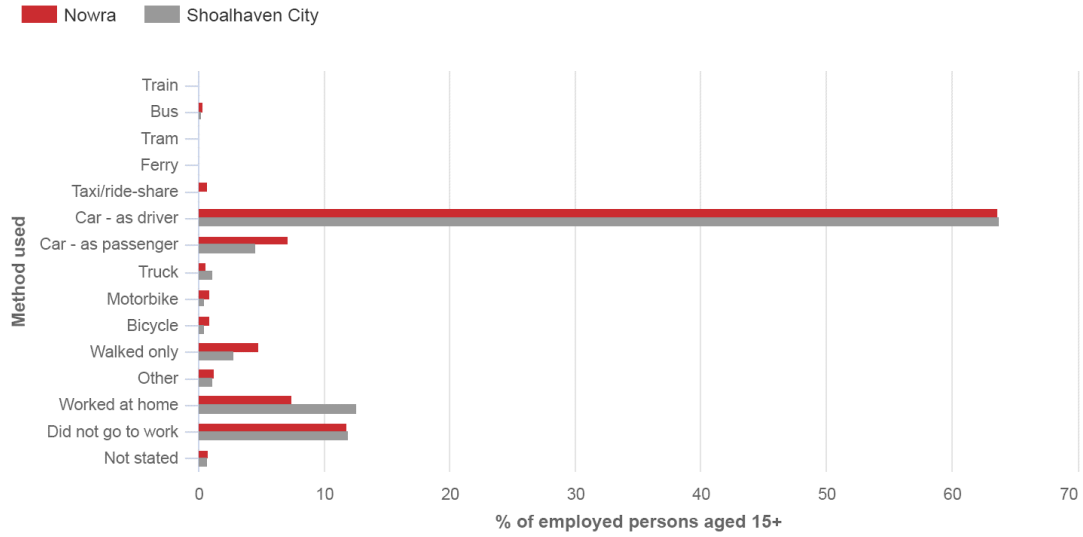
Source: HTS 2021

Figure 15: Ulladulla Journey to Work Travel Mode 2021



Source: HTS 2021

Figure 16: Milton Journey to Work Travel Mode 2021



Source: HTS 2021

Notwithstanding the relatively low use of active trips for the JTW across Shoalhaven, what is encouraging about the HTS 2021 data is the obvious correlation between a higher number of active transport (and particularly walk) trips, and those towns and villages where there are work opportunities within relatively easy reach of a walk or cycle trip.

We can of course do better, not only in these urban areas but across our villages as well, again guided by the principles of the 15 Minute Neighbourhood; integrated planning; and the targeted active transport improvements identified in the PAMP Update and Bike Plan Update.

6.3 General Trips

6.3.1 Overview

As discussed in **Section 6.1**, it is important to recognise that work related trips represent approximately 35% of all daily trips, i.e. the majority of trips are not work related, but rather for everyday purposes such as shopping, education and recreation.

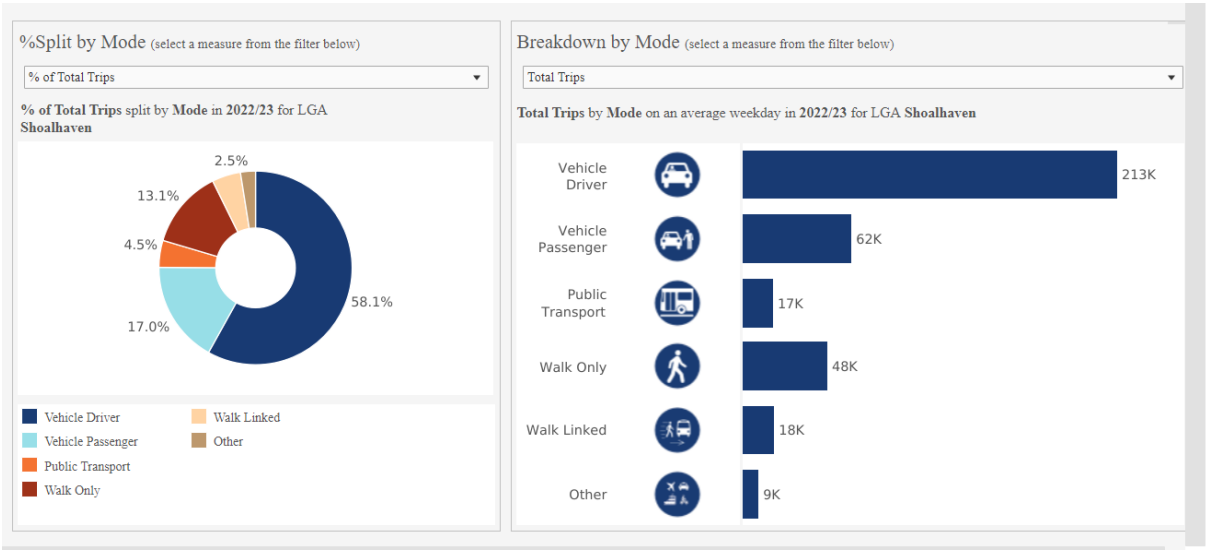
Our residents and visitors current generate some 370,000 trips on an average weekday, or just over 3 trips per person. That's a lot of trips…

Sections below provide details of our general daily trips, including trip purposes, travel modes and trip distances based on more recently released HTS data for 2022/2023. It is noted that bicycle riding is not identified as a travel mode in and of itself in this data, but given that it is included in the "***other***" category (that includes boats and planes!) it is reasonable to assume that a reasonable proportion of these "other" trips would be cycle trips.

6.3.2 Travel Modes

The overwhelming majority of all trips made in Shoalhaven each day are vehicle trips; a breakdown of travel modes for all trip purposes is provided in **Figure 17**.

Figure 17: Travel Modes All Trips 2022/2023



Source: HTS 2022/2023

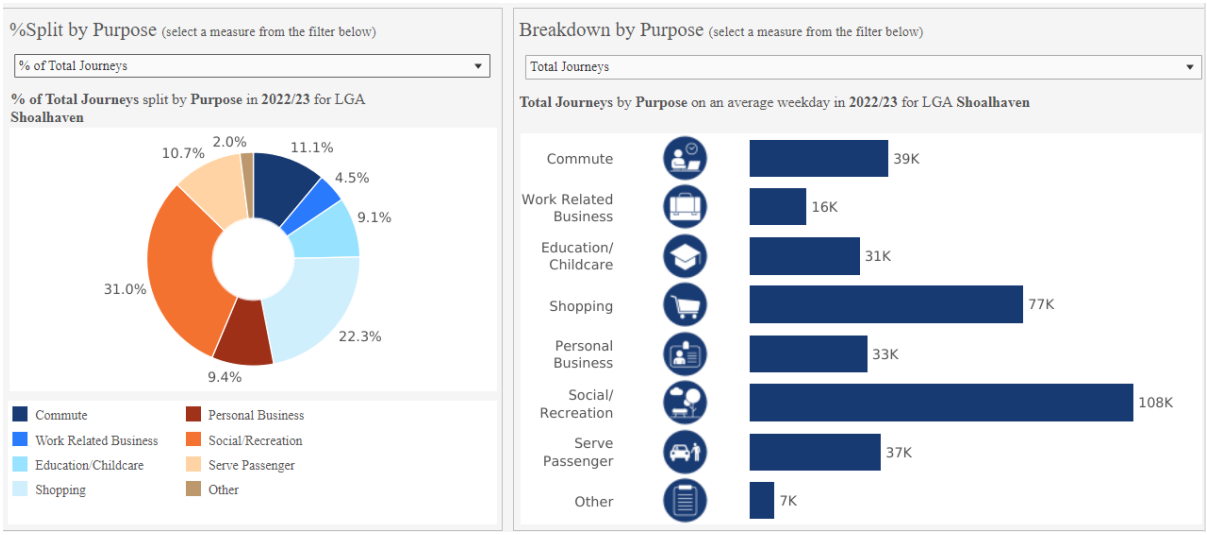
With reference to **Figure 17**, approximately 75% of all daily trips are vehicle trips, with "walk only" trips comprising 13.1% of all trips. While there is therefore a very significant discrepancy between vehicle and active trips, remember…

That's around 55,000 active trips every day!

6.3.3 Trip Purpose

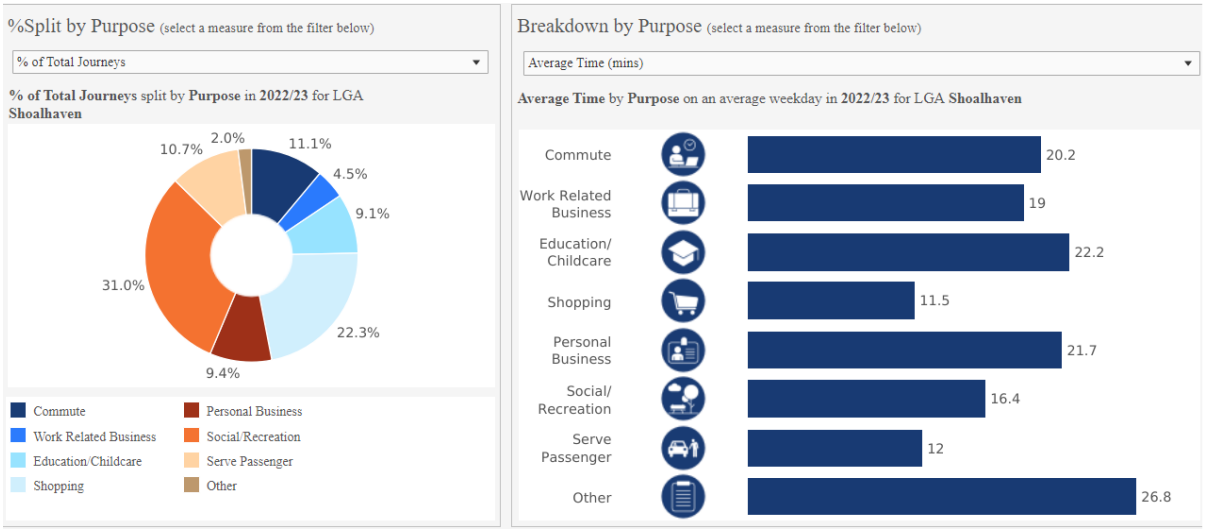
Summaries of trip purposes, average travel times and average travel distances for each trip purpose are provided in the tables below.

Figure 18: Total Trips by Trip Purpose



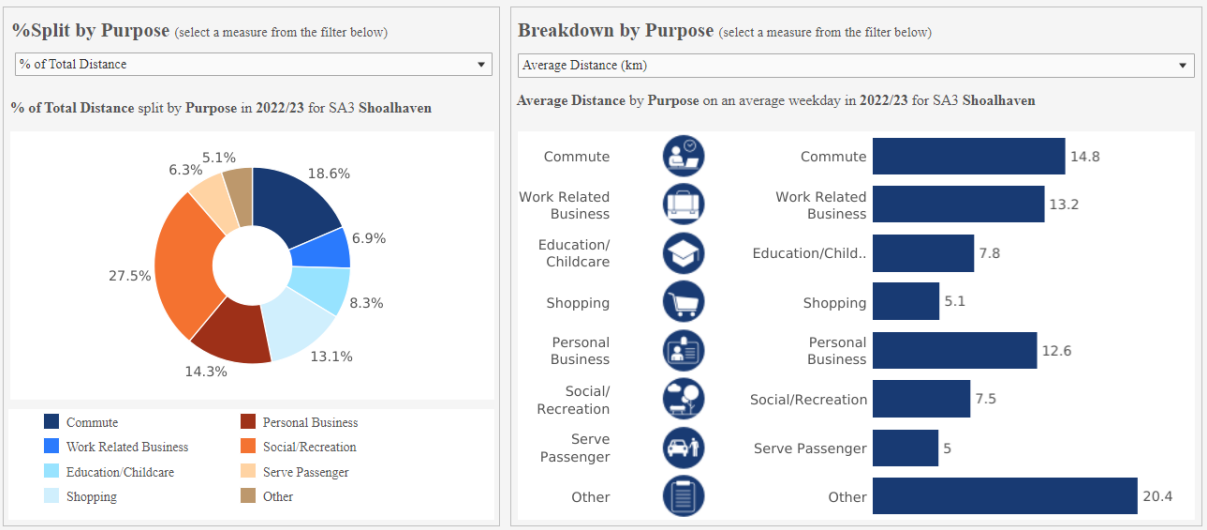
Source: HTS 2022/2023

Figure 19: Trip Purpose and Travel Time



Source: HTS 2022/2023

Figure 20: Trip Purpose and Travel Distance



Source: HTS

With particular reference to **Figure 20**, educational, shopping and social/recreational trips - which together represent just under 50% of all trips - all have an average distance of less than 8.0km; by the law of average, this suggests that a significant percentage of those trips would be within a 20 minute active trip distance, noting again a general rule of thumb that a pedestrian can walk approximately 1.5km in 20 minutes, and a bicycle rider can ride 10km in 20 – 25 minutes.

Even if we change travel habits so that an additional 10% of these educational, shopping and social/recreational trips were active trips, we're talking about an additional 20,000+ active trips per day!

As an indication of how such changes are possible, it is interesting to note the criteria for public transport eligibility for school students in NSW.

As part of the School Student Transport Scheme (**SSTS**), TfNSW provides eligible students free travel passes for the use of school and public buses and trains for the trip to and from school. The eligibility criteria differ for students of different ages, and includes the following categories:

- ***Students from Kindergarten-Year 2 are eligible if:***
  - *They are a resident of NSW, or an overseas student eligible for free government education.*
  - *Aged 4 years 6 months, or older.*
  - *No minimum walking distance criteria applies to these students.*
- ***Primary school students from Years 3-6 are eligible if:***
  - *The straight line distance from their home address to school is more than 1.6 km.*
  - *The walking distance from home to school is 2.3 km or further.*

- ***Secondary school students from Years 7-12 are eligible if:***
  - *The straight line distance from their home address to school is more than 2 km, or*
  - *The walking distance from home to school is 2.9 km or further.*

What these criteria suggest is that TfNSW considers a walk distance of up to 2.3km acceptable for primary school students, and a walk distance of up to 2.9km acceptable for secondary school students. The TfNSW approach therefore suggests that a majority of people would also be able to walk or cycle these distances, bringing key destinations into reach via an active trip.

Whilst the SSTS approach reflects more of a desired transport outcome for school students, parents and carers of school students recognise that there are often obstacles that prevent younger students from "***safely***" walking to school from within the SSTS defined catchments.

Accordingly, the Strategy aims to address as many of these obstacles as possible, specifically through targeted improvements identified in PAMP Update and Bike Plan Update around schools, designed to fill missing links and address safety and connectivity so as to improve active transport accessibility for more of our students and broader communities over time.

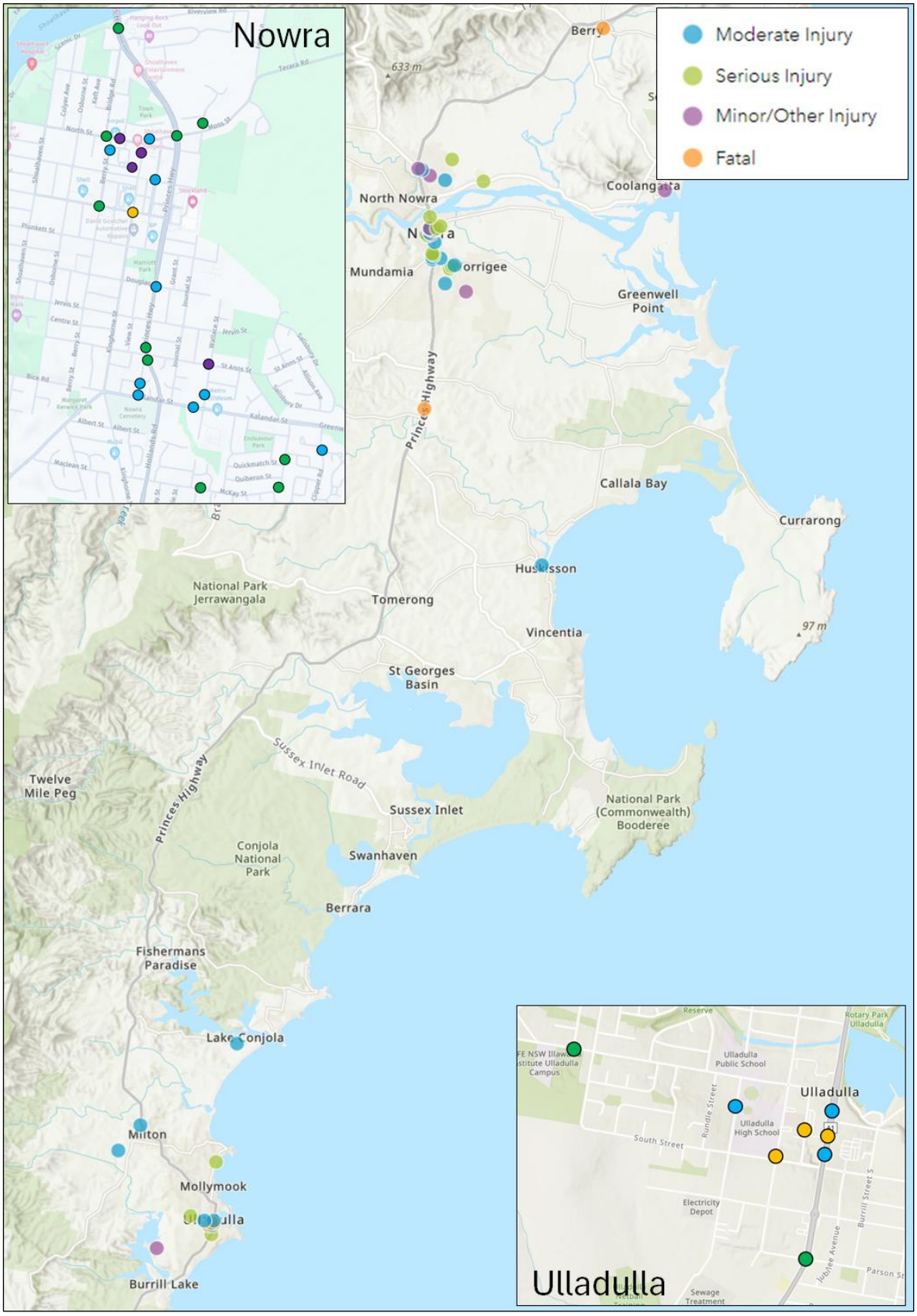
6.4 Walking and Bicycle Riding Safety

It is of course of paramount importance to maximise the safety of pedestrians and bicycle riders at all times; after all, while pedestrian and bicycle rider crashes make up only a small proportion of crashes in Shoalhaven, they have a disproportionate impact given the potential for more serious injuries.

A review of TfNSW crash data for the period 2018 – 2023 inclusive indicates that, as expected, pedestrian and cycle crashes are primarily clustered in towns and villages, with Nowra and Ulladulla reporting the overwhelming majority of pedestrian and cycle crashes in Shoalhaven.

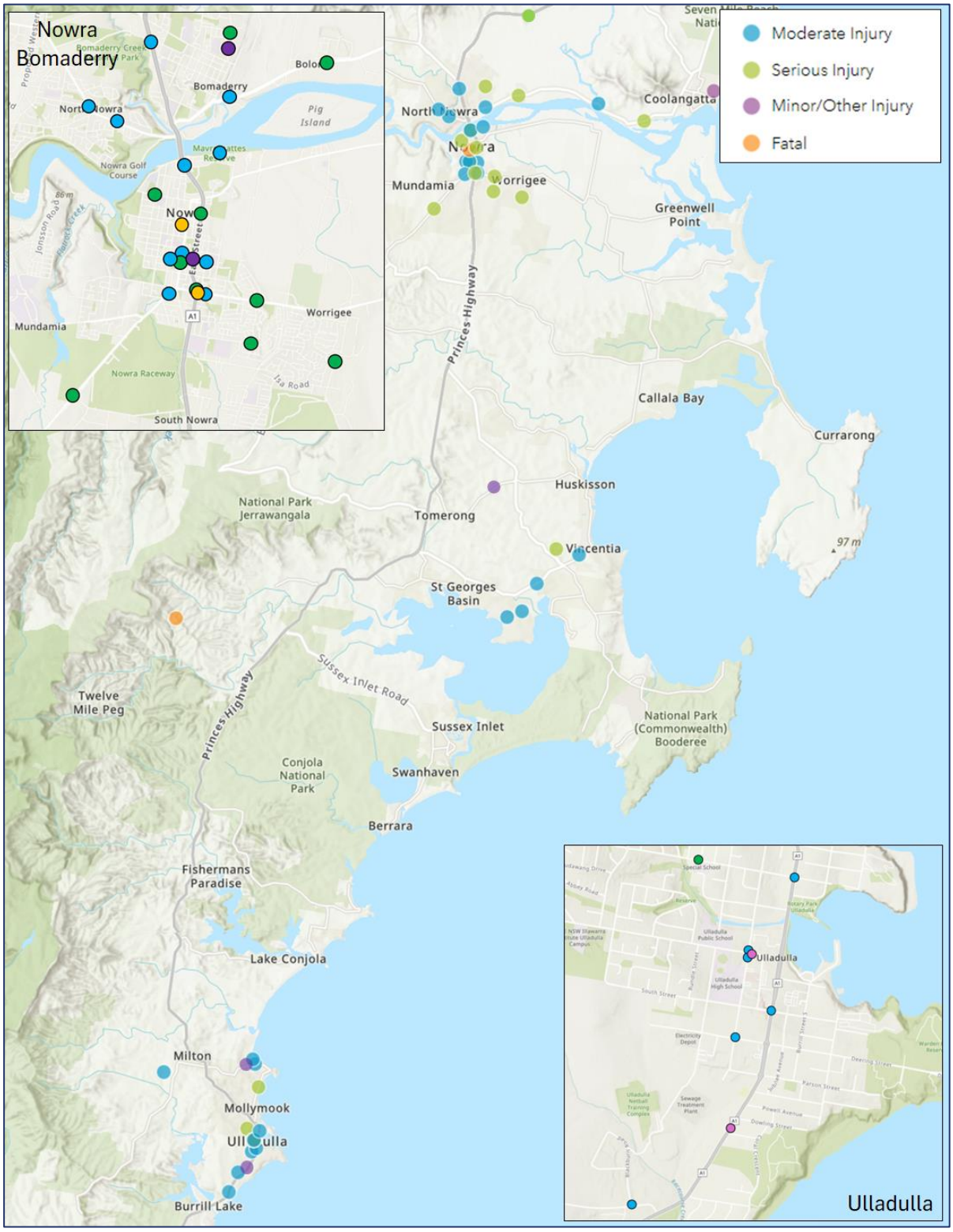
Figure 21 and **Figure 22** show the location of pedestrian and bicycle rider crashes across Shoalhaven respectively for the period 2018 – 2023.

Figure 21: Pedestrian Crashes 2018 - 2023



Source: TfNSW

Figure 22: Bicycle Rider Crashes 2018 - 2023



Source: TfNSW

A summary of the number and type of both pedestrian and bicycle rider crashes is provided in the tables below.

Table 9: Pedestrian Crashes 2018 - 2023

Crash Severity	2018	2019	2020	2021	2022	2023	Total
Fatal	2		1	1	1	3	**8**
Serious Injury	9	3	5	2	3	1	**23**
Moderate Injury	3	3	5	4	3	3	**21**
Minor/Other Injury	3	2		2	1	5	**13**
Total	**17**	**8**	**11**	**9**	**8**	**12**	**65**

Source: TfNSW

Table 10: Bicycle Rider Crashes 2018 - 2023

Crash Severity	2018	2019	2020	2021	2022	2023	Total
Fatal	1		1			2	**4**
Serious Injury	3	7	7	4	2	1	**24**
Moderate Injury	2	11	3	8	4	2	**30**
Minor/Other Injury		1			1	5	**7**
Total	**6**	**19**	**11**	**12**	**7**	**10**	**65**

Source: TfNSW

Some of the key issues arising from a review of the crash data include:

- While there are significantly more pedestrian trips each day than cycle trips, the total number of crashes for both types of active trip are identical. This points to the relative dangers of bicycle riding in Shoalhaven, and moreover the lack of safe and connected off-road bicycle or SUPs. It also supports the contention that bicycle riders (and pedestrians to a lesser extent) are often not viewed as having the same right to use the road as vehicles by some motorists.
- A high percentage of all crashes involving both pedestrian and bicycle riders resulted in a serious injury as opposed to a moderate or minor injury. This suggests that vehicle speeds, or moreover the combination of vehicle speed and pedestrian/ bicycle rider behaviour, results in more significant crash types.

- There were a number of fatalities reported between 2018 and 2023; while we have reviewed as much information as possible in regard to these crashes, there were no underlying factors specifically related to the provision (or not) of appropriate pedestrian/cycle infrastructure that appeared to have contributed to these crashes.

It is an unfortunate fact that the overwhelming majority of crashes are simply the result of human error; however, this does not mean that the location and type of crash cannot provide valuable information for consideration in the Strategy, nor – for example – the identification and prioritisation of new active transport infrastructure such as was specifically considered in the Paths & Crossings Review.

The review of the crash data, and ongoing monitoring of traffic and pedestrian interactions across Shoalhaven, will in large part still be based on a simple formula of **P (pedestrian volume) x V (vehicle volume)**, which essentially provides the simplest matrix for determining locations with the highest theoretical potential for conflicts. This ensures that we can identify priority project locations based simply on the mix of vehicular and active trip volumes, which assists in the initial determination of where safety interventions may most likely be merited.

The **P x V** formula is discussed further in **Section 10**.

6.5 Existing Active Transport Networks

Notwithstanding the fact that there are missing links in our active transport networks, Council has worked tirelessly to provide high quality active transport infrastructure in parts of the Shoalhaven where demand is greatest.

Necessarily therefore, the ongoing review of our active transport infrastructure focuses on active transport improvements within towns and villages, but also outside towns and centres where active transport connectivity is viable.

With limited resources, the provision of any new or upgraded active transport infrastructure can be a difficult balance; however, while the short-medium term focus might be on missing links and 15 minute and 30 minute catchments, it is vitally important to keep one eye open to the longer term objectives of enhancing connections and accessibility for longer strategic trips as well.

At the very least, this will require strong advocacy to ensure that all major transport projects provide for active transport and active transport connectivity to the local road network, and in turn options and opportunities that cater for longer term network connections along and between strategic corridors, and to, through and from our local centres and key destinations.

As noted previously, a key part of Council's early planning for the PAMP Update and Bike Plan Update was the development and launch of the PAMP Interactive Mapping Tool for the whole of Shoalhaven. The PAMP Interactive Mapping Tool also facilitates open and ongoing consultation with the community by making proposed projects very easy to visualise, enabling the community to provide ongoing feedback, as well as allowing Council to keep our active transport strategies as up to date as possible.

Check out the PAMP Interactive Mapping Tool at:

https://www.shoalhaven.nsw.gov.au/Council/What-guides-us/Policies-and-strategies/Pedestrian-Access-and-Mobility-Plan#section-6

Pedestrian Access and Mobility Plan

Overview
PAMP strategies and score criteria
Bike Plan
Bike Spot 2023
Round the Bay
Interactive map
Proposed review of the PAMP/Bike Plan
National cycling participation survey

Interactive map

An interactive map is now available showing where existing and proposed paths, crossings, and bicycle facilities currently are (and are proposed to be) located, making it easier for residents and visitors to visualise the plan.

While more PAMP maps covering a greater area of the Shoalhaven are provided in **Appendix C**, the figures below are just an example of existing and proposed active transport facilities in some of our key towns and villages, showing the existing levels of connectivity, and how we propose to improve connectivity and accessibility for all active transport users in the future.

So don't be alarmed if you don't see a specific location of interest below, rest assured that the above link to the PAMP Interactive Mapping Tool will provide you with more details of all locations of interest in Shoalhaven!

Figure 23: Active Transport Berry

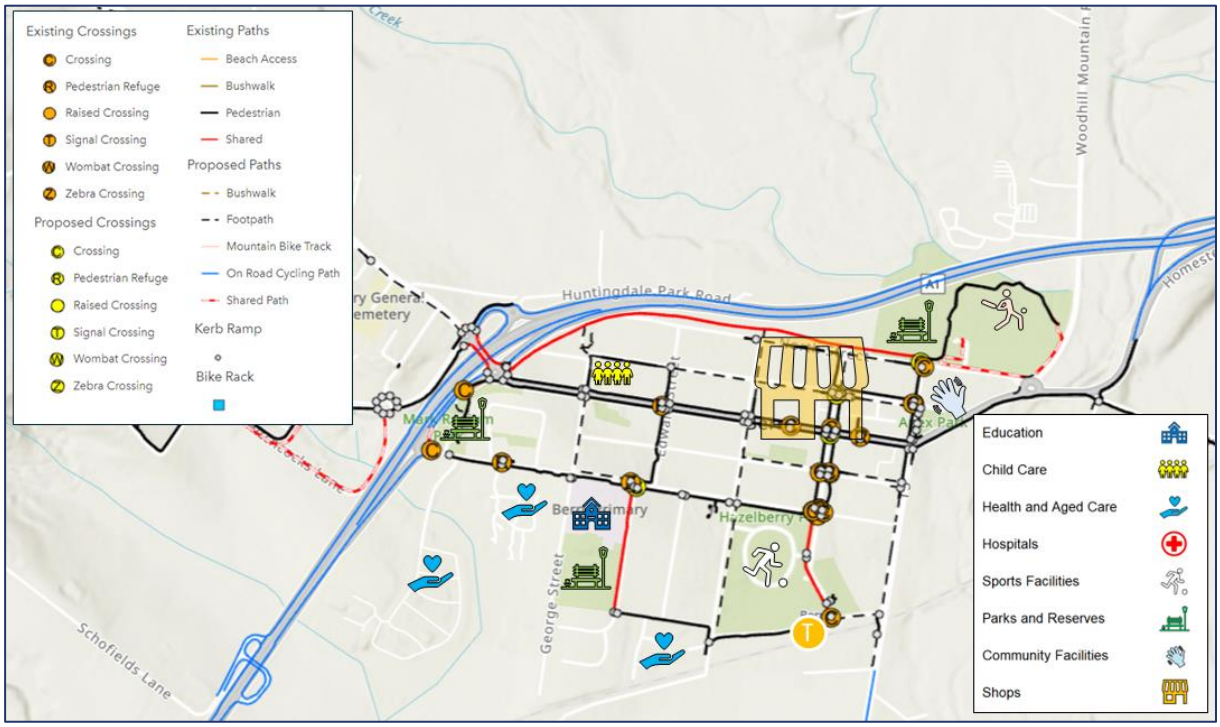


Figure 24: Active Transport Bomaderry and North Nowra

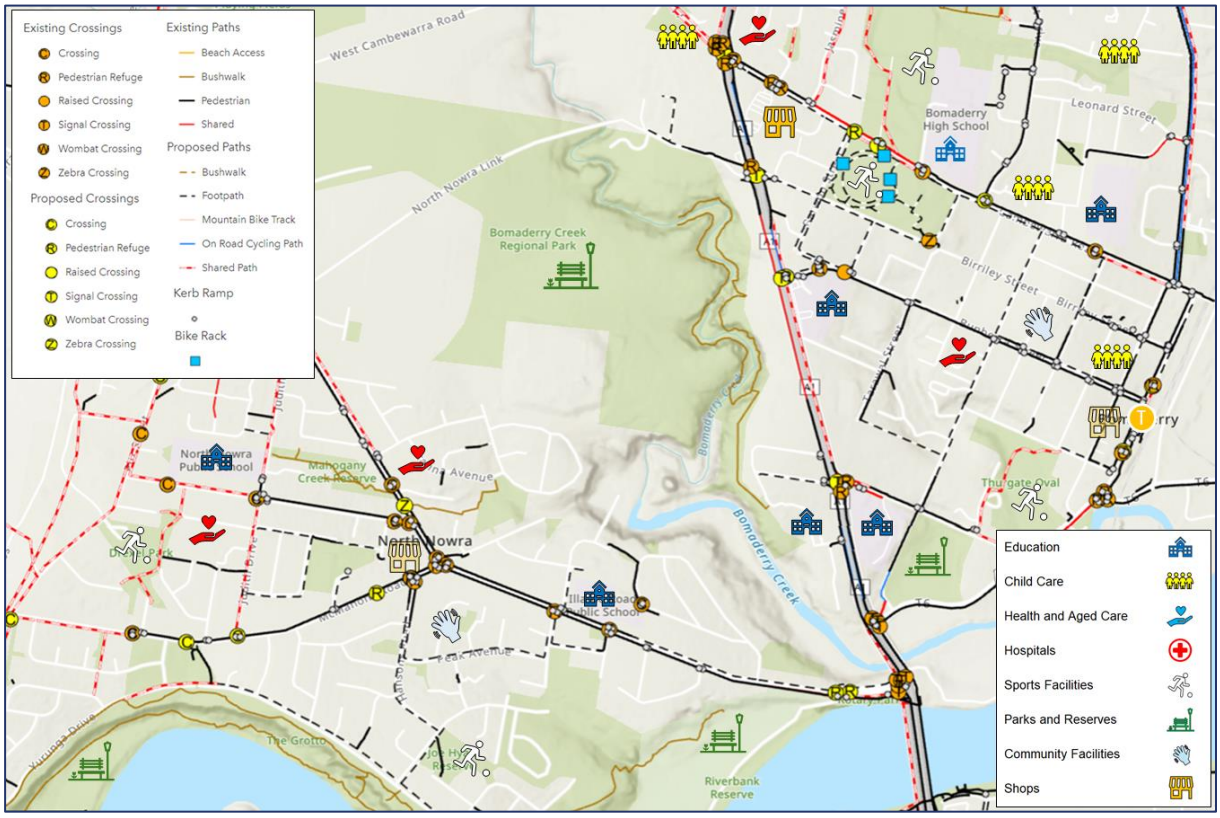


Figure 25: Active Transport Nowra

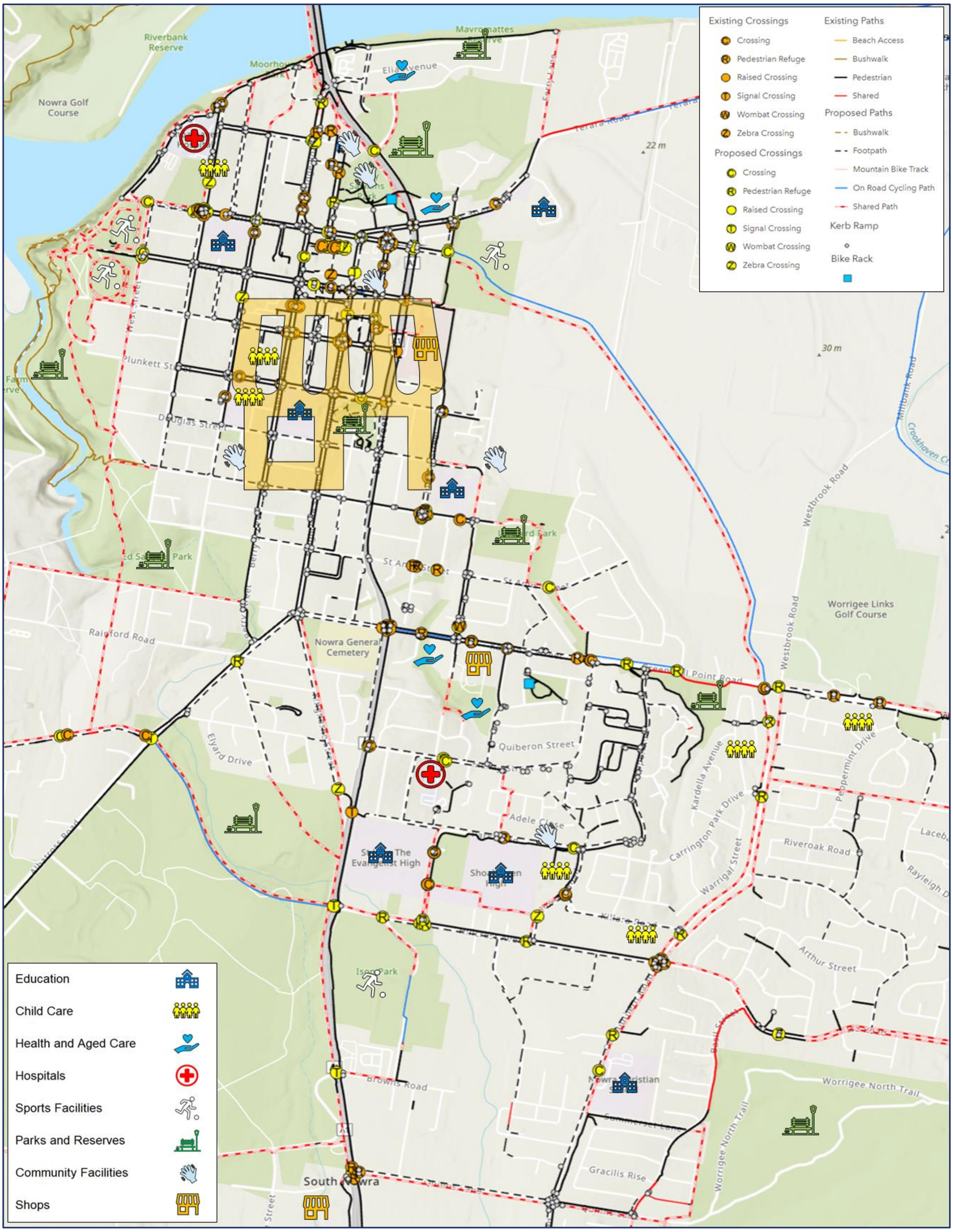


Figure 26: Active Transport Milton

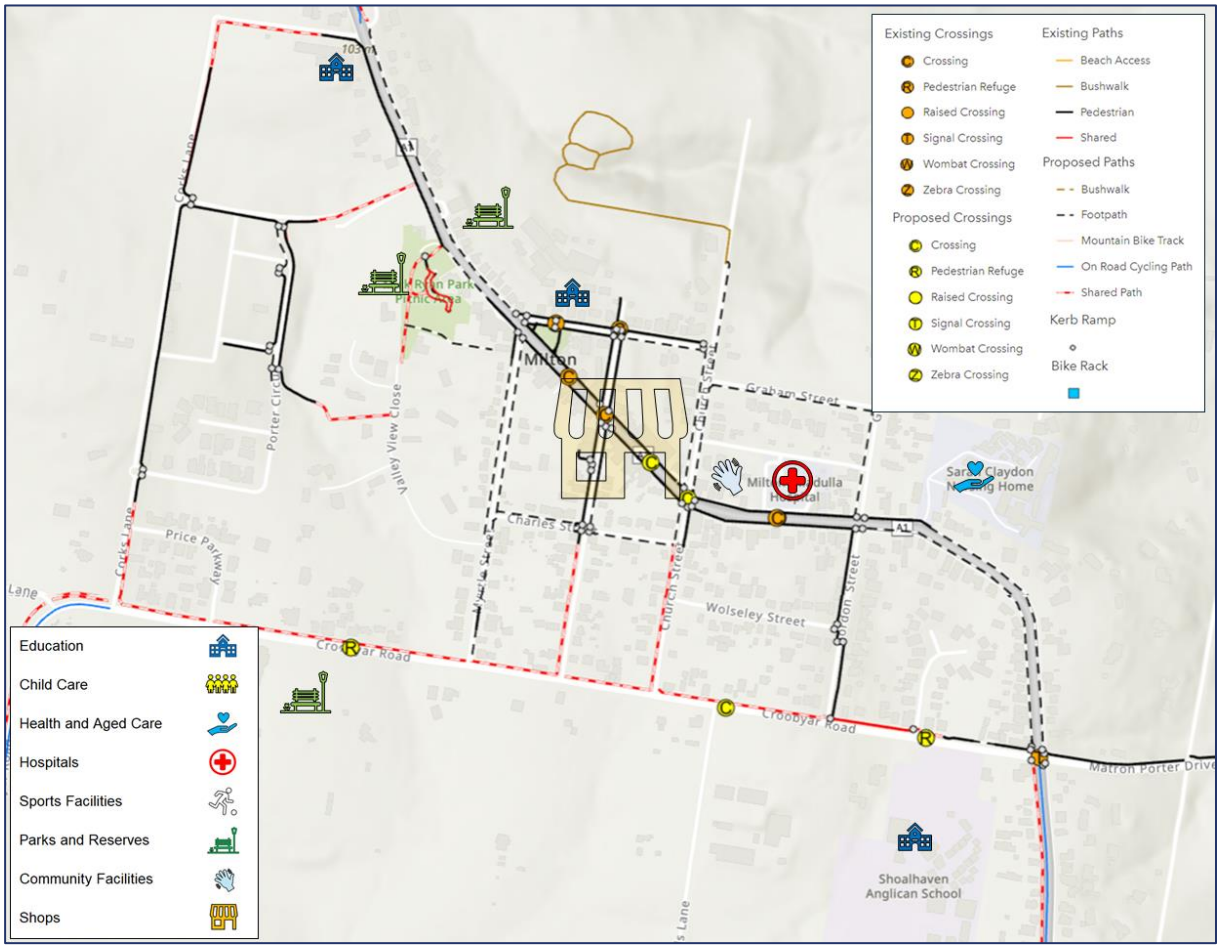


Figure 27: Active Transport Ulladulla

6.6 NSW Government Grants

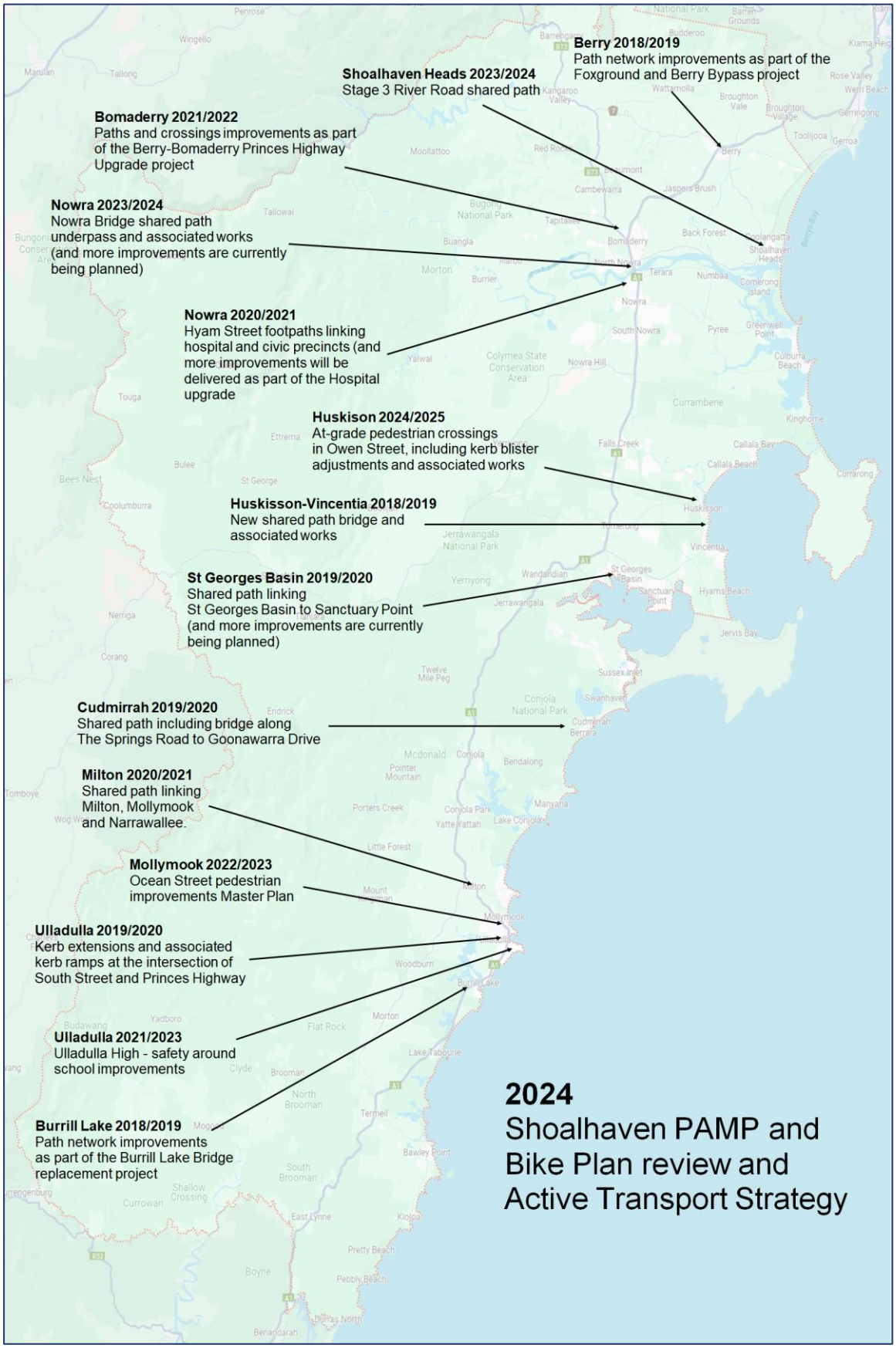
Notwithstanding the need to continue to expand our active transport networks, Council is very proud of our achievements in providing a high level of active transport accessibility within our key population centres based on our limited resources.

Council has a very enviable record of advocating for funding from the NSW Government for active transport projects across Shoalhaven; over the past 5 years, the NSW Government has contributed tens of millions of dollars for projects providing new and/or upgraded pedestrian paths, bicycle paths and SUPs further to our advocacy on behalf of the community.

We have also been able to upgrade road infrastructure lost during the recent devastating fires to now include active transport provisions through the Bushfire Local Economic Recovery Fund, such as the Lake Conjola Entrance Road Shared User Path Bridge (**SUP bridge**) shown below.

Some of the projects funded by the NSW Government in recent years are shown in **Figure 28**, noting that the NSW Government also provided significant funding for the preparation of this Strategy and the PAMP Update and Bike Plan Update, which has been greatly appreciated by Council and the entire community.

Figure 28: Recent NSW Government Funded Active Transport Projects



The projects shown in **Figure 28** are just a snippet of what has been achieved – frankly, there are too many projects to mention them all(!), and the collaboration between Council, the NSW Government and TfNSW will continue to deliver as many active transport improvements across Shoalhaven as possible through NSW Government and/or Council led projects.

To add to the great news, in June 2024 Council was awarded $5m in grant funding to allow delivery of 5 more critical SUP projects in the Shoalhaven over the next few years, including (from north to south):

- Old Southern Road (Worrigee).
- Sheaffe Street (Callala Bay).
- Round the Bay Improvements (Myola).
- Matron Porter Drive (Mollymook-Narrawallee).
- Murramarang Road (completing the link to Kioloa).

So yes, there is more to come…

NSW Government strategies aim to double active transport utilisation in as short a time period as possible, and PAMP Update and Bike Plan Update - under the broader umbrella of the Strategy - aim to facilitate this by prioritising projects that will increase connectivity and accessibility as broadly as possible throughout our many towns and villages, while continuing to monitor objective parameters including (for example) the number of pedestrian crossings and the proportion of active transport paths to roads across Shoalhaven.

Notwithstanding the NSW ATS and the new Strategy, the simple fact of the matter remains that meeting strategy targets will take a collaborative approach from all levels of Government, including an absolute quantum leap in annual grant funding, if Council is ever to put a real dent in the backlog of active transport projects, and achieve in turn a quantum leap in active transport trips.

7 A Common Sense Approach to Active Transport

7.1 Overview

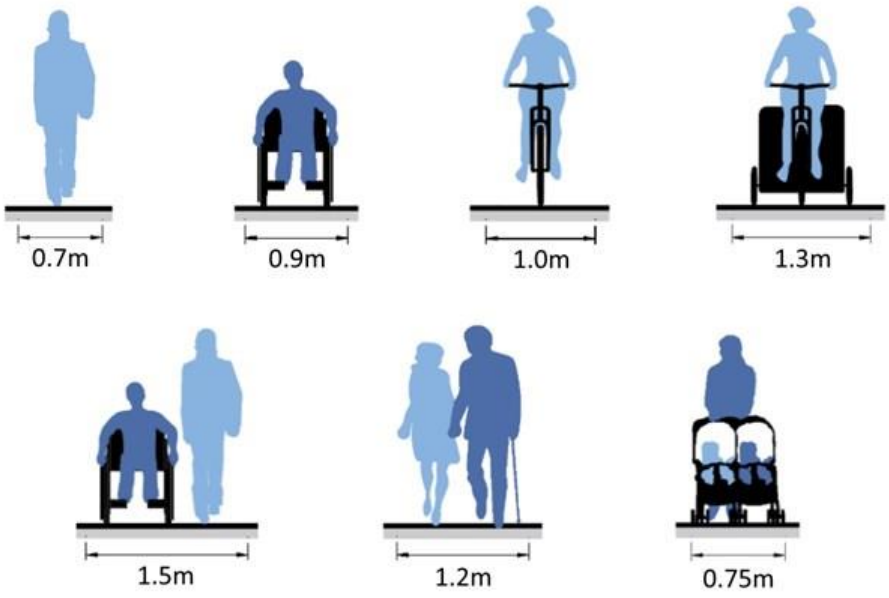
Issues raised during the earlier stages of the Strategy consultation process, particularly by special user groups, highlight the inadequacy of many active transport standards and guidelines, and moreover the inconsistent (and to some unacceptable) way in which some active transport infrastructure has been provided across Shoalhaven over time. Design issues such as the location, grade and width of paths; obstructions both on paths and/or immediately adjoining paths; and maintenance issues such as over-hanging vegetation, or vegetation debris on the path network; can all affect user safety and experience, and lead to a level of dissatisfaction such that some people may simply stop making active trips.

An integral part of the Strategy therefore – and moreover our planning for future active transport projects - is to not just focus on broader strategic outcomes, but also keep an eye on design and maintenance to optimise user experience, and ultimately generate more active trips through good connectivity, design and experiences while also considering a common sense approach.

7.2 A Constrained Reality

From the outset though, it must be acknowledged that we (like many regional Councils) are faced with significant constraints in providing active transport infrastructure (again, not just very tight budgets, but also real physical challenges) that can at times prevent current active transport design standards from being achieved.

There is of course also the issue of the economic pressures of continually designing to higher standards even though it is demonstrably the case that what might be considered below standard existing paths (for example) remain inherently fit for purpose.



In developing the Strategy therefore, and more particularly the PAMP Update, Bike Plan Update and the prioritisation of projects in the Paths & Crossing Review, Council has taken a view that when it comes to addressing the potential conflicts between pedestrians/ bicycle riders and vehicular traffic - particularly for the young and the vulnerable – it is in many instances far safer to provide an off-road path physically separated from the roadway that may fall short of current standards, than it is to provide no path at all.

Council acknowledges that it can at times be difficult to have these conversations with the community, but we have, and will continue to take, a common sense approach to ensure that the provision of active transport infrastructure is as fair and equitable as possible across Shoalhaven, even if that means certain minimum design parameters may not be met in all respects.

In some instances therefore, while it may not be possible to provide off-road paths that strictly meet the most up-to-date design standards, **it is Council's position that in many locations it is almost always better to provide a slightly below standard off-road path than to provide no off-road path at all!**

Again, our preference is for an overriding objective of providing communities with safer off-road paths wherever possible - albeit with marginal design compromises in some cases - to achieve separation of pedestrian/ bicycle rider and vehicular traffic.

7.3 "Below Standard" Infrastructure

7.3.1 Extended Design Domain

Importantly, the occasional need to provide active transport infrastructure that may be technically below standard - but yet provides objectively superior safety outcomes - is acknowledged in Austroads, with Section 2.3 of GRD Part 2 discussing the general design of road infrastructure in the context of the "***Extended Design Domain***", whereby values (for example path widths) narrower than a practical lower limit can be considered in certain circumstances, particularly when ***"they can be justified and defended on engineering grounds and operating experience***".

The use of lower values can more specifically be considered when the design assessment:

"Demonstrates that adoption of lower values is in the overall community interest with respect to investment strategies, road safety strategies, and other strategies that relate to roads and road networks".

A common sense, yet evidence based, approach is also identified in the GRS Part 1, which states that:

"Where there is no proven solution to a particular problem, there may be a case for going beyond evidence-based treatments. Where this occurs, the treatments should be developed with reference to basic principles and careful consideration of accumulated experience with the most similar types of treatment that are available."

7.3.2 Active Transport Infrastructure Warrants

While traditional "warrants" have typically been used to date in regard to the provision of some active transport infrastructure – for example (and primarily) pedestrian crossings, where the P x V volume thresholds have been used either as a warrant for installation or, more recently, as a means of prioritising a large number of potential projects – there are no hard and fast rules in regard to the provision of basic pedestrian or bicycle paths.

Moreover – and as clearly stated in GRD Part 6 – "***there may be other issues, constraints and practices that will have a bearing on the decision-making process***" regardless.

Most Council DCPs provide guidance in regard to where footpaths and SUPs are required; however this is overwhelmingly guidance for new developments, and it is certainly not economical or practical to expect that the same guidance can be applied universally and retrospectively across an LGA.

As opposed to warrants, and in response to the enormous backlog of active transport projects across Shoalhaven, the ranking of paths and crossings projects instead uses objective criteria to provide guidance to Council on Shoalhaven wide priorities. The new adopted "**Active Transport Scoring Criteria**" is discussed in detail in **Section 10**, including historic ranking criteria and the challenges posed by retaining this old criteria; and the amendments incorporated into the new criteria for consideration as part of the development of the Strategy and the PAMP Update and Bike Plan Update.

Again, our goal is to always make evidence based, common sense decisions in allocating funds to active transport projects based on all available information, with a further objective of achieving equitable outcomes in the provision of active transport opportunities across all of Shoalhaven.

7.4 A Common Sense Approach

Most standards relating to active transport infrastructure build in a number of contingencies that common sense suggests are not always required.

One example is the width of a footpath…

Current footpath standards – quite reasonably – consider the width required for two pedestrians to either walk side-by-side or pass each other; while an optimal design would allow this to occur at any point along the footpath, a narrower, off-road footpath in our view still provides a superior outcome if the only downside is the pedestrians needing to walk in single file, or for one of the pedestrians to take a couple of steps on the grass verge when passing each other.

Similarly, in most local roads with narrower footpaths there are numerous driveways which would provide the width for two wheelchairs to pass each other, even if one wheelchair user needs to wait a few seconds for the other wheelchair user to pass.

A common sense approach to planning new active transport infrastructure learns from the past to inform the future; critically though, reference to the past in this instance – or more specifically active transport infrastructure that has been constructed in accordance with past standards, and utilised by the community for decades – teaches us that minor departures from current design standards have not impeded the use what might now be considered below standard paths.

It is also the case that it is simply not viable for Council (or any Council) to constantly upgrade our active transport infrastructure in response to new standards and guidelines.

Let's look again at footpath widths...

When footpaths started to be constructed in new residential areas in Shoalhaven, a width of 0.9m (or indeed down to 0.6m) was often considered as being appropriate, and there are still many examples of these narrow footpaths across Shoalhaven.

Conversely, current standards recommend a minimum footpath width of 1.2m, and a preferred width of 1.5m; this does not quite multiply costs by 50% - 60% over an original 0.9m path, but it certainly adds up!

Examples of some of our narrower paths are shown below.

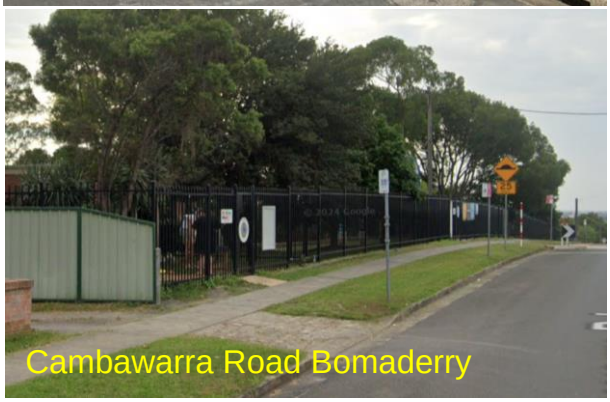

Kalandar Street Nowra


Kalandar Street Nowra

Princes Highway Milton


Park Street Nowra


Green Street Ulladulla


Cambawarra Road Bomaderry

All of the footpaths shown above are technically below standard based on current guidelines, yet it would be difficult to suggest that they are not fit for purpose based on relatively moderate pedestrian volumes, and moreover little evidence of narrower paths inherently increasing the potential for pedestrian/ bicycle rider and vehicle conflicts, particularly when considering the alternative (i.e. no off-road path).

Simply, some paths may be narrower than current standards suggest, but would anyone suggest we would be better off without them?

7.5 So Are the Narrow Paths Fit For Purpose?

As discussed, when footpaths started to be constructed in Shoalhaven, widths as narrow as 0.6m were often acceptable, but residents were happy that they at least had a safer off-road alternative (who wouldn't be!). Similarly, our first cycleways were typically constructed to the standard of the day (1.8m), which then increased to 2.0m through the 1990's to the current minimum of 2.5m, and indeed preferred width of 4.0m!

This of course means that we have miles and miles (sorry, kilometres and kilometres) of paths already constructed to historic standards; however, observations by Council staff, and more importantly community feedback over many, many years, suggests that there have been very few complaints about narrow path widths.

Of course there are exceptions, such as very busy locations like the "Round the Bay" SUP network, or the Mitchell Parade corridor from Mollymook to Narrawallee; these are both holiday locations where there is a significant increase in use during summer months, and as such there have been some complaints that path widths are not satisfactory simply because of the growing popularity of these paths since they were constructed.

In 99% of cases though, the community has accepted existing path widths, with probably no knowledge that they may not compliant with today's higher standards. With that said, consistency of design wherever possible is important, or else we have situations where (for example) extremely wide paths are provided in very quiet residential areas, while much busier locations retain narrower paths.

Again, Council will move forward with a common sense approach to avoid any paths being "***over designed***", and to ensure that our scarce resources are stretched as far as possible to provide the greatest length of path networks possible with our available funding.

Don't misinterpret this as a "go and build narrow paths everywhere" approach; that's not the message.

The take away is the validity of a common sense approach, and moreover that it's ok to use experience to judge that a marginally narrower path in most cases will be a much superior outcome than no path at all. Or in other words, don't use a theoretical standard as justification for not providing a path in an area that blind freddy could tell you would be 100% safer if an off-road path were available.

We hope that makes [common] sense!

7.6 Safe System approach

TfNSW has adopted a **Safe System** approach to achieve the ultimate goal of zero deaths and serious injuries on NSW roads, which is underpinned by the following principles:

- People sometimes make mistakes, but simple mistakes shouldn't cost anyone their life.
- Roads, roadsides and vehicles need to be designed to minimise crashes or reduce the severity of crashes.
- Road safety is a shared responsibility; everyone needs to make safe decisions on and around our roads to prioritise safety.
- Safe roads are designed and built to be more forgiving and account for human error; if a motorist, pedestrian or bicycle riders makes a mistake, safer road design can significantly reduce the chance that it will result in a death or serious injury.

To achieve these objectives – which are of course also central to active transport and the Strategy - the Safe System is based on:

- Upgrading roads and improving road design.
- Installing new road signs, surfaces, markings and key safety treatments.
- Removing roadside hazards.
- Reviewing and updating road safety standards.
- Investigating new and innovative road safety engineering treatments.

Notwithstanding, it is critical to acknowledge that there are impediments to adopting the Safe System approach in regional centres, simply as a function of additional costs for new infrastructure, and the cost of retrofitting existing infrastructure. Importantly, this is recognised in the Safe System approach, whereby – like our favourite P x V – the relative potential for serious crashes can be quantified to some degree when making decisions about update interventions and the like.

In this regard, Council refers to the "***Safe System Matrix***", which is used to assess possible crash types (generally those identified as the predominant contributors to fatal and serious crash outcomes) against the ***exposure*** to that crash risk, the ***likelihood*** of it occurring, and the ***severity*** of a crash should it occur. The basic structure of the Safe System framework is shown in Table 4.2 of Austroads SSAF, which is reproduced below.

Table 11: Safe System Assessment Framework

	Run-off-road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclist
Exposure	AADT; length of road segment	AADT; length of road segment	AADT for each approach; intersection size	AADT; length of road segment	AADT; pedestrian numbers; crossing width; length of road segment	AADT; cyclist numbers; pedestrians	AADT; motorcycle numbers; length of road segment
Likelihood	Speed; geometry; shoulders; barriers; hazard offset; guidance and delineation	Geometry; separation; guidance and delineation; speed	Type of control; speed; design, visibility; conflict points	Speed; sight distance; number of lanes; surface friction	Design of facilities; separation; number of conflicting directions; speed	Design of facilities; separation; speed	Design of facilities; separation; speed
Severity	Speed; roadside features and design (e.g. flexible barriers)	Speed	Impact angles; speed	Speed	Speed	Speed	Speed

Source: Austroads SSAF

With reference to **Table 11**:

- **Road user exposure** refers to which road users, in what numbers and for how long, are using the road, and are thus exposed to a potential crash. The measures of exposure include Average Annual Daily Traffic (**AADT**) volumes; side-road traffic volumes; the number of motorcycles, bicycle riders and pedestrians crossing or walking along the road; the length of the road; and length of time to cross the road.
- **Crash likelihood** considers the groups of factors affecting the probability of a crash occurring. They can be elements which moderate the opportunity for conflict (e.g. the number of conflict points, offsets to roadside hazards, separation between opposing traffic), as well as elements of road user behaviour and/or road environment. Typically, these are the elements which moderate road user error rates, such as the level of intersection control, speed, sight distance and geometric alignment.
- **Crash severity** considers the groups of factors affecting the probability of severe injury outcomes should a crash occur. Typically, these factors are associated with the amount of kinetic energy and its transfer in the crash, e.g. impact speeds and angles, and the severity of any roadside hazards.

The Safe System Matrix is shown in Table 4.3 of Austroads SSAF, which is reproduced below.

Table 12: Safe System Matrix

	Run-off-road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclist	
Exposure	/4	/4	/4	/4	/4	/4	/4	
Likelihood	/4	/4	/4	/4	/4	/4	/4	
Severity	/4	/4	/4	/4	/4	/4	/4	
Product	/64	/64	/64	/64	/64	/64	/64	/448

Source: Austroads SSAF

With reference to **Table 12**, a score of zero indicates that the system is fully aligned with the Safe System vision for that component of a given crash type, but the higher the score, the further the project is from a Safe System condition. To assist in identifying an appropriate score for each component of the Safe System Matrix, Table 4.4 of Austroads SSAF provides advice generally applicable to all projects, and is reproduced below.

Table 13: Safe System Matrix Scoring System

Road user exposure	Crash likelihood	Crash severity
0 = there is no exposure to a certain crash type. This might mean there is no side flow or intersecting roads, no cyclists, no pedestrians, or motorcyclists).	0 = there is only minimal chance that a given crash type can occur for an individual road user given the infrastructure in place. Only extreme behaviour or substantial vehicle failure could lead to a crash. This may mean, for example, that two traffic streams do not cross at grade, or that pedestrians do not cross the road.	0 = should a crash occur, there is only minimal chance that it will result in a fatality or serious injury to the relevant road user involved. This might mean that kinetic energies transferred during the crash are low enough not to cause a fatal or serious injury (FSI), or that excessive kinetic energies are effectively redirected/dissipated before being transferred to the road user. Users may refer to Safe System-critical impact speeds for different crash types, while considering impact angles, and types of roadside hazards/barriers present.
1 = volumes of vehicles that may be involved in a particular crash type are particularly low, and therefore exposure is low. For run-of-road, head-on, intersection and 'other' crash types, AADT is < 1 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are < 10 units per day.	1 = it is highly unlikely that a given crash type will occur.	1 = should a crash occur, it is highly unlikely that it will result in a fatality or serious injury to any road user involved. Kinetic energies must be fairly low during a crash, or the majority is effectively dissipated before reaching the road user.
2 = volumes of vehicles that may be involved in a particular crash type are moderate, and therefore exposure is moderate. For run-of-road, head-on, intersection and 'other' crash types, AADT is between 1 000 and 5 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are 10–50 units per day.	2 = it is unlikely that a given crash type will occur.	2 = should a crash occur, it is unlikely that it will result in a fatality or serious injury to any road user involved. Kinetic energies are moderate, and the majority of the time they are effectively dissipated before reaching the road user.
3 = volumes of vehicles that may be involved in a particular crash type are high, and therefore exposure is high. For run-of-road, head-on, intersection and 'other' crash types, AADT is between 5 000 and 10 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are 50–100 units per day.	3 = it is likely that a given crash type will occur.	3 = should a crash occur, it is likely that it will result in a fatality or serious injury to any road user involved. Kinetic energies are moderate, but are not effectively dissipated and therefore may or may not result in an FSI.
4 = volumes of vehicles that may be involved in a particular crash type are very high, or the road is very long, and therefore exposure is very high. For run-of-road, head-on, intersection and 'other' crash types, AADT is > 10 000 per day. For cyclist, pedestrian and motorcycle crash types, volumes are > 100 units per day.	4 = the likelihood of individual road user errors leading to a crash is high given the infrastructure in place (e.g. high approach speed to a sharp curve, priority movement control, filtering right turn across several opposing lanes, high speed).	4 = should a crash occur, it is highly likely that it will result in a fatality or serious injury to any road user involved. Kinetic energies are high enough to cause an FSI crash, and it is unlikely that the forces will be dissipated before reaching the road user.

Source: Austroads SSAF

With reference to **Table 13**, P x V again appears, as *exposure* is directly related to the number and type of road users. However, in the context of the overwhelming majority of roads and intersections in Shoalhaven, traffic volumes rarely exceed thresholds exceeding those indicating a high score (3 or 4), i.e. a real risk of a serious crash, and indeed the majority of roads and intersections would rarely have volumes that warrant a score of more than 2.

As such, under the Safe System Matrix, the risk of a severe crash is low for almost all roads across from Shoalhaven, as multiplying low exposure, likelihood and severity factors will in almost all instances result in a total score that is only a fraction of the total score possible, i.e. the worst potential for a serious crash that would almost certainly require remediation.

The application of the Safe System Matrix supports a contention that most of our roads do not have any inherent safety risks; even where there is a mix of roads users, those environments are appropriately designed to – for example – ensure reduced vehicle speeds and safe crossing points, and moreover allow interaction between road users in environments where traffic volumes remain moderate.

Of course, regardless of the width of an off-road path, if pedestrians and bicycle riders are provided with an off-road option, the potential for conflicts will always be significantly reduced, which at the end of the day must be the simple objective of the Safe System approach!

As such, while the Safe System approach is certainly a consideration for Council in all road related projects, a common sense approach is needed to avoid paths from being over designed - or worse, potentially omitted - on the basis that some arbitrary design parameters can't be achieved in all respects. In most instances, this is simply not required given inherently low crash and/or crash severity risks, and where the greatest bang for buck is achieved already through the physical separation of pedestrians/bicycle riders from vehicle traffic, even if every theoretical design parameter can't be ticked.

A common sense approach to these decisions is the only way to ensure we can extend active transport benefits more broadly throughout Shoalhaven to the greatest number of our residents and visitors.

7.7 Active Local Streets

Whilst not expressly reflected in the current suite of PAMP Maps, the active transport strategy recognises that it is not possible or feasible to build active transport infrastructure in every street, in every community, but requires a broader suite of active transport measures to achieve State Government and local active transport objectives.

Quiet streets, and more broadly lower speed limits, are important considerations in the mix of strategies as we endeavour to make it safer to walk and ride in more streets in more locations.

As such, Council will continue to carefully monitor State Government initiatives that provide the opportunity for safer streets for all, particularly further to consideration of lower speed limits in load streets (30km/h); reducing through traffic in local streets; and reclaiming the bitumen from what is currently seen as the domain of vehicles only.

7.8 A Quick Note About Grants

While Councils can exercise a common sense approach at their own discretion when it comes to allocating scarce resources and local funding, it is acknowledged that Councils are often ham-strung when it comes to applying for grants for new active transport projects. This is due to the stringent criteria and guidelines around grant funding that often force Councils to fully comply with current guidelines or standards (if they want/need the grant funding), regardless of how over-designed the outcomes may be in many local circumstances.

As an example, TfNSW has recently constructed extensive new SUPs as part of the Nowra Bridge Upgrade – and they are certainly appreciated! However, TfNSW grant guidelines require (for example) that all new SUPs provide a width of 4.0m, even though some of the recently constructed SUPs (by TfNSW) have widths of down to 1.8m.

This disparity affects all Councils – but particularly regional Councils - that rely on grants to fund the lions' share of their active transport infrastructure.

In response, it is recommended that Council collaborate with other regional Councils across NSW to establish a collective lobbying approach with the intent of incorporating more of a common sense approach throughout our design guidelines (such as Austroads) as they further evolve.

As discussed, there are many clauses within current guidelines and standards that can be relied upon when exercising discretion around design parameters; however, in our view these provisions could and should be more expressly conveyed through the guidelines than they are at present given that the provision of any type of off-road path has enormous benefits when compared to there being no path at all.

A final example for consideration is the historic Hampden Bridge in Kangaroo Valley, a classic example of an existing squeeze point in the provision of pedestrian and bicycle riding infrastructure. The Hampden Bridge was built by convicts between 1895 to 1898, and while 2024 standards have changed a little since then (!) this is a great example of a common sense approach to active transport with very broad benefits to all.

Every project should strive to achieve the highest possible standards, but constraints across the network are aplenty, and the more we can separate pedestrians and bicycle riders from traffic, the better off we'll all be, and the closer we'll be to our over-arching active transport objectives.

Because at the end of the day, better the bridge with a narrow path than a bridge with no path at all!

8 Pedestrian Access & Mobility Plan Update

8.1 Overview

Walking is an essential part of the broader transport network, and certainly the most social, accessible and sustainable mode of travel. While many studies of the transport environment focus on commuter travel modes, walk trips service every type of trip purpose across the day, particularly in local urban areas, as well as for fitness and recreation. Most individual trips - whatever the primary mode used – begin/end with a walk trip, and in turn pedestrians are the largest single user of the broader transport network.

A PAMP is an area based study to develop a plan for pedestrian facilities that are practical and cater for the needs of different users, and moreover to guide the provision of future pedestrian facilities across Shoalhaven.

PAMPs previously developed by Council focused on larger towns and villages within Shoalhaven; this is of course not unreasonable given that the majority of pedestrian trips in Shoalhaven are to/from/within our key towns and villages. However, Council is committed to ensuring that the strategies and recommendations provided in this PAMP Update considers pedestrian demands in smaller suburbs and villages as well.

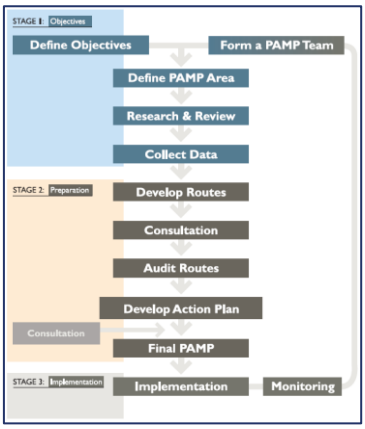
Along with promoting walking as a viable travel option, the information and strategies provided in the PAMP Update are designed to make walk trips – simply – safer and easier for everyone in the community, including those with mobility impairments. This requires not only an assessment of pedestrian demand locations and the pedestrian facilities available (or moreover not available), but also of key factors assisting or hindering achieving our walkability objectives.

Finally, it is important to note that the PAMP Update is designed to fit seamlessly within the broader Strategy, along with the Bike Plan Update, to provide a comprehensive way forward in increasing all active trips.

8.2 PAMP Key Objective

The underlying objective of the PAMP Update is to encourage a greater use of walk trips by residents, workers and visitors across Shoalhaven, and to provide for mobility equity by catering for all types of pedestrian. Not only do walk trips provide significant health and well-being benefits, they also fundamentally reduce the demand for vehicle trips.

8.3 Developing the PAMP Update



In determining the scope of work and assessment tasks required to prepare the PAMP Update, our first resource has been the PAMP Guide developed by RTA in 2002.

While the PAMP Guide remains very relevant to pedestrian planning, particularly at the local government level, the PAMP Update now references the most up-to-date pedestrian planning guidelines and tools available. Notwithstanding, the PAMP Update has still been developed with reference to our existing active transport strategies, including PAMP 2002, PAMP 2005 and Bike Plan 2013.

As discussed, while the principles and strategies provided in PAMP 2005 and Bike Plan 2013 remain current and relevant to the broader discussion of active transport planning, the need for the PAMP Update is based on:

- Creating a framework that is consistent with the latest Council and NSW Government guidelines and strategies, including the new Active Transport Strategy.
- Considering pedestrian projects in the context of the new Active Transport Scoring Criteria, and in turn undertaking a detailed review of all paths and crossings projects, including the removal of completed projects, and the consolidation of remaining paths and crossings projects into a single Active Transport projects list.

And just in case you didn't know, people using wheelchairs and other mobility devise are also classed as pedestrians, and are front and centre in our designs to ensure our networks are accessible and inclusive.

8.4 Footpaths

When it comes to pedestrian infrastructure, the humble footpath continues to rule supreme!

Historically, footpaths were reserved for use by pedestrians, people in wheelchairs, mobility scooters and personal mobility devices such a walking frame. Footpaths are a vital part of the transport network either for trips undertaken entirely by walking, or as the first or last link in a trip that utilises other modes of transport.

The width of footpaths also needs to recognise the two zones within the broader footpath space, being the through route used for travel, and the area at times occupied by obstacles, for example signposts, poles, bins or tables and chairs for outdoor cafes.

Footpaths should be hard surfaced (concrete), noting that while tiles, pavers or the like are aesthetically preferable in some locations, they require expensive ongoing maintenance to ensure that there are no trip hazards. It is also important that the edges of footpaths, for example adjacent to a grassed verge, do not have a drop-off that may cause a pedestrian to slip or trip, or cause a wheelchair to overturn.

The design of footpaths also needs to consider the NSW Road Rules, which have changed over time to allow more younger people to ride their bicycles on footpaths; younger people up to and including the age of 16 years are now permitted to ride on footpaths, exponentially increasing the number of people riding on the footpath given that it is this user group that already generates a high percentage of all bicycle trips.

This means that the design of footpaths needs to consider the same design outcomes as bicycle paths (or SUPs), particularly in relation to hazards both on or immediately adjacent to footpaths, and sight distances along and adjoining the footpath. This issue is discussed further in the Bike Plan Update (**Section 9**).

A primary reference for the design of footpaths is the Walking Space Guide, which sets standards to ensure to as great an extent possible that a "***comfortable***" amount of "***walking space***" is provided to further encourage people to walk. The required amount of space is largely determined by the number of people that will use the footpath, but also considers the specific environment where the footpath is located; other users of or activity within the footpath; and getting around constraints and obstacles, particularly in existing footpaths.

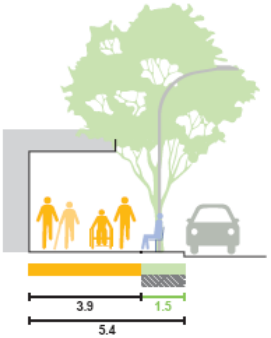
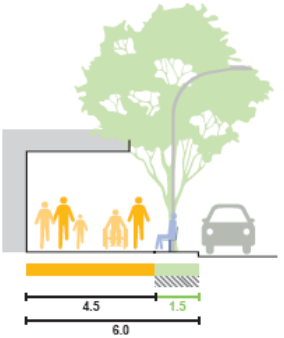
The Walking Space Guide provides a summary of the different types of footpath that can be seen across Shoalhaven, from footpaths in minor roads through to wider footpaths in our towns and villages that provide not only for movement, but also spaces for interaction and activity such as outdoor seating.

Importantly, the pedestrian surveys that inform the Walking Space Guide were all undertaken in the Sydney CBD, an environment that is perhaps as far removed from the majority of our footpaths as possible! In the Sydney CBD, not only are there simply more pedestrians demanding space, but more hustle and bustle as people run because they are late for a meeting; weave in and out of the pedestrian flow; or enter and depart shops and businesses at regular (and irregular) intervals.

As importantly, while it is of course acknowledged that many new standards have come about as a result of superior safety outcomes, in many instances the move towards wider paths reflects a desire to improve the "***comfort of movement***" rather than the safety or efficiency of movement. This is specifically acknowledged in the Walking Space Guide, which states that the background research and studies that informed it:

"…quantified people's tolerance of different crowding levels, the passing distances people left between each other and when passing street furniture and the space people left to the building line. This was then used to determine the recommended standards in this document".

Footpath types as identified in the Walking Space Guide are shown below.

Footpath Type 1	Type 2	Type 3	Type 4	Type 5
Typical description: Local footpath – Low activity	Local footpath – Medium activity	Main street footpath – Medium activity / Local footpath – High activity	Main street footpath – High activity	Main street footpath – Very high activity
Short walk interaction: Unlikely to pass someone	Likely to pass someone	Virtually certain to pass someone	Virtually certain to meet multiple groups of people	Busy
Peak hour maximum use: Very few people per hour	7 or more people per hour	70 or more people per hour	400 or more people per hour	More than 2,000 people per hour
MINIMUM TARGET Walking Space: 2.0m	**2.3m + 0.6m** Passing Zone	**3.2m** (**3.0m** not adjacent to active shopfronts)	**3.9m (3.7m)**	**less than or equal to 9.5 People Per Metre / Minute**
Intervention Trigger (less than): 1.3m*	1.6m + 0.6m Passing Zone	2.3m (2.2m)	2.9m (2.7m)	greater than 18.0 People Per Metre / Minute
				
Low activity local footpaths are appropriate where people walking are unlikely to pass people coming the other way. These footpaths support 2 friends walking together and passing if they walk in single file.	Medium activity local footpaths are appropriate where people walking are more than likely to pass people coming the other way. These footpaths support 2 people passing abreast or 2 friends walking together passing another person using the Passing Zone.	Medium activity main street footpaths are appropriate where people walking are virtually certain to pass people coming the other way. These footpaths support 2 friends walking together and passing another person without having to walk in single file.	High activity main street footpaths are appropriate where people walking are virtually certain to meet multiple groups of people coming the other way. These footpaths support 2 friends passing 2 friends coming the other way without either group having to walk in single file.	Very high activity main street footpaths are appropriate where it is very busy most of the time. These footpaths provide enough space for large numbers of people to walk comfortably.

Kerbside Traffic Buffer

The required Walking Space excludes obstructions and the Kerbside Traffic Buffer which is measured from the face of the kerb.

Kerbside traffic speed limit (km/hr)	Kerbside Traffic Buffer (m)
0-15 or cycle lane or parking	0m
20	0.2m
25	0.45m
30	0.7m
35	0.95m
40	1.2m
45	1.4m
50	1.65m
55	1.9m
> 55	2.15m

* for equal access:

< 1.8m, insufficient space for two wheelchairs to pass

< 1.5m, insufficient space for a wheelchair to turn, if the length exceeds 6m. Action must be taken

< 1.2m, insufficient space for a wheelchair to navigate safely. Action must be taken.

More broadly, the research behind the Walking Space Guide identified 6 distinct *spatial thresholds for observable discomfort behaviours*; these include:

- **Body shift:** Where a pedestrian shifts the orientation of their body (usually by turning the shoulders) to minimise encroachment on another pedestrian's personal space
- **Overtaking in the furniture zone:** Where a pedestrian overtakes a slower moving pedestrian by changing their line of travel into alignment with street furniture and then back again once they have overtaken
- **Overtaking by stepping off the footpath:** Where a pedestrian overtakes a slower moving pedestrian by stepping off the footpath onto the carriageway
- **Weaving:** Where a pedestrian weaves through the available walking area to avoid another pedestrian
- **Stopping:** Where a pedestrian stops to make way for another pedestrian coming in the other direction
- **Changing behaviour in anticipation:** Where a pedestrian adjusts their speed and/or direction to avoid passing another pedestrian at a constrained point.

We in the Shoalhaven are of course too civilised to undertake any of these behaviours (most of the time!), but these discomfort behaviours are unlikely to rank highly in the community's prioritisation of wider paths in and of themselves.

The Walking Space Guide also acknowledges the situation we currently find ourselves in in Shoalhaven, i.e. where it is not always possible to retrofit footpaths or construct new footpaths to the latest standards, stating:

"It is common when new standards are introduced that old infrastructure does not measure up. In most cases it is not possible to improve everything at once. In this situation it is advisable to create a program of works to move progressively toward good infrastructure standards and to prioritise works that will address acute problems and cause the greatest improvements for the largest numbers of people".

In providing new active transport infrastructure, Council will always seek to maximise the combination of safety, comfort, efficiency and general accessibility for all users, particularly in busier parts of our towns and villages, and in proximity to schools and aged care facilities.

Table 5.1 of GRD Part 6A also provides recommendations in regard to footpath widths, and is reproduced below.

Table 14: Guide to Road Design Part 6A Pedestrian Path Widths

Situation	Suggested minimum width (m)	Comments
General low volume	1.2(1)	• General minimum is 1.2 m for most roads and streets. • Clear width required for one wheelchair. • Not adequate for commercial or shopping environments.
High pedestrian volumes	2.4 (or higher based on volume)	• Generally commercial and shopping areas.
For wheelchairs to pass	1.8	• Refer also to AS 1428.1:2009.
For people with other disabilities	1.0	

Source: GRD Part 6A

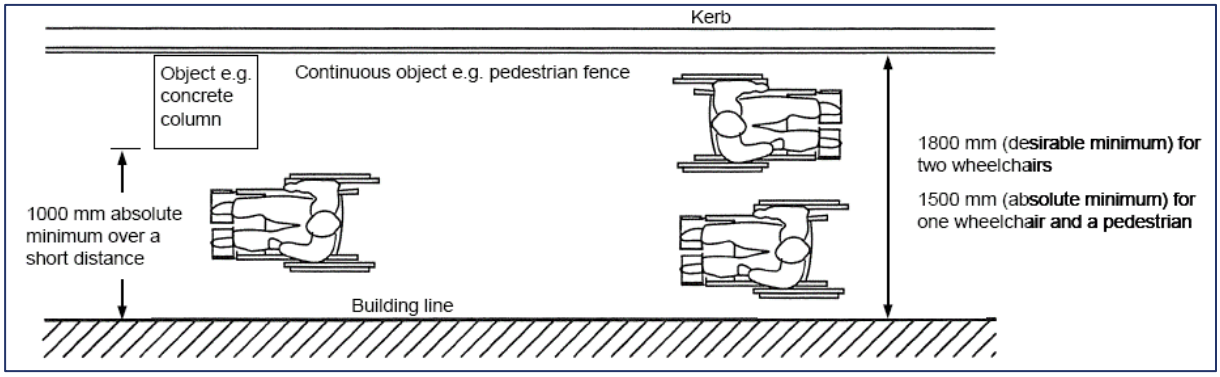
Importantly, the note to Table 5.1 of GRD Part 6A states:

"In constrained locations an absolute minimum of 1.0 m should be provided. In these situations, path users should be able to detect other path users with sufficient time to respond and take appropriate actions".

This is again an important consideration in the context of a common sense approach, as the majority of narrower paths in the Shoalhaven are along local roads, i.e. there is almost always clear visibility to other pedestrians or users of the path such that sufficient time to "*respond and take appropriate action"* – or to use the previous example, stop on a wider driveway to let the other user pass – would almost always be available.

Importantly, Figure 5.1 of GRD Part 6A also recognises that a minimum footpath width of 1.0m (over "*short distances*") is able to accommodate a wheelchair; Figure 5.1 is reproduced below.

Figure 29: Guide to Road Design Part 6A: Minimum Pedestrian Path Widths



Source: GRD Part 6A

While the length of a "*short distance*" is not defined, it is again the case that most narrow paths have driveway crossings and the like at regular intervals, such that the distance between passing locations for someone in a wheelchair would again almost always be only a short distance away.

Finally, it is also important to acknowledge that the minimum width of 1.0m for a pedestrian path identified in GRD Part 6A corresponds with the minimum path width as identified by the Australian Human Rights Commission (**AHR Commission**) in interpreting the requirements of the Disability Discrimination Act 1992 (**DDA**).

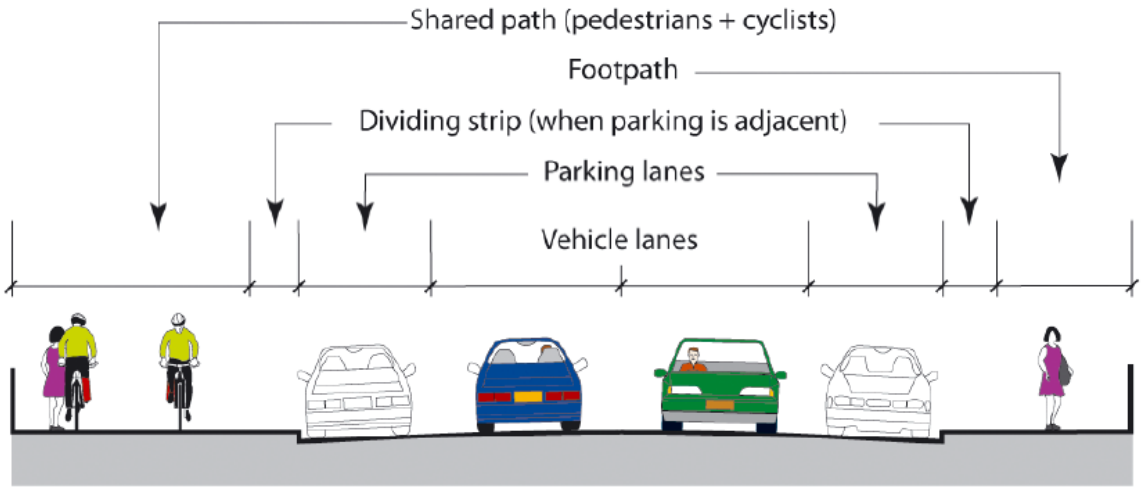
In this regard, the AHR Commission notes that a footpath would come under the definition of "premises" in Section 23 of the DDA, and in turn:

"…an owner [or indeed anyone constructing a path] *can be confident that if they provide a path of travel with a minimum width of 1000mm and passing spaces at regular intervals they will be fulfilling the minimum requirements for compliance with the DDA"*.

As we have stressed previously, our intention is not to specifically provide minimum path widths, but to acknowledge that the provision of formal, yet potentially narrower, off-road footpaths for those in wheelchairs or with limited mobility provides a significantly superior option to no footpath at all…or in other words, the common sense approach!

8.5 Shared User Paths

SUPs allow both pedestrians and bicycle riders to share the same path space, and are most appropriate where demand exists for both a pedestrian path and a bicycle path, but where there is a low number of pedestrians or bicycle riders, and the use is not expected to be sufficiently great enough such that separate pedestrian and bicycle paths are needed.



SUPs can be used for a variety of purposes including recreation, local access and providing feeder links between high capacity paths. In addition, SUPs that use existing pedestrian paths may be satisfactory where they provide:

- A convenient and safe option for inexperienced bicycle riders, recreational cyclists and young bicycle riders.
- A safer option for bicycle riders at squeeze points such as narrow, heavily trafficked sections of road.

Recommended SUP widths are shown in Table 5.3 of GRD Part 6A, which is reproduced below.

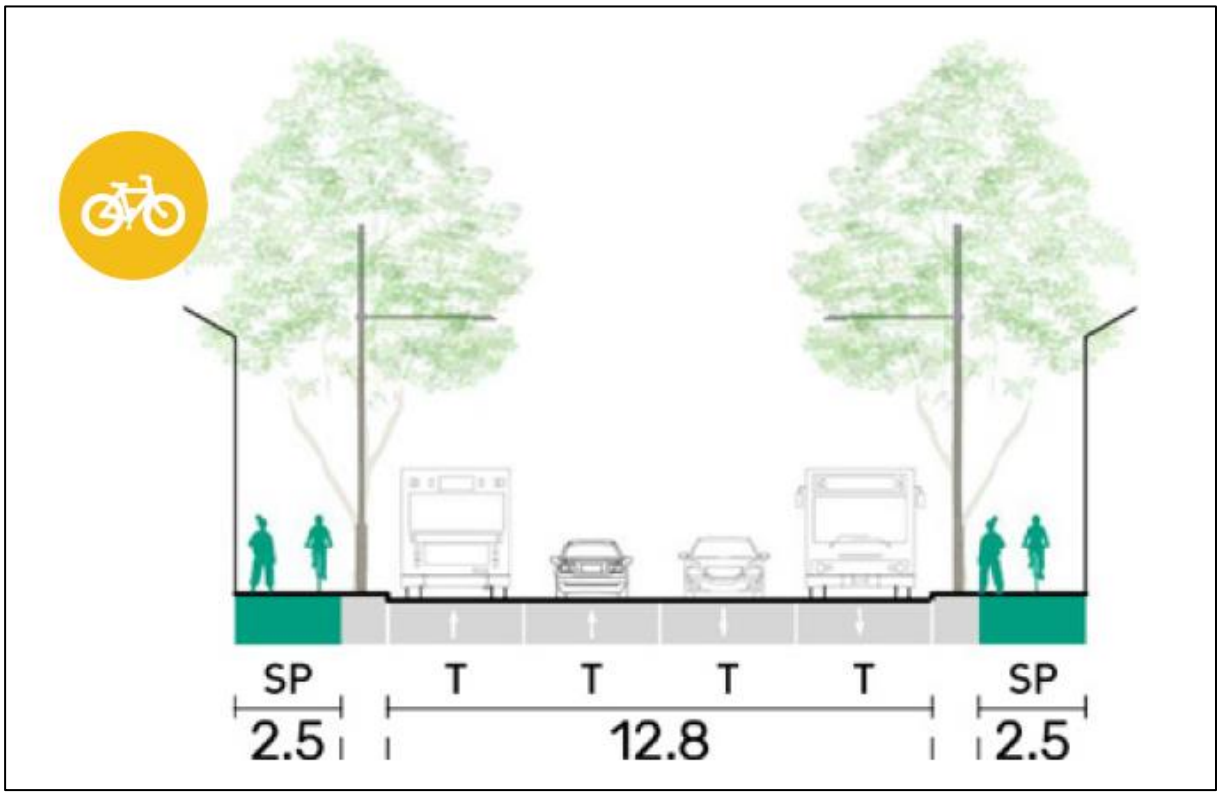
Table 15: Guide to Road Design Part 6A Shared User Path Widths

	Suggested path width (m)		
	Local access path	**Regional path[3]**	**Recreational path**
Desirable minimum width	2.5	3.0	3.5
Minimum width – typical maximum	2.0[1] – 3.0[2]	2.5[1] – 4.0[2]	3.0[1] – 4.0[2]

Source: GRD Part 6A

These design guidelines are similar to those identified in Figure 3.61 of the Cycleway Toolbox under constrained conditions, which is reproduced below.

Figure 30: Shared User Paths (Constrained Conditions)



Source: Cycleway Toolbox

Given that most (existing and proposed) paths across Shoalhaven have relatively moderate volumes of pedestrian and bicycle riders, it is Council's opinion that the provision of SUPs – even designed to the minimum width – are likely to provide the best opportunity to meet the requirements of all active trips in the most efficient and cost-effective manner.

It is noted that Bicycle NSW have supported Council's approach ***of taking a flexible approach to path widths***, stating:

The focus must be on delivering more paths and safe crossings. A narrow path, at the bottom end of the Austroads range, can be a sensible compromise to meet active transport goals with constrained road reserves and budget. It is also important to maintain tree canopy, as shade is more important for walking and cycling comfort than path width."

We agree entirely!

8.6 Crossings

8.6.1 Overview

Providing more safer crossings, in more locations, is a fundamental objective of the Strategy so as enhance connectivity and accessibility and allow more people to walk and cycle where they need to, safely.

In addition to identifying mid-block desire lines and progressively resolving known mid-block conflict points, pedestrian and bicycle rider safety considerations should also be front and centre at all intersections.

Increasing the number of pedestrian crossings across Shoalhaven will greatly support more people - and particularly the vulnerable (children, the elderly and the less mobile) - to walk safely and efficiently to more locations such as schools shops and local services.

NSW Health also support the Strategy's actions to expand and improve signalised pedestrian crossing opportunities where other treatments are unsuitable, including identifying locations where more frequent and longer duration pedestrian crossing phases will significantly improve safety and accessibility for the more vulnerable; and where more scrambled crossing opportunities can be provided to minimise multiple crossing movements for pedestrians.

A discussion of the different type of crossings used across our active transport networks is provided in sections below.

8.6.2 Signalised Crossings

It is current TfNSW policy that all traffic signals in urban areas, and moreover wherever there is a pedestrian crossing demand, provide formal signalised pedestrian crossings on all approaches.

The provision of signalised intersections or signalised crossings (in NSW) is the responsibility of TfNSW (the function of being responsible for signals has not been delegated to Councils) even though a Council may initiate a project on its own road network.

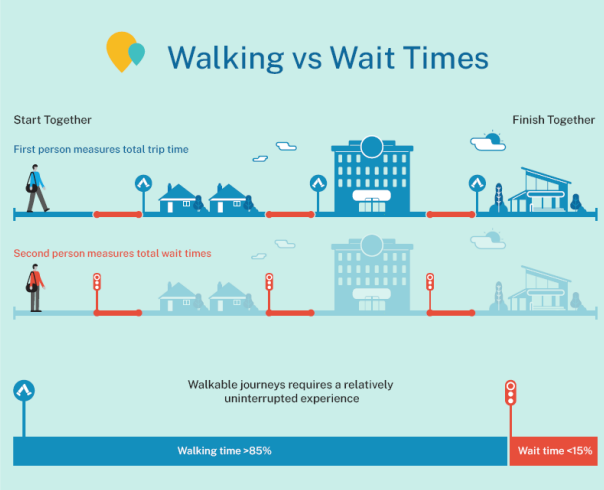
With the current backlog of signals projects across NSW though, it is typically the initial position of TfNSW to encourage Councils to exhaust all other potential crossing options in the first instance before signals are ultimately considered.

Locally initiated signals projects also need traffic studies and "*justification reports*" to be prepared in the first instance, before TfNSW can even consider a locally led project. This adds time and upfront costs, and often means that other lower order crossing treatments may need to be considered in the first instance anyway, even if signals are seen to be the appropriate medium or longer term treatment.

As discussed, signalised pedestrian crossings should always be incorporated into signalised intersections in order to facilitate safe pedestrian crossing, noting that signalised intersections are inherently located where there are different traffic movements and high traffic volumes, i.e. locations where there is a higher potential for pedestrian/vehicle conflicts.

Signal phasing should be designed in accordance with both traffic and pedestrian demand at each intersection, and wherever possible pedestrian phases should allow more than enough time for the pedestrian to safely cross the entire width of the road, and wherever possible reduce the time period between pedestrian crossing phases.

Noting also our aging population and the need to provide for those with mobility impairments, the design of signalised intersections (both existing and proposed) needs to specifically account for the crossing time required for different user groups; this should be incorporated into modelling (SIDRA for example) of signalised intersections. After all, an additional average delay to vehicles of a couple of seconds is nothing when compared to the superior safety outcomes that longer pedestrian phases provide.

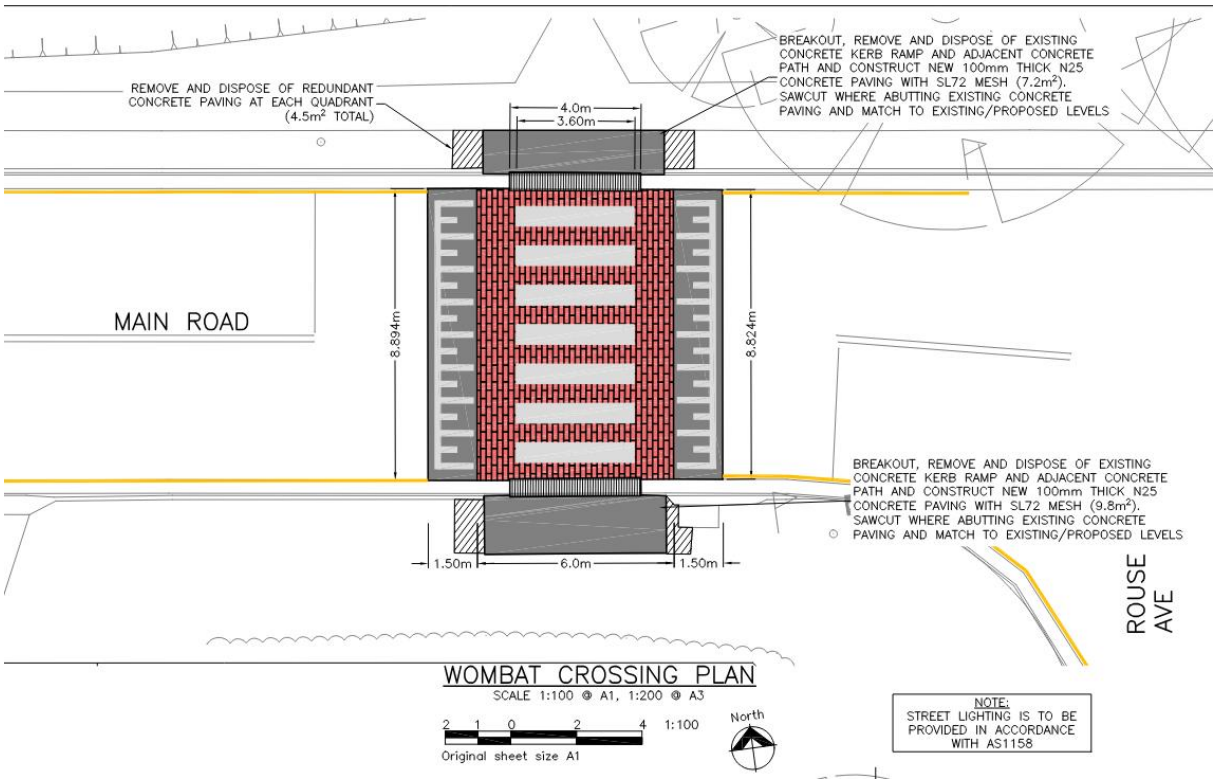


8.6.3 Pedestrian Crossings

"**Pedestrian crossings**" are one of a suite of treatments that can be used on the road network; used appropriately, they can improve safety, amenity, priority and legibility for pedestrians, as well as assist in achieveing the principles of Movement & Place for an area or length of road.

As discused previously, TfNSW utilises a number of calculations based on traffic and pedestrian volumes to determine if a pedestrian crossing is specifically “warranted” at specific location on roads operated by TfNSW; however, this warrant system is not mandatory for use on non-arterial roads operated by local Councils, i.e. the overwhelming majority of roads in Shoalhaven.

Traffic regulations require motorists to give way to pedestrians at zebra and wombat crossings, which in turn gives pedestrians greater control of their movements. However, the installation of pedestrian crossings may not necessarily improve safety at all locations, and indeed they are often unsuitable where pedestrian-vehicle volumes (and therefore conflicts) are very minor, as both pedestrians and motorists can tend to become less cautious.



As opposed to at-grade “**zebra crossings**”, wherever practicable “**wombat crossings**” – where the zebra crossing is both raised and marked – are preferable, as this helps reinforce the pedestrian priority and actively requires that motorists slow down. A raised treatment also offers superior approach sight distance for vehicles approaching a crossing, and often improves accessibility for the less mobile.

That said, a raised treatment has other implications (cost and drainage impacts for example), and accordingly there will always be some locations where an initial "at grade" zebra crossing might need to be provided to bring forward more immediate safety and accessibility benefits of a crossing, before a raised treatment might be justified in the longer term.

As discussed, while TfNSW warrants and design requirements for crossings will be referenced in planning for new or updated pedestrian crossings, many road authorities – and particularly Councils - have recently stepped away from the application of traditional warrants, following the common sense approach. One particular difficulty is trying to justify why, for example, a crossing could be built once 30 pedestrians cross a road, but couldn't be justified if there was only 29 pedestrians.

When it comes to vulnerable users, many would argue that every pedestrian is just as important; however the traditional warrants were more a means of economic justification, and at times showing little logic behind the quantum of warrant parameters.

Notwithstanding, with limited funding, the simple application of P x V makes more sense in the first instance to ensure Council is prioritising the locations with the greatest risk.

This means that when assessing the need for a formal pedestrian crossing, Council has the discretion to consider not only a simple formula of P x V, i.e. the relative volumes of pedestrians and vehicles at a given location, but also broader considerations such as proximity to schools, bus stops or other pedestrian attractors where demand may only peak for short periods each day, or be relatively low but constant over the course of the day.

The use of P x V as a specific volume threshold warrant has always been controversial, with most communities struggling to understand how locations just under threshold warrants are not prioritised, but as soon as a warrant is reached, a location all of a sudden becomes a priority; for that reason, warrants have always been treated with a level of discretion.

Notwithstanding, P x V has always been a very useful and reliable means for Councils to prioritise large numbers of crossing projects over many decades, and as such the use of P x V continues to be supported, and has accordingly been formally absorbed into the way that we prioritise our crossing projects.

8.6.4 Children's Crossings

Traditional at-grade children's crossings are usually provided near primary schools; operate during standard School Zone periods (8:00am – 9:30am, and 2:30pm – 4:00pm); and are most suited to local or lightly trafficked roads.

With reference to TfNSW guidelines, children's crossings should not be installed in roads where the 85th percentile speed exceeds 65kph; where there is insufficient visibility of the crossing, or of pedestrians using the crossing, for approaching drivers; or where traffic volumes are high.

Children's crossings and other crossings near schools which have a TfNSW Crossing Supervisor have an incidental benefit for others in the community such as elderly people or those with additional needs, who will often time their daily walks to gain the assistance of the crossing supervisor.

Children's crossings require the cooperation of the local school administration to install and remove the crossing flags for school zone times.

With specific reference to the large number of schools across Shoalhaven, Council initially set out to ensure that every single school had at least a basic children's crossing; since that goal was achieved, Council has continued a rolling program of improvements to existing crossings, including tweaking signage and line marking where required to improve safety and operational outcomes.

Council also continues to carefully examine crossings that would provide additional safety benefits by being raised or incorporate additional protections to achieve a higher level of safety, in particular where traffic volumes and speeds are higher compared to other crossings.

This program will continue as part of the broader PAMP Update initiatives, and the benefits of upgrading children's crossings to zebra or wombat crossings have been absorbed into the way that we prioritise our crossing projects.

8.6.5 Refuges

Refuges are generally used where it is difficult for a pedestrian to cross the road in one stage - or where gaps in the traffic flow so as to cross in one stage are limited - but the warrants for a higher order treatment (formal pedestrian crossing) are not met. Refuges are particularly suited to locations where pedestrian movements are spread over a length of road, where it can be impractical to physically funnel pedestrians to a single (or at least fewer) higher order crossing locations.

The design of refuges has evolved in recent years to specifically cater for all user groups, including bicycle riders, wheelchair users and those using mobility aids, as has the provision of barriers within the refuge to provide an additional level of safety. In turn, the design widths for refuges (i.e. the central standing area) have - like SUP widths - increased over time, which has again led to a number of different refuge widths across Shoalhaven.

When first introduced in Shoalhaven, refuges were designed to a minimum width of 1.2m, but refuge design guidelines have gradually increased this width, firstly to 1.5m and then to the current standard of 2.0m, which generally allows for a bicycle to be aligned across the central standing area fully clear of vehicle movements.

As with SUPs though, actual examples of below standard refuges – which are still fit for purpose – across Shoalhaven means that is appropriate for Council to consider compromises in the design of new refuges to address local constraints, particularly where there are only moderate pedestrian (and traffic) volumes when compared to other refuge locations.

Again, Council has taken the view that it is far safer to provide a crossing treatment that may not fully meet current design standards rather than providing no crossing at all, and as such we will continue to take a common sense approach to optimise safety and accessibility for the most amount of users.

8.6.6 Kerb Extensions

Kerb extensions provide for a widening of the footpath on both sides of a road to reduce pedestrian crossing distance, and are most often provided in town and village centres roads with kerbside parking, with the extension generally extending to the width of the parking lane.

The key advantages of kerb extensions include:

- A shorter crossing distance for pedestrians.
- Improved visibility between pedestrians and vehicles.
- A reduction in vehicle speeds, particularly on curvilinear alignments.
- A relatively low cost treatment.
- Better delineating parking spaces/lanes.
- Minimal effects on the movement of emergency vehicles (and indeed all vehicles) than other crossing treatments.

Kerb extensions also provide the opportunity for landscaping or seating, i.e. they also provide Place outcomes.

8.6.7 Pram Ramps

Pram ramps provide a smooth change in level between the footpath and the road surface, and allow pedestrians to move on and off the road with minimum impediment. Pram ramps are particularly essential in areas where people in wheelchairs, those with mobility impairments and those using strollers need to be catered for.

It is also important that pram ramps are aligned with the direction of travel to guide people directly across the road, and not out into the middle of an intersection; and that they incorporate Tactile Ground Surface Indicators (**TGSI**) to assist the visually impaired.

Pram ramps are also a type of treatment where standard designs often need to be revised/retrofitted to reflect actual local constraints and local road levels, including variable kerb heights, embankments, poles, drains and other utilities.

As with all our active transport projects, a standard design is always the starting point, but regardless our objective is to achieve the highest possible level of convenience and accessibility for our most vulnerable users, in turn maximising the potential for our residents and visitors to get out and get active!

It should be noted that the PAMP Interactive Mapping Tool doesn't currently show the location of every existing and proposed kerb ramp in Shoalhaven, as this would be a massive task to achieve. Notwithstanding, it still remains an objective to progressively upgrade pram ramps across Shoalhaven, and to that extent Council has, and will continue to, allocate whatever resources it can to achieve these ongoing improvements annually, including seeking to optimise any available grant funding.

These are relatively small investments, but they can make a world of difference to our most vulnerable pedestrians!

8.6.8 Pedestrian Fencing

Pedestrian fencing is sometimes installed along the kerb or in the median of some of our busier roads to reduce the potential for people to cross at certain locations, or to direct people to formal crossing facilities, in most instance simply to improve safety. Pedestrian fencing can in some instances increase journey time – for example for some trips along Princes Highway near Nowra Plaza – but only because of the need to achieve greater safety outcomes.

Occasionally, pedestrian fencing may also be required to protect pedestrians from adjacent traffic, but such cases are usually assessed on merit, and based on-site specific circumstances.

8.7 Ancillary Pedestrian Infrastructure

8.7.1 Lighting

All available research and feedback from the community indicates that safety is a key consideration in the choice of whether or not to walk/cycle rather than drive. One simple way of increasing safety is the provision of proper lighting along all active transport paths, which improves not only the feeling of personal safety, but tangibly increase the visibility of pedestrians/bicycle riders to motorists. These objectives are particularly important for elderly people and people with impaired vision who may be more vulnerable to trip hazards or feel insecure or uncomfortable in poorly lit environments.

Importantly, there will be a proportion of people that might consider – say – walking to work in the morning, but are then concerned about walking home in darkness; the provision of good lighting along our active transport paths therefore also increases the use of active trips at all times of the day and night.

Locations associated with pedestrian paths that may require a relatively high-level of lighting are at-grade road crossings (because of the potential for conflict with vehicles); and underpasses, that are often perceived to be unsafe in terms of personal security.

When locating lighting, care will be taken to minimise the impacts on adjoining residential properties (light-spill overnight), noting that such considerations can often influence the location of crossings and other active transport infrastructure.

Regardless, the provision of high quality lighting will be an integral consideration of all new active transport projects.

8.7.2 Rest Places

To encourage active trips by all user groups, it is important to consider rest places that allow walk and cycle trips to be staged in accordance with the ability of the pedestrian or bicycle rider. This generally means the provision of benches along higher demand routes (particularly those linking to and through town and village centres), supported by shade or shelter structures wherever possible.

The Australian Government is also currently investigating means of including the provision of rest places and "***resting points***" in the National Disability Standards for Accessible Public Transport 2002, with recommended provisions including:

- The design and configuration of resting point design.
- Ensuring the resting point accommodates those with mobility aids.
- Guidance on the placement of the resting point, in regard to both the spacing of resting points along pedestrian routes, and the spatial location of the resting point adjacent to the path.
- Ensuring that where there are multiple resting points, that they are placed on alternate sides of the path.

Importantly, these rest places themselves can become Places in the context of Movement & Place, and in turn not only a brief place to stop, but a place to be, even if only for a minute or two.

In the context of longer active transport routes, and in particular longer bicycle routes, consideration must also be given to ensure that the route improvements also consider rest areas; amenity; the availability of drinking water (go the bubbler!); and even yummier refreshments! This might simply mean that longer bicycle corridor design objectives ensure that routes are considered "through" towns, and not around them; this provides the convenience that longer active travel users need, whilst providing economic benefits to our towns and villages along the way!

The role of rest places in providing for our bicycle riders is examined further in **Section 9.10**.

8.7.3 Shade and Shelter

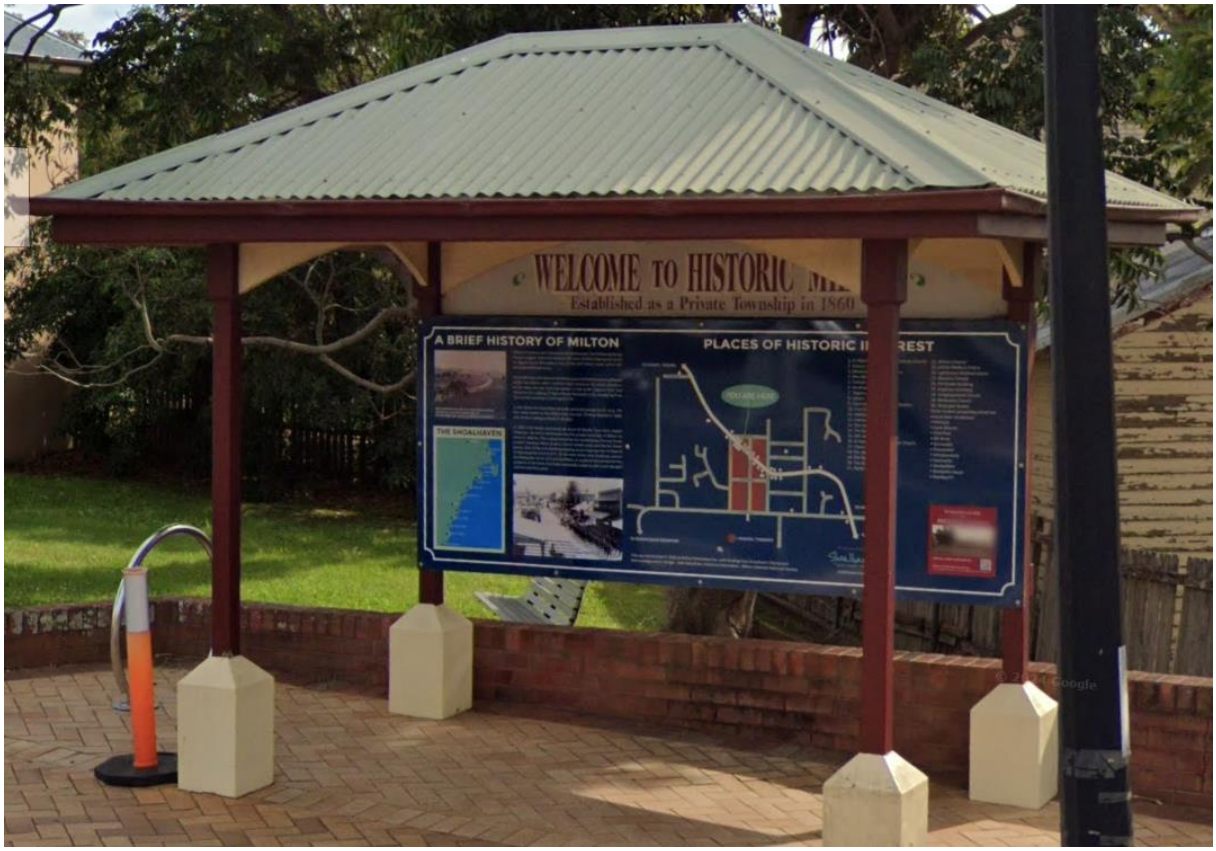
Our changing weather patterns are delivering hotter temperatures, as well as periods of heavy rain, both of which reduce the potential for active trips. As such, it is important to ensure that all pedestrian paths provide as much shade as possible through the planting of trees (or locating paths through existing canopied areas), as well as places for people to temporarily shelter from the elements, which will ideally be provided in numerous places along key paths.

8.7.4 Wayfinding

The provision of clear and legible signage is often overlooked, but is important to encourage and enhance the experience for more pedestrians and bicycle riders because – simply – its helps direct them along legible, efficient and in most instances the safest routes. Good "***wayfinding***" signage not only includes street names, but also signs directing pedestrians and bicycle riders to key destinations and places of interest, and are as vital for paths providing everyday access through towns and villages as they are for higher profile recreational routes.

In areas such as town and village centres, shopping centres and recreational facilities where many visitors will have undertaken at least the last part of their journey as a walk trip, or are navigating the area by foot, there is a particular need for pedestrian signage so as to:

- Help people orientate themselves and easily find their way to their destinations.
- Give people confidence to stray from the main tourist routes and explore more of the area.
- Help people to move easily between transport modes.
- More broadly, encourage walk trips.



Key principles of providing good wayfinding applicable to all active transport modes are summarised in Tabel 5.1 of GTM Part 10, which is reproduced below.

Table 16: Wayfinding Principles

Principles	Guidelines
1. Focus on the users: users need signage that is coherent and reliable 2. Reduce clutter: have fewer but better positioned signs in the streets 3. Disclose information progressively: the user should be given enough information to achieve the next stage of their journey, but not so much detail that they become confused 4. Create connectivity: by linking one location to the next through signing, visitors can move freely and confidently from one place to another and from one transport mode to another 5. Be consistent: signage should carry consistent, predictable and reliable information 6. Use resources efficiently: work with other agencies to deliver and maintain improved signage.	1. Design signs to aid users, not promote providers 2. Keep it simple 3. Provide users with a hierarchy of destinations 4. Sign via key access routes 5. Help visitors explore 6. Only sign within a walking distance 7. Continue signing to destination 8. Don't sign the obvious 9. Don't sign to destinations behind the reader 10. Sign to closer destinations ahead of those further away 11. Sign to high priority destinations ahead of low priority destinations 12. Sign to suburbs and precincts where this is more concise 13. Avoid signing to destinations within another signed destination 14. Avoid signing diagonally across a road grid 15. Sign across intersections where needed 16. Direct visitors via safe/preferred routes.

Source: GTM Part 10

Directional and wayfinding signs are critical elements of any transport system to help people find their way around the network and make full use of pedestrian infrastructure. Signs can:

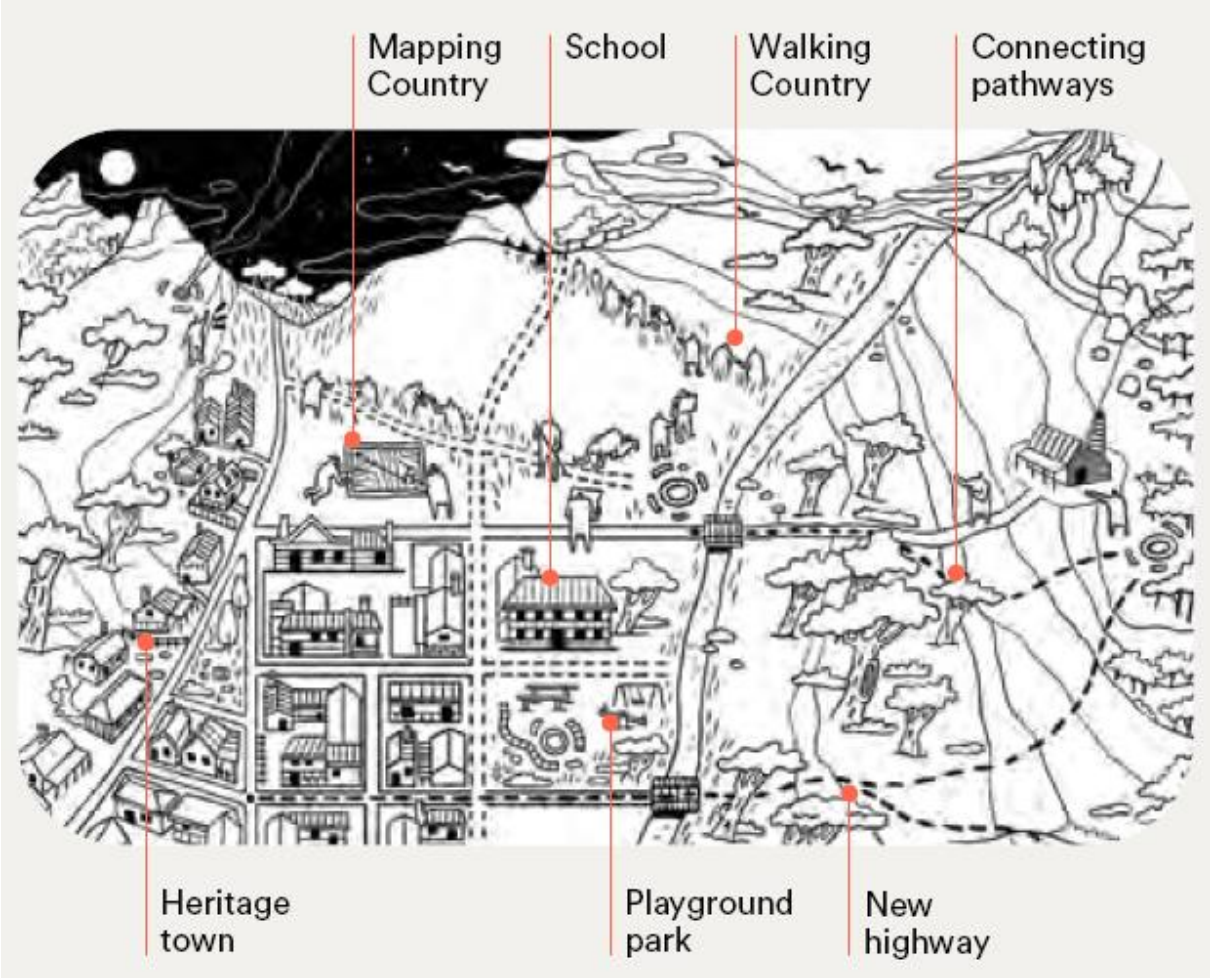
- Indicate the legal status of a facility (bike lane signs, SUP signs),
- Regulate safe use (Stop, Give Way and parking signs)
- Warn of potential hazards (steep descent, slippery when wet, road ahead signs)
- Of course, guide pedestrians to their destinations.

An effective system of directional signage can facilitate and legitimise the many and various trips which pedestrians make every day.

Wayfinding solutions aim to provide the right information at the right time (or location), enabling people to easily build a mental map of an area, making the local environment legible and more easily navigated, and in turn increasing the user experience and pleasure.

As discussed, it is essential that we encourage more active trips to help reduce pollution and climate change, while at the same time improving our health. In addition, a pedestrian (or bicycle rider) is more likely to be a local consumer than someone driving by, which has direct benefits to the local economy, particularly for local shop owners.

Simply assisting people with clear directions is therefore an excellent way of encouraging more active trips.



8.8 Additional Resources

8.8.1 Pedestrians First: Tools for a Walkable City

Pedestrians First provides an assessment tool based on a range of metrics that allows for a better understanding of the features that promote in different urban environments.

Pedestrians First can be applied to all types of city, and moreover the different environments within each city, which it classifies as Citywide, Neighbourhood and Street Level environments, each of which has a different core function, target audience and purpose, and in turn different expectations in regard to active transport infrastructure.

Some of the key principles of Pedestrians First – which closely align with Movement & Place principles - include:

- **Footpaths:** The most basic feature of urban walkability is complete, continuous, and safe footpath networks that provide clear protection from vehicles and are accessible to all people, including those with disabilities.

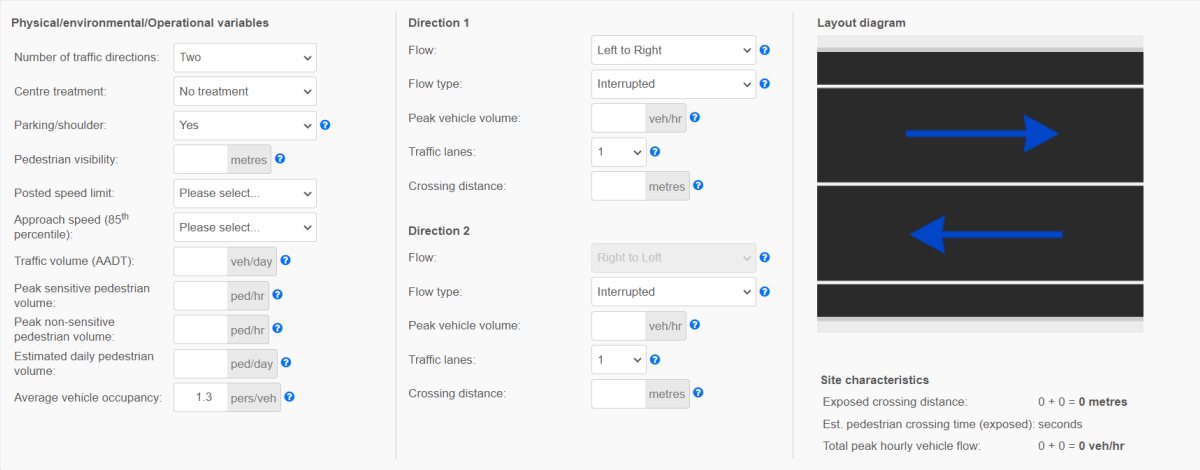
- **Crossings:** Crossing are necessary for safely connecting the footpath network across vehicle traffic and are a critical part of making walkable areas accessible to all people, including those with disabilities.
- **Visually Active Frontages:** Visually active frontages promote safety from crime in walkable areas through informal observation and surveillance by people inside buildings. This is often described as "***eyes on the street***".
- **Permeable Frontages:** Footpaths that are lined with continuous ground-floor activity and services have fewer zones of inactivity, thereby creating a more attractive walking environment.
- **Shade and Shelter:** Shade and shelter help to make the walkable environment more comfortable and more accessible by protecting pedestrians from heat, rain, and other elements.
- **Small Blocks:** Small blocks reduce trip distances, making walking more convenient for trips.

COMPONENT	DESCRIPTION	TARGET POPULATION	PURPOSE	TYPE OF INTERVENTION
CITYWIDE WALKABILITY COMPARISION	Database of high-level, easy-to-measure qualities of a metropolitan area that facilitate walkability.	• Decision-makers • Advocates • Planners and policymakers	• Facilitate comparisons • Foster understanding • Track progress • Disseminate data	• Urban planning • Zoning • Growth control policies • Subdivision planning
NEIGHBORHOOD WALKABILITY ASSESSMENT	Analysis and data collection tool for accurate and detailed measurement of neighborhood-level walkability.	• Technical practitioners • Technical advocates • Local advocates	• Foster understanding • Facilitate consistent measurement • Facilitate tracking • Facilitate comparisons	• Urban planning • Zoning • Building regulations • Street design
STREET-LEVEL WALKABILITY DESIGN CHECKLIST	Checklist of the detailed design solutions that facilitate walkability at the block level.	• Technical practitioners • Technical advocates • Local advocates	• Foster understanding • Give guidance for implementation and evaluation	• Street design • Urban design

8.8.2 Australasian Pedestrian Crossing Facility Selection Tool

The Crossing Selection Tool is an online resource that allows for the assessment of the viability of different types of crossing facilities according to the physical and operational parameters of a site and its safety performance.

The Crossing Tool requires inputs relating to a specific existing or proposed crossing locations, such as pedestrian and traffic volumes, vehicle speeds, crossing distance and crash history. It then evaluates different crossing types based on pedestrian and vehicle delays, pedestrian level of service, and – based on default economic parameters developed for different jurisdictions – a BCR to assist Council in its determination of and what type of crossing is viable.



The Crossing Tool can assess raised crossing, kerb extensions, median refuges, zebra crossings, signals and grade separated crossings, or combinations of these different type of crossing.

As discussed in regard to signalised crossings, at the end of the day there are a number of additional considerations when assessing the need for a formal pedestrian crossing, but the Crossing Tool is a valuable resource for Council in the initial investigation of all crossing projects.

8.8.3 Healthy Streets

Healthy Streets provides a checklist that can be used to assess how a street performs again a specific set of indicators, and in turn whether the road meets the requirements of people or if interventions are required; it is intended to identify deficiencies in existing roads, as well as assist in the design of new roads.

Healthy Streets also provides strategies by which to make roads safer and more accessible for all active trips, which are important for consideration in evaluating project objectives and outcomes.

Is there a step free crossing facility on every arm of every intersection?		
		Score
3	For streets with more than 200 motor vehicles in the peak hour there is a step free, light-controlled or zebra crossing facility on every arm of every intersection. For streets with fewer than 200 motor vehicles in the peak hour there is a step free crossing facility on every arm of every intersection.	
2	Each arm of every intersection can be crossed, step-free in either 1 or 2 stages.	
1	There is a light-controlled or zebra crossing facility which is 2 or more stages or there is a non-light-controlled crossing facility that is not on the walking desire-line (diversion of 10 degrees from desire line)	
0	There is any arm of any intersection that is missing a step free at-grade crossing facility or there is a roundabout (with or without step-free crossing facilities).	

Source: Healthy Streets

8.8.4 Walkability Index

"***Walkability***" measures the ease of walking in an area. Neighbourhoods with shops and services to walk to; small blocks and good street connectivity; and higher population densities tend to be more walkable, and in turn discourage driving and increase walking, bicycle riding and active transport use. The Walkability Index considers the proximity of access to daily living destinations; dwelling densities; and street connectivity.

Council is currently considering the preparation of specific Walkability Index studies (prepared by the Australian Urban Observatory); notwithstanding, these same principles have been inherently incorporated into the proposed new Active Transport Scoring Criteria (see **Section 10**).

8.8.5 Community Walking Campaigns

Community campaigns can play a key role in encouraging more people to walk every day, and educate them of the benefits and safety aspects of walking.

Council already undertakes a number of local campaigns designed to increase walk trips and improve the safety of all pedestrians, but to maximise the potential of these campaigns it is essential that there is close coordination between such initiatives and the physical roll-out of new pedestrian infrastructure, i.e. it is essential that the community is aware of the work that is being done; the opportunity for walk trips that these new projects bring; and moreover the spark to imagine an most walking friendly environment in the future.

Examples of community campaigns include:

- **Road Safety Awareness:** These campaigns - which can often include representatives of NSW Police and TfNSW - are generally directed at the most vulnerable pedestrians, and particularly children and school students, and include practical assistance and advice for negotiating different situations, such as where to cross a busy road. These campaigns can provide both written material and in school visits; see what's available at https://www.transport.nsw.gov.au/roadsafety/resources

- **Safe Routes to School:** The Safe Routes to School Program aims to make walking safer and easier, and encourage parents and students to choose active transport for the daily trip to and from school.

  The benefits of walking to/from school include increased physical activity, better concentration in class, and improved well-being through a degree of independence. This is particularly important at a time when the health of many of our children is below appropriate norms, one of the specific causalities of more and more sedentary activities (screen time) rather than physical activities.

  Of course, encouraging more walking in general for the trip to and from school also assists in reducing car congestion and parking around our schools, further enhancing their general amenity and safety.

  Campaigns can be run in conjunction with school staff as a school project, with students and parents identifying any constraints/obstacles to walking and in turns means of overcoming those obstacles.

Further guidance is available from the NSW Government's Good for Kids website at https://www.goodforkids.nsw.gov.au/primary-schools/physical-activity/active-travel/.

8.8.6 Council Campaigns

As discussed, Council is committed to promoting the PAMP Update to the entire community, and will actively do so in numerous ways, including:

- Promoting the PAMP web page and PAMP Interactive Mapping Tool as often as possible.
- Linking the PAMP Update with broader strategies, policy, social and health initiatives.
- Encouraging events that promote walking (for e.g. Walk to Work Day) and the like.

Learn more about Council's active transport promotions via the PAMP webpage.

8.8.7 Driver Awareness and Education

As discussed previously, there can be a lack understanding of pedestrian rights and needs by many drivers, particularly in locations where the broader roadway is shared, or at informal crossing locations, that can inhibit pedestrian movement and provide a disincentive to walking.

Motorists need to be better educated and made aware of pedestrians (and bicycle riders), especially when turning into a side road; when driving across the footpath to access a driveway; at zebra crossings; and in areas where there are large numbers of pedestrians (particularly children or elderly people). These rules can be reemphasised using both local and Stage Government campaigns, as well as ongoing improvements in our vehicles licencing programs.

Read more about it at https://www.nsw.gov.au/driving-boating-and-transport/roads-safety-and-rules/bicycle-safety-and-rules.

8.8.8 Enforcement

Illegal manoeuvres and parking by motorists can cause significant problems – including of course injuries - for pedestrians; these actions often include parking on the pavement, double parking, or not using the indicators at roundabouts and speeding, and all too often occur around our school and in town and village centres.

Council officers have the power to enforce many safe (and legal) driving and parking practices, but also works with NSW Police where significant safety issues are identified.

8.8.9 Additional Information

More information on a number of NSW Government policies relating to the broader use of our roads and active transport paths is available from the TfNSW website; check out:

https://www.transport.nsw.gov.au/roadsafety/road-users/drivers/sharing-road

https://transportnsw.info/travel-info/ways-to-get-around/walking-bike-riding

9 Bike Plan Update

9.1 Overview

Bicycle riding is an essential part of the broader transport network, and certainly one of the most social, accessible and sustainable mode of travel. Bicycle trips can service almost all trip purpose across the day, particularly in local urban areas, and of course are terrific for both fitness and recreation!

Along with promoting bicycle riding as a viable travel option, the Bike Plan Update is designed to make bicycle riding – simply – safer and easier for everyone in the community, and for bicycle riders of all abilities. This requires not only an assessment of bicycle rider demand locations and the bicycle facilities available (or moreover not available), but also of key factors assisting or hindering achieving our bicycle trip objectives.

The Bike Plan Update also recognises existing "***popular routes***" and "***connector routes***" and proposed extensions of these routes, not just for the cycling enthusiasts, but for the broader community, to highlight any immediate safety improvements or proposed improvements. Moreover therefore, the Bike Plan Update is more than just a means of identifying new bicycle routes, but also identifies existing bicycle infrastructure that requires upgrades or the like to service new and/or increased bicycle rider demands.

It is again important to note that the Bike Plan Update is designed to fit seamlessly within the broader Strategy, along with the PAMP Update, to provide a comprehensive way forward in increasing all active trips.

9.2 Bike Plan Update Objectives

The underlying objective of the Bike Plan Update is to encourage a greater use of bicycle trips by residents, workers and visitors across Shoalhaven for bicycle riders of all ages and abilities, and to provide for mobility equity by catering for all types of bicycle rider. Not only does bicycle riding provide significant health and well-being benefits, but it also fundamentally reduces the demand for vehicle trips.

9.3 Developing the Bike Plan

In determining the scope of works and assessment tasks required to prepare the Bike Plan Update, our first resource has been the Bike Plan Guide developed by RMS in 2012.

While the Bike Plan Guide remains very relevant to bicycle planning, particularly at the local government level, the Bike Plan Update also references the most up-to-date bicycle planning guidelines and tools available.

Similarly, the Bike Plan Update has been developed with reference to Bike Plan 2013; while the principles and strategies provided in Bike Plan 2013 remain current and relevant to the broader discussion of bicycle planning, the need for revisions (implemented in this Bike Plan Update) are based on:

Phase	Step
A: Preliminaries	1. Budget, staff and timing 2. Set up a management team 3. Review your existing planning and delivery documents 4. Review the land use planning context 5. Set your objectives 6. Prepare a project brief 7. Determine your bike plan's structure 8. Work with your communications team
B: Preparing the bike plan	1. Collect data to understand cycling in your area 2. Assess existing routes and infrastructure 3. Identify proposed routes 4. Map a network of routes 5. Plan and design for cyclists' requirements 6. Set priorities for the network 7. Estimate the costs and benefits of your bicycle program 8. Promote cycling in your area 9. Promote road awareness and safety 10. Encourage employer programs 11. Identify funding streams 12. Establish an implementation plan 13. Review bike plan development
C: Finalising the bike plan	1. Publicly exhibit your draft bike plan 2. Finalise your bike plan 3. Launch your bike plan

- Creating a framework that is consistent with the latest Council and NSW Government guidelines and strategies, including the new Active Transport Strategy.
- Considering bicycle projects in the context of the new Active Transport Scoring Criteria, and in turn undertaking a detailed review of all bicycle projects, including the removal of completed projects, and the consolidation of remaining projects into a single Active Transport projects list.

With reference to **Section 10**, the new Active Transport Scoring Criteria is based in large part on the former Bike Plan 2018 Scoring Criteria, just expanded a little to morph it into an Active Transport Scoring Criteria that can be applied to all Active Transport projects. Having separate criteria never worked when there was essentially one bucket of "active transport" grant funding up for grabs; however, and with reference to **Section 10**, it is noted that the former project priority outcomes that referenced the Bike Plan 2018 Scoring Criteria haven't changed to any significant degree, and indeed many of those higher priority projects have been completed, and more bicycle projects added as they are identified.

9.4 Bicycle Facilities for Specific Locations

9.4.1 Overview

While the Bike Plan Update provides guidance for the provision of bicycle facilities across the Shoalhaven for bicycle riders of all abilities, it is important to consider some the locations where the provision and/or design of bicycle facilities is particularly important, as discussed in sections below.

9.4.2 Parks and Reserves

With high levels of Place intensity and low levels of Movement function, parks and reserves provide people with attractive and pleasant environments for bicycle riding entirely separated from vehicle traffic, and in turn attracting bicycle riders of all ages and abilities. Notwithstanding, increased levels of bicycle riding can impact on the environment, and as such must be managed in line with relevant legislation to ensure the area is safe and enjoyable for all.

For bicycle facilities in parks and reserves, special consideration will be given to:

- Conflicts between bicycle riders and pedestrians.
- The provision of gentle gradients and smooth surfaces.
- Providing clear sight lines through the elimination of blind or sharp corners.
- Incorporating bicycle parking, rest places and other ancillary infrastructure (such as seats and bubblers).

In 2021, as part of the NSW Government's Covid response - and in recognition of more and more people needing to get out and about and “Active” - National Parks and Wildlife Service updated its Policy and associated strategies relating to bicycle riding in National Parks, stating:

“The Cycling policy has been updated in parallel to the cycling strategy. It acknowledges that cycling, including mountain biking, is a popular and healthy recreational activity that can raise awareness, appreciation and understanding of the natural environment.

It also recognises that cycling can impact park values and other park users and must be managed consistently with relevant legislation and the objectives for which a park is reserved.”

This is of course not dissimilar to how Council needs to manage our own parks and reserves.

9.4.3 School zones

As discussed in the PAMP Update, under the NSW Roads Act younger people up to an including 16 years of age, as well as accompanying adults if required, are permitted to ride on the footpath, which heightens the importance of providing an environment that is both bicycle and pedestrian friendly. Footpaths in the immediate vicinity of schools often have an intense Movement function during drop-off and pick-up peaks, which needs to be taken into consideration when planning and designing all paths in proximity to schools.

When the NSW Government increased the age of those able to ride on footpaths, it was also seen as a COVID response, and again a realistic and common sense approach to getting more younger people out and active safely using off-road paths, which of course has led to a significant increase in younger people and accompanying adults riding on our footpath network. However there hasn’t been a commensurate increase in funding to construct more footpaths and/or make existing footpath networks safer (through widening etc).

This has of course increased the pressure on Councils across NSW – and particularly regional NSW - to provide new, readily identifiable active transport infrastructure even though the bang for buck projects can often provide the greatest benefits to the most bicycle riders (and pedestrians) in the short term,

For bicycle facilities in and around schools therefore, special consideration will be given to:

- Behavioural awareness and bicycle safety education programmes as part of any infrastructure changes.
- Widening footpaths as far as possible to accommodate congestion during school drop-off and pick-up peaks.
- Maximising sight distance on approaches to crossings.
- Clearly designating unsignalised crossing points to provide priority to all active transport users.

- To as great an extent as possible, linking SUPs or bicycle paths to the existing bicycle network to enable safe and connected journeys.
- Providing bicycle parking facilities that are appropriately sized for both younger and older students.

9.4.4 Main streets

With high Place intensity and a Movement function, bicycle facilities along Main Streets need to be carefully designed to provide the safest and most appropriate outcome for all users, including bicycle riders, pedestrians and motorists. For bicycle facilities in and around main streets, special consideration will be given to:

- Potential conflicts between bicycle riders and pedestrians, particularly in areas with large amounts of active frontage.
- The placement of service/delivery vehicle parking/loading areas outside of the active area of the street.
- Bicycle parking opportunities at numerous locations along the street.
- The incorporation of amenity improvements through planting of street trees and/or garden beds etc, and the provision of outdoor seating and dining areas.
- The provision of special bicycle parking zones for certain businesses with short-term bicycle parking needs, such as food delivery and courier businesses.
- Communication and signage to alert bicycle riders and motorists to new (and potentially unfamiliar) bicycle infrastructure, especially when providing new bicycle facilities.

9.4.5 Industrial zones

With generally limited Place intensity and a higher volume of heavy vehicles, industrial areas do not provide ideal environments for bicycle facilities. The quality of the road surface may also be poor due to intense use by heavy vehicles, and the limitations of heavy vehicle design creates known blind spots which may result in bicycle riders not being seen by a heavy vehicle driver.

Notwithstanding, there is the opportunity to provide high-quality bicycle facilities within industrial zones, particularly when industrial zones are redeveloped/rezoned into residential or commercial areas or – as is the case in Shoalhaven - the distance between urban areas and industrial areas in South Nowra and Nowra Hill is eminently cyclable!

For bicycle facilities in industrial areas, special consideration will be given to:

- Separating bicycle facilities from vehicle traffic to reduce the potential for conflicts with heavy vehicles.
- Prioritising cycle access across industrial side streets and driveways.
- Providing open sight lines and high levels of visibility between bicycle riders and motorists, particularly at wide industrial driveways.
- Maximising social safety and security, particularly at night due to lack of active uses and insufficient lighting in many industrial area.

9.4.6 Recreational Routes

Shoalhaven is fortunate to have dozens of higher order roads with relatively moderate traffic volumes that in turn make them appropriate for use by more experienced bicycle riders, particularly for recreational cycling (with recreational bicycle rider numbers increasing year by year) especially higher priority "popular routes" and "connector routes" emphasised in the Bike Plan Update, as well as our broader regional road network including, but not limited to, our extensive coastal village access road network.

With reference to **Section 9.9.3** below, Council has specifically targeted improvements in these roads since the release of Bike Plan 2013 so as to provide wider, sealed shoulders and appropriate warning signage, and in the future special consideration will be given to:

- Incorporating shoulder widening and sealing in all road upgrade and maintenance projects.
- Providing advance warning signage and road pavement marking along all key recreational routes.
- Investigating specific roads or sections of road where a higher order bicycle facility might be provided based on bicycle rider and traffic volumes.
- Providing high quality wayfinding signage across the recreational bicycle network.

Shoalhaven also contains destinations for locals and tourists to enjoy the many lovely parks, open spaces, beaches and river foreshores. Walking and bicycle riding infrastructure is an integral part of enjoying these open spaces, and linking the recreational with “local travel” infrastructure is therefore very important.

Recreational paths can sometimes double as active transport links which may not necessarily follow the road network, but offer walkers and riders an attractive diversion, away from traffic and within a beautiful setting - the perfect blend of “active” and “transport"!

9.5 Footpaths and Shared User Paths

A detailed discussion of the design and use of footpaths and SUPs for bicycle riders is provided in the PAMP Update (**Section 8.4** and **Section 8.5** respectively).

It is again noted that - given the relatively moderate user demand of both bicycle riders and pedestrians across Shoalhaven - the provision of SUPs wherever possible is one of Council’s key objectives so as to provide equally for all active transport users.

9.6 Off-Road Bicycle Path Design Considerations

9.6.1 Cycleway Toolbox

The Cycleway Toolbox provides guidance on how to design roads for bicycle e trips and micromobility. This includes a range of best practice designs suitable for both on and off-road environments which can then be tailored to a specific environment.

The Cycleway Toolbox identifies 6 key principles that need to be met when designing bicycle paths, including:

- Safety.
- Connectivity.
- Directness.
- Attractiveness.
- Comfort.
- Adaptability.

These principles assist in effectively integrating bicycle facilities into urban and suburban environments in a balanced manner that appropriately considers the range of requirements/demands in our roads, including different road users and their different capabilities, as well as Movement & Place outcomes.

Notwithstanding, the Cycleway Toolbox also recognises that there are numerous other issues to consider when planning bicycle paths, including local context; the availability of useable space; the presence of driveways and side streets; on-street parking; the level of pedestrian activity; and the anticipated demand for the bicycle path. These issues are examined further in sections below.

9.6.2 Facility Types

The Cycleway Toolbox identifies two levels of "***facility types***", including:

- "***Priority Routes***" are those serving a regional function and/or catering for higher levels of bicycle riding demand. Due to their higher order function, and to support bicycle rider safety, off-road bicycle paths are identified as the "***required***" facility type along priority routes.
- "***Local Routes***" are those that provide "***first-mile***" and "***last-mile***" connections to local destinations and networks of priority routes, and cater for lower levels of bicycle rider demand. Bicycle paths and "***quietways***" are the preferred facility types on local routes, but SUPs may also be suitable ("***but not preferred***") where pedestrian and bicycle rider activity, as well as cross-cycleway movements, are low.

These facility types are not that dissimilar to our priority "popular routes" and "connector routes" as emphasised in the Bike Plan Update, and can be extended to our broader regional road network, again including, but not limited to, our extensive coastal village access road network.

The preferred bicycle facilities for different types of street referencing the Movement & Place typology (**Section 5.5**) are shown in Figure 2.2a and Figure 2.2b of the Cycleway Toobox for priority and local roads respectively, and are reproduced below.

Figure 31: Priority Routes Selection Tool

Street typology (Movement and Place)	Civic space	Local street	Main street	Main road
Motor vehicle speed	≤10 km/h	≤30 km/h	≤50 km/h	>50 km/h
Motor vehicles / day	n/a	≤2,000	>2,000	n/a
Bicycle path (One and two-way)		●	●	●
Quietway		●		
Shared path (Low pedestrian activity and low cross-cycleway movement)				
Shared path (High pedestrian activity or high cross-cycleway movement)				
Shared zone	○			

● Required for priority routes ○ Suitable, but not preferred for priority routes

Source: Cycleway Toolbox

Figure 32: Local Routes Selection Tool

Street typology (Movement and Place)	Civic space	Local street	Main street	Main road
Motor vehicle speed	≤10 km/h	≤30 km/h	≤50 km/h	>50 km/h
Motor vehicles / day	n/a	≤2,000	>2,000	n/a
Bicycle path (One and two-way)		●	●	●
Quietway		●		
Shared path (Low pedestrian activity and low cross-cycleway movement)		○	○	○
Shared path (High pedestrian activity or high cross-cycleway movement)				
Shared zone	○			

● Required for priority routes ○ Suitable, but not preferred for priority routes

Source: Cycleway Toolbox

9.6.3 Gaining Space

Importantly, the Cycleway Toolbox not only considers new bicycle paths, but also how existing roads can be retrofitted or otherwise changed to allow for the provision of stand-alone bicycle paths; the means by which this can be achieved are detailed in Figure 2.1 of the Cycleway Toolbox, which is reproduced below.

Figure 33: Strategies and Design Implications for Bicycle Facilities

Strategy	Approach	Design implications
Assess and prioritise movement and place functions for all modes	Prioritise people walking and cycling	• Reduce number of traffic or parking lanes • Introduce one-way flows for motorised traffic • Reduce traffic lane widths
	Adjust road space allocation	• Allocate more road space to pedestrians and people cycling, to align with strategic priorities
Reduce traffic flow	Filtered permeability	• Close off streets to through traffic, while maintaining connectivity for people walking and cycling
	Introduce one-way flows for motorised traffic	• Allow contraflow cycling
Reduce traffic speed	Traffic calming devices	• Flat-top speed humps with gentle ramp gradients • Speedometer
	Road diet - intersections	• Reduce intersection size • Reduce crossing distance at intersections • Protected intersections • Provide lead time for people cycling and walking
	Road diet - roads	• Reduce road width (physically, or with linage) • Install kerb blisters / kerb extensions
Improve crossings for people walking and cycling	Prioritise pedestrian and cycling movements over motorised traffic	• Raised top pedestrian and cycling crossings at unsignalised crossing points • Provide lead time and / or automated signals for people cycling and walking at signalised crossing points
	Remove slip lanes	• Reduce traffic speed and offer additional space to store waiting pedestrians (increasing safety)
Reduce speed limit to 30 km/h or below	Adjust environment and infrastructure to provide visual cues on appropriate speeds	• Introduce traffic calming measures • Install kerb buildouts

Source: Cycleway Toolbox

Similar means by which to achieve space for bicycle facilities are summarised in Table 3.3. of the Bicycle Guide, which is reproduced below.

Table 17: Common Methods for Gaining Bicycle Operating Space

No	Method	Application	Comments
1	Removal or remarking traffic and/or parking lanes	Resizing road lanes to provide either visually separated bicycle lanes or kerbside lanes wide enough for sharing	Positioning of linemarking in relation to existing conditions (road joints, drainage, parking restrictions, sightlines etc)
2	Upgrading service roads	Marking service roads to include visually separated bicycle operating space	Special attention to parking, driveway access and entry/ exit points to maintain bicycle facility continuity
3	Bicycle lanes on one side of road only	On uphill roads with limited width a bicycle lane is provided on the uphill side only	Bicycle riders need separated operating space when climbing but can easily share road space on downhills
4	Sealing shoulders	On rural roads and unkerbed urban roads	Bicycle shoulder lanes can also be fitted to kerbed urban roads with parking provision
5	Converting footpaths to shared paths	For off-road bicycle/pedestrian route within the road corridor	Suitable for off-road one-way pairs or two-way shared path on one side only
6	Indenting car parking	Where footpath space is available	Preserves parking and permits straight through kerbside bicycle lanes at intersections.
7	Car parking on one side of road only	By removing a parking lane from one side of road only to create bicycle operating space	Reduces parking. Can be used in conjunction with angle parking schemes in adjoining side streets to preserve existing parking space availability.
8	Road-widening at median	Where median space is available	Move other lanes in to median to create bicycle operating space at kerb
9	Road-widening at the kerb	To add bicycle operating space in the form of increased width of the kerbside lane or by adding a bicycle lane.	Best used where number of driveways and side streets is at a minimum to reduce overall costs.
10	Creating an off-road bicycle path	Two-way on one side only or one-way pairs	Recommended option where traffic speeds and volumes are high

Source: Bicycle Guide

Importantly therefore, it must be acknowledged that when providing new or upgraded bicycle facilities, it is likely that some other part of the broader road reserve will need to be compromised, for example kerbside parking on one side of the road may need to be removed. This certainly isn't the end of the world (!), particularly as we look to relocate parking outside the core of our towns and villages, providing not only space for bicycle facilities, but also space for Place!

Again, these decisions can't be taken lightly, and need to also be made within the context of Council's accompanying parking strategies, so that parking isn't compromised unreasonably. On-street parking currently provides a significant percentage of total parking capacity in our towns and villages, such that we still need to meet minimum – sustainable – parking provisions. The provision and design of bike racks and other bicycle parking infrastructure is further addressed in Austroads; Australian Standards; and Council's own DCP Chapter G21.

Let's face it, it's going to take a long time to slowly transition to a more sustainable active transport future, but as active trips increase, and more opportunities for the consolidation of car parks on the periphery of towns and villages become available, there is no reason why we can't aim big!

At the end of the day, there are significant constraints and challenges faced by Council's when trying to retrofit separated bicycle lanes into historic road reserves and traffic infrastructure. In most cases, treatments may not comply with current standards "in all respects", but - subject to carefully management of parking supply/demand - some carefully designed and managed compromises (the common sense approach) could deliver very significant active transport benefits and the enhanced safety and accessibility that comes with a separation from traffic.

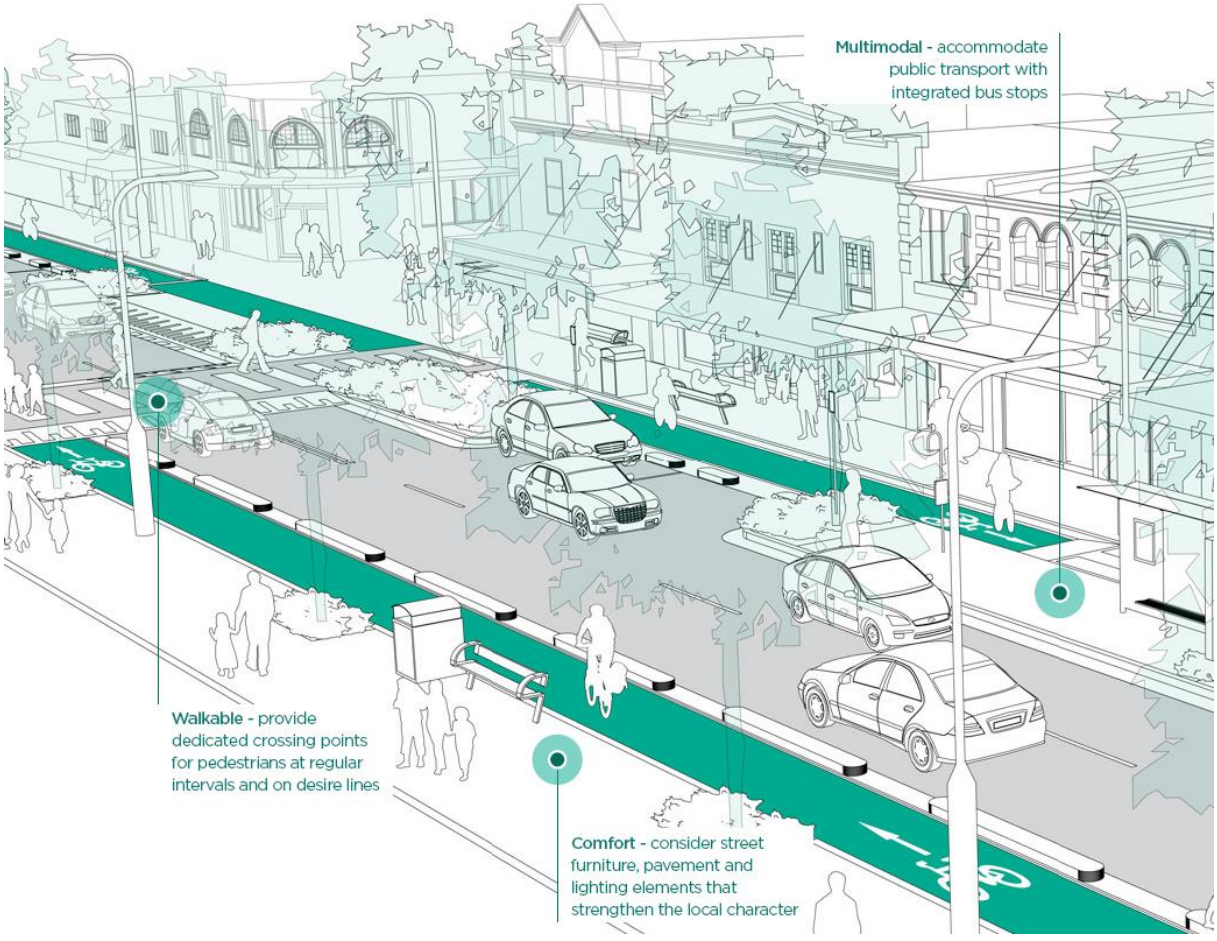
Again, when balancing the pros and cons, in most cases such solutions are far better than having no active transport route at all.

9.7 Off-Road Bicycle Paths

9.7.1 One-Way Bicycle Paths

The recommended design of priority routes in the Cycleway Toolbox is a one-way bicycle path on both sides of the road, physically separated from vehicular and pedestrian traffic, and for the exclusive use of bicycle riders and [potentially] other micromobility devices.

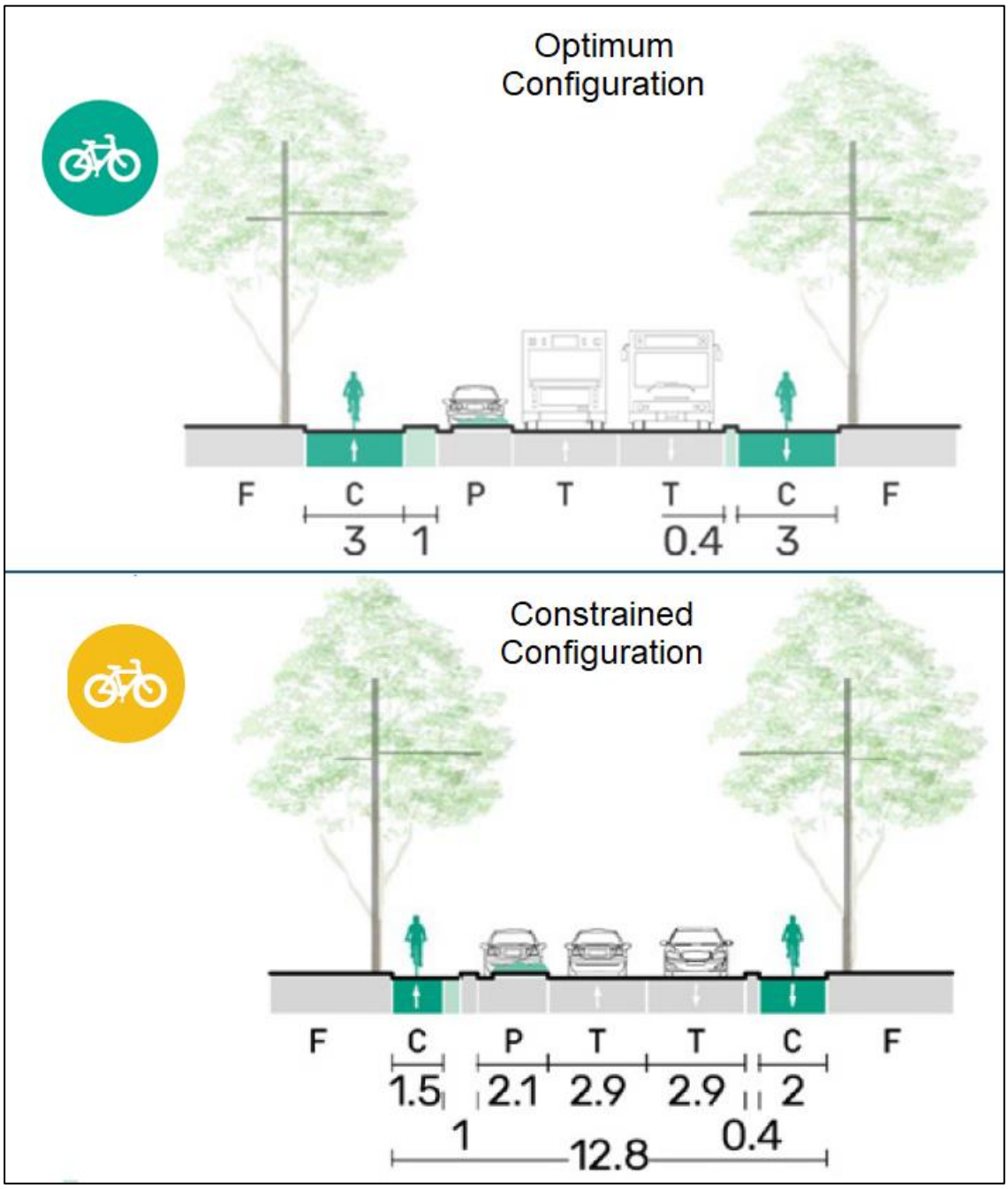
One-way bicycle paths minimise conflict and the risk of injury for all road users, as well as maximising the ease, safety and legibility of bicycle riding.



Introducing one-way bicycle paths into an existing street requires a reconfiguration of "***spatial operations***"; as much as possible, designs aim to fit bicycle paths within existing kerb alignments and minimise impacts on footpaths and other essential services (stormwater, lighting, electrical etc).

The optimum and constrained road profiles that provide one-way bicycle paths are shown in **Figure 34**.

Figure 34: Optimum and Constrained One-Way Bicycle Path Road Profiles

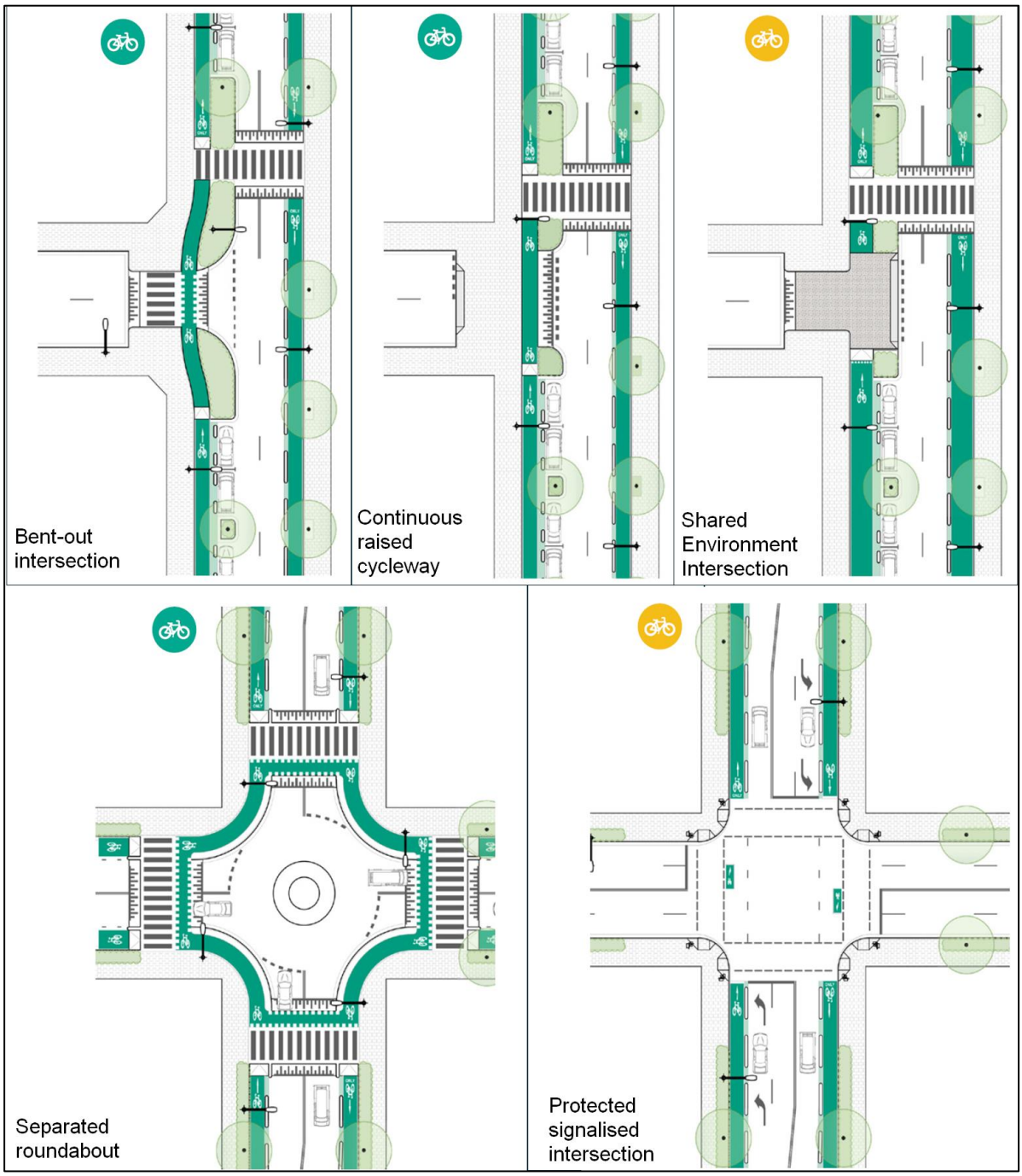


Source: Cycleway Toolbox

For both the optimum and constrained configurations, the provision of one-way bicycle paths on both sides of the road would most likely (in this type/width of road) require the removal of kerbside parking on at least one side of the road.

For intersections, the Cycleway Toolbox focuses primarily on gaining maximum separation between bicycle riders, pedestrians and vehicles; intersection designs that are matched to one-way bicycle paths are shown in **Figure 35**.

Figure 35: One-Way Bicycle Path Intersection Treatments



Source: Cycleway Toolbox

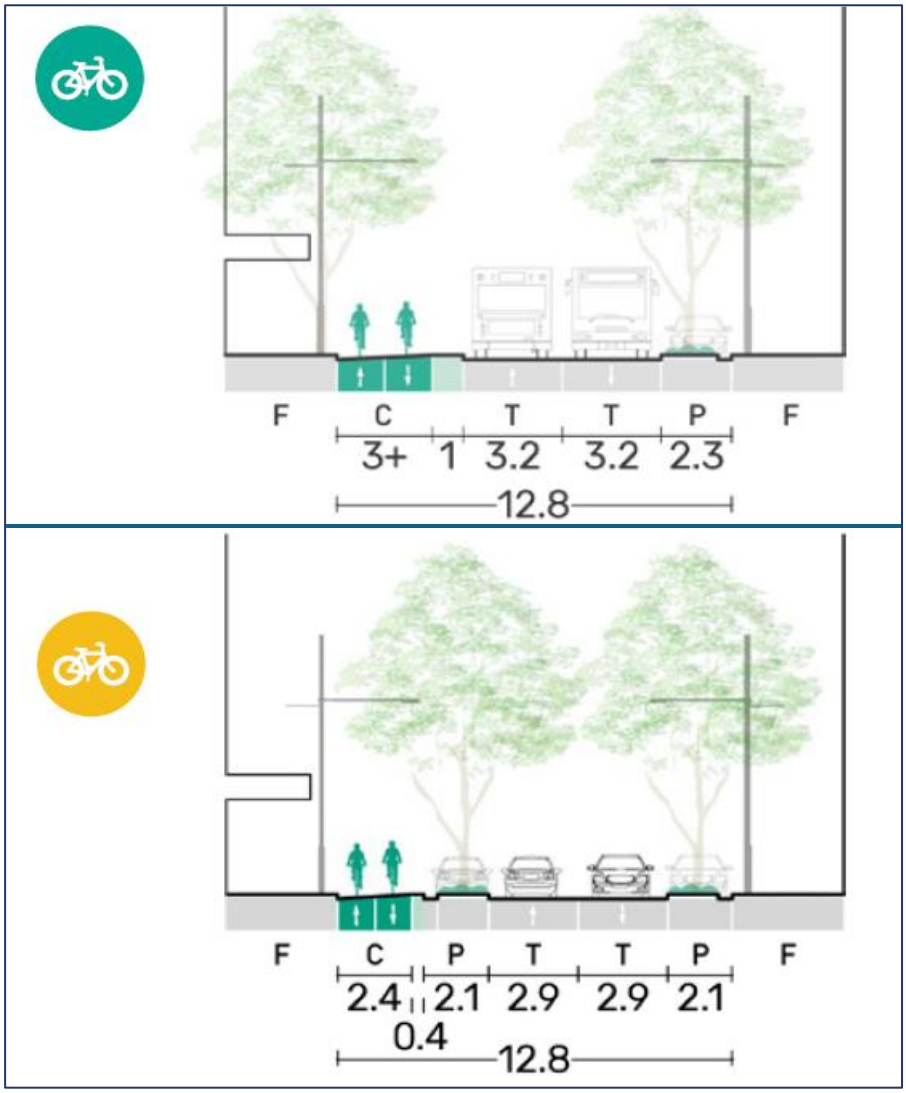
As with the introduction of bicycle paths in existing roads, providing dedicated crossing infrastructure for bicycle riders at intersections will generally require a reduction in approach lanes at the intersection, and in turn there needs to be a careful balance between providing appropriate conditions for all road users, generally focusing on a capacity analysis to support any changes, and moreover to identify any potential adverse traffic impacts that may need to be mitigated.

9.7.2 Two-Way Bicycle Paths

A two-way bicycle path on one side of the road can be considered if it is not possible to provide two one-way bicycle paths on either side of the road, for example if conditions on one side of the road are highly advantageous, such as along a highway or railway lines where there are [generally] no conflicts.

The optimum and constrained road profiles that provide two-way bicycle paths are shown in **Figure 36**.

Figure 36: Optimum and Constrained Two-Way Bicycle Path Road Profiles

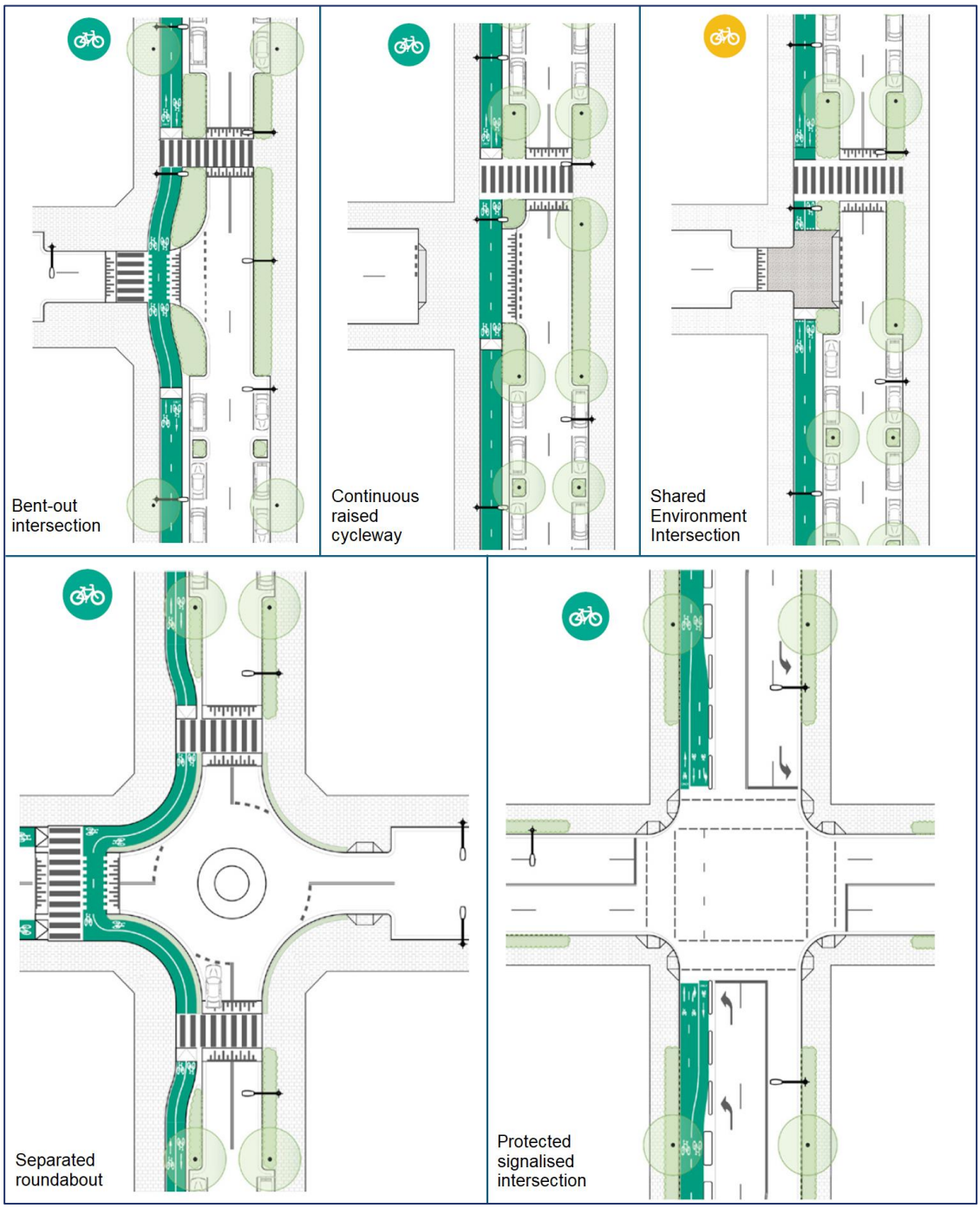


Source: Cycleway Toolbox

For both the optimum and constrained configurations, the provision of a two-way bicycle path on one side of the road would again most likely (in this type/width of road) require the removal of kerbside parking on at least one side of the road.

For intersections, the Cycleway Toolbox again focuses primarily on gaining maximum separation between bicycle riders, pedestrians and vehicles; intersection designs that are matched to two-way bicycle paths are shown in **Figure 37**.

Figure 37: Two-Way Bicycle Path Intersection Treatments

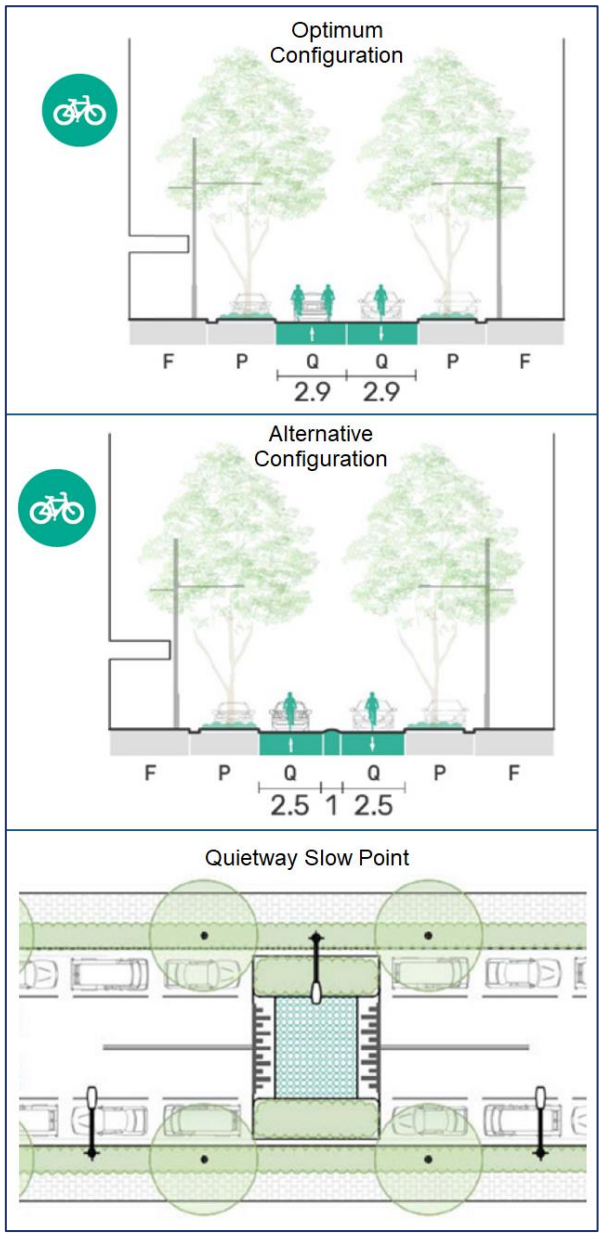


Source: Cycleway Toolbox

Again, providing dedicated crossing infrastructure for bicycle riders at intersections will generally also require a reduction in approach lanes at the intersection, and in turn there needs to be a careful balance between providing appropriate conditions for all road users.

9.7.3 Quietways

A "***quietway***" is a high-quality treatment where bicycle riders travel in a mixed traffic environment with vehicle traffic, and are generally positioned in the centre of the traffic lane. The key design philosophy of a quietway is the safe integration of bicycle riders as equal road users to vehicles, and moreover where "***the vehicle is the guest in the roadway***".



Quietways can be applied to quiet local roads and lanes with low volume and speed vehicle demands, and must always be delivered in conjunction with a reduction in speed limits. Quietways also need to be designed to provide visual cues to all road users that dictate the appropriate speed and behaviours for the environment, and moreover alert all road users that they are now within a new, non-vehicle priority environment. Key design elements in this regard include:

- Differing pavement textures and colours designed to increase awareness and adjust behaviour of all road users.
- Inclusion of a median strip, where appropriate, making it difficult for vehicles to overtake.
- Narrow traffic lanes designed to reduce speed and discourage overtaking.

Approaches to developing quietways in different jurisdictions are also discussed in the Bicycles NSW article "***Making Local Streets Safe for Bikes***".

In 2016, Bicycle User Group BIKEast prepared a case report for “Safe-street Neighbourhoods”- a report that was subsequently endorsed by Bicycle NSW – which outlines ideas to slow traffic on residential streets so as to provide a safe and convenient network of bicycle routes that complement and connect the priority separated network along key corridors.

This is essentially an urban design-based approach to tame the behaviour of motorists, and make local streets safe for everyone to share and enjoy. Some of the specific design initiatives from “Safe-Street Neighbourhoods” include:

- The introduction of 30km/h speed limits for residential streets and local high streets.
- Implementing initiatives to reduce traffic volumes in local roads, such as street narrowing or closing off some streets (while retaining permeability for people walking or bicycle riding).
- Primarily serving residential needs while maintaining essential vehicular access.
- Repurposing land currently dominated by bitumen, for example through landscaping.

Calming traffic, lowering speeds and putting people first is also fully supported by the “***Better Streets for New South Wales***” campaign, launched in November 2022. Better Streets is a coalition of planners, advocates, community groups, pedestrian and bicycle groups that are working collaboratively to support local and state governments roll back 70 years of car-centric planning.

The Better Streets approach is inherent in the Strategy, again in the context of Movement and Place and shared space. Council takes many factors into consideration when planning and optimising road networks to cater for all users, however all levels of Government are realising that – increasingly - active and public transport need to play a far more significant role, and be prioritised “up front” in new development areas to encourage sustainable transport habits and avoid the challenge of “retro fitting” solutions later, when bad travel habits are already established.

9.8 On-Road Bicycle Lanes

9.8.1 On-Road Exclusive Bicycle Lanes

An exclusive bicycle lane is a lane created using pavement markings and signs; if space is not available for a protected or off-road bicycle lane, an exclusive bicycle lane is often the preferred treatment.

Vehicles are generally prohibited from travelling in exclusive bicycle lanes except to access property or to turn at intersections; similarly, parking in exclusive bicycle lanes is generally prohibited.

The width adopted for exclusive bicycle lanes will vary depending on the number of bicycle riders; the speed of traffic; the volume of large vehicles; and the ability to make space available given the needs of other road user groups, physical constraints and budgetary constraints. Exclusive bicycle lanes should be provided on both sides of the road where possible so that use is in the same direction as traffic flows.

The recommended minimum widths for exclusive bicycle lanes in urban roads for different speed environments are shown in Table 4.18 of GRD Part 3 (reproduced below), noting that in urban roads with a posted speed greater than 80 km/h, it is recommended that bicycle riders are provided with facilities that comply with Safe System principles, namely physically separated bicycle lanes or paths that are protected by safety barriers; and grade separations or controlled crossings at interchanges.

Table 18: Exclusive Bicycle Lane Widths in Urban Areas

Speed limit[1] (km/h)	Lane width [2] (m)		
	60	80	100[3]
Desirable minimum	1.5	2.0	2.5
Acceptable range	1.2–2.5	1.8–2.7	2.0–3.0

Source: GRD Part 3

9.8.2 On-Road Bicycle Lane Design Considerations

While on-road bicycle lanes on even moderately trafficked roads are not the preferred option for many bicycle riders, they can provide a level of separation from vehicular traffic that means they are still suitable for use by many bicycle riders, particularly commuters and recreational riders.

On-road bicycle lanes include:

- On-road separated bicycle lanes – median or similar separation.
- On-road exclusive bicycle lane.
- On-road peak period exclusive bicycle lane.
- On-road bicycle /car parking lane
- Wide kerbside lane.
- Narrow kerbside lane.

Separation between bicycle riders and vehicles is one of the most important considerations in designing any bicycle facility, but is particularly important for on-road bicycle lanes, as higher degrees of separation can improve both perceived and actual safety.

Separation can be achieved using visual aids such as linemarking, signs, painted separator strips and delineators (e.g. bicycle lanes or shoulders); or physically by providing raised islands or bicycle facilities behind the kerb (e.g. protected bicycle lanes or bicycle paths).

In local streets it is usually not necessary to provide specific signage or road marking for bicycle riders, as lower vehicle speeds and volumes allow bicycle riders to safely share the road with other users.

Unless you've been living under a rock, you've probably realised that there has been a slow and progressive world-wide push for lower and lower [road] speed limits, as the world transforms to a more sustainable active transport future, making it safer for bicycle riders and pedestrians to traverse, cross and travel along our roads.

One of the many upsides to this movement - in conjunction with lower speed limits - is that design clearances for bicycle riders will also be justifiably narrower, making it easier for Councils to justify and more safely accommodate bicycle treatments within some of the more constrained road reserves, which is a real and valid problem for most regional Councils.

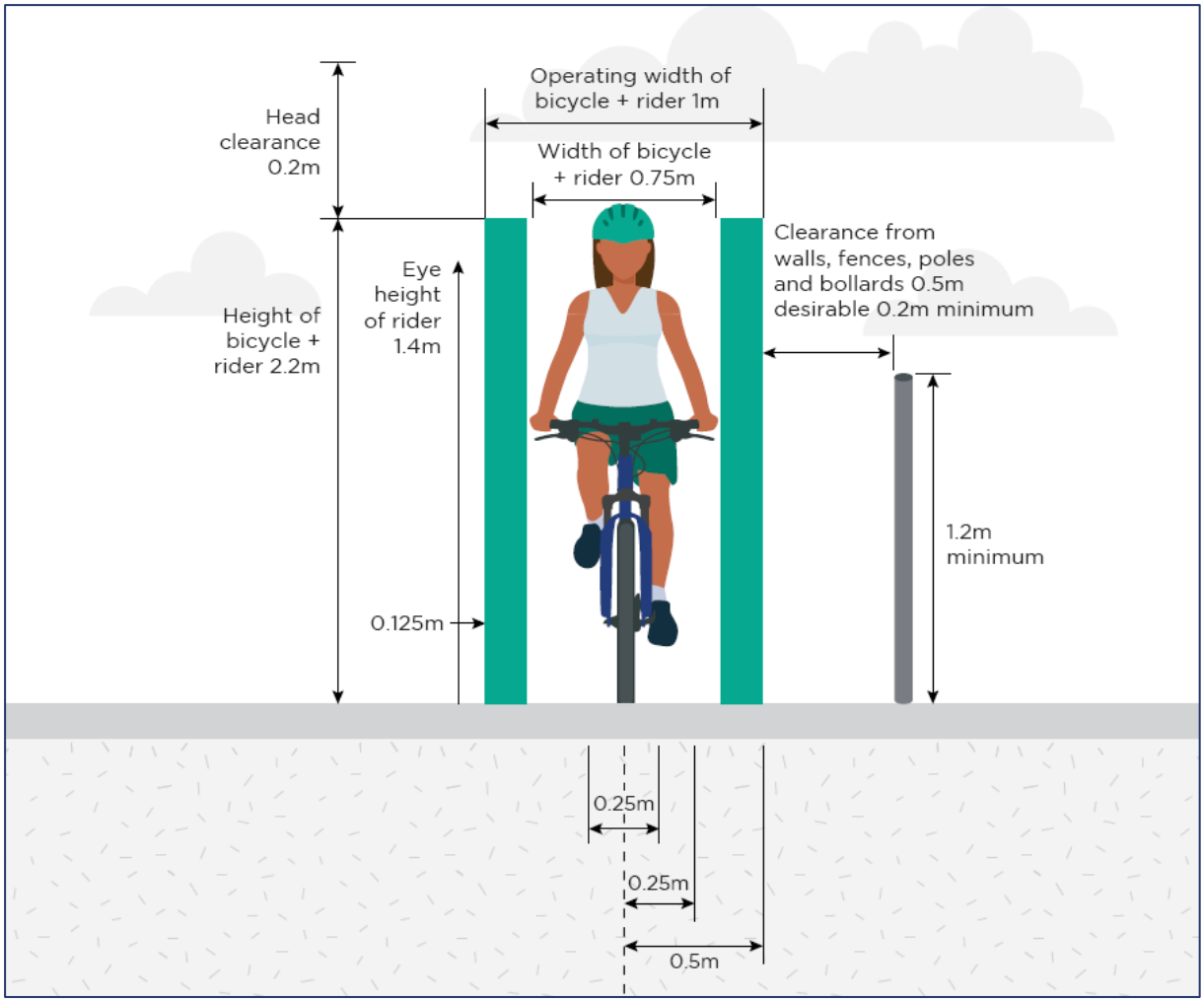
Finally, it is noted that the NSW speed limit guidelines have recently received a much-needed update. The Strategy generally supports ongoing TfNSW reviews into potential lower speed limits broadly across the road network, subject to the Movement & Place context, and contextually in different parts of the road network. The safety benefits of lower speed limits are unquestioned, and the broad aim is to make more roads safer in more locations to support the sustainable objective of optimising the potential for more active trips to replace vehicle trips.

9.8.3 On-Road Bicycle Lane Widths

When considering on-road bicycle lanes, it is important firstly to examine the design envelope of a bicycle rider, as it is essential that provisions are made not only for the full width of the bicycle rider, but also additional clearance from vehicles, be they parked or travelling past the bicycle rider.

The standard design envelope of a bicycle rider is shown in Figure A.2 of the Cycleway Toolbox, and is reproduced below.

Figure 38: Bicycle Rider Design Envelope



Source: Cycleway Toolbox

With reference to **Figure 38**, while the width of the bicycle rider (and their bicycle) is 0.75m, additional width is required for the general movement (sway) of a bicycle rider when pedalling, and then additional clearance from both vertical and horizontal obstructions.

In addition to this design width, due to the side wind force exerted on bicycle riders from vehicles, it is preferable to design on-road bicycle lanes with additional clearance between the bicycle rider envelope and passing vehicles.

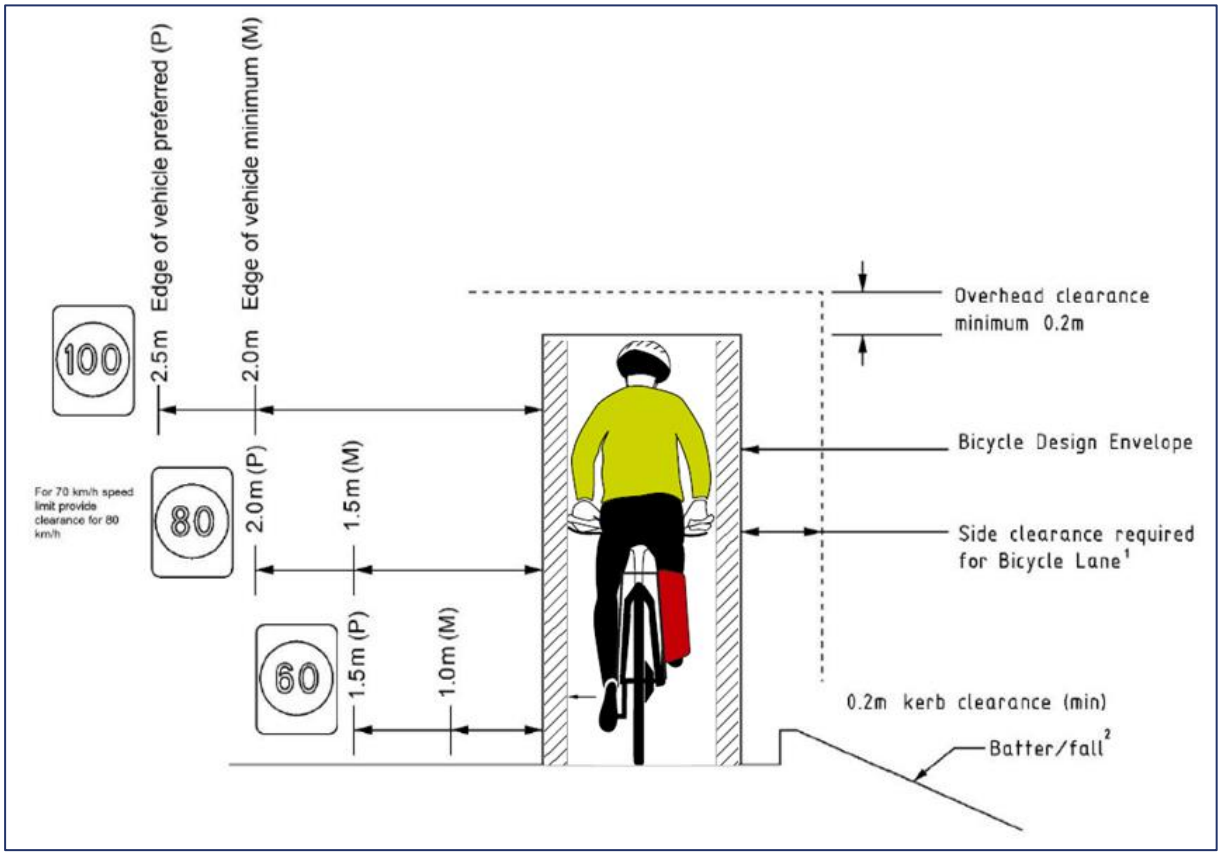
The clearance widths recommended for different speed environments are summarised in Table 4.17 of GRD Part 3, and illustrated in Figure 4.28 of GRD Part 3, both of which are reproduced below.

Table 19: Clearance to Bicycle Rider Envelope from Adjacent Truck

Speed limit (km/h)	60	70	80	100	110
Minimum clearance (m)	1.0	1.5	1.5	2.0	2.0+
Preferred clearance (m)	1.5	2.0	2.0	2.5	2.5

Source: GRD Part 3

Figure 39: Road Clearances from Bicycle Rider Envelope



Source: GRD Part 3

Importantly though, Section 4.8.4 of GRD Part 3 also states:

"Similar minimum clearances to cars should be provided so that cyclists do not feel unduly threatened by general motor traffic. However, ***the inability to achieve these clearances should not preclude the provision of a facility having a lesser clearance unless a suitable alternative route or means of accommodating cyclists exists within the road reserve****".*

Again therefore, a common sense approach suggests that lower widths can be provided for on-road bicycle lanes where necessary, notwithstanding of course full consideration of all factors to ensure that bicycle lanes are as safe as possible.

9.9 Other On-Road Bicycle Options

9.9.1 Separated Bicycle Lanes

The provision of a separated bicycle lane aims to improve the safety for bicycle riders by providing (physical) separation from vehicles while maintaining directness of travel and priority at intersections. Importantly, separated bicycle lanes are different to the bicycle paths as detailed in **Section 9.7** as they are provided within the carriageway (in the kerbside lane) as opposed to being entirely removed from the road.

Bicycle lanes with some form of physical separation provide bicycle riders greater comfort and safety, and have been shown to promote increased patronage on bicycle routes where they have been constructed, and are a more than appropriate treatment for consideration when an off-road bicycle path cannot be achieved within the existing road reserve.

9.9.2 Kerbside Lanes

Wide kerbside lanes may be appropriate for bicycle riders on higher order roads where sufficient space is not available to accommodate an exclusive or separated bicycle lane, and where parking is either minimal or prohibited during peak periods.

A wide kerbside lane is a normal traffic lane on the left side of the carriageway of sufficient width to allow bicycle riders travelling beside the main traffic flow, and permits vehicles to overtake bicycle riders without having to change lanes (in most instances).

This sharing of lanes is generally suitable for experienced bicycle riders in speed environments up to 70km/h; in such circumstances, the recommended width of these kerbside lanes is shown in Table 4.21 of GRD Part 3, which is reproduced below.

Table 20: Wide Kerbside Lane Width

Speed limit (km/h)[1]	Lane width[2,3] (m)	
	60	80[4]
Desirable	4.2	4.5
Acceptable range	3.7–4.5	4.3–5.0

Source: GRD Part 3

With reference to **Table 20**, it is noted that the use of wide kerbside lanes by bicycle riders can be appropriate in speed environments of up to 80km/h, but only if there is a low demand for kerbside parking. Lower widths may be easier to justify in lower traffic volume environments where there is no centreline marking of roads, and traffic is able to drive around bicycle riders more easily and safely.

Importantly, GRD Part 3 does not recommend that the different areas within the kerbside lane for bicycle riders, parking and vehicles are specifically differentiated, i.e. marked; this is different to more formal bicycle lanes.

9.9.3 Sealed Shoulders

Noting the large number of higher order rural roads across Shoalhaven that are used for [primarily] recreational cycling year round, it is important to look at the humble road shoulder.

Section 4.8.9 of GRD Part 3 specifically states that on roads without kerbs where there needs to be provisions for bicycle riders, "***a smooth sealed shoulder is the preferred treatment***".

Although warrants do not exist specifically for the provision of sealed shoulders for bicycle riders, it is evident across Shoalhaven that there are many rural roads where the sealing of shoulders is justified specifically to make roads safer for cycling.

The provision of wide sealed shoulders has been a top priority for Council since the release of Bike Plan 2013!

Our ongoing upgrades and maintenance works on dozens of key rural loads specifically includes the widening and sealing of road shoulders to provide maximum clearance between bicycle riders and vehicles, as well as new signposting warning motorists of the presence of bicycle riders.

While not an exhaustive list, some examples in this regard include

- Jervis Bay Road.
- Forest Road.
- Island Point Road.
- Sussex Inlet Road.
- Bendalong Road.
- Gerroa Road.
- Bolong Road.
- Greenwell Point Road.
- Pyree Lane.
- Culburra Road.

While the width required for sealed shoulders for bicycle riders are generally the same as those required for exclusive bicycle lanes (per **Table 18**) it is again our preference to provide any addition widening of the sealed shoulder wherever possible – either as part of upgrades, maintenance or indeed targeted projects - to improve the comfort and safety of bicycle riders.

Council is already in the process of identifying locations where additional warning signage can be provided along our key recreation routes. Council also considers including bicycle pavement symbols in shoulder widening treatments, but pursuant to Australian Standards this should only be undertaken to raise awareness in locations where the presence of bicycle riders might not otherwise be readily known or obvious; where sight distances are poor; and/or where the widths of shoulders is less than standard, but the location is not known to be used regularly by bicycle riders.

These treatments are also a supplement to warning signage, and the same criteria and eligibility of warning signage should be applied when considering the application of pavement symbols on road shoulders.

9.10 Ancillary Bicycle Infrastructure

9.10.1 Bicycle Parking

bicycle parking is integral to any bicycle network and to wider transport systems incorporating public transport. The provision and availability of bicycle parking at the beginning and end of every journey has a significant influence on bicycle use, and indeed the sight of parked bicycles provides evidence of demand and patterns of use, and can form part of a monitoring regime to measure growth and demand in bicycle riding.

In the same way that a bus route would not operate without bus stops or a road network without car parking, bicycle parking must be provided across the bicycle network for it to be practical and useable. Indeed, investment in new bicycle routes and bicycle facilities may not reach its full potential if bicycle parking is not considered as being an integral part of any bicycle project.

Figure 4.1 of the Cycleway Toolbox provides a summary of how the provision of bicycle parking aligns with broader bicycle riding principles, and is reproduced below.

Figure 40: Alignment of Bicycle Parking Provision with Bicycle Riding Principles

Principle	Description
Accessibility	• Provide accessible and convenient connectivity to cycleway facility/route • Have a convenient kerb ramp near the provided bicycle parking facility for road to footpath transitions • Minimum 5% of parking allocated for forms of micromobility other than conventional bicycles • Provide spare capacity to account for growth in demand and turnover • Each destination should provide more than one type of bike parking facility to cater for different user needs and preferences in terms of security, convenience and ease of use
Location	• Maximum distance of 50m or 1-minute walk to users' ultimate destination, and within sightlines of destination entrance where appropriate • Located at all station entrances accessed by road and cycleway to minimise need to travel through or around the destination to access bike parking • Signage towards location of bicycle parking
Security	• Be placed in view of passers-by or overlooked by the public (passive surveillance) • Covered by existing or additional CCTV cameras where practical (active surveillance) • Be well lit by new or existing lighting
Integration	• Does not obstruct or hinder pedestrian access, loading zones and parking • Be attractive and designed to blend in with the surrounding environment, providing shelter for bicycles and riders where possible • Bicycle stands which can be combined with matching street furniture reinforces the positive image of the bicycle parking facility
Operations and Maintenance	• Introduce regular tidying up, cleaning and maintenance routines • Ensure any damaged stands, wayfinding/signage, structures, electronic access, etc are repaired immediately

Source: Cycleway Toolbox

Public bicycle parking facilities offer different levels of security and convenience, and should be chosen to meet the needs and preferences of target user groups at different locations. Typical bicycle parking facilities include:

- **Bicycle hubs**, a large-scale solution suitable for long-term parking at public transport hubs or town centres.
- **Bicycle lockers**, suitable for long-term parking that includes overnight storage.
- **Bicycle sheds**, suitable for day parking for members of the public and public transport users
- **Bicycle racks**, suitable for short-term parking.

Regardless of the type of bicycle parking facilities, they should always be designed and located so as to meet the principles outlined in

Figure 40, and particularly passive and active surveillance; security; and convenient connectivity to the bicycle network.

Key locations for public bicycle parking facilities in Shoalhaven will obviously align with locations where there are a higher number of bicycle riders, and moreover locations that bicycle riders are visiting, including town centres; main streets; and community and recreational facilities.

You might have noticed that there's a lot more to be done to the mapping of existing and proposed bicycle racks across Shoalhaven; however, the accuracy of bicycle rack location in the PAMP Interactive Mapping Tool, and the proposed new Bike Plan Interactive Mapping Tool, is getting better and better over time, and we will continue to identify existing and proposed bicycle rack locations in these Mapping Tools.

The provision and design of bicycle racks is further addressed in Austroads, Australian Standards, and Council's own DCP Chapter G21.

9.10.2 Holding Rails

A holding rail is a U-shaped rail that is placed in close proximity to the edge of a path on the approach to an intersection, or within a refuge, with the purpose of providing a support for bicycle riders while waiting for an appropriate time to cross the road.

Holding rails are not required in locations where there is little potential for a bicycle riders to have to stop, for example at the intersections of paths with other paths, or the intersection of a path with a local road.

Holding rails are to be placed within easy reach of bicycle riders of all ages and size to ensure that they:

- Enable bicycle riders to stop without having to dismount or move their feet off the pedals (which can require some bicycle riders to unclip or disengage from pedal retention devices such as toe clips).
- Encourage bicycle riders to stop when appropriate, for example on the approach to a busy intersection.
- Assist bicycle riders as they move off, reducing the time spent travelling through an intersection and aiding balance, thus improving safety.
- Provide a useful warning of the existence of an intersection.

Further to the above, holding rails can also be a game changer for our most vulnerable pedestrians at road crossings, but that's where the challenge usually lies for Councils - to provide these facilities where they can be used practically as holding supports for those that need them the most, without being a hazard to passing (generally more experienced) bicycle riders that don't need them (one step forward, two wheel revolutions back!).

For this reason, most Councils typically place holding rails within 300mm of the edge of a path/pram ramp to satisfy their basic (bicycle rider) purpose, whilst meeting the minimum offset requirements of GRD Part 6A. Even the simplest of things like holding rails can pose a challenge for Councils, but they are vitally important to provide the safety and convenience to get more people out and active safely.

9.10.3 Movement & Place

The same principles of Movement & Place as discussed previously in regard to all modes of active transport infrastructure apply equally to bicycle riders; this means appropriate consideration of rest places; shade and shelter; general amenities; and again the bubbler(!) as part of all bicycle projects.

We don't want to harp on about it, but remember for those longer cycling routes - such as the proposed spine network along Princes Highway - the easiest way to provide convenience and amenity for those using longer routes to divert the regional spine road network through our existing towns and villages wherever possible, not around them.

This provides the convenience that longer distance bicycle riders need while also providing economic benefits to our towns and villages along the way!

9.10.4 Wayfinding

Similarly, the same principles of Wayfinding as discussed previously in regard to all modes of active transport apply equally to bicycle riders, underpinned of course by the simple fact that if signage provides bicycle riders the information they need in regards to where to go, they are more likely to cycle.

With more specific regard to bicycle riders, as Council develops our bicycle networks into region-wide networks, signage become an essential element in facilitating trips across the whole LGA, sub-region, town or village. Bicycle network signage can also inform bicycle riders of routes which are more direct or less heavily trafficked, and the ease (or difficulty) of a bicycle route so as to ensure that bicycle riders of all abilities are fully informed.

Bicycle network signage can also help raise community and visitor awareness of the numerous route possibilities for bicycle riding other than single routes or the general street system, and can be used to compliment tourism-promotion of suitable routes.

9.10.5 The Little Extras

Finally, it doesn't take much to provide complementary provisions like bicycle toolkits or tyre pumps to further support our bicycle networks, and moreover to provide a strong visual cue that bicycle facilities are an essential part of our broader transport network.

On-street bicycle toolkits and pumps can be provided across the bicycle network to increase convenience for bicycle riders, but moreover to provide an additional layer of security that – say – should they get a flat tyre, help might not be too far away.

We encourage all bicycle riding enthusiasts to discuss further how these little extras might be rolled out at key locations across our bicycle network over time!

In the meantime, Council will continue to work hard to expand our bicycle networks, but these "little extras" would be terrific, even though they might be more suitably rolled out once we have been able to provide more continuous and bicycle connected routes across Shoalhaven.

Here's an example of a local Council being proactive to provide its community with bicycle repair kits, distributed through its local libraries; now that's thinking outside the square!

https://www.wyndham.vic.gov.au/services/libraries/youth/bike-kits

9.11 Additional Resources

9.11.1 Helmet Safety

Helmets are not just a good idea, they are a legal requirement for all bicycle riders of all ages, and more importantly save lives and prevent injuries.

Using the right helmet is considered the single most effective way to prevent head and brain injuries if you should somehow tumble off your bicycle – after all, international research shows that wearing a helmet:

- Reduces serious head injuries by 60%.
- Reduces traumatic brain injury by 53%.
- Reduces the number of bicycle riders killed or seriously injured by 34%.

So don't ever think that helmets somehow aren't cool – wearing a helmet when riding shows just how clever you really are!

Learn more about helmet safety at https://www.transport.nsw.gov.au/roadsafety/bicycle-riders/road-rules-for-bicycle-riders#Helmets_and_equipment_

9.11.2 Community Campaigns

Community campaigns can play a key role in encouraging more people to ride a bicycle and educating them of the benefits and safety aspects of bicycle riding.

Council already undertakes a number of local campaigns designed to increase bicycle trips and improve the safety of all bicycle riders, but to maximise the potential of these campaigns it is essential that there is close coordination between such initiatives and the physical roll-out of new bicycle facilities.

Examples of community campaigns include:

- **Road Safety Awareness:** These campaigns - which can often include representatives of NSW Police and TfNSW - are generally directed at the most vulnerable bicycle riders, and particularly children, and include practical assistance and advice for negotiating different situations, such as where to cross a busy road. These campaigns can provide both written material as well as in school visits; see what's available at https://www.transport.nsw.gov.au/roadsafety/resources

- **Safe Routes to School:** As discussed in the PAMP Update (**Section 8.8**) the Safe Routes to School Program aims to make bicycle riding and walking safer and easier, and encourage parents and students to choose active transport for the daily trip to and from school.

  The benefits of bicycle riding to/from school include increased physical activity, better concentration in class, and improved well-being through a degree of independence; this is particularly important at a time when the health of many of our children is below appropriate norms, one of the specific causalities for more and more sedentary activities (screen time) rather than physical activities.

  Further guidance is available from the NSW Government's Good for Kids website at https://www.goodforkids.nsw.gov.au/primary-schools/physical-activity/active-travel/.

9.11.3 Council Campaigns

As discussed, Council is committed to promoting the Bike Plan Update to the entire community, and will actively do so in numerous ways, including:

- Promoting the PAMP Interactive Mapping Tool in the first instance, but in time also developing and promoting the Bike Plan Interaction Mapping Tool.
- Linking the Bike Plan Update with broader social and health initiatives.
- Providing contacts for local bicycle groups and other active transport advocates.
- Encouraging events such as Ride to Work Day and the like.

Learn more about Council's active transport promotions via the PAMP webpage at https://www.shoalhaven.com/cycling-and-mountain-biking

9.11.4 Driver Awareness and Education

As discussed previously, there can be a lack understanding of bicycle riders rights and needs by many motorists, particularly in locations where the broader roadway is shared, or at informal crossing locations, that can inhibit bicycle riding moreover provide a disincentive to bicycle trips.

Motorists need to be better educated and made aware of bicycle riders, particularly on-road bicycle riders, who again have the same rights to the use road as vehicles do. These rules can be reemphasised using both local and Stage Government campaigns, as well as ongoing improvements in our vehicles licencing programs.

Read more about it at https://www.nsw.gov.au/driving-boating-and-transport/roads-safety-and-rules/bicycle-safety-and-rules

9.11.5 Enforcement

Illegal manoeuvres and parking by drivers can cause significant problems – including of course injuries - for bicycle riders; these actions often include not providing enough clearance to bicycle riders when passing; not using indicators at roundabouts; and speeding.

Council officers have the power to enforce many safe (and legal) driving and parking practices, but also works with NSW Police where significant safety issues are identified.

9.12 E-Bikes and E-Scooters

9.12.1 E-Bikes

E-bikes are growing in popularity and becoming more and more visible on our roads, with data indicating that we are approaching a time when almost 50% of the distances covered by all bicycle trips are by e-bikes.

Source: Bicycle Network

E-bikes are powered by rechargeable batteries, and provide assistance while pedalling which can make hills and indeed all cycle trips much easier; moreover, average travel distances on e-bikes are higher than those using standard bicycles, and as such more longer distance trips become viable by e-bike.

At present, there are two different types of e-bike:

- **Electrically power-assisted bikes:** Electrically power-assisted bikes have a maximum continued rated power of up to 500 watts, but this output must be progressively reduced as the bike's speed increases beyond 6km/h, and cut off when the bike reaches a speed of 25km/h.

- **Power-assisted pedal bikes**: These bikes have one or more motors attached with a combined maximum power output of up to 200 watts, but these bikes cannot be propelled by the motor alone, i.e. the bicycle rider must primarily propel the bike. These bikes also have a maximum speed limit of 25km/h.

E-bikes are able to use footpaths and off-road parks in the same manner as standard bicycle, i.e. those over the age of 16 years are not permitted to ride an e-bike on footpaths unless they are accompanying/supervising a minor (under the age of 16 years), and need to also comply with NSW Road Rules in regards to speed limits, typically being a maximum of 10kph on footpaths and SUPs (amongst other e-bike specific rules).

9.12.2 E-Scooters

E-scooters and other motorised wheeled devices such as e-skateboards, e-hovercrafts, e-mono-wheels and e-segways are currently illegal to use on NSW roads and paths unless part of an authorised trial, and subject to the strict conditions of that trial.

State Governments around Australia have been trialling the use of e-scooters over the past 10 years to gauge the opportunities and constraints to making their use legal, and TfNSW is currently undertaking trials within a number of local Council areas across NSW to determine:

- Whether e-scooters can facilitate a variety of trips for different user types.
- Whether e-scooters can be easily integrated into existing bicycle paths and and/or be connected through existing infrastructure including bicycle paths/lanes, SUPs, and local roads.
- Any specific safety issues related to the use of e-scooters as opposed to standard bicycles, scooters etc.

It is noted that at the time of TfNSW announcing e-scooter trails in 2022, Council's priority was still responding to the 2019/2020 bush fires and the numerous registered floods that followed, and as such we were not in a position to actively take part in the trials.

However, Council has been following the development of the numerous trials being undertaken in urban and regional centres, and we await the outcome of these trials and any subsequent official endorsements or otherwise of the use of e-scooters.

Notwithstanding therefore the relatively slow progress in the regulation of e-scooters usage in NSW (and Australia), it is impossible to ignore how the use of e-scooters (and e-bikes) has taken off around the world, and as such the Bike Plan Update (and PAMP Update and Active Transport Strategy) have built in contingencies providing for the development of legislation and guidelines for the use of e-scooters as part of our broader active transport mix.

At the time of finalising this report, TfNSW had just released some improvements to the process by which Councils can seek approvals to run e-scooter trials in NSW. The intention of the improvements to this process - learning from the initial trials - is to streamline the process and make it easier for Councils to participate in e-scooter trials.

However, while information sessions were undertaken with TfNSW in July 2024, it is unfortunately still the case that Council is not in a position to participate in new trials at this time, as there are very few locations within Shoalhaven that meet TfNSW eligibility criteria for implementing a trial of e-scooters, and/or in locations that might be economically viable. Again though, we are still eagerly following broader e-scooter developments, and learning from other trials being undertaken across NSW, as it remains our opinion that e-scooters will be an important part of our future active transport mix.

9.13 Mountain Bikes

Before we go, a quick shout out to our mountain bike riders!

In recent years, mountain bike riding has seen a phenomenal increase in popularity across Australia (and around the world); data from the Australian Sports Commission indicates that almost half a million people are now participating in the sport of mountain bike riding, double the number riding in 2018.

Of course, participating in mountain bike riding also provides riders of all ages and abilities the additional confidence of riding a bicycle, which in turn means more riders feeling confident in riding for other daily trips.

While the Bike Plan Update does not specifically include mountain bicycle projects at this time - other than adding known mountain bike tracks to the PAMP Interactive Mapping Tool (and future Bike Plan Interactive Mapping Tool) when we know about them and have their details - Council is investigating potential mountain bike trails and facilities across Shoalhaven, as well as the best way to assist existing mountain bike clubs who do such a fantastic job operating and maintaining existing trails.

The South Coast United Mountain Bikers Club, or **SCUM**, does an outstanding job of maintaining the Condoo, Superbowl and Butterfly mountain bike tracks in the Currambene State Forest just south of Nowra. These cross-country trails feature a super fun singletrack which offers a mix of speed, flow, and technical challenges, and with trail options from 3km to 11km kilometres, riders can find the right fit for their skill and adventure level.

Get involved with SCUM at https://www.scum.asn.au/

The passionate crew from Milton Ulladulla Mountain Bikers club, or **MUD**, also maintains a 6km family friendly trail network in the Woodburn State Forest just south of Ulladulla – a real labour of love given the devastation caused to the then only newly built track by the Black Summer bushfires.

Learn more about MUD at https://www.facebook.com/miltonulladullamountainbikersandpark/

10 Paths & Crossings Review

10.1 Background

As discussed, to guide the ongoing development and delivery of active transport infrastructure, Council developed the comprehensive PAMP Interactive Mapping Tool, which identifies all existing and proposed active transport projects and routes across Shoalhaven. The aim of providing the PAMP Interactive Mapping Tool, is to make this information as user friendly as possible, and effectively place the information on exhibition 24/7 so as to keep the conversation going, and allow effective and efficient community feedback on an ongoing basis.

Between 2017 and 2021, Council undertook a major review of the PAMP Maps and Bike Plan Maps so as to weed out as many errors as possible, and to update the PAMP Interactive Mapping Tool to reflect the outcomes of numerous investigations over time. The review also took into consideration the numerous developments and Master Plans prepared across Shoalhaven to ensure planned and built active transport networks were absorbed into the maps.

Community feedback since the original development of PAMP 2002 was similarly taken into consideration before the PAMP Interactive Mapping Tool was created and made live in June 2021. Further community consultation (as discussed in **Section 2**) and active transport network improvements have been steadily incorporated into the PAMP Interactive Mapping Tool between 2021 to 2024, and this work will continue, as again the PAMP and Bike Plan are considered live operational documents, to be kept updated and as current as possible by Council staff.

Nonetheless, the critical first stage of preparing the Strategy (as well as the PAMP and Bike Plan) was to undertake an assessment of all proposed active transport projects across Shoalhaven, and provide a ranking for each based on a set of revised Scoring Criteria that provides an empirical rating for each project to assist Council in their prioritisation of future projects.

The process by which the Scoring Criteria were reviewed is detailed further in sections below.

10.2 Previous Scoring Criteria

10.2.1 PAMP 2002 Scoring Criteria

The **PAMP 2002 Scoring Criteria** identified 5 primary factors for prioritising pedestrian projects, which included the following:

1. Use by the elderly (3 = high use, 1 = low use);
2. Number of all pedestrians (3 = high volumes, 1 = low volume);
3. Adjacent traffic volumes (3 = high volumes, 1 = low volumes);
4. General safety (3 = safety risk e.g. cannot walk on grass path or blind corner, 1 = low risk, e.g. adequate off-road pedestrian facilities);

5. Special factors (3 = proximity to schools, community facilities etc, 1 = low proximity to pedestrian generating development, 0 = irrelevant).

The formula applying to these factors was then given different weightings in calculating a final score; the formula was:

Score = 2*(Elderly) + 4*(Combined Use) + 3*(Traffic Density) + 5*(Safety Issues) + 1*(Special Factors)

Further to the application of this formula, it was evident that that some projects which were seen as important for providing for children or increasing the connectivity for the entire paths network did not score as highly as those which were seen to moderately help some of the other factors (such as road safety). As such, 2 additional factors were considered, being:

6. Use by the Young (3 = high volume of younger pedestrians, 1 = low volume of younger pedestrians).
7. Network Connectivity (3 = significant improvement in network connectivity, 1 = little improvement in network connectivity).

In turn, the revised formula to be considered PAMP 2022 was:

Score = 2*(Elderly) + 4*(Combined Use) + 3*(Traffic Density) + 5*(Safety Issues) + 1*(Special Factors) + 2*(Young) + 3*(Connectivity)

Ultimately, Council determined not to include the additional factors (use by the young, and network connectivity) in the PAMP 2002 Scoring Criteria, but did include what might be considered a more subjective – or at least broader - set of factors to which a priority of High, Medium and Low were allocated (with High allocated more points, and Low fewer points). These factors included.

- Increasing pedestrian network connectivity.
- Proximity to major pedestrian attractor or generator.
- Use by special group in the community such as children (e.g. near schools) or senior citizens.

10.2.2 PAMP 2005 Scoring Criteria

As part of the development of PAMP 2005, amendments were made to the PAMP 2002 Scoring Criteria designed to better distinguish projects that had similar (or the same) score; to provide a fairer distribution of projects across the Shoalhaven; and providing greater justification for projects returning higher relative scores.

The **PAMP 2005 Scoring Criteria** are summarised in **Table 21**.

Table 21: PAMP 2005 Scoring Criteria

Type of Facility (choose a,b or c, then consider additional points for d)	**Scores**
a. Missing Link	4
b. Extension of, or link to, existing facility	2
c. New facility	1
d. Additional Points for shared facility	2
Landuse (indicator of demand/ vulnerable users - add points together)	**Scores**
Schools	4
Major CBD	4
Aged Self-care	4
Other education facility	3
Local commercial/retail area	3
Neighbourhood shopping centre	2
Recreation facility	2
Community facility	1
Corner store	1
Caravan Park	1
Bus Stop	1
Commuter Route	1
Tourist Route	1
Safety	
Traffic Speed (85^{th} %ile if known, otherwise speed limit)	**Scores**
a. 80-99 km/hr	3
b. 50-79 km/hr	2
c. <50 km/hr	1
b. no traffic	0
Traffic Volume	**Scores**
a. 12,000 vpd and above	4
b. 8,000 - 11,999 vpd	3
c. 3,000 - 7,999 vpd	2
b. up to 2,999 vpd	1
Safety - Conflict with Vehicles (what most users do; one only)	**Scores**
a. Always shares road space with traffic	4
b. Sometimes shares road space with traffic	2
c. Always use road shoulder adjacent traffic	1
d. Never mix with traffic	0
Accident History (pedestrian and cyclist accidents only)	**Scores**
a. 2 or more accidents	4
b. 1 accident	1
Population	**Scores**
a. Major Urban Centre - Nowra/Bomaderry	5
b. Secondary Area (Sanctuary Point, Ulladulla, Mollymook, Mollymook Beach)	4
c. Town (more than 2,000 persons; Vincentia, Culburra/Orient Point, Sussex Inlet, Shoalhaven Heads)	3
d. Village (1,000-2,000 persons; Basin View, St Georges Basin, Callala Bay, Berry, Cambewarra, Greenwell Point, Burrill Lake,	2
Milton, Narrawallee, Huskisson, West Nowra, Worrigee)	
e. Small Village (less than 1,000 persons; Old Erowal Bay, Erowal Bay, Cudmirrah, Berrara, Callala Beach, etc)	1

In reviewing project scores based on the PAMP 2005 Scoring Criteria, it was determined that we were identifying more acceptable Shoalhaven-wide outcomes based in part on the [high] number of projects included in the PAMP at the time. Following the adoption of PAMP 2005 though, the number of projects being requested by the community continued to increase, and more and more concerns were raised in regard to smaller towns and villages not being prioritised to same level as larger populated centres).

As such, additional factors were considered by Council staff when assessing projects after the release of PAMP 2005, including:

- Ensuring projects were less likely to have the same score (notwithstanding some future proofing, acknowledging the significant increase in projects added to the program over time).

- Moving away from criteria based on population concentration to criteria that recognised accessibility, connectedness, and walkability regardless of location, in a way that ensured that projects being favoured by the PAMP 2005 Scoring Criteria were also reflecting the broader needs of all towns and villages in an equitable manner.
- Ensuring the criteria were fit for purpose going forward so as to cater for the considerable growth anticipated across Shoalhaven.

Importantly, these additional considerations were not formally included in any PAMP 2005 Scoring Criteria, nor were all projects rerated, which meant that Council staff were required to consider both an empirical score as well as more subjective factors.

10.2.3 PAMP 2010 Scoring Criteria

Further to the identification of the additional factors that required some level of subjective input from Council staff, new Scoring Criteria were finalised in 2010 (**PAMP 2010 Scoring Criteria**) that were then adopted for the assessment of pedestrian projects until 2023.

The PAMP 2010 Scoring Criteria were intentionally more detailed than the PAMP 2002 and PAMP 2005 Scoring Criteria to focus on connectedness, equity, inclusion and accessibility, and as such not overly influenced by [pedestrian and traffic] volumes and location. Until the process of updating the PAMP Scoring Criteria commenced in later 2023, the PAMP 2010 Scoring Criteria had been considered fit for purpose, as they catered for the considerable growth anticipated in Shoalhaven, and ensures an equitable spread of projects across Shoalhaven.

Whilst funding limitations remains the key constraint to Council being able to significantly expand our active transport networks to suit everyone's needs (which is why Scoring Criteria need to be in place) the PAMP 2010 Scoring Criteria still provide acceptable outcomes based on the number and spread of projects across Shoalhaven included in the PAMP.

The PAMP 2010 Scoring Criteria are summarised in **Table 22**.

Table 22: PAMP 2010 Scoring Criteria

Type of Facility (choose a,b or c, then consider additional points adjustment for d-g)	Scores
a1. Missing Link, relatively short, has high demand, relatively inexpensive (can be funded by Council)	80
a2. Missing Link, relatively short, has less demand, relatively inexpensive (can be funded by Council)	60
a3. Missing Link, medium length, no existing (but latent demand), expensive (requires 50/50 grant funding application)	40
a4. Missing Link, long length, no existing (but latent demand), expensive (requires 100% grant funding application)	20
b1. Extension of, or link to existing facility, high demand	60
b2. Extension of, or link to existing facility, lower demand	30
c1. New facility (no adjoining network)	10
c2. New facility (connects a remote and/or disconnected location to an existing network)	80
d. Additional Points for shared facility	20
e. Additional Points to address an accessibility priority, DIA need, or missing link to Public Transport node	80
f. Additional Points to address a Bike Plan priority	Add Bike Plan Score (out of 10)
g. Deduct Points for widening proposal (where a path exists), in fairness, to compare with locations where there is no path	-50

Landuse (indicator of demand/ vulnerable users - add points together)	Scores	Scores	Scores	Scores	Scores
* Measured from centre pt of each project stage to point of access from public rd	0-500m	500-1000m	1000-1500m	1500-2000m	>2000m
	a	b	c	d	e
Schools	80	40	20	10	0
Major CBD, Civic and entertainment precints	80	40	20	10	0
Retirement, Seniors Living, Aged Self-care, hospitals, medical centres, etc	80	40	20	10	0
Other education facility	60	30	15	7.5	0
Local commercial/retail area	60	30	15	7.5	0
Neighbourhood shopping centre	40	20	10	5	0
Recreation facility	40	20	10	5	0
Community facility eg. Pre-school, long day care, church, library, can include Clubs & other locations used as evac centres, etc	20	10	5	2.5	0
Corner store	20	10	5	2.5	0
Caravan Park	20	10	5	2.5	0
Bus zones, Bus shelters, train stations, other multi-modal facilities, etc	20	10	5	2.5	0

Safety-Traffic Speed (85th %ile if known, otherwise speed limit)	Scores
a1. enter actual value of speed in km/hr x .50 - K&G present	(km/hr x 0.5)
a2. enter actual value of speed in km/hr x 2 - no K&G present	(km/hr x 2)
b. no traffic	0

Safety- Traffic Volume (Average Daily Traffic Volume) - road adjoining proposal/or proposal diverts users away from the road	Scores
a1. enter actual value of Average Daily Traffic / 100 / # lanes in road (left side of road only) - K&G present	(vpd) / 100 / lane factor
a2. enter actual value of Average Daily Traffic / 100 / # lanes in road (left side of road only) - no K&G present	(vpd) / 50 / lane factor
b. no traffic	0

Safety - Conflict with Vehicles (what most users do, one only)	Scores
a. Always shares road space with traffic	80
b. Sometimes shares road space with traffic	40
c. Always use road shoulder adjacent traffic	30
d. Never mix with traffic	0

Accident History (pedestrian and cyclist accidents only)	Scores
a. enter actual number of accidents x 50	No. accidents x 50
b. no accidents	0

Users (add points together)	Scores
Commuter route	20
Tourist route	20

ESD (Would the project encourage more people to walk or cycle for either recreation or commuter use? Add points together))	Scores
a. Yes > overcomes safety concerns	40
b. Yes > Is significant improvement to local accessibility	30
c. Yes > Is scenic or desirable route	20
d. No > Not likely, or only to minor degree	0

Walk Score.Com (measure of walkability based on proximity to nearby services and facilities)	Scores
a. enter actual value from Walk Score.Com website x 1	Value x 1
How Walk Score Works Walk Score is a number between 0 and 100 that measures the walkability of any address based on the proximity to a range of commonly used community facilities, as determined by Walk Score.Com Walk Score.Com 90–100 (Walker's Paradise — Daily errands do not require a car) 70–89 (Very Walkable — Most errands can be accomplished on foot) 50–69 (Somewhat Walkable — Some amenities within walking distance) 25–49 (Car-Dependent — A few amenities within walking distance) 0–24 (Car-Dependent — Almost all errands require a car)	

Adopted Community Project	Scores
Proposed path has community support with a Community Group organised to manage and construct the path & Council agrees to allocate funds to the project	500-1000 (depending on proportion of Community funding allocated)

10.2.4 Bike Plan 2013 Scoring Criteria

As with the PAMP, the Bike Plan also needed to be managed as a living document going forward as completed bicycle paths were added, and to consider and rank new bicycle projects.

The **Bike 2013 Plan Scoring Criteria** also needed to be expanded as the number of projects increased, and additional amendments were also addressed as part of subsequent reviews as – in a similar manner to earlier PAMP Scoring Criteria – the limited criteria meant that numerous projects were returning the same score, again making it difficult to appropriately prioritise bicycle projects without additional [at times subjective] considerations.

10.2.5 Bike Plan 2018 Scoring Criteria

In 2018, a working group was established to review the Bike Plan 2013 Scoring Criteria, and specifically the limitations of the earlier criteria that resulted in many projects returning the same score.

2 changes resulted from the 2018 review. Firstly, scoring for each factor was made more flexible so that values weren't fixed and absolute, but rather provided as a range (generally between 0 and 2). Secondly, the PAMP 2010 Scoring Criteria was further integrated as a means of differentiating projects that initially had the same Bike Plan score. Completed projects were also removed, and new projects added, which also increased the number of priority projects identified in Bike Plan 2013 from 28 projects to 40 priority projects.

The **Bike Plan 2018 Scoring Criteria** still reflects the Bike Plan's unique scoring requirements, but recognises and encompasses principles of the PAMP to aid in the prioritising of projects, and as such has again been considered as fit for purpose until now as it still caters for anticipated growth while providing an equitable spread of projects across Shoalhaven.

Like the PAMP projects, funding limitations again remain the key constraint to Council being able to significantly expand the bicycle network to suit everyone's immediate needs, but the Bike Plan 2018 Scoring Criteria have provided acceptable outcomes based on the number and spread of projects included in the Bike Plan (and PAMP).

A summary of the Bike Plan 2018 Scoring Criteria is provide in **Table 23**.

Table 23: 2018 – 2023 Bike Plan Scoring Criteria

Ranking criteria	Scores
Does it provide a significant improvement to cyclist safety (minimse conflict with vehicles) (vehicle speed =?< 80km/h = 2)	2
Is it used daily by individual cyclists or regular cyclist groups (regular cyclist group = 2)	2
It is regularly used for a planned cycling event? (i.e. cyclling organisation and/or approved by Council, RMS etc).	1
Does it complete or extend an existing cycleway network component. (either on-road or off-road)?	1
Does it connect to at least one of the following destinations? Education facility Key transport node Shopping centre Recreational facility Communtiy facility	1
Does it have the potential to be promoted as a scenic / tourist ride?	1
It is relatively easy of cheap to provide? (i.e. less than $20,000)	1
Likely to be funded or part provided by another agency or group (i.e. TfNSW, Communtiy Group, etc)?	1
Is there an alternative or safer route available for cyclists?	-1
Total score possible	**10**

10.3 Updating the Scoring Criteria

10.3.1 Overview

As discussed in sections above, both the PAMP 2010 and Bike Plan 2018 Scoring Criteria are considered fit for purpose; however, this does not mean that they encompass as many key factors for consideration in ranking active transport projects as perhaps there should be.

Conversely though, the need for a review of the Scoring Criteria reflected the concerns of a number of CCBs and stakeholders that there were too many factors for consideration, and that the Scoring Criteria have evolved over time in a manner which makes them too complicated and confusing for the community to understand; too complicated and time consuming for Council staff to maintain; and too expensive to allow all projects to be scored or re-scored as part of updates of the PAMP and Bike Plan.

Notwithstanding, based on the feedback from the CCBs and other stakeholders, there was general consensus that the Bike Plan 2018 Scoring Criteria covered all key issues, as well as being relatively easy to use and understand. As such, the Bike Plan 2018 Scoring Criteria were largely adopted as the starting point for the review of the Soring Criteria.

In addition though, it was also agreed that a single "active transport" criteria needed to be adopted as the use of different criteria for the PAMP and for the Bike Plan is just too clumsy, and more to the point impractical, considering there is typically one bucket of active transport grant funding up for grabs; having separate lists with separate scores was therefore simply confusing and unworkable. As such, a single set of active transport criteria has been developed as part of the Strategy, based on the 2018 Bike Plan criteria, but also expanded to address broader PAMP, connectivity, inclusion, accessibility and Movement & Place principles as well.

Finally, it is noted that "*Walk Score.com*" outcomes also used to feature in previous PAMP criteria; however these have been omitted from the latest criteria to avoid duplication of the same principles and simplify the new criteria.

10.3.2 Preliminary Scoring Criteria

Further to the above, the first task in developing the broader suite of active transport strategies was to review the past and present Scoring Criteria and - further to additional consultation with Council - provide any recommendations for revisions to the Scoring Criteria. Moreover, the Scoring Criteria Review sought to determine whether a single set of **Active Transport Scoring Criteria** could be adopted to assess all active transport projects.

To commence this process, Council prepared what is essentially a hybrid of the PAMP 2010 and Bike Plan 2018 Scoring Criteria for more detailed review to ensure that all key elements of good active transport planning, and prioritisation of active transport projects, are captured to as great an extent as possible in the Scoring Criteria.

The **Preliminary Scoring Criteria** identified by Council are summarised in **Table 24**.

Table 24: Preliminary Scoring Criteria

Ranking criteria	Scores	From Bike Plan	From PAMP
Addresses a current missing link/or constraint in an existing network (only 1 point if a reasonable alternative exists)	3		Yes - modified
Does it complete or extend an existing network	1	Yes - modified	Yes - modified
Is it Consistent with the DIAP (removing obvious barrier and representing a significant improvement to local accessibility)	2		Yes - modified
Is the location in a growth area or experiencing rapid increase in demand (from residential, commercial, or tourism growth)	2		Yes - modified
Is the location is in a town/village but currently no other form of active transport linkage exists, or existing facilities are inadequate	2		
Location is within an established populated town/village area (2) or is more isolated/further out (1)	0-2		
Deduct Points in a low speed residential environment and/or where a suitable off road alternative already exists	-5		
Deduct Points for a widening proposal (widening of existing paths should be undertaken when path due for replacement)	-5		Yes - modified
Traffic Risk (range of 1 - for local road, 2 lower volume collector, 3 higher volume collector, - to 4 for higher volume main road)	1 - 4		Yes - modified
Does it provide a significant improvement to safety (minimise or removes conflict with vehicles) Range 0 -3		Yes	Yes - modified
Yes - high speed environment (>=60kph)	3	Yes - modified	
Yes - low speed environment (<60kph)	1	Yes - modified	
Evidence of regular use by pedestrians & cyclists (including use by walking & cyclist groups, or for planned events) - some locations are obvious- from observations, local knowledge, or anticipated due to adjoining generator - refer also to events calendars, strava heat maps, and other indicators of current demand where available (range 0 - 2)	0 -2	Yes - modified	
Does it connect to at least one of the following destinations? (*Add/sum all relevant points) -			
Commercial/Retail (including local & neighbourhood shops)/shopping centre/CBD or civic/entertainment centre pre	1	Yes	Yes
Retirement, Seniors Living, Aged Care, hospitals, medical precincts	1		Yes
Education facilities - of any type	1	Yes	Yes
Community facilities (includes pre-school, day care, churches, library's, clubs, evac centres, etc)	1	Yes	Yes
Recreational facilities	1	Yes	Yes
Caravan Parks or other local generators of demand	1		Yes
Transport Nodes (bus zones and shelters, train stations, taxi ranks, other multi-modal facilities)	1	Yes	Yes
Does it have the potential to be used or promoted as a scenic / or tourist activity ?	1	Yes - modified	Yes - modified
Sub-Total (maximum score possible)	**30**		

** Following the ranking of projects based on the adopted criteria, where a community group subsequently provides a guide to Council of their own local community priorities, a manual adjustment can be made to the scoring of individual projects, as long as the adjusted project score does not then exceed the maximum individual project score for that local communitys projects*

Further to the review of the Preliminary Scoring Criteria, the following issues were identified for additional consideration:

- **Missing Links Criteria:** While this is considered an important criteria worthy of a high ranking, there may be some ambiguity in the definition of "*missing link*", and specifically what the distance of the missing link may be.

This had previously been broken down into a number of sub-categories based on distance, demand and cost, so to wrap all of these considerations into a single criteria may not reflect projects with the potential for "*bang for buck*" or "***easy win***" outcomes, particularly when considering smaller, cheaper projects that still provide real value for the local community.

Without overcomplicating this criteria, it was recommended that smaller projects (less than 50m of new path for example) be awarded 3 points, larger projects (more than 50m of new path) 2 points, and projects where alternative options exists (but where the project would still fill a gap) 1 point.

- **Safety:** The general classification of projects with adjacent road speeds of above or below 60km/h was supported; however, it was recommended that additional points be allocated to locations where there have been a pedestrian or bicycle rider crash. The reason for this is two-fold; firstly, a crash suggests that there may be some issue with the active transport infrastructure at the location (as opposed to simple human error), but secondly – and perhaps more importantly – the community would expect a specific response to locations where there has been a crash. With reference to the discussion of crashes in **Section 6.4**, it was recommended that at least 1 point be awarded for a minor crash location, and 2 or even 3 points for a serious or fatal crash location.
- **Regular Use:** There may be some subjectivity in regard to what would be "***regular***" use of paths or crossing facilities; noting that earlier criteria already award points for usability and frequency of movements in urban areas, to gain additional points here the location would need to be isolated but still have regular use.

  It was therefore recommended that 2 points were awarded for locations with 50+ movements per day, and 1 point for locations with less than 50 movements per day.
- **Special Use Provisions:** Noting that all of the Preliminary Scoring Criteria award 1 point to – essentially – every project providing access to local attractors, it was recommended that an additional point (i.e. a total of 2 points) be awarded to projects specifically providing access for educational facilities; community facilities; and senior/retirement facilities, as these are the land uses most likely to generate active trips, as well as often being generated by the vulnerable pedestrians and bicycle riders.

  It was noted that there would likely be few of these locations, as most of these facilities would already be provided with some level of active transport infrastructure, even if further improvements are required or being requested by the community.

10.3.3 Draft Active Transport Scoring Criteria

Further to consideration of the recommendations made in regard to the Preliminary Scoring Criteria, Council agreed to adopt these recommendations in the Active Transport Scoring Criteria detailed in the Draft Strategy, which were applied to all active transport projects. The Active Transport Scoring Criteria identified in the Draft Strategy are summarised in **Table 25**.

Table 25: Active Transport Scoring Criteria (as Exhibited in the Draft Strategy)

Criteria #	Paths Projects	Score
1	Addresses a current missing link/or constraint in an existing network:	
	Less than 50m	3
	More than 50m	2
	Where alternative path exists	1
2	Does it complete or extend an existing network	1
3	Is it Consistent with the DIAP (removing obvious barrier and representing a significant improvement to local accessibility)	2
4	Is the location in a growth area or experiencing rapid increase in demand (from residential, commercial, or tourism growth)	2
5	Is the location is in a town/village but currently no other form of active transport linkage exists, or existing facilities are inadequate	2
6	Location is within an established populated town/village area (2) or is more isolated/further out (1)	2
7	Deduct Points in a low speed residential environment and/or where a suitable off road alternative already exists	-5
8	Deduct Points for a widening proposal (widening of existing paths should be undertaken when path due for replacement)	-5
9	Traffic Risk (range of 1 - for local road, 2 lower volume collector, 3 higher volume collector, - to 4 for higher volume main road)	4
10	Does it provide a significant improvement to safety (minimise or removes conflict with vehicles)	
	Yes - high speed environment (>=60kph)	3
	Yes - low speed environment (<60kph)	1
	Fatal or serious pedestrian accident	3
	Minor pedestrian accident	1
	Run-off-road adjacent pedestrian demand	1
	Run off-road no adjacent pedestrian demand	0
11	Evidence of regular use by pedestrians & cyclists (including use by walking & cyclist groups, or for planned events) - some locations are obvious- from observations, local knowledge, or anticipated due to adjoining generator - refer also to events calendars, strava heat maps, and other indicators of current demand where available:	
	50+ ped/cycle movements per day	2
	Less than 50 ped/cycle movements per day	1
12	Does it connect to at least one of the following destinations? (*Add/sum all relevant points)	
	Commercial/Retail (including local & neighbourhood shops)/shopping centre/CBD or civic/entertainment centre precincts	1
	Retirement, Seniors Living, Aged Care, hospitals, medical precincts	2
	Education facilities - of any type for discussion	2
	Community facilities (includes pre-school, day care, churches, library's, clubs, evac centres, etc) for discussion	2
	Recreational facilities for discussions	1
	Caravan Parks or other local generators of demand	1
	Transport Nodes (bus zones and shelters, train stations, taxi ranks, other multi-modal facilities)	1
13	Does it have the potential to be used or promoted as a scenic / or tourist activity ?	1
14	Has the project been specifically identified as a priority by the Community?	5
	Sub-Total (maximum score possible)	**40**

10.3.4 Draft Strategy Exhibition Responses

As discussed in **Section 2.3**, the Draft Strategy went on public exhibition in August and September 2024, and all responses from both the public and key stakeholders were carefully assessed and – where relevant - now incorporated into the Strategy.

As discussed in the Exhibition Outcomes Report (**Appendix I**), a number of responses related to the consideration of heavy vehicle traffic volumes in both the scoring criteria for paths projects, and in the P x V formula for crossings and SUP bridge projects. This is an entirely valid point as (for example) awarding points to a local road (1 point per **Table 24** above) that has a high percentage of heavy vehicles may misrepresent the potential safety implications for pedestrians and bicycle riders.

As such, the scoring criteria has been revised, and specifically the "***Traffic Risk***" criteria, so as to reflect any roads with a high percentage of heavy vehicle trips. Further to these revisions, the Traffic Risk criteria has been expanded such that 4 points can now be awarded to both higher volume main roads; and to any road with an unusually higher percentage of heavy vehicles, or where heavy vehicle traffic (including through traffic) impacts residential areas or local road safety generally.

Some discretion has been applied to ensure that short term impacts (for example associated with construction traffic from new developments) aren't unfairly prioritised over locations that require permanent solutions. As many of these locations has been identified as possible, with assistance from Council, and in response to community feedback, to apply the new heavy vehicle criteria in the revised rankings.

Responses from the exhibition also raised the issue of heavy vehicle volumes in the P x V formula, i.e. whether the percentage of heavy vehicles in the traffic volume (V) was accounted for. While the criteria could be expanded to be more detailed, the P x V calculation is currently the simplest and most practical way to prioritise hundreds of potential future pedestrian crossing improvements across the city. So while not directly used in the initial criteria/ranking of crossings, the percentage of heavy vehicles is captured when surveys are undertaken, and is one of numerous factors that Council considers before allocating resources towards upgrades.

While there were no further changes to the scoring criteria based on the exhibition responses, it is important to acknowledge that in a number of instances the Ranking Spreadsheets (particularly for paths projects) provided in the exhibited Draft Strategy did not include the points available for projects that had been "***identified as a priority by the community***". These points have now been awarded for all projects identified in the exhibition responses as being of priority to the community.

The final Active Transport Scoring Criteria, including (following the exhibition, and in response to community feedback) the minor tweaks applied to accommodate locations where unusually high percentages of heavy vehicles is impacting local road safety, is provided below in Table **26**. For convenience to those just looking for the criteria, the final Active Transport Scoring Criteria is also listed separately, up front in the Appendices.

Table 26: Active Transport Scoring Criteria (Adopted in the Strategy)

Criteria #	Paths Projects	Score
1	Addresses a current missing link/or constraint in an existing network:	
	Less than 50m	3
	More than 50m	2
	Where alternative path exists	1
2	Does it complete or extend an existing network	1
3	Is it Consistent with the DIAP (removing obvious barrier and representing a significant improvement to local accessibility)	2
4	Is the location in a growth area or experiencing rapid increase in demand (from residential, commercial, or tourism growth)	2
5	Is the location is in a town/village but currently no other form of active transport linkage exists, or existing facilities are inadequate	2
6	Location is within an established populated town/village area (2) or is more isolated/further out (1)	2
7	Deduct Points in a low speed residential environment and/or where a suitable off road alternative already exists	-5
8	Deduct Points for a widening proposal (widening of existing paths should be undertaken when path due for replacement)	-5
9	Traffic Risk (range of 1 - for local road, 2 lower volume collector, 3 higher volume collector, - to 4 for higher volume main road or road with a high volume of heavy vehicles that could impact pedestrians or bicycle riders).	4
10	Does it provide a significant improvement to safety (minimise or removes conflict with vehicles)	
	Yes - high speed environment (>=60kph)	3
	Yes - low speed environment (<60kph)	1
	Fatal or serious pedestrian accident	3
	Minor pedestrian accident	1
	Run-off-road adjacent pedestrian demand	1
	Run off-road no adjacent pedestrian demand	0
11	Evidence of regular use by pedestrians & cyclists (including use by walking & cyclist groups, or for planned events) - some locations are obvious- from observations, local knowledge, or anticipated due to adjoining generator - refer also to events calendars, strava heat maps, and other indicators of current demand where available:	
	50+ ped/cycle movements per day	2
	Less than 50 ped/cycle movements per day	1
12	Does it connect to at least one of the following destinations? (*Add/sum all relevant points)	
	Commercial/Retail (including local & neighbourhood shops)/shopping centre/CBD or civic/entertainment centre precincts	1
	Retirement, Seniors Living, Aged Care, hospitals, medical precincts	2
	Education facilities - of any type for discussion	2
	Community facilities (includes pre-school, day care, churches, library's, clubs, evac centres, etc) for discussion	2
	Recreational facilities for discussions	1
	Caravan Parks or other local generators of demand	1
	Transport Nodes (bus zones and shelters, train stations, taxi ranks, other multi-modal facilities)	1
13	Does it have the potential to be used or promoted as a scenic / or tourist activity ?	1
14	Has the project been specifically identified as a priority by the Community?	5
	Sub-Total (maximum score possible)	**40**

10.4 Additional Ranking Considerations

10.4.1 Project Timing

With reference to Table **26**, an additional Scoring Criteria that has been individually assessed relates to the whether or not a project can actually be constructed at this time, or moreover at the time that funding might become available.

Many of the identified projects relate to infrastructure in close proximity to or indeed adjoining new residential subdivisions and other similar developments where a project would effectively tie in with the future active transport infrastructure provided as part of those developments.

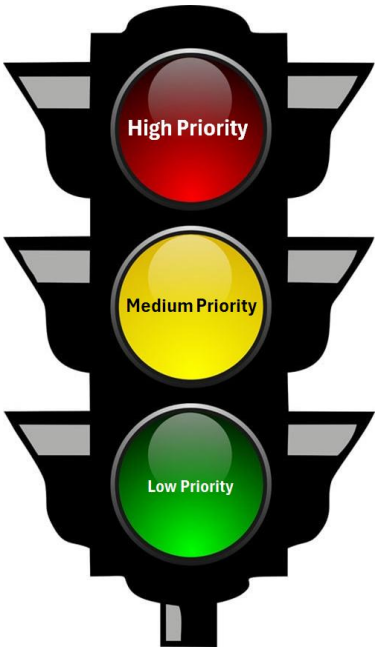
This means that there is little point prioritising these adjacent projects, even though they may be ranked highly further to the application of the Active Transport Scoring Criteria, until these adjacent developments are underway.

As such, while these project have not been negatively scored, they have been demoted until such time as the development that they will tie into has been completed. Again, it is noted that the Bike Plan and PAMP are live documents, and as such when these developments are under way, these projects will be reinstated to their proper ranking.

10.4.2 Active Transport Project Priority Level

So as to further breakdown the ranking of projects for greater clarity for Council and the community (when advocating for projects) an overriding **Priority Level** index was determined which divides all active transport projects into 3 basic levels, being:

- **High Priority**.
- **Medium Priority**.
- **Low Priority**.



Generally, **High Priority** projects represent the top 10% of scores; **Medium Priority** projects represent the next 25% of scores; and **Low Priority** projects represent the lowest 65% of scores.

The intent of the "***traffic light***" methodology is to simplify further the reporting of project rankings for Council's consideration of some 700 current path projects identified in the PAMP and Bike Plan.

10.4.3 Community Advocacy

As discussed in **Section 10.3.4**, a key change to the Active Transport Scoring Criteria has been the introduction of the ability for CCBs and other special intersect groups to effectively "play around" with the reported default list of scores within their own communities.

This effectively means that, following the rigorous independent and objectively raw scoring process, if a CCB or key stakeholder is not happy with the "order" of their priorities, they can request for the order of their own town or village priorities to be adjusted up/down, so long as this doesn't elevate their "highest" priority to a score higher than what was the default highest score for their town or village (i.e. so that it doesn't change their highest priority ***relative to other projects across Shoalhaven***).

More plainly, what this effectively means that is if a town or village's highest priority project was scored as being (just as an example) 22 points, then in requesting that a lower priority project be "moved up" to a higher (or highest) priority for that town or village, the highest it can be moved up is to a score of 22 points and the previously highest priority project will have to be moved down the list (i.e. score lower) so that projects in other parts of Shoalhaven are not unduly demoted.

This is simply empowering local communities and CCBs to have more say in the "order" of their own projects, without upsetting their overall ranking across Shoalhaven.

Notwithstanding, Council will still have the discretion of considering a whole range of other factors when it considers and determines its active transport budget each year, and the projects it chooses for delivery on an annual basis.

10.4.4 Crossings and Shared User Path Bridges Priority Level

As discussed in **Section 7.4**, consideration of the basic mix of pedestrian/bicycle rider volumes and traffic volumes (P x V) will always remain a key identifier for Council in determining priorities for active transport infrastructure, more specifically for the ranking of pedestrian crossings and SUP bridges, as a direct and measurable indicator of demand relative to other projects across Shoalhaven.

The application of P x V is most often considered where new road projects or high pedestrian generating developments are proposed, as it provides an initial indication that new or improved active transport infrastructure might be required. Moreover, P x V remains the best means of prioritising crossing projects and SUP bridge projects, again to simplify further the reporting of project rankings for Council's consideration. In this regard then, P x V is akin to an early warning system, even if only to alert Council that a certain location may be added to the current projects list.

Broadly again therefore, High Priority is given for the top 10% - 15% ranked paths projects; Medium Priority for the middle 25% - 35% ranked path projects; and Low Priority for the remaining paths projects.

As discussed, the use of P x V as a specific volume threshold warrant has always been controversial, with most communities struggling to understand how locations just under threshold warrants are not prioritised, but as soon as a warrant is reached – sometimes simply due to an extra 100 vehicles per day, or 10 additional pedestrians in an hour - a location all of a sudden becomes a priority. Again therefore, it is important to reiterate that warrants have always been treated with a level of discretion, and that P x V remains a useful and reliable means for Council to prioritise large numbers of potential projects, and as such have been formally absorbed into the PAMP.

SUP bridges are very significant in the context of the broader Strategy for a number of reasons; they directly move pedestrians and bicycle riders from constrained roadways; they more often than not address critical missing links; and can be game changing in terms of the connections and accessibility that they provide.

Unfortunately though, they are also extremely expensive!

The Strategy identifies more than 40 of SUP bridge projects across Shoalhaven, the cost of which is approximately 30% of the entire backlog of active transport projects! This makes the ranking of these projects very important, and the formula of P x V is supported as the simplest and most effective means of prioritising these important projects.

10.5 Paths for Investigation

Briefly, as part of the Paths & Crossings Review, some path projects have been identified as being "***for investigation.***" These projects (but not all) are quite aspirational, and reflect requests from either the community or Council for longer term priorities for active transport connectivity.

However these projects will not be included in the PAMP Maps until such time as they are firstly found to be feasible (or not); and also due to their potential impact on third party land (either private land or State land holdings) either directly or indirectly.

These projects generally haven't been formally captured in the PAMP in the past; however, these projects have now been separately categorised, and scored/ranked (also using the new Active Transport Scoring Criteria for consistency and fairness in consideration); separate allocations of funding will need to be identified to initially progress investigation into these projects.

It is noted that the NSW Government's "Get Active NSW" program now permits "***projects for investigation***" to be considered; however, it will be a matter for Council to balance these priorities, which will inevitably have to compete within the same funding that could be used for other eligible and construction ready projects.

Following any investigations of these projects, it is anticipated that some of these projects may not be supported for progression, while others may be supported if found feasible.

At that point, these projects will need to be mapped (once an alignment is confirmed with more accuracy), and moved to the broader Paths Ranking spreadsheet for re-scoring and prioritisation against all other active transport projects across Shoalhaven.

These Investigation Projects are detailed in **Appendix G** (**Paths for Investigation**), and some more notes about these projects are also provided in **Appendix H** (**Notes to Scoring Criteria and Project Ranking Spreadsheets**), noting that in some cases significant investigation work (and significant allocations of funds) will be required *in the first instance* to undertake the proper and appropriate assessments of each of these projects, in consultation with affected owners and the broader community.

Again, it is only further to these investigations that these projects can be properly considered; properly mapped; ranked; and then considered for delivery by Council.

Finally, it is noted that these "investigation" projects will also be faced with the same funding challenges facing Council, and the success of any individual project may be at the discretion of the NSW Government as they determine grant priorities amid their own funding constraints.

10.6 Project Ranking

The full list of identified active transport projects across Shoalhaven, and their ranking further to application of the Active Transport Scoring Criteria and/or P x V, is provided in **Appendix D** (**Paths**); **Appendix E** (**Crossings**); **Appendix F** (**SUP Bridges**); and **Appendix G** (**Paths for Investigation**).

Critically though, the **Project Ranking** is designed to provide an empirical assessment of each project based on specific, tangible criteria. As such, while there is certainly merit in considering the higher ranked projects, this should not be seen as prescriptive, as there are many subjective factors that also need to be considered by Council and the community, including:

- Cost of the works.
- *Bang for buck*.
- Community priorities.
- Potential funding sources.
- Timing of new developments.
- Changes in public transport routes/services.
- Changes to the road network.
- State and/or Federal Government Priorities and funding criteria.
- Alignment to other programs, initiatives and projects.

Notwithstanding, the Project Ranking will continue to be the prime reference for the prioritisation of future active transport projects subject to Council's regular review of the Community Plan, and the annual review of the DPOP, and in turn applies its own discretion amid a range of other factors when determining which projects it may or may not support for delivery as part of its annual budgetary deliberations.

10.7 Project Notes

There are a number of relevant notes/caveats identified in regard to the ranking of projects, and more specifically to each of the individual Active Transport Scoring Criteria. These include a discussion of costs/units rates for different types of paths and crossings; the length of active transport paths compared with the length of roads; and some of the individual factors that can relate to specific projects.

Moreover of course, it is important to provide the community with more information in this regard given the extent of the backlog of active transport projects, currently being more than 700 paths projects and 200 crossing projects.

These notes/caveats are detailed in **Appendix H**, and should be read in conjunction with the Project Ranking Spreadsheets in **Appendix D** (**Paths**); **Appendix E** (**Crossings**); **Appendix F** (**SUP Bridges**); and **Appendix G** (**Paths for Investigation**).

11 The Active Transport Strategy

In order to best meet the demands and expectations of the community, and to ensure a robust, inclusive and evolving active transport network that will assist in meeting active travel demands across Shoalhaven, the Strategy includes 3 key Priorities and associated Action items. Further details of each of these Priorities and corresponding Actions are conveniently provided in **Appendix A**.

Priority 1
Connected, safe, inclusive and legible active transport networks

Priority 2
Aligning with local and NSW planning and active transport strategies and guidelines

Priority 3
Encourage and promote active trips as safe and viable modes of transport

12 Key Projects

Finally, further to the outcomes of the Paths & Crossings Review sections below provide details of some of the higher ranked active transport projects, including footpath, SUP and crossings projects; for each, we have provided a short description of the project, and the Active Transport Scoring Criteria factors that saw each rise to the top.

We have also summarised some of the top ranked SUP bridge projects and Paths for Investigation.

As discussed in **Section 10**, there are many other factors that Council needs to consider in prioritising projects, but the results of the Paths & Crossings Review are an important consideration for Council as they clearly identify how projects compare with other projects across Shoalhaven based on an objective application of the Active Transport Scoring Criteria and P x V formula..

12.1 Paths Projects

12.1.1 Overview

While detailed discussion of the new Active Transport Scoring Criteria can be found above in **Section 10** (**Paths & Crossings Review**), it is again noted that the Active Transport Scoring Criteria was originally amended in response to community feedback (prior to the exhibition of the Strategy) to simplify the Active Transport Scoring Criteria and make it fit for purpose as an objective and single use “Active Transport” measure, simplifying both the scoring criteria and the display/categorisation of project rankings (High, Medium and Low priority).

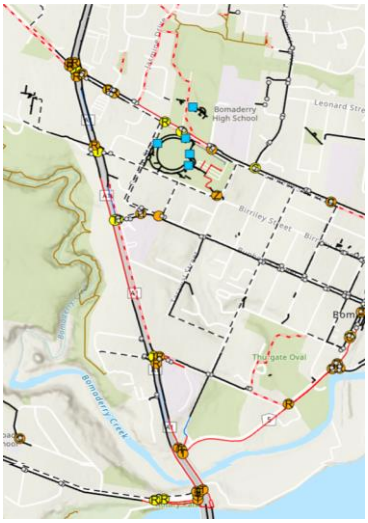
Further to the exhibition of the Draft Strategy, in response to community feedback received during the exhibition a further tweak was made to the Active Transport Scoring Criteria, expanding the “Traffic Risk” (Criteria #9) to address roads with an unusually higher percentage of heavy vehicles, which was an important and necessary change in response to this feedback, and resulted in some ranking adjustments, all which made sense and reflected safety concerns on the ground. A detailed review was also undertaken to ensure that the “Community Advocacy” (Criteria #14) was also being fairly applied to all relevant projects across Shoalhaven, in response to all of the feedback received from community groups and key stakeholders.

While a brief discussion of some of the higher priority path projects is provided in sections below, with nearly 700 path projects in contention it is not possible to write about all priority projects here, noting that some 75 path projects (10% of all path projects) were adjudged to be “High Priority”, and a further 100 projects (25% of all path projects) we adjudged to be “Medium Priority” (combined, addressing the top 25%, or 175 projects, as priorities for Council’s consideration)..

That's not to say other path projects aren't as important to local communities, but simply that Shoalhaven has an extensive road network (some 1,822km of Council roads) and 50 towns/villages competing for active transport funding. That's the challenge, and the reason for such a thorough review of all path projects, so as to ensure that the limited funding available is going to the right areas, and with the backing of community advocacy (captured through extensive and ongoing consultation).

12.1.2 Shared User Path, Princes Highway Corridor Nowra and Bomaderry

The busiest transport corridor in Shoalhaven, Princes Highway through Nowra and Bomaderry sadly is lacking in a continuous active transport corridor along its length. There have been some great projects delivered in part along the way, but there remains some very notable missing links and constraints, which are staged to address funding constraints.



Most of these projects have risen to the top of the rankings due to the high volume of traffic along the corridor; the importance of the corridor to a broad range of users; and the associated missing links and constraints which - when resolved - will facilitate higher utilisation of active transport in Shoalhaven's busiest area.

12.1.3 Shared User Path, "Basin to the Bay"

When Council's first active transport strategy, the "Shoalhaven Cycleway Strategy" was adopted in 1997, the strategy sought to progressively implement twelve key active transport corridors across Shoalhaven. Most of these have since been completed, either all or in part, and any remaining missing links have been captured and reflected in the updated Strategy.

One of these corridors is the "Basin to the Bay" SUP, which when completed will form a continuous SUP from Basin View all the way to Vincentia, connecting into the "Round the Bay" SUP network.

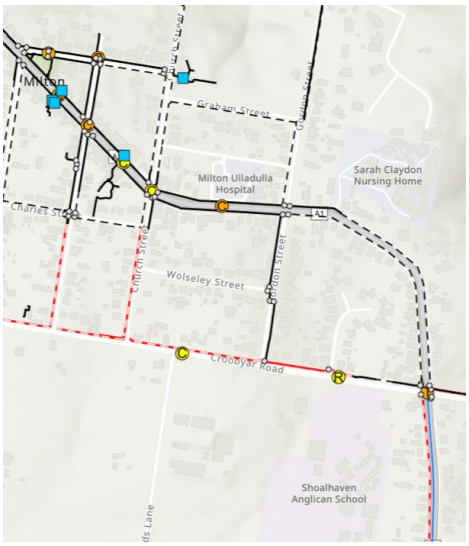
There is only one missing link left to deliver in the "Basin to the Bay" SUP network, being the connection between Kerry Street and Paradise Beach Road, via the southern end of Anson Street, Loralyn Avenue and Macleans Point Road (an alternative option for consideration, compared to the original proposed alignment via Walmer Avenue).

The original strategy specified Walmer Avenue – a designated Regional Road - for the SUP connection; however, subsequent design investigations have led to a District Engineering recommendation to instead include Macleans Point Road which is a shorter route; has less constraints; has less impact on established trees; and is anticipated to be lower cost.

Due to funding limitations, this vital missing link has been broken into multiple stages, and a final decision on whether Macleans Point Road or Walmer Avenue is preferred can be made once funding is available to deliver the project. Notwithstanding, completing this final missing link represents an important milestone in the delivery of the original Shoalhaven Cycleway Strategy network, so no surprise that this project has risen to the top of the rankings due to the importance of the corridor - locally and strategically - and its associated connections.

12.1.4 Princes Highway and Croobyar Road, Milton

While arguably the Milton-Ulladulla Bypass should have been delivered in 2006 after the earlier gazettal of the corridor in the Shoalhaven LEP in the 1990's, it is not surprising that the local community has been seeking more and more off-road path opportunities through Milton and Ulladulla as traffic levels have continued to grow. The path network has progressed to a greater degree through Ulladulla (which is busier), however Milton has some high demand missing links along Princes Highway which have been slowly elevated to a higher priority on the fringes of the town due to the demands from the three schools in Milton; the medical precinct; and the IRT Sarah Claydon retirement village and aged care home.



Similarly, Croobyar Road has also experienced growth from the development of the Corks Lane sub-division, as well as incremental background growth from further west, and at times also experiences spikes in demand due to activities at the showground; or from traffic diversions off Princes Highway down Myrtle Street and along Croobyar Road during seasonal peaks. As with Princes Highway also, there are only a few safe and convenient off-road options along Croobyar Road for pedestrians and bicycle riders, let alone our most vulnerable.

The active transport corridors along both of these important roads need to be improved, and so again it is not surprising these path projects have risen to the top of the rankings due to the high volumes of traffic; the importance of these corridors to a broad range of users; and to specifically address some notable missing links/constraints to allow people to choose active transport as a convenient option in Milton.

12.1.5 Shared User Path, Hillcrest Avenue, South Nowra

Like Kalandar Street in Nowra, Hillcrest Avenue has also experienced significant growth in demand since the early 2000's following the expansion of Worrigee and South Nowra, as well as growth in nearby local high schools in John Purcell Way and Park Road.

However, Hillcrest Avenue is lacking a continuous and safe active transport connection to the west and south (between these schools and Princes Highway, and the nearby South Nowra playing fields and commercial precinct) which is the highest priority; and more broadly a safe and continuous connection that will eventually be required back to Worrigee in the medium long term (also a high priority, but with a relatively lower ranked score).

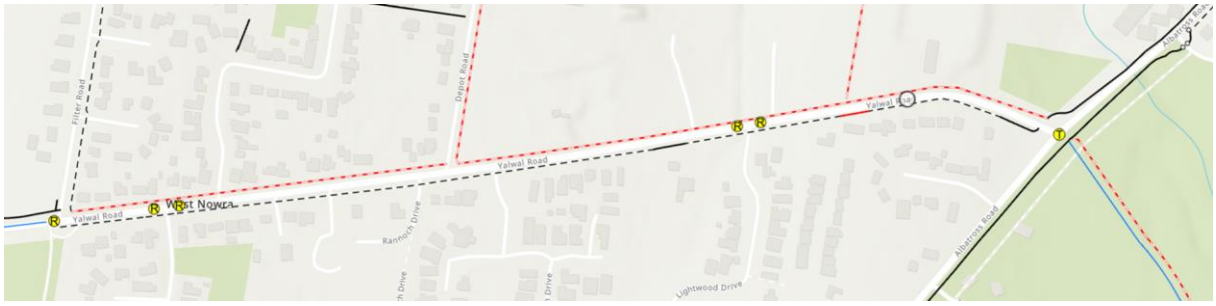
Given the current high volumes of traffic, and lack of safe off-road opportunities for pedestrians and cyclists, this path project has also risen towards the top of the priorities, and will require a holistic solution of SUPs, pedestrian crossings and traffic management at the intersection of Hillcrest Avenue & John Purcell Way.

The elevation of the initial SUP component of this broader project to High Priority will prompt a broader master plan view of all of the improvements necessary between John Purcell Way and Princes Highway, which will need to be staged over time, commencing with intersection safety improvements and a SUP along the southern side of Hillcrest Avenue (requiring a separate SUP bridge) in the first instance; and an additional SUP along the northern side of Hillcrest Avenue in the longer term which could be delivered as part of the future bridge replacement, subject to timing.

12.1.6 Shared User Path, Yalwal Road, West Nowra

This long sought after path project provides for a new SUP on the northern side of Yalwal Road from the existing SUP west of Filter Road to the existing path network in Albatross Road, addressing a vital missing link between West Nowra and the CBD.

This path project was originally elevated in priority since an earlier stage of the path network was completed further to the west as part of the University development, and has now been further elevated following incremental increases in traffic volumes through the area, and more specifically further to consideration of the higher proportion of heavy vehicle traffic impacting West Nowra due to the location of the Waste and Recycling Depot.



That's the new Active Transport Scoring Criteria at work, as this is one of several projects that have benefited from the amendment to "Traffic Risk" (Criteria #9) which provides additional points to projects in locations where local safety has been evidently impacted by higher than usual heavy vehicle traffic volumes.

12.1.7 Shared User Paths, Meroo Road and Cambewarra Road, Bomaderry

These important transport corridors through Bomaderry have also benefited from the amendment to "Traffic Risk" (Criteria #9) given the higher heavy vehicle traffic volumes generated by nearby industries in Meroo Road, Railway Street and along Bolong Road.

Active Transport projects along these corridors have also been elevated in priority due to the growth in general traffic; the location of nearby schools; and the need to provide a safe and continuous active transport connections between Bomaderry Train Station, nearby schools, and the Bomaderry Sports Complex.

12.1.8 Shared User Path Improvements, Shoalhaven River – Nowra Bridges Underpass

The Nowra Riverfront Advisory Taskforce (**NRAT**) was established in November 2020 by the NSW Government, co-chaired by the NSW Department of Planning and Environment, and the Department of Regional NSW. The role of the NRAT is to help ensure that the planning for the Nowra Riverfront is coordinated and aligned with other major projects in the area so as to identify and prioritise strategic development opportunities; and to drive the revitalisation of the Riverfront.

While planning for the Nowra Riverfront is still ongoing, this hasn't stopped key projects from being identified and delivered along the way, with a focus on ensuring that any projects/works are complimentary to longer-term planning. The opening of the new Nowra Bridge included improvements to active transport on the bridge and on both sides of Shoalhaven River, and further improvements are identified (or already under development) to tie into this new active transport infrastructure to further extend active transport benefits along key transport corridors and more broadly along the foreshore.

One such project is the upgrade of the SUP underpass under the Nowra bridges along the southern banks of the Shoalhaven River; funding for the design development of these improvements has been made available, but funding is still required for delivery.

The project will widen the existing path network (currently only suitable for pedestrians, and with a number of known blind spots), i.e. it will provide not only for widening under the bridges, but also extend this widened path both up/and downstream, initially tying back into Scenic Drive (to the west) and Riverview Road (to the east). This will address the current constraints, and transform this part of the active transport network for the benefit of both pedestrians and bicycle riders.

As the dust settles on the broader planning for the Nowra Riverfront, the community can expect even more improvements to be identified and prioritised to further activate the Shoalhaven River precinct, including improved connections back to the existing active transport network.

12.1.9 Shared User Path Projects Temporarily Deferred

A closing note also in regard to some high priority projects that have been temporarily deferred/demoted in the path rankings to a lower priority due to the need for other planning or delivery works to be completed “in the first instance”. Some examples of these deferred projects are provided below to explain the context and reasons for these deferments based on the new Active Transport Scoring Criteria.

- Shared User Path Link, Milton to Ulladulla

  While this project is undeniably a high priority, the current location of the Princes Highway corridor (part of the State Road network), as well as very high costs and significant constraints, has made it difficult for Council to evolve this project. As part of the planning works undertaken for the Milton-Ulladulla Bypass project, the lack of an active transport corridor between the towns has been recognised, and Council remains hopeful that TfNSW might be able to plan and design an active transport corridor, and indeed deliver parts of the project as part of the Milton-Ulladulla Bypass project.

  In the short term though, it is not possible to further progress this project until more information becomes available in regard to the design and delivery commitments associated with the Milton-Ulladulla Bypass.

- Shared User Path, Kings Point Drive, Kings Point

  While the provision of a SUP along Kings Point Drive is again undeniably a high priority (and is assessed as such further to the application of the Active Transport Scoring Criteria), earlier concept design investigations by Council identified extensive property impacts which would need to be resolved in the first instance. However, given the connection between this project and the Milton-Ulladulla Bypass project, Council has forwarded its concept designs to TfNSW, and remains hopeful that TfNSW may deliver all or part of the project as part of the Milton-Ulladulla Bypass project (which crosses Kings Point Drive).

  Again therefore, in the short term it is not possible to further progress this project until more information becomes available in regard to the design and delivery commitments associated with the Milton-Ulladulla Bypass.

- Active Transport Improvements, Cambewarra, Badagarang and Surrounds

  Given the extensive growth planned across Cambewarra, Badagarang and adjacent areas, active transport improvements in the area are also undeniably a priority.

  However, Council isn't responsible for the Moss Vale Road corridor (a Classified Main Road and part of the State Road network), and as such has been advocating for the NSW Government to prioritise the upgrade of Moss Vale Road to cater for the planned growth, including active transport provisions.

  Also at play is the planning work being undertaken by the NSW Government for the Nowra Bypass and broader Nowra-Bomaderry transport improvements project. In the short term, local projects that may eventually connect into these broader State networks cannot be further progressed until more information becomes available in regard to the design and delivery commitments associated with the Moss Vale Road upgrade; the Nowra Bypass; and broader Nowra-Bomaderry transport improvements.

- Active Transport Improvements, Tomerong and Surrounds

  Also a high priority for active transport improvements and local area traffic calming, Tomerong village was originally bypassed in the 1990's but broader background traffic growth has been increasing over time. The village is also susceptible to closures and diversions occurring in the surrounding road network (including Jervis Bay Road, the Princes Highway, The Wool Road and Island Point Road) which can at times redirect high (and often unplanned) volumes of additional traffic through the village.

  While there may be some works Council can undertake to mitigate these impacts, given the significant impact of State projects and diversions on the village, in the short term local planning of any such improvements cannot be progressed until more information becomes available in regard to the design and delivery commitments associated with the Jervis Bay Road to Hawken Road, and Hawken Road to Sussex Inlet Road, projects.

Nonetheless, Council remains hopeful that TfNSW may deliver some improvements for Tomerong as part of the respective Princes Highway upgrade projects.

- Deferred Projects - General

  There are many other State and local examples of projects which cannot be progressed at this time until other planning or delivery works are completed in the first instance. The current High Priority projects are therefore those that are more advanced or ready for funding now given consideration of the many factors associated with active transport projects that tie in with other major road projects.

  Critically though, it is important to again remember that the ranking of projects is a live and ongoing operational exercise by Council staff so as to keep on top of constant changes in the active transport space, and to ensure that as soon as conditions change and become favourable, deferred projects can then be repositioned to their correct place in the rankings table, and as soon as possible to enable them to be considered for funding, relative to other construction ready active transport options.

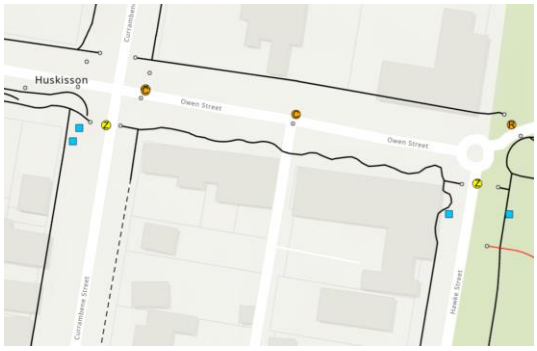
12.2 Crossing Projects

12.2.1 Huskisson Town Centre, Owen Street and Hawke Street

Other than Princes Highway through Ulladulla, Owen Street and Hawke Street in Huskisson report the highest pedestrian crossing demand in Shoalhaven, a reflection of the popularity of Jervis Bay – and of course Huskisson itself - as a tourist destination.

While Council has been awarded grant funding to undertake some initial pedestrian crossing upgrades, the details of this funding are currently being finalised; depending on what can be achieved with this initial grant funding, it is acknowledged that some staged works may be required in the first instance, with the situation then being continually monitored to identify demand changes and further crossing improvements.

The Huskisson Traffic and Parking Strategy adopted by Council includes the upgrade of the mid-block crossing in Owen Street (between Sydney Street and Currambene Street) to a formal pedestrian crossing, and additional formal pedestrian crossings on the southern, eastern and northern legs of the Owen Street & Currambene Street intersection. Finally, a formal pedestrian crossing in Hawke Street to the south of Owen Street has also been identified.



In almost all instances, the crossing projects have been prioritised further to recent surveys and the application of the P x V formula.

Other improvements may be required in the future, including a formal crossing of the western approach to the Owen Street & Hawke Street intersection (outside the pub); and of other approaches at the Owen Street & Sydney Street intersection (as part of the future roundabout proposal).

Importantly, even where specific projects have not been identified, Council recognises the importance of safe active transport within Huskisson, and we will continue to monitor all streets within Huskisson over time.

12.2.2 Princes Highway, Ulladulla and Milton

Several locations along Princes Highway through Milton and Ulladulla have been monitored for some time for potential pedestrian crossing improvements, with individual segments assessed in the P x V rankings, as well as with reference to the varying degree of risk at different locations.

The P x V analysis indicates high [potential] conflict volumes at the Princes Highway & South Street intersection in Ulladulla, which has been listed for proposed traffic signals since the mid 1990's as part of a suite of measures to manage traffic and pedestrian safety pending delivery of the Milton Ulladulla Bypass.

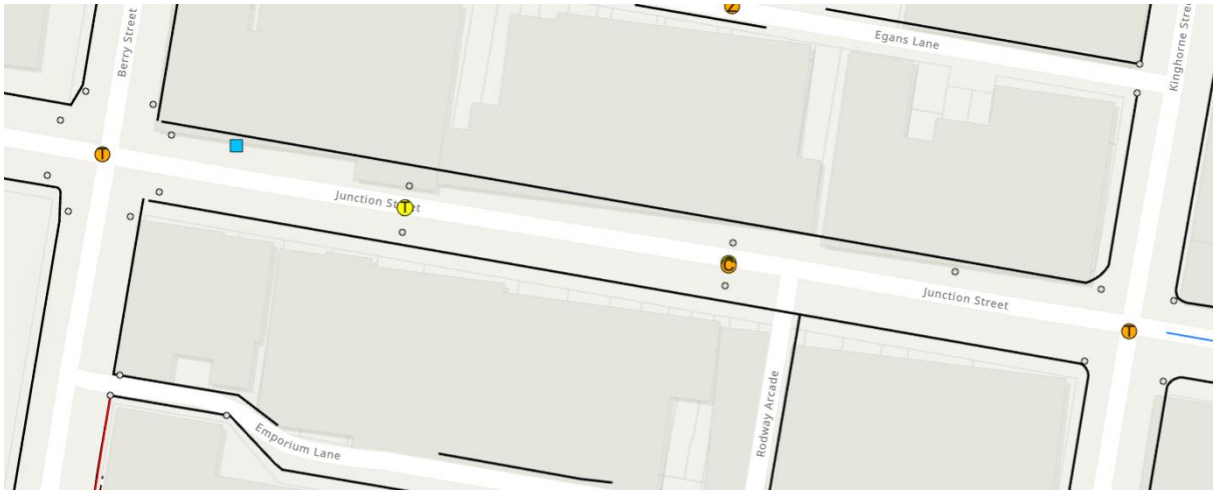
arc traffic + transport understands that the provision of signals has recently been deferred again by the NSW Government and TfNSW, as they investigate other potential solutions as part of the broader Milton Ulladulla Bypass Project.

A location between Church Street and Wason Street (adjacent to the IGA) has recorded the highest P x V in Princes Highway in Milton. Other locations in both Ulladulla and Milton are also being closely monitored for potential pedestrian safety improvements, having been ranked highly in the annual P x V assessment. A range of potential measures are being considered to improve pedestrian safety, with careful assessment to ensure any proposed treatments again to not result in adverse traffic impacts.

The P x V analysis identifies that even ***post-Bypass***, these locations in Milton and Ulladulla may experience some initial traffic volume relief. However, as traffic volumes again continue to grow over time along the current Princes Highway corridor through these towns and villages, it is anticipated that these locations will still continue to feature among Shoalhaven's high crossing priorities, and further surveys will be undertaken post-bypass to evaluate any adjustments required to the P x V analysis.

12.2.3 Junction Street, Nowra

This project provides for the formalisation a pedestrian crossing at the same location as the existing informal crossing point in the main street (kerb build-outs opposite Morrisons Arcade). This project scored highly as a function of P x V, i.e. the significant pedestrian and traffic volumes mid-block in Junction Street, with modelling indicating no adverse traffic impacts.



Council will also consider the other informal mid-block crossing in the same section of Junction Street (opposite the current Chemist Warehouse store), which also ranked highly and is anticipated to be considered for a pedestrian crossing treatment at the same as the Morrisons Arcade crossing upgrade, noting that traffic modelling undertaken by Council indicates no adverse traffic impacts even if both crossings are upgraded.

12.2.4 Queen Street, Berry Town Centre

The main street of Berry has again ranked highly in the P x V analysis, a reflection of the popularity of Berry as a tourist destination and moreover the vitality of Queen Street itself.

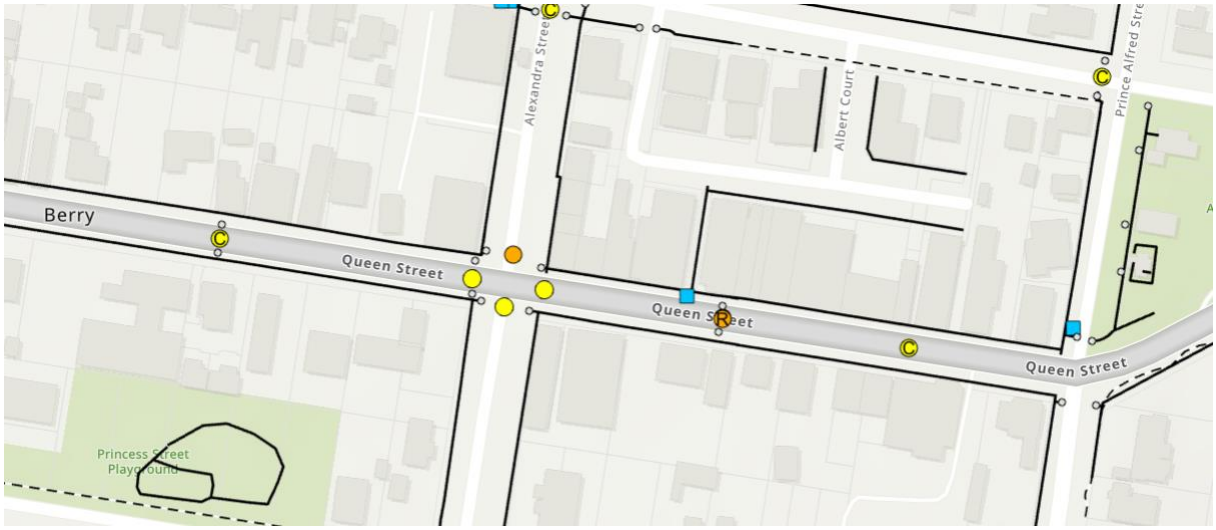
Council has previously been awarded grant funding to undertake some initial pedestrian crossing upgrades in Queen Street, but we are still developing designs that meet with the expectations of the local Berry community.

Prior to the Princes Highway bypass of Berry, formal pedestrian crossings in Queen Street weren't considered appropriate due to the very high likelihood of Princes Highway traffic rat-running through adjacent residential streets. Following the completion of the Princes Highway bypass in 2018, Council has actively sought potential grant funding options that could support pedestrian safety improvements in the Berry Town Centre, and particularly in Queen Street.

To the east of Alexandria Street, the existing Queen Street pedestrian refuge ranks very highly for a potential upgrade to a formal pedestrian crossing, and the community has recently requested that consideration be given to an additional crossing treatment further to the east (outside the Berry Hotel), which will be considered in the next round of P x V surveys and analysis.

To the west of Alexandria Street, P x V analysis also indicates that pedestrian crossing upgrades are worthy of consideration, both mid-block near the "donut van" and in closer proximity to the Queen Street & Alexandria Street intersection.

It should be noted P X V analysis shows that formal pedestrian treatments are required on each approach to the Queen Street & Alexandria Street intersection, and moreover that traffic volumes in and of themselves suggest a need for an intersections upgrade, potentially to a roundabout (with pedestrian treatments on all approaches).



In the short-term though, Council will continue to investigate additional refuge treatments at the intersection of Queen Street & Alexandra Street (such as provided on the northern approach) prior to a longer term roundabout upgrade being considered, and moreover the P x V analysis will continue to be kept up to date to evaluate changing demands and inform any potential crossing improvements.

12.2.5 North Street, Nowra

Probably no surprise to anyone - the existing North Street pedestrian crossing ranks very highly in the annual P x V analysis, having previously met former TfNSW warrants when the location was under management of the former Roads & Traffic Authority when the old Princes Highway actually ran through the Nowra Town Centre!

Given ongoing safety concerns at the location, which are a reflection of how traffic and pedestrian volumes at the have grown over the years, Council continues to monitor this location carefully, particularly as pedestrians now need to cross more than two traffic lanes (depending on the time of the day) which would not be recommended under “current” standards. Given the high P x V results, the most (if not only) suitable upgrade under current standards would be pedestrian signals, potentially tied to the signalisation of the North Street & Graham Street & Egans Lane Car Park intersection.

While – conversely - there has been calls in the past for the crossing to be removed, as a roads authority Council prefers to never endorse a downgrade of a crossing treatment that meets warrants for a formal treatment, particularly where (in this instance) it not only meets traditional warrants but would blows them away if they were technically still applicable as the traditional warrants (!) which supports Council's position of retaining the current crossing until such time as TfNSW agrees to an upgrade to a higher order, signalised treatment..

It remains Council's current position, and is arc traffic + transport's recommendation reflecting a common sense approach, that given the high quantum of P x V at this location there wouldn't be a reasonable justification for a downgrade (or removal) of the crossing, and again as such the suitable upgrade would provide a signalised intersections with signalised crossings on all approaches.

Until such time as a signalised treatment is provided, the existing pedestrian crossing will need to remain, again noting that it provides safe crossing opportunities than having no crossing at all. Moving forward though – and again noting that Councils are not responsible for traffic signal assets in NSW - Council will continue to lobby TfNSW a suitable grant to deliver the signals.

12.2.6 Kinghorne Street, Nowra

Numerous locations across Nowra have been monitored in the annual P x V surveys and analysis. Although the highest ranked locations in/around the Nowra CBD include North Street (the location of the existing pedestrian crossing - no surprise!) a location in the vicinity of Woolworths and Coles has also been identified as a priority project based on high P x V results, which reflects the high demand for pedestrians crossing between Woolworth and Coles. No surprise there…

Importantly, the evidence available at this time indicates that more detailed traffic modelling of this section of Kinghorne Street by Council is unlikely to identify any adverse traffic impacts arising from the provision of a formal pedestrian crossing, and moreover the provision of a formal pedestrian crossing would not only provide a risk management measure, but would provide a significant improvement to safety and accessibility in the busy part of the Nowra Town Centre, particularly for our most vulnerable pedestrians.

12.2.7 Emmett Street, Callala Bay

Emmett Street in the vicinity of the Callala Bay shops has also ranked highly in the annual P x V analysis, a reflection of how busy another one of our coastal villages have also become over the years.

The section of Emmett Street between the Community Centre access and Chisolm Street has been monitored for some time in two distinct crossing demand zones (to the east and west of the shops), with the Paths & Crossings Review in turn identifying the need for 2 pedestrian crossing treatments.

Like other high P x V locations, a pedestrian crossing at even just one of these locations would provide significant accessibility improvements for the community, in particular for our most vulnerable, although where there are distinct separate desire lines such as this, multiple crossing treatments are always recommended to address each desire line.

12.2.8 Cambewarra Road, Bomaderry

This projects provides for an upgrade of the existing Children's Crossing outside Bomaderry Public School. This crossing was previously upgraded from at-grade Children's Crossing to a raised Children's Crossing, but monitoring of pedestrian and traffic volumes (yep, P x V) indicates that warrants are met for a formal raised pedestrian crossing (wombat crossing).

This project also scores highly due to the to link between Bomaderry Station and Bomaderry High School, as well as Council's resolution to strengthen the active transport links between Bomaderry Station and the Bomaderry Regional Sports Complex.

12.3 Shared User Path Bridges

12.3.1 Millards Creek Ulladulla

This project would provide for the upgrade of the existing Millards Creek Bridge in Princes Highway to a SUP bridge, with a SUP to be provided on the eastern side of the bridge (which attracts some 80% of active trips across the bridge).

It is anticipated that funding for this upgrade could be made available as part of the Milton Ulladulla Bypass, though this is yet to be confirmed. This has been a long sought after project for the community, however projects in this order of cost are typically not achievable through normal grant funding streams, so it is hoped that the Milton Ulladulla Bypass project could be the saviour(!) as this particular project is by far the highest ranked SUP bridge project.

12.3.2 Moss Vale Road, Kangaroo Valley

The project has been a long time coming, and is currently ranked second highest of the SUP bridge projects, based on the annual P x V assessment against other SUP bridge projects across Shoalhaven.

The SUP network in Kangaroo Valley has been a successful collaboration between the community and Council, and indeed one of the first of its kind in Shoalhaven; however, there remain a number of [expensive!] missing links for Council to complete at a later date. This includes a notable gap in the existing SUP path on the northern side of Moss Vale Road between (generally) 127 Moss Vale Road and 141 Moss Vale Road, which would also require a SUP bridge over the culvert east of 129 Moss Vale Road).

This project would remove many of the current pedestrian crossing movements on of Moss Vale Road (many of which are pedestrians/bicycle riders who currently have to cross the road twice due to the absence of the proposed SUP bridge) but involves constructing the proposed SUP bridge to cross the existing culvert to allow continuation of the existing path. .

After Millards Creek Ulladulla, this project currently returns a very high P x V result, and the completion of this project would result in much needed safety and connectivity improvements in Moss Vale Road through the Kangaroo Valley Village Centre.

12.4 Paths for Investigation

12.4.1 Overview

The Paths for Investigation projects – many of which are, it is acknowledged, extremely aspirational - are projects that have been requested by the community for future consideration, but can't be added to the PAMP or Bike Plan at this time without requiring some degree of initial investigative work

These projects have been separately ranked (using the new Active Transport Scoring Criteria), and a separate allocation of funds will be required in the first instance to undertake the proper and appropriate assessments of each project in consultation with affected owners and the broader community.

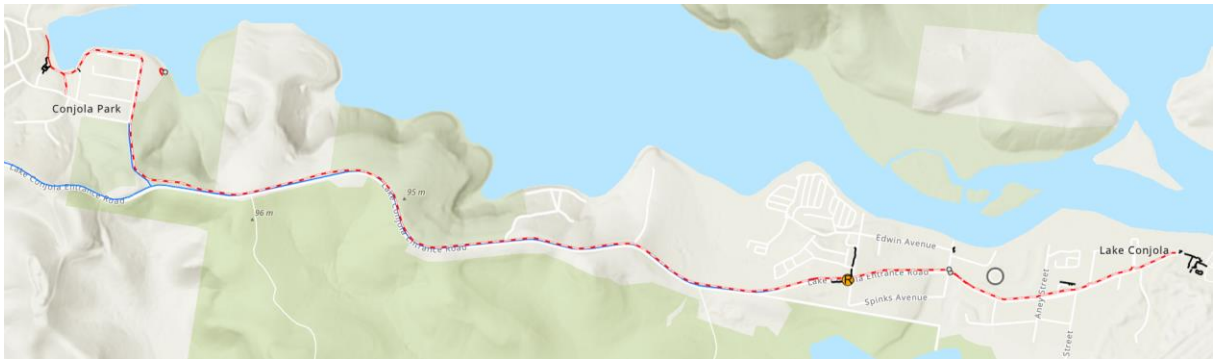
Again, it is only further to investigation that these projects can be properly considered; properly mapped; ranked; and then considered for delivery by Council (if indeed they are deemed feasible following the initial investigations).

12.4.2 Lake Conjola

This project would provide a SUP along Lake Conjola Entrance Road from Havilland Street in Conjola Park to Norman Street in Lake Conjola. It is designed to provide a safe mixed-use path for both pedestrians and bicycle riders, and a safer and more efficient way for local residents and visitors to walk or cycle between Conjola Park and the township of Lake Conjola.

A Concept Design has been prepared by the Conjola Community Recovery Assessment (**CCRA**) using donations to support open space upgrades in Conjola Park following the 2019 - 2020 Black Summer bushfires.

The SUP will provide a width of approximately 2.0m over a length of some 3.4km, and run parallel to Lake Conjola Entrance Road (northern side of the road) between Havilland Street, Conjola Park and Norman Street, Lake Conjola. CCRA also investigated a path along the Lake Conjola foreshore, but this was not considered to be economically viable given a requirement for extensive land acquisitions from both private landholders and the National Parks and Wildlife Services.



Similar to other projects of this nature, and specifically because of the constraints of the existing road reserve, and the likely land acquisition impacts - the project will remain as an investigation project until such time as Council has been able to carefully examine the project (in consultation with the community) including the alignment of the SUP and costings prepared by CCRA. If found to be acceptable and feasible, and once the dust has settled on a design alignment, the project can then be mapped with more certainty, at which point it can be included in the PAMP Interactive Mapping Tool and also moved across into the Paths Projects Ranking Spreadsheet for future funding consideration.

12.4.3 Falls Road, Falls Creek

This investigation project has ranked highly primarily due to it being an alternative route for bicycle riders so that they can avoid traversing the highly trafficked and high-speed Princes Highway and Jervis Bay Roads.

Council is aware of the recent heightened interest in this project within the cycling community due to the increased risks for bicycle riders trying to negotiate the construction site of the Jervis Bay Road flyover project, a project being managed/delivered by the NSW State Government, noting that an off-road bicycle path has not been provided by TfNSW as part of the project.

The Falls Road project has been in the PAMP from the outset (i.e. for more than 20 years), and is a project that has been discussed with local cycling clubs for many years, but it has not gained favour with adjacent landowners, nor have alternative routes identified by Council over a number of years.

Notwithstanding, and a discussed previously in **Section 2.3**, this project was raised as Item 4 in the Ordinary Meeting of Council held on 15 August 2024 (MIN24.451), which resolved *That Council:*

4. *Report back on a temporary bicycle access along the gated Falls Public Rd alignment due to the safety issues associated with the Jervis Bay Road intersection works and that this temporary legal access be subject to review in any future investigations for permanent access and any environmental impacts.*

Pursuant to Item 4 of the Resolution, a separate report to the new Council on the Falls Road bicycle track proposal is currently being prepared (date still to be determined). It is intended that once the Falls Road matter has been considered by the new Council, any subsequent resolution of Council could also be addressed as a final amendment to the Strategy, subject to the Council meeting outcome.

Should Council decide to pursue the project further, funding will need to be allocated to the project in the first instance to allow appropriate initial investigations to be undertaken, as well as further community and landholder consultation to see whether viable alternatives exist, or whether Council may need to examine the provision of an off-road bike track along the originally adopted route.

12.4.4 Gerringong to Bomaderry Rail Trail

Choo choo - now this one has got our attention!

While this project hasn't ranked very highly (at least at this point), so called rail trails have become very significant tourist attractors across Australia over the past 20 years, either using disused railway lines or the immediately adjacent corridor.

Rail trails provide an appropriate gradient for bicycle riding, as railway lines simply can't be provided on steep hills given the operational capabilities of trains; a rail trail between Gerringong and Bomaderry (and then on to Nowra) would not only link to of the South Coast's most populator tourist destinations, but also provide for day-tripping bicycle riders and pedestrians of all abilities.

Council has resolved to more actively investigate this project in conjunction with future upgrade works along the rail line, which in the first instance will require consultation with TfNSW and Sydney Trains, and well as investigations in regard to potential pinch-points; crossing locations; and land ownership. Further to those investigations, a determination would be made in regard to what formal studies would then be required to examine the viability of the project.

It should be noted that this project has only ranked poorly (in accordance with the Active Transport Scoring Criteria) on the basis that it simply isn't ready for consideration at this point in time. More specifically, the significant constraints along the existing rail corridor indicate that a project of this nature could really only be considered as part of a future rail line upgrade, including future rail line duplication, rail sidings, passing loops and the like given current land constraints.

So, while certainly aspirational, we can see it being a winner one day!

12.4.5 Currambene Creek SUP Bridge

There has been recent community and Councillor interest in a proposed SUP bridge of sorts across Currambene Creek (linking Huskisson to Myola), as well as a request to investigate this project by SBUG in their submission on the new ATS, so we thought it was worthy of a mention here!

Historically there has been community interest in a bridge "for traffic" linking communities to the north and south across Currambene Creek (to avoid the longer drive around via the Princes Highway) serving growing coastal communities; improving local accessibility; and also enhancing resilience (resilience to natural disasters and network incidents). However, while a "preferred route" for a road bridge (for traffic) was adopted by Council in the 1990's, the project was never considered a short or medium term priority, and moreover stalled as a result of:

- Insufficient funds to deliver or even advance the investigations into the project;
- The corridor was never secured;
- The adopted corridor was also several kilometres further upstream along Currambene Creek, and in turn too far to the west to ever be considered as a practical addition to the "Round the Bay" SUP network).

Due to the complexities associated with trying to build a SUP bridge to link Huskisson and Myola, including the need to cater for all variations of marine vessel (traversing between the Woollamia boat ramp and Jervis Bay), Council resolved as part of the "Round the Bay" strategy in 2012 that in the first instance it would focus on extending the SUP network around the Bay in each direction, leaving the Currambene Creek crossing as a potential longer term initiative.

As a stop-gap measure though, Council supported the private ferry operations which were established to service the current demands. These ferry operations have proved popular, and Council has since sought grant funding for improvements to the SUP network (supporting the ferry operations on the Myola side of Currambene Creek) including car parking improvements, and connecting the landing/launching area back to the existing SUP network which connects to Callala Beach and onwards to Callala Bay.

This remains the current position of Council, and there is much more to be done in the first instance to continue to develop the Round the Bay network in each direction (on the northern side - through Callala Beach to Callala Bay; and on the southern side - an extension of the SUP network on the southern side of Vincentia, as well as other safety and access improvements through Vincentia).

There are several options for a potential SUP bridge alignment, but none of these options have a reasonable cost, nor provide a short or direct crossing between Huskisson and Myola, again as this is not possible without impacting marine vessels traversing between the Woollamia boat ramp and Jervis Bay. The most likely (least cost) option is to investigate a potential alignment utilising the existing SUP network along Woollamia Road, and then via Edendale Street (the current SUP network terminates on Woollamia Road at Edendale Street).

However, while this may be the least cost option, like all other aspirational "paths for investigation" an allocation of funds would be required in the first instance to investigate this option (or others) more thoroughly, including likely land impacts. This funding has at this time not been prioritised given the complexities and high costs likely to be involved, and given the amount of work still left to be done to further expand the SUP network around Jervis Bay in both directions in the first instance, pursuant to the adopted Round the Bay strategy.