



Draft

Warringah Bike Plan 2010-2015



Warringah
Council

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WARRINGAH DRAFT BIKE PLAN 2010-2015

Executive Summary

The Warringah Bike Plan provides the basis for cycling infrastructure and education to deliver a better environment for cycling in Warringah.

The Bike Plan also outlines various promotion strategies and events to encourage more people to ride their bikes for local trips to the beach, the shops, school or the bus, for transport, recreation, fitness and fun.

The Warringah Bike Plan is based on previous documentation such as the 1998 Warringah Bicycle Plan, the SHOROC Cycleways Mapping Project, the Warringah Multi-Use Trails Strategy, RTA Action for Bikes 2010, the Warringah bicycle facilities audit completed in 2009 by GTA Consultants and feedback from the Warringah Bike Plan Questionnaire.

Significant input has already been received from the community and Council looks forward to receiving submissions during the public exhibition period.

The vision of the Warringah Bike Plan is defined by the outcomes, whereby:

- Warringah is a bicycle friendly environment where the preferred choice for a short or medium trip is riding or walking.
- Cycling in Warringah meets key federal, state and local government objectives in transport, health, the environment and energy savings (including carbon footprint reduction).
- Warringah is connected by a safe and enjoyable cycling network, with links to Pittwater, Manly, Willoughby and Ku-ring-gai.
- Warringah recognises that more cycling improves the health of individuals and the community, offers more choice in transport options, improves sustainability by reducing greenhouse and other gas emissions, and reduces dependence on foreign oil imports.

Key benefits expected through this Bike Plan are:

- Improved cyclist safety
- Reduced bicycle crashes
- Reduced traffic conflict
- Facilitating a healthy and active community
- Increased number of cyclists in the community
- Increased social interaction in the community
- Positive impact on tourism and local businesses
- Reduced motor vehicle transport expenses
- Increased casual community surveillance
- Improved environment

Initiatives include the construction of coherent, direct, safe, attractive and comfortable bike routes that go where people would like to ride their bikes for whatever purpose.

Directional signage is part of the proposed bicycle network as well as end of trip facilities such as bike parking. Planning requirements are recommended for larger developments to provide

showers, bike parking, lockers, etc for workers and residents. Education, and various promotion opportunities and events are also nominated in the Bike Plan.

The Bike Plan also provides an action plan to ensure that cycling in Warringah is delivered and maintained in an ordered manner based on priorities established with the community. Actions also ensure appropriate monitoring and review of the plan.

Abbreviations

The following is a list of abbreviations used throughout this document:

BG	Bicycle Guidelines
CS	Corporate Services
C&SS	Community and Safety Services
DCP	Warringah Development Control Plan
LATMs	Local area traffic management schemes
LEP	Warringah Local Environmental Plan
LGA	Local Government Area
M&C	Marketing and Communications
NEU	Natural Environment Unit
NPWS	National Parks and Wildlife Service
PC	Projects and Contracts
P&CD	Property and Commercial Development
POM	Plan of Management
PR&F	Parks, Reserves and Foreshores
RTA	NSW Roads and Traffic Authority
RT&W	Roads, Traffic and Waste
RR	NSW Road Rules,
S&P	Strategy and Policy
SHOROC	The Shore Regional Organisation of Councils
SP	Strategic Planning
WAC	Warringah Aquatic Centre

Warringah Bike Plan Actions Table

This table of actions, priorities and responsibilities has been divided into four key subject groups for ease of interpretation:

- Public Promotion, Education and Behaviour Change Actions
- Warringah Leading by Example Actions
- Warringah Council Policy and Procedural Actions
- Implementation of Bicycle Infrastructure Actions

Table 1: Warringah Bike Plan Actions Table

Action No.	Recommended Actions	Responsibility	Priority
Public Promotion, Education and Behaviour Change Actions			
1	Promote National Ride to Work Day Promote National Ride to Work Day annually (Refer to Appendix 6 for more details)	C&SS	High - Annually
2	Promote new bike routes Promote new infrastructure developments upon their completion, especially signature projects such as: - Narrabeen Lagoon Multi-Use Trail Loop - Warringah Mall to Manly Cycle Route - Narrabeen Lagoon to Dee Why Beach via Cromer Departments that complete construction of major routes are responsible for ensuring their promotion.	PR&F NEU R,T&W P&CD M&C Events Team	High
3	Promote Warringah Bike Plan 2010-2015 Promote the existence of the Warringah Bike Plan 2010-2015 Include the final Bike Plan under the Publications / Key Strategies links on Councils website Develop a 'Cycling in Warringah' page on Warringah Council's Website	SP	High
4	Develop 'Cycling in Warringah' Public Information Develop 'Cycling in Warringah' public information that includes: - cycle route maps that may contain - Distinction between existing and proposed routes and bicycle parking - Difficulty of routes, e.g. child friendly routes - Where the hills are - recent bicycle route improvements in the local area - the personal and community benefits of cycling - bicycle skills training classes available - bicycle maintenance courses - a contact list of local, state and national cycling	SP	High

Action No.	Recommended Actions	Responsibility	Priority
	organisations • cycle awareness tips for motorists (road safety) Distribute this information via Council's Website, Eco Van, Council Libraries, Council Dee Why Civic Centre and interested Local Bike Shops		
5	Road Safety Program Include road safety and cycle awareness when developing Road Safety Programs	C&SS	High
6	Marketing Campaign Develop a strategy to promote key messages that address perceived barriers and encourage greater uptake of cycling in Warringah, eg: • Cycling is safer than you think • You don't need to be super fit to cycle • Improve road user behaviour/safety/awareness of cyclists • Benefits of choosing to cycle; health improvements, greenhouse gas and petrol savings, relief from congestion and parking problems. • Use your bike for short trips instead of the car	C&SS	Medium
7	Support organisers of local and other cycling events Support organisers of local and other cycling events, as these act as an entry point for new cyclists (Refer to Appendix 6 for more details).	C&SS	Medium - Ongoing
8	Bicycle Education Programs Develop a strategy to encourage community and workplace bicycle education programs to improve cyclists' knowledge, skills, confidence and safe cycling behaviour.	C&SS	Medium
9	NSW Ride2School Program Support organisers of the NSW Ride2School program by encouraging local schools, especially those near improved cycling facilities to participate in the program annually.	C&SS	High ongoing in March each year

Action No.	Recommended Actions	Responsibility	Priority
	Encourage parents of school children to establish together with their child a safe route to school. Noting, children under 10 should be supervised in traffic environments at all times.		
10	Cycle Tourism Investigate the potential for cycle tourism in Warringah	S&P	Low
Warringah Leading by Example Actions			
11	Warringah Council Workplace Travel Plan Develop a 'Workplace Travel Plan' for Warringah to encourage healthy alternatives to the car such as walking, cycling and catching public transport. A good example to follow is the Northern Beaches Health Service Workplace Travel Plan 2009 – 2012.	To be determined	High
12	Warringah Council Bike Fleet Implement the Warringah Council Bike Fleet for employees to use during work hours.	CS	High
13	Website Cycling Details Provide visitor cycle parking location details on Council's Website 'Contact Us' page.	SP	High
14	Improve Warringah Council End of Trip Facilities Provide adequate end of trip facilities (bicycle parking, lockers, showers and change rooms). Refer to the case study of Brisbane City Council end of trip facility provisions located in Appendix 6.	P&CD	High
Warringah Council Policy and Procedural Actions			
15	GIS Bike Plan Data Updates Any Council Department that constructs a bicycle facilities outlined below has a responsibility to report its details to Council's GIS Manager for entry into the Warringah Bicycle Network Database. This data will serve to keep a record of Council assets and will also aid future reviews of the Warringah Bike Plan. - Shared path facilities - Mixed use facilities - Bicycle lane and bicycle shoulder lane facilities - Directional signage	P&CD RT&W PR&F WAC Asset Information Department	High - Ongoing

Action No.	Recommended Actions	Responsibility	Priority
	- Bicycle parking facilities - Bicycle ramp facilities - Cycle box facilities - Lighting of bicycle routes Database details should be provided where applicable as follows: - Date of construction - Type of facility - Location of the facility - Distance the facility covers - Content of bicycle directional signage - Type of bicycle parking facility and amount of spaces provided Council's Asset Information Department needs to develop procedures to formalise this process.		
16	Warringah Traffic Committee Invite an active member of a local bicycle user group to attend Warringah Traffic Committee Meetings. This person will serve to represent the interests of cyclists in Warringah for all road works and notably provide feedback on infrastructure works proposed along bicycle routes identified in the Warringah Bike Plan 2010-2015	RT&W	High - Ongoing
17	Warringah Traffic Committee Provide a copy of the final Warringah Bike Plan 2010-2015 to the Warringah Traffic Committee for consideration of all decisions relating to the Warringah bicycle route network.	RT&W	High - Ongoing
18	Super Tuesday Bike Counts Participate in Super Tuesday Bike Counts to develop Warringah Council data on how use of cycling infrastructure varies over time, pre and post construction. This data will provide supportive evidence for future funding of bicycle infrastructure and inform future prioritisation of the network. Council should participate in Super Tuesday Bike Counts at least every 2 years starting in 2010, then 2012, 2014 etc	SP & RTW	High - Ongoing
19	Warringah Strategic Community Plan Council Departments should review their relevant	All relevant Council	High - ongoing

Action No.	Recommended Actions	Responsibility	Priority
	Warringah Bike Plan 2010-2015 Actions annually (in November each year) and consider the inclusion of Bike Plan Actions into their Strategic Community Plan – Key initiatives and capital works programs for the following year.	Departments: CS; C&SS; M&C; NEU; P&CD; PR&F; R,T&W; S&P; SP; WAC	
20	Lobby RTA regarding Cyclist Safety Hotspots Continue to lobby the RTA to improve cyclist safety hotspots as identified in the bike plan network priorities for RTA Routes (refer to relevant section of this document for more details).	RTW	High - Ongoing
21	Apply for funding grants That Council Departments consider annual applications for bicycle funding grants in accordance with the information outlined in the funding section of this document.	RT&W NEU PR&F Council's Road Safety Officer	High - Ongoing
22	Asset Management Bicycle Routes, Parking and Directional Signage should be included in Council's asset management program in a similar manner to roads, to ensure a safe and useable riding surface and to avoid the increasing cost of maintenance or reconstruction as a result of degradation of the asset.	P&CD	High
23	Public Exhibition of the Draft Warringah Bike Plan 2010-2015 - Place the draft bike plan on public exhibition and produce final draft for adoption by Council - Organise public consultation events - Provide website access to draft bike plan	SP	High
24	Development Control Plan (DCP) Determine appropriate DCP standards for end of trip facilities for various land uses in Warringah and integrate these into the future Warringah Council DCP where appropriate.	SP	High
25	Future 'Indirect Contributions Plan 2011/2012 This plan will replace the current S94A plan. It is recommended that cycling facilities (bicycle routes and bicycle parking provisions) as prioritised in the schedule of works for the Warringah Bike Plan 2010-2015 are considered for inclusion in the new Indirect Contributions Plan 2011/2012.	SP	High
26	Develop and maintain a public improvements and	RT&W	Medium

Action No.	Recommended Actions	Responsibility	Priority
	suggestion register via Council's cycling webpage The <i>NSW Bicycle Guidelines</i> recommend a system for the reporting of defects on the bike facilities, such as an online hazard reporting form that can be entered into Council's maintenance program. Council should investigate developing as similar reporting system.		
27	Mountain Bike Strategy Determine Council's role and involvement in the provision of mountain bike riding opportunities through the completion of research and consultative activities as outlined in the 2009 Recreation Strategy	S&P	Medium
28	Review of the Bike Plan	RT&W	Low (Year 2016)
29	Warringah Design Guidelines – Public Spaces This document provides guidelines as to how council-funded and built street furniture, signs and other objects are finished. This means it covers the design, colours, paving surfaces, signs and ground coverings. The document does not mention bikes or bike use. However, bicycle infrastructure should be considered for inclusion in the document as bike parking facilities, storage, signage and bollards are an important part of the streetscape. As a result, the document is compatible with the bike plan and would benefit from some amendment to take bike infrastructure into consideration.	SP	Low

Implementation of Bicycle Infrastructure Actions

30	Construct Bicycle Network Implementation Priorities Construct Bicycle Network Implementation Priorities in accordance with responsibilities, as tabled in the relevant section of the Warringah Bike Plan Background Document. For more detail of what is required for the construction of each route refer to the detailed works spreadsheet available in Appendix 8.	R,T&W PR&F NEU WAC P&CD	High - Ongoing
31	Construct Bicycle Parking Facilities Construct Bicycle Parking in order of priority and in accordance with responsibilities as tabled in the Bicycle Parking Strategy of the Warringah Bike Plan Background Document.	R,T&W WAC P&CD	High - Ongoing
32	Implementation of the Warringah Bicycle Network Although a number of routes identified in the Warringah Bicycle network are currently not prioritised, unprioritised	R,T&W PR&F NEU P&CD	High - Ongoing

Action No.	Recommended Actions	Responsibility	Priority
	routes should still be considered for development as roads, footpaths, parks, reserves and foreshores are upgraded via other priorities of Council. It is the responsibility of various departments in Council who construct these works to check whether they are located along a bicycle route as identified by the Warringah Bicycle Network Map and Appendix 8: Detailed works spreadsheet and design works accordingly, taking the bike plan into account.		
33	Drainage Grates Council replace any drainage grates, especially those located along bike routes that are not cycle safe with bike friendly grates.	RT&W	High-ongoing
34	John Fisher Park & Abbott Road Land POM Review the shared path network and bicycle parking provisions as outlined in the John Fisher Park & Abbott Road Land Plan of Management and assess if these are compatible with the bicycle facilities proposed in the Warringah Bike Plan 2010-2015. Amend the plan of management if required to be consistent with the bike plan.	PR&F	High
35	Berry Reserve & Adjoining Foreshores POM Assess whether this POM is compatible with the Warringah Bicycle Network facilities proposed for Berry Reserve in the Warringah Bike Plan 2010-2015 and if required amend the POM to include these provisions as follows: • Directional signage at key locations be provided to inform users of the off-road shared path link from Narrabeen to Dee Why Beach via Cromer, and • Provision of shared path signage, in accordance with the Warringah Bike Plan 2010-2015 signage requirements. For example, provision of a divider line in the centre of the path so that pedestrians and cyclist keep to the left unless overtaking. This will encourage safe use of the path, reducing user conflicts between pedestrian and cyclists • Investigation of the provision of lighting along the shared path route to minimise collisions between pedestrians and cyclists at night, taking environmental considerations into account	PR&F	High
36	Allenby Park POM Investigate the potential for a new off-road bicycle/pedestrian track to be formalised through Allenby Park, providing a key link from Allambie Heights to Warringah Mall, including directional signage.	PR&F	High

Action No.	Recommended Actions	Responsibility	Priority
	If investigations deem this route plausible then the Allenby Park Plan of Management should be updated accordingly.		
37	Urban Bushland Reserve POM Assess whether this POM is compatible with the bike plans proposed bike route following the existing path in Condoover Reserve and if required, amend the Urban Bushland Reserve POM to permit construction of this route.	PR&F	High
38	District Parks POM Assess whether this POM is compatible with the bike plans proposal for the provision of a 'learn to ride' facility at Passmore Reserve or Nolans Reserve (possibly where the old netball courts are located). If required, include this in the District Parks Plan of Management. Also recognise bicycle routes proposed to run through and in proximity to the district parks as identified in the Warringah Bike Plan 2010-2015 in the District Parks Plan of Management if required.	PR&F	Medium
39	Dee Why Town Centre Investigate the planning proposals for the Dee Why Town Centre. Where possible integrate bicycle infrastructure provisions into all future development works in accordance with the Warringah Bike Plan 2010-2015.	SP	Low
40	POM for Lionel Watts Park and Frenchs Forest Showground Assess whether the relevant POM is compatible with the potential for a shared path loop around Frenchs Forest Showground and an off-road shared path link from the showground to Glenrose shops as proposed by the Warringah Bike Plan 2010-2015. If required, integrate this bicycle network into the relevant plan of management.	PR&F	Low
41	Lobby for bikes on Buses	SP	Low

Who is the Warringah Bike Plan for?

Warringah's Bike Plan is for everyone – for those who may like to ride a bike but for one reason or another do not ride, and for those who already ride.

The facilities recommended will help everyone who rides, whether commuting, training, casually cruising around, going to the shops, beach or school, or just enjoying the beach or bush in Warringah.

Elite athletes, retirees, school children, parents going with children to the beach, shoppers, commuters, people who don't drive all will benefit from additional transport choice with improved facilities for bikes.

Mountain bike riders too will benefit from links to National Parks and other reserves but Council's jurisdiction does not extend into the Parks or across private land where some existing tracks appear to lead.

Need for the Bike Plan

The Warringah Bicycle Plan was first compiled in 1998 by consultants Geoplan-Arup.

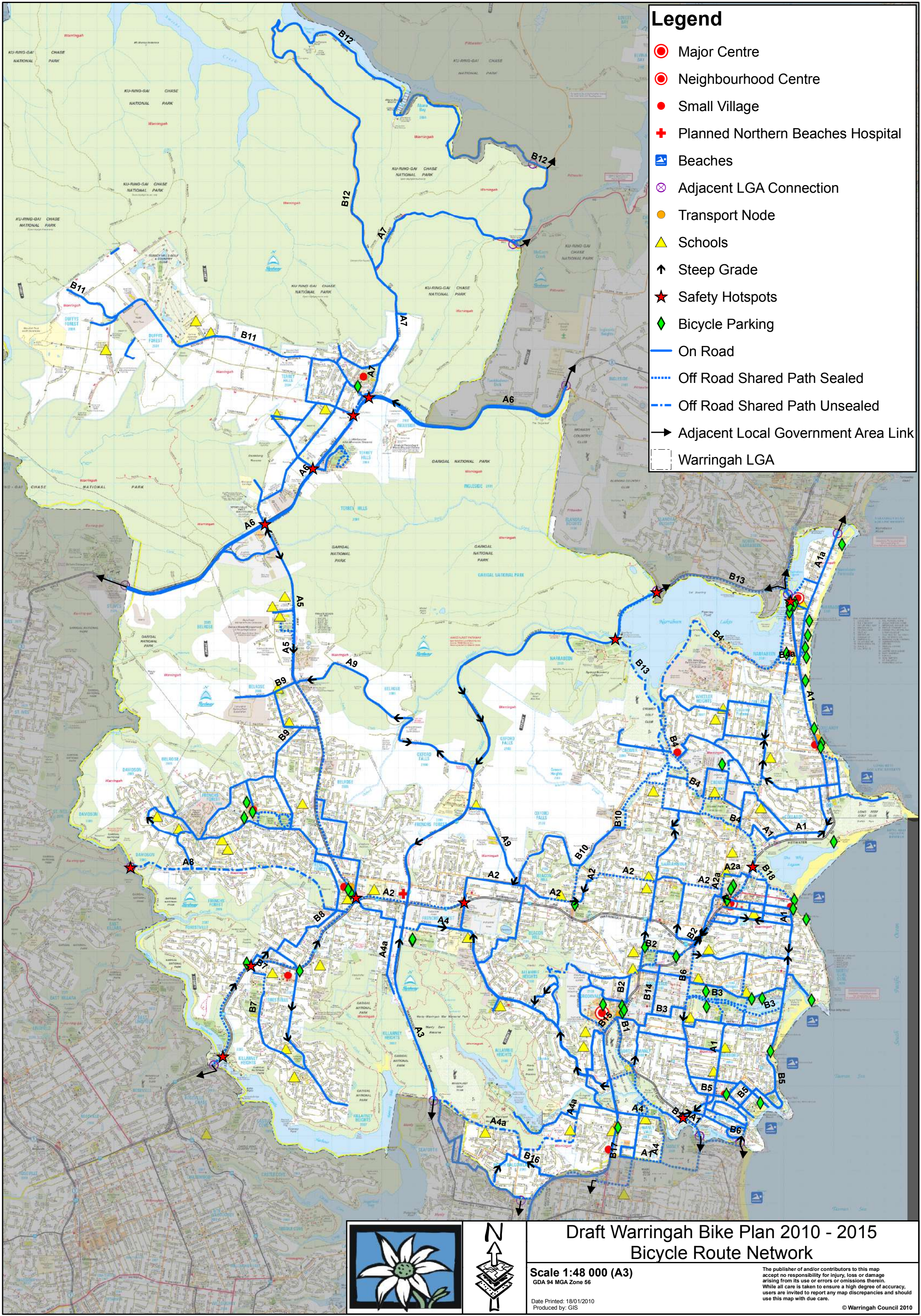
Twelve years on, planning for bikes has changed, with standards improved, road rules revised and guidelines published by the NSW government.

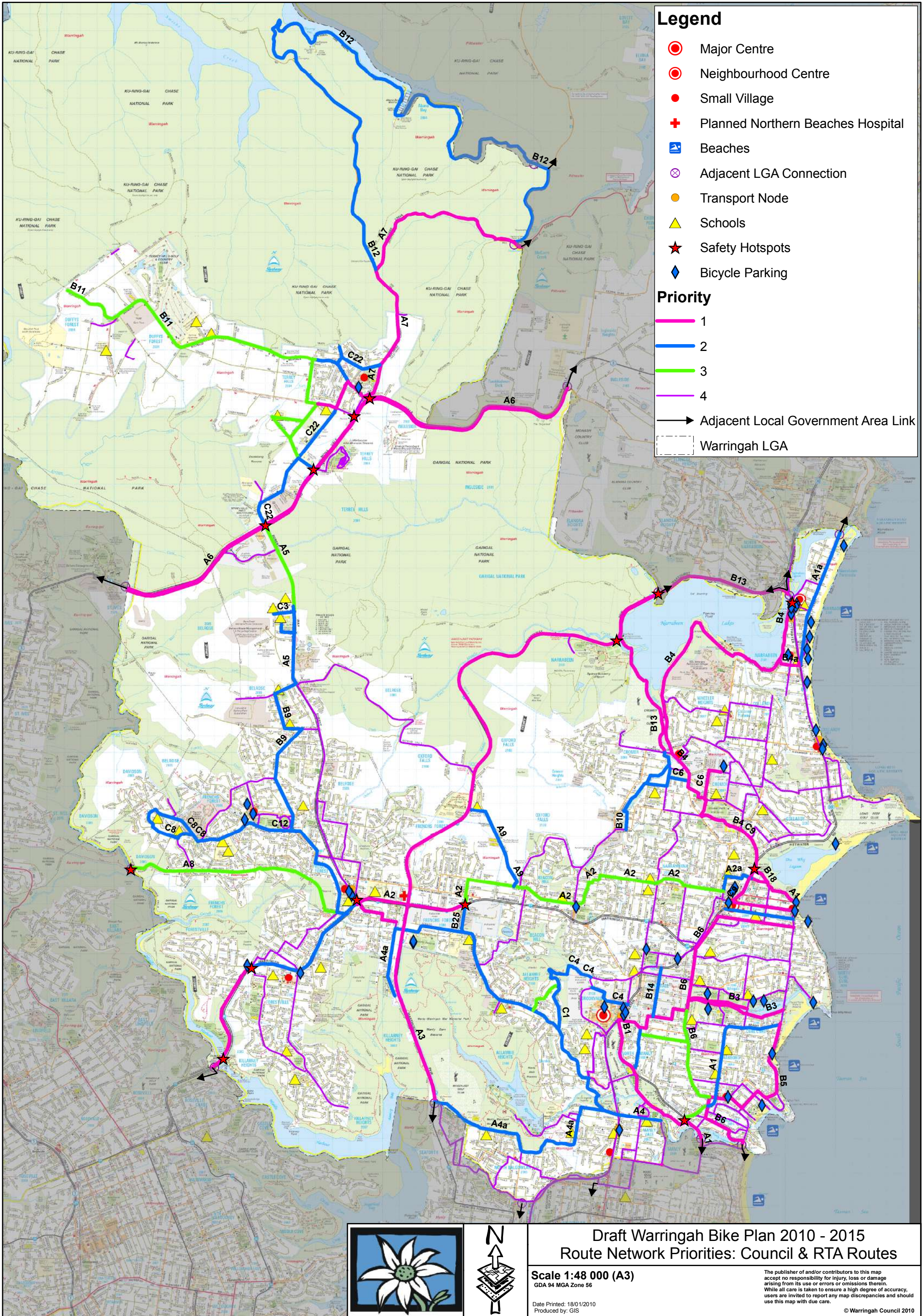
In 2009 Council commissioned GTA consultants to undertake an audit of existing bike facilities which found that only 38% of the 1998 Bike Plan had been constructed and that most of this was now substandard.

With anticipated growth in both housing and employment, rising oil prices, concerns about global warming, health, sustainability and the liveability of our communities, and ongoing transport issues in the area, the implementation of this bike plan is essential.

Warringah Bike Plan Network Maps

Below are the proposed overall Warringah Bicycle Network Map and the Prioritised Warringah Bicycle Network Map. The Prioritised Bicycle Network Map prioritises the development of a series of 'high quality, high demand' bicycle routes to further promote the uptake of cycling in Warringah.





WARRINGAH DRAFT BIKE PLAN 2010-2015: BACKGROUND DOCUMENT

Introduction

Warringah is situated on the lands of the Guringai people. Council acknowledges the Guringai as the original owners of this coastal area, bordered to the south by Port Jackson (Sydney Harbour), to the north by Broken Bay and to the west by the Lane Cove River.

The Warringah LGA now extends south from Cottage Point on the Cowan Creek to Queenscliff Lagoon, from Narrabeen Lagoon and from the beaches to Middle Harbour, with Manly, Ku-ring-gai, Willoughby, Hornsby and Pittwater as the adjoining council areas. Transport within the Warringah LGA has been an unresolved issue for many years, with a high dependence on private vehicles, and buses are the only form of public transport.

The Warringah Council Strategic Community Plan vision is for

“A vibrant community, improving our quality of life by living and working in balance with our special bush and beach environment.”

The strategy is implemented through the Community Outcomes, such as Living Environment, Living Communities and Living Spaces, all of which reference cycling and paths as key initiatives to meet the goals and strategies.

“...To preserve Warringah's long-term sustainability and improve our residents' quality of life...”

More specifically, budget allocations for cycling contained in the Strategic Community Plan are a demonstration of Council's commitment to cycling and achieving these key community outcomes.

In brief, the Warringah Bike Plan and its goal for improved environment for cycling in Warringah fits directly into these primary directions and is underpinned by the goals, strategies and budget mechanisms identified in Warringah's Strategic Community Plan.

For example in the Strategic Community Plan 2009, \$1.5 million to commence works to complete the Narrabeen Lagoon pathway and \$533,000 identified for footpaths, cycleways or street tree planting, form part of ensuring Warringah's community is a recognised leader in sustainable living practices under Living Environment.

Similarly, these funds as well as \$385,000 to complete the cycleway and landscaping at South Creek are recognised as contributing to strategies such as creating efficient movement networks where streets support and encourage walking and cycling, integrated with adequate green spaces, and reducing demand for travel in private cars through safe, convenient and accessible transport options under Living Spaces.

Warringah has a high level of job containment: 60.5% of people who work in Warringah also live in Warringah (Census Data, 2006). Combine this with the many trip attractors such as beaches, shops and schools and there is a large potential for a modal switch from cars to bikes, especially for short local trips. For example, Brookvale-Dee Why, identified as the northern beaches' major centre, generates more than 50% of car trips that consist of less than 5 kilometres.

More people cycling in Warringah will deliver benefits to the community and make cycling safer. This is supported by a paper in the British Medical Journal Injury Prevention (at <http://injuryprevention.bmj.com/content/9/3/205.abstract>) which found that

“...The likelihood that a given person walking or bicycling will be struck by a motorist varies inversely with the amount of walking or bicycling. A motorist is less likely to collide with a person walking and bicycling if more people walk or bicycle..... Policies that increase the numbers of people walking and bicycling appear to be an effective route to improving the safety of people walking and bicycling...”

Plans that incorporate the needs of cyclists have the double benefits of encouraging riding as well as making the driving public more aware of cyclists in general, and intentionally bike-friendly infrastructure can be what makes the difference between a good or a bad riding experience.

This Bike Plan gives a vision for cycling, identifies a range of bike routes and infrastructure priorities, funding opportunities, education, promotion and events and provides action plans to deliver the vision and to maintain, monitor and review this vision.

The Bike Plan builds upon the former 1998 Warringah Bike Plan, the GTA Audit, the SHOROC Cycleways Mapping Project 1995, the Regional Multiple Use Trail Strategy 2007 and RTA Action for Bikes 2010.

The Bike Plan addresses the views of community as identified through the consultation carried out as part of the GTA audit, the Bike Plan Questionnaire, and various workshops held throughout 2009. The Bike Plan will be further reviewed following community consultation during the public exhibition period.

Submissions are invited on this draft during its public exhibition and any changes to the draft will be recommended when the draft is reported back to Council.

Outcomes

The outcomes of the Warringah Bike Plan are that:

- Warringah is a bicycle friendly environment where the preferred choice for a short or medium trip is riding or walking.
- Warringah is connected by a coherent, direct, safe, attractive and comfortable cycling network, with links to Pittwater, Manly and Ku-ring-gai.
- Cycling in Warringah meets key federal, state and local government objectives in transport, health, the environment and energy savings (including carbon footprint reduction).
- Warringah recognises that more cycling improves the health of individuals and the community, offers more choice in transport options, improves sustainability by reducing greenhouse and other gas emissions, and reduces dependence on foreign oil imports.

These outcomes will be achieved by the primary objectives listed below as well as the following:

- The review, including the audit carried out by GTA consultants, of the 1998 Bike Plan to identify issues and practical solutions
- Extensive community consultation
- Leadership shown by example at Warringah Council
- Liaison with state government
- Appropriate funding for timely implementation of the revised Bike Plan

Objectives

Objectives need to be 'smart', i.e.

S - specific, significant, simple, sustainable

M - measurable, meaningful, motivational, manageable

A - agreed upon, achievable, acceptable, action-oriented, accountable

R - realistic, relevant, reasonable, rewarding, results-oriented, responsible

T - time-based, timely, tangible, trackable

The three primary objectives for the Warringah Bike Plan are:

1. To increase cycling participation
2. To define the routes and infrastructure for cycling in Warringah
3. To outline the education, promotion and events to support cycling in Warringah

Additional objectives are:

4. Improving cycling safety and the perception of cycling safety
5. Creating and maintaining a bicycle friendly environment to encourage more residents, visitors and workers to ride their bikes
6. Increasing the number of bicycle trips made in Warringah, as a percentage of total trips, from less than 1% in 2006
7. Measuring and monitoring the number of collisions and injuries involving bicycles and achieve a reduction in the number of incidents
8. Promoting wider community awareness of the individual and community benefits of cycling
9. Supporting increased community participation in cycling

Benefits of Cycling

There are many benefits to using cycling. These tend to fall into four distinct categories which better the individual, the environment, and society as a whole. The benefits of cycling can be grouped into Health Benefits, Social Benefits, Environmental Benefits, and Economic Benefits.

Health Benefits

Current figures suggest that around three million Australians are obese, and more than 7 million Australians are overweight. Now a new report suggests that cycling could be part of the solution. The report has found the federal government already saves more than \$220 million dollars in health costs per year from cycling, and it's a figure which could rise dramatically if more Australians got on their bikes (Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008).

Physical activity plays an important part in maintaining overall health. Moderate exercise can contribute to prevention of all of the current National Health Priority Areas, including cardiovascular disease, mental health, cancer and injury (Pedestrian and Bicycle Information Centre). Cycling is considered low-impact and at the same time supplies a good cardiovascular workout that is suitable for people of all ages. Cycling also builds up muscle strength and efficiency. The level of physical output can be easily adjusted depending on user preference, from a leisurely cruise to a strenuous uphill ride. Overall, cycling is a flexible source for fitness and recovery from operations. Therefore, it is important to promote cycling as a health initiative and to promote community understanding of the opportunities for bicycle use.

Some additional healthy reasons to support cycling in Warringah:

- Obesity increased 2-4 fold between 1985 and 1997 (Access Economics, 2006)
- 19 – 23% of Australian children are overweight or obese (Murdoch Children's Research Institute, 2002)
- 7 million Australians are estimated to become obese by 2025 (Access Economics, 2006)
- Diabetes rates have doubled in the last 10 years (Diabetes Australia, 2007)

- Over half the Australian population participate in lower-than-recommended levels of physical activity, and this number is growing (Australian Institute of Health and Welfare, 2006)
- A 30 minute cycle trip a day provides all the exercise you need to halve the chance of becoming obese or diabetic (World Health Organisation, 2000)
- Countries with high levels of cycling have lower rates of obesity (Professor Pucher, 2007)

Social Benefits

An increase in cycling can provide intangible benefits for the quality of life in a community (Pedestrian and Bicycle Information Centre). Cycling removes the individual from the private automobile and puts them in more direct contact with their surroundings, including pedestrians and other cyclists. It is a more personal mode of transportation and creates more meaningful contact between the cyclist and the surrounding environment. Cycling through the community encourages riders to stop more frequently at places of business or in public areas that can increase social contact. Many cyclists also belong to community groups that organise recreational rides together.

Cycling can also add to the liveability of a place by creating quieter, safer streets (Cycling Resource Centre). Studies have shown that neighbourhoods with increased levels of cycling and walking foster social interaction and a sense of community that can reduce crime and negative social behaviours (Cycling Promotion Fund).

Cycling also promotes social equity by providing an alternative to motor vehicle transport. People who do not have access to a motor vehicle may still be able to access local facilities and services conveniently by bike. This applies especially to youth and those who can not afford a car or choose not to own a car.

Up to 30% of households in some areas of Australia do not have a car. Creating a bicycle friendly environment increases accessibility for all Australians (Dr Jan Garrard et al, 2006)

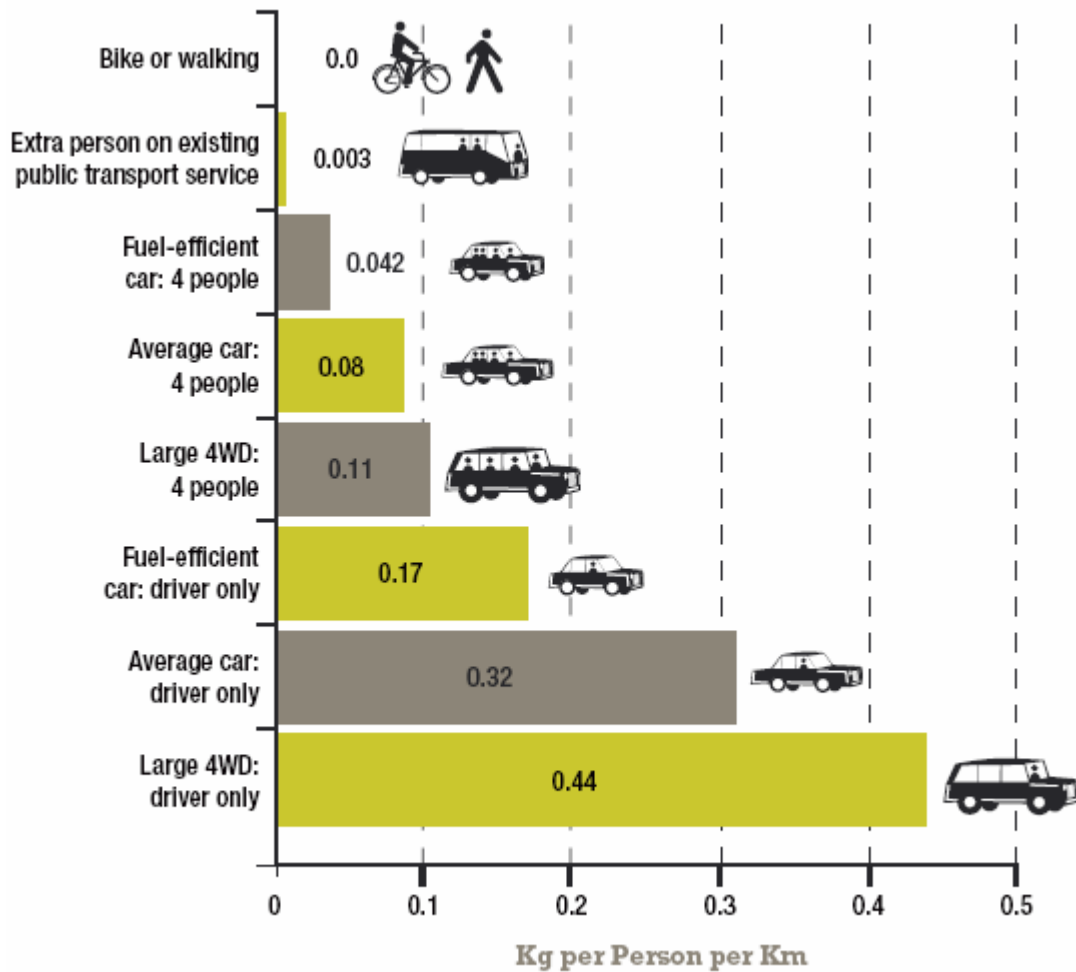
Environmental Benefits

Support for cycling and walking is a key part of the Government's 25 year air quality management plan, *Action for Air*, and of the *National Greenhouse Strategy*. Transport is currently responsible for 34% of household greenhouse gas emissions, whilst lighting accounts for only 5% (Australian Greenhouse Office, 2006). Moreover, increased bicycle travel contributes to the environmental quality of our streets and neighbourhoods, by reducing motor vehicle traffic congestion, making them quieter and enhancing quality of life.

Air quality has improved in Sydney over the last few decades however, further improvement of air quality for NSW, particularly in the Greater Sydney Metropolitan Area, can be made by reducing demand for car travel. Motor vehicles account for most of the noxious chemicals found in the air (Pedestrian and Bicycle Information Centre). Bicycle travel is a means to reduce the demand for motor vehicle travel, by replacing the car with a bike especially for short trips and consequently reduce vehicle emissions. Short car trips are the most polluting per kilometre, as the engine is cold.

The below diagram illustrates the extent of green house gas emissions produced from different forms of transport per km. Bike and walking create no emissions per km, whereas an average car with a single occupant produces 0.32kg per 0.3km journey.

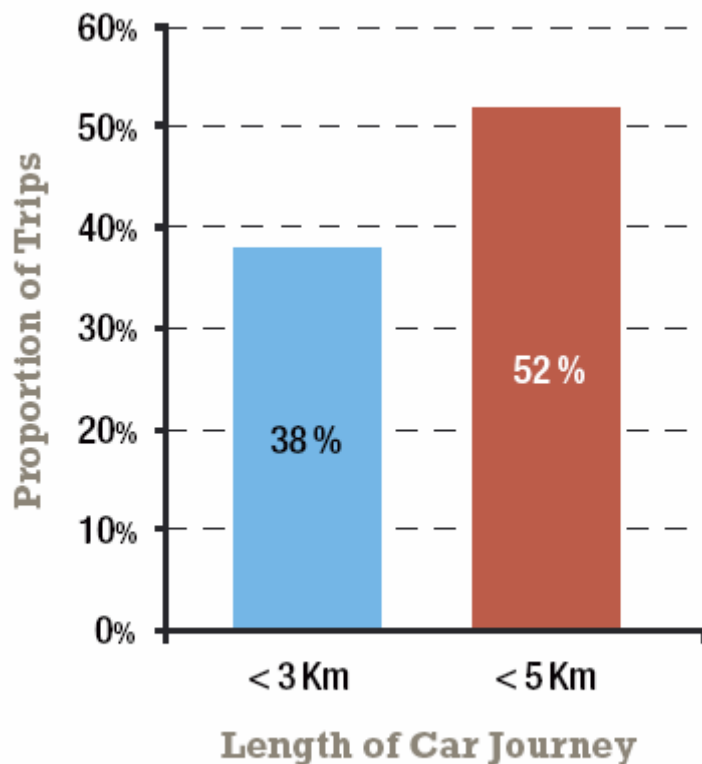
Figure 1: Green House Gas Emissions from Different Forms of Transport (Cool it, AGO, Federal Government)



Source: Cool It, AGO, Federal Government

As illustrated in the following diagram, with approximately 50% of urban car trips under 5km, the bicycle represents a sensible alternative to the car for many Australian adults. It offers a unique, combined solution to the converging issues of sedentary lifestyle disease, spiralling fuel costs, climate change and congestion. There has never been a better time to leave the car at home and get on your bike!

Figure 2: Typical Distance of Car Journeys in Australian Cities (RMIT, 1999; Austroads, 2005)



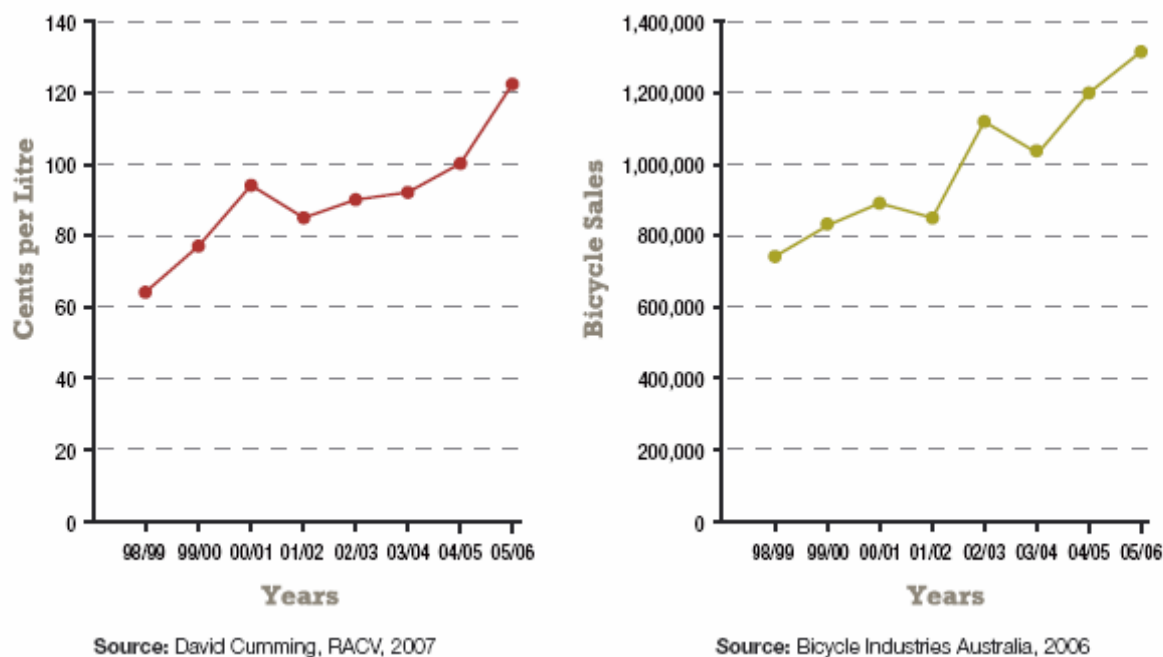
Source: RMIT, 1999; Austroads, 2005

Economic Benefits

At an individual level cycling can negate the need to purchase petrol and also saves on other vehicle costs such as maintenance, parking, and tolls (Cycling Promotion Fund). This is a substantial savings in that transportation costs are the second-highest household expenditure in Australia (Australian Bicycle Council). Cycling can also save valuable time when compared to driving in peak hour traffic. Short cycle trips often take less time than comparable car trips when dealing with congestion and finding parking (Cycling Promotion Fund).

Skyrocketing petrol costs are cutting into Australian family budgets. Bicycles have no fuel tank and no exhaust pipe – they are a perfect solution to avoiding the pain at the pump and helping combat climate change at the same time. The following diagram shows an interesting correlation between increasing petrol prices and bicycle purchases to illustrate this point.

Figure 3: The Correlation Between Unleaded Petrol Prices and Bicycle Sales (Cycling: Moving Australia Forward)



For Australia to fully capitalise on the economic benefits of cycling, a whole-of-government approach is required, with commitment from the health, transport, environment, education and planning portfolios. Only through a combined approach can the economic benefits of cycling be fully realised.

Further key economic benefits from cycling are outlined as follows:

- Congestion costs the Australian economy \$21 billion each year. (Bureau of Transport & Regional Economics, cited in Bus Industry Confederation of Australia, 2006). For peak hour journeys in particular, the bicycle can reduce congestion and increase the efficiency of the transport system.
- If Australians were more active, \$720m would be saved each year in health costs (Bicycle Victoria, 2005). Cycling can serve to increase activity.
- Obesity costs Australia \$21 billion annually (Access Economics, 2006)
- The federal government already saves more than \$220 million dollars in health costs per year from cycling, and it's a figure which could rise dramatically if more Australians got on their bikes (Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008).

Anticipated benefits of the Warringah Bike Plan

Under the Charter of Brussels designed at the Velo-City Conference in 2009, it is acknowledged that cycling contributes to:

Liveable cities, efficient urban transport, less congestion, less traffic noise, healthy physical activity, road safety, clean air, fighting climate change, saving fossil fuels and sustainable tourism.

Warringah Bike Plan will help deliver all of these benefits as well as the more specific ones listed below:

- a) Improved cyclist safety
- b) Increased social interaction in the community
- c) Reduced bicycle crashes
- d) Reduced traffic conflict
- e) A healthy and active community
- f) Increased number of cyclists and pedestrians in the community
- g) A positive impact on tourism
- h) Increased casual community surveillance
- i) Improved environment

BROADER CONTEXT

NSW State Plan

The NSW State Plan *Investing in a Better Future* (2009) identifies increased walking and cycling as a new priority and target.

The State Plan refers to the NSW Bike Plan to make cycling an easier and safer option as part of the NSW Government's expansion of sustainable transport to tackle climate change.

Most significantly, the State Plan identifies a target of 5% by 2016 for the mode share of bicycle trips in Greater Sydney at a local and district level.

NSW Metro Strategy

The Metropolitan Strategy is *"a broad framework to secure Sydney's place in the global economy by promoting and managing growth. It is a strategic document that outlines a vision for Sydney over the next 25 years"*.

The vision for transport under the Metro Strategy includes that

"Sydney's neighbourhoods will have improved local transport with walking and cycling facilities and bus services to major centres. People will be able to carry out more of their trips closer to home, reducing the time taken and cost of longer trips."

The Metro Strategy recognises that the cycling network is part of the transport network in Sydney and at the neighbourhood level, the Strategy envisages improved local transport such as walking and cycling facilities and bus services that link neighbourhoods, villages and town centres to major centres.

Of particular relevance the listed Action, D3 *Influence Travel Choices to Encourage More Sustainable Travel* which includes D3.1 Improve local and regional walking and cycling networks and D3.1.1 Improve local and regional walking and cycling infrastructure through the implementation of the Planning Guidelines for Walking and Cycling.

The Metro Strategy states that *almost one in five of all trips are made by walking or cycling. There is potential to increase this, as many short trips currently made by car could also be made by walking or cycling, improving local accessibility, neighbourhood amenity and community health...Better facilities will encourage more walking and cycling for everyday travel. Walkers and cyclists need high quality, safe and direct routes* (p181).

The Warringah Bike Plan 2010-2015 has been designed to help achieve the visions for cycling as outlined in this Strategy.

Draft North East Subregional Strategy

Subregional planning is an intermediate step in translating the Metropolitan Strategy to a local level. The draft Subregional Strategies act as a broad framework for the long-term development of the area, guiding government investment and linking local and state planning issues.

Under the NSW State Government's *Draft North East Subregional Strategy* anticipated growth estimates for Warringah by 2031 are 10,300 new dwellings and 12,500 new jobs.

The actions listed include Transport D1.2 *Extend transport networks to serve growth*, and a key direction in the Transport section is *Improve internal transport circulation, including walking and cycling networks*. Action D3 *Influence travel choices to encourage more sustainable travel* drills down to D3.1 *Improve local and regional walking and cycling networks* and D3.1.2 *the State Government and local government to work together to align local walking and cycling networks with public transport routes to improve accessibility to public transport*.

Some extracts relevant to Warringah's bike plan are listed below:

"...the main road upgrades need to include improved walking and cycling access..." p67

"...A better network and facilities will improve local accessibility, neighbourhood amenity and community health..." p69

"...There are a number of opportunities to improve access to waterways and links between bushland, parks and centres including:

- developing a recreational trail east-west from Chatswood to Dee Why via Middle Cove and from Narrabeen Lakes to St Ives;
- improving cycleways from the Spit Bridge, north to Warringah and the Ku-ring-gai Chase National Park..." p93

Transport Blueprint

The NSW Transport Blueprint is expected to be delivered in the near future. It is anticipated that this document will include the new NSW Bike Plan, and will replace the RTA's *Action for Bikes 2010*.

NSW RTA Action for Bikes 2010

Action for Bikes 2010 was initiated in 1998 as part of the government's master plan for transport – *Action for Transport 2010 and integrated transport plan for NSW*. Action for Bikes 2010 is a costed plan for improving cycling to make it a viable alternative form of transport and a safe recreational activity.

The RTA set out a costed \$251 million program 10 year plan for the creation of an arterial bicycle network and associated infrastructure across Metropolitan Sydney. It plans to create an average 200 kilometres of cycle ways across NSW per year.

The Action for Bikes 2010 - Bicycle Masterplan identifies a number of 'on road' and 'off road' bicycle routes that cross the Warringah LGA as follows:

Route No.11 Chatswood – Warringah Mall (2009)

Route No.14 Harbour Bridge – Warringah Mall (2009)

Route No.36 Gordon – Mona Vale (2010)

None of these routes have been completed to date by the RTA in Warringah.

SHOROC Cycleways Mapping Project Draft Report, 2005

This SHOROC Cycleways Mapping Project Draft Report (PBAI Australia, May 2005) was prepared for the Shore Regional Organisation of Councils (SHOROC) incorporating Manly, Mosman, Pittwater and Warringah Councils. It maps the existing cycleway network within the SHOROC Region, determines outstanding gaps in developing a more complete and connected network of cycleways and develops a list of potential projects to assist in completing a regional network.

SHOROC Transport and Land Use Study, 2008

This SHOROC study by Halcrow (2008) included a workshop outcome to improve sustainability, including land use plans to promote regional self containment, walking and cycling, while the 'wish list' contained a cycleway network in Warringah that referenced Pittwater Road / Condamine Street / Wakehurst Parkway / Warringah Road.

The transport strategy recommended by the consultants included transport improvements such as to "enhance public transport, cycling and walking linkages particularly for internal movements" (p22).

This document addresses cycling in a minor way but acknowledges that the core bicycle routes are not particularly cycle friendly. As an 'ideal' example of cycle use as a modal change to public transport Manly wharf is used. *"Occupancy is 100%, but with only 4 lockers, at Manly Wharf (and a 2 year wait list), supplemented with additional free cycle parking stands in the wharf front. (p27)*

SHOROC State of the Environment Report, 2008/2009

This report includes heading references regarding "Atmosphere" and "Toward Sustainability" that can be supported through the implementation of the Warringah Bike Plan 2010-2015.

The subsection "Responding to Atmospheric Issues" includes what Warringah Council has implemented to date to improve air quality. On page 16, Warringah's 2006 Bike Fleet Strategy is mentioned. In November 2009, Warringah Council purchased 4 trail bikes to establish a bike fleet enabling commuting between Council offices in Cromer and the Dee Why Civic Centre. Council is still working through OHS issues, with the expectation that the Bike Fleet will be up and running in 2010.

The Warringah Bike Plan 2010-2015 and its subsequent actions could be included in the future "Responding to Sustainability Issues" section of the Report for Warringah (page 49).

Recommendation: Implement the Warringah Council Bike Fleet in 2010

NSW RTA How to prepare a Bike Plan – An easy 3 stage guide, 2002

This guide discusses the relevant issues and suggests useful resources that can simplify the task of preparing or reviewing a Bike Plan. Three stages are outlined (research, preparation and follow up) to ensure a Bike Plan covers the 'before', 'during' and 'after' process of preparing a Bike Plan. This document has been considered whilst producing the Warringah Bike Plan 2010-2015.

NSW RTA Bicycle Guidelines, 2005

These guidelines are designed to assist road designers, engineers and planners to design and construct high-quality bicycle transport facilities as part of the wider New South Wales transportation network. The information contained in the document is intended to be used as a guide to best practice, to provide technical assistance on a range of conditions particular to the State and should be read in conjunction with: *Austroads Guide to Traffic Engineering Practice, Part 14 – Bicycles* and *Australian Standards AS1742.9 – Manual of Uniform Traffic Control Devices, Part 9 Bicycle Facilities* both of which apply in NSW. Where there are differences between these guidelines the advice in the RTA Bicycle Guidelines prevails.

Austroads Guide to Traffic Engineering Practice, Part 14 – Bicycles

Austroads Part 14 provides guidelines for road authorities, engineers, planners and designers involved in the planning and construction of cycling facilities such as the choice of bicycle facility, design of intersections, parking requirements, pavement design and other characteristics required for a road and path network. Due to variations in bicycle legislation across Australia and New Zealand, Austroads defers to the appropriate road authority for confirmation of design details.

Austroads also produces research papers and various standards relating to bicycles available at www.onlinepublications.austroads.com.au

NSW Road Rules, 2008

The Road Rules incorporate the Australian Road Rules and contain the legislative basis for bike riding in NSW. Most rules apply to bike riders in the same way as they do for motor vehicle drivers and Part 15 contains additional rules specific to bike riders.

These rules are a statutory instrument and have greater legal weight than Austroads Guidelines or the NSW Bicycle Guidelines. They are available through the RTA website at <http://www.rta.nsw.gov.au/rulesregulations/roadrules/index.html> and are highlighted as follows:

Bicycle Laws and Penalties in NSW

Under NSW legislation a bicycle is considered as a vehicle. As such, cyclists are required to obey the road rules, including stopping at red lights or stop signs, giving way as indicated by signage and giving hand signals when changing direction.

Just as cyclists have responsibilities when using the road system, they also have the right, like other vehicles, to use the road and be shown courtesy and care by other road users.

A bicycle means a vehicle with one or more wheels that is built to be propelled by human power through a belt, chain or gears (whether or not it has an auxiliary motor) and includes a pedicab, penny-farthing, scooter, tricycle and unicycle.

1. Cyclists in NSW have some special rights, which include:

- Riding two abreast, no more than 1.5 m apart
- Travelling to the front of a line of traffic on the left hand side of the stopped vehicles
- Travelling in Bus Lanes and Transit Lanes. However, cyclists cannot travel in Bus Only Lanes
- Travelling on the footpath where indicated by signage
- Cycling on the footpath if the cyclist is less than 12 years old. An adult, who is riding in a supervisory capacity of a cyclist less than 12 years old, may also ride with the young cyclist on the footpath
- Turning right from the left hand lane of a multi-lane roundabout with the proviso the cyclists must give way to exiting traffic

2. To be a legal road vehicle during the day in NSW, a bicycle must have:

- At least one working brake
- Either a bell or horn fitted to the bike, within easy reach and in working order

3. To be a legal road vehicle at night, a bicycle must also have:

- Lights fitted and in use when riding at night - a steady or flashing white light that is clearly visible for at least 200 metres and a flashing or steady red light that is clearly visible for at least 200 metres from the rear of the bike

- red rear reflector that is clearly visible for 50 metres when light is projected onto it by a vehicle's headlight on low beam

It is compulsory to wear an approved helmet correctly when riding a bike. This applies to all cyclists, regardless of age, including children on bicycles with training wheels and any child being carried as a passenger on a bike or in a trailer. Failing to obey road or bicycle rules may result in a fine.

Other road users are required by law to treat cyclists as vehicles. Cyclists should make themselves visible to motorists, act predictably and be aware that unfortunately not all drivers understand that bikes share an equal status with cars on the road.

WARRINGAH COUNCIL CONTEXT

This section outlines the context of cycling in Warringah through the review of various background documents, studies, policies and procedures applicable to the Warringah LGA.

Warringah Strategic Community Plan

In late 2005, following an extended period of community consultation, Council adopted its 10-year strategic plan, *Living Warringah*. This plan, together with ongoing efforts in community research and engagement and more detailed strategies of Council, has since been instrumental in guiding the subsequent Warringah Strategic Community Plan's and Council budget which are revised annually and adopted by Council in June each year.

In keeping with the Department of Local Government's proposals for greater integration of local planning, together with Council's own intent to develop more meaningful and accessible planning documents, the Warringah Strategic Plan superseded Council's 'Management Plan' and incorporates the strategic direction of *Living Warringah*, a 10 year horizon for planning and budgeting and a more detailed 4-year delivery plan.

There are Five Key Outcomes identified through the *Living Warringah: In Focus 2005* and these are supported and implemented through the Warringah Strategic Community Plan 2009. Key Strategies Include: Living Environment; Living Communities, Living Spaces, Living Enterprises and Living Organisation. Recommended actions in the Warringah Bike Plan support a number of goals and strategies that form the basis to achieve four of these key outcomes as outlined in the following table.

Council Departments must ensure that their annual work programs actively contribute to one or more of the Five Strategic Community Outcomes, outlined by *Living Warringah: In Focus 2005*. Internal Council departments can select to implement actions from the Warringah Bike Plan to achieve these outcomes in the annual Warringah Strategic Community Plans.

Table 2: Key Outcomes of *Living Warringah: In Focus 2005* of relevance to the *Warringah Bike Plan*

Key Outcomes	Goal	Strategies	Relevant Bike Plan Actions
Living Environment	Protecting the natural environment so it is healthy and diverse	Ensure Council is recognised as a leader in corporate sustainability	All bike plan actions are relevant to this, especially Action Nos 11-14 and 28
	Living in harmony with our environment	• Ensure Warringah's community is a recognised leader in sustainable living practices • Build capacity to reduce carbon emissions, increase renewable energy production, increase water saving and	• All bike plan actions are relevant to this, especially Action Nos 11-14 and 28 • All bike plan actions are relevant to this

Key Outcomes	Goal	Strategies	Relevant Bike Plan Actions
		catchment management devices, respond to and reduce the impacts of climate change, and enhance sustainability practices.	
Living Communities:	Promoting a supportive, caring community	• Build a community that works in partnership with government, community based and private organisations to achieve real and lasting improvement • Build an informed and empowered community • Actively encourage and support the community to use open space and participate in recreation • Build a healthy community that is free of public health risks	All bike plan actions are relevant to this
Living Spaces	Safe and well maintained public spaces that reflect community needs	• Provide a diverse range of high quality open space and recreation facilities to meet the needs of the community. • Provide recreational access to natural areas while ensuring the sustainability of the natural environment	All bike plan actions are relevant to this
	Socially and environmentally responsible urban development	• Plan appropriately for future housing in Warringah, balancing State Government growth targets, the changing demographic profile of the community, local needs and expectations, and the need to reduce carbon emissions and resource consumption, and the challenges of infrastructure limitations. • Create living streets that give priority to neighbourhood amenity, safety and improved urban design • Plan appropriately for future developments in Warringah with a focus on working towards the reduction of emissions and resource consumption, including water, in our suburbs	All bike plan actions are relevant to this
	Safe, convenient and accessible transport options	• Create efficient movement networks where streets support and encourage walking and cycling, integrated with adequate green spaces • Ensure Ecologically Sustainable Development principles are	All bike plan actions are relevant to this

Key Outcomes	Goal	Strategies	Relevant Bike Plan Actions
		incorporated and prioritised in planning strategy and policies • Integrated land use and transport planning to provide convenient transport services and efficient movement around Warringah resulting in reduced demand for travel in private cars • Provide a public transport network that is more accessible to a greater number of people • Reduce congestion on roads, improve the capacities for road networks and improve safety of movement for all users	
	Well maintained public infrastructure that supports sustainable living	Provide infrastructure that serves current and future community needs, shares the benefits and costs equitably and supports a healthy and sustainable environment	Bike Plan Actions Nos 14, 16, 17, 19-22, 22, 25-26, 29-30 and 31-41
Living Organisation	An innovative and progressive organisation	Set in place strategies and policies aiming to reduce as much as possible carbon emissions and resource consumption and minimise the overall ecological footprint of council operations	Bike Plan Action Nos: 11-14

Warringah Council Social Plan 2006-2009

The Warringah Council Social Plan 2006-2009 includes issues and initiatives that are relevant to the development of the Warringah Bike Plan. The encouragement of cycling as a form of transport throughout the Warringah LGA provides an opportunity for bike safety and awareness issues to be included in road safety action plans and initiatives such as the Outside Schools Know the Rules campaign (page 51).

The preparation of a bike plan also reflects the socially interactive nature of transport and cycling. An effective, efficient, affordable and accessible transport system is an essential contributor to a healthy and functioning society. Cycling can reduce car dependence locally, and concurrently increase the range of transport options for members of the community.

The social content of the Social Plan 2006-2009 embodies issues which can be explored and expanded by the Warringah Bike Plan 2010-2015 as cycling is an inherently social activity. It allows for regular interaction between people of different backgrounds and different age groups, for children and young people to socialise and to build long term friendships, and for youth to be safely and actively amused. Also, the expansion of cycling facilities allows for non-drivers to get out of their homes easier and to engage with society, thus reducing isolation and feelings of loneliness.

Warringah Council Cultural Plan 2007

Of relevance to the Warringah Bike Plan, the Cultural Plan provides for scope to combine bike parking and storage with public art installations. Conventional bike storage bars and cages could be designed to represent natural features or characteristics of the locality. These could extend to

wave or surfboard inspired facilities along beachfronts, bicycle or athlete shaped facilities at sportsgrounds, animal inspired facilities in or near bushland, or boat inspired facilities along estuaries or creeks. Alternatively, public art such as sculptures could be installed along the extent of designated bike paths and shared pathways in areas where they are seen and valued by residents and users of the paths.

The Cultural Plan also identifies a need to address bike paths and shared pathways throughout the LGA. Just who the intended users are, the uses they will put the paths to, and predominant travel times need to be investigated to establish what other permissible uses are possible when demand is lacking.

The responses to an online survey also serves to support the implementation of the bike plan as public transport, parking and accessibility recur as common complaints or issues contained in feedback. Cycling facilities properly planned for, constructed and maintained will overcome some of these obstacles, and will remove some barriers or constraints felt by residents.

State of Warringah Report 2007

Of relevance to the Bike Plan, this report features statistics on how Warringah residents commute to work (Warringah Report, 2007, p32):

- Key Mode of Transport to Work
 - People desire efficient, accessible and flexible transport systems to travel to work and if these are not available they will generally travel by car.
 - People prefer to use their own car, especially if:
 - their workplace is not on a transport route
 - public transport times are inconvenient
 - no public transport is available or
 - there is limited long-term free or low cost parking close to transport.

The associated table shows that in 2006, almost 70% of Warringah residents commuted to work via the personal automobile. It appears that only 2% of the population commuted via motorbike or bicycle.

The report also assesses Warringah's community connectedness. The report states that Council continued to maintain approximately 40 kilometres of bushland tracks within bushland reserves from 2005-06 to 2006-07. Regular maintenance of 700m of the walking track at Manly Dam was undertaken including construction of steps, the Nature Trail and the Wildflower Track. Also there was regrading and vegetation trimming of 4km of fire trails and 1.25km of resurfacing of rutted bike tracks.

Talk of the Town – Preliminary Report

The key issues identified by the Warringah Community in the Talk of the Town Preliminary Report are as follows:

1. Transport/traffic management/congestion
2. Over development/poor planning
3. Hospital/health services
4. Environment
5. Youth

The new Bike Plan would address both the 1st and 4th subjects on this list. These issues can also be used to justify the review of the Bike Plan as something that Warringah Council residents find important for the future of the area.

Warringah Bike Plan 1998

Warringah's bike plan was prepared in 1998, however since adoption of that plan there have been significant changes in the way cycling facilities are provided. Much of these changes are reflected in the new RTA Cycling Guidelines.

The overall aims of the plan are:

The formulation of a Bike Plan, to update previous ad hoc planning actions, in order to formulate and prioritise future infrastructure to provide for and encourage bike use.

The aims reflect the plans outcomes of identifying routes, treatments and signage. The bicycle parking strategy is very general in its outcomes and has had minimal implementation. (Apart from schools where the demand would be recognised anyway)

GTA Consultants Bike Plan Audit 2009

Since the adoption of Warringah Council's current Bicycle Plan 1998, there have been significant changes in the way cycling is addressed in NSW, and key documents have been reviewed or developed. For example, the Austroads Guide to Traffic Engineering Part 14 – Bicycles was reviewed and reissued in 1999, the RTA published the NSW Bicycle Guidelines (2003) and the DOP and RTA published Planning Guidelines for Walking and Cycling (2004). This means that some existing facilities in Warringah do not meet best practice or current standards.

Council had inadequate records regarding what had been constructed and to what standards and specifications, therefore, the Audit was required to determine whether or to what degree the recommended local and regional routes, parking, and signage in the Warringah Bike Plan 1998 have been implemented.

Three other relevant bicycle planning documents have also been created since the 1998 and were required to be considered in the Audit. The Audit included the Warringah Bike Plan 1998 and cycling facilities proposed within the SHOROC Cycleways Mapping Project, 2005 (those which do not overlap with the 1998 Bike Plan routes); the two applicable regional routes 11 & 14 outlined in the RTA NSW Action for Bikes, Bike Plan 2010 and urban linkages to proposed bushland multiple use trails as outlined in the Draft Regional Multiple Use Trail Strategy (those which do not overlap with the 1998 Bike Plan routes) and any other cycling facilities in Warringah to ascertain what has been constructed, whether these facilities and recommended future facilities meet current standards, and whether there are any critical gaps or hazardous areas that need to be addressed.

Provision of diagrams outlining best practice model treatment types for cycling routes within the Warringah LGA, mapping data, an updated schedule of future works, costing and preliminary prioritization of those works was also provided by the Audit.

Findings from the GTA Audit include:

- Approximately 38% of the 1998 Warringah Bike Plan has been implemented
- The Audit highlighted a number of deficiencies along existing bike routes.
- Deficiencies will be resolved in order of priority following public consultation and hazard analysis.
- Outdated regulatory and directional signage
- Sub-standard widths of both on-road and off-road facilities
- Shortage of directional signage for cyclists to navigate the network

- There is a need for a coherent and easy to understand signing system including regulatory, warning and directional signage
- Identification of key safety hotspots such as Narrabeen, Roseville, Deep Creek and Middle Creek bridges (too narrow) and Pittwater Road at Lismore Avenue, Dee Why (no safe crossing to link paths through Dee Why Park and beside Dee Why Lagoon)

Audit recommendations include:

- Implement a bicycle directional signage strategy
- Implement continuous routes along the bike network
- Implement bike facilities in order of priority
- Ongoing promotion of works

It is noted here that current technology means that since the Warringah Bike Plan 1998, Warringah Council now has GIS mapping data layers that can be updated as the Warringah bicycle routes, bicycle parking or directional signage are constructed. If data is updated correctly and consistently, this will mean that Council will not be required to spend money and resources on undertaking such an extensive Audit of what facilities have been built and what haven't been built over the next consecutive 5 yearly reviews.

A recommended action for the bike plan is that Council develop a process that ensures Council's GIS bike plan data (Bicycle Routes, Bicycle Parking and Bicycle Directional Signage) is updated correctly and consistently following construction of bicycle infrastructure.

Warringah Local Environmental Plan (LEP) and Development Control Plan (DCP)

Warringah Council has recently prepared a new draft LEP that translates the current planning provisions that are contained within Warringah Local Environmental Plan 2000 into a new draft Warringah LEP in accordance with the standard format required by the NSW Government. Warringah Council has also recently prepared a new draft DCP that contains Council's more detailed planning controls that cannot be included in the draft LEP. Once finalised, the DCP and the LEP will set policy direction for future land use planning matters in Warringah

The new draft DCP is a direct translation of the Warringah LEP 2000 and does not contain any planning provisions for cyclists in Warringah. It is recommended that Council determine appropriate DCP standards for end of trip facilities such as showers, lockers, and safe secure bicycle parking for various land uses in Warringah and integrate these as an amendment to the Warringah DCP where appropriate. A good example of these DCP requirements are those contained within the *City of Canada Bay DCP Bicycle Parking and Storage Facilities* and *Austroads Guide (Part 14)*.

Warringah Environmental Strategy 2001

The Warringah Environmental Strategy 2001 contains provisions that are complementary to the aims and objectives of the Warringah Bike Plan 2010-2015. These crossovers include an action to "continue to implement the Warringah Bike Plan", proposals for new bike paths and infrastructure, proposals that will enhance the appeal of cycling as a form of commuting and transport, and the promotion of cycleways to ensure their locations and routes are well known.

This strategy also seeks to reduce car dependency and reduce energy use in the Warringah area. This is encouraged through methods such as building showers and secure bike storage into new industrial and commercial developments, promoting public transport that directly links into cycling infrastructure, and matching local area traffic management (LATM) schemes to the needs of the cyclist. The Strategy encourages cycling as a form of transport that reduces human impact and drain on the planet, and enhances the practice of sustainable development (ESD).

Warringah Playground Strategy 2007

The Playground Strategy was adopted in August 2007 and provides an overview of playground provision in Warringah. Research into play theory, playground design and a thorough analysis of current playground supply and demand has helped to establish Council's direction for the future provision of playgrounds in Warringah. Warringah's playgrounds are categorised by a three-tiered hierarchy: Neighbourhood, District and Local.

Warringah Council currently manages 178 playgrounds which comprises of 144 neighbourhood playgrounds, 16 district playgrounds and 8 regional playgrounds in Warringah. There are an additional 10 playgrounds, which are located within the grounds of childcare centres, community centres and a playground at the Warringah Aquatic Centre.

The Warringah Playground strategy recognises that play is critically important for the physical, social, cognitive, creative and emotional development of children (PRAV, 1999). The provision of outdoor play areas create opportunities for children to explore, interact, experiment, imagine, understand and discover the world they live in (Matheson, 2001).

The Warringah Bike Plan 2010-2015 outlines the need for "learn to ride" playgrounds in Warringah that will provide a place where children can learn bike riding skills in a safe environment. The Warringah Playground Strategy has been interpreted as supporting this recommended provision as cycling is considered an important *Active/motor play* activity that supports the development of gross motor skills in children. *Active/motor play*, along with *Creative/cognitive play*, *Social/dramatic play* and *Quiet play* are also identified as essential for the balanced development of a child.

The Warringah Playground Strategy also outlines that the distribution of playgrounds should consider linkages (i.e. footpaths and bicycle paths) to encourage physical activity and community connectedness (PRAV, 2001). It also recommends that provision should be made for bike racks adjacent to each play space. The need for improved access to parks and playgrounds, better footpaths and bicycle paths, creating better linkages with other community facilities was amongst the key issues or priorities identified during a community forum on 29 June 2005 at the Dee Why RSL (40 community members attended).

The location of bicycle routes in the Warringah Bike Plan 2010-2015 have taken into consideration links to playgrounds as key trip attractors where appropriate. Bicycle parking has also been prioritised as outlined in the bicycle parking strategy of the Warringah Bike Plan Background Document. Bicycle parking prioritised in the bike plan includes a number of beaches, and community facilities in proximity to playgrounds. Funding should be directed towards building prioritised bicycle parking facilities first followed by other currently non-prioritised bike parking adjacent to play spaces.

Warringah Council Research Paper – Horse Riding Trails and Facilities in Terrey Hills and Duffys Forest 2009

This paper talks about the use of trails in the Terrey Hills and Duffys Forest suburbs by horse riders. As a result, it is focused on the needs and wishes of these people, but also provides scope to introduce more activities such as cycling onto these trails.

The paper proposes the creation of multi-use trails through the subject area that would accommodate both horse riders and cyclists. The *Multi-Use Trail Strategy* is cited as it recommends that six managed fire trails are capable of handling bicycle traffic, and that paths should be linked with other paths to create continuous routes to locations further away. The possibility of allowing cyclists access to the trails is preferred, but also raises some safety concerns that cyclists and horses could come into collision or that horses could be spooked by fast moving cyclists. The risk potential at road crossings is also listed as a concern.

These issues are proposed to be addressed by restricting uses on certain trails. It is proposed that specific tracks will become exclusively for horses and others for mixed traffic, it is recommended that bikes are banned on the Bridal Trail, and national park trails that allow horse traffic are to be for shared traffic.

The Warringah Bike Plan 2010-2015 does not propose a route along the Bridal Trail, it proposes a parallel on-road route along Booralie Road. The Bike Plan also only proposes cycle links to multi-use trails but does not include routes along multi-use trails. It is recommended that cycling along multi-use trails and impacts on horses be considered in a future mountain bike plan for Warringah.

Warringah Regional Multi-Use Trails Strategy 2007

This document is a planning strategy for the implementation of a Regional multiple-use trails network for Warringah Council area and surrounding region. Multiple uses include bushwalking, horse riding and mountain bike riding. It was prepared to plan for and survey multi-use trails in the study area, which will contribute to a regional system of trails.

The study was funded by the Metropolitan Greenspace Program (MGP), which has been identified in the Government's *City of Cities* plan for Sydney's future as a key initiative for improving links between bushland, parks waterways and centres.

The Multi-Use Trail Strategy contains an action plan. The action of relevance to this Bike Plan Review is *'Review relevant bike plans and integration with multiple-use trails'*.

The Multi-Use Trail Strategy outlines the importance of identifying and incorporating linkages to popular multi-use trails, public transport and residential areas. That is, to provide safe on-road routes to connect to off-road trails. Map 2 and Table 3 of the Strategy outline 26 potential urban linkages to proposed bushland multiple use trails. These suggested linkages have been reviewed and incorporated into the Warringah Bike Plan 2010-2015 network of bike routes.

The Warringah Bike Plan 2010-2015 complements the trail network by planning to allowing cyclists to follow safe on-road and off-road routes to connect to the off-road multi-use trails. The Warringah Bike Plan also only proposes cycle links to multi-use trails but does not include routes along multi-use trails. It is recommended that cycling along multi-use trails be integrated into a future mountain bike plan for Warringah.

Sports in Warringah Strategy 2004

The aim of this strategy is to assist Council in future infrastructure and service planning of sportsgrounds and associated facilities, taking into account the current and future needs of the community and related sporting groups.

The introductory page states that the document is "A study and strategy on the use, management and future use of Warringah's outdoor sporting fields and outdoor courts." Cycle paths and the provision of cycle infrastructure are not included in the definition of "outdoor sporting fields" or "outdoor courts".

Cycling should be addressed in this report as a legitimate sporting option within Warringah, however to do so would mean broadening the definition of the scope of the strategy. There are also no references to which modes of transportation people use to access the sporting fields.

Warringah Recreation Strategy 2009

Key elements of the Warringah Recreation Strategy 2009 of relevance to the Bike Plan are outlined in the demographics section of this document. The following Recreation Strategy Actions are supported by the Bike Plan.

Action No.	Relevance to the Bike Plan
Action No. 4. Continue to develop a network of walking tracks, pedestrian pathways, linkages, cycleways and multi-use trails, concentrating initially around high use sites to connect with transport routes and residential areas. This should be achieved	The Warringah Bike Plan 2010-2015 develops a network of bicycle routes that include shared paths and on-road cycling routes, these connect to key trip attractors such as shops, public transport, beaches,

Action No.	Relevance to the Bike Plan
through: • Development of a regional tracks and trails overview which links current documents such as the Bike Plan and Multiuse Trail Strategy and identified plans and locations for links and pedestrian pathways etc. • Develop and implement a series of Pedestrian Access and Mobility Plans (PAMP) which outline the provision of safe, convenient and connected pedestrian routes throughout Warringah. • Continue providing annual funds for pathway/cycleway improvements and expansion. • Updating pathways/cycleways maps, signage and web information to inform users of new links and new trails. • Continue to seek additional funding opportunities and grants for the development of the network.	national parks, schools, residential areas etc. The Warringah Bike Plan 2010-2015 has also utilised the Multi-Use Trails Strategy in the development of it's routes, providing bike route connections to these facilities. A future Warringah Pedestrian Access and Mobility Plan will need to ensure that it considers the location of shared paths as identified in the Warringah Bike Plan 2010-2015 The Warringah Bike Plan 2010-2015 includes funding and grant actions and an action to update cycleway maps, signage and web information to inform users of new bicycle routes.
Action 6. Determine Council's role and involvement in the provision of off-road cycling opportunities through the completion of research and consultative activities. Such activities will aim to address ongoing and future provision and management of off-road facilities and issues within Warringah, including resource implications and environmental impact.	The Warringah Bike Plan 2010-2015 includes an action to determine Council's role and involvement in the provision of mountain bike riding opportunities through the completion of research and consultative activities as outlined in the 2009 Recreation Strategy

Dee Why Town Centre

In the report to Council on 26 February 2009:

- Page 18: Motorcycle and Bicycle Parking. The report indicated that the Stage 2 DA shall incorporate adequate levels of motorcycle parking in the basement and bicycle parking within the public domain areas of the development, to ensure that alternative forms of transport are provided for in the development.
- Page 19: Pedestrian and Bicycle Access. The report indicated that the Stage 2 DA is to address the issue of pedestrian crossings in Oaks Avenue and Howard Avenue and any changes required as a result of the development are to be identified and are to complement the pedestrian networks for the Dee Why Town Centre. Consideration is to be given to the need for signalling the pedestrian crossings, particularly the Oaks Ave crossing should be considered for traffic operation and safety reasons. Provision is to be made for bicycle access and parking/lockers in the development of the road design and car parks.

- Under the Bus Transport and Taxis section of the report the formalisation of the main bus stops in Howard Ave and Pittwater Road are to take into consideration the provision of bicycle parking in a close and convenient location.

Warringah Traffic Committee

The Warringah Traffic Committee comprises representatives from NSW Police, Warringah Council, local Members of Parliament and the NSW Roads and Traffic Authority. It plays an instrumental role in reviewing road infrastructure proposals within the Warringah LGA.

A recommended action for the Bike Plan is that an active member of a local bicycle user group is invited to attend Warringah Traffic Committee Meetings to represent the interests of cyclists in Warringah and notably to provide feedback on infrastructure works that are proposed along bicycle routes identified in the Warringah Bike Plan 2010-2015.

Warringah Plans of Management – Parks, Reserves and other Open Spaces

Warringah Council Plans of Management (POM's) have been reviewed with regard to the Warringah Bike Plan 2010-2015. Relevant POM's have been summarised in Appendix 9 and a number of Bike Plan Actions are resultant from this review.

Warringah Council Policies:

Warringah Design Guidelines – Public Spaces

This document provides guidelines as to how Council funded and built street furniture, signs and other objects are finished. This means it includes what colour paint the objects are finished in, paving surfaces, signs and ground coverings.

The document does not mention bikes or bike use throughout. However, bicycle infrastructure should be considered to be included in the document as parking facilities such as bicycle parking and signage can form important street furniture and objects. As a result, a recommended action in this Bike Plan will be for this policy to be reviewed with an aim to consider the inclusion of bicycle infrastructure provision.

Environmental Sustainability Policy

This document stipulates that council must act in an environmentally sustainable manner when conducting business. This covers staff, councillors and other persons engaged by council.

Cycling is not mentioned throughout this policy. However, the policy could represent a compatible 'sister' document to the bike plan as it espouses the same or a very similar vision and ambitions.

Warringah Financial Planning Policy 2007

The Financial Planning Policy (2007) outlines Council's long-term Financial Strategy and Assets Management Strategic Framework. The aim of this policy is to make sure that Council manages the finances in such a way that balances community needs with long term financial sustainability.

The development of the annual Management Plan and budget will be guided by the following principles:

- Council's strategic management processes include financial plans prepared on a rolling 10 year basis, asset management plans of at least 20 years and a works plan covering a four year cycle.
- Projected operating revenues are set at a level sufficient to meet projected operating expenses.
- Investment in the renewal of assets will increase each year to meet the full cost of asset depreciation by 2011-2012, and thereafter increased to keep pace with the depreciation of assets.

- Asset renewals are funded by the depreciation expense.
- New assets to support population growth are funded from developer's contributions.
- New assets created to provide increased levels of service are to be funded from sources other than general revenue, including but not limited to loans.
- Proceeds from the sale of real property are used in accordance with the "Sale of Real Property – Allocation of Funds" policy.
- Excess accumulated working capital to be applied to "one off" projects that improves financial sustainability and builds capacity for the community.

Commitment to implementing particular Bike Plan Actions is given once the actions appear in Council's Management Plan and related annual corporate planning documents.

Warringah Bike Plan Consultation to Date

The final Warringah Bike Plan 2010-2015 will be informed by thirteen consultation events undertaken in the form of stakeholder workshops, feedback from the bike plan questionnaire and public exhibition of the draft Bike Plan. A summary of consultation undertaken is outlined in Appendix 1. A summary of feedback from the Warringah Bike Plan Questionnaire is also included in Appendix 2.

Consultation Feedback

Below is a summary of issues raised through feedback from the Bike Plan Questionnaire and Stakeholder Workshops. Feedback has been converted into actions and incorporated into the overall bike plan.

Feedback has:

- helped inform the content of the overall bike plan
- helped identify gaps in the network
- helped prioritise the schedule of works
- contributed to the promotion / education strategy

Table 3: Consultation Feedback and How Issues have been Addressed in the Bike Plan

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
Varying Cyclist Types: The majority of cyclists who completed the questionnaire ride predominantly for recreation (fun and fitness) 57.24% followed by Mountain Bike Riding (Serious dirt bike riding) 17.72% and then commuting (to get from A to B) 25.04%. Issue of catering for various types of cyclists Recreational riding can lead to commuting How are other bike-related facilities (i.e. non-commuter) being captured/managed if they are not dealt with via the bike plan? How will the commuter and non-commuter facilities be ultimately linked together? Statistics on people cycling as a means of transport and trends in the area	Under heading: Bicycle Network Route Development

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
Statistics on Recreational cyclists numbers and trends	
Provision of completed bike routes to get cyclists from A to B	Bicycle network map and prioritisation of works have been developed to ensure key routes are completed
Gaps in the bicycle network, dangerous locations and desired bike routes feedback.	This feedback was taken into consideration when preparing the proposed bicycle network. Council staff conducted on-bike analysis of areas highlighted via questionnaire feedback that were not covered by the GTA bicycle audit and subsequently changes were made to the proposed bike plan, taking into consideration current bicycle standards.
Improved safety and perception of safety	This has been addressed through engineering requirements outlined in the bike plan and the public education strategy
Bicycle Parking. Shopping Centres; Beaches then Bus Stops were the main bike parking locations requested in the Bike Plan Questionnaire. A smaller number of respondents in the questionnaire requested parking at schools, Warringah Council, Workplaces, Libraries, Apartment Buildings, Child Care centres, Places of Entertainment, Manly Ferry etc. Issues concerning security of bicycle parking, long stay undercover parking and different bicycle parking types required at various locations were raised. Need for Warringah Development Control Plan to contain bicycle parking requirements for future developments Need to be highly visible and conveniently located Where will parking go? How much and what type?	Bike Parking requirements have been addressed under Engineering Requirements / Bike Parking Strategy of this bike plan
End of Trip Facilities: Providing end of trip facilities such as showers, change rooms, clothes lockers Need for Warringah Development Control Plan to contain end of trip facility requirements for future commercial developments	End of trip facility requirements have been addressed via the Bike Parking Strategy and relevant action to amend development controls within Warringah's Development Control Plan
Implementation / Prioritisation of the Bike Plan: Where will development of the bike plan fit compared to other Council Projects and Department Projects Capex Forecasts; Councillor Priorities Overall; Financial backing to implementation the bike plan. Will the bike routes be incorporated into the relevant plans of management? It would be good to get an approximate cost of changes to	All of these concerns are addressed throughout the bike plan

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
rates over years to come – amount that needs to be adjusted each year – a figure to apply	
Responsibility: Who in Council will be responsible for ‘overseeing’ the implementation of the Bike Plan and specifically the proposed schedule of works. How will they achieve this outcome. Does the Bike Plan clearly establish which Council department is responsible for what? This is a complex matter, considering that the schedule of works proposes new facilities that are split across Council’s asset owner classes (buildings, roads, parks, foreshores, footpaths etc)?	These concerns have been addressed in the bike plan
Funding: Who in Council will be responsible for lobbying the RTA/other state gov’t departments for grants	Addressed under Funding section of the Bike Plan
Review: What is the life of the bike plan and how often will it be reviewed.	Addressed under the Monitoring and Review section of the Bike Plan
Schedule of Works: Does the Bike Plan cover the ‘whole of life’ asset management principles – including design, construct, maintain, renewal, disposal – for the proposed schedule of works?	Yes it does
Data Management: What about data capture, maintaining the data in an asset register, ensuring that the facilities are maintained to an appropriate standard in the future? This is a mandatory requirement for all assets under Council’s control.	Addressed via a bike plan action
Major Developments in the LGA: Does the bike plan take into consideration major developments in the LGA and the need for any such projects to include bike-related facilities. E.g. Dee Why Town Centre. Does the bike plan make mention of the provision of bike-related facilities with any new Council building, or the major renewal of any existing Council building. Re-development of the Dee Why Town Centre is a good opportunity to get cycling provisions right with respect to bicycle routes, parking facilities and other infrastructure provisions.	This has been addressed in the Bike Plan
Safety for Cycling on Main Roads: Improved safety for cycling facilities on main-roads (RTA Roads), i.e. Pittwater Road is unsafe and does not	This is RTA’s responsibility. There appears to be poor communication, responsibility and checking between RTA policies for bicycle facilities and their contractors who construct RTA Roads.

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
encourage cyclists New works on main roads that do not extend bitumen to the road shoulder, therefore leaving uneven surface/drop off to the older edge surface, i.e. Wakehurst Parkway. Many instances where road construction companies neglect their responsibilities to cater for cyclist on road shoulders and their work is not in accordance with RTA policies.	The Bike Plan identifies safety hotspots on RTA main roads and will be required to lobby the RTA to address these issues through relevant actions included in the Bike Plan.
Need for bike boxes at intersections	Bike box requirements have been addressed under Engineering Requirements section of the Bike Plan.
Improved Safety of Shared Paths: Road crossings need to be easy and safe and provide continuity and links for off-road paths. Surfaces – what is going to be used as the main surface material? Width – what are the standards and are we sticking to that for all trails etc?	Shared path safety requirements have been addressed under Public Education and Promotion and Engineering Requirements sections of the Bike Plan.
Bicycle shoulder lanes ('car door lanes') are not safe	Bicycle shoulder lanes have been addressed under Engineering Requirements section of the Bike Plan.
Safety of mixed traffic bicycle facilities	Mixed traffic bicycle facilities have been addressed under Engineering Requirements section of the Bike Plan.
Issues regarding sealed and unsealed surfaces for bicycle routes.	This issue has been address under Engineering Requirements section of the Bike Plan.
Clarification of issues regarding cycling on footpaths	Riding on footpaths – A network of key routes have been developed and prioritised in the proposed bike plan to establish where it would be most beneficial to dedicate available funding to convert footpaths into shared paths. A 1m wide footpath can not be signed as a shared path, as this would be dangerous for users and leave Council liable to damages.
Maintenance: Improved maintenance of on-road and off-road cycling facilities is required. Maintenance Issues: Pot holes; drainage grates; tree routes, loose surfaces; debris; broken glass; fading painted on-road signage etc Renewal requirements of current versus new trails	Maintenance requirements have been addressed under Bicycle Route Implementation Priorities section of the Bike Plan.
Mountain Bike Riding: Numerous request for mountain bike riding provisions	Mountain bike riding provisions do not fall under this bike plan, how a Bike Plan action has been included in the Actions Table for Council to develop a Mountain Bike Strategy for Warringah

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
Children Cyclists • Want child friendly cycling routes • Suggested provision of a children's skills training circuit – learn to ride facility in some public playgrounds. There is an existing learn to ride track at Passmore Reserve and there is one proposed at Jamieson Park and one in Cromer Park. • 'CARES' in French's forest provides bicycle training courses. Bicycle NSW also provides learn to ride courses • Ride to School Programs. • Transport Access Guidelines for Schools through Bicycle NSW Ride to School Program to minimise conflicts with vehicles • Noted generation gap of bicycle riders, need to re-teach bicycle skills to the younger generation • Need to establish a safe cycle network at least 2 blocks from schools and educate parents and children of this network so children can travel safely to school. Noting the erratic behaviour of kids on bikes. • Footpaths near schools should be shared paths • Free kids bike training play ground would be good that contains things like mini traffic lights and road layouts so kids can learn road rules and how to ride on public roads etc. Could investigate potential for a facility at Nolans Reserve unused netball courts. • Children's participation rates statistics? • Consult with schools in preparation of the bike plan, in regards to the provision of shared paths in their areas and issues with children riding bikes. • Consult with parents – what issues do they have regarding encouraging bike use	Child friendly bike routes have been addressed under Demographic of Warringah and Bicycle Network Route Development Section of the Bike Plan.
Adjoining Council Bicycle Networks: Need to consult with adjoining Councils and ensure the bike plan links with their bicycle routes	This has been addressed under Bicycle Network Route Development Section of the Bike Plan.
Bikes on Buses and Ferries: Lobby for bikes on buses and ferries	Bikes on Buses and ferries have been addressed under Warringah Cycling Environment Section of the Bike Plan.

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
Bicycle Signage: Where and what type? Need for well signposted bicycle routes – Directional signage, including travel time to designations. Shared Path Signage. Signage for cycling hazards Need for consistency of signage across LGA's	Bicycle signage strategy is outlined under Engineering Requirements Section of the Bike Plan
Traffic Management Devices: Improved safety of on-road traffic management devices. Inadequate and dangerous design of traffic management treatments i.e. roundabouts and road furniture, chicanes, speed bumps with raised edges, jutting out concrete platforms near pedestrian crossings	This has been addressed under Engineering Requirement Section of the Bike Plan.
Riding in bus lanes	Riding in bus lanes has been addressed under Broader Context / NSW Road Rules section of the Bike Plan
Opportunity for Cycling Tourism	Addressed under Public Education and Promotion Strategy section of the Bike Plan.
Warringah Council Traffic Committee: Need an active member of a bicycle user group to represent cyclists on the Warringah Traffic Committee	Addressed through a relevant Bike Plan Action
Warringah Council Leading by Example: • Warringah Council Bike Fleet • Ride to Work Day • Bicycle Parking provisions at council facilities • End of trip facilities for offices. • Consideration of bicycle requirements in new Council developments • Include where bicycle parking provisions are located on Councils Website for Council buildings/facilities	Addressed through a relevant Actions of the Bike Plan
Promotion / Education Strategies: • Extensive driver education to raise motorists awareness of cyclists' use of the roads and relevant road rules	Addressed under the Public Education and Promotion Strategy of the Bike Plan.

Consultation Feedback	How this feedback has been addressed in the Warringah Bike Plan 2010-2015
• Education to improve cyclists' knowledge, skills and safe cycling behaviour • Education to improve behaviour of shared path users • Need for information on where bike routes exist. • Promotion of bicycle routes via provision of a Warringah bicycle network map to be available on council website, local bike shops, council eco van, local libraries, council civic centre etc. Include details on the map regarding difficulty of routes, i.e. child friendly routes etc, hills and what currently exists and does not exist but is proposed. • A process for updating the map as routes are constructed. • Cycling events: Warringah to host a local ride day similar to the Spring Cycle where local businesses get involved; Annual ride to work day • Promote local cycling clubs • Need to get more women cycling • Learn to ride opportunities for people of all ages • Campaign promoting the benefits of cycling • Bicycle maintenance courses • Encourage bicycle use as an alternative to the motor vehicle • Workplaces to encourage cycling through provision of bicycle parking and end of trip facilities (DCP Controls) • Promote cycling at Schools. Ride to school days. Bicycle parking at schools. Bicycle skills program. • Education of shared path users • Encourage increased cycling for short trips to shops, beach, recreation facilities, work	

DEMOGRAPHICS OF WARRINGAH

Population

Warringah's population in 2006 was 133,490 and is projected to increase by 6.4% to 142,090 in 2031; this is a slower rate of increase compared to the 3.5% growth between 2001 and 2006. This will result in Warringah having 2.5% of the Metropolitan Region population where it presently has 3.3% (NSW Department of Planning projections 2005).

The largest increases in population since 2001 have been across the Northern (Narrabeen, Terry Hills, Belrose/ Oxford Falls etc) and Central Beaches (Collaroy, Dee Why, Curl Curl etc) areas, indicating the need to plan accordingly for cycling facilities.

The characteristics and cycling environments of Warringah Council suburbs are varied. Planning for cycling at the local level should consider the different characteristics and needs in each suburb.

Age and Gender Profiles

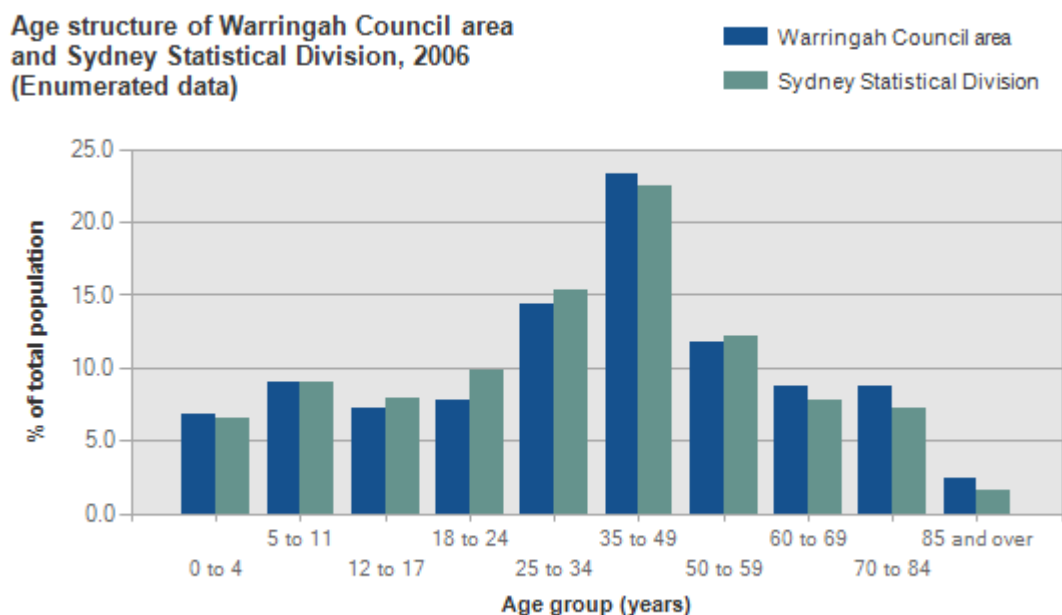
Large numbers (69%) of Warringah's population are aged in their most active years (0-49 years), although Warringah has a significant number of people aged in the less active years of 60 years and over (20%).

The 2001-2006 period saw increases in children and young people (0-17 yrs), a decline in people aged 20-35 yrs and increases in middle years (35 - 64) and older age groups (65+). The current median age is 38 years - up from 34 years in 1991. This is in line with national trends of an aging population; however Warringah's average age is around two years older than the national average.

The Australian Sports Commission, 2005, notes that Australians aged between 35 – 44 are taking up cycling faster than any other age group. This age group is also currently the largest age group in Warringah, consisting of approximately 23% of the population. Nonetheless anecdotal evidence indicates that older people are also resuming bike riding.

The below figure compares the age structure of Warringah with the Sydney Statistical Division.

Figure 4: Structure of Warringah Council Area and Sydney Statistical Division, 2006



Source: Australian Bureau of Statistics, 2006 Census of Population and Housing (Enumerated)

Children cyclists

More recent data indicates a growth in the number of 0-11 year olds, with just over fifteen percent (15.6%) of Warringah's population aged between 0-11 years. School age children (5 – 17 years of age) also represent 16.3% of the population but only 17% per cent walk or cycle to school (*Draft North East Subregional Strategy* p60) This supports the demand to establish cycle to school infrastructure and other child friendly cycling facilities through the Warringah Bike Plan 2010-2015.

Being able to ride a bicycle is a developmental milestone in the life of a child. Riding a bicycle is a rite of passage, a passport to worlds beyond the front gate. Bicycles represent fun, freedom, exercise and fresh air ... everything that is special about being a child.

It is essential that children in Warringah are encouraged to develop bike riding skills and confidence on bikes in their youth. People are more likely cycle as adults if they have developed bike riding skills as children.

Further data that supports the need to encourage children to cycle are:

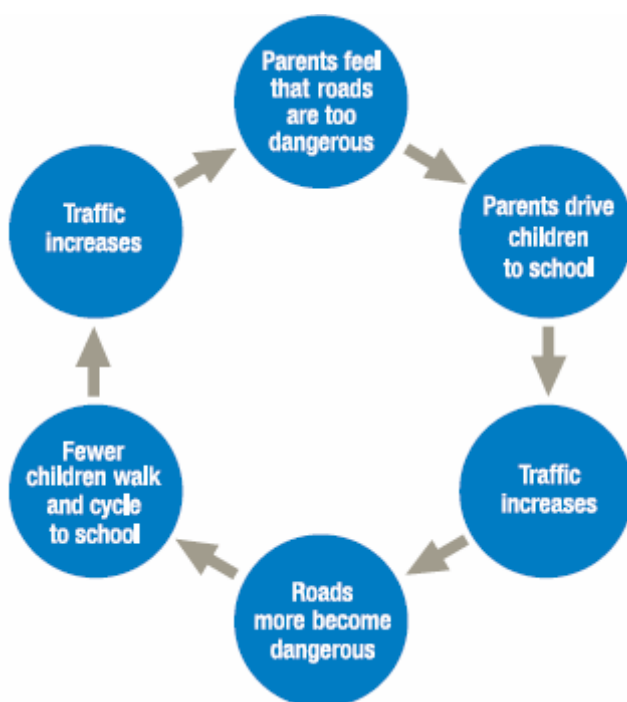
- 19 – 23% of Australian children are overweight or obese (Murdoch Children's Research Institute, 2002)
- A 30 minute cycle trip a day provides all the exercise you need to halve the chance of becoming obese or diabetic (World Health Organisation, 2000)

Feedback to the Warringah Bike Plan Questionnaire and various stakeholder workshops also highlighted the need for safe ride to school facilities, provision of bicycle parking facilities at schools and child friendly recreational cycling facilities in Warringah.

a) Ride to School Programs

The following diagram clearly indicates the effects of ever increasing car use on walking and cycling to school.

Figure 5: The Effects of Ever-Increasing Car Use on Walking and Cycling to School



Source: Dora and Phillips, 2000 in Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008

NSW Road rules stipulate that children up to 12 years of age are allowed to ride on footpaths but must give way to pedestrians. Adults are also allowed to cycle on footpaths while accompanying a child on their bike. Whilst this is acknowledged, Warringah Council believes more should be done to encourage school children to be more active on route to school via key actions of the bike plan.

Planning for the location of bicycle facilities in the Warringah Bike Plan 2010-2015 has taken the location of primary and high schools into consideration and proposes off-road shared path facilities to access the majority of schools in Warringah, where possible. For further details refer to 'Trip generators – key origins, destinations and routes' of this report.

Further to this, there are a number of key public education and promotion programs recommended through the Warringah Bike Plan 2010-2015 to encourage more children to cycle to school more often as follows:

Warringah Council should encourage local schools to:

- Implement a bicycle education program (if they don't already have one)
 - Implement a safe route to school program
 - Establish on-site bicycle parking provisions (if they don't currently exist)
 - Work with local schools to encourage children to use active forms of transport to get to school safely
 - Work with schools to encourage parents of school children to establish together with their child a safe route to school. Noting, children under 10 should be supervised in traffic environments at all times.
- b) Child friendly recreational cycling facilities

The Warringah Bike Plan proposes a number of off-road shared paths where children can cycle in relative safety away from traffic. The location of these routes are:

- Narrabeen Lagoon: Multi-Use Trail

The Narrabeen Lake Multi-Use Trail aims to design and construct the final links of the existing trail network around the foreshores of Narrabeen Lagoon. The outcome of this project will be an 8.5 km trail circumnavigating the entire lake, providing improved access to the foreshores of the Northern Beach's largest coastal lagoon. This trail will provide many opportunities for physical recreation to the residents and visitors of the area, improving health and quality of life while at the same time increasing awareness about the environmental and cultural amenities of the lagoon.

To date, Warringah Council has completed the trail through Jamieson Park and Berry Reserve, and Pittwater Council has completed the trail through Billarong Reserve. Both Warringah and Pittwater Councils are working collaboratively to design and construct the final components of the trail with the aim of encouraging a wide range of users and enhancing the existing joint Council interpretive and educational program.

- Narrabeen Lagoon to Dee Why Beach via Cromer: Route Number B4 on the bike map
Once completed this route will be predominantly off road, with the exception of a few road crossings.
- Curl Curl: John Fisher Park shared path loop
- Frenchs Forest: Lionel Watts Park and Frenchs Forest Showground

A shared path loop around Frenchs Forest Showground and an off-road shared path link from the showground to Glenrose shops is proposed for investigation under the Warringah Bike Plan and ultimately for integration into the relevant plan of management.

- Manly Vale: Passmore Reserve cycle loop around the playing fields
- Nolans Reserve: Off Road Shared Path
- Terry Hills: JJ Melbourne Hills Memorial Reserve has a bitumen cycle circuit and a BMX circuit

The following “learn to ride” playgrounds are proposed through the Warringah Bike Plan. These facilities will provide a place where children can learn bike riding skills in a safe environment:

- Cromer Park

The Dee Why Valley and South Creek Open Space Corridor Plan of Management has given a medium priority to Action 54: Develop a “learn to ride” bike area at Cromer Park. This is to cater for young children on bikes/ vehicles as well as provide opportunity for adventure rides around the park for older children. Usage guidelines, appropriate signage and other related amenities such as seating and shade is to be developed and installed.

- Manly: Nolans Reserve / Passmore Reserve

A recommendation of the Bike Plan is to investigate and develop, if appropriate, the potential for a “learn to ride” playground, either at the site of the old netball courts or at another suitable location at either Nolans Reserve or Passmore Reserve. Update the District Park Plan of Management accordingly.

Female cyclists

Women cyclists are under-represented in Australia, as indicated in Appendix 4. Statistics indicate that women represent half of the Australian population but only 21% of commuter cyclists. There are a number of barriers that prevent women from taking up cycling in a manner more representative of their proportion of the population and these are discussed further under ‘Barriers to Cycling / Bicycle Infrastructure’ section of this report.

Housing and Households

In general, 57% of the dwellings in Warringah are separate houses which almost double the number of flats or apartments. Total household size is varied, with an average size in 2006 being 2.58 people compared to 2.61 people in 2001. In line with national trends, there has been an increase in one and two person households in the Warringah area in 2006 compared to 2001. One person households have increased to 11,246 (23%) from 10,629 (22%) in 2001 and similarly two person households have increased to 16,081 (33%) from 15,319 (32%) in 2001.

Three person households have seen a decline from 2001 of 2%, but four and five person households have seen an increase of 5%. These are similar trends to the SHOROC region and Sydney area. Couples with families continue to be the most common family type, this type decreased slightly to 45% between 2001 and 2006. The proportion of couples without children increased from 36% in 2001 to 37% in 2006. Warringah's changing family and household makeup reflects the ageing population.

The major areas identified by the North East Subregional Strategy (draft 2008) for further medium and higher density housing include Dee Why (Central Beaches) and Brookvale (Central Demographic Area). There is a greater density of housing predicted for the coastal areas of Warringah which reflect the need for an established cycling network in proximity to the coast.

Socio-Economic Indicators

The 2006 census indicated that the average weekly household income in Warringah was \$1,387, compared with \$1,027 in Australia; however, approximately 13% (6000) of employed persons in Warringah are classified as low income earners. Warringah's unemployment rate was 3.5% which was (and remains) relatively low compared to the Sydney Statistical Division of 6.1%.

Despite a relatively high average weekly household income a large proportion of young people and older adults are earning lower incomes. This inequity highlights the need to ensure affordable transport opportunities such as cycling is made available and accessible to all residents to enable equitable accesses to local facilities and services.

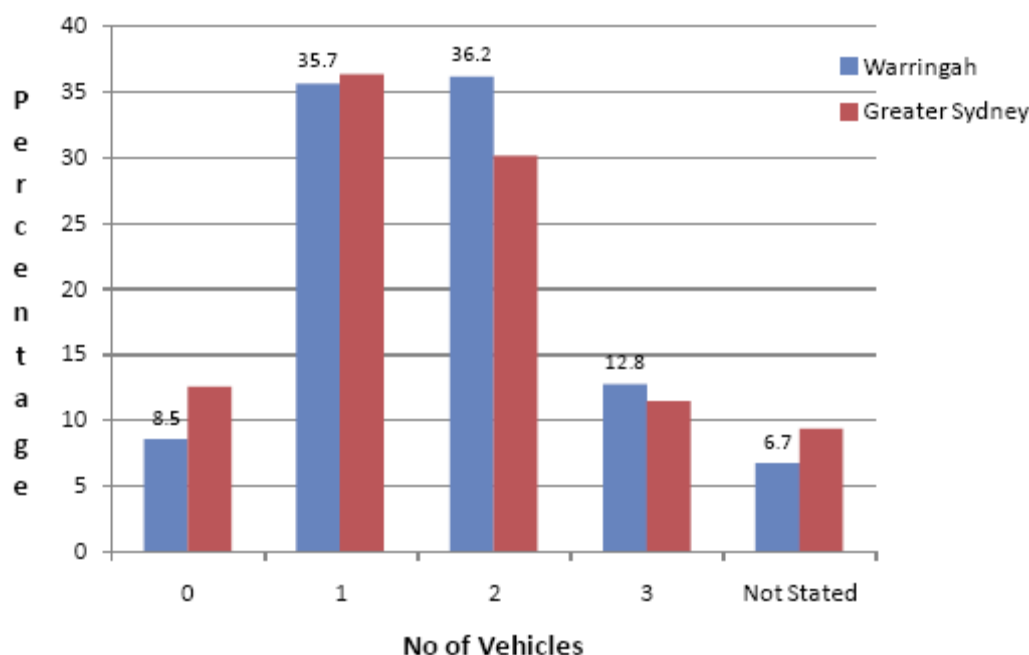
Travel Indicators

A broad data analysis for the Warringah LGA was undertaken to obtain a better understanding of the existing travel characteristics of the Warringah community so that an informed view can be established in relation to the needs and direction of the future Warringah bicycle network.

Modes of Transport

Analysis of household car ownership in Warringah Council 2006 Census Data compared to the Sydney Statistical Division shows that 84.8% of the households owned at least one car, while 8.5% did not, compared with 78.7% and 13.1% respectively in the Sydney Statistical Division. Overall, 35.7% of the households owned one car; 36.2% owned two cars; and 12.8% owned three or more cars, compared with 36.4%; 30.2% and 11.5% respectively for the Sydney Statistical Division.

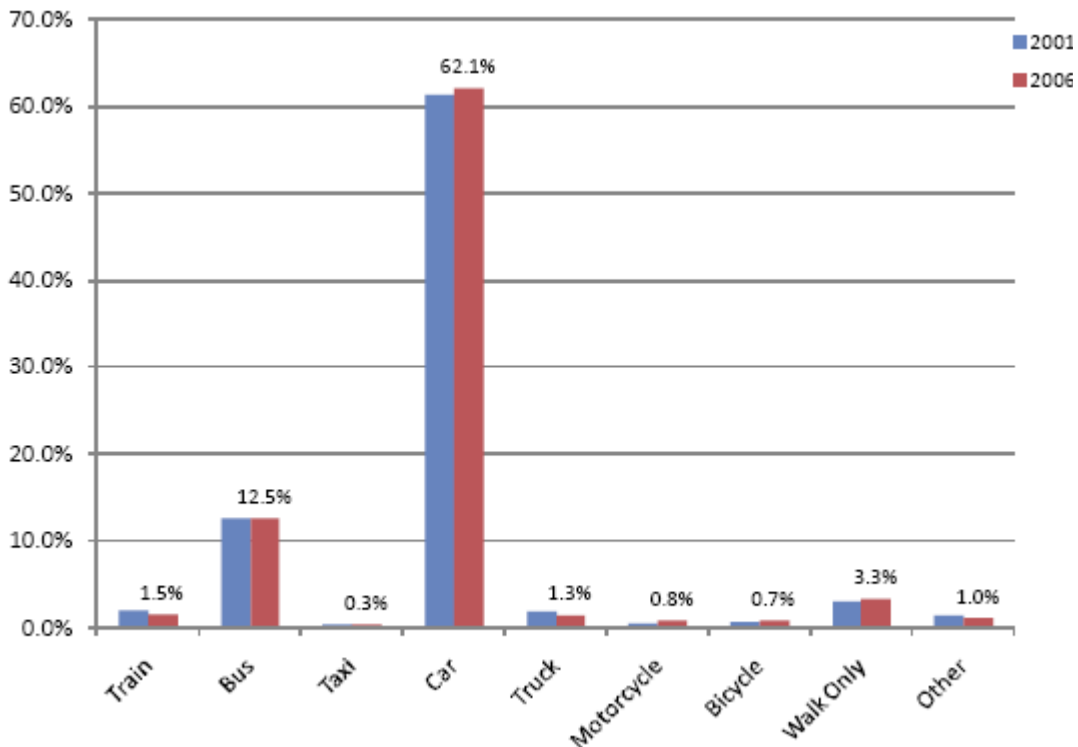
Figure 6: Car Ownership in Warringah LGA (Census Data 2006)



The high level of vehicle ownership may be due to the limitations of the public transport system and lack of a safe, convenient and well connected cycling network to provide for all desired journeys as well as a general community expectation towards car ownership. Even so, public transport and alternative transport such as bicycles are important for young people and those without access to a motor vehicle (8.5% of households). A large proportion of 'lone person households' (32.5%) do not have a motor vehicle, which may suggest a risk of isolation. This further supports the need for this bike plan.

According to 2006 Census Data on an average weekday, 64.2% of trips in Warringah are made by private motor vehicle, 14% by public transport, 3.3% by walking and only 0.7% by bike.

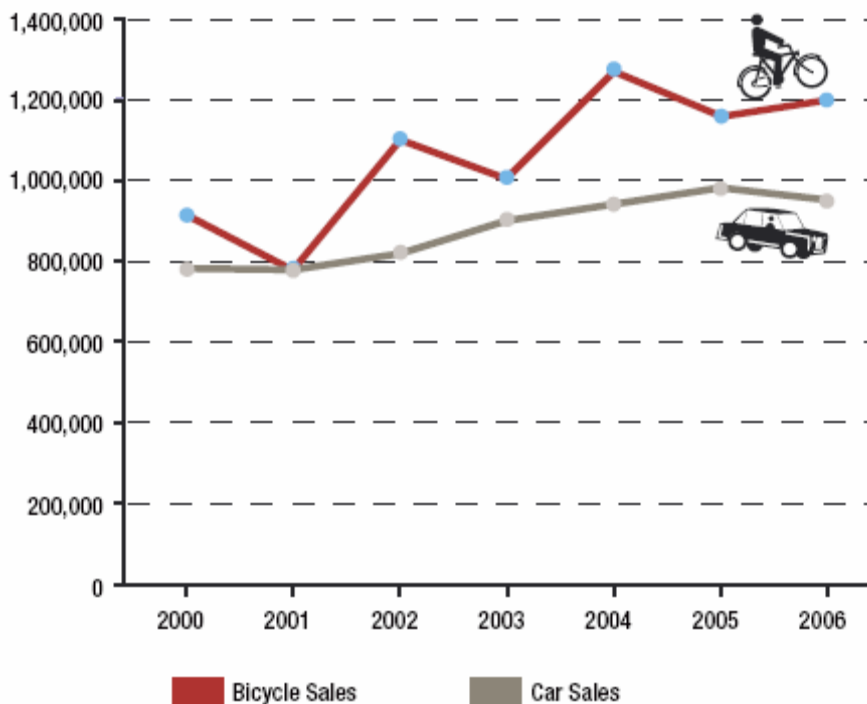
Figure 7: Warringah LGA – Mode Split Journey to Work Census Data 2001-2006



Despite the above statistics, a bicycle culture is beginning to take hold in Australia. ABS data shows Australians purchased more bikes than cars over the five years up to 2007. The evidence from Australia and overseas is clear – car culture can be changed when people are provided with other options. They are willing to reduce their car use and cycle more when provided with a supportive environment. With the emerging issues of congestion, obesity, climate change and spiralling fuel prices, there has never been a better time to challenge private motor vehicle culture through investments in cycling infrastructure and encouragement programs (Cycling Issue Sheet: Getting More People riding Bicycle in Australia (2007)).

Successful transport strategies recognise that building more roads is a poor solution to congestion and pollution problems. Sensible transport policy focuses on moving people, not cars. The most efficient, equitable and healthy transport modes are public transport, cycling and walking, yet they receive only a small fraction of the funding provided for car based infrastructure. Moreover, as petrol prices continue to rise, Australia's car dependent communities will be placed in an extremely vulnerable position (Cycling Issue Sheet: Getting More People riding Bicycle in Australia (2007)).

Figure 8: Bicycle and Car Sales 2000-2006 (Cycling Promotion Fund, 2007)



Where do People Living in Warringah Work?

Understanding where workers come from is important information for Local Government. It can assist in planning and advocacy for roads, public transport and cycling infrastructure. It also helps to clarify the economic and employment drivers across areas and assist in understanding the degree of self containment within a LGA.

The journey to work data that is presented below is part of the 'journey to work' data set and is based on the 2006 Census Question: "For the main job held last week, what was the person's workplace address".

This data is then cross-tabulated with the person's current usual residential address to create a matrix of home to work, with the focus of the analysis on the work destination. For the purpose of the below data:

- SHOROC stands for the Shore Regional Organisation of Councils. It is a cooperative group of councils on Sydney's Northern Beaches taking a leading role on issues of regional significance, representing Manly, Mosman, Pittwater and Warringah Councils.
- 'Residential' refers to place of enumeration on census night

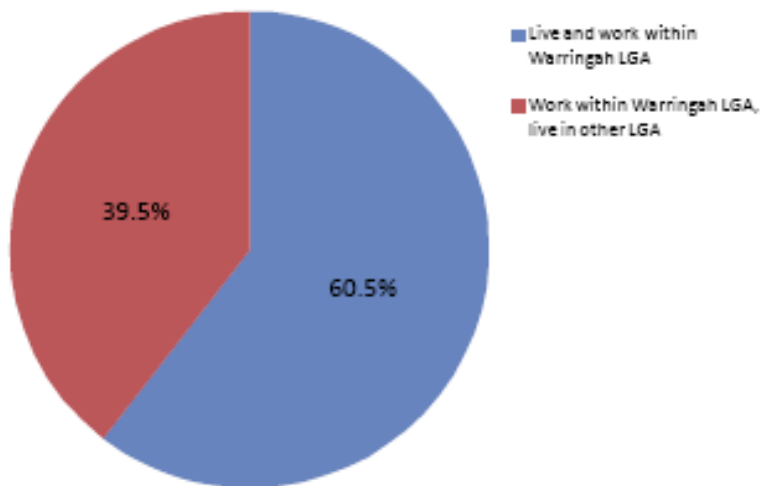
Table 4: Residential Location of Workers in the SHOROC Area, 2006

Residential location of workers in SHOROC, 2006		
Location	Number	Percentage
Live and work within the SHOROC area	62,752	78.2%
Live outside, but work within the SHOROC area	17,426	21.7%
Total workers in the SHOROC area	80,273	100%

Source: Australian Bureau of Statistics, Journey to Work, unpublished data, 2006

The above table indicates that a very high proportion (78.2%) of SHOROC residents live and work in SHOROC and the following diagram indicates that 60.5% of people who work in Warringah also live in Warringah. Therefore, a large proportion of Warringah residents live in relatively close proximity to where they work.

Figure 9: Where People Working in Warringah LGA Live (Census Data 2006)



The above figures indicate the following for Warringah:

- The dominant mode of transport for journeys to work for Warringah residents is the private car with 62.1% using private car transport either as a driver or passenger;
- Bicycle journeys represent 0.7% of all journey to work trips;
- Bus transport represents the second highest mode of transport for Warringah residents (12.5%) on their journey to work;
- The percentage of households that do not own a vehicle is less than the percentage for Greater Sydney;
- There is a significantly higher percentage of households owning two or more vehicles than the percentage for Greater Sydney and this has increased since 2001; (Indicative of young families);
- A large percentage of those people working within the Warringah LGA are also living within the LGA; and
- A very high proportion (78.2%) of SHOROC residents live and work in SHOROC

In support of this data, the bicycle routes provided in the Warringah Bike Plan 2010-2015 shall be designed to include commuter bike routes that focus on:

- Internal trips to areas of employment within Warringah and
- Connections to the adjoining LGAs of Manly, Pittwater, Willoughby and Ku-ring-gai

Recreational Cycling Indicators

The Warringah Council Recreation Strategy 2009 provides great insight into the current state of cycling in Warringah for recreation. As part of this Strategy, 621 randomly chosen residents completed a detailed telephone survey in April 2008. The residents were asked a series of questions regarding their recreation participation over the last 12 months.

The below table outlines that the top three unstructured, non competitive recreational activities in Warringah are walking, swimming and cycling. Warringah's top three varies slightly from the top three across Australia and NSW which are walking, swimming and aerobic/ fitness. This finding clearly supports the need for an established cycle network in Warringah to support the communities recreational cycling needs.

Table 5: The Top 10 Unstructured, Non Competitive Recreation Activities for Adults in Warringah

The Top 10 Unstructured, Non Competitive Recreation Activities for Adults in Warringah			
1. Walking	54%	6. Pilates/Yoga	7%
2. Swimming	31% (outdoor 21% /indoor 10%)	7. Golf	7%
3. Cycling/Bike Riding	12%	8. Gym/Weights	7%
4. Tennis	11%	9. Soccer	4%
5. Surfing/B-Boarding	9%	10. Fishing	3%

Predicted Future Participation Trends

In an attempt to collect possible future recreational participation trends residents were asked (Residents Telephone survey 2008) what activities they might like to participate in over the next 5 years.

The top 10 activities chosen to participate in 5 years time are listed in the below table. This table indicates that current levels of recreational cycling may increase by 4% in the future.

Recreational cycling enables people who ride for fun and fitness to develop the skills and confidence required to evolve into commuter cyclist, notably to replace the car with a bike for short trips. Therefore recreational cycling is vital to achieve one of the main aims of the Warringah Bike Plan, to getting more people riding more often.

The Warringah Bike Plan 2010-2015 is focused on providing bicycle routes to key destinations that are safe and comfortable. These routes are aimed at encouraging recreational riders to ride more often when accessing local facilities, for example the Warringah Mall to Manly Route:B1 and the Narrabeen Lagoon to Dee Why Route:B4.

Table 6: The Most Popular Future Activities Compared to Current Popular Recreational Activities

Top 10 current activities	Total %	Top 10 future activities	Total % - expected to decrease + expected to increased
1. Walking	46%	1. Walking	38% -
2. Swimming (outdoors)	19%	2. Swimming (outdoors)	23% +
3. Golf	13%	3. Tennis	19% +
4. Soccer	12%	4. Swimming (indoors)	17% +
5. Swimming (indoors)	11%	5. Soccer	15%+
6. Bike Riding/Cycling	11%	6. Bike Riding/Cycling	15% +
7. Tennis	11%	7. Golf	13%
8. Gym/Weights	10%	8. Gym/weights	8% -
9. Surfing/B-Boarding	8%	9. Surfing/B-Boarding	7% -
10. Running/Jogging	7%	10. Running/Jogging	6% -

The most popular future activities by age groups have been broken down in the below table. This table indicates that currently the age group between 20 to 59 years old are most interested in recreational cycling.

Table 7: The Most Popular Future Activities by Age Group

The Most Popular Future Activities by Age Group								
No.	15-19 yrs	%	20-39 yrs	%	40-59 yrs	%	60 yrs +	%
1	Soccer	28%	Swimming (outdoors)	26%	Walking	40%	Walking	61%
2	Tennis	26%	Walking	23%	Swimming (Outdoors)	25%	Golf	27%
3	Swimming (Outdoors)	26%	Swimming (indoors)	21%	Tennis	22%	Swimming (Outdoors)	23%
4	Rugby Union	17%	Soccer	21%	Soccer	18%	Swimming (Indoors)	16%
5	Bike riding/ Cycling	14%	Tennis	18%	Bike Riding/ Cycling	18%	Tennis	13%
6	Surfing/ Body Boarding	14%	Bike riding/ Cycling	16%	Swimming (Indoors)	15%	Bike Riding/ Cycling	10%
					Netball	15%	Lawn Bowls	10%

Children Cycling for Recreation

The top 12 activities children participated in when asked to list the activities that they did (outside of school) last week (August 2008) as indicated in Youth Activity Survey (2008) are outlined in the following table. This table indicates that 63% of children rode a bike that week. This figure is encouraging, however, further initiatives are required through this bike plan to encourage cycling in Warringah at a young age as those who cycle as a children are more likely to cycle as adults. These initiatives are outlined under the 'Age and Gender Profiles' section of this report.

Table 8: The Most Popular Activities that Children Participated in Outside of School over the Course of a Week

The Most Popular Activities that Children Participated in Outside of School over the Course of a Week			
1. Watched T.V/ video/DVD	92%	7. Arts/crafts/crafts	63%
2. Read a book	90%	7. Bike riding/ BMX	63%
3. Played and run around in the yard or a park	86%	8. Gone to a park or playground	61%
4. Played a computer game/ electronic/ console game	82%	8. Walked to and from school	61%
5. Walking – including bushwalking, walking dog etc	75%	9. Athletics/track and field/ running/ jogging	56%
6. Swimming (indoors 14%/ outdoors 69%)	73%	10. Played a musical instrument/ practice/lesson	48%

(Please note the shaded areas represent the physical recreational activities).

Recreation Assets Usage Rates

Respondents (Residents Telephone Survey 2008) were asked if they had used any of a list of nominated main sport and recreation facilities in the past 12 months. The results outlined in the following table indicate:

- That there was generally higher use of outdoor and natural areas and lower use of organised sport assets and reasonably high use of informal recreation facilities such as swimming pools and playgrounds.
- There is a need for further development of cycle/walking tracks which further enable walking and cycling access to community facilities. The further development of footpaths and designated cycleways/walkways would improve accessibility and opportunity for walking and cycling.

Table 9; The Most Visited Sport and Recreation Assets in Warringah

The Most Visited Sport and Recreation Assets in Warringah			
1. Beaches	80%	5. Ocean rock pools and swimming pools	48%
2. Open space/parklands	70%	6. Rivers, lakes waterways	41%
3. Walking, bike tracks and trails (incl. bushland)	69%	7. Playgrounds	38%
4. Outdoor sporting reserves/playing fields	59%	8. Community facilities	26%

What the Data Tell Us

On the basis of the above information the following broad conclusions have been made in relation to the future Warringah Bicycle Network:

- There are a large proportion of residents who live and work either within the Warringah LGA or within the neighbouring LGA's indicating a need for the commuter bicycle routes to focus on internal trips to employment areas and to improve and expand the connections with the neighbouring LGA's;
- The outdoor nature of the LGA should be encouraged further through the development of new and improved family recreational bicycle routes travelling through parks and reserves;
- The healthy living aspect of the LGA should also be encouraged further through the development of safe bicycle training/fitness routes supported by widening shoulders and driver awareness campaigns; and
- There is a strong desire for Warringah residents to work, live and play within the Warringah LGA and this trend should be encouraged further by providing bicycle routes which link to key trip attractors within the LGA.
- Ride to school programs and child friendly recreational cycling facilities should be supported through the Warringah Bike Plan.

WARRINGAH CYCLING ENVIRONMENT

Location and Land Uses

Warringah LGA is located on Sydney's Northern Beaches between 10 and 27 kilometres from the Sydney CBD. Warringah has five neighbouring LGA's of Pittwater and Hornsby in the north, Manly in the south and Ku-ring-gai and Willoughby in the west with the eastern coastline and ocean forming the other boundary. It should be noted here that there is not direct access from the Warringah LGA to the Hornsby LGA due to Cowans Creek.

Warringah encompasses a total land area of 153 square kilometres and is a naturally unique and attractive destination for visitors and residents. It features natural bushland, beaches, lakes, lagoons and parks which encourage an outdoor lifestyle and is predominantly residential with a variety of light industrial areas and retail shopping centres.

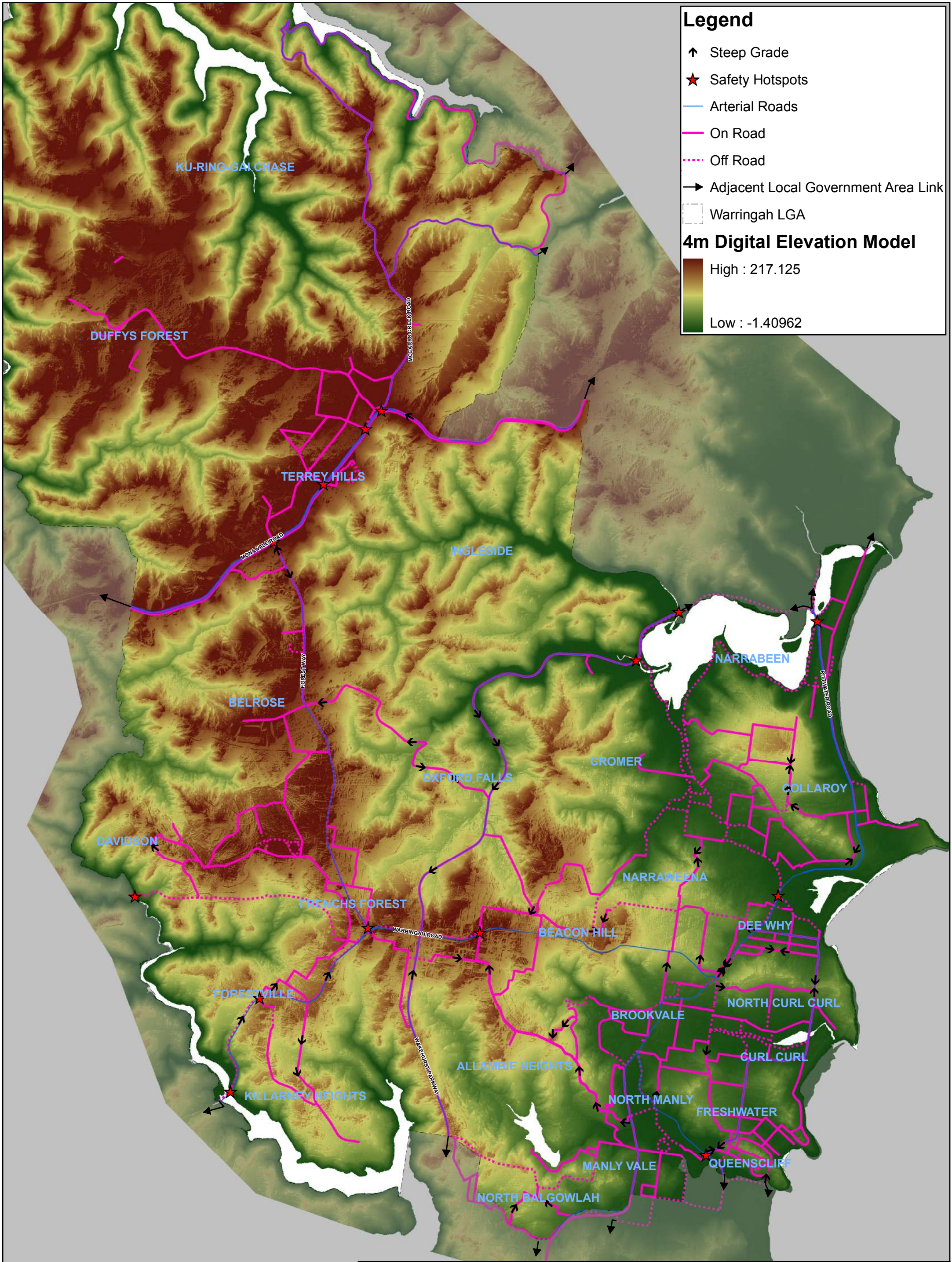
The key centre of Dee Why – Brookvale that is located in the south-east of the LGA and contains various employment lands including industrial and retail (i.e. Warringah Mall). The northern half of the LGA is vastly different to the southern half and contains predominantly National Parks and bushland.

Topography

Warringah's natural features are part of its attraction for bike riders. The topography rises from the relatively flat coastal plain in the east, to relatively flat ridges along Forest Way and Mona Vale Road.

Elevations throughout the LGA range from approximately 0m to 20m above sea level in the east along the coast, with the exception of Collaroy Plateau and Beacon Hill, to between 120m to 145m above sea level in the west around Forest Way and then peaking at approximately 160m to 200m above sea level in the north.

Much of Warringah is steep or undulating, and combined with traffic and a lack of bicycle facilities these factors can be a deterrent for cycling. However modern gearing systems for bikes can overcome most issues with steep terrain. It is up to the bike plan to help overcome the lack of facilities for bicycles.

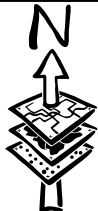


Legend

- ↑ Steep Grade
- ★ Safety Hotspots
- Arterial Roads
- On Road
- ... Off Road
- Adjacent Local Government Area Link
- Warringah LGA

4m Digital Elevation Model

High : 217.125
Low : -1.40962



**Draft Warringah Bike Plan 2010 - 2015
Topography**

Scale 1:48 000 (A3)
GDA 94 MGA Zone 56

Date Printed: 18/01/2010
Produced by: GIS

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Barriers to Greater Cycling Participation

Despite the significant increase in cycling over recent years and the multitude of benefits stemming from increased participation, the reasonably high level of bicycle ownership but relatively low participation rate suggests strong interest, but the presence of a range of significant barriers ¹

Safety Concerns

Feedback from the Warringah Bike Plan Questionnaire 2009 and other research indicates that safety concerns are a significant and consistently reported barrier to cycling and this is true for non-riders, infrequent and even regular riders (Daley et al, 2007; Greig, 2007). This section discusses the issue of safety as a barrier to cycling and provides evidence based facilitators to help overcome these concerns. Daley et al (2007, p4) conducted a series of focus groups with riders and non riders in Sydney and found that fear was a significant and frequently reported theme when investigating barriers to initiating or maintaining regular riding. They also found that 'Cycling's dangerous image prevented many non-riders from contemplating riding'.

1. Hostile road behaviour

In a telephone survey of a random sample of 1880 adult Australians by Australian Associated Motor Insurers (2004), a high proportion of respondents agreed or strongly agreed that "Aggressive drivers put me off cycling or walking" (46% of women and 38% of men). Moreover, 66% of respondents in the 2005 survey of 2403 cyclist's in Victoria reported experiencing intentional harassment from motor vehicle occupants in the previous 12 months (Garrard et al, 2006). The rate of cyclist harassment was an average of 24 incidents every 12 months (approximately once a fortnight). These disturbing results are supported by a smaller survey of cyclists in South Australia (Brisco, 2006). Further evidence of road user behaviour acting as a barrier to cycling in Warringah is demonstrated through feedback to the Warringah Bike Plan Questionnaire (Appendix 2).

The Transport Research Laboratory in the United Kingdom investigated driver's attitudes to cyclists, using both qualitative and quantitative methods. They found drivers often have a negative attitude to cyclists and see them as an 'out group'. This view was found to result in many cyclists experiencing aggressive and dangerous behaviours from motorist's. Drivers were more annoyed by cyclists (30%) than by other drivers (13%), which the authors attributed to a consistent pattern of regarding "the behaviour of 'out-group' members more negatively than the behaviour of 'in-group' members" (Basford et al, 2002).

The above information highlights a need for the Warringah Bike Plan 2010-2015 to develop tools to modify motorist's behaviour via the Promotion and Education Strategy, as poor motorist behaviour towards cyclists acts as a barrier to getting more people cycling.

2. Speed and Traffic Volume

Motor vehicle speed is both a perceived and actual safety hazard for vulnerable road users such as cyclists. An accident at 64km/h puts cyclists at 17 times the risk of a fatality than if the vehicle was traveling at 32km/h (Dora, 1999). Research by City of Sydney Council revealed that four out of five non-regular cyclists are put off cycling due to traffic concerns (City of Sydney, 2007).

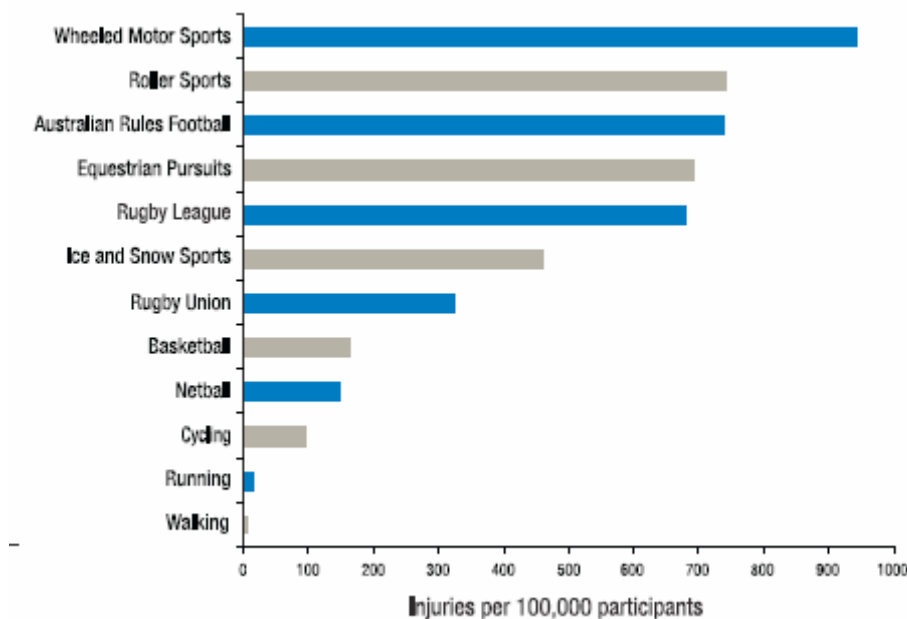
The combination of speed, volume of traffic and a lack of designated space for people to ride has been found to be a most significant barrier to cycling (Daley et al, 2007; Garrard et al, 2006). It is often exacerbated by aggressive driving and this has been consistently identified as a major deterrent to regular cycling, as has the general lack of bicycle infrastructure (Greig, 2001).

¹ Australia's per capita sales of bicycles is one of the highest in the world (Bicycle Industries Australia 2005); a NSW survey indicated that 65% of people owning a bicycle wanted to ride more (Rissel C., New C., Pham S., Bindon J., 2008)

A review of the literature finds that the perception of cycling as a high risk activity, due to possible collision with motor vehicles deters many potential cyclists (Garrard et al, 2006). Although it is necessary to acknowledge the legitimate concern of cyclists and non-cyclists, the data on road traffic injury presents strong evidence that riding may not be as hazardous as commonly perceived.

In Australia, you are seven times more likely to be hospitalized playing football than riding a bike (Flood and Harrison, 2006). Research conducted by the British Medical Association found that the health risks of inactivity are 20 times greater than the health risks posed by a potential cycling accident (British Medical Association, 1992).

Figure 11: Cycling is Safer

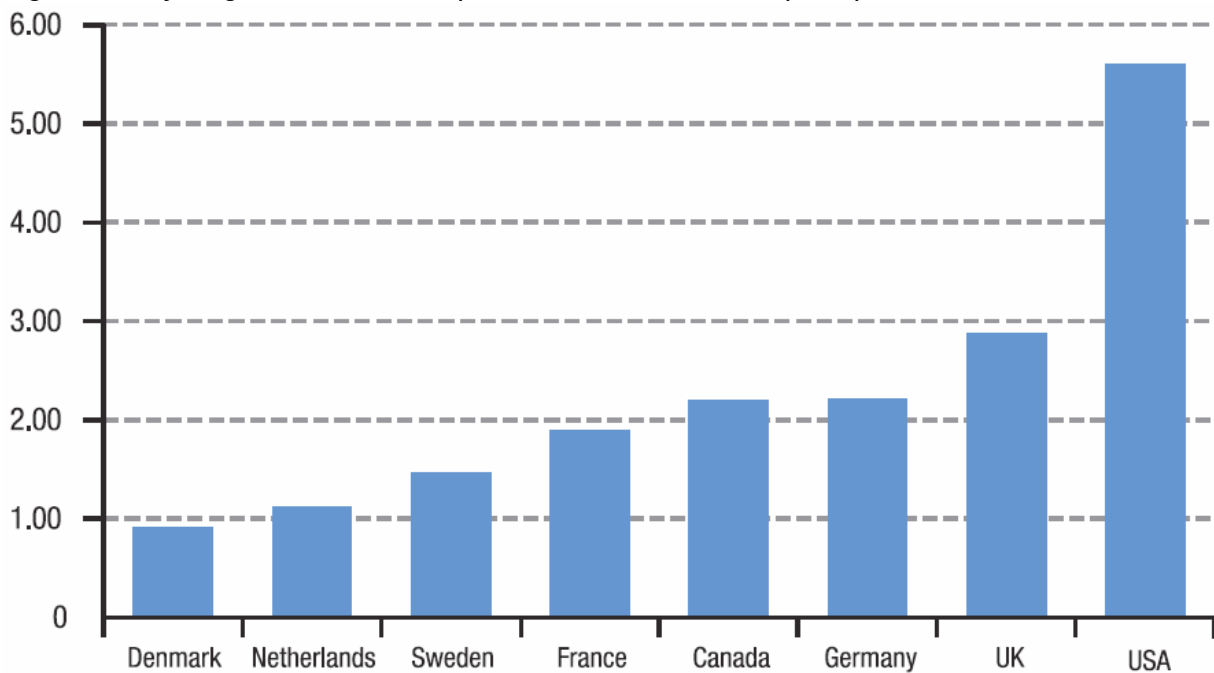


Source: Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008

The following graph illustrates that countries with high cycling use have much lower cycling fatalities. The notion that, as the proportion of cycling trips increases so does safety is also supported by Jacobson (2003) and Robinson (2005) – the latter investigated this relationship in the Australian context. Both authors found that increasing the number of cyclists on the road is an effective strategy to improve road safety. In fact, their investigation of transport injury and bicycle usage data allowed them to conclude “If cycling doubles, the risk per kilometre falls 34%” (cited in Robinson, 2005, p. 48). Numerous other authors have found that as the number of cyclists increase, the number of accidents dramatically reduces on a per kilometre basis (Litman & Fitzroy, 2005; Birk & Geller, 2007; Pucher & Dijkstra, 2003). For instance, cycling in London has increased 83% over the last 6 years, yet the number of serious crashes involving cyclists has fallen proportionally by 28% (Greater London Authority, 2007).

The more cyclists there are, the more visible they will be to other road users, as people will be expecting to see cyclists. It is also more likely that car drivers will, themselves, ride a bike at some time – car drivers who also ride a bike are more likely to be aware of and respect the rights of cyclists (Transport Western Australia, 1996).

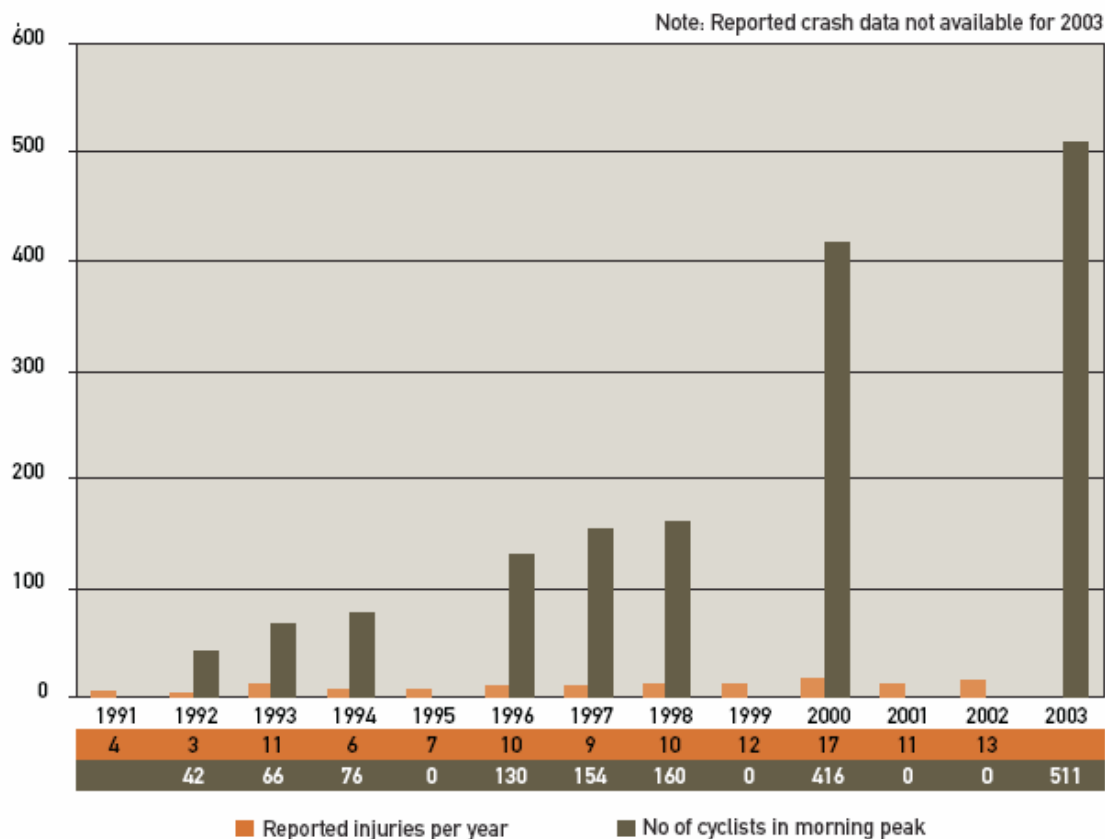
Figure 12: Cycling Fatalities Rates per 100,000km travelled (2002)



Source: Organisation for Economic Cooperation and Development (2005), European Union (2003), US Department of Transportation (2003 & 2005) cited in Pucher, 2006

St. Kilda Road in Melbourne is just one of the many examples demonstrating that investment in bicycle infrastructure results in dramatic increases in cycling. The graph below illustrates that as the number of cyclists grow, injuries remain relatively stable. This relationship is repeated in cities around the world (Cycling Issue Sheet: Getting More People riding Bicycle in Australia (2007).

Figure 13: Build It and They Will Come: How the St. Kilda Road Bike Lane Encouraged Cycling and Made it Safer (Cycling Issue Sheet, 2007)



What the data tells us:

- Investment in cycling infrastructure results in dramatic increases in cycling
- The bike plan needs to encourage more people to cycle as the more cyclists there are, the safer it becomes.
- Traffic engineering policies need to be examined for their ability to modify motorist behaviour in an effort to enhance pedestrian and cyclist safety,
- Comparison of pedestrian and cyclist collision frequencies between communities and over time periods need to reflect the amount of walking and cycling.

Individual Barriers

Individual barriers, such as poor health and a lack of skills and confidence have been found to prevent many people from cycling.

1. Health-Related

Poor health is potentially a barrier to many forms of physical activity, including cycling. Around 10% of the population is physically unable to ride a regular bicycle due to disability (Rissel & Garrard, 2006) and this proportion grows with increasing age (Australian Institute for Health & Welfare, 2003).

Some styles of pedaled vehicles (eg recumbents) are suitable for use by people with poor health or with a disability. Moreover, as a low-impact form of physical activity, cycling appeals to individuals who cannot participate in high impact activities. The 'need to swap to a low impact activity' was reported to be an 'important' or 'very important' reason for commencing cycling (Garrard et al, 2006).'

What the data tells us:

- The bike plan should promote cycling as a low impact physical activity that is good for your health

2. Confidence

Bandura (1997) demonstrated that confidence is a very important requirement in order for people to take up new activities such as cycling. This is supported by recent Western Australian research that found a lack of confidence features as a major reason for individuals choosing not to take up physical activities (Milligan et al, 2007). They found 34% of inactive adults described themselves as 'not at all confident' (p.46). Cycling is an activity that requires greater confidence than many other forms of physical activity – as it frequently involves interaction with motor vehicles and a variety of road surfaces.

Bicycle skills training is an effective way of boosting confidence for those new to cycling (Telfer et al, 2006). The Royal Society for the Prevention of Accidents (2001) found that cycle training increases individuals' propensity to cycle and reduces the chance of being involved in an accident (cited in Telfer et al, 2006). Local Bicycle User Groups (BUGs) are able to provide social support for those looking to ride with others.

What the data tells us:

- The bike plan should provided a number of safe off-road bicycle facilities such as the shared path loop around Narrabeen Lagoon, to enable inexperienced cyclist to build confidence on bike.
- The bike plan should support the provision of bicycle skills training for local residents as a component of the Warringah Bike Plan Public Education and Promotion Strategy,

as research indicates that cycle training increases individuals' propensity to cycle and reduces the chance of being involved in an accident (cited in Telfer et al, 2006).

3. Motivation

A wide range of surveys have consistently found that motivations for cycling tend to be focused on the individual. Central to this is the desire to improve or maintain personal health and fitness (Garrard et al, 2006; Greig, 2007). In a large scale mass marketing campaign, pre intervention focus groups reported the desire to exercise four times more frequently than the next most common reason for choosing to cycle. Other motivations focused on the individual include stress reduction, social interaction and exercising with the family.

What the data tells us:

- The Warringah Bike Plan public education and promotion strategy should focus on the key motivations associated with cycling: Personal health and fitness; Social interaction; Cut fuel costs; Good for the environment. It should also address the negative perceptions of cycling: Cycling is too dangerous; You need to be very fit to cycle; It's only something you do if you cannot drive a car.

4. Knowledge, skills, beliefs and attitudes

The survey of 2403 cyclists by Garrard et al (2006) and feedback from the Warringah Bike Plan Questionnaire 2009 identified the following knowledge/skills barriers to greater levels of cycling:

- lack of knowledge of local cycling routes in Warringah, the road rules that apply to cyclists, and the most appropriate bicycle to purchase.
- lack of cycling skill in regards to operating a bicycle, cycling in traffic, cycling in a group, and bicycle maintenance.
- concerns that you need to be fit to ride a bicycle, that the terrain needs to be flat, the weather fine, and the distance short (many of these perceptions and concerns are reduced with cycling experience).

What the data tells us:

The Public Education and Promotion Strategy for the Warringah Bike Plan should include an action of provide well publicised information packs on cycling in Warringah, that include the following details:

- recent bicycle route improvements in the local area
- cycle route maps
- the personal and community benefits of cycling
- bicycle skills training classes available
- a contact list of local, state and national cycling organisations
- cycle awareness tips for motorists (road safety)

5. Time and opportunity

Lack of time is a commonly reported constraint on all forms of physical activity, including cycling (Trost et al, 2002). Cycling, as a form of transport and active recreation, overcomes this issue, as individuals' health, transport and recreation needs are combined into the same activity – thereby saving time! This message should be included in the Warringah Bike Plan Public Education and Promotion Strategy.

Perceived Social and Cultural Norms

Cultural values and norms include systems of belief and codes of behaviour that shape the structure of society. These systems of belief, many of which are unstated or unconscious, influence behaviour in subtle ways. They can be difficult to identify, challenge or change. Nevertheless, successful public health strategies demonstrate that health enhancing changes in community attitudes are possible (e.g. tobacco control, drink driving, bullying, and violence against women).

In Australia's car-oriented culture, the perceived norm is that most people think it is acceptable to always travel by car, regardless of distance (Hinde & Dixon, 2005; Woodward et al, 2002). This becomes normal, habitual behaviour that results in many short trips being undertaken by automobile. In Australian capital cities, 52% of car journeys are less than five kilometres and 38% are less than three kilometres (Austroads, 2005; RMIT, 1999). These distances can easily be covered by bicycle.

Australia's car-orientated culture is also evidenced through the current Warringah LEP 2000 that does not contain any development control requirements for end of trip facilities such as bicycle parking, it only caters for the motor vehicles (refer to Warringah Context section of this document for more details). Contractors who widen RTA roads also illustrate Australia's car orientated culture when they fail to re-surface road shoulders for bicycle use along bicycle routes when conducting routine road maintenance works (e.g. on the Wakehurst Parkway). It is essential that consideration for cyclists is brought to the forefront of organizational culture and is not just an afterthought.

What the data tells us:

- Ensure cycling considerations are placed at the forefront of how Warringah Council conducts business via integration into Warringah Council planning policies and procedures and that Warringah Council leads by example.
- Marketing campaign to promote cycling. Promote cycling as a time smart and environmentally friendly way of getting around and staying healthy. Highlight that cycling can be the perfect way for busy people to keep active, as it combines physical activity with transport and/or active recreation. In many cases it can be time equivalent to other transport modes and at times, the fastest way to get from A to B with the added benefits of being environmentally conscious.

Urban Design

Professor Billie Giles-Corti of the University of Western Australia has demonstrated a clear link between the quality of public space and levels of walking and cycling (Research Australia, 2007).

Low density development has been found to be a barrier to cycling, as it increases average journey distance and fosters a culture of car dependence (WHO, 2006; Racioppi et al, 2005; Steele, 2007; Killoran, 2006; Handy, 2004; Giles-Corti et al, 2005).

We know there's a lot of evidence that people aren't healthy and aren't getting healthier and yet, up until recently, most of the focus was on health promotion campaigns focusing on the individual. There's no point telling people to cycle more if their environment is so unfriendly they can't.
Libby Darlison, Chair, NSW Premier's Council for Active Living

Frank et al (2007) found that the residents with the most favorable environment for walking and cycling were 2.4 times as likely to undertake the 30 minutes of physical activity suggested by the United States Surgeon General (1996). In fact, the youth surveyed living within a kilometre of a recreational space, such as a bicycle path, or a retail destination were around 2.5 times more likely to report undertaking active transport (walking or cycling).

To assess the influence of the physical environment on cycle participation, Pucher & Buehler (2006) examined why it is that Canadians ride to work three times more frequently than residents of the United States. They found that Canada's higher density and land use mix reduces trip distance (and superior bicycle infrastructure) encourages cycling. The cost of car ownership and

usage is also higher in Canada and this was found to encourage active forms of transport. Canada's cooler climate was a less important determinant of cycling. Another Canadian study found that the development of a comprehensive and connected network of local roads and pathways encourages a higher level of commuter cycling (Aultman-Hall et al, 1997).

What the data tells us

- Warringah Council should continue to plan to create urban environments conducive to walking and cycling via its planning controls and guidelines.
- Warringah Council should encourage a diverse range of land use practices, by mixing residential, retail and office space. By boosting the density of urban areas and regional centres, trip distance can be reduced and this encourages active forms of transport such as cycling.
- The Warringah Bike Plan should develop a comprehensive and connected network of local roads and pathways that connect to local facilities and services to encourage a higher level of commuter cycling by local residents to get from A to B.

Bicycle Infrastructure

The following section outlines how bicycle infrastructure or lack of it can act as a barrier to increased cycling in Warringah

1. Lack of developed bicycle routes

A lack of bicycle infrastructure is regularly reported to be a major barrier to increase cycling participation in Australia (Garrard et al, 2006; Daley et al, 2007).

The lack of infrastructure for bikes is a barrier. That's a fear, being injured if I got on a bike (Non-rider, female, cited in Daley et al, 2007, p. 4).

To assess the influence of bicycle infrastructure on the level of cycling participation, researchers have investigated the association between the number of kilometres of bicycle paths per 100,000 residents and the proportion of bicycle commuters. The study found that low levels of bicycle infrastructure have a negative impact on levels of bicycle use (Nelson & Allen, 1997). Importantly, this relationship remained after adjusting for weather, terrain and the number of university students.

This Australian data is consistent with the international findings on the relationship between the availability of active transport infrastructure, and the community's participation in cycling. Milligan et al (2007), after surveying over 3000 Western Australian adults on physical activity found that there is a strong and growing demand for walking and cycling paths and that when bicycle facilities are provided, they are used increasingly for the combined purposes of transport and exercise.

Busy roads have also been found to act as a significant barrier to cycling, especially for women (Garrard et al, 2006). The overwhelming majority of commuter arterials lack adequate provision for cyclists such as Pittwater Road, Condamine Street, Wakehurst Parkway, Warringah Road and some sections of Mona Vale Road and this is likely to explain part of the reason why bicycle journeys to work make up around 0.7% of commute trips in Warringah (Census Data 2006) and only approximately 21% of these are female cyclists (ABS, 2007a).

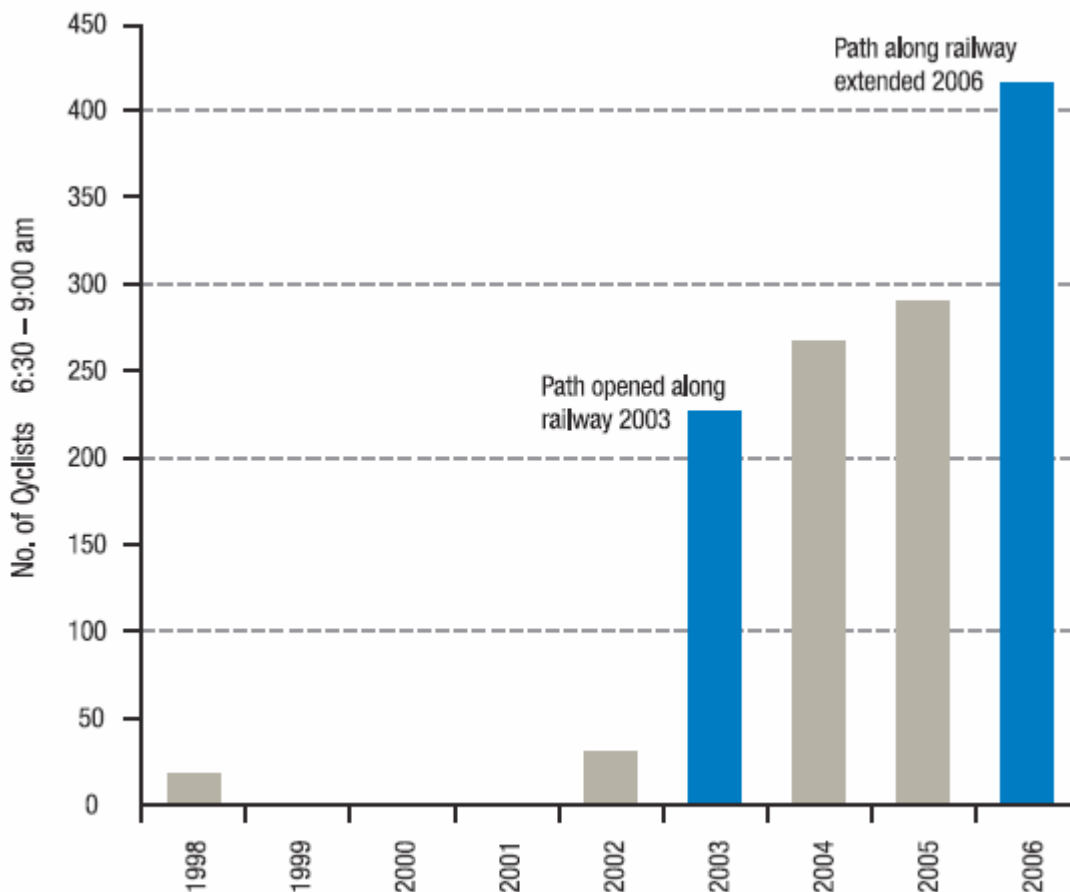
In countries with high bicycle transport mode share, cycling is a socially inclusive activity (Pucher & Dijkstra, 2003; Pucher & Buehler, 2008). Garrard et al (2006) found that female cyclists often choose routes that separate them from traffic, even if it may result in longer journeys. This is testament to the notion that motor vehicle traffic is a significant barrier to cycling. International studies indicate a strong inverse relationship between bicycle mode share and female participation in cycling (Pucher & Buehler, 2008), suggesting that female participation in cycling may be an indicator of a cycling friendly environment. Consequently, any measures that increase female participation in cycling may have a flow-on effect for other groups (e.g. more risk-averse males, children, older Australians).

For instance, in the 2005 online survey of 2403 cyclists in Victoria, the majority of respondents who cycled for transport used roads with no bicycle facilities (83 per cent of females and 87 per cent of males) but only 6 per cent of females and 12 per cent of males actually preferred this option (Garrard et al, 2006).

The East Perth to Maylands Principal Shared Path offers a good example of the influence of high quality bicycle infrastructure on usage. The below graph illustrates the substantial increase in cycling coinciding with the years in which improvements had been made to the bicycle route. The figures below reinforce the influence improvements in bicycle infrastructure have on participation (Ker, 2004; Cornwell & Barker, 2007):

- 708 extra cyclists used the route each weekday, of which only 102 were transferred from other routes
- 206,500 extra cycle trips per year
- A 50% increase in usage was recorded when the path was extended 2km
- Cost benefit ratio found to be 3.3:1.

Figure 14: Case Study – East Perth to Maylands Principal Shared Path



Source: Ker, 2004; Cornwell & Barker, 2007.

What the data tells us:

- Prioritise development of bicycle routes around high demand locations such as shops, schools, community facilities and public transport nodes.
- Prioritise development of off-road options for those uncomfortable with riding on the road to encourage more people to cycle more often in Warringah

- Clearly identify funding opportunities and development responsibilities to ensure that proposed bicycle infrastructure is constructed
- Participate in Super Tuesday Bike Counts to develop Warringah Council data on how use of cycling infrastructure varies over time, pre and post construction. This data will provide supportive evidence for future funding of bicycle infrastructure and inform prioritisation of the network.
- Ensure that street design encourages rather than discourages bicycle use through the provision of on-road bicycle lanes.

2. Lack of end of trip facilities

End of trip facilities, as their name suggests, refer to the provision of facilities designed to improve cyclists amenity at their destination.

A lack of end of trip facilities has been highlighted as a significant barrier to cycling, especially for journeys to work (Mellifont, 2001) and this finding was supported by a qualitative analysis of the needs of cyclists, using a sample of riders and non-riders (Daley et al, 2007). Conversely, the provision of workplace car parking has been found to decrease the likelihood of commuting by bicycle (Mobilität in der Schweiz, 2001, cited in WHO, 2006). (Refer to Warringah Context / Warringah LEP & DCP section of this document for more information and recommendations regarding the provision of end of trip facilities in Warringah).

Accident Statistics

The location bicycle accidents for the 5 year period January 2003 to December 2007 has been mapped to determine where cyclists' currently cycle and where particular problem locations exist for cyclists. The location of cycle accidents between 2003 and 2007 within the Warringah LGA is included in Figure 17: Map of Cyclist Accidents in Warringah 2003-2007.

A total of 156 crashes involving cyclists were recorded in the Warringah LGA between 2003 and 2007 with the number of crashes recorded annually ranging from 25 to 37 with the most amount of crashes recorded in 2005 and the least recorded in 2006 as indicated in Figure 15: Annual crashes involving cyclist between 2003-2007.

Figure 15: Annual crashes involving cyclist between 2003-2007

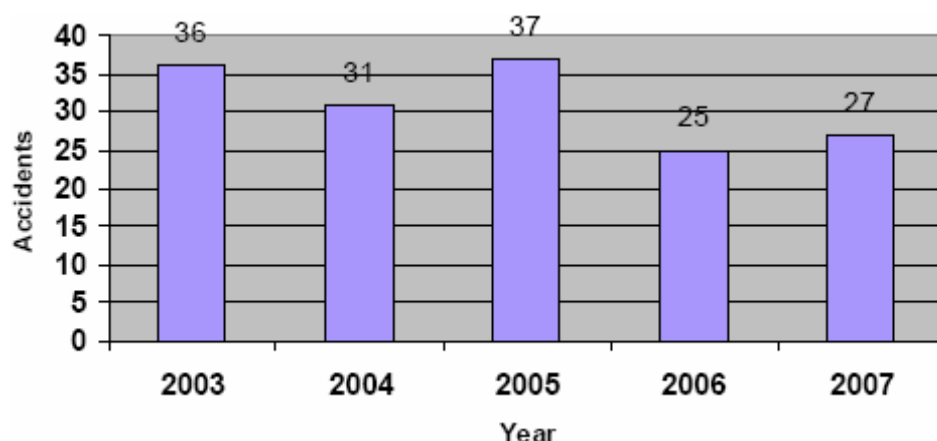
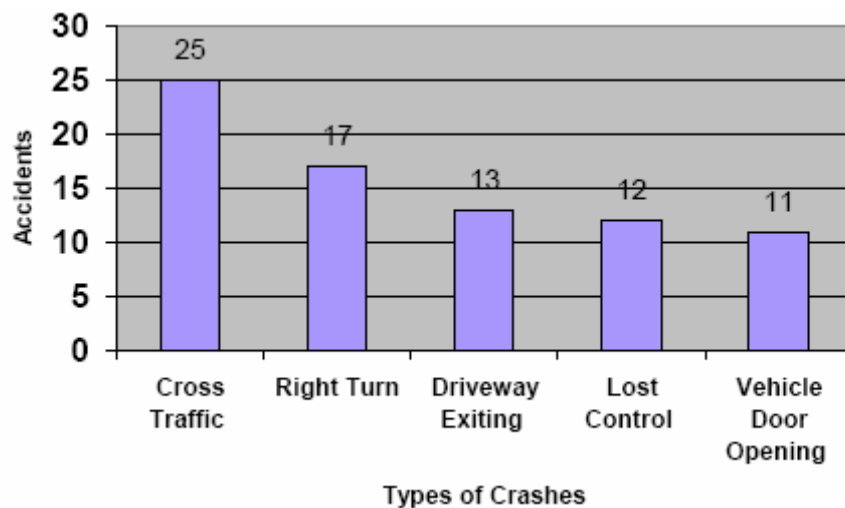


Figure 16: Types of crashes involving cyclists 2003-2007



There was one recorded fatal crash (head on) during this period which occurred in 2006 at the intersection of Ralston Avenue and Neridah Avenue in Belrose, as indicated as a red dot on the following accident map. The above crash types give some indication to the main issues that cyclists experience in the Warringah LGA with collisions from right turning vehicles, driveway exiting, loss of control on the carriageway, vehicle door opening collisions and cross traffic crashes being the most prominent.

Figure 17: Map of Cyclist Accidents in Warringah 2003-2007



The crash data also indicates that the suburbs of Dee Why (22), Collaroy (16), Frenchs Forest (14), Narrabeen (14) and Brookvale (14) recorded the most cycle crashes between 2003 and 2007.

Of the accidents at Dee Why a large majority occurred at roundabouts, although these were distributed across a number of locations with no single locations indicating a particular issue.

Most of the cycle accidents involved crashes with motor vehicles with only one cyclist/pedestrian accident, two cyclist/bus accidents and two cyclist/motorcycle accidents.

It is important to note that a large majority of the cycle accidents occurred on busy RTA/State roads with Pittwater Road currently experienced the most number of cycle crashes for an individual road within the Warringah LGA between 2003 and 2007.

The Dee Why to Narrabeen bus lane along Pittwater Road was completed over approximately a six month period from June to December 2007. From January 2003 to June 2007 there were 25 accidents recorded involving cyclists and cars along Pittwater Road between Dee Why and Narrabeen. During the six month period when the bus lanes were completed, there were only 4 accidents between cyclists and cars along Pittwater Road. Table 2.1 divides the number of accidents per 6 month period and indicates that there is no substantial evidence which indicates that the implementation of bus lanes on Pittwater Road has reduced crashes between cyclists and cars.

Table 10: Pittwater Road Cycle Accidents (Dee Why to Narrabeen)

Pittwater Road Cycle Accidents (Dee Why to Narrabeen)	
Date	Number of cycle Accidents
January - June 2003	5
July December 2003	1
January June 2004	3
July December 2004	4
January June 2005	7
July December 2005	2
January June 2006	1
July December 2006	1
January June 2007	1
July December 2007	4

Bikes on Buses

A key issue that came out of public consultation workshops and feedback from the Warringah Bike Plan Questionnaire was the need allow for bikes on buses in Warringah.

It is recognised that allowing bikes on Buses would enable Warringah residents to combine cycling with longer distance trips, for example to Sydney CBD. This would have the advantage of reducing the need for additional car parking in proximity to transport nodes and also reducing traffic congestion not only in Warringah but at Buses destinations.

Preliminary feedback from NSW State Transit Authority was that it was not supportive of bicycles on buses due to liability issues. It is noted however that bikes on Buses have been achieved elsewhere in Australia. For example ACTION and REDEX Buses in Canberra have installed bike racks on the front of some of their vehicles that have a capacity to hold two bikes at any one time.

A recommended action for the Warringah Bike Plan is to lobby the NSW State Transit Authority to make provisions for bikes on Buses in Warringah.

Figure 18: Bikes on Buses



Cyclist Safety Hot Spots

The Warringah Bike Audit 2009 identified a number of key cycle “hot spots” within the Warringah LGA which relate directly to cyclist safety. Subject to further analysis and community consultation, the key cyclist safety hotspots have been modified slightly and are outlined in the following table. The locations of these hot spots are also identified on the Warringah Bike Plan Route Network Maps.

Table 11: Cyclist Safety Hot Spots

Cyclist Safety Hot Spots					
Number	Location	Description	Problem	Responsibility	Cost estimate (GTA)
1	Mona Vale Road	6 intersections	No provision for cyclists in motor vehicle turning lane	RTA	\$900,000
2	Wakehurst Parkway	Deep Creek bridge	No shoulder Cyclist squeeze point	RTA	\$1,250,000
3	Wakehurst Parkway	Manly LGA – Pittwater LGA	Narrow shoulder for most of road	RTA	Not costed
4	Wakehurst Parkway	Middle Creek Bridges	Narrow shoulders Cyclist squeeze point	RTA	\$900,000
5	Pittwater Road	Narrabeen Bridge	Narrow footpaths Poor on-road conditions	RTA	\$3,000,000
6	Warringah Road	Roseville Bridge and northern approach	Narrow path Poor surface material	RTA	\$3,500,000
7	Pittwater Road	Lismore Avenue intersection	No safe crossing to link existing paths	RTA	\$250,000

It is important to note that the current situation at the intersection of Lismore Avenue and Pittwater Road is extremely hazardous with no safe crossing of Pittwater Road to link the shared paths on the east and west sides of Pittwater Road. It is recommended that cyclists be directed to use the Hawkesbury Avenue Traffic Signal Intersection crossing of Pittwater Road in the interim until such

time that a controlled crossing can be provided at the Lismore Road intersection. The provision of traffic signals at the Lismore Road/Pittwater Road intersection should be implemented in conjunction with the road network changes proposed for the redevelopment of the Dee Why Town Centre.

The dilemma that prevents immediate action to fix these cyclist safety hotspots are:

- the location of above numbers 1-7 are located on main arterial roads and are therefore RTA responsibility.
- Items 1 – 7 are costly 'big ticket' works that Council cannot afford to do, and may not be the highest on the RTA's list of priorities

It is recommended that these cyclist hotspots be placed at the top of the Warringah Bike Plan implementation priority list. Where council is not the responsible authority, lobbying to get the work done by the relevant authority needs to be undertaken by Council.

Audit of Existing Bicycle Facilities in Warringah

Existing Bicycle Routes

The Warringah Bicycle Audit 2009 included an audit of all implemented bicycle facilities which were identified in the Warringah 1998 Bicycle Plan in order to determine which facilities did not meet current NSW standards.

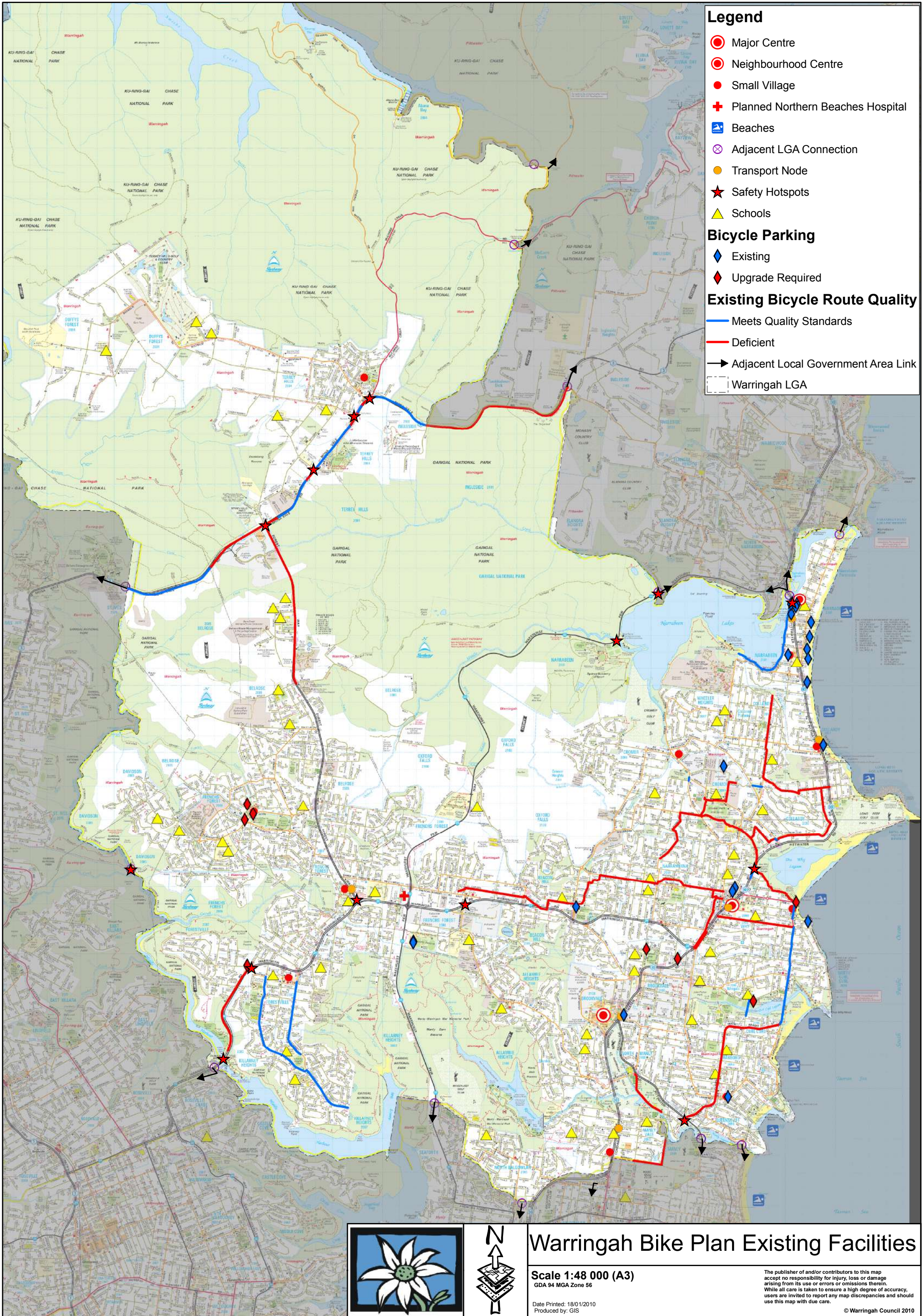
It was identified during this process that approximately 38% of the 1998 Warringah Bicycle network had already been implemented in one form or another but that 75% of the implemented facilities did not meet current requirements of the NSW bicycle design standards.

Key issues identified included outdated regulatory and directional signage, sub-standard width of on-road and off-road facilities and a significant shortage of directional signage for cyclists to effectively navigate the network.

It should also be noted that although a lot of the bicycle signage was outdated that there were some good examples of sealed and marked off-road bicycle paths identified within the Warringah LGA which could be used as bench marks for future bicycle facilities within the LGA. A good example of these is the bicycle shoulder lane and mixed traffic treatments on Starkey Street and Melwood Avenue in Forestville and Killarney Heights.

The Audit also identified bicycle facilities on sites which were implemented but not previously included in the 1998 bicycle network data.

The following map depicts the findings of this Audit.



Existing Bicycle Parking Provisions

The Warringah Bike Audit 2009 also audited bicycle parking including the identification of the type and quantity of existing bicycle parking facilities, based on existing GIS parking location information. There are a total of 26 specific bicycle parking locations that currently exist in Warringah providing a total of 365 bicycle parking spaces as indicated in the below table. These locations are also indicated on the map of existing bicycle facilities.

Table 12: Existing Bicycle Parking Provisions and Proposed Upgrades

Existing Bicycle Parking Provisions and Proposed Upgrades				
Location Description	Suburb	Parking Type	No. Spaces	Proposed upgrades
Arthur Street Shops, Forestville	Forestville	5 Butterfly Rails	10	Replace Butterfly Rails with 5 U Rails
Frenchs Forest Shop, Glenrose Stockland at entrance	Frenchs Forest	5 Butterfly Rails	10	Replace Butterfly Rails with 5 U Rails
Dee Why SLSC	Dee Why	10 Butterfly Rails	20	Replace Butterfly Rails with 10 U Rails
Beacon Hill Community Centre Entrance	Beacon Hill	5 Moulded concrete	10	Replace moulded concrete bike parking with 5 U Rails
Wingara Reserve Tennis Court, Belrose	Belrose	13 Butterfly Rails	26	Replace Butterfly Rails with 13 U Rails
Warringah Aquatic Centre	Frenchs Forest	10 Butterfly Rails	20	Replace Butterfly Rails with 10 U Rails
Leagues Club, Federal Parade car park, Brookvale	Brookvale	13 Butterfly Rails	23	Replace Butterfly Rails with 13 U Rails
Abbott Road Curl Curl Youth Community Centre	Curl Curl	5 Butterfly Rails	10	Replace Butterfly Rails with 5 U Rails
Belrose Library, Corner of Lockwood Avenue and Glen Street, Belrose	Belrose	13 Moulded Concrete	26	Replace Moulded Concrete with 13 U Rails
Collaroy Bus Stop - In car park off Pittwater Road, East Side (To the north of the main south bound bus stop)	Collaroy	4 Individual bike lockers	4	N/A
Dee Why Pool (Oaks Avenue)	Dee Why Pool	4 Inverted U Rails	8	N/A
South Narrabeen SLSC	Narrabeen	10 Inverted U Rails	20	N/A
Narrabeen Beach, end of Narrabeen Street	Narrabeen	10 Inverted U Rails	20	N/A

Existing Bicycle Parking Provisions and Proposed Upgrades				
Location Description	Suburb	Parking Type	No. Spaces	Proposed upgrades
Narrabeen Beach, end of Robertson Street	Narrabeen	10 Inverted U Rails	20	N/A
Narrabeen Beach, end of Devitt Street	Narrabeen	10 Inverted U Rails	20	N/A
Freshwater Shopping Centre	Freshwater	8 Inverted U Rails	16	N/A
Narrabeen Shopping Centre (Woolworths)	Narrabeen	6 Inverted U Rails	12	N/A
Narrabeen Shopping Centre - Waterloo Street (South Side)	Narrabeen	6 Inverted U Rails	12	N/A
Warringah Mall Bus Stop, Brookvale	Warringah Mall	8 Inverted U Rails	16	N/A
Warringah Aquatic Centre	Frenchs Forest	6 Lockable Cages	6	N/A
Brookvale Oval, Alfred Street side entrance	Brookvale	4 Inverted U-rails	8	N/A
Council Works Depot, at entrance	Cromer	4 T-shaped rails	8	N/A
Warringah Council Civic Centre, Dee Why Staff Parking	Dee Why	6 T-shaped rails	12	N/A
Warringah Council Civic Centre Entrance	Dee Why	4 T-shaped rails	8	N/A
Narrabeen, Berry Reserve (At Carpark)	Narrabeen	4 Inverted U-rails	8	N/A
Narrabeen, Berry Reserve, South-West of Pittwater Road Bridge	Narrabeen	6 Inverted U-rails	12	N/A

Key findings of the existing bicycle parking facilities audit were as follows:

- The inverted U-rail type bicycle parking (Class 3) meets the requirements of the Australian Standards although the design of the concrete slab for a large majority of this bicycle parking did not allow sufficient space for bicycles (2.0m long on average) to evenly straddle the bicycle rails so that both wheels could be securely locked as indicated in the following photos.
- The inverted U-rails should be positioned centrally on the concrete slab allowing both wheels of the bike to rest against the uprights of the U-rail;
- The butterfly type bicycle parking (Class 3) does not meet the requirements of the Australian Standards. It only allows one wheel to be locked which is not ideal and if knocked could result in buckled wheels as indicated in the photo below;

Figure 20: Inverted U-Rails Narrabeen



Figure 21: Butterfly Rails Dee Why



- Some of the bicycle parking facilities locations were overgrown by vegetation as indicated in the photo below.
- There was low to average demand for the existing bicycle parking although it was noted that the demand at the Warringah Mall Bus Stop location was particularly high as indicated in the photo below.
- There are not sufficient bicycle parking facilities to serve the needs of the overall Warringah Community evidenced by bicycles locked randomly at numerous locations throughout the LGA

Figure 22: Overgrown Bicycle Parking Narrabeen



Figure 23: Warringah Mall Bus Stop



Existing Bicycle Signage Provisions

Existing bicycle signage within the Warringah LGA is predominantly old and outdated and in real need of replacing. Typical examples of existing bicycle signage within the LGA are illustrated as follows.

Figure 24: Existing Bicycle Signage in Warringah



The existing signs along the shared paths in the Warringah LGA which identify the type of bicycle facility are not consistent, their condition has deteriorated and the sign types have since been superseded by current NSW bicycle design guidelines.

In addition to this the many bicycle route confirmation/reassurance signs which were identified throughout the Warringah LGA were positioned inconsistently and very often were discontinued along many of the routes. It was also identified that some of these signs were located in low visibility areas and that there were also different types of bicycle route confirmation/reassurance signs used in some locations.

These bicycle route confirmation/reassurance signs are outdated and provide insufficient information to cyclists about where the route is taking them and how far away they are from their end destination.

GTA Consultants also identified that the bicycle shoulder lanes along Griffin Road in Dee Why (refer to Figure 25: Griffin Road Bicycle Shoulder Lane) included numerous R7-1-4 bicycle lane signs which are, in most cases, not necessary for this section of Griffin Road for where this type of facility exists adding to further sign clutter on the footpath.

Figure 25: Griffin Road Bicycle Shoulder Lane



There are also locations where PS3 off road bicycle logos have been used in place of PS2 on-road bicycle logos on Mona Vale Road (Refer to Figure 26: Mona Vale Road (West to Cooyong Road) which in accordance with the NSW Bicycle Design Guidelines are sub-standard. PS2 On-road bicycle logos should be 1800mm high x 1000mm wide as indicated in Figure 8.3 of the NSW Bicycle Design Guidelines.

Figure 26: Mona Vale Road (West to Cooyong Road)



There are also further indications of parking lane lines which are curtailed abruptly leaving cyclists with no safe facilities to continue along their route as indicated in Figure 27: Oliver Street Parking Lane Line End.

Figure 27: Oliver Street Parking Lane Line End



PUBLIC EDUCATION AND PROMOTION STRATEGY

Research into the current cycling environment in Warringah as outlined in the previous sections of this document, has served to inform the need for Warringah Council Public Education and Promotion Strategy and identify key actions to be implemented as follows:

Promotion

- Promote key messages that address perceived barriers and encourage greater up take of cycling, e.g:
 - Cycling is safer than you think
 - You don't need to be super fit to cycle
 - Improve road user behaviour/safety/awareness of cyclists
 - Benefits of choosing to cycle; health improvements, greenhouse gas and petrol savings, relief from congestion and parking problems.
 - Use your bike for short trips instead of the car
- Promote new infrastructure developments upon their completion, especially signature projects such as:
 - Narrabeen Lagoon Multi-Use Trail Loop
 - Warringah Mall to Manly Cycle Route
 - Narrabeen Lagoon to Dee Why Beach via Cromer
- Support organisers of local and other cycling events, as these act as an entry point for new cyclists (Refer to Appendix 6 for more details).
- Promote the existence of the Warringah Bike Plan 2010-2015
- Motivate employers to provide cycle parking and showers by including this as a condition of development consent.

Education

- Encourage schools as well as community and workplace bicycle education programs to improve cyclists' knowledge, skills, confidence and safe cycling behaviour
- Promote the availability of bicycle maintenance courses
- Develop a 'Cycling in Warringah' Website and hard copy information packs that include:
 - cycle route maps
 - recent bicycle route improvements in the local area
 - the personal and community benefits of cycling
 - bicycle skills training classes available
 - a contact list of local, state and national cycling organisations
 - cycle awareness tips for motorists (road safety)

Behaviour Change

- Encourage local schools to:
 - Implement a safe route to school program
 - Establish on-site bicycle parking provisions (if they don't currently exist)
 - Work with local schools to encourage children to use active forms of transport to get to school safely

- Work with schools to encourage parents of school children to establish together with their child a safe route to school. Noting, children under 10 should be supervised in traffic environments at all times.
- Promote National Ride to Work Day annually (Refer to Appendix 6 for more details)
- Council's Road Safety Officer to include road safety and cycle awareness when developing Road Safety Programs

Warringah Council Leading by Example

- Establish and promote Warringah Council as 'best practice' bicycle friendly employer
- Develop a 'Workplace Travel Plan' for Warringah to encourage healthy alternatives to the car such as walking, cycling and catching public transport A good example to follow is the Northern Beaches Health Service Workplace Travel Plan 2009 – 2012.
- Implement the Warringah Bike Fleet for employees to use during work hours
- Promote and support Ride to Work Week annually
- Provide visitor cycle parking location details on Council's Website 'Contact Us' page
- Provide adequate end of trip facilities (bicycle parking, lockers, showers and change rooms). Refer to the case study of Brisbane City Council end of trip facility provisions located in Appendix 6.

Cycle Tourism

"The Tour Down Under is one of South Australia's biggest events, attracting hundreds of thousands of spectators, including many people from interstate and overseas" (Jane Lomax-Smith Tourism Minister, South Australia).

Cycle tourism is an increasingly popular way for Australians to take time out. A cycle tourist spends an average of \$258 per day – a great boost to regional economic growth (Dr Sue Beeton, La Trobe University). It therefore recommended that Council investigate the potential for cycle tourism in Warringah.

FUNDING OPPORTUNITIES

Build It and They Will Come

Investment in cycling infrastructure and promotion successfully encourages cycling

(Associate Professor Chris Rissel and Dr Jan Garrard, 2006)

Australians like to ride bicycles. Warringah resident's rate cycling as the third most popular physical activity after walking and swimming (Warringah Recreation Strategy 2009). Participation in cycling grew by 8.5% from 2001 to 2005 and there is a clear link between government investment in cycling and levels of participation.

Feedback from the Warringah Bike Plan Questionnaire clearly indicates that more people would ride more often if appropriate infrastructure was provided. With the converging issues of climate change, spiralling obesity, traffic congestion and high fuel costs, there has simply never been a better time to invest in cycling.

Funding Availability

All new capital expenditure proposals listed in this bike plan will be assessed against other priorities of Council and alternative funding sources may need to be sourced to enable their implementation. In some cases funding may not be found and therefore an action may not be implemented.

There are a number of funding resources that Warringah Council may be able to utilise for investment in cycling infrastructure and cycling education/promotion programs as follows:

Warringah Council Section 94A Contributions

Warringah Council uses Section 94A of the Environmental and Assessment Act 1979 to levy developers for the provision of a range of physical and social infrastructure. Council must demonstrate that a developer creates an additional demand for these facilities or services to be able to impose the levy. Council is required to prepare Section 94A Contribution Plans setting out what they consider to be necessary community facilities in their area. Developers can either provide the facilities as part of the development or make financial contributions to Council's Section 94A funds.

An Indirect Contributions Plan 2011/2012 in accordance with new planning legislation will supersede the current S94A plan. It is therefore recommended that cycling facilities (bicycle routes and bicycle parking provisions) as prioritised in the schedule of works for the Warringah Bike Plan 2010-2015 are considered for inclusion in the new Indirect Contributions Plan 2011/2012

Warringah Council Rates and Infrastructure Levy

The Warringah Council Infrastructure Levy commenced in 2006-2007 and is funded from 6.5% of the ordinary rate. The program involves renewal works on infrastructure that is in poor condition or has reached the end of its life cycle. Capital Works is funded not only from general rates.

The Warringah Strategic Community Plan is updated annually and discussions commence in November each year, therefore, relevant Council Departments need to review their Warringah Bike Plan 2010-2015 Actions annually and consider the inclusion of bike plan priorities in their future Strategic Community Plan – Key initiatives and capital works programs.

Recommendation: Council Departments should review their relevant Warringah Bike Plan 2010-2015 Actions annually (in November each year) and consider the inclusion of Bike Plan Actions into their Strategic Community Plan – Key initiatives and capital works programs for the following year.

Community Support

Funding levels for the implementation of the Warringah Bike Plan has the potential to be increased based on the level of community support for cycling.

A prime example of this is through the Warringah Community Strategic Plan 2009. Council Minutes dated 25th June 2009 indicate that there was \$800,000 in additional capital funding identified during the public exhibition period. In response to key issues raised by the community, notably in respect to cycling, this money was allocated for the 2009/10 and 2010/11 financial years towards:

- i. Footpath construction
- ii. Cycling/bike path construction
- iii. Street trees

This outcome reflects the key role a cycling promotion program can have in raising community support for cycling.

Warringah Council Development Consent Conditions

Immediate benefits can accrue for cyclists by adjusting the planning controls to ensure the provision of end of trip facilities for cyclists. This is outlined further under Warringah Context / Warringah LEP & DCP section of this document.

Community and Corporate Sponsorship

Sponsorship works both ways. Businesses like to be associated with the community. It helps build their reputation, generates goodwill and can be considered as a cost-effective alternative to traditional advertising. Use of local business sponsorship for the Warringah Bike Plan Questionnaire 2009 is a recent and very effective example. All bike shops within and in close proximity to Warringah were given the opportunity to donate prizes to encourage residents to complete the questionnaire. In exchange, bike shop names and logos were included on the front page of the questionnaire. This was very successful, with four bike shops donating 2 BMX bikes, a helmet, reflective bands and bike hire to the value of \$100. The opportunity to win prizes by completing a questionnaire also resulted in a higher than anticipated questionnaire response rate.

Council should consider opportunities for business sponsorship when planning future bicycle promotion and education events and infrastructure development in Warringah. For example, where bicycle facilities lead directly to a destination, there may be sponsorship potential where a business can benefit from the facility directly or indirectly.

Voluntary organisation such as Rotary and Lions have also in the past assisted in the funding of facilities such as off road paths and practice tracks for small children.

Recommendation: Council should consider opportunities for business sponsorship when planning future bicycle promotion and education events and infrastructure development in Warringah.

External Funding Sources

The following table outlines current grants that Council can apply for to aid implementation of the Warringah Bike Plan. The responsibility of internal Council Departments to apply for this funding is also specified to avoid confusion.

It is noted here that a large proportion of these grants require 50/50 funding from Warringah Council. Therefore, application for funding also depends on availability of the other 50% of the funding required from Warringah Council.

Recommendation: That Council Departments consider annual applications for bicycle funding grants in accordance with the information outlined in the funding table below.

Figure 28: External Funding Sources

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
Roads to Recovery Program	Australian Government, Department of Infrastructure, Transport and Regional Development and Local Government	Council will receive \$3,039,636 from 1/7/09 to 30/6/14	N/A	This is a program to address the problem of local roads reaching the end of their economic life, and their replacement being beyond the capacity of local government. Funding is provided for the construction, maintenance and upgrade of roads and is provided on the condition that the council has maintained expenditure on roads from its own sources. 'Roads', according to the AusLink Act, includes each of the following when in association with a road: traffic signs and control equipment; street lighting equipment; vehicular ferries; bridges or tunnels, including pedestrian bridges or tunnels and bicycle paths. A bicycle path 'associated with a road' is one that: is located within the road reservation; or where removed from the road reservation for safety purposes, provides a route between points on the road that is shorter than or broadly similar in distance to the road route.	N/A	N/A
The Black Spot Program	Australian Government, Department of Infrastructure, Transport and Regional Development	DITRD LG will allocate \$19.1 million to NSW in 2010/ 11 financial year	N/A	This is a program which aims to improve the physical condition or management of hazardous locations with a history of crashes involving death or serious injury. This program is part of a commitment to reduce crashes on Australian roads by the DITRD LG. The DITRD LG will allocate an additional \$60 million in 2009-10 to	2010/ 11 financial year applications have now closed. Next available applications	RT&W

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
	and Local Government			extend the coverage of the Black Spot Program. All crash data is analysed, including bicycle crashes. There may be some synergy between safety hotspots identified by the GTA Audit and other crash data that is appropriate for Black Spot funding application.	will be for 2011/ 12, but no closing date set yet.	
The Jobs Fund	Federal Government	Nationwide allocation of \$40 million for the construction of bike paths in 2009/2010. It is a discretionary grants program which commences on 1 July 2009 and completes on 30 June 2011.	50/50 Co-Contribution required	The Jobs Fund is an initiative to support and create jobs and skill development through projects that build community infrastructure and social capital in local communities. According to guidelines, funding can be for new, extended or refurbished existing: off-road bike paths (but not dedicated mountain bike trails); on-road bike lanes (e.g., road-widening and marking bike lanes on an existing road) and bicycle parking facilities. Guidelines also indicate that specific attention will be paid to applications for projects that deliver new or improved bike path facilities with an emphasis on commuter bike paths, and new or improved bicycle parking facilities. Projects must be ready to start and must be additional to those that would have occurred in the absence of this funding and projects must be in areas of high unemployment. Guidelines dictate that while the majority of the funding must be used for construction it can also be used for project management costs, payment of salary / wages	Final round of grant applications closed in December 2009, and no further funds have been made available. No more grants offered.	RT&W

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
				and/or employee on-costs for additional people employed on the project.		
Sharing Sydney Harbour Access Program	NSW Government	\$1.35 million per year until 2013	50/50 Co-Contribution required	This is an initiative to improve public access to and enhance the recreational enjoyment of Sydney Harbour and its tributaries for the people of Sydney and visitors to the city. Each year up to \$1.35 million is distributed on a dollar-for-dollar basis for specific capital works projects such as walking tracks, cycle paths, new public waterfront parks, jetties, pontoons and boat launching facilities. The NSW Government announced in 2007 that the Program will be extended over five years to provide \$6.75 million until 2013. Warringah Council could utilise this funding for shared paths on land located in the Sydney Harbour Catchment, which comprises a large western portion of the Warringah LGA, including Roseville Bridge. Further information regarding this program is available at /www.planning.nsw.gov.au/Programsservices/FundingPrograms/SharingSydneyHarbourAccessProgram/tabid/152/Default.aspx	Applications open generally at the beginning of March and close at the end of April/ beginning May	RT&W
Secure Bike Lockers	NSW Ministry of Transport	Provision of secure bike lockers at key	N/A – User pays	The NSW Ministry of Transport has now provided 1200 secure bike lockers at more than 140 locations across NSW. These lockers are	Interested users need to call 131 500,	RT&W

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
		transport hubs.		available to hire at cost (i.e. \$50 for 3 months) with a rental agreement. A total of four of these lockers have been provided in Warringah at Collaroy, in the car park near the main bus stop, however they are currently vacant. Vacancy could be due to lack of knowledge of the location of these facilities by potential users and also due to the cost of use. The NSW Ministry of Transport should be approached to assist in the provision of bicycle parking lockers at other major bus termini across Warringah, including Dee Why, Warringah Mall and Narrabeen.	Bicycle NSW on 02 9283 5200, Transport NSW on 02 9268 2900, or email bike.locker@transport.nsw.gov.au ; and provide the name/ location of bus stop, users' names, users' addresses, contact phone number and email address.	
Metropolitan Greenspace Program	NSW Department of Planning	Annually funding of around \$2.4M worth of regional projects.	50/50 contribution required (dollar for dollar)	The Metropolitan Greenspace Program (MGP) is identified in the Government's City of Cities Plan for Sydney's future as a key initiative for improving links between bushland, parks, waterways and centres. Through the MGP, the NSW Department of Planning works closely with local councils to plan and improve regionally significant greenspace, including parks, trails and reserves.	Applications will be open from 15/3/2010 to 23/4/2010. Applications generally close by the end of April	NEU PR&F

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
				In 2009, the Department of Planning will commit a further \$2.4 million dollars on a dollar-for-dollar basis towards MGP projects. There are three aims of 2009 funding: to continue to promote the development of recreation trails across the Sydney region with a focus on implementing the priorities of the Regional Recreation Trails Framework; to promote partnership between State and local government and in particular the development of joint council submissions for projects that cross local government boundaries such as major walking trails; and to promote the planning and development of trails to provide Sydney's community with healthy and accessible recreation facilities. Further information regarding this program is available at www.planning.nsw.gov.au/Programsservices/FundingPrograms/MetropolitanGreenspaceProgram/tabid/130/Default.aspx	each year.	
RTA Co-Funding Grant Programs	NSW Roads and Traffic Authority	\$15.1 million in 2007/8 financial year. Information for later years including 2010 is not supplied.	50/50 Co-Contribution required	These are outlined in council projects funded by the RTA Memorandum of Understanding (RTA Regional Operations & Engineering Services, Updated February 2007). They include 50/50 funding from the RTA for: Cycleways: Co-funds design and construction of on-and off-road cycleways by local councils in line with the NSW Bike Plan 2010 as well as Local Council Bike Plans;	Closing date for grants for following financial year is 1 October (for example, 1 October 2009 was closing date	RT&W Council's Roads Safety Officer to implement bicycle education and promotion

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
				Bicycle Facilities: Co-funds council improvements to the operation of existing cycleways. Bicycle User Support: Co-funds bicycle use promotions; Bike plan preparation; Development and production of cycleway maps; Research into bicycle travel and bicycle facilities; Bicycle training courses and re-sourcing of State and National bicycle committees. Warringah Council has utilised the 50/50 funding for this Warringah Bike Plan 2010-2015 and also utilises the 50/50 funding for projects built under the S94A Development Contributions Plan. Co-funding should be utilised following the release of this Bike Plan for the further construction of cycleways facilities and the development of bicycle user support initiative, notably including the production of cycleway maps. Further information regarding these programs is available at: http://www.rta.nsw.gov.au/usingroads/bicycle/improvingbikenetwork/index.html	for 2010/ 11 financial year) (from MOU)	actions falling out of the bike plan RT&W for preparation and review of the Warringah Bike Plan
Block Grant – Traffic Facilities (Signs and Line Marking)	NSW Roads and Traffic Authority	\$576,000 2009/10	50/ 50 contribution required	This Traffic Facilities Program is optional for Councils, and is funding provided by the RTA for maintenance of signs and linemarkings on local roads within each LGA. If this funding is accepted by Council it is the responsibility of Council to manage the spending and works associated with the maintenance of signs and linemarking. The	Closing date for the next financial year is the 1st of October (for example, 1 October 2009	RT&W

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
				alternative to this is that the RTA provides this service on a request basis which ultimately puts the responsibility on the RTA to maintain lines and signs within the LGA.	was the cut off for the 2010/11 financial year).	
NSW Bike Week 18- 26 Sept 2010	NSW Roads and Traffic Authority	Undetermined amount subject to assessment by the RTA	N/A	RTA funding is provided for the promotion and advertising component of Bike Week event's budgets (not for other purposes such as catering or equipment hire). Funding for each event is not a fixed amount and each proposal is assessed and valued independently. It is also a condition of RTA funding that the NSW Bike Week Style guide is adhered to. All promotional material must be developed using the templates provided in the NSW Bike Week Style guide.	16 April 2010. An evaluation of the week's activities must be forwarded to the RTA by 29 October 2010.	Council's Roads Safety Officer can apply for funding to implement Bike Week actions from the Warringah Bike Plan 2010
Education for Sustainability Grants Program	Department of the Environment, Water, Heritage and the Arts	This program has limited funds and competition for resources is high. The Program is generally only able to fund a small number of projects each year. Funding of up to \$100,000 per	N/A	The objective of this program is to facilitate changes in community attitudes and behaviour in support of sustainability, through education for sustainability. Education for Sustainability develops knowledge, skills and values that promote action and behaviour in support of a sustainable future. It aims to equip individuals, organisations and communities to deal effectively with the complex and inter-related environmental, social and economic challenges they encounter in their personal and working lives, in a way that protects the interests of current and future generations.	No further funds have been allocated to this program, and it is not operating until further notice. Council's Road Safety Officer (Russell Wolfe, 9942 2653) has	Council's Roads Safety Officer to implement bicycle education and promotion actions falling out of the bike plan

External Funding Sources						
Grant Description	Funding Source	Available Funding	Council's Required Contribution	Other Details About the Grant	When to Apply for Funding	Who Should Apply for this Funding?
		project will be considered.		Education for Sustainability acknowledges the need to use learning approaches that help individuals, organisations and communities to explore sustainability and build skills that enable change, such as critical and systems thinking, mentoring and facilitation, visioning, genuine participation in decision making, action learning and action research, and the formation of partnerships for change.	been registered with the department, so will be contacted when funds are available.	
Sport and Recreation Facility Grant Program	NSW Department of Sport and Recreation	Grants range from \$500 up to \$200,000	Applicants are required to fund at least 50% of the total cost	Eligible applicants are those from local government authorities and incorporated not-for-profit organisations wishing to develop facilities that will increase participation in sport, recreation and physical activity.	16 February 2010	PR&F NEU

RTA Road Hierarchy

The **RTA Road Design Guide** states that the purpose of a functional road hierarchy is to establish a logical integrated network in which roads of similar functional classifications are:

- Provided with the same general level of traffic service with regards to trip purpose, traffic composition and operational speed
- Designed, constructed and maintained to the same general level of structure with regard to alignment, cross section, pavement strength and access control; and
- Assigned to the appropriate administrative control

This has been used to inform the Warringah Bike Plan cycle network with regard to the type and location of on-road cycling facilities and who is responsible for their construction.

Functional Classification

This classification includes arterial, sub-arterial, collector and local roads. Together the roads make up a road network. The functional classifications in NSW are:

1. Arterial roads

These predominantly carry through traffic from one region to another, forming principal avenues of communication for urban traffic movements; In Warringah these consist of: Warringah Road, Wakehurst Parkway, Forest Way, Mona Vale Road, Condamine Street, Pittwater Road, McCarrs Creek Road and General San Martin Drive.

2. Sub-arterial roads

These roads connect the arterial road to areas of development and carry traffic directly from one part of the region to another. They may also relieve traffic on arterial roads in some circumstances. In Warringah, thirty one roads including Old Pittwater Road, Allambie Road, Beacon Hill Road, Kentwell Road South Creek Road and Dee Why Parade are sub-arterial.

3. Collector roads

These connect the sub-arterial roads to the local road system in developed areas. There are over eighty collector roads in Warringah and some examples include Starkey Street, Carrington Parade, Howard Avenue, Oaks Avenue, Kingsway, Westminster Street, Frenchs Forest Road, and Ocean Street.

4. Local roads

These are sub-divisional roads within a particular developed area. These are used solely as local access roads and consist of the majority of roads in Warringah.

Funding Provisions in Accordance with the RTA Road Hierarchy

It is important to note that funding of cycle infrastructure on arterial roads is the sole responsibility of the RTA with sub-arterial, collector and local road cycle infrastructure funded on a 50/50 basis.

Funding Provisions in Accordance with *RTA Action for Bikes 2010*

In addition to funding in accordance with the road hierarchy as outlined above, the RTA have also identified three key regional bike routes in Warringah that have been given construction priority and should be 100% funded by the RTA through RTA Action for Bikes 2010.

Action for Bikes 2010 sets out a costed, 10 year plan for the creation of a series of arterial bicycle networks across NSW. It is a \$251 million program that plans to create an average of 200 kilometres of cycleways across NSW per year. This plan put in place a commitment to build off-road cycleways wherever practicable when new roads are built and to create off-road cycleways wherever possible, to connect people with their desired destinations.

There are three routes in the Bicycle Masterplan relevant to the Warringah LGA as follows:

- a) Route 11: Chatswood – Warringah Mall
 - This follows the alignment of Warringah Road (including Roseville Bridge), Allambie Road and Condamine Street,
 - Off-road shared paths to the east of Forestville Avenue
 - No other facilities provided between Forestville Avenue and Warringah Mall
 - Identified as a 2009 priority
- b) Route 14: Harbour Bridge – Warringah Mall
 - Follows the alignment of the Spit Bridge, Burnt Bridge Creek Deviation and Condamine Street,
 - An established off-road shared path network exists in the vicinity of the Spit Bridge and Burnt Bridge Creek Deviation, with some improvements required associated with fine grain connections and directional signage
 - The Condamine Street section bus lanes only
 - Bus lanes extend to the LGA boundary
 - Identified as a 2009 priority
- c) Route 36: Gordon – Mona Vale
 - Follows alignment of Mona Vale Road

ENVIRONMENTAL CONSIDERATIONS – DESIGN AND CONSTRUCTION

Bicycle Routes Proposed to Follow Existing Roads or Tracks

Providing works do not involve direct or indirect impacts on known or potential habitat for threatened biodiversity (as listed under the NSW *Threatened Species Conservation Act 1995* and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*), no assessment is likely to be required under this legislation. Such circumstances may include:

1. Road or track widening that is contained within disturbed areas of existing road and track easements (i.e., no clearance of vegetation is required and sediment and erosion control measures have been adequately implemented);
2. Road or track widening that does not occur within riparian corridors;
3. Line marking on sealed surfaces.

Where road or track widening does not meet any of the above circumstances and may impact on known or potential habitat for threatened biodiversity, an ecological consultant should be engaged to undertake an assessment of the likely impacts under the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) and the EPBC Act.

The contract management of the ecological consultant should be undertaken by the department responsible for the bike track works. Staff from NEU will be available to provide advice and guidance when appropriate and this time should be scoped into the project to realistically portray full consultation with various departments.

Newly Constructed Bicycle Routes

If works are to occur within or adjacent to areas of native vegetation or within areas of known or potential habitat for threatened biodiversity, an assessment must be undertaken in order to determine the significance of the impact of the proposal on threatened biodiversity as listed under the TSC and/or EPBC Acts. Note that threatened biodiversity information represented on SEA should be used as a guide only and must be validated in the field.

Once again, the contract management of any field validation should be undertaken by the department responsible for the bike track works. Staff from NEU will be available to provide advice and guidance where appropriate and this time should be scoped into the project to realistically portray full consultation with various departments.

Environmental Considerations for Identified Bike Routes

The majority of the routes proposed by the Warringah Bike Plan 2010-2015 follow existing roads and tracks. Environmental assessment of routes should occur at the design and construction phase of route development where required.

ENGINEERING REQUIREMENTS

This section outlines engineering requirements of relevance to bicycle facilities proposed in the Warringah Bike Plan 2010-2015.

Bicycle Signage Strategy

Bicycle signage is critical to the coherence and legibility of the riding environment. Whether driving, riding or walking it's not pleasurable to be lost, uncertain of where to go next, turn or park.

Avoid Clutter

Wherever possible road or pavement markings in accordance with the *Road Rules 2008* should be used in preference to pole signs, noting that the revised *Road Rules 2008* now permit the start and end of bike paths and shared paths to be indicated by appropriate road markings.

To avoid additional poles and signage clutter, regulatory, warning or directional signage painted on the surface of the path or road is preferred to poles as shown in the example below from Perth. Existing poles, such as telegraph and parking poles, may also be used where necessary.



Regulatory Signs

Regulatory signs and road markings are contained in the *Road Rules 2008* and extracts from the *Road Rules* are contained in the Glossary generally linked to the facility, eg bicycle lane, bicycle path, shared path.

Warning Signs

The *NSW Bicycle Guidelines 2004* address warning, guidance and advisory signs, which are yellow diamond shaped signs used to alert riders to changed or potentially hazardous path or road conditions. This type of sign is also used to warn other road or path users of intersecting or merging bicycle movements.

Examples of warning and guidance signs are shown in the *NSW Bicycle Guidelines 2004* section 9.1.2 at

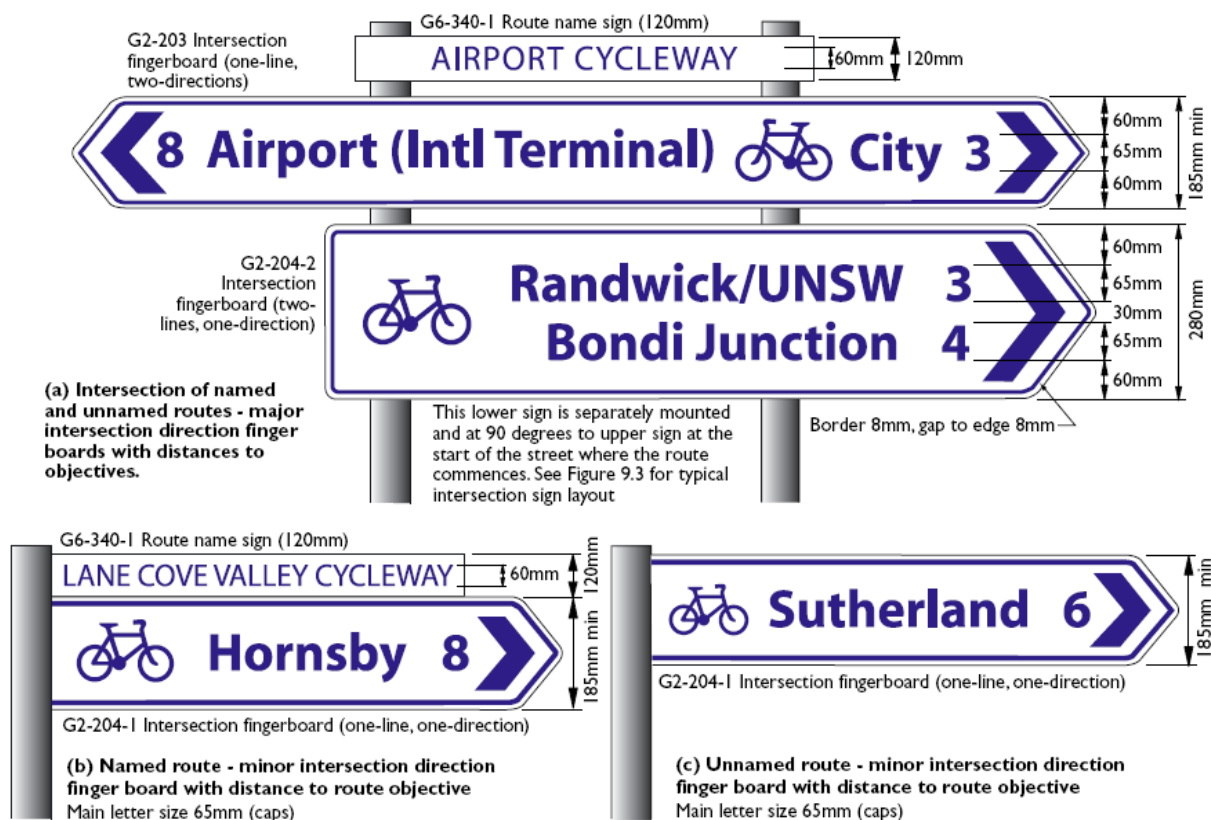
http://www.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/nswbicyclev12a_i.pdf

Directional Signs

The *NSW Bicycle Guidelines 2004* state that the most important function of directional signage is to help users find their way around. Directional signs also reinforce the connectivity and coherence of the network and enable high visibility and recognition to the routes that make up the network.

For these reasons, it is important that the directional signs used in Warringah indicate both the destination and distance as shown below in G2-203, G2-204-1 and G2-204-2.

Extract from *NSW Bicycle Guidelines* Figure 9.4 Bicycle Network Route Directional Signage



Directional signage to bicycle parking is also important. The image below is extracted from the *Road Rules 2008* and may be arranged as required:



Bike Parking Strategy

The Audit carried out for Warringah Council by GTA Consultants states that one of the main barriers to cycling is the lack of bicycle parking.

To be effective, bike parking needs to

- Enable both wheels and frame to be locked to the device without damaging the bike
- Be safe and secure for both riders and bikes
- Be easily accessible, easy to find and well marked
- Be located as close as possible to where riders want to go
- Meet the current demand as a minimum
- Be protected from the weather

- Be out of the way of pedestrians, car doors or other vehicle movements
- Enable bike parking, manoeuvring and 'unparking' without damage to bikes

Type of Bicycle Parking in Warringah

1 Long Term Parking

All day parking requires a high level of security to prevent tampering or stealing. Bicycle lockers, cages or compounds are recommended in the *Austroads Guide to Traffic Engineering Part 14 – Bicycles*, with cages and compounds having a locked gate and internal rails so that the frame and both wheels can be locked within the cage or compound.

Bike Cages for long-term parking are proposed at major transport nodes such as Warringah Mall, Dee Why and Narrabeen bus stops.

2 Short Term Parking

Lower levels of security can be provided by the installation of rails to which the frame and both wheels can be locked. Bike parking rails are proposed for beaches, shopping centres and a number of community facilities in Warringah.

Parking rails are addressed in Australian Standard AS2890.3, *Austroads* and the *NSW Bicycle Guidelines*. The *NSW Bicycle Guidelines* document focuses on meeting a higher demand for bike parking, and uses 30% less space in medium demand locations and 40% less space in high demand locations.

3 Public Art

The Warringah Cultural Plan provides scope to combine bike parking and storage with public art installations. Conventional bike storage bars and cages can be redesigned to represent natural features or characteristics of the locality. These can extend to wave or surfboard inspired facilities along beachfronts, bicycle or athlete shaped facilities at sportsgrounds, dog or other animal inspired facilities in or near walking trails, or boat inspired facilities near waterways.

In key locations as identified in the bicycle parking priorities table below, consideration should be given to the provision of bike parking as a form of public art. This will not only be aesthetically appealing and functional but it will also encourage the community to consider cycling to various facilities.

Figure 29: Bicycle Parking as Public Art Example



4 Amount of Bicycle Parking

As far as Council is aware, there is no standard method for calculating future bicycle parking requirements, although some indication of the cycle parking requirements could be established based on population and mode share levels.

A total of 807 public bicycle parking facilities are proposed in the Warringah Bike Plan 2010-2015 to be located at key local trip attractors to cater for present and future bicycle parking requirements up to 2015.

An bike plan action is recommended to include bicycle parking provisions in the new Warringah Development Control Plan. Warringah Council will also encourage schools to provide bicycle parking.

5 Location and Priority of Parking Provisions

Responses to the Bicycle Questionnaire showed a preference for bike parking to be located firstly at shopping centres, then beaches and bus stops. A smaller number of respondents in the questionnaire requested parking at schools, Warringah Council, workplaces, libraries, apartment buildings, child care centres, places of entertainment, Manly Ferry etc.

Bicycle parking and other end of trip facility requirements will be incorporated into the Warringah Development Control Plan, for example for development or redevelopment of medium to high density residential, commercial and industrial buildings. Manly Wharf is outside Warringah's jurisdiction as it is not located in Warringah.

Prioritisation of bicycle parking has been based on community feedback from the Warringah Bike Plan Questionnaire. Where bicycle parking facilities currently exist but are proposed to be replaced with more appropriate designs, these works have been given the lowest priority. Parking is to be provided at the following locations:

Table 13: Bike Parking at Shopping Centres

Bike Parking at Shopping Centres				
Shopping Centre Location	Parking Type and Number	No. Spaces	Responsibility	Priority
Dee Why Beach: At two or three locations within Dee Why Beach Reserve opposite The Strand shops and restaurants	Proposed: 20 U- Rails. Consider Pubic Art Bicycle Parking provided in key locations	40	RT&W	High
Warringah Mall: In Dick Smith Car Park Opposite Bunnings and Medical Centre	Proposed: 20 U- Rails	40	RT&W	High
Warringah Mall - At Woolworths Entrance	Proposed: 20 U- Rails. Consider Pubic Art Bicycle Parking	40	RT&W	High
Forestville Shopping Centre	Proposed: 20 U- Rails. Consider Pubic Art Bicycle Parking	40	RT&W	Medium
Terry Hills Shops	Proposed: 5 U Rails. Consider Pubic Art Bicycle Parking	10	RT&W	Medium
Forestway Shopping Centre	Proposed: 5 U Rails. Consider Pubic Art Bicycle Parking	10	RT&W	Medium

Bike Parking at Shopping Centres				
Shopping Centre Location	Parking Type and Number	No. Spaces	Responsibility	Priority
Forestville: Arthur Street Shops	Replace: Butterfly Rails with 5 U Rails. Consider Pubic Art Bicycle Parking	10	RT&W	Low
Frenchs Forest Shop Glenrose Stockland at entrance	Replace: Butterfly Rails with 5 U Rails. Consider Pubic Art Bicycle Parking	10	RT&W	Low
Freshwater Shopping Centre	Existing Bicycle Parking: 8 Inverted U Rails	16	RT&W	N/A - Existing
Narrabeen Shopping Centre (Woolworths)	Existing Bicycle Parking: 6 Inverted U Rails	12	RT&W	N/A - Existing
Narrabeen Shopping Centre - Waterloo Street (South Side)	Existing Bicycle Parking: 6 Inverted U Rails	12	RT&W	N/A - Existing
Total Number of Parking Spaces: 240				

Table 14: Proposed Bike Parking at Beaches

Proposed Bike Parking at Beaches				
Beach Location	Parking Type and Number	No. Spaces	Responsibility	Priority
Collaroy Beach	Proposed: 10 U- Rails. Consider Pubic Art Bicycle Parking	20	P&CD	Medium
Long Reef Beach	Proposed: 10 U- Rails	20	P&CD	Medium
North Curl Curl Beach	Proposed: 10 U - Rails	20	P&CD	Medium
South Curl Curl Beach	Proposed: 10 U - Rails	20	P&CD	Medium
Freshwater Beach	Proposed: 10 U – Rails. Consider Pubic Art Bicycle Parking	20	P&CD	Medium
North Narrabeen SLSC - In close proximity to facilities	Proposed: 4 Inverted U-rails - Spread out across the reserve. Consider Pubic Art Bicycle Parking.	8	P&CD	Medium
Dee Why Pool (Oaks Avenue)	Existing Bicycle Parking: 4 Inverted U Rails	8	P&CD	N/A - Existing
South Narrabeen SLSC	Existing Bicycle Parking: 10 Inverted U Rails	20	P&CD	N/A - Existing
Narrabeen Beach, end of Narrabeen Street	Existing Bicycle Parking: 10 Inverted U Rails	20	P&CD	N/A - Existing
Narrabeen Beach, end of	Existing Bicycle Parking:	20	P&CD	N/A -

Proposed Bike Parking at Beaches				
Beach Location	Parking Type and Number	No. Spaces	Responsibility	Priority
Robertson Street	10 Inverted U Rails			Existing
Narrabeen Beach, end of Devitt Street	Existing Bicycle Parking: 10 Inverted U Rails	20	P&CD	N/A - Existing
Total Number of Parking Spaces: 196				

Table 15: Proposed Bike Parking at Transport Nodes in Warringah

Proposed Bike Parking at Transport Nodes in Warringah				
Transport Node Location	Parking Type and Number	No. Spaces	Responsibility	Priority
Dee Why Town Centre (Main Pittwater Road Bus Stop)	Proposed: 2 Cages	40	RT&W	High
Narrabeen - Main Pittwater Road Bus Stop	Proposed: 1 Cage	20	RT&W	High
Warringah Mall - Main Pittwater Road Bus Stop	Proposed: 2 Cages	40	RT&W	High
Collaroy bus Stop - In close proximity to main south bound bus stop, and highly visible (Southern side of 1056 Pittwater Road, Collaroy)	Proposed: 5 U- Rails	10	RT&W	Low
Forest Way bus stop in proximity to Forest Way Shopping Centre	Proposed: 5 U- Rails	10	RT&W	Low
Warringah Road, Starkey Street Bus Stop, Forestville - in close proximity to bus stop	Proposed: 5 U- Rails	10	RT&W	Low
Manly Vale Main Condamine Street Bus Stop	Proposed: 1 Cage	20	RT&W	Low
Warringah Mall Bus Stop, Brookvale	Existing: 8 Inverted U Rails	16	RT&W	N/A - Existing
Total Number of Parking Spaces: 166				

Table 16: Proposed Bike Parking at Community Facilities

Proposed Bike Parking at Community Facilities				
Community Facility Location	Parking Type and Number	No. Spaces	Responsibility	Priority
John Fisher Park, Curl Curl	Proposed: 9 Inverted U-rails - Spread out across the reserve. Consider Public Art Bicycle Parking.	18	P&CD	Medium

Proposed Bike Parking at Community Facilities				
Community Facility Location	Parking Type and Number	No. Spaces	Responsibility	Priority
Frank Gray Reserve, Curl Curl	Proposed: 3 Inverted U-rails - Spread out across the reserve	6	P&CD	Medium
Beacon Hill Community Centre Entrance	Replace moulded concrete bike parking with 5 U Rails	10	P&CD	Low
Wingara Reserve Tennis Court, Belrose	Replace Butterfly Rails with 13 U Rails	26	P&CD	Low
Belrose Library, Corner of Lockwood Avenue and Glen Street, Belrose	Replace Moulded Concrete with 13 U Rails. Consider Pubic Art Bicycle Parking.	26	P&CD	Low
Abbott Road Curl Curl Youth Community Centre	Replace Butterfly Rails with 5 U Rails.	10	P&CD	Low
Warringah Aquatic Centre	Replace Butterfly Rails with 10 U Rails. Consider Pubic Art Bicycle Parking	20	WAC	Low
Brookvale Oval	Replace Butterfly Rails with 13 U Rails. Consider Pubic Art Bicycle Parking	26	P&CD	Low
Brookvale Oval	Existing 4 Inverted U-rails	8	P&CD	N/A - Existing
Cromer Works Depot	Existing 4 T-shaped rails	9	P&CD	N/A - Existing
Dee Why, Civic Centre, Warringah Council	Existing 6 T-shaped rails	12	P&CD	N/A - Existing
Dee Why Civic Centre, Warringah Council	Existing 4 T-shaped rails	8	P&CD	N/A - Existing
Narrabeen, Berry Reserve (At Carpark)	Existing 4 Inverted U-rails	8	P&CD	N/A - Existing
Narrabeen, Berry Reserve, South-West of Pittwater Road Bridge	Existing 6 Inverted U-rails	12	P&CD	N/A - Existing
Warringah Aquatic Centre	Existing 6 Lockable Cages	6	WAC	N/A - Existing
Total Number of Parking Spaces: 205				

Bicycle End of Trip Facilities Strategy

End-of-trip facilities for cyclists are designed to improve amenity at the destination.

Apart from bike parking, end-of-trip facilities include showers, lockers, change rooms, laundry facilities and bicycle repair.

Such end-of-trip facilities may include basins and mirrors, benches, hair dryers, iron and ironing board, washing machine and dryer, towel service, clothing hooks, good ventilation or air conditioning, power points (including shaving plugs), foot pump (with both valve types), tyre levers and puncture repair kit, drinking water and a first aid kit.

Detailed requirements are recommended for inclusion in Warringah's Development Control Plan.

Non-Residential Development

As referenced in the Australian Government's document *Cycling: Getting Australia Moving* (available at [www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/cycling_getting_australia_moving.pdf/\\$File/cycling_getting_australia_moving.pdf](http://www.goforyourlife.vic.gov.au/hav/admin.nsf/Images/cycling_getting_australia_moving.pdf/$File/cycling_getting_australia_moving.pdf)) lack of such facilities has been identified as a significant barrier to cycling, especially to work. The document cites Brisbane City Council which has built high quality end-of-trip facilities including 150 bike parking spaces within the building, with 200 lockers, showers, and ironing facilities.

Lockers may need to cater for other staff who exercise (walkers, joggers, swimmers) and need to be secure, well ventilated, with sufficient storage space for cycling gear including panniers, shoes, and clothing and long enough to hang a skirt, trousers or shirt. Lockers are best located in change rooms.

All end-of-trip facilities need to be regularly cleaned and maintained.

Table 17: Bikewest WA Suggestions for Minimum Number of Showers (Non-Residential Development)

Total no of staff	Minimum shower requirements
0-19	One (1) shower
20-49	Two (2) showers, 1 male and 1 female in separate change rooms
50-149	Four (4) showers, 2 male and 2 female in separate change rooms
150-299	Six (6) showers, 3 male and 3 female in separate change rooms
300-500	Eight (8) showers, 4 male and 4 female in separate change rooms
>500	Additional shower facilities will be required at a rate of 1 female and 1 male shower for every 250 staff

If it is not possible to provide changing room and shower facilities on a particular site, it may be possible to negotiate access for users with an adjoining building or a nearby gym where these facilities are available.

Residential Development

Requirements for end-of-trip facilities will be included in the Warringah Development Control Plan for medium density residential developments generally in accordance with Austroads *Guide to Traffic Engineering Part 14 – Bicycles*, with possible modifications for the Warringah context.

Shared Path Facilities

Design

Shared paths are defined in the *Road Rules 2008* and may be used by both cyclists and pedestrians. Shared paths are also addressed in *Austroads Guide to Traffic Engineering Part 14 - Bicycles* and in the *NSW Bicycle Guidelines 2004*. Generally, design of shared paths should be in accordance with these documents. Where there is conflict, the *Road Rules 2008* as legislation will prevail, followed by the *NSW Bicycle Guidelines 2004*, as the Guidelines are both more recent and more specific to NSW.

Shared paths differ from bicycle paths and separated paths – a bicycle path is exclusively for cyclists, a separated path is a path where cyclists are on one side of the path and pedestrians on the other, and a shared path is where bicycles and pedestrians are mixed on the path. See the Glossary for definitions of these terms extracted from the *Road Rules 2008*.

Shared paths may be in a road reserve (eg in Dee Why between Lismore and Hawkesbury Avenues) or may go through a park or other open space (eg Berry Reserve, Narrabeen).

Design of shared paths includes detailing that can make all the difference to the safety and comfort of a rider and other shared path users. *Austroads Guide to Traffic Engineering Part 14 – Bicycles* deals with construction and maintenance of paths in section 8.3. Attention in planning and in maintenance once built to details such as location, drainage, vegetation (including overhead), sightlines and curves, surface deviations such as grooves, bumps and cracks whether perpendicular or parallel to the direction of travel, are very important.

a) Widths

The minimum width dimensions for shared paths are as follow:

Table 18: Shared Paths Minimum Widths

Shared Paths Minimum Widths			
Minimum Path Width (m)	Local Access Path	Commuter Path	Recreational Path
Desirable	2.5	3.0	3.5
Acceptable	2.0 – 2.5	3.0 – 3.5	3.0 – 4.0

Austroads Guide to Traffic Engineering Part 14 - Bicycles

b) Crossings

Where a shared path is in a road reserve and has the function of a key strategic major bicycle route (i.e. Warringah Mall to Manly), priority over low volume side streets should be provided, with 'give way' signage for approaching motorists.

Where possible, the shared path bicycle route should continue at grade over side streets, with appropriate ramping for approaching motorists. Contrasting pavement surfacing may be provided and if necessary, smooth wide kerb ramping.

Where the shared path crosses a main road that has traffic lights or a pedestrian crossing, submission to the RTA should be made to upgrade the signals to include bike lights, with any necessary modification to pavement markings to permit riders to cross without dismounting.

c) Surfaces

Austroads Guide to Traffic Engineering Part 14 - Bicycles and the *NSW Bicycle Guidelines* address the various surfaces used for shared paths including concrete, bitumen, timber, fibreglass reinforced plastics and unsealed paths (i.e. decomposed granite, crushed sandstone or similar surfaces).

Shared paths in Warringah use various surface materials depending on location, maintenance requirements and cost.

Paths should be constructed to give a satisfactory level of service for users throughout the life of the path and be able to support maintenance vehicles.

The *NSW Bicycle Guidelines* state that unsealed paths may be appropriate on multi-use recreational paths, and that the surface material should be firm, well bound and drain effectively.

Unsealed paths reduce run-off, are less visually intrusive and may be the preferred choice for shared paths in sensitive environmental locations, although their maintenance costs may be higher.

Where timber is used, eg for bridges, the planking should be perpendicular to the line of travel, and particular attention should be given to the provision of smooth approaches and exits from the bridge structure. Extra width should be provided if people are likely to stop to stand and watch the water.

d) Minimising conflict on shared paths

Pedestrian-Cyclist Conflict Minimisation on Shared Paths and Footpaths (AP-R287/06) is a report commissioned by Austroads in 2006 that addresses the issues of conflict and ways to minimise that conflict.

The report identifies that there are three key issues that may lead to conflict between pedestrians and cyclists:

- Inappropriate path behaviour
- Poor path design
- Poor path maintenance

The review states that to minimise conflict, holistic solutions are needed where conditions are improved for cyclists and/or pedestrians but not for one at the expense of the other.

The key objective is to minimise the extent to which interaction between cyclists and pedestrians causes conflict – there are many types of positive interactions that should be encouraged.

Twelve principles to minimise conflict are quoted in the review, including the following:

- Provide adequate path opportunities
- Involve users as early as possible
- Identify the actual sources of conflict
- Work with affected users
- Promote trail etiquette
- Favour 'light handed' management

Short term strategies can include improved signage in conjunction with clear path markings, and public education measures such as education campaigns using leaflets or through media and cycling organisations.

In the longer term, widening paths and separating pedestrians and cyclists, and creating safe on-road alternatives for higher speed cyclists may be the best solutions, subject to funding considerations.

Mixed Traffic Facilities

The *NSW Bicycle Guidelines* recommend separation (physical or visual) of bicycles from motor vehicle traffic when speed and volume reach certain thresholds.

Below 5,000 vehicles per day and where the 85th percentile speed is 60km/h or less, mixed traffic conditions are appropriate for cyclists. Mixed traffic streets (see Glossary) are generally part of residential street system, and although they may not be a marked part of the network, are very important as they provide local access to residential destinations. Almost all trips start or finish on a mixed traffic street.

However, while this is the recommended speed/volume limits for mixed traffic, the *Guidelines* recognise that mixed traffic streets are the most common type of facility available to bike riders.

The *Guidelines* identify 'wide', 'narrow' and 'critical' lane widths for mixed traffic at section 5.3.

Wide cross section roads provide lanes wide enough for comfortable passing by motor vehicles and references Austroads - Part 14 recommended lane widths between 3.7m and 4.2m.

Narrow cross section roads are generally low speed low traffic roads where lane widths do not allow for cars to pass bikes, generally less than 3.3m.

Critical cross section roads are those where there is not enough room to safely share but enough space for a car to squeeze past, producing potentially dangerous overtaking and higher speeds. Lanes 3.3m – 3.7m should not be used for mixed traffic facilities.

Mixed traffic streets identified as routes on the Warringah Bike Plan are recommended to have bicycle symbol road markings to advise both drivers and cyclists and directional signage where appropriate.

Bicycle Lane and Bicycle Shoulder Lane Facilities

The *NSW Bicycle Guidelines* recommend bicycle lanes or sealed shoulders when traffic volumes are 5,000 to 10,000 vehicles per day and when the 85th percentile speed is between 60km/h and 80km/h.

Bicycle lanes provide visually separated space for the use of cyclists on the road. Generally located adjacent to the parking lane, riders must be able to keep a safe distance from opening car doors. This is especially the case in shopping areas where people are frequently parking and getting in and out of their cars.

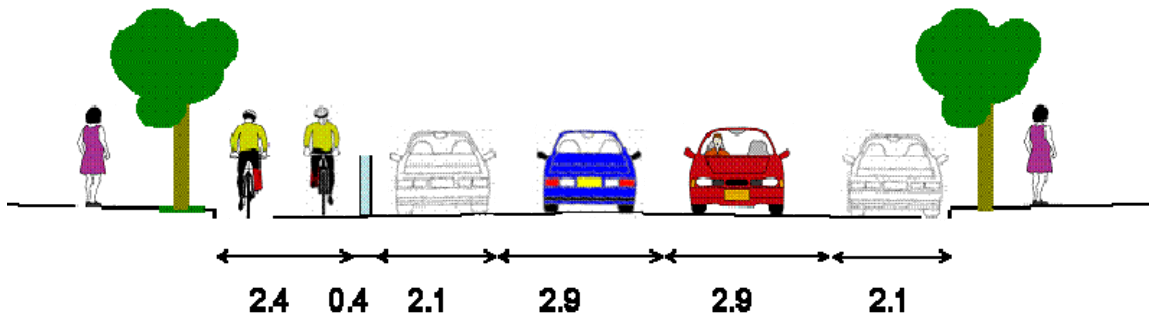
The *NSW Bicycle Guidelines* recommend a minimum parking lane width of 2.0m, 0.4m – 1.0m clearance between the bicycle lane edge and parked vehicles, a minimum 1.4m (up to 2.5m) for the bicycle lane and a minimum motor vehicle travel lane of 2.8m wide. This requires a road to be at least 14.4m wide. However, most roads are only 12.8m wide.

The *NSW Bicycle Guidelines* offer various solutions (Table 4.2, page 20) for 12.8m wide roads, including removal of parking on one side of the road to enable the bicycle lanes to be widened, lowering speed limits, using bicycle friendly physical measures to reduce traffic speed (local area traffic management – LATM) and using bicycle shoulder lanes. This latter option is not favoured for the reasons outlined below.

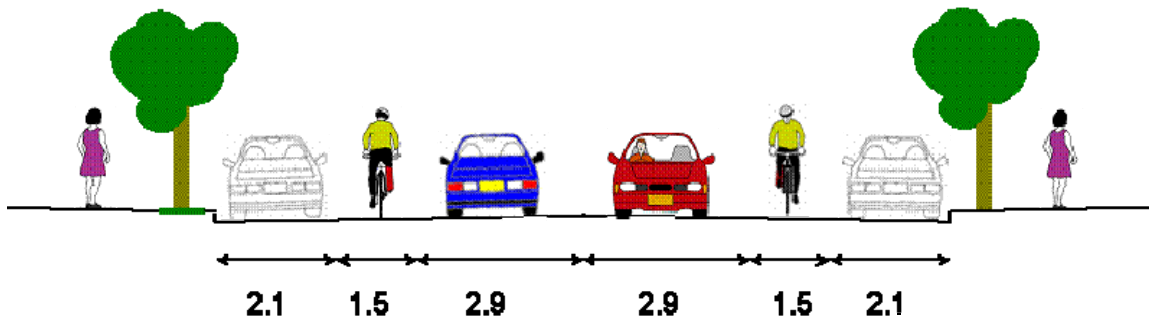
Bicycle shoulder lanes have tighter lanes and less clearance than bicycle lanes. Opening car doors, poorly parked cars and surface joint hazards have to be avoided with diminished space for the cyclist to manoeuvre safely.

To overcome these issues the City of Sydney has developed a two-way cycleway separated from the parking lane as shown below:

Final Strategy – Separated Bicycle Lanes.



Draft Strategy – Bicycle Shoulder Lanes.



Diagram

showing preferred separated two-way bicycle lane and standard treatment for bicycle shoulder lanes. Source: City of Sydney

A two-way cycleway is demonstrated in King Street below:



While this type of treatment is highly desirable to overcome the likelihood of cyclists being hit by opening doors or thrust into the main traffic flow, the cost of such works can be very high.

Rather than create a false sense of security or safety for cyclists (especially novices who may ride closer to parked vehicles in preference to the moving traffic) through these 'car door' lanes, other options such as lowering the speed limit for motor vehicles to enable mixed traffic are preferable to the use of bicycle shoulder lanes especially in busy retail areas.

Design of Local Area Traffic Management Schemes

Local area traffic management schemes (LATMs) are designed to reduce the speed and sometimes volume of traffic in local streets. Examples include roundabouts, speed humps, slow points / chicanes, road closures and one-way streets.

In all cases the needs of cyclists should be considered and *Austroads Part 14* (section 4.7) states that LATMs should be designed and a continuous smooth surface maintained so that cyclists can safely and comfortably pass through at 20km/h.

Austroads Guide to Traffic Engineering Part 10 – Local Area Traffic Management section 6.2 deals with designing for bicycles in regard to LATM and states that consideration of cyclist needs should be an integral part of LATM planning and design. Any new LATM on a bicycle route needs to implement these guidelines.

Austroads Part 14 deals with various LATM devices and compliance with *Austroads Part 14* is appropriate with reference to the *NSW Bicycle Guidelines* for routes that include speed humps and roundabouts.

Cycle Boxes

Bicycle storage areas, also known as 'head start', 'expanded storage boxes' or 'cycle boxes', are defined in the Road Rules (see Glossary). Recommended by GTA Consultants in the Audit carried out for Warringah Council, two bicycle storage areas are proposed: on Mona Vale Road westbound at the intersection of Forest Way, and on the Lakeside Crescent and Oliver Street approaches to the intersection of Pittwater Road.

The purpose is to position riders in a highly visible location so that they can proceed through the intersection in full view of other vehicles. The *NSW Bicycle Guidelines* give detailed diagrams for design of bicycle storage areas and as they are proposed to be located on RTA main roads, consultation with the RTA will be necessary.

Lighting of Bicycle Routes

Lighting of bicycle routes is important in terms of comfort, safety and legibility of the network. Directional signage should be able to be seen whether it is day or night, and lighting of routes that are dark or obscured from street lighting will aid safety for both riders and pedestrians.

Bicycle Ramps

On-Road and Shared Paths

Any ramps should be smooth, wide, and flush with the adjoining pavement.

Austroads Part 14 (section 4.5.3) deals with ramps and any road exit and entry ramps to paths should be constructed in accordance with the higher speed movement diagram Figure 4-24 for one-way transitions between roads and paths, and in accordance with the *NSW Bicycle Guidelines* (section 5.4) for two-way transitions, with consideration being given to priority of the cycleway at road crossings.

Bicycle Wheeling Ramps Up Stairs

A number of locations in the Warringah Bike Plan Network have been identified the need for bicycle wheeling ramps along the side of stairs, these locations include:

- Playfair Road (Ramp up from Parr Avenue to Headland Road)
- Moorilla Road (Ramp at south end down to Shared Path on Pittwater Road)
- Pittwater Road / Aitken Avenue (Ramp up to Queenscliff Road / Dalley Street)
- Queenscliff Road (Ramp up to Crown Road)

- Bridge Road path to Freshwater Beach (Greycliffe Street Ramp up to Undercliff Road)
- Collaroy Beach Front Path (Ramp up to Beach Road from the south end of Collaroy Beach)
- Gilmore Avenue to Collaroy Plateau (Corner of Middleton Rd/Inman Rd ramp up to Gilmore Avenue)
- Headland Road (Ramp up stairs adjoining 265 Harbord Road up to Headland Road)

Refer to NSW Bicycle Guidelines (P80) that specifies: If existing stairways are used these should be fitted with grooved wheeling ramps at both edges to facilitate bicycle access

Surfaces for Bikes

Surface treatments for bikes whether on-road or off-road (see also surfaces under the section on shared paths above) are critical for safe, comfortable riding.

Bicycles are generally more susceptible to cracks, gaps between road joints, potholes, heaves and debris such as glass, leaves and other road detritus.

Surfaces should comply with *Austroads Part 14* and the *NSW Bicycle Guidelines* and should be maintained on a regular basis.

Bike Safe Grates

Construction of new works, including road reconstruction and also isolated gully pit reconstruction on existing works, grates installed at locations where cyclists or pedestrians are likely to travel are to be bike safe. The specification for bike safe grates is incorporated into Australian Standard AS 3996-1992 Metal Access Covers, Road Grates and Frames.

In accordance with the RTA Bicycle Policy – Bike Safe Grates (2000), bike safe grates should be implemented in the following locations:

- On urban roads, where the carriageway is paved full width, and kerb and gutter is provided, all gully grates are to be bike safe, including gully grates located adjacent to median islands.
- On urban motorways, all gully grates located in the kerbside gutter, adjacent to medians and on entry and exit ramps are to be bike safe.
- On rural style roads including rural motorways, all gully grates located in the kerbside gutter, adjacent to medians and on entry and exit ramps are to be bike safe.
- In wide, grassed, depressed medians, gully grates which prevent the accidental falling of pedestrians and cyclists into any pits are to be installed.

Retaining Data on Constructed Bicycle Facilities in Warringah

Any Council department that constructs the following bicycle facilities in Warringah has a responsibility to report its details to Council's GIS Manager for entry into the Warringah Bicycle Network Database. This data will serve to keep a record of Council assets and will also aid future reviews of the Warringah Bike Plan.

- Shared path facilities
- Mixed use facilities
- Bicycle lane and bicycle shoulder lane facilities
- Directional signage
- Bicycle parking facilities

- Bicycle ramp facilities
- Cycle box facilities
- Lighting of bicycle routes

Database details should be provided where applicable as follows:

- Date of construction
- Type of facility
- Location of the facility
- Distance the facility covers
- Content of bicycle directional signage
- Type of bicycle parking facility and amount of spaces provided

BICYCLE NETWORK ROUTE DEVELOPMENT

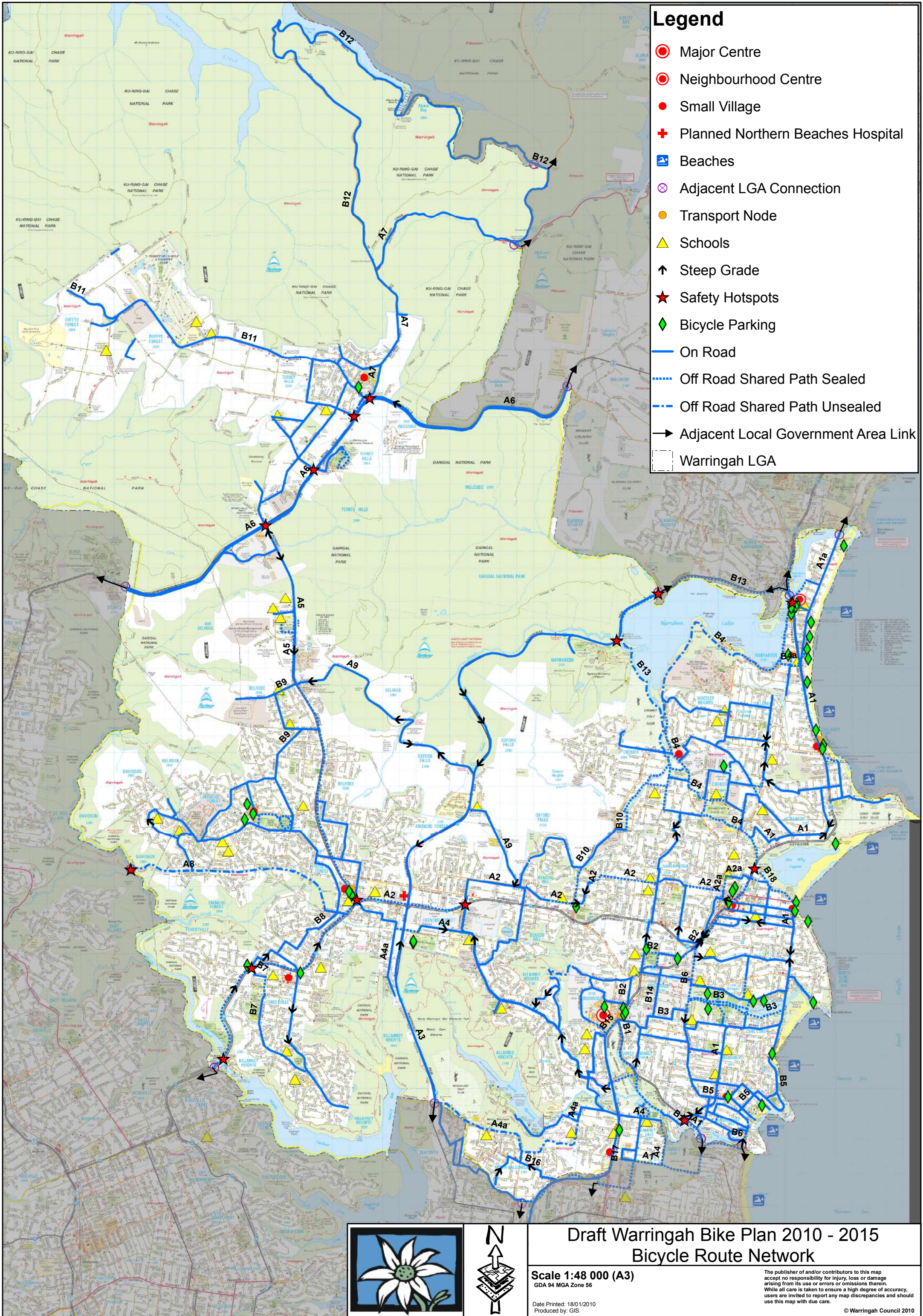
How was the Warringah Bicycle Network Designed?

The Warringah Bike Plan applies the five best practice principles of network design, i.e. that the bicycle network is coherent, direct, attractive, safe and comfortable.

The network structure developed for the Warringah LGA provides a core strategic network of cycle routes as the framework on which the rest of the network can be developed. These strategic routes link to greater Sydney via neighbouring LGA's and are in turn connected by a series of local routes and links, providing access to all major trip attractors in the Warringah LGA.

The Warringah Bike Network is based on a series of routes that have been developed utilising, among other documents, the work already done for the Warringah Bike Plan 1998, the Multi Use Trails Strategy, SHOROC Cycleways Mapping Project, RTA Action for Bikes 2010, various Plans of Management as identified above, demographics, crash data and other statistics, the results of the Bike Questionnaire, the Bicycle Audit undertaken by GTA Consultants for Warringah Council (2009) and preliminary consultation with various stakeholders.

Routes outlined by the Warringah Bicycle Network Map should be interpreted as indicative only of where on-road and off-road routes should run. The exact location i.e. what side of the road a shared path shall be on should be determined during the detailed design and construction stage, taking into account best practice bicycle design standards, environmental considerations and further feedback from community consultation etc.



Who is the Warringah Bicycle Network Design For?

Based on background research that has established an understanding of Warringah's demographics, cycling characteristics and barriers to cycling, the Warringah Bicycle Network has been developed to help encourage a greater cycling take up in Warringah in the future by:

- Family recreational cyclists; (Young or older age categories);
- School cyclists; (Young age category);
- Female cyclists;
- Fitness/Training/Racing Cyclists; (Older age category);
- Commuter cyclists; (Older age category); and

The implementation of the bicycle network has been prioritised taking these cycling demographics into account.

Mountain bike riders will also benefit from this bike plan through the provision of links to National Parks and other reserves; however this bike plan does not extend into the parks or across private land where mountain bike tracks currently occur. A separate Mountain Bike Strategy is required to address the demand for mountain bike facilities in Warringah.

Warringah Bicycle Plan 1998 Comparison

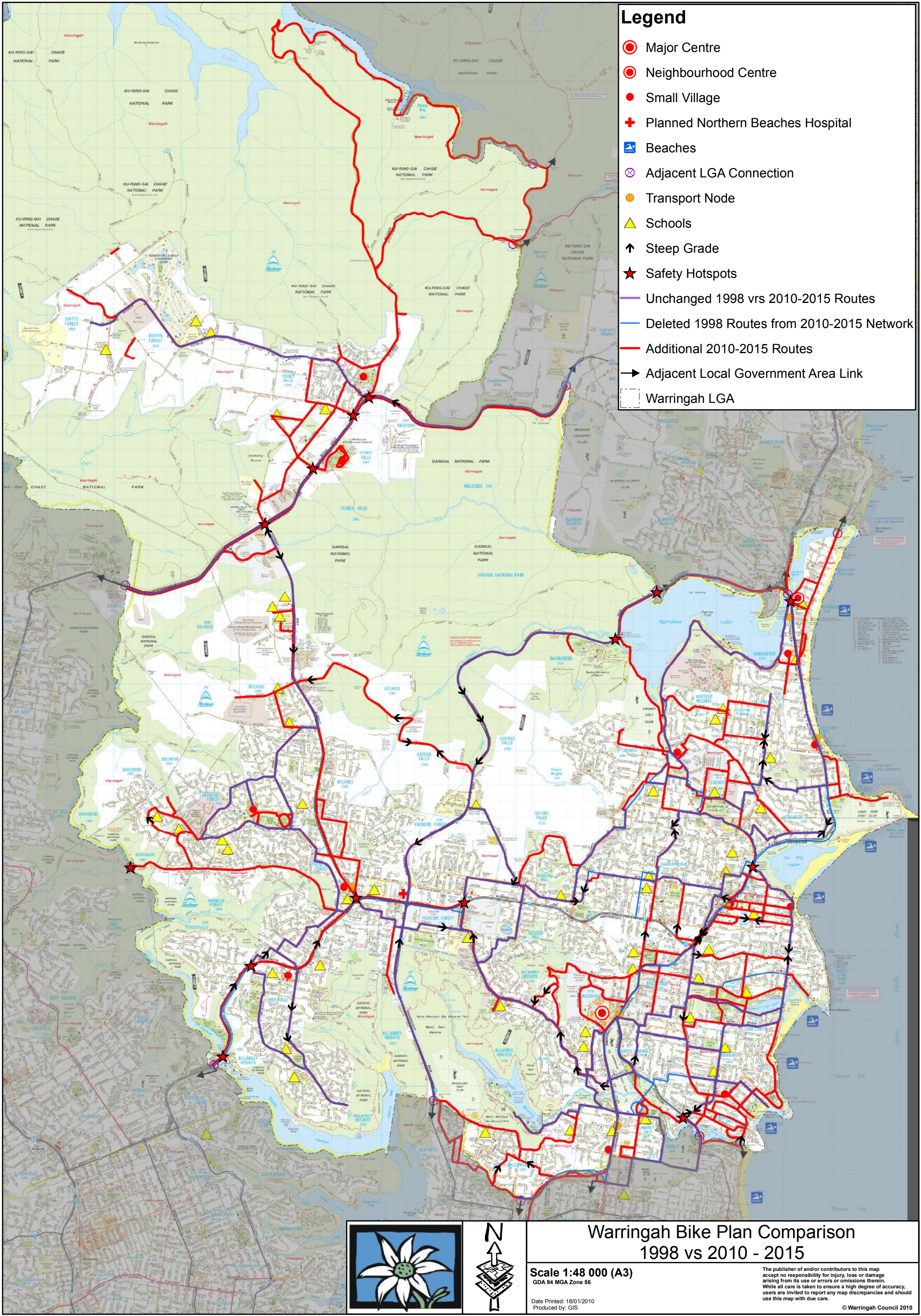
The Warringah Bike Plan Comparison Map 1998 vs 2010 – 2015 shows the proposed routes compared to those identified in the 1998 bike plan.

The additional Bike Plan 2010-2015 routes have primarily been identified through the results of the Bike Plan Questionnaire, the GTA Audit including its public consultation and feedback from the community on the 1998 Warringah Bike Plan. It also takes into account crash data, demographics and the nature of Warringah.

For example, Warringah has an outdoor focus and therefore new and improved family recreation bicycle routes through parks, reserves and quieter side streets or on shared paths have been developed. As well, Warringah has a healthy living aspect and therefore routes suitable for bicycle training / fitness have been recognised and made safer eg by widening road shoulders, and by developing driver awareness campaigns.

Many Warringah residents also work, live and play in Warringah and therefore bike routes that link trip attractors and generators are an obvious priority for development of the bicycle network.

It is recognised that the Warringah Bike Plan 2010-2015 route network is far more extensive than the 1998 network and therefore needs to be implemented in an orderly and prioritised manner to ensure that the network is coherent, direct, safe, attractive and comfortable.



Legend

- Major Centre
- Neighbourhood Centre
- Small Village
- Planned Northern Beaches Hospital
- Beaches
- Adjacent LGA Connection
- Transport Node
- Schools
- Steep Grade
- Safety Hotspots
- Unchanged 1998 vrs 2010-2015 Routes
- Deleted 1998 Routes from 2010-2015 Network
- Additional 2010-2015 Routes
- Adjacent Local Government Area Link
- Warringah LGA



**Warringah Bike Plan Comparison
1998 vs 2010 - 2015**

Scale 1:48 000 (A3)
GDA 94 MGA Zone 56

Date Printed: 18/01/2010
Produced by: GIS

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Warringah Trip Attractors and Generators

Identification of trip attractors has helped to identify those places that cyclists would most commonly visit and were useful in determining the main cycle desire lines. Key trip attractors within the study area include waterways, shopping centres, parks reserves and sports fields, national parks, schools and colleges, transport nodes and links to neighbouring council areas.

Trip attractors and generators within Warringah were identified and considered in the development of the 2010-2015 network map, with details included here as follows:

Waterways

Narrabeen Lagoon, Queenscliff Lagoon, Curl Curl Lagoon (and the associated playing fields) and Manly Dam are four major waterways that already have some bicycle facilities.

These routes are proposed to be amplified and extended in the Warringah Bike Plan 2010-2015. For example see the draft bike plan routes A4a, B1, B3 (and B6), B4.

Figure 32: Narrabeen Lagoon, near Narrabeen Scout Hall, June 2009



Shopping Centres

Brookvale – Dee Why is the northern beaches major centre, incorporating Warringah Mall. To identify a cycling link between Dee Why and Brookvale is challenging due to topography, established land uses, traffic volume and traffic speed.

However, in combination with local links, the draft Bike Plan route B2 links Dee Why with Brookvale, and route A2 leads to Dee Why to improve access to this major centre.

Other centres are accessible as follows:

Table 19: Proposed Cycle Routes to Access Local Shopping Centres

Proposed Cycle Routes to Access Local Shopping Centres	
Centre	Route
Collaroy	A1
Dee Why–The Strand	A1 and A2
Forestville	Local link
Frenchs Forest	A5 and B9
Glenrose	Local link
Harbord–Lawrence Street	A1 and B5
Manly Vale	A1
Narraweena	A2
Narrabeen, Waterloo Street	A1 and B4
Narrabeen–Devitt Street	B4a
Terrey Hills	B11
Veterans Parade, Collaroy Plateau	Local link

Beaches

Warringah has nine ocean beaches, all of which are accessible via proposed routes on the bike plan as shown below.

Table 20: Proposed Cycle Routes to Access Local Beaches

Proposed Cycle Routes to Access Local Beaches	
Beach	Route
South Narrabeen Beach	A1
Collaroy Beach	A1
Dee Why Beach	A1
The Basin	Local link
Long Reef Beach	Local link
North Narrabeen Beach	A1a
Narrabeen Beach	A1
Dee Why Beach	A2
Queenscliff Beach	B1 and B6
Freshwater Beach (via local link)	B5

Parks, Reserves and Sports Fields

Parks, reserves (excluding beaches) and sports fields that are accessed under the Bike Plan are listed with the relevant routes below.

Table 21: Proposed Cycle Routes to Access Local Parks, Reserves, Sports Fields

Proposed Cycle Routes to Access Local Parks, Reserves, Sports Fields	
Park, reserve or sports field	Route
Allenby Park	Local link
Belrose Oval	A5
Brookvale Oval	A1; B2 and Local link
Collaroy Plateau Park	Local link
Cromer Park	B4 and Local link
David Thomas Reserve and Millers Reserve	A4a
Forestville War Memorial Playing Fields	B7
Golden Grove Park	B10
Griffith Park	A1 and Local link
Gumbooya Aboriginal Rock Carving Reserve	A4
Harbord Park	Local link
James Meehan Reserve and Dee Why Lagoon	A1 and B18
JJ Melbourne Hills Memorial Reserve	A6 and Local link
John Fisher and associated playing fields	B3; B6 and Local link
Killarney Heights Oval	B7 and Local link
Lionel Watts	Local link
Manly Dam	A4; A4a and B16
Narrabeen Lagoon foreshores including Jamieson Park	B4 and B4a
Nolan Reserve	B1 and Local link
Passmore Reserve	A4 and Local link
St Matthews Farm	B4 and Local link
Sydney Academy of Sport	A3 and B4
Terrey Hills Playing Fields	A7 and Local link
Wakehurst Rugby Park	A5 and Local link
Warringah Aquatic Reserve	A4
Wyatt Reserve	B9

National Parks

Warringah has two National Parks – Ku-ring-gai Chase National Park and Garigal National Park. Both of these have many roads, fire trails and walking tracks. Cycling is permitted on management tracks and on the roads. However, cycling is not permitted on walking tracks.

Both parks are managed by the NSW Department of Climate Change and Water (DECCW).

It is anticipated that further discussion on mountain bikes in National Parks will be undertaken in 2010.

Routes providing access to the National Parks are listed in the table below.

Table 22: Proposed Cycle Routes to Access National Parks

Proposed Cycle Routes to Access National Parks	
Park	Route
Garigal	A3; A4a; A5; A6; A8; A9 and B4
Ku-ring-gai Chase	A6; A7; B11 and B12

Schools and Colleges

The only tertiary education facility in Warringah is the TAFE college on Old Pittwater Road. Route B15 in the draft Bike Plan leads to the TAFE.

Other schools benefiting from the proposed routes include the following, with local links accessing the other numerous schools in Warringah.

Table 23: Proposed Cycle Routes to Access Local Schools

Proposed Cycle Routes to Access Local Schools	
School	Route
Narrabeen Lakes Public School	A1 and B4
St Josephs Catholic School	A1a
Beacon Hill Public School	A2
Forest High	A2
Dee Why Public School	A2a
Mackellar Girls	A4
Allambie Heights Public School	A4
Arranoubai School	A4
Frenchs Forest Public School	A4
St Pius	A3
Oxford Falls Grammar School	A3
Balgowlah North Public School	A4a
Manly Public School	A4a
Frenchs Forest Public School	A4; A5 and B9
Oxford Falls Grammar School	A9 and A3
Brookvale Public School	B2

Proposed Cycle Routes to Access Local Schools	
School	Route
St Augustines	B2
Freshwater campus	B3 and B6
Manly Selective campus	B3 and B6
Cromer Campus	B4
Narrabeen Lakes Public School	B4
Killarney Heights High	B7
Killarney Heights Public School	B7
Forestville Public School	B7
Frenchs Forest Public School	B9
Belrose Public School	B9
The John Colet School	B9
Kamaroi School	A5
Covenant Christian School	Priority local link
Mimosa Public School	Priority local link
Davidson High School	Priority local link
St Martins de Porres Catholic Primary School	Priority local link
Kambora Public School	Priority local link
The Sydney Japanese School	B11

Transport Nodes

The combination of cycling and public transport offers the opportunity to cover distances not comfortably achieved by bicycle alone. In countries that have maximised opportunities for cycling, such as the Netherlands, 38.6% of train trips involve a bicycle ride to the station (Cycle Council of the Netherlands, 2007).

The three key areas to encourage more people to integrate bicycle and public transport travel in Warringah are:

- **Safe Bicycle Routes to Public Transport Hubs:** This is the essential first step required to enable more people to feel safe and comfortable when riding to the station/stop. The Warringah Bike Plan proposes bicycle routes that provide access all major bus stops in Warringah.
- **Secure Bicycle Parking:** Once passengers have cycled to the bus stop, they will require a secure place to lock their bicycle – as it will typically be left unattended for a large portion of the day. The Warringah Bike Plan 2010-2015 proposes bicycle cages at the major bus stops to improve security for longer term bicycle parking. Refer to the relevant Bicycle Parking section in the Engineering Requirements section of this report for further details.

- Taking bicycles on public transport: Providing the opportunity for people to take their bicycles on public transport allows people to ride both to and from their public transport journey. This has proven to boost the attractiveness of each of these modes of transport, as demonstrated by a comprehensive review of current programs throughout the United States (Federal Transit Administration, 2005). Refer to Warringah Context section of this document for further details regarding bikes on public transport in Warringah.

Major bus stops and proposed cycle routes that will provide access to them in Warringah are outlined below. The below table does not cover a large number of smaller bus stops that will also be accessible by the proposed cycle network.

Table 24: Proposed Cycle Routes to Access Major Bus Stops

Proposed Cycle Routes to Access Major Bus Stops	
Major Bus Stops	Route
Dee Why Town Centre - Main Pittwater Road Bus Stop)	A2; A2a; B2; B4 and local links
Narrabeen - Main Pittwater Road Bus Stop	A1; A1A; B4; plus a local link down Waterloo Street
Warringah Mall - Main Pittwater Road Bus Stop	B1; B2; B3; plus a local link proposed through Allenby Park to access Allambie Heights
Forest Way Bus stop in proximity to Forest Way Shopping Centre	A4; A5 and B9
Warringah Road, Starkey Street Bus Stop, Forestville	A4 plus local links along Starkey Street
Collaroy Bus Stop	A1

Links to Neighbouring Council Areas

Five council areas border Warringah: Hornsby, Pittwater, Ku-ring-gai, Willoughby and Manly.

Willoughby and Hornsby do not have a land boundary with Warringah – the Hornsby boundary is located in Cowan Creek and Willoughby's boundary is on the southern shore of Middle Harbour.

The routes linking Warringah with Manly, Pittwater and Ku-ring-gai are listed below.

Table 25: Neighbouring Councils and Proposed Routes

Neighbouring Councils and Proposed Routes	
Council	Route
Manly	A1; A4a; B1; B6; B16 and B17
Pittwater	A1; A1a; A3; A6; A7 and B4
Ku-ring-gai	A2 and A8

Costing of Routes

The estimated costs identified in this report are only broadly indicative.

Such costings do not take into account the detailed survey and design work necessary prior to construction, nor do they take into account individual requirements of various route sections that may involve excavation or filling, tree, telegraph pole, other infrastructure or street furniture relocation or removal. A 10% contingency figure has been applied to the total cost of works to try and accommodate these additional costs. More accurate costings will need to be determined at the detailed design and construction phase of each route.

Depending on what year a route is selected to be built, the impact of inflation on cost estimates also needs to be taken into account

What has been included in the costing of works is outlined in the detailed works spreadsheet located in Appendix 8.

BICYCLE NETWORK IMPLEMENTATION PRIORITIES

Implementation priority is focused on developing a series of “high quality, high demand” bicycle routes to further promote an uptake of cycling in Warringah.

The Warringah Bike Plan 2010-2015 Bicycle Network Priorities have been separated into two distinct groups for clarity of implementation as follows:

Council Routes

Bicycle routes along roads, footpaths, parks and reserves that are Council's responsibility and can be implemented by Council with 50/50 funding from the RTA. Refer to the following map labelled 'Council Prioritisation of Work' and associated column in the following priorities table.

RTA Routes

Bicycle routes that are 100% RTA responsibility for one of two reasons:

- They are an on-road route located along an arterial road: Warringah Road, Wakehurst Parkway, Forest Way, Mona Vale Road, Condamine Street, Pittwater Road, McCarrs Creek Road or General San Martin Drive.
- They are an off-road or on-road Regional Bike Route, as identified in the RTA Action for Bikes Plan 2010 (refer to the funding section of this document for further details regarding the location of these routes).

Refer to the following map labelled 'RTA Bike Routes and Council Priorities' and associated column in the priorities table.

By spitting route prioritisation into 'Council Routes' and 'RTA Routes', Council can clearly identify the 'Council Routes' that Council can built now (subject to available funding) and the 'RTA Routes' that Council will need to lobby or negotiate with the RTA to build.

As highlighted previously in this document, all cyclist safety hotspots fall on RTA Routes and are therefore given the highest priority within the 'RTA Routes' priority table below.

The whole bicycle network is not included in the bicycle network priorities table, as it unrealistic to expect that the whole Warringah bicycle network could be implemented over the next 5 years. It is also unlikely that all of the prioritised works listed below will be implemented over the next 5 years without a massive funding boost. Although the whole network is not prioritised, all of the bicycle routes are included in the detailed works spreadsheet located in Appendix 8 and this provides a rough estimate that it would cost approximately \$22,100,000 to implement the entire bicycle network. The prioritised table below will cost an estimated \$3,945,304 to construct (refer to

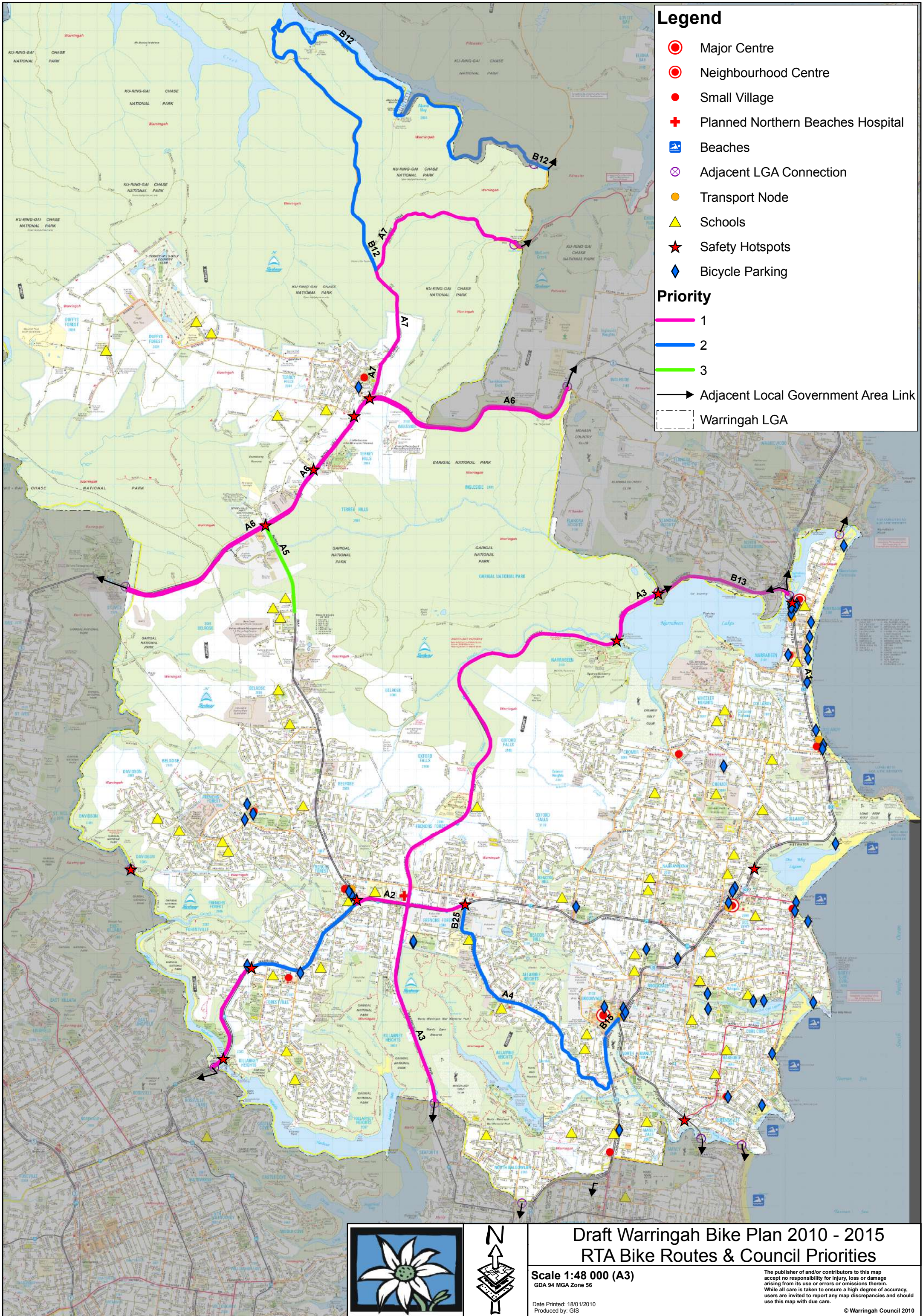
'Costing of Routes' Section above for further details regarding what is included in these cost estimates).

Although a number of routes identified in the Warringah Bicycle network are currently not prioritised, unprioritised routes should still be considered for development as roads, footpaths, parks, reserves and foreshores are upgraded via other priorities of Council throughout Warringah. It is the responsibility of various departments in council who construct these works to check whether they are located along a bicycle route as identified by the Warringah Bicycle Network Map and design their works accordingly, taking the bike plan into account.

It is envisaged that the bike plan routes will be constructed in accordance with the priorities, Council's budget, and any Council resolutions relevant to the Bike Plan. For example, Council's resolution of 8 December 2009 requires future footpath renewal or road works that do not coincide with the identified routes in the Bike Plan to be designed as shared paths wherever sensible (i.e. local high use areas such as schools and shopping centres) and for the additional costs (beyond footpath construction) to be allocated from the Bike Plan budget.

Five yearly reviews of the bike plan provide an opportunity to update priorities outlined in the bicycle network priorities table.

The Bicycle Network Priorities are identified in the maps and in the priorities table below.



Legend

- Major Centre
- Neighbourhood Centre
- Small Village
- Planned Northern Beaches Hospital
- Beaches
- Adjacent LGA Connection
- Transport Node
- Schools
- Safety Hotspots
- Bicycle Parking

Priority

- 1
- 2
- 3
- Adjacent Local Government Area Link
- Warringah LGA

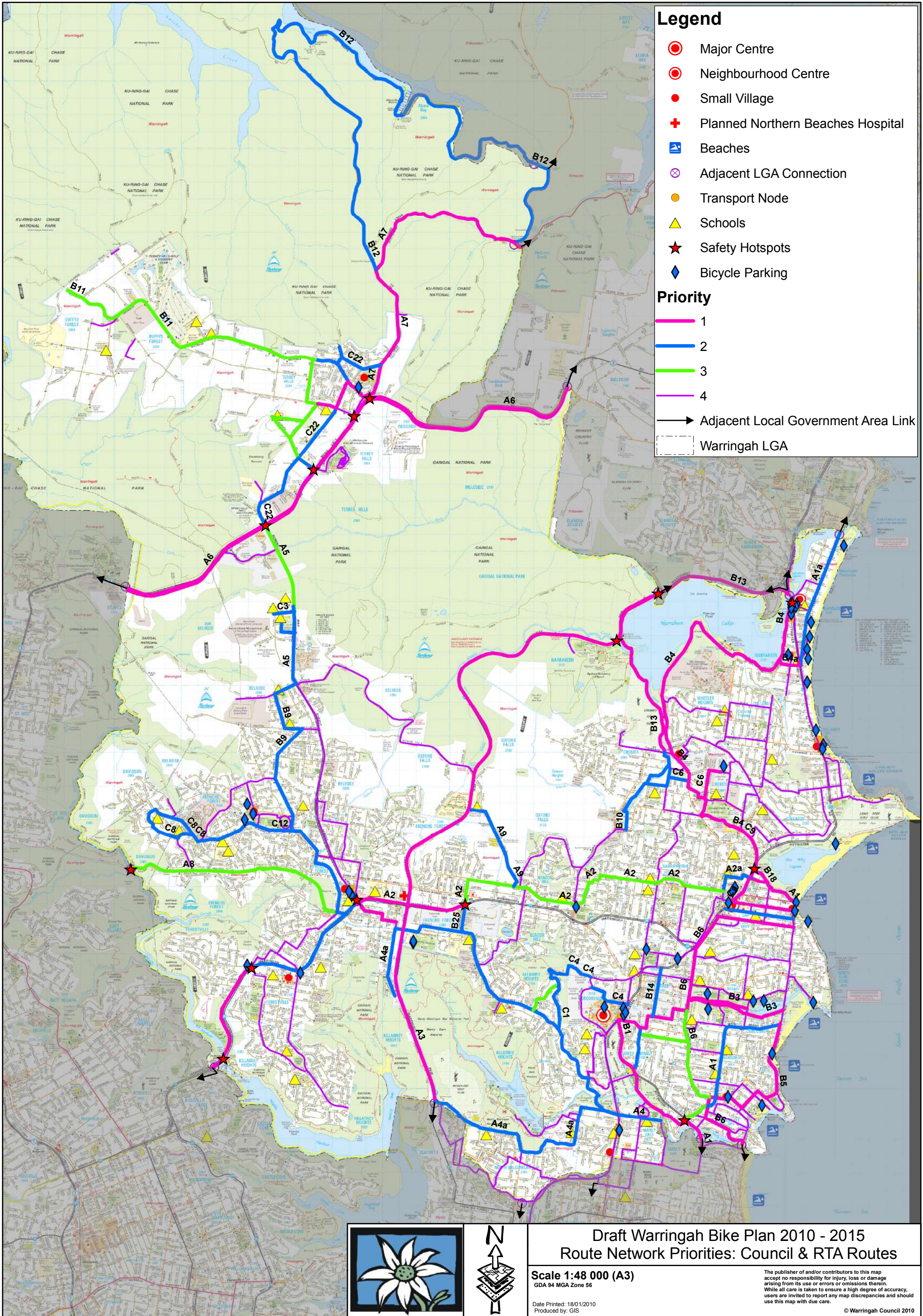
**Draft Warringah Bike Plan 2010 - 2015
RTA Bike Routes & Council Priorities**

Scale 1:48 000 (A3)
GDA 94 MGA Zone 56

Date Printed: 18/01/2010
Produced by: GIS

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Prioritisation of Warringah Bicycle Routes – Schedule of Works

Table 26: Route Implementation Table of Priorities and Responsibilities

Route Implementation Table of Priorities and Responsibilities						
Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
Narrabeen Lagoon – Queenscliff Bridge						
B13	1	Narrabeen Lagoon – Dee Why: Deep Creek Bridge to South Creek	Shared path – unsealed Signage		NEU	Federal Funding
B4	1	Narrabeen Lagoon – Dee Why: Narrabeen Bridge - Jamieson Park to Toronto Street	Shared path – sealed Signage Lighting		PR&F	\$600,000
B4	1	Narrabeen Lagoon – Dee Why: Toronto Street to Lismore Avenue)	Shared path – sealed Signage		PR&F	\$260,000
B4	1	Narrabeen Lagoon – Dee Why: Lismore Avenue / Pittwater Road	Priority bicycle crossing of Lismore Avenue Traffic signals with bike crossing lights for Pittwater Road Signage	RTA	RT&W to lobby / negotiate with RTA	\$250,900
B4	1	Narrabeen Lagoon – Dee Why: Lismore Avenue to Dee Why Beach	Shared path – sealed Signage		PR&F	\$69,000
B4a	1	Goodwin Street: Narrabeen Lagoon – Narrabeen Lakes Public School	Shared path (widen existing footpath) Signage		RT&W	\$30,000
A1	1	The Strand	Bike lanes Mixed traffic		RT&W PC	\$8,400
B5	1	Adams Street - Cavill Street (via Carrington Parade – Evans Street – Charles Street – Moore Road –	Bike lanes Mixed traffic Signage		RTW	\$49,000

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
		Lawrence Street)				
B6	1	Cavill Street – Queenscliff Bridge	Mixed traffic Bike lanes Signage		RT&W	\$23,000
Warringah Mall – Manly LGA						
B1	1	Pittwater Road Warringah Mall – Kentwell Road	Traffic signals for bikes at intersection of Pittwater Road and William Street to access Warringah Mall Traffic signals for bikes at Kentwell Road Shared path – sealed with bicycle priority Signage	RTA	RT&W to lobby / negotiate with RTA	\$69,000
B1	1	Pittwater Road Kentwell Road – Riverview Road	Shared path – sealed Signage		PR&F	\$24,100
B1	1	Pittwater Road Riverview Road - Palm Road – Lakeside Crescent	Mixed traffic Signage		RT&W	\$2,700
B1	1	Pittwater Road Lakeside Crescent – Pittwater Road – Oliver Street intersection	Traffic signals for bikes Signage	RTA	RT&W to lobby / negotiate with RTA	\$59,000
B1	1	Pittwater Road Oliver Street - Bridge	Shared path - sealed Signage		RT&W	\$19,100
Curl Curl – Warringah Mall						
B3	1	Curl Curl Lagoon / Greendale Creek (southern side) and John Fisher Park to Harbord Road	Shared path – sealed Signage		PR&F	\$18,100
B3	1	Harbord Road – Miles Street	Shared path – sealed		RT&W	\$18,500

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
		(including bridge over Greendale Creek)	Signage			
B3	1	Miles Street – Ada Street – Wattle Street – Short Street – William Street – Pittwater Road (Warringah Mall)	Mixed traffic		RT&W	\$4,400
Warringah Mall – Brookvale TAFE						
B15	1	Condamine Street Warringah Mall – Old Pittwater Road	Shared path - sealed		RT&W	\$20,754
B15	1	Old Pittwater Road Condamine Street – TAFE	Shared path - sealed		RT&W	\$18,393
Dee Why – Harbord Road schools						
B6	1	Pacific Parade The Strand – Pittwater Road	Bike lanes Signage		RT&W/ Projects and Contracts	\$30,500
B6	1	Pittwater Road Pacific Parade – Harbord Road	Shared path - sealed	RTA	RT&W to lobby / negotiate with RTA	\$22, 700
B6	1	Harbord Road Pittwater Road – Greendale Creek	Shared path - sealed		RT&W	\$50,000
Dee Why Town Centre – Dee Why Beach						
A2	1	Howard Avenue Pittwater Road – The Strand	Bike lanes Signage		RT&W	\$24,805
Terrey Hills						
A7	1	McCarrs Creek Road	Mixed traffic Signage	RTA	RT&W to lobby / negotiate with RTA	\$10,005
Local link	1	Myoora Road – Cooyong Road	Shared path - sealed Signage		RT&W	\$1,500
Warringah Road						

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
A2	1	Roseville Bridge – Arthur Street	Shared path - sealed Signage	RTA	RT&W to lobby / negotiate with RTA	\$245,600
A2	1	Fitzpatrick Avenue West – Forest Way	Shared path - sealed Signage	RTA	RT&W to lobby / negotiate with RTA	\$7,500
A2	1	Forest Way – Allambie Road	Shared path - sealed Signage	RTA	RT&W to lobby / negotiate with RTA	\$328,300
Warringah Aquatic Centre – Forest Way						
A4	1	WAC – Bantry Bay Road	Shared path - sealed Signage		RT&W	\$3,100
	1	Bantry Bay Road – Warringah Road overpass	Mixed traffic Shared path Signage		RT&W	\$7,900
South Creek						
B10	2	Toronto Avenue – Willandra Road	Shared path – sealed Signage		NEU	\$580,400
Narrabeen						
A1a	2	Ocean Road Bridge – Pittwater Road	Mixed traffic		RT&W	\$45,268
		Bike signals to cross Pittwater Road from Narrabeen Public School to Ocean Road	Traffic signals upgrade to include bike lights		RT&W	\$50,000
Dee Why Town Centre – Dee Why Beach						
	2	Oaks Avenue (Pittwater Road – The Strand)	Bike lanes Signage		RT&W	\$28,000
A2a	2	Fisher Road – Regent Street - Hawkesbury Avenue	Shared path Signage		RT&W	\$18,400
B18	2	Hawkesbury Ave to Dee Why lagoon path (B4)	Mixed traffic		RT&W	\$814

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
Allambie Road – Warringah Mall						
	2	Allenby Park Parade – Derna Crescent	Mixed traffic		RT&W	\$2,100
	2	Derna Crescent – Clearview Place via Allenby Park	Shared path		NEU	\$2,900
	2	Clearview Place – Old Pittwater Road	Mixed traffic		RT&W	\$1,400
	2	Old Pittwater Road – Pittwater Road via Cross Street	Mixed traffic		RT&W	\$24,600
Brookvale – North Manly						
B14	2	Mitchell Road	Mixed traffic		RT&W	\$28,200
	2	Corrie Road	Mixed traffic		RT&W	\$3,100
Curl Curl – Freshwater						
A1	2	Adams Street / Bennett Street / Oliver Street – Lawrence Street	Mixed traffic		RT&W	\$63,300
Campbell Parade – Wakehurst Parkway via Manly Dam Reserve						
A4a	2	Campbell Parade – Wakehurst Parkway	Mixed traffic Shared path - unsealed Signage		RT&W PR&F	\$19,500
Terrey Hills						
B11	2	Booralie Road Myoora Road – Laitoki Road	Bike lanes Signage		RT&W	\$13,100
	2	Beltana Avenue – Cowrang Avenue – Nerang Avenue	Mixed traffic Signage		RT&W	\$5,700
	2	Aumuna Road (Mona Vale Road – Myoora Road)	Mixed traffic Signage		RT&W	\$1,100
	2	Myoora Road (Cooyong Road –	Mixed traffic		RT&W	\$4,900

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
		Mona Vale Road)	Signage			
	2	General San Martin Drive	Mixed traffic Signage	RTA	RT&W to lobby / negotiate with RTA	\$42,000
Frenchs Forest – Manly Vale						
A4	2	Allambie Rd – Campbell Avenue	Mixed traffic Bike friendly LATMs Signage	RTA	RT&W to lobby / negotiate with RTA	\$118,000
A4	2	Aquatic Drive	Mixed traffic Signage		RT&W	\$21,000
Beacon Hill – Oxford Falls						
A9	2	Oxford Falls Road – Dreadnought Road	Mixed traffic Bike lanes Signage		RT&W	\$6,200
Cromer						
Local link	2	B10 – B4 link via Cromer Public School: Grover – Waroon – Cleveland – to South Creek shared path	Mixed Traffic Shared path Signage		PR&F RT&W	\$99,500
Local link	2	Waroon Road – Grover Avenue (path running along the western boundary of St Mathews Farm)	Shared path Signage		PR&F	\$82,700
Frenchs Forest - Belrose						
B9	2	Fitzpatrick – Forest Way via Grace, Prince Charles, Blackbutts, Pringle, Ralston, Cotentin, Wyatt	Mixed traffic Signage		RT&W	\$32,165
A5	2	Forest Way Wyatt Ave – Kamaroi School	Shared path Signage		RT&W	\$294,000

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
Frenchs Forest (west)						
	2	Blackbutts Road – Pringle Avenue – Kambora Avenue – Alt Crescent – Prahan Avenue	Mixed traffic Signage		RT&W	\$13,900
Terrey Hills						
Local link	3	Booralie Road west from Laitoki Road	Mixed traffic Signage		RT&W	\$12,000
Local link	3	Laitoki Road – Cooyong Road – Larool Road – Aumuna Road (between Myoora and Coolowie Roads) – Coolowie Road	Mixed traffic Signage		RT&W	\$14,000
Warringah – Ku-ring-gai						
A8	3	Davidson Pipeline Track	Shared path – unsealed Signage		NEU PR&F In negotiation with Sydney Water & NPWS	\$3,300
Warringah Mall – Allambie Road						
	3	Derna Crescent – Tobruk Avenue – Libya Crescent – Kirra Road	Mixed traffic Signage		RT&W	\$4,900
North Manly						
B5	3	Thomas Street	Mixed traffic Signage		RT&W	\$3,000
B6	3	Harbord Road and Lawrence Street Miles Street – Cavill Street	Mixed traffic Signage		RT&W	\$42,000

Route Implementation Table of Priorities and Responsibilities

Route number	Priority	Location /name	Type of facility	RTA Route / Responsibility	Council Route / Responsibility	Cost estimate
B6	3	Oliver Street Pittwater Road – Cavill Street	Mixed traffic Signage		RT&W	\$10,300
Total Cost of Works: \$3,945,304						

Maintenance of Bicycle Facilities

Bicycle Routes, Parking and Directional Signage should be included in Council's asset management program in a similar manner to roads, to ensure a safe and useable riding surface and to avoid the increasing cost of maintenance or reconstruction as a result of degradation of the asset.

Construction of bicycle routes is to be carried out in accordance with this Bike Plan, and should include upgrading to best practice standards along bicycle routes, eg installation of bike-friendly drainage grates.

The *NSW Bicycle Guidelines* and *Austroads Part 14* deal with maintenance of on-road and off-road bicycle facilities and recommend a regular program of sweeping, landscaping and signage checks and inspections by an experienced person.

The *NSW Bicycle Guidelines* also recommend a system for the reporting of defects on the bike facilities, such as an online hazard reporting form that can be entered into Council's maintenance program. An example is given in the *NSW Bicycle Guidelines*.

BIKE PLAN ACTIONS

Undertaking a Bike Plan involves an extensive study and as a result a comprehensive list of actions have been developed to ensure its implementation (Refer to the below Actions Table).

As noted previously commitment to implementing particular actions is given by responsible Council departments once the actions appear in Council's Strategic Community Plan and related annual corporate planning documents. Therefore, a key action of this bike plan is for Council departments to review their relevant Warringah Bike Plan 2010-2015 action responsibilities annually (in November each year) and consider their inclusion into the Strategic Community Plan – key initiatives and capital works programs for the following year.

All new capital expenditure proposals listed in the Bike Plan will be assessed against other priorities of Council and alternative funding sources aside from general revenue may need to be sourced to enable their implementation. Funding sources, including grants and which council departments should apply for them are outlined under the relevant funding section of this document.

Timeframe for Implementation of Bike Plan Actions

The listing of an action in the Warringah Bike Plan 2010-2015 is not a guarantee that it will be implemented within the life of this Plan but the priority system combined with an allocation of responsibilities and yearly review of actions for inclusion in Council's Strategic Community Plan are designed to make sure that the actions are continually assessed and considered. In some cases actions may be undertaken as part of a larger project or part of another action and these should also be included in the review process.

Prioritisation of Bike Plan Actions

The priority of each action has been set according to the relative importance of the action.

Undertaking a Bike Plan involves an extensive study and as a result a very large list of actions is inevitably developed but Council does not necessarily have the resources to undertake all of the stated actions within a given timeframe. For example some are grant dependant or may be funded by community groups.

Therefore it is necessary that we show which actions are the most important and should be implemented. A prioritising system using High, Medium and Low importance has been developed as outlined in the actions table below. Actions have been prioritised based on the consultation and research undertaken for this plan.

High Importance

Those actions given a high importance which require capital expenditure or other additional funding are to be considered in Council funding processes annually until they can be resourced, incorporated in relevant plans and completed.

Those actions given a high performance not requiring capital expenditure are to be considered for the Management Plan and relevant unit's 'Business Plan' until completed.

Either type of high importance action may be rejected, altered or given another priority rating through a formal review. Additional funding sources may be sought for these actions.

Medium Importance

These actions are to be reviewed by the responsible Council Unit each year as to their current importance. This is to take into consideration current directions, available resources and where relevant considered for capital expenditure and/ or placement in the relevant plans.

These actions are those which should be implemented within the life of this Plan unless they are rejected, altered or given another priority rating through a formal review. Additional funding sources may be sought by the relevant unit for these actions.

Low Importance

These actions are important and are seen as necessary for the overall management and improvement of cycling in Warringah but they may not be allocated appropriate resources until they are formally reviewed as being of a higher importance or resources become available for such actions. Relevant units are to consider these actions on an annual basis.

BIKE PLAN ACTIONS TABLE

This table of actions, priorities and responsibilities has been divided into four key subject groups for ease of interpretation:

- Public Promotion, Education and Behaviour Change Actions
- Warringah Leading by Example Actions
- Warringah Council Policy and Procedural Actions
- Implementation of Bicycle Infrastructure Actions

Action No.	Recommended Actions	Responsibility	Priority
Public Promotion, Education and Behaviour Change Actions			
1	Promote National Ride to Work Day Promote National Ride to Work Day annually (Refer to Appendix 6 for more details)	C&SS	High - Annually
2	Promote new bike routes Promote new infrastructure developments upon their completion, especially signature projects such as: • Narrabeen Lagoon Multi-Use Trail Loop	PR&F NEU R,T&W P&CD M&C Events Team	High

Action No.	Recommended Actions	Responsibility	Priority
	- Warringah Mall to Manly Cycle Route - Narrabeen Lagoon to Dee Why Beach via Cromer Departments that complete construction of major routes are responsible for ensuring their promotion.		
3	Promote Warringah Bike Plan 2010-2015 Promote the existence of the Warringah Bike Plan 2010-2015 Include the final Bike Plan under the Publications / Key Strategies links on Councils website Develop a 'Cycling in Warringah' page on Warringah Council's Website	SP	High
4	Develop 'Cycling in Warringah' Public Information Develop 'Cycling in Warringah' public information that includes: - cycle route maps that may contain - Distinction between existing and proposed routes and bicycle parking - Difficulty of routes, e.g. child friendly routes - Where the hills are - recent bicycle route improvements in the local area - the personal and community benefits of cycling - bicycle skills training classes available - bicycle maintenance courses - a contact list of local, state and national cycling organisations - cycle awareness tips for motorists (road safety) Distribute this information via Council's Website, Eco Van, Council Libraries, Council Dee Why Civic Centre and interested Local Bike Shops	SP	High
5	Road Safety Program Include road safety and cycle awareness when developing Road Safety Programs	C&SS	High
6	Marketing Campaign Develop a strategy to promote key messages that address perceived barriers and encourage greater up take of cycling in Warringah, eg: Cycling is safer than you think	C&SS	Medium

Action No.	Recommended Actions	Responsibility	Priority
	- You don't need to be super fit to cycle - Improve road user behaviour/safety/awareness of cyclists - Benefits of choosing to cycle; health improvements, greenhouse gas and petrol savings, relief from congestion and parking problems. - Use your bike for short trips instead of the car		
7	Support organisers of local and other cycling events Support organisers of local and other cycling events, as these act as an entry point for new cyclists (Refer to Appendix 6 for more details).	C&SS	Medium - Ongoing
8	Bicycle Education Programs Develop a strategy to encourage community and workplace bicycle education programs to improve cyclists' knowledge, skills, confidence and safe cycling behaviour.	C&SS	Medium
9	NSW Ride2School Program Support organisers of the NSW Ride2School program by encouraging local schools, especially those near improved cycling facilities to participate in the program annually.	C&SS	High ongoing in March each year
10	Cycle Tourism Investigate the potential for cycle tourism in Warringah	S&P	Low
Warringah Leading by Example Actions			
11	Warringah Council Workplace Travel Plan Develop a 'Workplace Travel Plan' for Warringah to encourage healthy alternatives to the car such as walking, cycling and catching public transport A good example to follow is the Northern Beaches Health Service Workplace Travel Plan 2009 – 2012.	To be determined	High

Action No.	Recommended Actions	Responsibility	Priority
12	Warringah Council Bike Fleet Implement the Warringah Council Bike Fleet for employees to use during work hours.	CS	High
13	Website Cycling Details Provide visitor cycle parking location details on Council's Website 'Contact Us' page.	SP	High
14	Improve Warringah Council End of Trip Facilities Provide adequate end of trip facilities (bicycle parking, lockers, showers and change rooms). Refer to the case study of Brisbane City Council end of trip facility provisions located in Appendix 6.	P&CD	High

Warringah Council Policy and Procedural Actions

15	GIS Bike Plan Data Updates Any Council Department that constructs a bicycle facilities outlined below has a responsibility to report its details to Council's GIS Manager for entry into the Warringah Bicycle Network Database. This data will serve to keep a record of Council assets and will also aid future reviews of the Warringah Bike Plan. • Shared path facilities • Mixed use facilities • Bicycle lane and bicycle shoulder lane facilities • Directional signage • Bicycle parking facilities • Bicycle ramp facilities • Cycle box facilities • Lighting of bicycle routes Database details should be provided where applicable as follows: • Date of construction • Type of facility • Location of the facility • Distance the facility covers • Content of bicycle directional signage • Type of bicycle parking facility and amount of	P&CD RT&W PR&F WAC Asset Information Department	High - Ongoing
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Action No.	Recommended Actions	Responsibility	Priority
	spaces provided Council's Asset Information Department needs to develop procedures to formalise this process.		
16	Warringah Traffic Committee Invite an active member of a local bicycle user group to attend Warringah Traffic Committee Meetings. This person will serve to represent the interests of cyclists in Warringah for all road works and notably provide feedback on infrastructure works proposed along bicycle routes identified in the Warringah Bike Plan 2010-2015	RT&W	High - Ongoing
17	Warringah Traffic Committee Provide a copy of the final Warringah Bike Plan 2010-2015 to the Warringah Traffic Committee for consideration of all decisions relating to the Warringah bicycle route network.	RT&W	High - Ongoing
18	Super Tuesday Bike Counts Participate in Super Tuesday Bike Counts to develop Warringah Council data on how use of cycling infrastructure varies over time, pre and post construction. This data will provide supportive evidence for future funding of bicycle infrastructure and inform future prioritisation of the network. Council should participate in Super Tuesday Bike Counts at least every 2 years starting in 2010, then 2012, 2014 etc	SP & RTW	High - Ongoing
19	Warringah Strategic Community Plan Council Departments should review their relevant Warringah Bike Plan 2010-2015 Actions annually (in November each year) and consider the inclusion of Bike Plan Actions into their Strategic Community Plan – Key initiatives and capital works programs for the following year.	All relevant Council Departments: CS; C&SS; M&C; NEU; P&CD; PR&F; R,T&W; S&P; SP; WAC	High - ongoing
20	Lobby RTA regarding Cyclist Safety Hotspots Continue to lobby the RTA to improve cyclist safety hotspots as identified in the bike plan network priorities for RTA Routes (refer to relevant section of this document for more details).	RTW	High - Ongoing
21	Apply for funding grants That Council Departments consider annual applications for bicycle funding grants in accordance with the information outlined in the funding section of this document.	RT&W NEU PR&F Council's Road Safety Officer	High - Ongoing

Action No.	Recommended Actions	Responsibility	Priority
22	Asset Management Bicycle Routes, Parking and Directional Signage should be included in Council's asset management program in a similar manner to roads, to ensure a safe and useable riding surface and to avoid the increasing cost of maintenance or reconstruction as a result of degradation of the asset.	P&CD	High
23	Public Exhibition of the Draft Warringah Bike Plan 2010-2015 - Place the draft bike plan on public exhibition and produce final draft for adoption by Council - Organise public consultation events - Provide website access to draft bike plan	SP	High
24	Development Control Plan (DCP) Determine appropriate DCP standards for end of trip facilities for various land uses in Warringah and integrate these into the future Warringah Council DCP where appropriate.	SP	High
25	Future 'Indirect Contributions Plan 2011/2012 This plan will replace the current S94A plan. It is recommended that cycling facilities (bicycle routes and bicycle parking provisions) as prioritised in the schedule of works for the Warringah Bike Plan 2010-2015 are considered for inclusion in the new Indirect Contributions Plan 2011/2012.	SP	High
26	Develop and maintain a public improvements and suggestion register via Council's cycling webpage The <i>NSW Bicycle Guidelines</i> recommend a system for the reporting of defects on the bike facilities, such as an online hazard reporting form that can be entered into Council's maintenance program. Council should investigate developing a similar reporting system.	RT&W	Medium
27	Mountain Bike Strategy Determine Council's role and involvement in the provision of mountain bike riding opportunities through the completion of research and consultative activities as outlined in the 2009 Recreation Strategy	S&P	Medium
28	Review of the Bike Plan	RT&W	Low (Year 2016)
29	Warringah Design Guidelines – Public Spaces This document provides guidelines as to how council-funded and built street furniture, signs and other objects	SP	Low

Action No.	Recommended Actions	Responsibility	Priority
	are finished. This means it covers the design, colours, paving surfaces, signs and ground coverings. The document does not mention bikes or bike use. However, bicycle infrastructure should be considered for inclusion in the document as bike parking facilities, storage, signage and bollards are an important part of the streetscape. As a result, the document is compatible with the bike plan and would benefit from some amendment to take bike infrastructure into consideration.		
Implementation of Bicycle Infrastructure Actions			
30	Construct Bicycle Network Implementation Priorities Construct Bicycle Network Implementation Priorities in accordance with responsibilities, as tabled in the relevant section of the Warringah Bike Plan Background Document. For more detail of what is required for the construction of each route refer to the detailed works spreadsheet available in Appendix 8.	R,T&W PR&F NEU WAC P&CD	High - Ongoing
31	Construct Bicycle Parking Facilities Construct Bicycle Parking in order of priority and in accordance with responsibilities as tabled in the Bicycle Parking Strategy of the Warringah Bike Plan Background Document.	R,T&W WAC P&CD	High - Ongoing
32	Implementation of the Warringah Bicycle Network Although a number of routes identified in the Warringah Bicycle network are currently not prioritised, unprioritised routes should still be considered for development as roads, footpaths, parks, reserves and foreshores are upgraded via other priorities of Council. It is the responsibility of various departments in Council who construct these works to check whether they are located along a bicycle route as identified by the Warringah Bicycle Network Map and Appendix 8: Detailed works spreadsheet and design works accordingly, taking the bike plan into account.	R,T&W PR&F NEU P&CD	High - Ongoing
33	Drainage Grates Council replace any drainage grates, especially those located along bike routes that are not cycle safe with bike friendly grates.	RT&W	High-ongoing
34	John Fisher Park & Abbott Road Land POM Review the shared path network and bicycle parking provisions as outlined in the John Fisher Park & Abbott Road Land Plan of Management and assess if these are compatible with the bicycle facilities proposed in the	PR&F	High

Action No.	Recommended Actions	Responsibility	Priority
	Warringah Bike Plan 2010-2015. Amend the plan of management if required to be consistent with the bike plan.		
35	Berry Reserve & Adjoining Foreshores POM Assess whether this POM is compatible with the Warringah Bicycle Network facilities proposed for Berry Reserve in the Warringah Bike Plan 2010-2015 and if required amend the POM to include these provisions as follows: • Directional signage at key locations be provided to inform users of the off-road shared path link from Narrabeen to Dee Why Beach via Cromer, and • Provision of shared path signage, in accordance with the Warringah Bike Plan 2010-2015 signage requirements. For example, provision of a divider line in the centre of the path so that pedestrians and cyclist keep to the left unless overtaking. This will encourage safe use of the path, reducing user conflicts between pedestrian and cyclists • Investigation of the provision of lighting along the shared path route to minimise collisions between pedestrians and cyclists at night, taking environmental considerations into account	PR&F	High
36	Allenby Park POM Investigate the potential for a new off-road bicycle/pedestrian track to be formalised through Allenby Park, providing a key link from Allambie Heights to Warringah Mall, including directional signage. If investigations deem this route plausible then the Allenby Park Plan of Management should be updated accordingly.	PR&F	High
37	Urban Bushland Reserve POM Assess whether this POM is compatible with the bike plans proposed bike route following the existing path in Condover Reserve and if required, amend the Urban Bushland Reserve POM to permit construction of this route.	PR&F	High
38	District Parks POM Assess whether this POM is compatible with the bike plans proposal for the provision of a 'learn to ride' facility at Passmore Reserve or Nolans Reserve (possibly where the old netball courts are located). If required, include this in the District Parks Plan of Management. Also recognise bicycle routes proposed to run through and in proximity to the district parks as identified in the Warringah Bike Plan 2010-2015 in the District Parks Plan	PR&F	Medium

Action No.	Recommended Actions	Responsibility	Priority
	of Management if required.		
39	Dee Why Town Centre Investigate the planning proposals for the Dee Why Town Centre. Where possible integrate bicycle infrastructure provisions into all future development works in accordance with the Warringah Bike Plan 2010-2015.	SP	Low
40	POM for Lionel Watts Park and Frenchs Forest Showground Assess whether the relevant POM is compatible with the potential for a shared path loop around Frenchs Forest Showground and an off-road shared path link from the showground to Glenrose shops as proposed by the Warringah Bike Plan 2010-2015. If required, integrate this bicycle network into the relevant plan of management.	PR&F	Low
41	Lobby for bikes on Buses	SP	Low

MONITORING AND REVIEW

The following key practices will enable monitoring and review of the Warringah Bike Plan 2010-2015

1. Council's Strategic Community Plan

A key action of this bike plan is for Council Departments to review their relevant Warringah Bike Plan 2010-2015 Action responsibilities annually (in November each year) and consider their inclusion into the Strategic Community Plan – Key initiatives and capital works programs for the following year.

2. Super Tuesday Bike Counts

Super Tuesday (see www.bv.com.au/bike-futures/30600) is an annual visual count of cyclists.

The Super Tuesday project aims to establish a reliable annual benchmark for bicycle commuting to allow those providing for bike riding to base their judgments on accurate, relevant and up to date information.

Super Tuesday 2010 is held annually on the first Tuesday in March. Warringah Council has committed to the 2010 count together with North Sydney, Parramatta, Randwick, Willoughby and Woollahra Councils. Twenty two locations throughout the council area have been nominated for the count.

Participation in Super Tuesday Bike Counts will enable Warringah Council to compile and compare cycling data over the years, to develop an understanding of how use of bicycle facilities in Warringah vary over time, especially pre and post construction. This data will provide supportive evidence for future funding of bicycle infrastructure and help inform future prioritisation of the network.

It is recommended that Warringah Council participate in Super Tuesday counts every two years to develop this data.

3. Warringah Traffic Committee

The role of the Warringah Traffic Committee and its nominated bicycle user group representative will be to ensure that works proposed in Warringah along bicycle routes identified on the Warringah Bicycle Network Map are in accordance with the Warringah Bicycle Plan and current best practice cycling guidelines. The Warringah Traffic Committee will be provided with a copy of the Warringah Bike Plan 2010-2015 for their consideration.

4. Maintaining up to date GIS Data

A key action of the bike plan is for Council to develop a process that ensures Council's GIS bike plan data (Bicycle Routes, Bicycle Parking and Bicycle Directional Signage) is updated correctly and consistently following construction of bicycle infrastructure. This data will serve to keep a record of Council assets and will also aid speedy future reviews of the Warringah Bike Plan.

5. Hazard Reporting

The *NSW Bicycle Guidelines* recommends a system for the reporting of defects on the bike facilities, such as an online hazard reporting form that can be entered into Council's maintenance program. A key action of the bike plan is for Council to develop a similar reporting system.

6. Bike Plan Review

It is anticipated that the Bike Plan will be reviewed after five years of operation, i.e. in 2016 and replaced with a revised Bike Plan prior to 2020.

Amongst other things, the review should contemplate the following issues:

- if GIS mapping data is up to date (has it recorded completed bicycle networks, bicycle parking and directional signage locations)
- changes in cycling behaviour, needs or relevant legislation that may need to be integrated into the bike plan
- any new funding sources that may be available to Council
- whether implementation priorities of the bicycle network are still relevant based on research, community consultation and data provided through Super Tuesday Bike Counts
- determine whether cycling has increased in Warringah through analysis of performance indicators such as accident savings, Super Tuesday Bicycle Counts and ABS statistics. This is critical to ensure future funding for cycling and to continually assess the potential for more bicycle facilities.
- effectiveness of bicycle education and promotion strategy actions and whether these need to be updated
- whether community cycling maps and council cycling webpage is relevant and up to date
- if Council leading by example as a 'best practice cycling employer'
- what Warringah Bike Plan Actions have been implemented and whether these actions need to be updated

GLOSSARY

The following definitions and diagrams are extracted from NSW Road Rules, NSW Bicycle Guidelines and the Draft North East Subregional Strategy.

Please note that for the purposes of this Bike Plan, the words **bicycle**, **bike** and **cycle** are interchangeable.

bicycle (RR) means a vehicle with 2 or more wheels that is built to be propelled by human power through a belt, chain or gears (whether or not it has an auxiliary motor), and:

- (a) includes a pedicab, penny-farthing and tricycle, but
- (b) does not include a wheelchair, wheeled recreational device, wheeled toy, or any vehicle with an auxiliary motor capable of generating a power output over 200 watts (whether or not the motor is operating).

bicycle facility (BG) means a public facility especially constructed for bicycle traffic. This term has broad use and can refer to any part of *bicycle route*, *bicycle path*, *bicycle lane*, associated signage or parking equipment

bicycle lane (RR) is a marked lane, or the part of a marked lane:

- (a) beginning at a *bicycle lane sign* applying to the lane, and
- (b) ending at the nearest of the following:
 - (i) an *end bicycle lane sign* applying to the lane,
 - (ii) an intersection (unless the lane is at the unbroken side of the continuing road at a T-intersection or continued across the intersection by broken lines),
 - (iii) if the road ends at a dead end—the end of the road.

Bicycle lane sign



End bicycle lane sign



bicycle network (BG) means a defined set of bicycle routes which make it possible to travel around a region by bicycle in a safe and connected manner. In bicycle networks there is a three level hierarchy consisting of:

- regional routes – provide the quickest and most direct means of travelling between regional centres (the road hierarchy equivalent is the State road). These routes offer the highest priority bicycle travel through an area with few delays and a high level of consistency and quality of construction. *[Note these should not be confused with regional routes identified under Action for Bikes 2010 where the RTA is responsible for 100% funding.]*
- local routes – link regional routes to local mixed traffic streets and provide a collector distributor function in the network. These routes also provide radial access to major subregional centres and parallel alternative access to regional routes.

- mixed traffic streets – provide door to door access to places where people live. They are usually residential low-volume, low-speed streets where bicycles operate within the traffic stream and dictate the traffic flow.

bicycle path (RR) means a length of path beginning at a *bicycle path sign* or bicycle path road marking, and ending at the nearest of the following:

- an *end bicycle path sign* or end bicycle path road marking,
- a *separated footpath sign* or separated footpath road marking,
- a road (except a road related area),
- the end of the path. *RR*

bicycle path road marking (RR) means a road marking on a path, consisting of a bicycle symbol, the words “bicycles only”, or both the bicycle symbol and the word “only”.

bicycle rider (BG) means (for the purposes of the NSW Bicycle Guidelines) a person who is riding a bicycle.

bicycle route (BG) means any marked route which forms part of a *bicycle network*. The route may utilise different types of *bicycle facilities* and may be *on-road (bicycle lanes and bicycle shoulder lanes)* or *off-road (bicycle paths, separated paths and shared paths)* in the *road related area* paralleling roads or through parks and reserves

bicycle storage area (RR) means:

- an area of a road before an intersection with traffic lights:
 - that has painted on it one or more bicycle symbols, and
 - that is between two parallel stop lines, regardless of whether the lines are of equal length, and
 - that opens out from a bicycle lane,
 but does not include any stop line, or
- if another law of this jurisdiction defines a bicycle storage area, that area as defined under that law.

bicycle symbol (RR) means a symbol consisting of a picture of a bicycle.

end bicycle path road marking (RR) means a bicycle path road marking with the word “end”.

footpath, (RR) except in rule 13 (1) [where road related area is defined], means an area open to the public that is designated for, or has as one of its main uses, use by pedestrians

major centre (SS) means a major shopping and business centre serving immediate subregional residential population usually with a full scale shopping mall, council offices, taller office and residential buildings, central community facilities and a minimum of 8,000 jobs. The radius is 1km.

mixed traffic streets (BG) provide door to door access to places where people live. They are usually residential low-volume, low-speed streets where bicycles operate within the traffic stream and dictate the traffic flow.

neighbourhood centre (SS) means one or a small cluster of shops and services. A neighbourhood centre contains between 150 and 900 dwellings. The radius is 150m.

off-road (BG) means a *bicycle path* or *shared path* located on a *road-related area* paralleling a road, or through parks or reserves or within public transport corridors and other public or private land not open to motor vehicle traffic.

on-road (BG) means a *bicycle facility* that forms part of the road such as a *bicycle lane* or a *shoulder* shared with parked vehicles

Regional RTA Bicycle Routes referred to in this document mean a Regional RTA Bicycle Route as identified in *RTA Action for Bikes 2010*

road (RR):

- (1) A **road** is an area that is open to or used by the public and is developed for, or has as one of its main uses, the driving or riding of motor vehicles.

Note. Motor vehicle is defined in the Dictionary.

- (2) However, unless the contrary intention appears, a reference in these Rules (except in this Division) to a *road* does not include a reference to:
 - (a) an area so far as the area is declared, under another law of this jurisdiction, not to be a road for these Rules, or
 - (b) any shoulder of the road.

road marking (RR) means a word, figure, symbol, mark, line, raised marker or stud, or something else, on the surface of a road to direct or warn traffic, but does not include a painted island.

road related area (RR):

- (1) A *road related area* is any of the following:
 - (a) an area that divides a road,
 - (b) a footpath or nature strip adjacent to a road,
 - (c) an area that is not a road and that is open to the public and designated for use by cyclists or animals,
 - (d) an area that is not a road and that is open to or used by the public for driving, riding or parking vehicles.

Note. Vehicle is defined in rule 15.

- (2) However, unless the contrary intention appears, a reference in these Rules (except in this Division) to a *road related area* includes a reference to:
 - (a) an area so far as the area is declared, under another law of this jurisdiction, to be a road related area for these Rules, or
 - (b) any shoulder of a road, or
 - (c) any other area that is a footpath or nature strip as defined in the Dictionary,but does not include a reference to an area so far as the area is declared, under another law of this jurisdiction, not to be a road related area for these Rules.

separated footpath (RR) means a length of footpath beginning at a *separated footpath sign* or separated footpath road marking, and ending at the nearest of the following:

- (a) an *end separated footpath sign* or end separated footpath road marking,
- (b) a *bicycle path sign* or bicycle path road marking,

- (c) a *no bicycles sign* or no bicycles road marking,
- (d) a road (except a road related area),
- (e) the end of the footpath.

separated footpath road marking (RR) means a road marking on a footpath consisting of a pedestrian symbol and a bicycle symbol side by side, with or without the word “only”.

Bicycle path sign



Separated footpath sign



End bicycle path sign



End separated footpath sign



shared path (RR) is an area open to the public (except a separated footpath) that is designated for, or has as one of its main uses, use by both the riders of bicycles and pedestrians, and includes a length of path for use by both bicycles and pedestrians beginning at a *shared path sign* or shared path road marking and ending at the nearest of the following:

- (a) an *end shared path sign* or end shared path road marking,
- (b) a *no bicycles sign* or no bicycles road marking,
- (c) a *bicycle path sign* or bicycle path road marking,
- (d) a road (except a road related area),

(e) the end of the path.

Shared path sign



End shared path sign



No bicycles sign



Bicycle path sign



shoulder (RR) of the road includes any part of the road that is not designed to be used by motor vehicles in travelling along the road, and includes:

- (a) for a kerbed road—any part of the kerb, and
- (b) for a sealed road—any unsealed part of the road, and any sealed part of the road outside an edge line on the road,

but does not include a bicycle path, footpath or shared path.

small village (SS) means a small strip of shops and adjacent residential area within a 5 to 10 minute walk. A small village contains between 800 and 2,700 dwellings. The radius is 400m.

transport node in this report refers to the location of a mode of public transport (in Warringah LGA these are all bus stops)

vehicle (RR) includes:

- (a) a motor vehicle, trailer and tram, and
- (b) a bicycle, and
- (c) an animal-drawn vehicle, and an animal that is being ridden or drawing a vehicle, and
- (d) a combination, and
- (e) a motorised wheelchair that can travel at over 10 kilometres per hour (on level ground),

but does not include another kind of wheelchair, a train, or a wheeled recreational device or wheeled toy. RR

village (SS) means a strip of shops and surrounding residential area within a 5 to 10 minute walk contains a small supermarket, hairdresser, take-away food shops. A village contains between 2,100 and 5,500 dwellings. The radius is 600m.

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APPENDICES

Appendix 1: Consultation Spreadsheet

WARRINGAH BIKE PLAN: PUBLIC CONSULTATION				
Consultation	Date / Time	Location	Who was invited?	Reason for Workshop
Warringah Council: Technical Stakeholder Workshop	Tuesday, 9 December 2008 from 10:30am-12 noon	Guringai Room, Level 2, Warringah Council	• RTA • PCAL • DECC • Ministry of Transport • NSW Department of Planning • Tourism NSW • NSW Department of Health • Pittwater Council • Manly Council • Ku-ring-gai Council • Willoughby Council • SHOROC • Australian Bicycle Council • Bicycle NSW • Northern Beaches Bikers • ManMosBug • Bike North • Warringah Traffic Committee Representative • State Transit Authority • Local High Schools and Primary Schools • Warringah Council, Strategy and Policy • Warringah Council, Roads Traffic and Waste • Warringah Council, Roads Safety and Education Officer • Warringah Council, Parks Reserves and Foreshores • Warringah Council Natural Environment	Preliminary presentation and workshop on the Warringah Bike Plan Review
Warringah Council: Interested Stakeholder Workshop	Wednesday, 10 December 2008 from 2:30pm - 4pm	Guringai Room, Level 2, Warringah Council	A team of interested Warringah Council employees advertised internally.	Preliminary presentation and workshop on the Warringah Bike Plan Review
Warringah Council and GTA Consultants: Bike Plan Audit	Thursday, 5 February 2009, 6.30pm - 8.30pm	Guringai Room, Level 2, Warringah Council	• Pittwater Council • Manly Council • Willoughby Council • SHOROC • Australian Bicycle Council	Workshop for stakeholders to inform GTA and Council about the key issues stakeholders believe need to be addressed with regards to bicycle facilities in the Warringah LGA.

WARRINGAH BIKE PLAN: PUBLIC CONSULTATION				
Consultation	Date / Time	Location	Who was invited?	Reason for Workshop
Stakeholder Workshop No.1			• Bicycle NSW • Northern Beaches Bikers • Bike North • ManMosBUG • Warringah Traffic Committee • State Transit Authority of NSW • Warringah Council • GTA Consultants • Bicycle user group	
Warringah Council / RTA / PB Consultants: Sub-Regional Bicycle Planning study for the Dee Why and Brookvale. Workshop No.1	Tuesday, 24 February 2009, 4pm-5.30pm	Flannel Flower Room, Warringah Council	• Pittwater Council • Manly Council • Willoughby Council • SHOROC • Australian Bicycle Council • Bicycle NSW • Northern Beaches Bikers • Bike North • ManMosBUG • Warringah Traffic Committee • State Transit Authority of NSW • Warringah Council • GTA Consultants • NSW Department of Environment • Bicycle user group • Warringah Mall • Manly Bike Tours • Surf Life Saving Clubs • Local Scouts Clubs	The purpose of the workshop is to ID current cycling infrastructure and programs, and key barriers and opportunities to increase cycling.
Warringah Council and GTA Consultants: Bike Plan Audit Stakeholder Workshop No.2	Tuesday, 24 February 2009, 6pm–7pm	Flannel Flower Room, Warringah Council	• Pittwater Council • Manly Council • Willoughby Council • SHOROC • Australian Bicycle Council • Bicycle NSW • Northern Beaches Bikers	Stakeholder Meeting to present the following information: - Updated map of existing bicycle network - Results of route audits - Summary of community issues and feedback - First draft of the recommended future network Seeking feedback on the material presented so that

WARRINGAH BIKE PLAN: PUBLIC CONSULTATION				
Consultation	Date / Time	Location	Who was invited?	Reason for Workshop
			• Bike North • ManMosBUG • Warringah Traffic Committee • State Transit Authority of NSW • Warringah Council • GTA Consultants • Bicycle user group	we may complete our draft reporting by early March.
Warringah Council / RTA / PB Consultants: Sub-Regional Bicycle Planning study for the Dee Why and Brookvale. Workshop No.2	Thursday, 23 April 2009, 4.15pm-6.00pm	Banksia/Flannel Flower Rooms (combined) Warringah Council offices, located at 725 Pittwater Road, Dee Why	• Pittwater Council • Manly Council • Willoughby Council • SHOROC • Australian Bicycle Council • Bicycle NSW • Northern Beaches Bikers • Bike North • ManMosBUG • Warringah Traffic Committee • State Transit Authority of NSW • Warringah Council • GTA Consultants • NSW Department of Environment • Bicycle user group • Warringah Mall • Manly Bike Tours • Surf Life Saving Clubs • Local Scouts Clubs	The purpose of the workshop is to prioritise potential cycling encouragement programs based on available funding and potential to increase cycling in the subregion.
Warringah Bike Plan Questionnaire	11 April 2009 until 19 May 2009	Available for completion on Council's website, bike shops, libraries, Council Chambers and 2000 random post. Advertised in	1012 responses received to the questionnaire from the general public	Refer to relevant sections of this plan for questionnaire details

WARRINGAH BIKE PLAN: PUBLIC CONSULTATION				
Consultation	Date / Time	Location	Who was invited?	Reason for Workshop
		Manly Daily		
Request for feedback from Internal Council Departments on final GTA Bike Audit	June 2009		Internal Council Departments Representatives	
Councillor Briefing on Bike Plan	1 September 2009	Council Chambers, 7-8pm	Mayor and all Councillors	Briefing Councillors on progress of the bike plan
Warringah Council Workshop (a)	16 December 2009 2pm-3pm	Walamai Room, Warringah Council	• RTA • PCAL - Premiers Council For Active Living • DECC • Ministry of Transport • Department of Planning • Tourism NSW • Department of Health • DSR • Pittwater Council • Manly Council • Ku-ring-gai Council • Willoughby Council • SHOROC • Warringah Traffic Committee • State Transit Authority of NSW • Warringah Council	Preliminary Draft Schedule of Works and Bicycle Network Map – modified from GTA Audit following bike plan questionnaire and further analysis
Warringah Council Workshop (b)	16 December 2009 3.30pm-4.30pm		• Australian Bicycle Council • Northern Beaches Bikers • Bike North • ManMosBUG • Warringah Mall Management • Warringah Council Mayor and Councillors	Preliminary Draft Schedule of Works and Bicycle Network Map – modified from GTA Audit following bike plan questionnaire and further analysis

WARRINGAH BIKE PLAN: PUBLIC CONSULTATION				
Consultation	Date / Time	Location	Who was invited?	Reason for Workshop
Warringah Council Workshop (c)	17 December 2009 10am-11am		Internal Council Department Representatives	Preliminary Draft Schedule of Works and Bicycle Network Map – modified from GTA Audit following bike plan questionnaire and further analysis
Warringah Council Workshop (d)	22 December 2009 10am-11am		Internal Council Department Representatives	Preliminary Draft Schedule of Works and Bicycle Network Map – modified from GTA Audit following bike plan questionnaire and further analysis
Council Report	February 2010			
Public Exhibition	February – March 2010		All previously consulted departments and interest groups and the general public	Public Exhibition of the Draft Warringah Bike Plan

Appendix 2: Bike Plan Questionnaire

Warringah Bike Plan Questionnaire

Whether or not you ride a bike, your comments are important.

Warringah Council is reviewing its Bike Plan. As a local Warringah resident, your input will help ensure that the new Bike Plan responds to the needs of local people and the environment.

You can win some great prizes donated by local bike shops. All residents who complete the questionnaire will go into the draw on 3 June 2009 to win:

- BMX bike and helmet from Dee Why Bike Hub
- BMX bike from Bike Addiction, North Manly
- Bike hire to the value of \$100 from Manly Bike Tours
- Reflective safety bands from Pedals Plus Mona Vale
- Drink bottles from Warringah Council



Warringah Bike Plan Questionnaire

Please tick relevant boxes

1. Do you own a bike?

- ☐ Yes ☐ No

2. How many people in your household own a bike (including yourself)?

- ☐ 0 ☐ 1 ☐ 2-3 ☐ 4 +

3. How often do you ride a bike?

- ☐ Every day
☐ Most days
☐ At least once a week
☐ At least once a month
☐ More than once a month
☐ Never

4. What restricts or discourages you from riding a bike? (You can tick more than one)

- ☐ A disability
☐ Low levels of health and/or fitness
☐ Confidence on a bike
☐ Lack of interest
☐ Hills
☐ Unable to ride with children
☐ Convenience of other transport
☐ Combination of trips you need to do during the day
☐ No time to ride a bike
☐ Safety issues/concerns
☐ Lack of designated bike routes to get from A to B
☐ Lack of end of trip facilities (showers, change rooms, clothes lockers)
☐ Lack of bicycle parking
☐ Other? (Please identify below)
-
-
-

5. What would encourage you to cycle more? (You can tick more than one)

- ☐ If I owned a bike
☐ To improve personal health and fitness
☐ If I had more time to ride a bike
☐ If I was more confident in my bike riding skills
☐ If it was safer to ride a bike
☐ If it was more convenient
☐ If the traffic was slower
☐ If there was less traffic
☐ If there were local bike riding events I could participate in
☐ If there were noticeable cost savings from riding a bike
☐ If I lived closer to where I worked or went to school
☐ If I knew about existing bicycle routes and facilities

- ☐ If there were bicycle parking facilities in handy locations
- ☐ If there were better end of trip facilities – showers, clothes lockers, change rooms
- ☐ Other? (Please identify below)

6. Do you ride mostly for recreation, commuting or mountain bike/off-road bike riding?

- ☐ Mountain/Trail Bike Riding (Serious dirt bike riding)
- ☐ Recreational (Riding for fun and fitness)
- ☐ Commuter (To get from A to B)

**Please Note: Mountain bike / off-road bike riding is not covered by this Bike Plan Review*

7. Thinking about bike riding in Warringah, how satisfied are you with the following aspects of cycling
(5 = highly satisfied down to 1 = highly unsatisfied)

Bike parking availability at work places	1	2	3	4	5	Don't Know
Bike parking space availability in flats, units, townhouses	1	2	3	4	5	Don't Know
Bike parking at sporting and community facilities	1	2	3	4	5	Don't Know
Bike parking at bus stops and Manly ferry	1	2	3	4	5	Don't Know
Bike parking at shopping destinations	1	2	3	4	5	Don't Know
Safety	1	2	3	4	5	Don't Know
Behaviour of motor vehicle drivers	1	2	3	4	5	Don't Know
Bicycle signage	1	2	3	4	5	Don't Know
Road crossings	1	2	3	4	5	Don't Know
Design of traffic management devices for bike riders (roundabouts, outstands, chicanes, traffic lights)	1	2	3	4	5	Don't Know
End of trip clothing locker facilities	1	2	3	4	5	Don't Know
End of trip shower facilities	1	2	3	4	5	Don't Know
Traffic volume	1	2	3	4	5	Don't Know
Space for bikes on main roads (Pittwater Rd, Mona Vale Rd, Forest Way, Wakehurst Pkwy, Warringah Rd)	1	2	3	4	5	Don't Know
Maintenance of main roads	1	2	3	4	5	Don't Know
Motor vehicle traffic speed on main roads	1	2	3	4	5	Don't Know
Space for bikes on local streets	1	2	3	4	5	Don't Know
Maintenance of local streets	1	2	3	4	5	Don't Know
Motor vehicle traffic speed on local streets	1	2	3	4	5	Don't Know
Provision of shared paths (for use by pedestrians and bicycle riders)	1	2	3	4	5	Don't Know
Space for bikes on shared paths	1	2	3	4	5	Don't Know
Maintenance of shared paths	1	2	3	4	5	Don't Know
Behaviour of other shared path bike riders	1	2	3	4	5	Don't Know
Behaviour of shared path pedestrian users	1	2	3	4	5	Don't Know
The current amount of designated bike routes	1	2	3	4	5	Don't Know

8. Do you have comments on any of the above aspects of bike riding? Please outline below.

9. What form of transport do you use most often (car, bike, walking or other) to get to your most frequented destinations and what is the distance travelled in kilometres (one way)?

DESTINATION	DISTANCE IN KILOMETRES TO YOUR DESTINATION (one way)	TYPE OF TRANSPORT USED (Car / Bike / Walking / Other)
Work		
School/TAFE/University		
Leisure		
Sports facilities		
Beach		
Shops		
Bus stop and/or Manly ferry		

10. Thinking about three trips you take most often on a bike, which streets and paths in Warringah do you use? Please provide details of where you are travelling to and from, key street names and suburbs.

(i) Suburb from _____ Suburb to _____

What streets do you use to get there? _____

(ii) Suburb from _____ Suburb to _____

What streets do you use to get there? _____

(iii) Suburb from _____ Suburb to _____

What streets do you use to get there? _____

- II. Please provide details of future desired bike routes or gaps in the network within Warringah (street names/cross streets/suburb).**

Bicycle parking example types:



Bike cage



Bike racks



Individual bike lockers

- 12. Where would you like more bike parking facilities and what type/s?
Please provide specific location details.**

- 13. Are you male or female?**

☐ Male ☐ Female

- 14. What age group do you fall into?**

- ☐ Under 12 years
☐ 12 - 17 years
☐ 18 - 24 years
☐ 25 - 34 years
☐ 35 - 49 years
☐ 50 - 64 years
☐ 65 - 74 years
☐ 75 years and over

- 15. Warringah Council will be conducting further public consultation workshops on the Bike Plan Review. Please indicate:**

- ☐ Yes I would like to be informed of future public consultation workshops
☐ No I would not like to be informed of future public consultation workshops

If you indicated “Yes” please provide your contact details (email and/or telephone contact number) below and we will contact you to inform of the upcoming consultation details.

To go in the draw to win one of two BMX bikes, a helmet, bike hire, reflective band and other great prizes to be drawn on 3 June, please provide your contact details below.

16. What is your postal address (Optional) _____

17. Your name (Optional) _____

18. Your contact email (Optional) _____

19. Your contact telephone number (Optional) _____

Thank you for taking the time to complete this questionnaire.

You can submit your completed questionnaire in the following ways:

POST it to Amber Pedersen, Strategic Planning at

Warringah Council, Civic Centre, 725 Pittwater Road, Dee Why NSW 2099

FAX: 9971 4522

EMAIL: council@warringah.nsw.gov.au

DATE REQUIRED BY: 19 May 2009

This questionnaire is available at Council's website www.warringah.nsw.gov.au, and at local libraries and a number of participating local bike shops. Please encourage those who would be interested in providing input into the Bike Plan Review to complete this questionnaire.

If you would like to speak to someone about the Warringah Bike Plan Review, please call Amber Pedersen from Warringah Council on 9942 2632.



**Warringah
Council**

Appendix 3: Warringah Bike Plan Questionnaire Results

Warringah Bike Plan Questionnaire Responses:

Question 1: Do you own a bike?

Answer	Count	Percent
Yes	919	89.31%
No	110	10.69%
Total	1029	100%

Comment: The survey was completed predominantly by people who own a bike.

Question 2: How many people in your household own a bike (including yourself)?

Answer	Count	Percent
0	75	7.29%
1	187	18.17%
2-3	545	52.96%
4+	222	21.57%
Total	1029	100%

Comment: A large proportion of people surveyed have 2 or more bikes in their household.

Question 3: How often do you ride a bike?

Answer	Count	Percent
Every day	105	10.20%
Most days	292	28.38%
At least once a week	314	30.52%
At least once a month	131	12.73%
More than once a month	64	6.22%
Never	123	11.95%
Total	1029	100%

Comment: 69.1% of people surveyed ride their bike weekly.

It is noted here that the wording of one of the selections is incorrect. The second last point should have said "Less than once a month" not "More than once a month". This has meant a number of people could not adequately answer this question through the selections provided, however given

most people selected that they rode their bike weekly (Every day, Most Days or At least once a week), this error has not had a major impact on the statistical outcome.

Question 4: What restricts or discourages you from riding a bike? (You can tick more than one)

Answer	Count	Percent
A disability	9	0.30%
Low levels of health and/or fitness	36	1.19%
Confidence on a bike	51	1.69%
Lack of interest	32	1.06%
Hills	171	5.67%
Unable to ride with children	129	4.28%
Convenience of other transport	114	3.78%
Combination of trips you need to do during the day	120	3.98%
No time to ride a bike	122	4.05%
Safety issues/concerns	641	21.25%
Lack of designated bike routes to get from A to B	751	24.90%
Lack of end of trip facilities (showers, change rooms, clothes lockers)	236	7.82%
Lack of bicycle parking	304	10.08%
Other? (Please identify below)	300	9.95%
Total	3016	100%

Comment: Lack of designated bike routes to get from A to B and safety concerns comprised a large portion (46.15%) of what restricted or discouraged people from riding. 17.9% of people noted a lack of end of trip facilities such as bike parking, change rooms and clothes lockers are also issues that restricted or discouraged people from riding.

The input from the Question 4 free response option 'Other (Please identify below)' has been colour coded and combined with answers to questions 5, 8 and 11 under summarised sub-headings to avoid double up of analysis and double up of responses to similar feedback.

Question 5: What would encourage you to cycle more? (You can tick more than one)

Answer	Count	Percent
If I owned a bike	57	1.46%
To improve health and/or fitness	229	5.86%
If I had more time to ride a bike	193	4.94%
If I was more confident in my bike riding skills	55	1.41%
If it was safer to ride a bike	711	18.19%
If it was more convenient	190	4.86%

If the traffic was slower	212	5.42%
If there was less traffic	478	12.23%
If there were local bike riding events I could participate in	263	6.73%
If there were noticeable cost savings from riding a bike	45	1.15%
If I lived closer to where I worked or went to school	148	3.79%
If I knew about existing bicycle routes and facilities	471	12.05%
If there were bicycle parking facilities in handy locations	338	8.65%
If there were better end of trip facilities ? showers, clothes lockers, change rooms	229	5.86%
Other? (Please identify below)	290	7.42%
Total	3909	100%

Comment: Similar to the response for the previous Question 4, the percentage of answers to this question highlights the need for safer cycling facilities and the need for more bicycle routes. Publicly available information about where they exist is also required.

The input from the Question 5 free response option 'Other (Please identify below)' has been colour coded and combined with questions 4, 8 and 11 under summarised sub-headings to avoid double up of analysis and double up of responses to similar feedback.

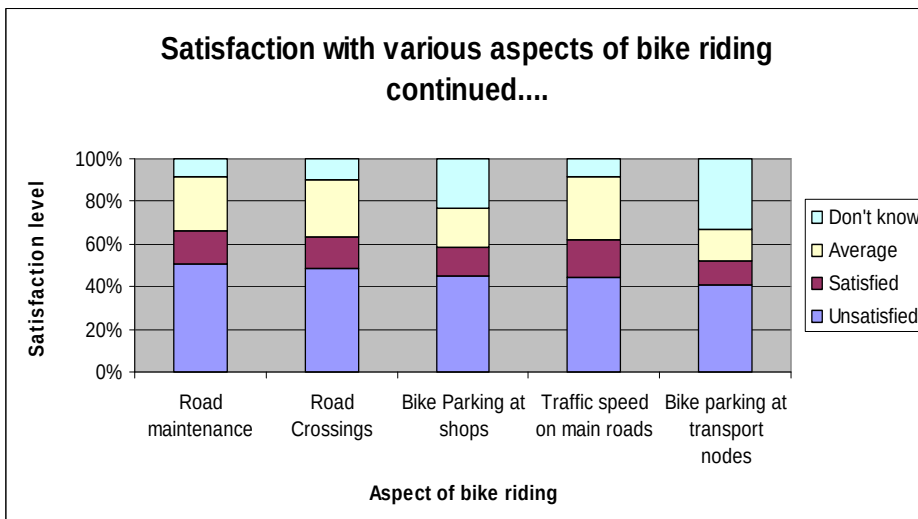
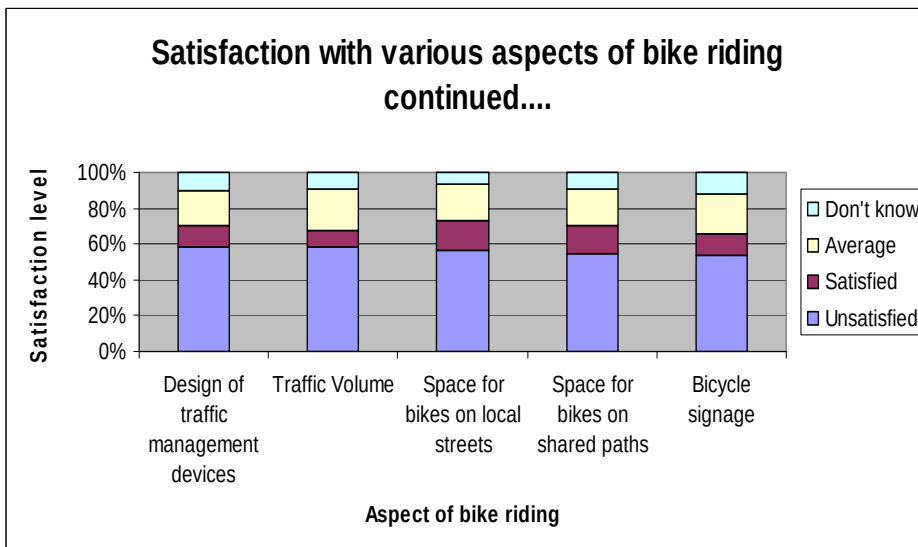
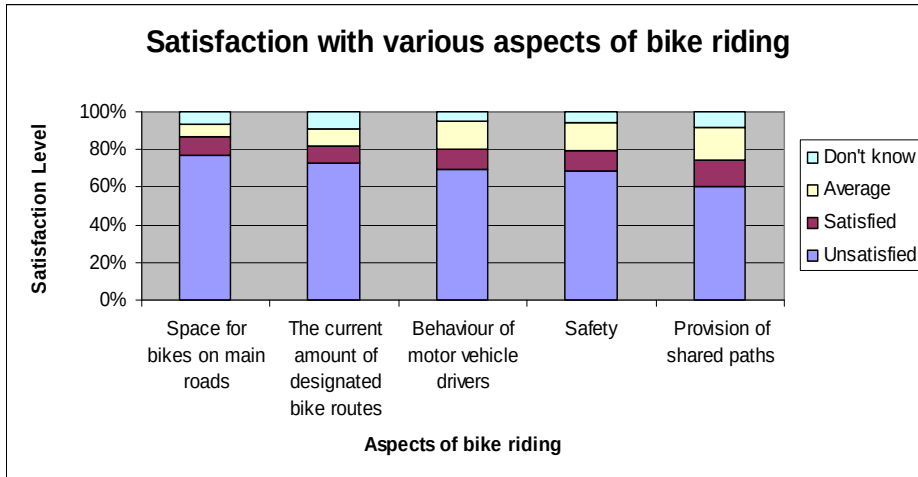
Question 6: Do you ride mostly for recreation, commuting or mountain bike/off-road bike riding?

Answer	Count	Percent
Mountain/Trail Bike Riding (Serious dirt bike riding)	208	17.72%
Recreation (Riding for fun and fitness)	672	57.24%
Commuter (To get from A to B)	294	25.04%
Total	1174	100%

Comment: This statistic is interesting when considering how residents currently utilise cycling facilities in Warringah. It is noted that questionnaire recipients could only indicate their highest use type. Therefore, a cyclist could cycle mainly for recreation but also to a lesser degree for commuting and mountain bike riding but this is not reflected in the results. Questionnaire results reveal an opportunity to convert recreational cyclists into commuter cyclists through improved safety, better network links and more end of trip facilities.

Question 7: Thinking about bike riding in Warringah, how satisfied are you with the following aspects of cycling (5 = highly satisfied down to 1 = highly unsatisfied)

A summary of the results highlighting levels of dissatisfaction with various aspects of bike riding are detailed in the three graphs below in order of dissatisfaction. Following on from these three graphs are the more detailed results.



Bike parking availability at work places			Bike parking at bus stops and Manly ferry		
Answer	Count	Percent	Answer	Count	Percent
1	112	10.88%	1	195	18.95%
2	158	15.35%	2	224	21.77%
3	130	12.63%	3	152	14.77%
4	93	9.04%	4	74	7.19%
5	66	6.41%	5	41	3.98%
Don't Know	470	45.68%	Don't Know	343	33.33%
Total	1029	100%	Total	1029	100%
Comment: 45.68% people said they didn't know. 26.23% people noted they were highly unsatisfied / unsatisfied. 12.63% noted they were neutral 15.45% noted they were highly satisfied / satisfied Accordingly results indicate that bike parking at work places is not high on the public agenda or there are currently minimal facilities provided to realise availability.			Comment: 40.72% people noted they were highly unsatisfied / unsatisfied. 33.33% people said they didn't know. 14.77% noted they were neutral 11.17% noted they were highly satisfied / satisfied Accordingly results indicate that a relatively large proportion of people who answered the questionnaire are not satisfied with bike parking provisions at bus stops and Manly ferry		
Bike parking at sporting and community facilities			Bike parking space availability in flats, units, townhouses		
Answer	Count	Percent	Answer	Count	Percent
1	125	12.15%	1	176	17.10%
2	238	23.13%	2	170	16.52%
3	221	21.48%	3	125	12.15%
4	87	8.45%	4	52	5.05%
5	32	3.11%	5	37	3.60%
Don't Know	326	31.68%	Don't Know	469	45.58%
Total	1029	100%	Total	1029	100%
Comment: 35.28% people noted they were highly unsatisfied / unsatisfied. 31.68% people said they didn't know. 21.48% noted they were neutral 11.56% noted they were highly satisfied / satisfied Bike parking at sporting and communities is slightly less of a priority compared to bike parking at public transport locations			Comment: 57.73% people said they didn't know or were neutral to this aspect of bike riding. 33.63% people noted they were highly unsatisfied / unsatisfied. 8.65% noted they were highly satisfied / satisfied More than half of those surveyed did not have an opinion on this issue, yet there was still a relatively large percentage who were unsatisfied with the current provisions		

Bike parking at shopping destinations			Safety		
Answer	Count	Percent	Answer	Count	Percent
1	180	17.49%	1	419	40.72%
2	283	27.50%	2	283	27.50%
3	190	18.46%	3	156	15.16%
4	105	10.20%	4	63	6.12%
5	35	3.40%	5	51	4.96%
Don't Know	236	22.93%	Don't Know	57	5.54%
Total	1029	100%	Total	1029	100%
Comment: 44.99% people noted they were highly unsatisfied / unsatisfied. 22.93% people said they didn't know. 18.46% noted they were neutral 13.60% noted they were highly satisfied / satisfied Accordingly results indicate that a relatively large proportion of people who answered the questionnaire are not satisfied with bike parking provisions at shopping destinations, more so than the provision of bike parking at public transport nodes and sporting and community facilities.			Comment: 68.22% people noted they were highly unsatisfied / unsatisfied. 5.54% people said they didn't know. 15.16% noted they were neutral 11.06% noted they were highly satisfied / satisfied These statistics indicate that safety is a major concern for current and future bike riders.		
Behaviour of motor vehicle drivers			Bicycle signage		
Answer	Count	Percent	Answer	Count	Percent
1	472	45.87%	1	247	24.00%
2	243	23.62%	2	308	29.93%
3	152	14.77%	3	225	21.87%
4	52	5.05%	4	93	9.04%
5	57	5.54%	5	32	3.11%
Don't Know	53	5.15%	Don't Know	124	12.05%
Total	1029	100%	Total	1029	100%
Comment: 69.43% people noted they were highly unsatisfied / unsatisfied. 14.77% noted they were neutral 10.59% noted they were highly satisfied / satisfied 5.15% people said they didn't know. These statistics indicate that the behaviour of motor vehicle drivers is a major concern for			Comment: 53.93% people noted they were highly unsatisfied / unsatisfied. 21.87% noted they were neutral 12.15% noted they were highly satisfied / satisfied 12.05% people said they didn't know. These statistics indicate that more than half of all surveyed had issues with the current provision of		

current and future bike riders.			bicycle signage.		
Road crossings			End of trip clothing locker facilities		
Answer	Count	Percent	Answer	Count	Percent
1	215	20.89%	1	157	15.26%
2	282	27.41%	2	166	16.13%
3	272	26.43%	3	134	13.02%
4	113	10.98%	4	61	5.93%
5	42	4.08%	5	54	5.25%
Don't Know	105	10.20%	Don't Know	457	44.41%
Total	1029	100%	Total	1029	100%
Comment: 48.3% people noted they were highly unsatisfied / unsatisfied. 26.43% noted they were neutral 15.06% noted they were highly satisfied / satisfied 10.2% people said they didn't know. These statistics indicate that nearly half of all surveyed had issues with the current road crossing.			Comment: 31.39% people noted they were highly unsatisfied / unsatisfied. 18.95% noted they were highly satisfied / satisfied 13.02% noted they were neutral 5.25% people said they didn't know. This issues does not appear to be a major concern for a large proportion of those surveyed		

Design of traffic management devices (roundabouts , outstands, chicanes, traffic lights) for bike riders			Space for bikes on main roads (Pittwater Rd, Mona Vale Rd, Forest Way, Wakehurst Pwy and Warringah Rd)		
Answer	Count	Percent	Answer	Count	Percent
1	322	31.29%	1	596	57.92%
2	283	27.50%	2	196	19.05%
3	194	18.85%	3	70	6.80%
4	79	7.68%	4	32	3.11%
5	44	4.28%	5	66	6.41%
Don't Know	107	10.40%	Don't Know	69	6.71%
Total	1029	100%	Total	1029	100%
Comment: 58.79% people noted they were highly unsatisfied / unsatisfied. 18.85% noted they were neutral 11.96% noted they were highly satisfied / satisfied 10.4% people said they didn't know. These statistics indicate that more than half			Comment: 76.97% people noted they were highly unsatisfied / unsatisfied. 9.52% noted they were highly satisfied / satisfied 6.8% noted they were neutral 6.71% people said they didn't know. These statistics indicate that the provision of		

of all surveyed had issues with the current design of traffic management devices for cyclists.			space for bikes on main roads is a major concern for current and future bike riders.		
End of trip shower facilities			Traffic volume		
Answer	Count	Percent	Answer	Count	Percent
1	173	16.81%	1	294	28.57%
2	155	15.06%	2	303	29.45%
3	134	13.02%	3	242	23.52%
4	52	5.05%	4	63	6.12%
5	59	5.73%	5	36	3.50%
Don't Know	456	44.31%	Don't Know	91	8.84%
Total	1029	100%	Total	1029	100%
Comment: 31.87% people noted they were highly unsatisfied / unsatisfied. 13.02% noted they were neutral 10.78% noted they were highly satisfied / satisfied 44.31% people said they didn't know. This issues does not appear to be a major concern for a large proportion of those surveyed			Comment: 58.02% people noted they were highly unsatisfied / unsatisfied. 23.52% noted they were neutral 9.62% noted they were highly satisfied / satisfied 8.84% people said they didn't know. These statistics indicate that more than half of all surveyed had issues with the current traffic volume and associated impact for cyclists.		
Space for bikes on local streets			Maintenance of main roads		
Answer	Count	Percent	Answer	Count	Percent
1	311	30.22%	1	259	25.17%
2	269	26.14%	2	262	25.46%
3	208	20.21%	3	262	25.46%
4	130	12.63%	4	113	10.98%
5	44	4.28%	5	49	4.76%
Don't Know	67	6.51%	Don't Know	84	8.16%
Total	1029	100%	Total	1029	100%
Comment: 56.36% people noted they were highly unsatisfied / unsatisfied. 20.21% noted they were neutral 16.91% noted they were highly satisfied / satisfied 6.51% people said they didn't know.			Comment: 50.63% people noted they were highly unsatisfied / unsatisfied. 25.46% noted they were neutral 15.74% noted they were highly satisfied / satisfied 8.16% people said they didn't know.		

These statistics indicate that more than half of all surveyed had issues with the current amount of space provided for cyclists on local streets	These statistics indicate that approximately half of all surveyed were unsatisfied with current maintenance of main roads.
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Motor vehicle traffic speed on main roads			Motor vehicle traffic speed on local streets		
Answer	Count	Percent	Answer	Count	Percent
1	233	22.64%	1	139	13.51%
2	226	21.96%	2	227	22.06%
3	307	29.83%	3	341	33.14%
4	119	11.56%	4	181	17.59%
5	59	5.73%	5	67	6.51%
Don't Know	85	8.26%	Don't Know	74	7.19%
Total	1029	100%	Total	1029	100%
Comment: 44.6% people noted they were highly unsatisfied / unsatisfied. 29.83% noted they were neutral 17.29% noted they were highly satisfied / satisfied 8.26% people said they didn't know. These statistics indicate nearly half of all surveyed had issues with the current traffic speed on main roads.			Comment: 35.57% people noted they were highly unsatisfied / unsatisfied. 33.14% noted they were neutral 24.1% noted they were highly satisfied / satisfied 7.19% people said they didn't know. These statistics indicate that on average people are ok with traffic speed of local streets		
Maintenance of local streets			Provision of shared paths (for use by pedestrians and bicycle riders)		
Answer	Count	Percent	Answer	Count	Percent
1	156	15.16%	1	323	31.39%
2	231	22.45%	2	299	29.06%
3	333	32.36%	3	178	17.30%
4	177	17.20%	4	87	8.45%
5	53	5.15%	5	58	5.64%
Don't Know	79	7.68%	Don't Know	84	8.16%
Total	1029	100%	Total	1029	100%
Comment: 37.61% people noted they were highly unsatisfied / unsatisfied. 32.36% noted they were neutral 22.35% noted they were highly satisfied / satisfied			Comment: 60.45% people noted they were highly unsatisfied / unsatisfied. 17.3% noted they were neutral 14.09% noted they were highly satisfied / satisfied		

7.68% people said they didn’t know. These statistics indicate that on average people are ok with maintenance of local streets			8.16% people said they didn’t know. These statistics indicate that a relatively large proportion of those surveyed are not satisfied with the provision of shared paths.		
Space for bikes on shared paths			Maintenance of shared paths		
Answer	Count	Percent	Answer	Count	Percent
1	257	24.98%	1	106	10.30%
2	306	29.74%	2	184	17.88%
3	210	20.41%	3	354	34.40%
4	100	9.72%	4	161	15.65%
5	60	5.83%	5	74	7.19%
Don’t Know	96	9.33%	Don’t Know	150	14.58%
Total	1029	100%	Total	1029	100%
Comment: 54.72% people noted they were highly unsatisfied / unsatisfied. 20.41% noted they were neutral 15.55% noted they were highly satisfied / satisfied 9.33% people said they didn’t know. More than half of those surveyed noted they were not satisfied with the amount of space for bikes on shared paths.			Comment: 28.18% people noted they were highly unsatisfied / unsatisfied. 34.4% noted they were neutral 22.84% noted they were highly satisfied / satisfied 14.58% people said they didn’t know. These statistics indicate that on average people are ok with the maintenance of shared paths.		

Behaviour of other shared path bike riders			Behaviour of shared path pedestrian users		
Answer	Count	Percent	Answer	Count	Percent
1	51	4.96%	1	109	10.59%
2	121	11.76%	2	218	21.19%
3	290	28.18%	3	275	26.72%
4	282	27.41%	4	214	20.80%
5	118	11.47%	5	73	7.09%
Don't Know	167	16.23%	Don't Know	140	13.61%
Total	1029	100%	Total	1029	100%
Comment: 38.88% noted they were highly satisfied / satisfied 28.18% noted they were neutral 16.72% people noted they were highly unsatisfied / unsatisfied.			Comment: 31.78% people noted they were highly unsatisfied / unsatisfied. 26.72% noted they were neutral 27.89% noted they were highly satisfied / satisfied		

16.23% people said they didn't know. These statistics indicate that on average people are ok with the behaviour of other shared path bike riders.		13.61% people said they didn't know. These statistics indicate that on average people are ok with the behaviour of shared path pedestrian users.		
The current amount of designated bike routes				
Answer	Count			Percent
1	502			48.79%
2	247			24.00%
3	95			9.23%
4	40			3.89%
5	54			5.25%
Don't Know	91			8.84%
Total	1029			100%
Comment: 72.79% people noted they were highly unsatisfied / unsatisfied. 9.23% noted they were neutral 9.14% noted they were highly satisfied / satisfied 8.84% people said they didn't know. These statistics indicate that the majority of people were not satisfied with the current amount of designated bike route.				

Question 8: Do you have comments on any of the above aspects of bike riding? Please outline below.

Comment: Responses to question 8 has been colour coded and combined with questions 4, 5, and 11 under summarised sub-headings to avoid double up of analysis and double up of responses to similar feedback.

Question 9: What form of transport do you use most often (car, bike, walking or other) to get to your most frequented destinations and what is the distance travelled in kilometres (one way)?

Comment: A tabulated visual analysis of feedback to this question indicates that travel distances to public transport nodes, shop and beaches average approximately 2.5-3km and distance to sports facilities approximately 6 km. Travel distance to work averaged approximately 10-13km. Therefore, all of these trip generators consist predominantly of short trips achievable by bike.

Question 10: Thinking about three trips you take most often on a bike, which streets and paths in Warringah do you use? Please provide details of where you are travelling to and from, key street names and suburbs.

Comment: This question was utilised to trigger people's memories of where they ride and what issues they experience on their bike routes so that we could gain a more comprehensive response to the following question 11 to provide details of future desired bike routes or gaps in the network within Warringah.

Question 11: Please provide details of future desired bike routes or gaps in the network within Warringah (Street names / cross streets / suburbs).

Comment: The input from question 11 has been colour coded and combined with questions 4, 5, and 8 under summarised sub-headings to avoid double up of analysis and double up of responses to similar feedback.

Question 12: Where would you like more bike parking facilities and what types? Please provide specific location details.

1 Summary of the number of people that requested bike parking and where

- 372 At shopping centres (the highest requested shopping centres were Warringah Mall (27%) and Dee Why (13.7%))
- 201 At beaches (the highest requested beach was Dee Why Beach (24%))
- 130 At bus stops (the highest requested bus stops were Dee Why (18%) and Warringah Mall (15%))
- 64 At recreation facilities
- Other: Bike parking at Schools; Warringah Council; Workplaces; Libraries; Apartment Buildings; Child Care Centres; Places of Entertainment; Manly Ferry and CBD etc

2 A detailed summary of bicycle parking feedback and location requests received:

2.1 Beaches

Total of all votes for bike parking at beaches throughout Warringah = 201

a) Beaches in general

Beaches – 39

Beaches with Bike Racks – 30

- Beaches - in a position where the bikes are seen by people. So if someone steals a seat or wheel people will see.

Beaches with Bike Racks preferably covered - 1

Beaches with Bike Racks and/or Cages – 7

Beaches with Cages - 6

- Beach fronts – Bike cages, Including ability to secure Helmets, Bike tools, spare inner tubes, lights etc
- Beaches - Bike cages – Some spaced out so you can have a choice
- Beaches - Bike cages to reduce damage and theft

Beaches with individual enclosed bike lockers - 3

- Beaches- individual bike lockers are safest as it is harder for thieves to steal parts from bikes.
- Beaches – Individual Enclosed Bike Lockers. I would not leave my bikes open to valdalism or theft. Bike locks are not reliable and thieves and vandals can damage or steal bike parts (wheels, seats, accessories etc). Bikes are worth thousands of dollars, why would I leave mine open to the elements or vandals/thefts.

Beaches in carparks with bike racks - 2

Beaches at Surf Lifesaving Clubs - 5

Beach Pool with Bike Racks - 3

Beach Pools with Bike Cages – 1

b) Collaroy Beach

Collaroy Beach - 4

Collaroy Beach with Bike Racks – 3

Collaroy Beach Car Park – Cage or Individual Bike Locker – 1

Collaroy Beach Individual enclosed bike locker - 1

- Collaroy Beach - individual enclosed bike lockers where the bike is not visible due to high costs of bikes.

c) Curl Curl Beaches

Mid - Curl Curl Beach Carpark – Bike racks - 2

North Curl Curl Beach – Bike Racks - 2

North Curl Curl Beach - 2

Curl Curl Beach - 3

Curl Curl Beach with Bike Racks - 4

Curl Curl Beach Bike Racks or Cages – 2

Curl Curl Surf Club - 1

South Curl Curl Beach with Bike Rack - 2

South Curl Curl Beach Pool - 1

d) Dee Why Beach

Dee why Beach - 19

Dee Why Surf Club - 1

Dee Why beach with bike racks -25

Dee Why Beach with bike racks or bike cage - 1

Dee Why Beach with Bike Cage /individual bike lockers - 1

Dee Why Beach with individual enclosed bike lockers - 1

- Dee Why Beach - Individual enclosed bike lockers where the bike is not visible due to high costs of bikes

e) Freshwater Beach

Freshwater Beach with Bike Racks - 7

Freshwater Surf Life Saving Club - 1

Freshwater Beach with Lockers / Cages -1

f) Long Reef Beach

Long Reef Beach - 3

Long Reef with Bike Racks – 1

g) Narrabeen Beaches

North Narrabeen Beach Pool - 7

North Narrabeen Beach - 1

Narrabeen Beach with Bike Racks – 3

h) Queenscliff Beach

Queenscliff Surf Life Saving Club Bike Cage - 2

Queenscliff Surf Life Saving Club – 1

Queenscliff Beach with Bike Racks – 1

2.2 Bus Stops

Total of all votes for bike parking at all bus stops throughout Warringah = 130

a) Bus Stops in General

Bus stops - 12

Bus stops with bike racks - 12

- Bus Stops - Multiple bike racks at every bus stop with a shelter.

Bus stops with bike cages - 2

Bus stops with individual enclosed bike lockers - 2

Major bus stops – 20

Main bus stops with Bike Racks - 7

Major bus stops with bike racks or cages – 4

Major Bus Stops – Secure undercover parking with locker & changing areas provisions - 2

- A secure undercover bike parking facility with locker & changing areas, close to public transport hubs in association with the park & ride concept.

Main bus stops with cages – 1

- Cages are OK- but pretty unsightly - and I rarely see them used, my bike is a cheap piece of crap - so i doubt anyone would steal it - but some friends have bikes worth thousands and are reluctant to let them out of their sight.
- major public transport routes - caged water proof bike racks
- The facility should be free and secure. A lot of people I know are worried about leaving bikes at racks so
- Cage for longer term parking
- Bike cages, Including ability to secure Helmets, Bike tools, spare inner tubes, lights etc
- Near Major bus stops for commuters bike cages preferred for security

Main bus stops with individual lockers - 3

- Main Bus Stops - At all the bus stops where the 190 stops – enclosed lockers

Bike Parking on Busses - 1

- Buses in Canada provide facilities where you attach bikes to the front of the bus. It is GREAT!

b) Brookvale

Brookvale - 4

c) Collaroy

Collaroy Main bus Stop – 1

Collaroy Main Bus Stop – Individual Bike Lockers - 1

- Collaroy - Bus stop near the Surf Rock where the L90 leaves from - Bike lockers are required as bike racks are not suitable at night.

d) Collaroy plateau

Augusta Shops, Collaroy Plateau - Bike racks – 1

e) Dee Why

Main Bus Stop in Dee Why on Pittwater Road/Howard Avenue - 11

Main Bus Stop in Dee Why on Pittwater Road/Howard Avenue with Bike Racks- 4

Main Bus Stop in Dee Why with Cages and bike racks – 1

Main Bus Stop in Dee Why with Cages– 4

- Dee Why bus stop (cnr Howard Ave & Pittwater Rd) – Bike cage
- Bus Stop - Dee Why at Howard Avenue Bus Stop, Plenty of room here for a cage (Western Side of Pittwater Road)

Main Bus Stop in Dee Why with individual bike lockers – 3

f) Forestway

Forestway bus stop – more bike parking – 2

g) Frenchs Forest

Bus stops - Glenn Street -1

h) Manly Vale

Manly Vale - 2

- Bus shelter corner innes/condamine

i) Narrabeen

Main Narrabeen Bus Stop – 5

Main Narrabeen Bus Stop – racks with lighting -1

Main Narrabeen Bus Stop Cage – 3

j) Terrey Hills

Bus Stop - Bike Lockers at Myoora Rd to allow for connection of bus into the CBD – 1

k) Warringah Mall

Warringah Mall Bus Stop – 5

Warringah Mall Bus Stop – Bike Racks – 3

- Warringah Mall. Secure bike racks would encourage people to cycle to the bus stops at the mall, rather than driving their car.

Warringah Mall Bus Stop – Individual Bike Lockers - 1

Warringah Mall Bus stop with Bike Cage - 10

- Warringah Mall near inside bus stop bike cages
- Warringah Mall Bus Stop - Some serious racks/cage at Warringah Mall to encourage people to use the Mall as a hub to get to the city
- Bus Stop - Warringah Mall Bus Stop on Pittwater Road - Plenty of room for a cage
- Warringah Mall - Big park and ride cage (at least 100 bikes - like manly cycle central) at warringah mall bus stop - for city commuters)
- Warringah Mall - The bike rack opposite Warringah Mall could hold 8 bikes maximum - consider a European city where there might be hundreds of commuter bikes parked in such a location.

2.3 Shopping Centres / Destinations

Total of all votes for bike parking at all shopping destinations throughout Warringah = 372

a) Shopping Centres/Shops

Shopping Centres – 49

- Close to entrance to all shopping centres. Not hidden away around the back or in a remote corner somewhere.

Shopping Centres – Bike Racks – 38

Shopping Centres – Covered Bike Racks - 2

Shopping Centres – Bike Cages – 11

Shopping Centres – Individual Bike Lockers – 3

Shopping Centres – Bike Lockers – 4

Major Shopping Centres – Bike Cages – 2

Major Shopping Centres – Bike Racks - 1

Major Supermarkets, Coles and Woolworths – 4

Major Supermarkets, Coles and Woolworths – Bike Racks 2

- Town centres – Bike cages, Including ability to secure Helmets, Bike tools, spare inner tubes, lights etc
- Bike racks close to entrance of shops
- Bike racks by every major entrance at shopping centres
- Supermarkets - At supermarkets where visible from store window – tricycles

Outside cafes, coffee shops - bike racks – 7

- We should not always force cyclists to lock their bikes. Many are fitness oriented and/or have very expensive bikes - in either case they will never carry a lock - so don't both trying to corece them, it will never work. Instead, just let some of them be, and make space for them near cafes.

Restaurants/bars -1

b) Allambie

Allambie shops - Bike racks – 1

- c) Balgowlah
Balgowlah Shopping Centre – Bike Racks – 2
- d) Belrose Super Centre
Belrose Supercentre - Individual bike lockers ideal for theft prevention - 1
- e) Brookvale
Brookvale – 1
Brookvale – Bike Racks - 1
Brookvale Shops – Bike Racks - 1
Brookvale Oval – Bike Racks – 1
- f) Dee Why
Dee Why - Bike racks - 3
Dee Why - Bike cage – 2
Dee Why – Bike Lockers - 1
Dee Why - 1
Dee Why - Near Shops – Bike Racks – 10
Dee Why – Near Shops – Bike Lockers – 1
Dee Why – Near Shops - 14
Dee Why CBD – 1
Dee Why CBD (new centre) - 1
Dee Why CBD – Racks – 3
Dee Why CBD – Undercover Racks - 1
Dee Why CBD – Cage - 1
Dee Why CBD – Individual Lockers - 1
Dee Why – Oaks Avenue, near Woolworths – 4
Dee Why – Oaks Avenue Car Park – Racks - 1
Dee Why – Near Coles – Bike Racks – 2
Dee Why – Near Coles – Individual Bike Lockers - 1
Dee Why Library – Bike Cage - 3
May Road Shops, Dee Why - Bike racks - 1
- g) Forestville
Forestville - 1
Forestville Shopping Centre - 12
Forestville Shopping Centre - Bike Racks – 5
Forestville – Coles - 1
Forestville Library – 1
- h) Forest Way
Forestway - 2
Forest Way Shopping Centre – 4
Forest Way Shopping Centre – Bike Racks – 4
Forest Way Shopping Centre – Bike Cage – 2
- i) Frenchs Forest
Frenchs Forest – 1
Skyline Shops, Frenchs Forest - 1
Frenchs Forest Shops – 2
Frenchs Forest Shops – Bike Racks - 6
Frenchs Forest Shopping Centre- Entrance to Woolworth as well as back entrance - 1
Frenchs Forest (major intersection at end of Wakehurst Parkway, where the new hospital is supposed to be) – Bike Cage - 1

- j) Freshwater
 - Harbord Diggers Club - 1
 - Freshwater Village - 4
 - Freshwater Village- Bike racks -7
 - Freshwater Village – Covered Bike Racks – 1
 - Freshwater Village – Bike cage – 1
- k) Glenrose
 - Glenrose Shopping Centre - 3
 - Glenrose Shopping Centre– Bike Racks – 8
 - Glenrose Shopping Centre – Bike Cage - 2
- l) Killarney Heights
 - Killarney Heights Shops - 2
- m) Manly Vale
 - Manly vale shops (good links to existing cycle paths)
- n) Narrabeen
 - Narrabeen – Bike Racks - 4
 - Narrabeen Lakes - Cage - 1
- o) Narraweena
 - Narraweena Shops - Bike racks – 2
- p) Terrey Hills
 - Terrey Hills Shopping Centre - 4
 - Terrey Hills Shopping Centre - Bike racks – 4
- q) Warringah Mall
 - Warringah Mall – 43
 - Warringah Mall – Bike Racks – 19
 - Warringah Mall – Sheltered Bike Racks – 5
 - Warringah Mall - Enclosed lockers – 1
 - Warringah Mall – Individually enclosed lockers - 1
 - Warringah Mall – Bike Lockers – 7
 - Warringah Mall – Shower, Change, Locker Facilities - 2
 - Warringah Mall – Cage – 18 (2 requested Similar to Manly Council Car Park – ‘Bike Central’)
 - Warringah Mall – Signage directions to bike parking provisions – 1
 - Warringah Mall – Replace removed Bike Racks near Medical Centre/Bunnings - 2
 - Warringah Mall needs multiple bike facilities - there is only enough to cater for about 20 cyclists at the Mall
 - Warringah Mall – Individual Enclosed Bike Lockers. I would not leave my bikes open to valdalism or theft. Bike locks are not reliable and thieves and vandals can damage or steal bike parts (wheels, seats, accessories etc). Bikes are worth thousands of dollars, why would I leave mine open to the elements or vandals/thefts.
 - Warringah Mall - A cage at each end, and not in some far away corner
 - Bike racks by every major entrance at Warringah Mall

2.4 Schools

Total of all votes for bike parking at schools = 9

a) Schools in General

Schools - 2

Schools - Cage and lockers – 1

Schools – Bike Racks -4

Schools – Bike Racks &/or Cages - 1

Freshwater Primary School - 1

- My Children go to Pittwater House perhaps they should be consulted about children riding to school?

2.5 Warringah Council

a) Warringah Council in General

Warringah Council -1

Warringah Council, Dee Why – Cages – 1

Warringah Council, Dee Why – Bike Racks – 2

Warringah Council, Shower and locker facilities - 2

- Warringah Council - there should be bike cages where feasible bike lockers are overkill unless they can also be accompanied by facilities to lock up clothes and preferably shower facilities.
- Bike racks at work (council) lower carpark and in front of main entry.
- Security card only access to weatherproof bike cage at Warringah Council. Also need more showers at work and lockers to hang clothes to cater for cyclists. Current lockers are too small to hang clothes or towels.

2.6 Recreation Facilities

Total of all votes for bike parking at recreation facilities = 64

a) Recreation Facilities in General

Sports fields – 6

Sports Fields – Covered Bike Racks - 1

Sporting Venues – 4

Sporting Venues – Bike Racks – 7

Sporting Venues – Bike Lockers - 1

Sport Grounds – Bike Racks -3

Parks – 8

Parks – Bike Racks – 4

Parks – Bike Cages - 2

Ovals and Reserves - 2

Ovals– Bike cages – 1

Warringah Aquatic Centre - Caged Lockers - 1

North Curl Curl – Abbott Road - John Fisher Park Netball facilities - 2

North Curl Curl - Abbott Road - John Fisher Park Netball facilities – Bike Racks &/or Cage – 1

North Curl Curl - Abbott Road – Soccer Fields – Bike Racks - 2

Narrabeena - Beverly Job Park - Bike Cages - 1

Cromer - St Matthews Farm – Bike Cages - 1

Narrabeen - Jamieson Park - 1

Manly Vale - Passmore Reserve – 2

Beacon Hill Oval – 1

North Manly - Nolan Reserve – 1

Long Reef – Racks -1

Manly Dam – Shower Facilities – 1

Manly Dam - 2

Manly Dam – Bike racks - 1

Mountain Bike Trails - 1

National Parks - 1
 Warringah Aquatic Centre - Lockup -1
 Narrabeen Lagoon - Bike Racks – 4
 ▪ Bike Racks, various locations around the lagoon

b) Narrabeen Tram Shed

Narrabeen tram shed – 1
 Narrabeen Tram Shed – Individual bike lockers – 1

2.7 Other Areas

a) Work Places

Work places - 6
 Work places - Bike cages – 2
 Work places shower facilities - 1
 ▪ It's really up to the workplaces to provide bike security and shower/change facilities.
 ▪ I wear a suit to multiple client sites and so would probably not cycle to work (although I could be persuaded to change).
 ▪ I'm personally OK as we have space at my new work location.
 ▪ My work has a lock-up garage dedicated to bicycle commuters.

b) Residential Appartment Buildings

Residential unit blocks – 2
 Residential unit blocks – Bike Cages - 1
 ▪ Residential flats should have allocated space within the garage for bicycle storage. Currently there is ZERO in most and many Strata bylaws do not permit anything other than motorised vehicles in garages. Change the Planning rules. Separate lock-up bicycle storage should be provided for all flats/units and also larger businesses.
 ▪ I have a lock up garage at my unit as I am an owner. Renters don't have the same luxury.

c) Libraries

Libraries - 5
 Libraries with bike racks – 3
 Belrose library - Bike racks fine - 1
 Forestville Library - 2
 Dee Why Library – Bike racks – 2
 Dee Why Library – Bike Cage - 1
 ▪ Dee Why Library - The parking area at Dee Why - Library - I think bike cages a good idea. People can then park their bikes and use public transport to get to work.

d) Car Parks

Carparks - 2

e) Child Care Centres

Child care centres it would be necessary to have bike racks – 1

f) Organised Events

Bike parking at organised events - 3

g) Entertainment Centres

Entertainment centres (Warringah mall, Brookvale Oval, Glenstreet etc.) - 1
Belrose Hotel – Bike racks - 1

2.8 Bike Racks/ Cages/ Signage

Feedback regarding types of bicycle facilities is compiled here

a) Bike Racks – 38

- Bike racks are OK if you have your own lock
- Better racks to take fatter tyres.
- Racks ok for leisure riding.
- bike racks, easy access & cheaper
- Stainless steel D shape round bollard is easier and less costly. Should be everywhere a standard. Build it and they will come.
- Not a priority for me...bikes can have a chain to lock them to gates etc. Then when it becomes clear what the popular bike parking places are, racks can be put in to meet demand. My Amsterdam experience showed that any rack that allowed me to chain my frame AND wheel to it will do.
- Just put a few more racks it would be a waste of money to invest in other facilities bike storage/parking is not really relevant in the grand of things. just look at london uk if you want to see a tranformation its easy and cheap all thats needed is a change of public attitude to cycling.
- Bike racks good for those who don't mind and bikes out in weather.
- Hiding the bike racks out of the way so people cant see them is pleasing to the tourist eye but people wont use them.
- 2 bike racks

b) Bike Cages or Lockers -1

- Bike cages or lockers. I would pay for individual uses as they are much safer than a bike rack. Too much bike theft here.

c) Bike Cages – 13

- More caged bike racks like Whistler St Cycle Central in Warringah Council locality.
- Bike cages are ideal, but expensive and prone to damage and abuse
- Cages are good but unsightly.
- Bike cage facility is a great idea if all users are honest.
- The only safe parking on the peninsula is the Manly Cycle Central. This is the best model for secure parking. Swipe card access only and monitored by cameras. A network of such facilities could be created using a single smart card subscription.
- For security bike lockers and maybe individual cages for bikes

d) Individual Bike Lockers – 13

- Individual Lockers are good but unsightly.
- Individual lockers can leave for day / over night
- Individual fully enclosed bike lockers are expensive and highly prone to vandalism and abuse and dangerous (kids locking other kids in them)
- Individual bike lockers are clearly the best - but the most overhead to setup and maintain
- Bike lockers appeal to those with expensive bikes – 4
- Bikes are expensive with parts designed to be removed quickly.
- I would like Individual bike lockers for longer term storage as others cannot hopefully interfere with the bikes inside. these could be at Manly beach front; Queenscliff lagoon; Pittwater road, Kierle park. We could store the whole family's bikes and then drive to where the locker is and park the car. The locker hire would have to be favourably priced for a long term hire. It is too much hassle loading bikes onto a bike carrier on a car.

- e) No bike parking. More car parking -1
- f) Bike locker hire – 1
- g) O-rings on traffic poles -1
- h) Bike Parking Location Signage – 3

2.9 General Comments

- More spaces 'everywhere' - 5
- Don't park my bike in public places – I would not leave my bike locked up as it costs too much - 4
- Usually ride round trips so don't use these facilities - 6
- Need safer cycleway facilities before bike parking - 2
- Lockable bike parking bays - possibly with refundable charge (say two dollars) to use the facility
- Cycling should only be encouraged for local school children. No other facilities are warranted.
- This is really great! Warringah will be the best place for cycling anywhere and the number of cars in use will be so much less.
- As this is a subject I am passionate about and I spend 10 hours a week on my bike i would be happy to help in any way I can I have enclosed my card (I am a Strategy Consultant).
- If you increase the amount of safe bike parking it will increase riders which can cause a drop in CFCs due to the drop in car travel. Also Australia's general health will increase and we will be able to perform better on a global stage such as the olympics.
- Don't need any more facilities like this - 3
- Do not often need them, probably because I'm used to them not existing - 2
- I am against them as they look untidy

2.10 Manly Council

Manly Wharf – More Bike Racks- 50
 Manly Wharf – Bike Rack with Shelter over them – 2
 Manly Wharf – More Secure Bike Parking - 4
 Manly Wharf – Covered Bike Cages -12
 Manly Wharf – Individual Bike Lockers - 13
 Manly Beach (North, South and Central) – Bike Racks – 14
 Manly Beach – Bike Cage - 3
 Manly Beach – 5
 Manly Corso / CBD – 9
 Manly CBD – cage - 1
 Manly Corso/CBD – Bike racks with shelter - 1
 Manly Corso – Outside Coles - 3
 Manly Corso (Beach End) Serviceable lockers - 1
 Manly – 1
 Manly – Bike cages - 2
 Manly – Individually enclosed bike lockers - 1
 Manly Surf Life Saving Club - 5
 Manly Council Chambers – 1
 Manly Leagues Club - 1
 Manly Bus Stop – Racks or Cage -2
 Manly Hospital – 2
 Manly Car Park Near Corso – more bike cages - 4
 Manly shower and change facilities near ferry - 3
 On the Manly Ferries - 2

Shelley Beach – 2
 North Head – 2
 Boy Charlton Pool - 2
 Core Residential Streets in Manly to lock bikes near homes eg, Victoria Pde, Ashburner, Osborne, Wood, Stuart St etc - 1
 Seaforth shops – 2
 New Totem Shopping complex -1

2.11 Pittwater Council

Church Point - 2
 Church Point Ferry – Bike Racks/Cage - 1
 Warriewood Square Shopping Centre – Bike Racks - 10
 Warriewood Beach - 1
 Mona Vale near bus stop – Bike Cage - 3
 Mona Vale Village – 1

2.12 Sydney City Council

Sydney CBD – 3

Question 13: Are you male or female?

Answer	Count	Percent
Male	629	61.13%
Female	400	38.87%
Total	1029	100%

Question 14: What age group do you fall into?

Answer	Count	Percent
Under 12 years	10	0.97%
12 ? 17 years	16	1.55%
18 ? 24 years	25	2.43%
25 ? 34 years	194	18.85%
35 ? 49 years	472	45.87%
50 ? 64 years	235	22.84%
65 ? 74 years	60	5.83%
75 years and over	17	1.65%
Total	1029	100%

Question 15: Warringah Council will be conducting further public consultation workshops on the Bike Plan Review. Please indicate:

Answer	Count	Percent
Yes I would like to be informed of future public consultation workshops	635	61.71%
No I would not like to be informed of future public consultation workshops	394	38.29%
Total	1029	100%

Questions 4, 5, 8 and 11 (summary)

Responses to questions 4, 5, 8 and 11 have been colour coded and combined below under summarised sub-headings to avoid double up of analysis and double up of responses to similar feedback. Colour coding and questions are outlined as follows:

- Question 4: What restricts or discourages you from riding a bike?
- Question 5: What would encourage you to cycle more?
- Question 8: Do you have any comments on any of the aspects of bike riding outlined in Question 7 'Thinking about bike riding in Warringah, how satisfied are you with the following aspects of cycling'
- Question 11: Please provide details of future desired bike routes or gaps in the network within Warringah (street names/cross streets/suburb) *

<u>GAPS & DESIRED BIKE ROUTES BY SUBURB LOCATIONS</u>
Note: Staff will inspect these gaps on-bike and amend the bike route map and prioritisation of works where appropriate prior to further public consultation.
QUESTIONNAIRE RESPONSES
ALLAMBIE / ALLAMBIE HEIGHTS
Allambie in general
▪ Allambie to Manly - frustrating that while there is a bike path through Nolans both have to go back onto Pittwater rd to get onto manly lagoon bike path to beach
Allambie Road
▪ 9 people requested a bike path along Allambie Rd ▪ Allambie Road - Fix up traffic calming devices on Allambie Rd that I wrote in about years ago when they first did them. ▪ Allambie road - What is the idea of the cycle lane on the approach to the 'new' roundabout (nr Lyly road). It disappears into thin air !!! ▪ I'm extremely disappointed that more roundabouts are appearing on Allambie Rd as it is one of my regular rides. At the very least, cycle lanes should be considered to improve safety. More often than not cars try to squeeze you out at roundabouts. ▪ Who was responsible for the new round-about on Allambie Rd? The design of the bike lane is frightening. Total disaster from the view of a cyclist. ▪ Personally, I would rather see more education of all road users than special 'cycle infrastructure' - like the ridiculous detour on to the pavement at the chicanes on Allambie Rd. I thought they were there to slow the traffic anyway, so why try and force bicycles off the road?
BALGOWLAH
Balgowlah in general
▪ Balgowlah to Manly ▪ Balgowlah to Brookvale – needs a bike path
NORTH BALGOWLAH
Bangaroo Street

▪ Bangaroo Street and trying to get to Burnt Bridge Bike path is very dangerous with kids ▪ North Balgowlah Shops - There is a gap from North Balgowlah shops to the connecting bike path half way along in Serpentine Crescent in North Balgowlah.
Kalaui Street ▪ Kalaui Street and then Bangaroo St North Balgowlah are one of the few public road areas the 'manly Dam' path goes on. Riders ride on wrong side of road and need a dedicated lane.
Serpentine Crescent ▪ Riding from Illalong Avenue to the bike path off Serpentine Crescent is not safe mainly because there are no footpaths in Serpentine Crescent. It makes sense to have a footpath in Serpentine Crescent as there is a great connecting path to the bike path all the way to Manly. Serpentine Crescent is DESPERATE for A FOOTPATH as the many bends in the road make it dangerous for cars and walkers.
Urunga Street ▪ Urunga Street, North Balgowlah (topographically the flattest route to Balgowlah North Primary School)
Woodbine Street ▪ Woodbine Street and trying to get to Burnt Bridge Bike path is very dangerous with kids ▪ Woodbine Street and Water Reserve Road to get to the bike path along the Burnt Bridge Creek Deviation, especially coming on and off the bridge to cross the Burnt Bridge Creek Deviation. ▪ My family live in North Balgowlah and we ride every Sunday to Manly. The only issue we see is the amount of traffic going along Woodbine Street and their speed. If you have a 7 year old riding on the road it is important that there is not much traffic on the road, hence we go very early in the morning.
BEACON HILL
Beacon Hill To: ▪ Beacon Hill to City - A direct route from Beacon Hill to Wynyard ▪ Beacon Hill to Chatswood (bad bike path down to Roseville bridge) ▪ Beacon Hill to Wakehurst Parkway ▪ Beacon Hill School - Bike path from Wakehurst Pkwy at Frenchs Forest to Beacon Hill school. ▪ Beacon Hill to Beacon Oval and High School ▪ Beacon Hill to Dee Why Library ▪ Beacon Hill to North Curl Curl Beach ▪ Beacon Hill to Manly
Beacon Hill Road ▪ 3 people noted Beacon Hill Road ▪ 1 person noted Beacon Hill Rd is very dangerous road surface after recent road works for cable laying.
Willandra Road ▪ Willandra Rd ▪ Road "furniture" of various sorts that create squeeze points are incredibly dangerous to cyclists - yet the council keeps putting more of these in, The latest example of this is the new squeeze points created outside the Beacon Hill Rural Fire Service on Willandra Road. Now when I pedal either up or down the road, my safety is compromised as I have to watch out for fast moving motor vehicles.
BELROSE
Belrose in general ▪ Belrose needs bike paths urgently ▪ Belrose - Family Leisure Cycling Route around Belrose/Davidson.
Blackbutts Road ▪ 2 people noted Blackbutts Road ▪ 1 person noted Blackbutts Rd - to Forest Way shops, Glenrose Shops, Aquatic Centre and Frenchs Forest.
BROOKVALE
Harbord Road ▪ 10 people noted Harbord Rd as a gap in the network ▪ There is insufficient space for bikes along Harbord Rd ▪ The corner of Harbord Rd and Abbott Rd on the school corner is a pedestrian crossing with no pram or bike access over the gutter onto the pedestrian crossing?? The gutter is quite high so what do mothers with prams do?? let alone cyclists. ▪ Need street lighting & traffic calming devices along bike routes. I've been hit by a car on Harbord Road.

(Cnr Wyndora Ave) it is a known black spots but remain exactly the same as when I was involved in the accident.
Mitchell Road 2 people noted Mitchell Road
Old Pittwater Road 3 people noted Old Pittwater Road, Brookvale (Bike shoulder on Old Pittwater road from Keirle Park to Warringah road. high gutter and no bike signage)
Warringah Mall – East 4 people noted Warringah Mall to Freshwater/Curl Curl
Warringah Mall – East/West 20 people requested a safe and continuous bike route from Warringah Mall to Manly 2 person request route from Manly Vale to Warringah Mall - From Warringah Mall to Manly Vale?? Totally clueless why no bike path clearly marked. - Needs a cycle path build between where Bike Addiction is and the bridge over Manly Lagoon - just doing this missing link would be a huge move forward for work commuters.
Warringah Mall – North 3 people request safe bike route from Warringah Mall to Dee Why - Warringah Mall to Cromer - Warringah Mall to Narrabeen
Warringah Mall – North/West - Warringah Mall to Beacon Hill - Warringah Mall to Frenchs Forest – Bike path - not using main roads
Warringah Mall – South/West - Warringah Mall to North Balgowlah/Seaforth - Dedicated bike path/route needed from Balgowlah North/Seaforth to Warringah Mall/Brookvale incorporating existing dedicated shared bike/pedestrian path following Burnt Bridge Creek to Condamine St - dedicated path needed to follow Condamine to Warringah Mall - Warringah Mall – Burnt Bridge Creek Deviation
Warringah Mall 8 people requested bike route connections from all surrounding suburbs to Warringah Mall - Bike route connections from surroundings suburbs to bus interchange at Warringah Mall - Lack of safe routes especially to Warringah Mall etc - Road works near the mall where barriers force riders into the left hand lane with no escape.
Winbourne Road 2 people noted Winbourne Rd
COLLARROY
Collaroy To: 2 people noted Collaroy to Dee Why / Warringah Mall 3 people noted Collaroy to Narrabeen Pool / Warriewood/ Avalon - Collaroy to Chatswood/Crows Nest.
Alexander Street Alexander St
Collaroy Beach - Collaroy Beach - Bike path along the beach - Collaroy Beach - Heading south, extend path in reserve behind Collaroy beach to actually connect with Pittwater Rd
Collaroy Street Collaroy St - Narrabeen Lakes School through to Collaroy and Long Reef
COLLARROY PLATEAU
Collaroy Plateau streets - Collaroy Plateau – to Narrabeen Lake - Collaroy Plateau - any routes around flat area on top of Collaroy Plateau e.g. Stella and Grevillea Streets to get to shops.

Veterans Parade War veterans Parade, Collaroy plateau
CROMER
Carrawa Road - Carrawa Road – from Fisher Road to Cromer Public school - Carrawa Road - Cromer to Manly
Cromer Schools - Cromer Heights local (with my children) - Cromer High - Desperately need to improve link to Cromer High to avoid kids riding along very busy Carrington / Willandra Rd. - Heather St, Collaroy Plateau to Cromer Public School - Lynwood - From Lynwood to Cromer School - Local high school routes eg Cromer Heights to Cromer High and Pittwater House School - I rode this myself to identify deficiencies and found many - there is no continuous bike path along the route, segments which are pathed seem to be randomly placed, crossing from one side of the road to the other without connecting pedestrian or safe bike crossing points - It would be great to link Wabash park to playing fields at St Matthews for bike riding to Cromer High School all other options are on busy roads to ride from Carrington, Wabash, Grover in this direction this could then link to existing routes to Dee Why Beach via bike paths in place.
Fisher Road 7 people requested Fisher Road - Add a pedestrian crossing on Fisher Rd north opposite the cycleway (next to Carawa Rd). - Fisher Road – to Narrabeen Lakes - Fisher Road - Cromer to Manly
Toronto Avenue Toronto Ave, Cromer
CURL CURL
Curl Curl South to: 6 people requesting bike route connecting Curl Curl to Manly / Queenscliff - Curl Curl – Freshwater Beach and Shops. - Good bike access between Manly and Curl Curl - near beach
Curl Curl North to: Curl Curl to Narrabeen Beach so that we can stay off the main road
Curl Curl West to: 2 people request Curl Curl to Brookvale
Curl Curl School I go to curly school and I think we should have safer paths.
Adam Street 2 people request Adam Street
Carrington Parade 7 people request bike route along Carrington Parade
Curl Curl Lagoon 6 people request Curl Curl Lagoon - complete circuit - Curl Curl Lagoon connecting to Curl Curl Beach
Griffin Road 10 people noted Griffin Road - The bike path off Griffin Road is dangerous and just allows cars to rush past at very dangerous proximity with no protection. - Make Griffin Rd safer for bikes - fence from traffic. - Corner of Griffin road and Abbott Road, Curl Curl - at roundabouts, if a cycle lane is present on the road, the cycle lane disappears so where are we supposed to go?
Headland Road Headland Road, Curl Curl - Like to see a dedicated bike track from Headland Rd Curl Curl to Dee Why Centre
Pitt Road

▪ Pitt Road - would be ideal with bike paths fenced off from traffic, the bike lanes marked on the road are not safe for kids or with my baby in my bike seat. with a baby I usually ride on the footpath.
Weldon Park Weldon Park (Dee Why – Manly)
DAVIDSON
▪ Davidson - Family Leisure Cycling Route.
Davidson – South, East, North and West ▪ Davidson to Roseville Bridge – Garigal ▪ Davidson to Allambie Heights ▪ Davidson to Terrey Hills ▪ Davidson to St Ives ▪ Davidson to Wakehurst Parkway – Seaforth ▪ Davidson to Beacon Hill
Water Pipeline Access ▪ Consider bike path along the water pipeline track from Davidson to Frenchs Forest and beyond. ▪ Would it be feasible to have bike tracks running alongside the large pipeline, which crosses from St Ives to Davidson to Forestville and (at least) Allambie. This would be a more direct route and away from traffic ▪ Need to make it possible to get from St Ives to Belrose via cascades across water pipe asap
DEE WHY
Dee Why to Narrabeen Lake ▪ 19 people noted need bike tracks that allow people to get safely across Pittwater Road from the west and link to the beaches. One such juncture is at Lismore Avenue, where a wonderful bike track comes to an abrupt and unsafe end and has no safe link to the bike track that starts on the beach side of Pittwater Road and ends at Dee Why Beach. There needs to be signals at Lismore/Pittwater Road to allow crossing instead of having to traverse up & back to the existing signals at Hawkesbury Av. I frequently see cyclists & pedestrians trying to cross Pittwater Road here to make a short cut & its an accident waiting to happen ▪ 11 people request bike route from Dee Why to Narrabeen Lagoon 10 ➢ Dee Why Beach to Narrabeen Lake - Future bike routes - extension of shared pathway from Dee Why Beach to Narrabeen Lake. From Dee Why beach to Fisher Rd Nth is good however link to Lake is not sign posted, marked and requires a shared path avoiding roads if possible. ➢ From the north end of Dee Why path at Carawa Rd there needs to be a child safe path connecting to the Narrabeen Lakes path ▪ Dee Why to Narrabeen Lake - Bike route from Dee Why over Plateau down linking up with Narrabeen Lakes bike/pedestrian track ▪ Bridge over Pittwater road connecting existing bike paths at northern end of Dee Why ▪ 3 people noted the Dee Why shared path has an awkward bit to cross Pittwater Road. There needs to be signals at Lismore/Pittwater Road to allow crossing instead of having to traverse up & back to the existing signals at Hawkesbury Av. I frequently see cyclists & pedestrians trying to cross Pittwater Road here to make a short cut & it's an accident waiting to happen
Dee Why - North ▪ 3 people request bike route from Dee Why Beach to Long Reef Beach ➢ Build a cycle path between Dee Why Beach and Long Reef Beach around Dee Why Lagoon (extending the existing path further up north). ➢ Dee Why Beach to Long Reef - Bike path around Long Reef Golf Course, Dee Why Lagoon to provide safe access to Dee Why Beach. ➢ Further north going along the coast where possible but avoiding Pittwater road particularly between Dee why parade and long reef ▪ 2 people requested Dee Why Beach to Collaroy ➢ Without having to ride on Pittwater Road. ➢ On a separate designated bicycle lane.....in fact we would like to cycle throughout the district if it was safer to do so. ▪ 3 people requested Dee Why Beach to Cromer ➢ I would like my son to be able to cycle the 3km to school from Dee Why to Cromer but there are dangerous gaps in the route that mean that we have to get him to walk his bike at some places, we are worried that when he is old enough to make the trip alone it will not be safe for him to do so. ▪ 2 people requested Dee Why to Narrabeen ➢ Off road route through Dee Why and Collaroy and Narrabeen. ➢ Shared path from Narrabeen to Dee Why to avoid danger of using main road and getting backache on

unsmooth footpaths and narrow pram roads - and side enough for tricycle accessibility. Traffic volume is increasing and is less safe. 3 people requested Dee Why to Narrabeen connecting to Newport / Palm Beach / Church Point
Dee Why - South 17 people requested bike route from Dee Why to Manly - Continuous bike route from Dee Why to Manly. - A safer alternative to Pittwater Rd - Connect off road cycle paths so that you can get from Dee Why to Manly off road - No complete route. Either extend on Pittwater rd or Carrington parade - Flat areas - Preferably along the coast (although I realise this would have to end in Manly Council's district) - Via Harbord (now Freshwater) - No bike tracks at present from Dee Why South through Brookvale to connect with existing Burnt Creek path in Manly 2 people requested Dee Why to City - Designated bike route (freeway) required. Separated from individuals and pedestrians. - Dee Why to Spit Road - Dee Why to Brookvale (Off-road) (a couple of potential routes) - Dee Why to Balgowlah. I believe it's necessary to establish a shared pedestrian/cycle path especially during peak hour. It can be quite dangerous for cyclists without the designated bike path. - Dee Why (Off-road) (a couple of potential routes) to Curl Curl
Dee Why – West 4 people requested Dee Why to Chatswood - Would love a safe way to ride to Chatswood without having to use Warringah Road. - Dee Why to Chatswood - Direct route not via back streets (extra distance) - Getting to Chatswood safely would be good, over Roseville bridge. - Dee Why top Beacon Hill
Abbot Road Abbott Road East – to Dee Why
Dee Why Dee Why
Dee Why Beach Dee Why Beach - Off road along Dee Why Beach to replace existing and dangerous on-road cyclepath
Dee Why Parade Dee Why Parade
Hawkesbury Avenue Hawkesbury Avenue- Add pedestrian crossing at corner, Hawkesbury Ave and Clarence Ave.
Howard Avenue 2 people requested Howard Avenue - Dee Why shopping centre (through Dee Why shopping centre)
John Fisher Park John Fisher Park (Dee Why – Manly)
Lismore Avenue Lismore Avenue - Shared pathway between Dee Why (Lismore Avenue)
Pacific Parade Pacific Parade (Dee Why)
Pittwater Road Pittwater Road - Add pedestrian crossings on Pittwater Road in Dee Why mainly on the southern section between Pacific Pde and Delmar Pde.
South Creek Road - South Creek Road – to shops at Wheeler Heights - South Creek Rd
The Strand Shop owners along The Strand, at the Dee Why beach front put out obstructions such as witches hats and garbage bins in the bike path, forcing riders into the main car traffic - this defeats the purpose of the bike path if you can't actually ride in it.

Wigan Road Wigan Rd (Dee Why) to Boundary Rd, Pittwater Road, Sydney Road and Mona Vale Road
DUFFYS FOREST
Duffys Forest Duffys Forest - Has no dedicated bike routes.
FORESTVILLE
2 people requested Forestville to Manly bike path 2 people requested Forestville to Curl Curl / Freshwater - Would like to be able to ride from Forestville to Freshwater where I swim regularly. Would like to be able to ride in safety i.e. Designated bike tracks and/or shared footpaths - If we had dedicated cycle ways which meant we could ride safely around the Forest area, we would certainly do this. - Forestville to Chatswood - I would love more off road tracks to be available in Forestville
Bantry Bay Bantry Bay Shore - From Killarney Drive along the Bantry Bay shore to end up at bottom of Roseville Bridge.
Coolabah Crescent Coolabah Crescent, Forestville - A connecting path from the park in Coolabah Cres, Forestville via the back of Our Lady of Good Council Primary through to Landscape Avenue, Forestville so that when I ride to Forestville shops with my 3 young children I don't have to take them around the dangerous petrol station on Warringah road. (We used to ride through OLGC but now they've built this monstrous fence across the school) - HELP!
Keldie Street Keldie Street - No footpath in Salerno St and Keldie St Forestville (North of Brown St)
Melwood Avenue - There appear to be cycle lanes around Forestville eg Melwood Ave, but, when we go to use them on week ends, there are always cars parked in these lanes which defeat the purpose of having them. - Bike routes have been created down Starkey and part of Melwood, the Melwood route needs to continue all the way to KH School. It would be better to be off road and shared with pedestrians. This highly used route for bikes and pedestrians has not enough paving, a little at each end.
Salerno 2 people noted Salerno Street - Suggest bike route from cnr Safford St and Salerno St to Fitzpatrick Ave West of Forestville along unformed road and Council reserve - No footpath in Salerno St and Keldie St Forestville (North of Brown St)
Starkey Street 2 people requested Starkey Street
FRENCHS FOREST
- Frenchs Forest - Potential corridors exist eg adjacent to water pipeline in Frenchs Forest - Frenchs Forest, Belrose - children are forced to ride on the road, there's no bike paths at all.
Frenchs Forest – North/East 2 people requested Frenchs Forest to Terrey Hills - Separate bike path / path - Frenchs Forest to Akuna Bay - A safe circuit from Frenchs Forest to Akuna Bay or Cottage Point
Frenchs Forest – North/West - Frenchs Forest to St. Ives - Separate Bike Path - Frenchs Forest to Davidson
Frenchs Forest – South/West Frenchs Forest to Roseville Bridge - Cycle way connection
Frenchs Forest – East - Frenchs Forest to Dee Why - Frenchs Forest to Brookvale. - Frenchs Forest to Manly.

▪ Frenchs Forest to Manly dam
Aquatic Drive ▪ Aquatic Drive
Blackbutts Road ▪ Blackbutts Road
Kambora Avenue ▪ Kambora Ave, Frenchs Forest
Forest Way ▪ 41 people noted Forest Way: ➢ Shared path on south side of Forest Way ➢ Need safe separated cycleway along full length – separation of traffic and bikes ➢ Need designated bike lane. ➢ Is not completely safe for bicycles. ➢ Forest Way: The bike path along Forest Way heading south ceases to exist near Belrose. This is very dangerous as cyclists need to merge with cars suddenly leaving little time or space to safely do this. ➢ Forest Way has a setback for footpath that may be suitable for bikes. ➢ Forest Way no space for cyclists ➢ Forest Way (Ralston Av to Warringah Rd) ➢ Bike path not constant; Path where not paved is too close to Forest Way; Bushes and mud prevent ease and safety of bike riding for children getting to school; Unsafe at road crossings. ➢ Forest Way - Be wonderful to have a bike path along Forest Way from Wyatt Ave up to Mona Vale Rd. It would be especially good to maintain the sidewalk from Wyatt Ave up to Ace Landscape... my kids find it difficult to ride along this section due to the overgrown grass. ➢ Forest Way - From the overpass at Forest way shops there is no way north other than on the footpath or through the shops. Forest Way is very dangerous at this point. ➢ Forest Way - Dangerous southern section of Forest Way. ➢ Forest Way - In general, a painted bike box at the front of each intersection would be very useful, especially Forest Way - Mona Vale Rd (also Adam St) as when turning right from left lane drivers going straight get quite aggressive if you go to the front per RTA road rules, but if you don't you are endangered by cars going straight and not seeing you indicating a right turn. ➢ Forest Way - to Roseville Bridge / Chatswood. ➢ Forest way - All the way to the beach ▪ Forest Way is minimum acceptable width bike lane but only goes from Mona Vale Rd to Ralston Av Belrose - 2 ▪ Forest Way between Warringah Roads and Ralston Ave (approx.) does not have a dedicated cycle path and is a main route for cyclists to do the Mona Vale Loop - 2 ▪ Forest Way is not well resourced with bike appropriate space - 2 ▪ Forest Way (from Glen street north) is generally safe to ride on. ▪ Forest Way needs more frequent sweeping, as debris causes regular punctures. ▪ Forest Way needs more paint markings and signs to reinforce to motorists that they are in fact bike lanes. ▪ I have come off my bike and was hurt because my front wheel was caught between the gutter and the raised bitumen layer of Forest Way. The previous regrading of the road should have maintained the gutter and bitumen
Frenchs Forest Business Park ▪ There is no bike path to use as an alternate. With the business parks up in Frenchs Forest and good cycle paths that lead or pass through there could be a good safe commute or alternative to riding the main roadway.
Frenchs Forest Road ▪ 6 people noted Frenchs Forest Road: ➢ Frenchs Forest near Skyline to Narraweena (to go to church) ➢ End of bike route Frenchs Forest road to Roseville Bridge ➢ Frenchs Forest Road West
Glen Street ▪ Glen St
Iris Street ▪ Iris Street, Frenchs Forest
Pringle ▪ Pringle Avenue

Warringah Aquatic Centre 2 people requested better bike routes to access Warringah Aquatic Centre - Warringah Aquatic Centre to Cromer
FRESHWATER
Freshwater- North - Freshwater to Dee Why - Freshwater beach to Curl Curl bike path.
Freshwater –West - Freshwater to Brookvale - Freshwater to St Leonards
Freshwater- South 2 people noted Freshwater to Queenscliff 4 people noted Freshwater to Manly: - Freshwater to Kenneth Road - If heading towards North Manly or Freshwater it just stops and there is nowhere to go. There is no safe exit to try and get to Kenneth Road. - The designated cycle paths from Freshwater to Manly Vale/Manly are mainly uninteresting and very indirect - Freshwater which has no dedicated cycle way apart from a sign on Oliver Street. Cyclists travelling to the city have to head down the hill from the village to Pittwater Road which is very dangerous - one side of this street just needs a wider footpath that can turn into a cycle way - this would could then link with the existing cycle way on Pittwater road
In Freshwater Village Freshwater - Would like more bike routes in the Freshwater region. Especially in the Freshwater Village Shops.
Freshwater to Beach Freshwater Beach - To local beach
Albert Street The slope of some paths tip the bike over sideways, and sometimes there is no ramp cut into the gutter to get your bike on and off the road (like the new gutter just done at the corner of Marmora and Albert Street, Freshwater).
Evans Road 2 people request Evans Road towards Manly
Marmora Street Would like a safe path from Marmora Street (freshwater shops) to John Fisher Park so we can easily ride to sport and training (3 rides per week which we currently do in the car).
Oliver Street 15 people noted Oliver Street: - to Queenscliff Bike Path - to Dee Why to Manly - to Freshwater Beach - Specifically there need to be bike paths on Oliver St (both directions) up the hill from Pittwater Rd - Intersection up hill to where Oliver becomes one lane. - Would be nice to have a cycle lane going up (but not down) Oliver St. There is plenty of room for one and no cars. This is because there is not room on the footpath, which is designated as shared, for two pedestrians to walk side by side, let alone a bicycle and a pedestrian passing each other. - Oliver Street is wide but dangerous as cars speed and the cars cut you off at roundabouts etc. The largest gap in the network for most city work commuters is from the top of Oliver St above the Freshwater village to the cycleway on Pittwater Road. The hill down Oliver is very dangerous - a simple solution is to widen the footpath on the southern side of the street and make a shared cycleway. This needs to then join up with the excellent cycle path on Pittwater road at the Manly Lagoon Bridge. Currently cyclists face fast and angry cars on this part of Pittwater Road until they join the cycle path. Others refuse the risk and go on the footpath which in part does not exist (note the gravel warn path at the front of Queenscliff St and at the front of the Smash repairs. - Bike lanes like along Curl Curl Beach front between Oliver Street & Dee Why not effective and I feel a waste of money as cars drive in them & open doors into them. I feel they are very dangerous. More shared bicycle paths - Lots of cars park on bike path near Curl Curl and on the way to beach at Manly. Makes it unsafe with roads

and blind spots for drivers. ▪ Need street lighting & traffic calming devices along bike routes. I've been hit by a car on Oliver St (Cnr Cavill Ave). It is a known black spot but remains exactly the same as when I was involved in the accident. ▪ The signage /markings are pitiful. Take Oliver St heading uphill to Freshwater shops. There are bike signs on some telephone poles but they're about half the size of tis page and it is completely unclear as to whether they're meant to apply to the road or the path and if the path whether its meant to be shared or for bikes. There are no markings on this road what so ever!!
Harbord School ▪ 2 people noted Harbord School ➢ Bike paths to Harbord school so kids can get off roads & pedestrian paths
KU-RING-GAI NATIONAL PARK
▪ Develop more bike paths to get us to and from important beauty spots like Ku-ring-gai National Par
KILLARNEY HEIGHTS
▪ I would love more off road tracks to be available in Killarney Heights.
Bantry Bay Off-Road Track ▪ Bantry Bay off road track
Killarney Drive ▪ Killarney Drive - From Killarney Dr along the Bantry Bay shore to end up at bottom of Roseville Bridge.
MANLY VALE
Condamine Street ▪ 26 people noted Condamine Street ➢ From Narrabeen/Manly Vale to Warringah Mall/ Brookvale to Balgowlah ➢ Both ways ➢ Bike path along Condamine St in front of Warringah Mall. ➢ Warringah Mall to Burnt Bridge Deviation - make it safer. ➢ Continue Manly bike track along Pittwater Rd &/or Condamine Street ➢ Bicycle share lane on Condamine St, both directions for commuters. ➢ A safe and suitable off-road route must be found as an alternative to cycling on Condamine Street ➢ Bicycle share footpath along Condamine St both directions for families, young cyclists. ➢ Dedicated cycle lanes on main roads to the city ➢ Most important for commuting is Pittwater Rd from Dee Why through to Sydney CBD via Condamine St, Balgowlah ➢ This is a major thoroughfare which you have to cycle down to get to the bike path at Burnt Bridge Creek Deviation. This is a horrible road to ride on with no concessions for bikes whatsoever. ➢ Provide a more direct bike route along the major arterial routes The biggest gap is the end of Burnt Bridge deviation at Condamine lights.
Kenneth Road ▪ Kenneth Road - Also the change from heading east on Kenneth Rd at the intersection of quirk is dangerous as you have to make a right hand turn through the refuge island onto the bike path on the southern side of Kenneth Road ▪ Kenneth Road – Better facilities and protection at round about.
Quirk Road ▪ 5 people noted Quirk Road ➢ needs wider bike path lanes for kids and direction arrows and separation of lanes ➢ Better facilities and protection at round about. ➢ Bike lanes (to link up to Kenneth Road Bikeway).
MANLY
▪ Manly - Connection to every common point with Manly (see Manly Bike Network Map) ▪ Bike routes to Manly ferry.
Manly – West ▪ Manly to Balgowlah, Seaforth ▪ Manly to Chatswood needs improving
Manly - North ▪ 12 people requested a combination of Manly to Mona Vale/Newport/Palm Beach/Pittwater LGA ➢ Manly to Newport - Need a continuous cycle path ➢ Manly to Palm Beach - link beaches together / coastal route

➤ Manly to Palm Beach - A recreational route from Manly to Palm Beach. ▪ Manly to Palm Beach - should have an off-road bicycle cycle - way - similar to foreshore at Manly to Queenscliff. ▪ There should be a bike path from Manly to Palm Beach would encourage more commuter
Hinkler Park ▪ Please light Hinkler Park after dark.
Passmore Reserve ▪ Passmore Park - Sealing of rough path between Passmore Park and Addiscombe Rd (Manly)
Pittwater Road - Bridge over Manly Lagoon ▪ The bridge on Pittwater Rd over Manly Lagoon has inadequate approaches on the western side with overhanging casuarinas blocking the path. The bridge's footpaths are designated bike paths but are too narrow for passing.
Wyadra Road ▪ Wyadra Road, North Manly
MANLY DAM
▪ 4 people requested greater family friendly access to Manly Dam from surrounding suburbs
MANLY VALE
Kenneth Road ▪ Where the bike route finishes there are often unsafe transitions into riding onto the road eg. Kenneth/quirk rd, Manly Vale.
Sloane Crescent ▪ Sloane Crescent- Bike lanes (to link up to Kenneth Road Bikeway).
NARRABEEN
Narrabeen - South ▪ 5 people request bike route from Narrabeen to Manly ➤ Narrabeen to Brookvale and beyond ➤ A recreational bike route ➤ Currently only cycle where there are suitable bike routes marked. Would like a proper network from Narrabeen to Manly. At the moment I'm still trying to find a safe route to Manly - I've tried the back streets but keep coming across stairs. Would prefer quiet back route than along main road for recreational route, but something more direct for commuting. ➤ Connect off road cycle paths so that you can get from Narrabeen to Manly off road
Narrabeen – South/West ▪ Narrabeen to Chatswood/Crows Nest.
Clarke Street ▪ Clarke St - Narrabeen Lakes School through to Collaroy and Long Reef
Devitt Street ▪ Devitt St - Narrabeen Lakes School through to Collaroy and Long Reef ▪ Devitt Street and/or Robertson St, to link 2 great bike paths.
Fielding Street ▪ Fielding Street - Narrabeen Lakes School through to Collaroy and Long Reef
Frazer Street ▪ Frazer St - Narrabeen Lakes School through to Collaroy and Long Reef
Goodwin St ▪ Goodwin St - Narrabeen Lakes School through to Collaroy and Long Reef
Mactier St ▪ Mactier St - Narrabeen Lakes School through to Collaroy and Long Reef
Narrabeen Lagoon ▪ 52 people noted the required completion of the Narrabeen Lagoon – Circuit: ➤ Would like to ride right around Narrabeen Lake but Wakehurst Parkway too dangerous (deep creek). ➤ A good wide, flat sealed path around Narrabeen Lake with no sideways slopes and no humps to allow tricycles accessibility ➤ Currently not properly separated for cyclists and pedestrians ➤ Continue to widen the path along the Jamison trail ➤ Wider bikeway required along Narrabeen Lakes (too many blind spots =accidents). Across Cromer Golf

Club ▪ Connection to Wheeler Heights ▪ Develop more bike paths to get us to and from important beauty spots like Narrabeen lakes ▪ A very short stretch of concrete path between the tramshed playground/community building over to the lakeside path (only about 20m or so) would be great - there are so many very young children who ride bikes in both areas, and struggle to get over the rough ground - and usually the mums already have their hands full with other children and all the gear mums have to carry. ▪ The lack of lighting on the bike path around Narrabeen Lakes from the bridge to Wheeler Park ▪ If a cycling track extended all the way around Narrabeen Lakes including through the NSW Fitness Grounds, along side Cromer Golf Course over South Creek and over Deep Creek (but not on the existing narrow bridge ... separate or cantilevered bridge required at this point). - 2 ▪ Clearing of bush paths around Narrabeen Lake eg south of Jamieson Park and west of Billarong Reserve to Dog Training area for tricycle access. Making surface of above 2 areas free of roots, stones, and minimal sideways slope for tricycle access. Flattening and removing bush roots and foliage from Jamieson Park track for riding with small children and person with limited mobility on tricycle ▪ Separate walking and bike paths should be the aim of any new development eg around Narrabeen Lake rather than shared paths ▪ 3 people requested a complete circuit of Narrabeen Lagoon being available for cyclists. Small (and large) stones and roots eg on new area from Jamieson Park to bush
Narrabeen Bridge ▪ 4 people highlighted hazardous nature of Narrabeen Bridge: ➢ The end of the Narrabeen Lagoon shared path on both side of the Narrabeen bridge is a disgrace of both councils not communicating together for the good of the whole community. Joining these two dead ends would be a fantastic idea. ➢ Widening of Narrabeen Bridge on Pittwater Road to provide a bike lane - it's currently a death trap ➢ Narrabeen lake to lagoon / beach crosses Pittwater road. Narrow pavement across lagoon bridge for cyclists. ➢ Widen bridge over Narrabeen Lagoon or widen footpath & make smooth entrance onto footpath for bicycles so you don't have to slow down much or stop to get on & off footpath. ▪ The Narrabeen Bridge is very unsafe. The bike path ends suddenly. Cars still overtake bikes on the bridge and it is very dangerous.
Oaks Avenue ▪ Oaks Avenue - Dee Why Town Centre to Dee Why Beach or Howard Avenue
Ocean Street (Narrabeen) ▪ 8 people noted Ocean Street, Narrabeen: ➢ Needs painting & signage on road to remind drivers of bicycles. Also fix up traffic calming devices to not be dangerous to bikes. ➢ 3 people noted the need for shared paths/wider paths for family groups to go along beachfront..... from the fire station to Narrabeen Ocean Pool/Caravan Park. A lot of people ride along this route during the week & especially on weekends. ➢ Small hill heading south just after coming across bridge over Narrabeen Lake near beach is narrow and many cars make a 'blind' overtake before roundabout at top of hill.
Park Street ▪ Narrabeen Lakes School through to Collaroy and Long Reef
Robertson Street ▪ Robertson Street and/or Devitt Street, to link 2 great bike paths
Stuart Street ▪ Stuart St - Narrabeen Lakes School through to Collaroy and Long Reef
Wetherill St ▪ Wetherill St - Narrabeen Lakes School through to Collaroy and Long Reef
NARRAWEENA
McIntosh Road ▪ McIntosh Road- Bike space would mean I don't have to ride on footpaths and scare old people and I might survive the trip
Victor Road ▪ Victor Road - Bike space would mean I don't have to ride on footpaths and scare old people and I might survive the trip ▪ Victor Road is scary to walk across let alone allow a child to ride - there is no safe place between May Rd

& Alfred St. So walking or riding to Narraweena Public School is high risk.
OXFORD FALLS
Morgan Road ▪ Morgan Rd, Oxford Falls
Oxford Falls Road ▪ 3 people noted Oxford Falls Rd ➢ Oxford Falls Rd - Would be my priority for a dedicated bike path, the space is there, shouldn't be too expensive. It leads to a school and could get lots of kids confident to take the bike to school. Thanks!! ➢ Oxford Falls - An alternative Bike Path linking Wakehurst Parkway cycle path with Forest Way coming through Oxford Falls could also be useful.
QUEENSCLIFF
Queenscliff – South ▪ Queenscliff to Manly - including across Queenscliff Bridge.
Queenscliff – North ▪ Queenscliff to Freshwater - via Cavill St & Sth Steyne. ▪ Queenscliff to Dee Why & further. Queenscliff to Palm Beach – up the beaches
Albert Road ▪ Albert Road – to Manly
Bridge Road Bridge, Queenscliff ▪ Bridge Road ▪ Queenscliff Bridge - Continuation of Manly's share footpath Queenscliff Bridge to Condamine
Cavill Street ▪ 2 people noted Cavill Street ➢ Freshwater to Manly
Greycliffe Street ▪ 3 people noted Greycliffe Street ➢ Freshwater to Manly - This is a frequently used route by bike riders, but it's also particularly dangerous. Many bike riders choose to carry their bikes up the steps from Greycliffe St to Bridge St, Queenscliff, rather than ride around the narrow curve of Greycliffe St (just after crossing the bridge over Manly Lagoon). It would be fantastic if there was a ramp that both prams and bikes could be pushed up along side these steps!
Queenscliff Road ▪ 6 people noted Queenscliff Road ➢ Dee Why Beach to Manly Beach ➢ Freshwater to Manly via Queenscliff Rd (very dangerous)
TERREY HILLS
▪ Terrey Hills area in general. ▪ Terrey Hills to Bayview
Terrey Hills – South ▪ Terrey Hills to Frenchs Forest ▪ Terrey Hills to Belrose
Terrey Hills – West ▪ 2 people noted Terrey Hills to Duffys Forest
Booralie Road ▪ 14 people noted Booralie Rd, Terry Hills for Question 11: ➢ Booralie Road - Dedicated bike route on Booralie Rd. ➢ I am not happy for my teenagers to ride there due to the narrow road and lack of cycle facilities. ➢ It is too narrow ➢ Please see attached sketch upgrade Booralie Road (width to provide cycle shoulder as pack riding of cyclists is frequent). May assist in evacuation of horses and residents and school students in the advent of bushfire. ➢ keeping traffic away from - Alternatively a shared bike/pedestrian /bridle (horse) path along Booralie Rd - would be viable if removed telegraph poles and put under ground - would need wooden fence railing to provide a barrier between horses and car traffic. ▪ Please make Booralie Rd wider as it is too dangerous for bikes.

▪ The dangerous verge on Booralie - Booralie Road safety risks ▪ The bridal trail on Booralie Road, Terrey Hills is in a poor state of repair ▪ 2009 Works Program. Booralie Road Bridal Trail/Multi-use path. From Laitoki Rd Terrey Hills to Rhoker Reserve Duffys Forest path could be 1.2 - 1.5 metres wide of crushed sandstone, similar to paths used in national parks. Improve access for pedestrians, cyclists (youth children, horse riders, linking the two communities. Cleared area would improve, access to overhead powerlines, waterboard hydrants, front boundaries of properties, enabling easy identification if required in an emergency (i.e. fire, ambulance). May improve/reduce traffic on Booralie Road, as a ride or stroll to the shops for (milk and bread) and visit to friends with the region. To increase physical activity and improve health of both the individual and the environment. ▪ A bike path along Booralie Road. ▪ Booralie Road from Terrey Hills to Duffys Forest is dangerous and carries many bike riders. ▪ Booralie Rd, needs dedicated bike path
Cooyong Road ▪ Cooyong Rd, Terrey Hills
McCarrs Creek Road ▪ 16 people noted McCarrs Creek Road: ➢ Between Terrey Hills and Church Point. ➢ Need more signage (and other devices) on McCarrs Creek Rd to slow speeding drivers during the times when numerous road cyclists ride there (usually Sat and Sun mornings). ➢ Concerned with speeds of cars, narrow roads, poor visibility. ➢ Turning provision & Bike Route signs at corner of McCarrs Creek (West Head) Rd. And Coreen Av. Terry Hills ➢ Cycle awareness signage required ➢ The roads around McCarrs Creek and Akuna bay are extremely dangerous and have lead to a number of major accidents and death ▪ 3 people noted McCarrs Creek road is used a lot for cyclists. The amount of motor bikes and cars that speed up that road is very bad. The road is also very bad, many potholes etc. ▪ There are very limited lights on McCarrs Creek Road.
Myoora Road ▪ 2 people noted Myoora Road, Terry Hills
West Head Road ▪ West Head Road Terrey Hills is dangerous and carries many bike riders.
GAPS & DESIRED BIKE ROUTES - MAIN ROADS
MONA VALE ROAD ▪ 26 people noted Mona Vale Rd in total General Points ▪ 7 noted Mona Vale Road between Terrey Hills and Ingleside/Mona Vale is narrow with little shoulder lane and high traffic volume. ➢ This short section prevents safe access to the beaches from Terrey Hills Belrose etc.....each side of this there are good bike lanes or alternate quieter streets. ▪ 3 people noted dedicated bike lanes required ▪ Separate Bike Path off Mona Vale Road to St. Ives and Terrey Hills from Frenchs Forest. ▪ Recommend widen the Mona Vale Rd bike verge consistently along - enough to allow all manner of bikes, including the training squads, and children travelling to school, to travel safely, next to the fast traffic. That will be a challenge. ▪ Mona Vale Road – to Saint Ives School – From Forest Way, the traffic is fast if not speeding. The Bike verge, narrows as the road swings around the corner '60 km sign' nearing St Ives. Dangerous ▪ Terrey Hills to Frenchs Forest /Forestville - main road is very dangerous. ▪ 5 people noted Mona vale (from Terrey Hills riding west) is generally reasonably safe to ride in designated bike lanes provided ▪ 4 people noted Mona vale (from Terrey hills riding east to Mona Vale) is dangerous to ride on, need more space for bikes, there are no bike lanes ▪ 4 people noted Mona vale Road needs more frequent sweeping, as debris regularly causes punctures ▪ Mona Vale road needs more paint markings and signs to reinforce to motorists that they are in fact bike lanes.

- Mona Vale Rd could have off-road bike path its whole length without destroying much bushland.
- Increase signage to tunnel under Mona Vale Road at Terrey Hills for safety of cyclists entering Mona Vale Road with traffic at car speed of up to (70 kph) improve entry/exit of tunnel for use of road bikes. (see attached) sketch and question 11 answer.

PITTWATER ROAD

- Total 171 people noted Pittwater Road as a gap and very unsafe in the cycling network

General Points

- 19 people requested a designated bike lane on Pittwater Road
- 10 people noted Pittwater Road – whole length Manly to Palm Beach
 - Pittwater Road - lack of safe and integrated bike routes, and integrated - commuter bike routes (along Pittwater Rd towards Manly and CBD);
- 1 person noted a safe and suitable off-road route must be found as an alternative to cycling on Pittwater Road
- 3 people requested shared footpaths next to main road for recreational and non-commuters
 - Pittwater Road - Just reduce the road reserve on the western side of Pittwater Road, move Pittwater Road over to the west more. Then, create a nice wide leisurely shared access path along the eastern side of Pittwater road. Simple.
- Please can we have a designated lane just for bikes on Pittwater Road at the weekend?
- 2 people noted pot holes in Pittwater Road and in addition the whole length of Pittwater Rd is a safety hazard for cyclists. With broken pavement, gaps between slabs, rough surfaces (especially near the Long Reef surf club southbound) and no room provided for cyclists.
- 2 people noted Pittwater Road is too busy for recreation riders without joint pedestrian and bicycle paths. The foot path is not wide enough to accommodate both pedestrian and riders
- A lot of cyclist's young and old cycle on the footpath along Pittwater Road due to the danger of riding on-road.
- 2 people noted if there were appropriate alternatives to Pittwater Road that were safer we would use our bikes a lot more
- 3 people noted riding on Pittwater Road is nerve wracking / scary
- 7 people noted riding on Pittwater road is too dangerous having to share with buses / vehicles / vehicle speed / traffic / parked cars
- 10 people noted Pittwater Road is a main arterial route – Needs a safe well maintained bike lane, there is currently no provision for bikes
- Pittwater road is far too bumpy - need smooth asphalt at least in the bike lane
- The intersections across Pittwater Rd are too dangerous
- 3 people requested no bike riding on Pittwater Road due to heavy traffic volume / lack of space

Bus lanes on Pittwater Road

- 2 people noted inappropriate bus lane surface for bikes - Please don't coat in bus lane orange tarmac. Whoever laid that did not consult bike riders. Riding on it is very unpleasant due to vibrations caused by the roughness of the surface. First priority must be to improve surface on Pittwater Rd bus lane, especially southbound but both directions need work. After this all bike lanes and bus lanes (should be swept regularly and tarred to ensure rideable).
- 2 people noted need for improved bus stop design on Pittwater Road - riding past buses in transit and overtaking parked cars is always dangerous more bus bays would help cycling and public transport traffic flow low cost yet great for safety. Bus stops that aren't in the bus lane on Pittwater Road. This would stop buses and cyclists from having to pull out into the middle lane. That would probably be the biggest safety feature.
- Don't believe that Pittwater Road can support a bike lane unless a bus lane is in place its entire length.
- I would like to see a safe separated cycleway along the full length of (the inside lane of both sides of this 6 lane road should be a dedicated 24 hour bus lane which can also be used by taxis and cyclists)
- Using the bus lanes, especially on Pittwater Rd is not suitable when considering the frequency of busses during peak hours, and the fact that cars park there in the off-peak hours.
- Inclusion of bus lanes have made Pittwater Rd considerably safer to cycle on.

Sections of Pittwater Road

- 13 people noted Pittwater Rd – Warringah Mall into Manly.
 - Back ways around Pittwater Rd from Manly to Warringah mall
 - Pittwater Rd (or suitable parallel side street) link to Manly bike route at Lagoon Park
 - Most design of roads does not seem to consider cyclists. eg Intersection of Pittwater Rd and Condamine

St at Warringah Mall. Heading South a cyclist needs to cross 2 lanes and be in the middle of the road 2 lanes of traffic on either side to be able to travel toward the city.

- 8 people noted Pittwater Road – Manly / Dee why to Mona Vale/ Palm Beach
 - Route along Pittwater Road to reach Manly (nice and flat, Harbord Rd is too hilly for most). If maintenance on the side path is done, these could provide for an interim solution.
- 8 people noted Pittwater Road - Warringah Mall / Brookvale/ Dee Why/ Narrabeen
 - Between Dee why 'shops' and junction of Pittwater rd and Warringah rd - this is always a traffic race track, no room for bikes, footpaths v. steep and overgrown, narrow and busy, poor visibility. Can't paths be widened for shared pedestrian/bike use?
 - Dangerous between Dee Why and Manly, particularly down past the crossing of Harbord Road as the road merges together and traffic is fast. Also, there are bad sections of road through there that mean taking the far left line can be less than ideal. The whole section leading to Warringah Mall from Dee Why involves riding right next to cars and risking getting a car door opened as you try and ride next to traffic and give the traffic space. This is my major concern for a route I commonly take in Warringah.
 - 2 people noted Brookvale, on the main road, there isn't really many bike routes
- 7 people noted Pittwater Rd - Dee Why – Long Reef - Collaroy - Narrabeen
- 2 people noted Collaroy to Dee Why
 - The worst is the seam between the left and centre lanes along Collaroy Beach side, it's awful to cycle there, but there's no alternative. Most of Pittwater Road is a problem for cyclists - that should be obvious! Go and cycle the routes yourselves to understand the problems!
 - Request a shared path between Pittwater Road and Dee Why Lagoon providing safer bike access between Dee Why and Collaroy.
- 5 people noted Pittwater Rd - Collaroy to Narrabeen
 - through Collaroy and Narrabeen have very narrow curb lanes (especially when cars parked and especially heading north. Most people come back way via beach heading south) making it necessary to ride in the middle lane. Is very good when bus lanes are in effect as much safer and bus drivers are good when going around bike riders.
 - Collaroy to Narrabeen Fire Station

Dee Why

- Pittwater Rd, try cycling in morning traffic Dee Why is terrible
- Pittwater Road (through Dee Why and surrounds)
- Pittwater Road, Dee Why - The poor buggers struggling through Dee Why on Pittwater Road inbound to the city could do with some cycle lane markings.

Long Reef

- Pittwater Road - Cars parked on Pittwater Rd outside Long Reef Beach parking is bad in summer as lanes are also narrow and traffic is very fast heading south down the hill towards South Creek Rd.

Collaroy

- Pittwater Rd Collaroy. Signage needed.
- Pittwater Road - Sit at Collaroy one Tues/Wed morning from 5am and see how many cyclists are using Pittwater Road for recreation/commuting.
- Sharing the bus lane on Pittwater Road with a bus through the Collaroy long reef section is not a safe route

Narrabeen

- Pittwater Rd, Narrabeen
- Pittwater Road - Corner of Pittwater Rd and Stuart St are too narrow street, can't see bike riders crossing over Stuart St

WAKEHURST PARKWAY

- 76 people noted Wakehurst Parkway

Design and safety issues on road

- 13 people requested Wakehurst Parkway dedicated bike lane / cycle way.
- 10 people noted Wakehurst Parkway - Widening of the shoulder on the Wakehurst Parkway from Seaforth to Narrabeen. The shoulder is currently dangerously narrow to ride on, particularly when buses and large vehicles are using the road. These improvements would go a long way to providing a safer bike route from the Northern Beaches into the city
- 8 people noted dangerous/unsafe for cyclists
- 4 people noted maintenance and leaf litter/glass etc clearance required
- 2 people noted poor visibility - (bike riders riding down Wakehurst parkway are so hard to see especially in the dark and because the speeds are high as I am a driver I am always scared when passing them as they

ride on the same verge of the bitumen not the gravel)

- Is a great opportunity poorly executed – wider lanes and the intersection with Warringah Road is very dangerous
- Consistent and complete bike lane on all of Wakehurst Parkway (there are gaps northbound north of Oxford Falls Creek and southbound near Seaforth Oval).
- Concerned with speeds of cars
- Bike lanes on main roads e.g. Wakehurst Parkway, its super tight in parts for bikes and cars to both use and therefore dangerous
- Widen shoulder and make it a bike path on Wakehurst Parkway particularly from Warringah Rd to Seaforth on both sides.
- 11 people noted there is not enough room for cyclists to ride safely and not worry about being hit by a car / heavy traffic. The shoulders are way too narrow. This is a main arterial route for a lot of Northern Beaches commuters and also recreational riders on weekends and early mornings.
- 8 people noted bitumen not covering the full cycle lane (short sighted and lazy on the RTA's part) / not sealed properly / poorly maintained / bad quality of road surface / many pot holes.
- 5 people noted Wakehurst parkway is very dangerous
- I use Wakehurst Parkway and find it ok out of peak time.
- When changing traffic conditions (e.g. southern end of Wakehurst Parkway - new traffic lights at Castle Circuit) you should consult all traffic users, not just the RTA. That chicane is deadly for cyclists!
- After strong winds and/or storms the road sides are littered with branches and debris making it hazardous to ride.
- Sideways slopes eg on dirt path on Wakehurst Parkway

Off-Road

- Seal the fire trail N from Seaforth parallel with Wakehurst, to connect with Bantry Bay Rd
- 5 people requested Wakehurst Parkway - off road alternative - A wide separate off road cycle path all the way along it to avoid the need to access i.e Narrabeen Lakes and Manly Bike Path by car etc.
- 2 people requested Wakehurst Parkway could have off-road bike path its whole length without destroying much bushland

WAKEHURST PARKWAY - BRIDGES

- 21 people noted very dangerous section is on Wakehurst Parkway where bike lane disappears in both directions at Deep Creek Bridge and Middle Creek bridges:
 - 4 people noted cycle lane needs widening on bridges
 - Wakehurst Parkway - Shared bike/pedestrian crossing at Deep Creek
 - Wakehurst Parkway - The deep creek bridge on the Wakehurst parkway is going to get a cyclist killed.
- 9 people noted Deep Creek Bridge is narrow and very dangerous for cyclists / need a bike lane on it
 - Need to fix the deep creek bridge on the Wakehurst parkway as someone is going to get killed. I feel like I should put flowers on the bridge now for myself :-(

WARRINGAH ROAD

93 people noted safe route required on Warringah Road issues highlighted as follows:

- 11 people note safe route required along Warringah Road – Whole length of route in Warringah LGA
- 12 people request Warringah Rd safe designated cycle path
- 4 people request dedicated bike path on main road
- 1 person requested an off-road alternative
- Warringah road is the main thoroughfare and is highly dangerous on the road and footpath
- Warringah Rd strikes me as lacking in regard to cycling. Whilst early morning and weekends are fine on the roadway, anytime from around 9-10am or weekdays it can be particularly dangerous with traffic volume.
- Link Frenchs Forest to Pittwater Rd and the beaches.
- Link Forest Way Shops to Forestville Ave. (crown of the Hill). This very busy road needs a bike path urgently.
- No safe crossing provided on Warringah Road, crossing Allambie Rd, Skyline shops.
- Shared bike path along Warringah rd from Allambie rd to the Parkway
- Provision of shared routes on footpaths next to main road

▪ Upgrade off-Street Warringah Road ▪ A painted bike lane near the curb ▪ It is very hard to get through Warringah/ Forest Way lights with the buses, but if you go with the car lights it is very hard to cross into the left hand line with the cars coming through on your left. ▪ Very difficult getting from Warringah Rd towards city onto shared bike path over Roseville Bridge, so some cyclists just stay on the road but then are very slow on the road up the other side, which irritates cars. But, going through the back streets is much slower and hillier than the fast main roads.....when cars aren't stopped right against the left hand curb which is often the case. ▪ Forest Way & Warringah road junction going towards Beacon Hill/Dee Why, no safe spot on Warringah road to ride, back streets too hilly ▪ Cnr Wakehurst Parkway and Warringah Road to Roseville Bridge ▪ Warringah Rd too busy and no space. ▪ Insufficient space - just east of McDonalds is terribly narrow and trucks roar up the short hill. They make no allowance for a bike on the road. ▪ Too dangerous for cyclists- 5 ▪ Need a dedicated bike lane on Warringah Road – 7 ▪ There could be an enormous improvement of facilities for cyclists, particularly on main roads such as Warringah Road. ▪ Don't encourage bike riding on Warringah Road due to heavy traffic volume and lack of space ▪ I do use some paths (eg, bridge across Warringah Road by Forest Way) but its awkward with pedestrians though usually people are happy to share (not always though) ▪ Warringah Rd at Intersection with Forest Way - bad pot holes on shoulder.
WARRINGAH ROAD – ROSEVILLE BRIDGE
▪ 23 people noted Roseville Bridge as a dangerous gap in the network ▪ 4 people requested a cycle route over the Roseville Bridge. ▪ 2 people request upgrade underpass ▪ Roseville Bridge - In terms of commuting links - the Roseville bridge link is in poor repair having been dug up and very roughly patched - lantana and weeds over the bike path and there is almost no signage or way marking. ▪ Roseville Bridge (the Ku ring gai side also needs addressing) path needs resurfacing due to installation of services underneath, current mix of bitumen and concrete is unsuitable/ dangerous. ▪ Roseville Bridge south / western approach is terrible ▪ South on Roseville Bridge the good path runs out on the southern side of the bridge. A link is required to the Malga Av overpass. Only about 100m away. Now cyclist have to walk up the gutter contrary to the traffic flow or use the main highway which is dangerous. This is the main route to Chatswood, Willoughby and the city. ▪ If Roseville Bridge cycle path was actually usable. The approach from the east is dangerous, and the western end exits into oncoming traffic. I don't want to die just yet. ▪ Please, please, please create any sort of path on the Roseville side of Roseville Bridge. ▪ 3 people noted the hill down to Roseville Bridge the bike path there is really bumpy and is a safety concern when riding down it as the bike rider. It is overgrown, covered in leaf litter, and has several major cracks from roots . ▪ Please create a path on the Roseville side of Roseville Bridge. I would have to be the most dangerous area to cycling in Sydney. If you live in Forestville, French's Forrest it is impossible to commute safely because of the danger of Roseville Bridge. It also must cause a terrible frustration for cars having to negotiate slow cyclists travelling up the hill into Roseville. Similarly to exit the road and get onto the 'bike path' (with the poles in the middle of the path) is pretty dangerous. Please can you do something - any path that can take a bicycle would be an improvement no matter how narrow the path.
OTHER COMMENTS ON GAPS AND DESIRED ROUTES
TO THE CITY
▪ 7 people request a bike route to the city ▪ 2 people requested safe bike route to the city ▪ 2 people requested a safe route to City from Palm Beach ▪ 1 person requested more direct cycle paths from the northern beaches to the city

1 person requested all major tracks to and from the city need wide bike paths to encourage others to ride safely ensuring the reduction in vehicle use. 1 person requested a safe path towards Nth Sydney & CBD - yes I realise this is in conjunction with neighbouring councils 1 person requested provision of a car free path to North Sydney/City. Make the grades acceptable for an ordinary person. 1 person requested a more direct route to the Spit Bridge 1 person noted too many gaps towards CBD and Ferry - don't worry about the others, fix the commuter routes first because those have the strongest impact on reducing carbon emissions - the rest is just recreation - You would find a massive increase in daily bike use to and from the city if there was a designated cycle track or even lane. This would help reduce the burnt creek / spit bridge congestion. Working with other councils, Pittwater and Mosman would be necessary. I understand Pittwater did a similar cycle study a few years back. Have you seen the cycle paths in Perth and the use they get. Might be of use contacting Perth about that. - Dedicated bike routes to the city - 3 - We need the fastest, flattest possible connection from A (Pittwater Rd/ Dee Why) to B (CBD or Manly Ferry) - If you commute to the city there are very few areas for cyclists - Travelling into the city there are times where there is no other option than to share the road with heavy traffic. - It is currently incredibly dangerous to ride from the north to the city, and to ride unless very early in the morning.
TO CHATSWOOD
- Lack of dedicated bike path to Chatswood - Dedicated bike path to Chatswood - Cycle- way to Chatswood - preferably 'off- road' ie using pedestrian paths - maybe widen these to 2m wide.
ALONG ALL THE BEACHES
26 people requested a connected safe bike route along all beaches/coastal network of the Northern Beaches 1 person requested designated bike paths along the beaches (not including car door zones) 3 people requested safe cycle routes to beaches from local surroundings 2 people requested bike route along beaches connecting with Warringah Mall

Continued.....Summary of questions 4, 5, 8 and 11

Responses to questions 4, 5, 8 and 11 have been colour coded and combined below under summarised sub-headings to avoid double up of analysis and double up of responses to similar feedback. Colour coding and questions are outlined as follows:

- Question 4: What restricts or discourages you from riding a bike?
- Question 5: What would encourage you to cycle more?
- Question 8: Do you have any comments on any of the aspects of bike riding outlined in Question 7 'Thinking about bike riding in Warringah, how satisfied are you with the following aspects of cycling'
- Question 11: Please provide details of future desired bike routes or gaps in the network within Warringah (street names/cross streets/suburb) *

QUESTIONNAIRE RESPONSES
TOO MUCH CYCLING - Cycling too much too often! (Gotta have rest days) - 1 - Tired by time reach city -1

▪ Already ride enough INNABILITY TO CARRY GOODS ▪ Carry shopping/heavy good on a bike discouraged bike riding – 4 TIME ▪ Constraints as an issue – 2 AGE ▪ Too old to ride a bike – 6 ▪ Nothing - too old - 2 ▪ If I was younger - 2 SICKNESS/DISABILITY ▪ Sickness/injury – 6 ▪ If I were fitter / in better health - 2 TRAVEL DISTANCE ▪ Travel distance to work is too far to ride a bike - 5 WET WEATHER ▪ Wet weather discourages them from riding a bike - 15 BIKE HELMETS ▪ Don't like wearing a helmet - 2 ▪ If I don't have to wear a helmet - 2 ▪ Very important please look into people NOT Wearing helmets .It is suppose to be policed but its not. Please talk to police as soon as possible. ▪ Driving around Manly/Warringah it is apparent that the majority of cyclists ignore requirements to wear helmets. Why is this not enforced by local police? This sends a mixed message to children in particular.
QUESTIONNAIRE DESIGN ▪ Question 6 is badly constructed. My primary leisure pursuit is mountain biking. I also ride with my kids (8 and 3) for leisure purposes and I commute to the city and back by bike 5 days a week. Many cyclists would answer yes to all three categories ▪ Although I ticked MTB, I road ride 4 times week as well. The survey wouldn't let me tick 2 boxes ▪ Think the survey is a great first step towards improving and promoting the use of bikes on our roads. Not asking for all of the road or to rule the roads just enough to share and be safe doing it. ▪ For broader community engagement in cycling, bike routes, bike paths and bike storage amenities will all be more relevant than how I have scored them for myself above
POLLUTION ▪ Exhaust fumes – 2 ▪ If the air was cleaner to breathe - 3
CONVENIENCE OF OTHER TRANSPORT ▪ Convenience of other transport sometimes discourages bike riding – 1 ▪ Not on in these days of motorised transport
NEVER LEARNT TO RIDE / NOT A CONFIDENT BIKE RIDER ▪ Never learnt to ride a bike – 3 ▪ Recently (during seniors week) done a refresher course on bike riding (I am enjoying riding for pleasure in local parks) – 1 ▪ If I knew how to ride a bike - 2 ▪ To be taught by a patient teacher ▪ If there was a local bicycle racing / rider training course nearby. ▪ Better training of younger riders concerning signals and visibility. - Bicycle maintenance courses
DON'T OWN A BIKE OR BIKE NEEDS REPAIRS ▪ Would like to ride but don't own a bike - 2 ▪ Don't own a bike - 4

▪ Can't ride because their bikes need maintenance – 5 ▪ If I had a better bike - 3
BIKES ON PUBLIC TRANSPORT ▪ Lack of ability to transport bikes on busses and ferries – 7 ▪ Please lobby state buses to provide bike transport on city buses – 1 ▪ To be able to take bikes on buses (buses overseas had big compartments underneath as well) to allow access then to ferries & trains - 3 ▪ In Brisbane they have the local buses (equivalent of the STA buses) with bike racks on the front of the bus so if you ride somewhere and don't want to ride home you can place the bike on the bus. ▪ Require RTA buses to have rear bike racks for commuter bike, al la city.
HILLS ▪ Warringah is hilly - 1 ▪ If bike routes were less hilly - 2 ▪ Wet weather is a deterrent - 2 ▪ If there were less hills. I live on the top of Collaroy Plateau. ▪ In Forestville we have many pathways which are great but many have stairs.
PUBLIC PROMOTION ▪ There needs to be a strategy to encourage more bike use by local commuters as an alternative to the motor vehicle- 2 ▪ Cycling Events: Need more social ride days i.e. Manly to Palm Beach, close the roads like the city of surf ; Local fun days - with local businesses and bike shops involved; Events like Spring Cycle and the Gear Up girl ride from Cronulla to Homebush get everyone involved and provide a sense of participation and achievement. It would be great if Warringah could host something like that – 3 ▪ I'd like to see Warringah Council combine with Pittwater, Manly and Mosman councils for the annual Ride to Work Day and coordinate designated bicycle lanes for the increasing number of bicycle commuters from the northern beaches into North Sydney and the City ▪ My workplace encourages bikes & bike riders. Through my workplace networking & fundraising I participate in long distance cycle rides i.e. Sydney to Wollongong. ▪ In the Warringah area, I generally only ride on weekends. During my working week I drive from Dee Why to my workplace in Macquarie Park (25klms). During my working week I ride approx 3 times per week for fitness & training around my workplace because of the following reasons: I have a very bike safe area to ride i.e. through the lane cove national park. I have a bike cage at my workplace. I have showers at my workplace. My workplace encourages bikes & bike riders. Through my workplace networking & fundraising I participate in long distance cycle rides i.e. Sydney to Wollongong. ▪ Mothers with children = school + sport + music lessons + play dates + shopping (on average 15 years of constantly driving around) lets target this group locally with cycle ways as they have the potential to be the largest cycle commuters in the community. School holidays reflect the amount of traffic this group generates, it's all of a sudden easy to drive at peak times. ▪ Perhaps talk to Manly cycle club and Warringah triathlon club (I am on the committee of WTC)
NOT INTERESTED IN RIDING A BIKE ▪ Not interested in riding a bike - 2 ▪ Family member/partner doesn't like riding I don't ride as often as I would if they did- 2 ▪ Nothing would encourage me to ride a bike more often - 2
RIDING WITH OTHERS ▪ Riding in a group rather than alone. ▪ Social cycle clubs
REQUEST FOR INFORMATION ON WHERE BIKE ROUTES EXIST ▪ 2 people noted they would cycle more if they knew where the bike routes were in Warringah ▪ 4 people noted they would like to know where the current bike paths exist ▪ Knowing about existing bicycle routes ▪ We need map of current routes that share use. Roads are a discouragement. ▪ Know roughly how long bicycle trips take between certain distances i.e. Mona Vale to Frenchs Forest via Wakehurst parkway - 2hr return ▪ 4 people noted that they were unaware of existing facilities and bike route options

- 6 people noted that there was currently no publicly available information on where bike routes exist
- 5 people requested provision of information on bike pathways in the district (a published map for example) accessible on the internet
- It would be good if the council would post child-friendly rides on the website and inform residents.
- Availability of maps is very poor. RTA map shows routes, but not to a decent scale, whilst each council has differing qualities of maps available - it appears that Warringah do not even publish a cycle map.
- Council is not doing enough to promote cycling and neither is the state government. If people had to pay for the real costs of driving a car (damages to environment, buildings, repair of roads) which would come to thousands of dollars a year the story would be quite different.

EDUCATION OF MOTORISTS

- Education is required that is targeted at drivers to: improve their negative attitude towards cyclists; inform drivers of road rules and rights of cyclists on the road; improve driver awareness of cyclists on the road; improve drivers driving skills to safely accommodate cyclists on the road - 7
- Driver ((and rider) education is needed. I'm tired of hearing misinformed callers on talkback radio banging on about cyclists not paying rego etc... I own 2 vehicles and probably pay more rego fees and personal income tax than 95% of the population anyway so I make my fair contribution. educate drivers about the amount of tax dollars we are saving them (via not being a burden on the health system) because we are not obese, do not suffer from diabetes, smoking related diseases, etc....
- I suggest the Council with the collaboration of RTA should launch a campaign of education.
- Help to educate car drivers - 2
- Better education of drivers to beware of cyclists.
- Education is required that is targeted at drivers to: improve their negative attitude towards cyclists; inform drivers of road rules and rights of cyclists on the road; improve driver awareness of cyclists on the road; improve drivers driving skills to safely accommodate cyclists on the road - 31
- Increased early education through schools and TV and driver education are all necessary for a cohesive safe option for all.
- Better identification of bike lanes and more signs advising drivers that the road is there to share (most cyclists also drive cars)
- That Council supported our right to use the road. This could be done in a number of ways - education via articles in the paper, council policy, sign posts better displayed and the up keep of paths and markings, one off events promoting cycling, access for kids to free training events.
- Education is required that is targeted at drivers to: improve their negative attitude towards cyclists; inform drivers of road rules and rights of cyclists on the road; improve driver awareness of cyclists on the road; improve drivers driving skills to safely accommodate cyclists on the road – 15
- Drivers should be educated to look to the rear and side for cyclists before getting out of cars. It's a daily danger for cyclists - 4
- Perhaps it would be of benefit to initiate a similarly pervasive campaign to spread community awareness benefits of bicycle transportation, emphasising attributes such as; improved fitness, less traffic, lower road maintenance costs, better air quality, less noise, social benefits; camaraderie, etc.
- Driver ((and rider) education is needed. I'm tired of hearing misinformed callers on talkback radio banging on about cyclists not paying rego etc... I own 2 vehicles and probably pay more rego fees and personal income tax than 95% of the population anyway so I make my fair contribution. Educate drivers about the amount of tax dollars we are saving them (via not being a burden on the health system) because we are not obese, do not suffer from diabetes, smoking related diseases, etc....
- I suggest the Council with the collaboration of RTA should launch a campaign of education.
- It is not enough to have a bike picture on road randomly improve communication for using bike as an alternative transportation mode.
- This needs to change, through education and licence testing, with more police support for cyclists, and government funding for adequate infrastructure.
- Education for drivers to be more observant when making right hand turns of riders - especially older drivers (i.e 70+) who believe they have the right of way!!!!)
- Require public education for drivers and stiff penalties for failing to respect cyclists.
- P Plate drivers often appear as faster than others, and not as bike aware careful. Examiners and learner trainers perhaps too technical.
- There needs to be a lot more designated bike routes with a lot more signage so motorists are aware of the cyclist's right to be on the road.
- Bike signage would encourage both bike riders and motorists to pay more attention.

- It would be highly impractical however I feel it would be a good idea that when a person goes for their driving test, after passing they should be MADE to ride a bike everyday for 2 weeks in all types of conditions, roads and times.

BEHAVIOUR OF MOTOR VEHICLE DRIVERS

- Motor vehicle drivers – Aggressive, impatient, intolerant, poor behaviour towards cyclists; Bad attitude about having to share the road; Inconsiderate; Lack of respect for cyclists; Lack of awareness of cyclists on the road; Arrogance; Don't know road rules and cyclists rights on the road - 59
 - Cyclists on the road are vehicles & should be overtaken as such, i.e. motorists must move into next lane & not move back until well past cyclist. Too many times motorists attempt to squeeze past while staying in the same lane - recipe for fatalities.
 - Cyclists (both solo & groups riding 2 abreast) have the right to use up a whole lane if necessary to avoid such a fatality. (see above)
- Drivers not providing enough room for cyclists safety – passing/overtaking/lane sharing – drivers not knowing how to share the road with cyclists - 4
- "P" Platers; Utes and Holden drivers; White courier van drivers who hate cyclists - 3
- Drivers are inconsiderate.
- Some days I would like to close the gap between the ears of ignorant motorists who are abusive and unaware that cyclists have rights on NSW roads too.
- If car drivers were as courteous of cyclists in Sydney as in most major cities in Europe, Asia and other parts of Australia. Car driver behaviour needs to be improved and all levels of government have a role to play.
- I ride a road bike as well as a mountain bike, and I am often shocked at driver's attitudes to bike riders. Drivers seem to think that they can harm or scare a cyclist for entertainment value, I believe there needs to be some sort of public awareness campaign and at least some deterrents to the disgusting attitude which some drivers have.
- Motor Vehicle Drivers: Some have a negative attitude, they are impatient, frustrated and intolerant towards cyclists; some verbally abuse cyclists and actively try to antagonise them; some have not respect for cyclists; some do not know road rules and rights of cyclists on the road; many are not aware of cyclists on the road; they don't have good driving skills to safely accommodate cyclists on the road (provide space for cyclists) – 42
- Frequent confrontations between cyclists & cars/trucks. Partly due to overcrowded roads, partly poor driver awareness of cyclists' presence and their rights, partly due to lack of provision on the roads for cyclists.
- Drivers are often disrespectful of cyclists and will sometimes exhibit dangerous behaviour. I have been run off the road by a Ute in the past (riding down Warringah Road). I sometimes get abuse shouted at me, car horns, gestures etc. I consider myself a defensive driver and am, for self preservation reasons, very careful on the road.
- Warringah is doing better than some other areas, but still not serious about bikes, no concept that cars should be inconvenienced for bikes (that probably reflects public opinion).
- I was a bike courier in Washington DC so quite confident on a bike but this area is terrible for bikers. Crap drivers (auto & lorries) have zero awareness of bikers (on the whole)
- I may be stereo typing but P-platers and tradesmen types generally appear to be the worst at respecting other road users.
- As a regular cyclist, motor cyclist and motorist and sometimes bus commuter, I believe a great deal of good could be done for all road users from pedestrians to truck drivers if all of us learnt manners. Just to say thank you for being allowed in to a space would go a long way towards having happy road users. Complacency and lack of consideration cause accidents. Sensibility, sensitivity and patience would go a long way towards improving all aspects of transport. We also need more bicycle corridors similar to those in the western suburbs.
- It seems that everyone who isn't a bike rider, hates bike riders
- I have been knocked off my bike before from opening car doors and know many others who have experienced the same on Pittwater Road - people do not look!!!! It is the most frustrating thing and we lose confidence in the roads.

Bus Drivers

- Being overtaken by a bendy bus with a driver who doesn't think you should be in 'his' lane is seriously scary and happens too often. They seem to think that if intimidate you enough, you will stop riding a bike and then everyone would be happy! Bus Drivers don't leave enough room when overtaking – Are Intolerant; Not safe for cyclists; not courteous - 6
- Bus drivers are generally bicycle aware when the cyclist is in front but can often be unaware of a cyclist to

the rear and abruptly change course, or speed causing issues.

- I got taken out by a bus that came from behind me. This, I was most upset at as he could clearly see me but still managed to cut across me and nearly kill me. A witness said my head was centimetres from being squashed so I'm lucky to be alive. This poor driver attitude needs to be addressed and it is a growing concern as drivers seem to be getting more and more aggressive not only at cyclists but other motorists as well.

CYCLIST BEHAVIOUR / AWARENESS

Cyclists General

- Cars are registered / taxed, why are there no rego fees for bike riders. Cyclists use the roads & footpaths and are involved in accidents or sometimes cause them.

Cyclists creating traffic issues

- I am mostly unaware of any facilities for bike riders. However, as a driver I am frequently stuck behind riders using main roads (eg Wakehurst Parkway & Spit Road) where there is no opportunity to overtake safely- they hold up traffic flow especially on weekends
- Bicycles and traffic in heavy congestion periods i.e. peak hour need to be separate from traffic because they cause problems with bus lanes, delaying travel

Cyclists not obeying road rules

- Cyclists must obey the road rules - just like other vehicles - to earn the respect of drivers which in-turn would create mutual respect for everyone on the road.
- Disobeying traffic rules by some cyclists, running red lights and overtaking on the inside- 9
- Cyclists who do not obey the road rules need to be fined – 2
- Bike riders invade the footpaths dangerously. They have become very cavalier -they cycle too close to pedestrians - they can be very rude and dangerous.

Cyclists riding in packs

- Bike riders would be safer if they kept in single file rather than slowing traffic by riding 2 or more abreast. Educate riders to ride more safely - 3
- Stop bike riders in packs.
- Thank you for the opportunity to discuss bike rider education. Along Mona Vale Road, the side strip appears wide enough. In fact it appears wide enough for three bikes abreast as is displayed on the weekend packs. Even with 3 abreast, the guy on the car side tends to swing in and out over the white line, which can be a nerve wracking when the car is travelling at 90 klm s an hour along the stretch from St Ives to Terrey Hills. What I found was that the car driver may be doing the correct procedures but the bike rider is not by playing tag along the outside of the line with his mates. Bike rider education is the key as I understood the rules would be single file - so as not to interfere with cars and avoid driver distraction. A wobbling bike trying to pick up speed to pass his bike colleague and a car travelling at 90 klm s an hour, and where would the ruling be if an accident happened. Single file and keep inside the white line at all times.
- There is a dangerous situation with packs of bike riders occupying Booralie road every morning of the week and not moving over to permit drivers to pass safely. If they cannot ride on the verge, then consideration should be given to making it illegal to travel in packs on this road. Groups in excess of 50 riders have been encountered. Unless this situation is addressed, there will be most surely be an accident.

Cyclist Education

- Education for some bike riders on patience and learning to share roads. Also rules for safety should be taught.
- There should be a list of road rules for bike riders.
- More education on road rules should be applied in general, many people do not know the rules in regard to cyclists (likewise many cyclists don't know them either) - 2
- Bike riders need to be more aware of traffic and conversely, drivers need to be more aware of bikes - often both appear oblivious to the other
- Cyclists could be better educated in the use of hand signals.
- We need to do more bike safety courses to help teach bike users how to feel safe on the road, like wear a helmet. I have helped councils plan and train courses before in Adelaide. Look at there bike plans.

LACK OF LIGHTING

▪ 6 months of year it gets dark too early for me to get home before dark. I do not enjoy riding in the dark on Sydney roads or unlit bike paths ▪ Unlit bikes in the dark especially on shared paths ▪ Lighting of shared paths to similar standards to regular street lighting is a must for both pedestrian and cyclist safety.
NO BIKE RACK ON CAR OR CAR TO GET TO BIKE RIDING FACILITIES ▪ Inability and need to transport bikes on their car to access safe cycle routes to ride with children – 3 ▪ Lack of a car to get to the mountain bike trail head - 1
LACK OF SECURE BIKE PARKING General ▪ No bike parking close enough i.e. to supermarkets; bus stops; work; school - 2 ▪ Lack of secure bicycle parking that prevents theft discourages them from riding - 9 ▪ Bikes stolen/vandalized discouraging them from riding - 2 ▪ Expensive bikes that need secure parking – portable locks aren't adequate theft prevention - 2 ▪ Have no where to park a bike - 2 ▪ In London most bicycle parking facilities have a perspex shelter over them to protect bicycles from the rain. These would make a difference to comfort and the longevity of one's bicycle and would be best placed at the Manly Ferry Terminal and Manly Corso. ▪ I would ride to Coles at Dee Why with my back pack to do my shopping if I could lock up my bike when I get there. I used to do this in Canberra all the time. ▪ Bicycle parking needs to be VERY SECURE – Then I would commute, go shopping on my mountain bike which is thousands of dollars and high target theft item rather than buying another cheaper commuting bike. ▪ I only ride to work because I have a secure place to leave my bike. I would love to ride to shops or local attractions although there is no place to safely leave my bike. So instead I drive my car. ▪ "If there were bicycle parking facilities in handy locations" is more about security. ▪ We are nervous about leaving our bikes somewhere if we want to have dinner for example as they cost a lot of money. If facilities were available where you couldn't see what type of bike we had then we'd use this more often. e.g. fully enclosed lockers. ▪ Bike Parking Somewhere they would not get stolen vandalised at Manly Wharf ▪ Provide secure parking for bicycles in key locations – 4 ▪ More bike parking - 4 ▪ Expensive bikes and accessories creates a greater bike parking security problem - 4 ▪ I used to park my bike by Queenscliff life saving club. It got stolen / vandalised 3 times in 2 months so I stopped riding to work. ▪ Bike parking at shopping centres and lockers to hold items that can easily be stolen - Bike head lights, bells, seats etc. ▪ Start with the Dee Why redevelopment. All new residential and business blocks should incorporate bicycle facilities for residents and users (should apply the Green Star rating system) as a minimum. Convenient Parking ▪ Bicycle parking needs to be convenient ▪ Our bikes are so rarely used - we have a 6, 5 21/2 yr old and would love to store our bikes somewhere where there is a dedicated cycling track, flat with facilities then we would probably ride every week. Public transport locations ▪ If there were bike parking facilities at bus stops / public transport hubs - 8 ▪ Bike parking somewhere they would not get stolen vandalised at Manly Wharf ▪ Need more bike parking @ Narrabeen Terminus in view of Pittwater Road for safety & under lights for safety at night time. ▪ There is little provision of higher security bike parking such as lockers or cages, especially near transport interchanges. ▪ Manly Wharf has secure bike storage facility no such facility is available in Warringah (suggest Warringah Mall and Dee Why) Workplace parking and end of trip provisions ▪ Warringah Council requires covered areas and lockers for extra staff to ride to work eg. to store weather gear, helmet, lights, reflective wear etc -1

- If there was more secure bike storage at my work; it's overflowing and un-secure
- Employers should have a responsibility for secure bike parking at workplaces.
- I only ride to work because I have a secure place to leave my bike.
- I work at Lifestyle working (Old Pittwater Road, Brookvale) which has excellent end of trip facilities for bike storage, showers, etc, which encourages me to use my bike to commute from Davidson once or twice a week.
- I would consider bike riding as a means of commuting if I were able to shower and change at the workplace and if there was somewhere to leave my bike secure - 4
- It's about changing and carrying clothes for work.
- Bike parking at work/home is out of the scope of council
- It would be great if there was more than just one shower available at Warringah Council in Dee Why, as there is often a queue to use the shower in summer.
- I would like to ride my bike to work (Royal North Shore / Manly Hospital) but there are no bike parking facilities and no place to shower/change - 2

Unit block bike parking storage areas

- Unit blocks being problematic for bicycle storage -3
- If Unit blocks were required to have bike storage areas - 2

END OF TRIP FACILITIES

- The end of trip facilities I suggest are more a responsibility of employers to encourage bicycle commuting. Likewise employers should have a responsibility for secure bike parking at workplaces.
- Bicycle facilities are generally under planned for eg parking, storage, lockers, showers etc but they are not required legislatively.
- End user facilities are also extremely important to encourage cycling - 2
- Serious lack of end of trip facilities (public showers) not aware of any at all in Warringah apart from Beaches.

LACK OF TRICYCLE PARKING

- Disability prevents me from riding bicycle - that is why I'm on tricycle - Lack of tricycle parking – 1

CHILD SAFETY & FAMILY PROVISIONS

- Having to ride with kids (6,7,8 yrs old etc) on roads in general and especially busy dangerous roads discourages them from riding e.g. Willandra Road Beacon Hill; around Brookvale and Pittwater Rd due to safety concerns. Limited to off-road bike tracks/routes - 8
- Need for more child friendly places to ride (similar to Dee Why beach path and Narrabeen Lagoon) - 6
- Having to drop off & pick up kids discourages them from bike riding - 1
- Kids difficulty with hills - 1
- Need to drive to places where they can then ride in a child-friendly environment. Would like to ride safely from home to get there instead - 2
- Kids can't ride on footpaths e.g. to school - 1
- Not enough room on footpath to ride with children and footpaths not really safe for children due to driveways and uneven surface and traffic - 1
- Roads should have some designated car free time for family riding could help – 1
- Family safe and friendly cycleways / parks - 7
- I would like to see more bike friendly bike track link ups through the area so kids are not riding on the roads.
- Access for kids to free training events
- Better cycle ways suitable for children -- there aren't even footpaths in some streets in North Balgowlah so my children have to cycle on the road which is not ideal
- Children - If there were more designated (and continuous) bicycle routes in the area to make it safer to ride with a toddler on the bike and a child on a bike. We have a couple of lovely bike paths through parks within my local vicinity but I feel extremely nervous riding on some of the roads required to reach these paths, especially with children.
- If we can't leave from home on our bikes (not practical because of Harbord road hill) then we'd like to leave our bikes in a storage area so we could drive then cycle along a safe flat scenic route with refreshment facilities along the way.
- Creating cycle clearways around schools & sporting fields (Parents do an incredible amount of driving around that could be reduced if parents could be confident that their children were as safe as possible on

clearly marked cycle ways) at peak times e.g. 7am to 9.15am & 3pm to 4pm (Monday to Friday) and 7am to 12pm (Saturdays) to accommodate children within school hours & adult commuters getting to work. A clearer cycle route, whether marked on road or footpath, that makes it clearer to motor traffic to give way to cyclists at driveways & intersections (within current road rules).

- If there were more designated (and continuous) bicycle routes in the area to make it safer to ride with a toddler on the bike and a child on a bike. We have a couple of lovely bike paths through parks within my local vicinity but can't ride to get there as it is too dangerous on the road.
- Bike paths / routes that adults and children can ride on together- not the ones drawn on the main roads.
- It is too dangerous to ride on main roads / roads with my family / children – 6
- Young children lack skills and awareness, they need a safe place to learn to ride i.e. bike parks and also bigger areas to keep them interested that is safe off-road, away from traffic and cars exiting driveways and doesn't involve road crossings, i.e. what has been constructed around Curl Curl lagoon to date – Still need more facilities - 9
- I would love to have more safe bike routes where I could safely ride with the children to get from A to B. I.e. dedicated off-road bike paths away from cars that provide access to key destinations - 5
- If you want to get more people cycling, you should aim for facilities that are safe enough for families to ride - 2
- Too dangerous for my kids on any main road. Designated bike routes, especially to schools can feed kids' enthusiasm for cycling (and fight obesity, diabetes, etc) and start changing the local car **culture (used)** even for trips of a few hundred metres!). I still can't help shaking my head about this while typing it.
- It is very difficult to ride with the kids when cars are parked along the road and there are no footpaths on local roads that are busy.
- Bike tracks to parks / playgrounds / schools suitable for kids with small bikes to ride on.
- Would like safe routes/paths around our area for family use with children - 3

OFF ROAD PATHS

Want more of them

- Lack of dedicated off-road infrastructure / cycleways - 3
- Lack of off-road cycling facilities - 3
- Approaching 70 years old and I don't want to be on the road with cars
- Need more off-road paths - 5
- Safe, off-road routes should be created to and from every school and recreational facility (e.g. the Aquatic Centre)
- Except for the Narrabeen Lake path, Warringah residents have no off-road, continuous, level, uninterrupted, sealed path for bike riding.
- The longer and more accessible the route without interaction with road traffic the more likely it will be used for recreational as well as commuting or shopping purposes.
- We also assist with the Junior Warringah Triathlon Club. We really need an off road bike track located near a pool to hold club races e.g. Warringah Pool.
- There are no off-road bike tracks in Warringah suitable for cycling or triathlon. Our family (myself, wife and 10yo boy) all actively participate (state to national level) in Warringah Triathlon Club and help run events including junior triathlons. We actually cannot run a bike leg for junior triathlons due to traffic restrictions
- More designated off-road bike paths/routes - 8
- Separated bike routes off-road (next to road?) - 3
- Off-road bicycle network to access shopping centres, facilities and work - 3
- If there was an obvious and wide enough bike paths by the beach or a bike-riding facility like a park more push-bike tracks in general would be helpful
- Would ride more in Warringah if there were more linked off-road bike paths through pleasant scenery.
- Need more off-road bike paths – 3
- You need to get bicycles on their OWN path - off the road. Many world cities eg. Chicago, Montreal (where I've live) have this - 'sharing' bikes with the road doesn't make sense. You need dedicated bike paths. This involves INVESTMENT - but we just don't seem to do that. I would definitely ride to work if it was safe.

Design and maintenance of off-road bike paths

- I would utilise local off-road cycling resources if they were well planned, maintained and therefore a more enjoyable ride (less erosion, less dangerous) - 3
- Off road bicycle tracks, shady trees over bicycle paths.
- More off-road cycleways that go somewhere useful. Warringah Council needs more off-road cycleways - the inner-west of Sydney is terrific! - probably thanks to Clover Moore and others. We are way behind over here in regard to the provision of cycleways!
- Bike paths should be set back from street / parking sign obstructions

- The major change which would encourage would be to provide off road bike paths over long practical routes eg alongside Wakehurst Parkway.
- Unfortunately we have to travel out of the area to bike ride as the opportunities in Warringah are very very limited e.g. to do an off road ride of 25 - 35 kms is not at all possible
- Elimination of dirt paths. If these were all fixed I could go to these places on my tricycle. Plus undergrowth cleared for wider access of tricycle
- Bike routes on footpaths where driveways cross them are dangerous as most cars reversing out of driveways can not see clearly up the paths. Bike Routes should be separated from traffic on their own dedicated path i.e. behind houses or through reserves.
- The designated paths are not properly indicated.
- When cycling & getting to steps there are no tracks to wheel your bike up or down (visit Europe & you find all sorts of single & double tracks up & down steps to access bikes, prams etc.
- Need street lighting devices along bike routes.
- Please design cycle paths wide enough to take two bikes going in opposite directions (needs 3 metres) and without ridiculous bends, turns, speed humps and poles in the middle of the track.
- Entry and exit points off paths to roads is usually poor with large gutter lips which are dangerous to negotiate in the wet at any angle (front wheel washouts or rim damage/flats), and also with integration into the next section of the route – 2
- Pram ramps at intersections need to be wider for tricycle access.

SHARED PATHS

Not enough / Want more

- Not enough/want more shared bike paths - 5
- Where I live there are no shared paths. School children ride their bike on the roads. It could be improved with shared foot paths.
- Would love to see shared routes through bushland, around lagoons, away from roads and especially along major transport corridors.
- Generally more shared cycle paths.
- More shared paths - 3

General

- Though bike routes are OK, they are often on pavements and share with pedestrians, causing cyclists to either be causing problems on the road or problems on the path.
- Shared paths are good for families with children and beginner cyclists– 8
- It is far safer to ride off the road & share respectfully with pedestrians. Obviously, pedestrians should get right of way but bikes are safer for everyone removed from the main road of traffic.

Behaviour of pedestrians and other shared path users

- Shared paths are dangerous
- Cycle paths on footpaths are extremely dangerous
- Shared paths are dangerous for all users (risk of collision / accident waiting to happen) - 9
- Pedestrians don't tend to keep to the left, they meander all over the path, are unpredictable, stop for a chat and seem unaware that they need to share the space, they don't share responsibility for their own safety, they wear IPODS and can't hear cyclists warnings, therefore shared paths are dangerous – 19
- Dogs on shared paths are dangerous – Keep dogs on short leads and don't let them wander across cyclists paths- 9
- Dogs should be on a leash on the shared pathways.
- Small children are erratic on the paths and aren't looked after, this is dangerous for cyclists - 3
- Walkers on shared bike paths often have ipods and cannot heed a warning of a cyclist coming from behind. They wander everywhere and twice I have had to ditch my bike and fall off to save them when they have inadvertently stepped in front of me. Strong safety messages need to be given to keep to the left and restrain dogs to the left and not let them wander across cyclist paths on leads which then take up the whole path from left to right. Perhaps some visual signs showing cyclist running in to pedestrians or dogs to illustrate the point. Signs should also tell cyclists to announce to pedestrians when coming from behind 'Bike on your right', though this is fruitless when ipods are in.
- Shared paths are dangerous for pedestrians & riders as both are unpredictable & pedestrians don't know to stay still & not move when confronted with a bike - they will avoid you.
- Shared paths are primarily for pedestrians, cyclists must be considerate, give way to pedestrians, ride slowly near pedestrians.

Cyclists Speed and Commuter Cyclists

- Mixed use pedestrian & cycle paths are fine for taking the kids out for a ride, not for commuting.

- Shared bike/pedestrian paths are not compatible / unsafe for bikes being ridden at a decent speed as part of a daily commute, training or for fitness recreation. They have a low speed design. Pedestrians move at 3-6kmph. Cyclists travelling at approximately 20-40kmph find themselves frequently stopping or having to ride off the path altogether to avoid pedestrian, children, dogs and other obstacles – 12
- Sharing the road at speed is a better option with a part of the road designated for cyclists instead of the unpredictable nature of shared paths - 6
- Shared paths are great for slow recreational riding (as they usually go via everywhere) but no provision is made for cyclists on the road who want to take more direct routes. Consideration needs to be made for both - 2
- Where a shared path exists, it should be optional to use, because there is a wide spectrum of cyclist-types - 3
- When training on a road bike you can't use a shared path with pedestrians as we are often going above 40kmph but the drivers on the roads are lethal. It's like playing Russian roulette every time we go out riding! It's good that some of the badly pot-holed roads are being fixed up now. Keep it up!
- Shared paths are ok but need to allow cyclists to travel a good speed.
- I think cycle speeds should be no more than 20kmh if you are going to use a shared pathway.

Design of shared paths

- Need to separate bikes from pedestrians – 1
- Footpaths are too narrow as it is and speeding bikes are a danger to pedestrians trying to walk in peace – 1
- Dedicated or shared bike/pedestrian routes that are near the shortest route.
- More bike paths or shared paths where pedestrians understand bikes will be passing and maybe speed limits to move faster riders out onto the road; More education of pedestrians on shared paths; Clearly identified shared paths so pedestrians are not surprised to see cyclists on shared areas - 3
- Dedicated cycle paths or at least 'predominant' cycle paths rather than cyclists sharing a popular pedestrian path. Examples of good cycle path is along Burnt Bridge bypass - example of 'poor' shared path is along Manly beach (dangerous to pedestrians).
- Shared paths need to be wide enough to overtake other shared path users, especially on busy routes extra width is required. Wide shared paths can work if the visibility (no sharp bends, obstacles) is good - 4
- Use coloured lanes (like the bus only lanes) to clearly indicate to ALL users that there is a bike path in a pedestrian area (eg on Manly beach front).
- It would make things easier if all shared routes were clearly marked, which they currently aren't.
- Continuous shared bike paths to desirable destinations, combined with safe crossing points, would encourage more cycling - 2
- Shared paths like the Manly beachfront path don't work in areas of high pedestrian use because groups of pedestrians block the path. However, where it is impossible to have two paths (eg Manly to Shelley Beach) it is great to have the shared path.
- Even in shared paths, pedestrians and cyclists should ideally be segregated - for every ones comfort, convenience and safety.
- Up and down ramps/slopes need to have smoothed-out gradients.
- Better signage required on shared paths
- I feel we need more signs indicating rules of traffic on shared paths. Particularly in high tourist areas eg. Manly.
- The condition of some bike paths off road, John Fisher Park in particular the tree roots severely damage the path is a big worry. This must cost the council thousands of dollars per year and can be easily fixed by not allowing trees to grow very close to shared paths as in John Fisher Park and near the Time & Tide Hotel path.

Education of shared path users

- More education needs to be had for people who use shared paths as to what the rules are and safety issues for both pedestrians and bike users - 3

Education of pedestrians on shared paths, such as keeping to the left - 2

CYCLING ON FOOTPATHS

- We have 4 children under 8 and ride frequently. Have a Christiana bike from Denmark (3 wheeler with a box in front) that we can fit all 4 children in. pedestrians being unaware that we are legally allowed on the footpath (we get heaps of dirty looks and complaints)
- I ride on the footpath illegally to access shops, work etc because there is no other choice due to lack of confidence to ride on the road, dangerous nature of roads and heavy traffic - 5
- Change the law – allow cyclists to use footpaths - 2
- Rename footpaths to activity path to be purpose built for all physical activity.
- Allow older bike riders use footpaths like parents/children.
- Ensure safety by reducing the grass on the footpaths and introducing child friendly (Adult maybe too) bike lane

ensuring 100% safety. This allows mothers to ride to the shops .Save pollution not the grass

- The footpath needs to be made into a shared path on at least one side as is very overgrown in places. More people would commute if we could get a reasonable grade (slope) on pathways.
- The bus shelters are a cycling obstacle on footpaths.
- Cycling with young children difficult due to lack of paved footpaths.
- Happy to share footpaths with children cyclists for their safety.
- As a pedestrian, I am appalled and disgusted at the attitude of bike riders who ride illegally on footpaths and footbridges who abuse us and expect us to get out of their way. It would also be a good idea if paths that were not shared routes were also marked as such. Penalties should apply for bike riders who ride where they shouldn't.
- When cycling on footpaths there is often no ramps off the path, you have to ride over or up the gutter (not good for kids or parents).
- I also don't agree with cyclists as young as 13 having to use the road rather than the footpath. As an adult, I do not feel very safe riding on the road myself, due to problems you have identified above, let alone my children.
- If the footpaths in all suburbs could be widened to accommodate cyclists and walkers we could then get off the roads. Pedestrian's use of pathways is probably minimal since most drive to shops etc.
- Very importantly - there should always be an option for cyclists - so if no designated cycle path is available then the footpath could be categorised as a shared pedestrian and cyclist area. Currently on a lot of our main roads (e.g. Warringah road) it is very dangerous to ride on the road when commuting.

DESIGNATED / DEDICATED BIKE PATHS

Want more bicycle paths / routes

- Lack of and want more safe bicycle paths/routes - 10
- Wants more dedicated/designated cycle paths - 2
- Lack of designated and continuous bike paths for recreational riding – 3
- More (dedicated) bike paths – 31
- More (designated) bike routes – 8
- More (designated) bike tracks - 3
- More (designated) bike routes - whether on the road or off road - 4
- More (designated) single track plus a dedicated 16 - 18km xc race track.
- More (designated) (and continuous) bicycle routes in the area
- Need more designated bike paths/routes/infrastructure – 23
- There needs to be more bike paths to encourage use by all ages and abilities, this would help to reduce road congestion in local areas and increase people's wellness. It would also encourage family participation.

Dedicated bike paths/route design and Safety

- I have been hit by a car on the footpath in the Northern Beaches – 1
- Inadequate recognition or knowledge of cyclist needs when designing bike routes and poor quality and design of existing so-called bike routes - 6
- Inadequate design of routes that swap from road to shared pavement with no thought to the speed the cyclist might be travelling at that point - 1
- Want more designated bike routes/corridors - 2
- Design a specific path for bikes, allowing circulation on both ways - like it is designed at Perth WA
- We would drive by car to a suitable bike route and cycle for leisure and health
- If there were safe designated bike routes - 2
- More bike only safe routes
- If there were better cycle paths / routes – 8
- Better bike tracks - 2
- I'd love to ride to work but it's just too dangerous without proper cycle paths! - 2
- We need decent bike paths - Period. (Refer to Canberra or Brisbane, Melb or Perth for ideas on what they look like)
- More clearly marked bicycle routes, both off-road (paths) and on-road, including destination signs with distances marked; bicycle routes design to Australian standards!
- Better on-road and/or off-road cycle routes
- If there was better infrastructure for cycling
- Designated routes that avoid peak hour and busy traffic routes
- Safe bicycle routes for slow commuters - ie bike path away from roads

- Designated, Council supported riding pathways, better signage and family friendly cycleways
- You have left off the single most important reason why most people don't ride more - lack of dedicated cycle lanes protect riders from traffic! You have captured this on question 4 but not asked the most obvious in question 5! It's very frustrating as a local cyclist that you are constantly fearing for your life. More footpaths simply need to be widened on one side of the street or car parking moved over to allow a cycle lane between the gutter and the passenger side of the parked cars.
- A properly formed bike route. Knowing about existing bicycle routes is one thing, the abysmal quality & poor planning of them is the other.

Dedicated bike routes not shared with motor vehicles

- Bike paths/routes separated from vehicles – 5
- Need more safe dedicated bike routes separated from motor vehicles – 9

Dedicated bike routes – separated from roads / traffic

- More bike paths separate from roads - 2
- If there were designated proper bike paths that were safe, (separate from traffic - not just a line on the road - usually right where car doors fly open!) convenient and went somewhere useful.
- If bike paths went all the way to where I work so I didn't have to ride on the road.
- If there were more bike routes separate / away from traffic - 9
- If there were bike routes that were not on major roads, especially dedicated bike routes / high traffic routes - 3
- Need more bike paths not on main roads / avoid high traffic areas - 6
- Need designated bike routes away from roads - 3
- There should be dedicated bike paths that are separate from road ways. At least separated by a median strip for increased safety.

Dedicated bike routes separate from motor vehicles and pedestrians

- More safe dedicated cycle paths - separate from motor vehicles and pedestrians - 7
- Separated - proper bike paths alongside for example one at lane cove goes for a few kilometres.
- The bike tracks would have to be dedicated similar to Canberra or Hobart. Simply putting bikes on the existing narrow footpaths is a just exacerbating the problem. As for painting lines on roads to create bike lanes is a hazard as well.
- Need more separate bicycle routes - 6
- Need more designated bike routes not shared with pedestrians - 2
- Need more safe designated bike routes not shared with motor vehicles or pedestrians – 9
- There should be bike only roads (paths). Send someone to Amsterdam Netherlands and see what they do. It can be done here. Bike path next to main roads even with the cyclists own traffic signals at crossings/intersections
- Look at the European model of separate road, footpath and bike path - and our weather is far more conducive to riding than Europe.
- My opinion is that forms of transport that go at vastly different speeds need separated spaces. Pedestrians do not walk on the road with cars and trucks it's too dangerous. Putting bikes with pedestrians is similarly dangerous as it is putting bikes on roads that are shared with buses trucks and cars.
- Having separated bike paths would allow the use of green motorised (slow) transport such as electric scooters, Segways etc. For differently abled and older folks these are a real alternative, as well as for commuters who can't afford to get sweaty.

ON-ROAD BIKE PATHS

Lack of them – want more:

- Lack of safe designated on road bike lanes - 8
- Lack of bike lane on roads eg a lane with a barrier between you and the traffic – 1
- More dedicated bike lanes/routes (on roads) – 32
- More dedicated bike lanes on major roads - 1
- If there were more commuting bike routes - 1
- More designated cycle-only lanes / segregated bike lanes - 2
- More dedicated cycle ways – 2
- Lack / need more space for bikes / bike lanes / wider shoulder on roads to ride a safe separated distance away from cars - 39
- Lack / need more space for bikes / bike lanes / wider shoulders on main roads to ride a safe separated distance away from cars - 20

- Concentrate on the major routes local streets are not where the problem is.
- There needs to be more separated bike lanes. As a daily user of Wakehurst Parkway and Warringah road, it is infuriating getting stuck behind groups of recreational cyclists doing half the speed limit- not to mention very dangerous! I have seen countless reckless acts of drivers trying to get around cyclists.

Don't want on-road bike paths:

- Do not want bike paths constructed on roads as it creates problems for motor vehicle drivers – 1
- Why are cyclists allowed on main roads (going 50 / 60 / 70 km with traffic and in peak hours) it is too dangerous for all concerned- 3
- Roads are too busy to share with bike riders / bike riders should not be allowed on roads - 3

Against car door lanes:

- Unsafe car door bike lanes discourages bike riding - 6
- Curl Curl to Dee Why bicycle track is very dangerous if I park my car on side of cycle way which is legal if I open the drivers door I am likely to take a bicycle with door – 1
- Bike paths situated close to parked cars come with inherent dangers.
- Bike lanes a safe distance from parked car doors
- A place on the main road away from cars & parked cars that open doors into the path of on coming rider.
- Bike paths, Bike paths, Bike paths..... And not ones that squeeze you into the traffic/parked cars zone. Go to New York and they are between the curb and parked cars. (Yes car owners need to be wary of opening their doors - but they do at the moment as well.)
- Not shared with parked cars (absolutely fatal when car doors open and throw you into traffic)
- Cars are NOT allowed to park on dedicated cycle lanes...cyclists ride safely between the curb/gutter and the road (the city of Adelaide, among others, has a great structure set up that we could easily adapt on Sydney's less busier roads)
- Cars opening their doors without looking
- Bicycle lanes marked next to a line of parked cars are a dangerous hazard, not a facility, cars often are not parked properly and drivers/passengers open doors onto the road without checking for bikes. Cyclists have to swerve into traffic to avoid car doors as there is not enough space in the bike lane - 13
- I have an accident or near miss with a car door opening on me when riding my bike. The person didn't look at all - 6
- Most bike paths on the road are positioned within the 1 metre danger zone for opening car doors. Drivers and passengers don't look for bikes when opening their car doors. This does not constitute a bike path. Cyclists need to ride at least 1metre from parked cars to avoid door openings. Motorists need to be aware of this and give cyclists a wide berth - 3
- Cycle lanes are death traps. The most common serious injury from cycling is parked cars having their doors opened and cyclists crashing into them. Why are cycle lanes invariably in the door zone then?
- Drivers open car doors without looking, my son suffered a concussion and was taken to hospital when a teacher at Freshwater High opened his car door in his path, what hope is there?
- More education for drivers when they are exiting their parked cars (ie opening doors directly in path of bike riders)
- We need isolated bike lanes where bikers don't have to worry about cars/car doors etc.

Traffic and Traffic Speed Issues:

- Lack of safety when riding in traffic discourages them from riding on the road - 15
- Safety issues relating to peak hour traffic discouraged them from riding to work - 2
- Need to be out in traffic and even more dangerous since red bus lanes introduced – 1
- The issue is about dedicated bike paths/lanes that are away from traffic. Bikes & cars don't mix - and cause frustration for drivers and fear for riders. Also speed on 'designated' roadside lanes not a problem. It is width for safety. Trucks and Busses doing 80km is not a problem if physically separated from bikes - 4
- We / I tend to ride early in the morning as there is less traffic so we feel safer - 5
- Routes to avoid traffic are longer and complex, therefore avoiding heavy traffic and danger is unavoidable for commuting purposes.
- Don't even think of reducing speed limits 'to encourage bike use'. That seems to be a theme in this questionnaire.
- Traffic speed limits are satisfactory, however actual speed on non main roads is unsatisfactory as speeding is the norm.

Safety / dangerous nature of on-road bike riding:

- Feeling unsafe and dangerous nature of on-road bike riding discourages or prevents them from riding a bike - 26
- I have been hit by cars twice on-road on the Northern beaches – 1
- Request safe designated bike lanes on main roads - 20

- Request safe designated bike lanes on all roads - 7
- Request bicycle routes that avoid high traffic roads - 2
- Request no bikes on streets – 1
- Request removal of the need for bikes on main roads - 3
- Areas should be looked at on how to have cars & bikes eg a lane with a barrier between bike & cars. There should be no parking on main roads at any time not just peak times.
- All major roads, green zones for traffic lights, drains need cross hatching to avoid bike wheels getting stuck.
- Nil, bikes should not be used for long distance trips as they are a road safety concern particularly on major roads. This concern relates to the reduction of roadway capacity and safety for all concerned.
- None unless wider roads. Current roads being modified rob the motorist.
- Separate commuter traffic by restricting bikes to back streets only. Much safer and less cost than providing special cycle ways.
- I think bikes should not be allowed on major roads Unless there is a bike lane already here. eg, they cause major traffic jams and frustration. (Lane Cove has absolutely ruined the area as there is an unused bike land and only one congested lane for cars now.)
- Most important to provide bike paths along arterial roads rather than recreational paths through park etc!
- Cycle routes need to be realistic and not take long hilly back roads.
- Narraweena roads too narrow traffic too fast.
- Bicycle only paths/routes not on roads.
- Safe designated on-road bicycle lanes - 6
- I'd love to ride to work but it's just too dangerous without proper cycle paths! - 1
- If there were safe biking lanes into the city – 4
- It is dangerous to ride on main roads (especially in peak hour)- 3
- It is dangerous to ride on roads - 5
- The main issue is on-road safety. Roads within Warringah, generally, do not facilitate safe cycling for either children or adults due to inadequate or non-existing bike paths as well as fast (and frequent) cars - 4
- I would prefer to ride to work every day if the infrastructure meant it was safe; however in my work as an Emergency Medicine specialist I see too many cyclists dead or injured from riding in traffic.
- On-road bike paths are only suitable for experienced and mature cyclists.
- I always beat cars in on the way to work due to the traffic.
- Traffic too heavy - 2

Design of on-road cycling routes

- Authorities are not building/painting cycle lanes on main commuter routes and other roads when the opportunity arises (such as the new road works near Warringah Mall) – 2
- Inadequate design of bike lanes that stop just before traffic calming devices, roundabouts or junctions leaving you stuck out on your own or squeeze you into the traffic flow, blocking passing cars – 8
- On-road cycleways need to be adequately separated from vehicles and wide enough to make them safe. Especially when traffic travels at speed. - 4
- The idea to have a 'shared' lane on the road is akin to attempted murder - 1
- Need to have designated area for cyclists at the front of junctions - 2
- Inadequate design of impossible road crossings - 1
- Make the junctions more friendly.
- Current road works and placement of crash barriers make the road very bike unfriendly.
- Signage at all roundabouts for motorists to stay behind cyclists until past the roundabout.
- Where streets are only wide enough for one car in each direction, consideration should be given to either including a designated bike path or restricting riders from travelling more than one abreast.
- Better bike lanes - 4
- Better cycling infrastructure - 2
- Better junction layouts to encourage cyclists
- Space for cyclists at traffic lights
- If there were obvious and wide enough bike paths
- Roundabouts are dangerous, some motorists do not see cyclists.
- Quiet streets not full of roundabouts & road furniture.

- A painted line on the side of the road provides little protection from a 10 tonne bus!
- Better on-road facilities, bike lanes that don't vanish - 2
- Dedicated cycle lanes properly design, well signposted with clear road markings (not just left over lane width painted with a bicycle sign) - 2
- If there was less difficulty for cyclists getting through heavy car traffic with slow or stationary cars right against the kerb.
- Rather than 'designated bike routes', or even worse, bike paths, it would be better if all main road had an inside lane area marked for cyclists.....but ideally wide enough to follow RTA advice for riding 2 abreast to increase visibility and safety. Most commuter cyclists I chat to prefer to have no marked bike lane because they are too narrow, usually poorly maintained and dangerous with glass/ sticks and other matters that would make a cyclist crash and fall into the car traffic.
- More footpaths simply need to be widened on one side of the street or car parking moved over to allow a cycle lane between the gutter and the passenger side of the parked cars.
- Riding on side of road traffic so close is dangerous. There needs to be a physical barrier not just a painted line - 2
- All main roads should have a designated bike lane with intermittent curb facilities to stop cars/buses/trucks/other vehicles from using that lane particularly Mona Vale Rd, Forest Way, Warringah Rd, Pittwater Rd, Military Rd at bare minimum.
- There needs to be a huge effort to move cyclists away from all traffic lanes onto a one metre special lane, specifically for their use, on all roads. Obviously this would mean narrowing footpaths to accommodate them rather than widening the roads.
- Don't design bike lanes that suddenly end forcing bikes to merge with fast traffic at pedestrian crossings, roundabouts and road crossings/junctions where cyclists really need good designs - 6
- Many traffic management devices make riding a bike more dangerous. On roads where there used to be room for a bike and a car travelling in the same direction. Now with chicanes and speed bumps with raised edges, pedestrian safety features such as jutting out concrete platforms near pedestrian crossings, there is no room for both - 3
- At least allow space for cyclists to navigate between traffic calming devices & the gutter (and they must be wide enough to not block up with rubbish).
- It would be good not to have to get off the bike at crossings and roundabouts.
- Bike lanes on road are poorly designed. They assume bike riders can interchange from road to paths to get around roundabouts etc., and this does not happen. Bike riders are then endangered when they chose to not follow the designated route, which happens as they wish to maintain the momentum of their journey.
- Why is it necessary to build evermore 'squeeze points' in suburban back street where the speed limit is already down to 40 or 50 kms. Car drivers appear determined to get in front of cyclist and then apply the brakes to navigate the traffic control device properly?
- Need more bike boxes at intersections - 3
- At major intersections, traffic lights for cyclists that are only activated when button pushed by cyclist (similar to bus only traffic lights)...this way, cyclists don't have to get caught up in the general car traffic while turn at intersections - 2
- Turning right on main roads is frightening.
- More safe dedicated bicycle paths, properly designed (not just left over lane width painted with a bicycle sign or line marking) - 6
- There should be no parking on main roads at any time not just peak times - 3
- Designated bicycle lanes wide enough for riders two abreast is crucial
- Ridiculous idea to have shared routes with buses and cars - that's either murder or suicidal, depending if you are the planner or the cyclist.
- More / improved bike signage please - 3
- More signage on main roads
- Bicycle signage is either not there, or is poorly located.
- The simplest form of signage is to have a properly marked, separate cycle lane, not shared with either pedestrians or motorist, & with appropriate signage painted onto the road.
- Directional Signage: A large number of Warringah residents commute by cycle to & from the CBD & this route is woefully signed. It's fine if you know the way, but on my first attempt to cycle, I had to constantly stop & check maps to ensure I was on the right route.
- A painted picture of a bike on an existing road isn't really a bike path / doesn't enhance cycling safety - 2.
- More alert signs designed for car drivers to watch out for bicycles.
- Signage to be more distinctive

- Cycle hazards are not signposted
- There should be signs on dangerous street corners for bike riders to slow down when crossing side streets that lead onto Pittwater Rd eg Stuart St Collaroy (narrow street).
- I personally am very grateful for the new signage installed in Killarney Heights.

Maintenance of on-road cycling routes

- Poor/bad quality of roads that are not maintained and have rough, loose surface and potholes creates bike maintenance issues that discourages bike riding - 11
- Broken glass – tyre punctures in bicycle routes - 3
- Just make paths and roads smoother
- Important to have regularly swept paths/road shoulders - 2
- Improvements of the roads themselves and the amount of potholes and gaps, less holes in the road and debris / glass (especially on bike shoulders) - 4
- Improved road quality – 2
- Bike lanes need regular cleaning to remove obstacles (glass, tree debris, tree routes, rocks, gravel, rubbish etc) especially after storms. These are dangerous as cyclists swerve into traffic lanes to avoid them – 6
- Paths on edges of major roads should be improved by mechanised sweeper & smoother surfaces (no damage) so as to avoid punctures and blowouts etc
- Fix rough bike lanes: pot holes, seam gaps, tree route damage, overhanging trees, grooves, loose gravel, metal drain tyre traps, man hole covers. These are dangerous as cyclists swerve into traffic lanes to avoid them of collide with them and injure themselves- 13
- Where sealed surface / bitumen does not cover the full extend of the cycle lane (short sighted and lazy on the RTA's part) and dangerous for cyclists – 5
- We are somewhat dismayed at the time it takes to fix a problem when it does arise
- Road maintenance is bad / poor / awful / atrocious - 4

Bus Lanes

- If there were better bicycle paths available as riding in bus lanes on Pittwater Road is significantly hindered by the frequency of busses in the lanes, turning cars in the lane and glass on the roadside in general.
- Bikes should be banned from Transit Lanes and Bus Lanes as they slow traffic to a crawl in many cases, making these lanes redundant. Bikers who insist on riding in such space selfish and inconsiderate. Need separate bike lanes for cyclists that don't mix with traffic – 5
- Using the bus lanes, especially on Pittwater Rd is not suitable when considering the frequency of busses during peak hours, minimal overtaking space, poor visibility of cyclists for bus drivers, antagonism between bus drivers and cyclists and the fact that cars park there in the off-peak hours. Need separate bike lanes for cyclists that don't mix with traffic – 4
- The bus lane on Pittwater Rd was not built as a bike path but has been the most significant safety advance to Nth Beaches bike commuting in recent years. It goes along major route, a bike can commute at a reasonable speed (not possible on shared pedestrian routes) and eliminating (most) cars and trucks.

SAFETY IN GENERAL

- Safety is the main concern that discourage or prevents them from bike riding - 9
- I would like to see more safety for bike riders - 3
- We would like to ride up to Curl Curl but it is too dangerous with our children
- If it was safer - 10
- Need to provide safe and convenient cycling routes if you are to get more people cycling - 13
- Overseas statistics show that on-road cyclist safety increases as the number of cyclists increase.
- Safety is a major concern - 9
- The road toll of bike riders in Australia is appalling. This is due to the failure of local government to ensure that SAFE bike routes are provided.
- Safety on roadways riding with traffic is a major concern – 6
- I have been in a cycling accident with a car - 6

INADEQUATE BIKE ROUTE CONNECTIONS

- Absence of continuous effective bike routes, there are many inadequate fragmented ones that stop without notice and don't link up with other bike routes - 8
- Lack of safe, direct bike routes that don't take you miles from the shortest route for commuting to work etc - 4
- Limited amount of connected off-road trails - 1

- Lack of Bike Routes - Cross City, joint Council Shire thoroughfare (through the next two neighbouring Shires), - ROUTES do not LINK UP- Cross City traversing – 1
- Link up the bike paths either shared road or footpath
- What existing bike network? I do not consider a few unconnected white lines in random back streets on the side of a road to be a 'bike network' ?
- There needs to be proper designated, safe bike paths, that actually go somewhere significant.
- A network of connected bike routes/paths - 13
- If you developed a cycleway system along popular routes & between key destinations (schools, shops, transport, work, between Manly and Warringah Mall, Beaches) - 23
- A network of connected bicycle routes for commuting – 3
- Quieter routes - 2
- If there were actually safe and integrated (not fragmented) cycle ways along the desired routes. I don't want to do the hilly bits along the coast and I don't want to waste my time with detours along the coast and 'scenic routes'. We need the fastest, flattest possible connection from A (Pittwater Rd/ Dee Why) to B (CBD or Manly Ferry)
- If bike routes were more direct
- If there was a connected network of off-road/cyclepath/shared, footpath to use for all my travelling needs. This doesn't have to be major infrastructure at a huge cost just adapt what already exists.
- Lack of / need more completed bike routes that are coordinated to link with practical locations i.e. homes, shops, work, school, libraries, bus stops, beaches, recreation facilities, mountain bike trails, adjoining local government areas and other bike paths to get maximum value from existing infrastructure. Existing bike routes tend to be fragmented and just stop without reaching a destination, making it difficult to ride safely - 21
- There seems to be no linking of bike paths between council areas. No 'big picture' planning vision to establish bike routes between major centres (Chatswood, City, Nth Syd, City) – 5
- Cycle plan needs to be joint between Manly, Warringah and Pittwater Councils.
- Designated bike routes in Warringah often take indirect routes to avoid busy roads. These routes are also more hilly and take longer. Main roads usually have the best gradients and are more direct.
- Few dedicated and linked cycle pathways on local and main roads which is a major safety concern that discourages riding

BIKE RIDING FOR RECREATION

- More recreational bike paths – 4
- I ride locally for recreation and to access local shopping centres, beaches etc only on bike paths - 2

MOUNTAIN BIKE RIDING

Lack of mountain bike facilities

- Lack of legal designated mountain bike off-road trails - 32
- Lack of mountain bike riding areas that are fun to ride and are not a huge fireroad - 1
- Lack of legal mountain bike trails. i.e. Trail types: Cross Country, Downhill, Freeride, 4X, Dirt Jumps, variety of challenge levels - 2
- Lack of all weather trails. i.e. manly dam shuts when wet - 1
- Lack of challenging downhill or single trail mountain bike tracks - 1
- Limited land access to bushland for trails - 4
- Areas set aside for mountain biking would receive applause from riders not only from within the area but the whole of Sydney and could well mean a boost to the local economy as a result - 1
- Ineffectively managed riding resources - destinations that attract riders from across the entirety of Sydney (such as Manly Dam, and in the past Oxford Falls/Red Hill) are not invested in/supported by local government appropriately - resulting in misuse/erosion, user conflict, and lost local economic opportunity. There are many global examples of well managed investment protecting the resource, and encouraging those visiting to spend in the area. NZ - Wood Hill, Makara Peak, Port Hills. UK - Coed y Brenen. France - Les Gets -1
- Active discouragement of Rangers and National Parks to allow Mountain Bikers to ride in the bush. Road riding is dangerous with the lack of Cycle ways and lack of understanding of cars, the bush is safe, fun and healthy (away from fumes) - 1
- The overuse of designated MTB facilities such as Manly Dam. If there were more facilities similar to this on the Northern Beaches, easily accessible by bike it would help greatly to reduce the load and wear on the trail. Manly Dam is a huge benefit to the local community, but being unique in Sydney, does tend to attract too much traffic, making it a conscious decision whether to ride it or local fire trails - 1
- Also a big fan of mountain biking around Manly Dam. If some more tracks could be developed around Red Hill as

well, that would be great. Single-track rather than big-jump stuff.

- I would like legal single trails in local bushland. This is just for cross country riding, low erosion, low maintenance, safe riding.
Such as the Manly Dam Trail. The fact there are fire trails and official vehicle access trails that MTB's are not allowed to ride on but a 2 ton 4x4 can drive on is just plain stupid. (Evas Track at Manly Dam). Please allow trails to be built or at least accessed by MTB's.
- Manly dam etc single track!!!
- firstly, congratulations on the manly dam mtb loop. it is one of Sydney's most successful and well known bike paths. There is a world class opportunity for Warringah to transform Red Hill crown land - currently being damaged by motorbikes and occasional 4WD vehicles - and poorly utilized for recreation, into a MTB park along the lines of Scotland's 7stanes (www.7stanes.gov.uk) or Canberra's Mt Stromlo (www.stromloforestpark.com.au) which both bring in a measurable and significant income to associated areas. Red hill has a disused park and picnic area and a substantial amount of trails and crown land which if built by professionals as sustainable trails (www.world-trail.com) could rival the beaches as a tourist - both local and international - drawcard.
Mountain Bike Trails
- Limited Use for roads
- Off road please - More tracks around Kurringai, and through the Oxford falls area
- Being a mountain bike rider I would like tracks to remain open. Several have been closed and this is not because of the impact of push bikes but motorbikes. Please ensure pushbike riders are not penalised because of motorbikes.
- Bike tracks around the bush in the red hill (Beacon Hill) area.
- Maintained tracks around Manly Dam and bushland area.
- More Legal Mountain Bike Trails More off road tracks.
- Opening up new trails in parks within the region
- Crossing the national parks from North shore areas to St Ives areas and then further to north western suburbs
- More off streets bush riding.
- Mountain bike options could be improved considerably, manly dam is great, but there are
- Manly Dam
- Any bush tracks would be good eg along middle harbour via Davidson Park-are bikes allowed there?
- More designated legal mountain bike tracks/trails - 23
- Greater availability of legal off road (single-track) riding trails - 4
- More designated single track plus a dedicated 16 - 18km xc race track.
- More MTB specific tracks for XC and DH riders
- Having a legal trail in the area for Downhill and free ride
- Better quality off-road trails that are close enough so I do not need to drive to get to them.
- Well maintained quality off-road trails - 2
- Marked out sign posted mountain bike trails. At present Manly Dam is the only one in this area.
- More purpose built and connected off-road bike riding trails i.e. not just out and back fire trails but single track. A purpose built bike riding trail parallel to say West head road so I can ride out there and not on the road - 2
- We need Mountain Bike tracks (Yes Plural). Until this happens there will be a continuous war between NPWS and illegal bikers riding in National Parks. (Refer to ACT and New Zealand for ways to successfully integrate MTB trails/users and the environment safely.)
- If there was a great selection of off road tracks, particularly dedicated mountain bike single track, open to all users but with bicycles having right of way
- More, better maintained mountain bike trails and facilities in the area would ensure that I would use local tracks instead of heading out to outer Sydney areas with such facilities. It would mean that I could simply ride a bike from home instead of using a car to get to the mountain bike trails.
- If you could explore the beautiful bushland surrounding middle harbour from Roseville towards Belrose and Roseville towards Killarney Heights and Wakehurst Parkway
- Mountain Bikes - If there were more trails as per my submission to the manly Warringah multipurpose trail survey (have not heard any outcome from that project - hoping that this survey does not end up mothballed like that project seems to have been)
- If there were paths in bushland between Terrey Hills and Cromer Heights.
- If you could explore the beautiful bushland surrounding middle harbour from Roseville towards Belrose and Roseville towards Killarney Heights and Wakehurst Parkway.
- Want / Need more legal mountain bike trails - 19
- Would like to see more effort with mountain bike tracks, we have many excellent parks and reserves that would offer

excellent opportunities for expansion of mountain bike tracks - 2

- There is nothing here about off road mountain bike facilities - you are ignoring that fastest growth sport in Australia with a HUGE northern beaches following. Mountain biking is massive and there needs to be more designated trails designed for them - this would help the 'usage' across the current trails as well - 10
- Mountain biking should be encouraged as a viable way of getting people of ALL Ages to enjoy exercise. It is nowhere near as dangerous as road riding and gives people the same appreciation of the bush as bushwalking. Also, if you give the youth a place to mountain bike ride it will keep them off the streets - 6
- The mountain bike access to Manly Dam is fantastic work by the council (where rangers communicate with the bike community) - 6
- Concern that Manly Dam mountain bike trail is not getting closed after wet weather as it has been in the past.
- I ride down hill, 4x, dual slalom, cross country, free ride, jump park and trials. Warringah Council only has facility for short and easy cross country (i.e. Manly dam) which is highly used / congested and can become monotonous after a while. For all other disciplines we must travel to the central coast or the blue mountains or risk riding illegal downhill tracks like Oxford Falls and Red Hill - 4
- Legitimate off road infrastructure is needed. The mountain bike community is very willing to assist with design and maintenance of tracks ... as can be seen by the Oxford Falls actions taken by the Warringah Mountain bike club and residents. (eg recent efforts by both riders and residents at the recent 'Clean Up Australia Day').
- Other councils such as the Hornsby Shire Council have recognised the need for dedicated infrastructure and facilities and have commenced investigation of a Mountain bike trail network.
- With a growing need and lack of facilities there is ongoing issues in regards to illegal trail building when there is no legal option available in Warringah council except congested Manly Dam - 2
- We were very disappointed by the recent shut down of the cross country tracks in the Oxford Falls area's, I understand that this may have been due to certain areas of cultural significance, but could we not have moved parts of the track to avoid these areas?
- It is greatly disappointing that MTB trails are constantly closing - MTBing is a growing sport (most are ratepayers) yet the idea closing National Parks surely in itself is an oxymoron. You want people to ride bikes? Then open more trails - create a viable, sustainable mountain bike park in the Warringah area. This council has a real chance to be a leader - like Roturua in New Zealand.
- I worry about the amount of mountain bikes that are being drawn to our local areas of bushland such as Manly Dam, Belrose etc. I am a biker myself but I feel that too much bike traffic (most from out of the area) is degrading these environmental gems. With the increase in numbers, the small minority that does the wrong thing (going off designated tracks-or making their own tracks etc) increases. Bikers are now even riding in bushland areas at night with no care or concern about what damage they do.
- People are motivated to go outdoors but the lack of trails means they are over crowded and can get aggressive especially toward walkers etc... Having unrealistic time/pay parking is stopping people using council provided activities. e.g. Manly 2 hours is a pain especially if you want to eat and shop and relax. One rate at National parks are expensive if you are only there for a short time. Hard to police for the council but this puts me off going to national parks.

Oxford Falls Off-Road Tracks

- Oxford Falls - PLEASE re-open the tracks in and around the northern beaches- i.e. Oxford Falls etc. there is tonnes of bushland for tracks similar to Manly Dam around here!
- Oxford Falls MTB trails reopened
- Oxford Falls - Slippery Dip Track
- Off road bike route linking Oxford Falls, Red Hill & Manly Dam
- More access to Oxford Falls and Garigal National Park
- Lots of possibilities for mountain bike riding around Oxford Falls
- Oxford Falls, Cascade, 2 Creek tracks

OTHER

- Magpies swooping in winter months - 1
- Taking away footpaths from pedestrians - 1
- Because I'm not allowed to ride on the footpath - 1
- If I could ride to school on the footpath
- If bicycle riders over 65 years old could ride on footpaths.
- Being allowed to ride on the footpath.
- If I could start and finish work in daylight hours, but my work can't do that!
- Affordable bicycle maintenance and parts

▪ Knowing more about the beneficial effects of bike riding. ▪ Maybe it should be mandatory for cyclists to wear fluoro vests for visibility.
SIGNAGE ▪ If they do exist they need better sign posting and traffic calming. ▪ If there is to be a bike route, it must be clearly marked and if it's to be a shared route, widen the footpaths!!! ▪ Bike signage is needed throughout LGA - logos on road for driver awareness as well as routes and directions, and bike parking. ▪ All roads to have designated cycle signage and road markings. ▪ Better signage - 3 ▪ On road signage ▪ Sign posts better displayed and the up keep of paths and markings ▪ More Beware of Bicycle signs would help.
BIKE FLEET ▪ Bicycle Fleet: Other cities provide free cheap bicycles for use by patrons. They ride & drop off, next person rides back & drops off. ▪ Bike Fleet - Possibly rent-a-bike, to allow pick up and return of bike from convenient locations
IRRELEVANT RESPONSES ▪ For short trips I like to use my razor scooter – I need to get something like that for adults as I feel a bit silly. I have thought of taking up rollerblading too. ▪ Why the majority of pedestrians (in many cases mothers with strollers) in Killarney Heights when walking on the road don't walk on the right hand side so they can see the incoming traffic.? ▪ I love my new gel padded saddle.
BROADER NON-SPECIFIC RESPONSES ▪ Warringah Council needs to learn from other cycle friendly councils. eg Manly - introduced a reasonable network of cycle routes, both share footpaths & on road signage. City of Sydney - on road signage; separate cycle paths. Mosman & North Sydney - as above. Warringah has minimal of above. ▪ Sydney's geography is problematic due to rivers and coves. Road bridges are expensive and unsightly, tunnels are just too expensive. Pedestrians and cyclists routes can be added relatively inexpensively though. Think about how cheap a foot/cycle bridge is to build in comparison to a roadway? I would love to see a higher bridge across various water crossings for walkers and riders. If there were a network of bridges like this, it could link up to become a tourist draw card in its own right. ▪ I like what they have done out on Epping Road which is a designated dual way bike track from Land Cove Road through to North Sydney. When I stay at my mums I often ride to St Leonard's from Epping; to and from work ▪ Would be happy to sit down and discuss this in depth as this box doesn't allow enough detail. ▪ People who are prepared to ride a longer distance (i.e. to work, not just to local shops or school) tend to have to ride fast to get there in a reasonable time. This means decent road surfaces, free from traffic, on or next to main roads. Look at Amsterdam and Copenhagen for the type of infrastructure required to make bike commuting real for the masses; start smaller in achievable chunks obviously. The achievable chunks in Sydney are the major arteries mentioned above. ▪ My cycling is essentially done in Bicentennial Park using a car to get there, there is no traffic if early enough the children either walk or cycle at home. ▪ We use our bikes for recreation only given both adults work in the city. ▪ Not interested in bike plan - Walking footpaths, needed more. Young Mothers in Wyadra Ave, need footpath more than bike rider & also some elderly. ▪ Additionally the topography of the Warringah area makes cycling a pursuit for a very small number of people. That is where grades on roads exceed 5% those roads are not suitable for cycles. ▪ Council should not spend any further funds on cycle ways. A small number of cyclists are given a disproportionately large voice on the need for cycle facilities. One only has to examine the DoT Journey to Work trip tables to see how small the number of cyclists is i.e. less than 1%. This is the proportion of funds that should be spent on cyclists. ▪ I don't travel much outside Narrabeena/ Beacon Hill (Red Hill) unless to take my bike (on the back of my car) to specialised places such as bicentennial or centennial parks. ▪ I ride for recreation 20 to 40 kms rides from Beacon Hill and back. I have no choice but to use roads with the variety of vehicles and speeds they travel at. I have ridden extensively at Sydney Olympic Park, Perth and Canberra where

there are excellent facilities for cycling

- Too many to mention. Most bike riders like to take the most direct route as you would if driving in a car. At present bike routes seem to zig zag all over the place adding extra time to your commute.
- Where to start Bike. Bike paths in Warringah are woeful. When riding in St Leonards and back the unsafe part is in Warringah. In Manly, Mosman and North Sydney there are well marked bike paths in abundance.
- Council's should co-ordinate routes so a route doesn't stop at the boundary with Pittwater etc.
- To parks - Would like to see more bike paths around parks for family exercise. We use park at Passmore but need to drive to get there.
- To Parks,
- To Recreation facilities
- To local Schools
- 2 people requested bike routes to work
- 3 people requested bike routes to shops
- To Chatswood – Dedicated bike path
- To Saint Leonards - I choose to ride to St Leonards via the back streets as noted above. It is more time consuming - and a safe alternative would be very good.
- Poor facilities all round compared to bike facilities examples provided in: Auckland; Christchurch; Canberra; Melbourne; Perth; Adelaide; Holland; City of Sydney Cycling Strategy; USA; New Warriewood estate cycling facilities - 9
- It is very noticeable that whilst Manly, Mosman, North Sydney & City of Sydney councils are doing a lot to invest in and support cycling and make it safer and easier to ride, Warringah appears to be doing nothing - 2
- Cyclist infrastructure provision is very poor – 3
- There is an urgent need for a shift in thinking about bicycle transport from a mainly recreational focus to an everyday mode for short trips. We should be providing facilities on the assumption that increasing numbers of people are going to choose bicycles in preference to motor vehicles for short trips. Governments need to limit the use of cars and make bike riding more attractive for short trips otherwise people will stay in their cars forever - 3
- Cycling is an inexpensive, healthy and environmentally conscious decision that should be supported by all government and private bodies. Increased and improved cycling infrastructure will assist to increase the utilisation of the bicycle for transport, relieving the pressure of more motor vehicles on the Northern Beaches, and the increased (and vastly more expensive) infrastructure motor vehicles require - 2
- Create license for bicycles and use money to build bicycle infrastructure – 2
- Public transport on the Northern Beaches is not good (This is admittedly largely due to geography), so bike riding would be a good alternative but the infrastructure needs to be in place particularly storage and safe riding routes.
- Cycling is the only sport in the world where we don't get our own playground. Tennis gets tennis courts, swimmers get swimming pools etc. Imagine playing tennis on the road.....ridiculous! Well that's what it's like for cyclists.
- There should be government incentives for people who opt to ride to work rather than commute in their car.
- Bike paths in urban areas for commuting/shopping etc tend to be an afterthought / retro fit whereas in rural regions there is the space to provide dedicated pathways - 3
- This survey assumes everyone does or should ride a bike - if the roads were wider many more of use would ride bikes. It is now too late to widen all the streets and the selfish attitude taking up whole lanes does not help. The painting of cycle lanes (Starkey Street) is if anything a nuisance and a waste of good money. As they are used by about 2 bikes a week.
- This is a low priority issue for the community- funds would be better spent on stopping the privatisation of the long day care centres or paying off the debt the council is concerned about rather than upgrading 'bike' facilities!
- Bike riding should be discouraged - far too dangerous; There is too big a discrepancy in speed between bikes and cars; Too much vehicular traffic to allocate extra space for bikes; Bikes cause accidents as they are difficult to pass.
- You want to try and reduce green house gases and traffic but you won't make it harder for people to drive because this would be political suicide. All the words and promises mean nothing because the council will never make it easier to cycle and harder to drive.

OTHER COUNCIL AREAS

* Roads not within Warringah have been eliminated from this response analysis.

Pittwater Council

- 4 people requested bike route along Barren Joey Rd - Better, safer riding all along
- Crossing the bottom of the Wakehurst Parkway can be incredibly dangerous at certain times of the day.
- Pittwater Rd at Bayview / Church Pt is narrow, potholed and has no cycle lane. Many drivers become frustrated with

cyclists here.

- Pittwater Road - Bike lane heading west on Pittwater Rd between Mona Vale and Church Point
- Newport to Pittwater High School.
- Narrabeen to Mona Vale.
- Crescent Rd (Mona Vale or Newport?) has fast, winding turns that cars zoom around and a bike rider's only choice is to ride on the road.
- Boondah Rd, Warriewood has no paths.
- Bilgola bends is impossible.
- Non Warringah Area - /Barren Joey Rd/Mona Vale Rd intersection heading south (down Pittwater Rd) speed limit is too high as cars merge into 2 lanes (bus lane discontinues) before the 70 zone. Many drivers speed through this area and come very very close (able to touch) to riders.
- Cabbage Tree Road
- Wider cycle lane on Pittwater Rd from Mona Vale to Church Point
- Off road cycle path from Warriewood Square to Mona Vale around the back streets if this is easiest or along Pittwater Rd if it doesn't matter.
- 2 people requested a safe bike route to Warriewood Square
- Longer (clearly signed/mapped) paths through Warriewood
- Warriewood Headland
- Bike path - Billarong Reserve to Bridge at Narrabeen
- Lots of possibility for mountain bike riding around Elanora heights
- Powderworks Road
- Church pt to West Head lookout
- Narrabeen north e.g. Waterloo street to the Caravan Park.
- Safe dedicated cycle lane over bridge at Duck Creek Elanora
- Narrabeen, new bike path (too short) around caravan park, and up hill to Mona Vale.
- Pittwater road from Mona vale to church point is dangerous to ride on.
- It is also very dangerous crossing over at the Narrabeen end to loop back on to Pittwater Road as there is no designated cycling crossing point to alert car drivers and cyclists alike.
- Poorly thought out speed limits in some areas particularly Pittwater Rd at Bayview (Pittwater Council).
- There are very limited lights up and down a major bike route i.e. Mona Vale to Church point

Manly and Mosman Council

- share path along manly beach - parked car bonnets over hang over path therefore install stoppers for parked cars OR move centre line towards beach to allow enough room to walk/ride without zig zagging. Pay parking on along this shared path is also dangerous as pedestrians cross the bike path without looking. Same for trees/bushes growing out of golf course along Kenneth road.
- Bike path on Manly beach front can be frustrating if there are too many people walking along it.
- Manly Beach Shared Path: Some parents do all the unloading of prams and even changing nappies on the shared path. They could do that on the grassy area, they could also train their tricycle and bike riding children on the promenade.
- Shared pedestrian/bike paths in the Manly area are very dangerous, to all users. The needs of both are just not compatible. There are not enough bike routes or even one connected bike route from Manly around the North Manly/Manly Vale/Brookvale area - all good level bike riding territory.
- Trying to keep away from cyclists as you board or leave the Manly Ferry can be a problem
- The cyclist were barred from use of the Fairlight to Manly track because pedestrians wanted exclusive rights to it. This was totally unfair on cyclists. Surely the solution could be to widen every footpath for dual occupancy.
- I would particularly like a lane going both ways up the Spit please.
- The main roads i.e. Spit Road are very dangerous, I would never feel safe
- The end of Burnt Bridge deviation path exit at the lights with Condamine St. as there is no marked way to get across to Kenneth Rd, and the gutter lips are savage (see the bitumen patch I put there to smooth it a bit);
- The cycleway along to the side of the Burnt Bridge Overpass is excellent but needs some lighting at night as in winter it's a dangerous commute in the dark.
- There needs to be more bike parking near the Ferry and on the Corso.
- Manly Ferry bike racks are always completely full, any time of day, any day
- The shared path at Manly Beach is very dangerous as the parking meters are the wrong side of the cycle path and people do not look when crossing to pay to park – 3

- Many pedestrians on the Manly Beach bike/walk path don't realise it's for bikers and runners and take up the whole path so its hard to pass. Also parents should watch their kids more closely in this zone.
- Babbage Rd
- Extension of shared path way near Burnt Bridge Creek to provide safe access to Spit Road/Parrawi Road then better defined route to Harbour Bridges for cycle commuters to city from Northern Beaches.
- Spit Rd up through the bends should be off limits to cyclists (Parrawi Rd is much safer and a better view), Mosman LGA.
- Fairlight walkway - Let bikes on it
- Manly to City - Bike lane
- Spit to Manly same as walking path.
- Raglan and Belgrave road in manly are too dangerous for bikes.
- Clontarf, Lister, Wakehurst Parkway, Judith (topographically the flattest route to Balgowlah North Primary School) – In Manly LGA
- Spit Bridge: Not sure if it comes under Warringah but a safer way to cross the Spit bridge than racing downhill with cars on Manly Rd when heading South towards city.
- From Manly to the city
- A safe crossing across Wakehurst Parkway from the Bantry Bay Road Track onto Judith St so when I ride with my 3 young children to Manly It isn't so dangerous.
- On road path all along Addison Rd. and all along Stuart St.
- Spit Bridge to Wakehurst Parkway that doesn't go up the steepest hills in the area.
- Burnt Bridge Junction - If you want to come from Warringah up Burnt Bridge Ck deviation to Sydney Rd. you can cross at pedestrian crossing to continue down to Spit bridge via back streets (Sydney Rd to Edgecliff Esplanade) it's hard to cross the road on Sydney Rd. You are forced onto the footpath or to cross dangerously.
- From Sydney Road / Burnt bridge deviation intersection to the spit bridge
- From the roundabout near Harris Farm leading to Manly ferry this is quite dangerous as there is only one lane and the traffic gets very impatient if you hold it up, also forcing you to ride right next to parked cars and risk getting hurt if a door is opened.
- Although not in Warringah, the continuous, level, sealed shared bike path adjoining Manly Lagoon and Manly Beach is excellent. Drivers generally heed the only pedestrian crossing at North Steyne.
- 3 people requested safe bike route along Military Rd
- Manly to Sydney CBD. Please provide more dedicated cycleways as it is unsafe due to driver negligence. Vehicles making right hand turns are very bad.
- Manly to Spit Bridge
- Manly to city needs improving
- Seaforth to Manly
- West Head Area is a high-use recreations bike area. Need to be upgraded to facilitate the safe use of this area.
- Provide pleasant bike ways for people to ride to work & they will especially to escape the Spit Rd debacle.
- I actually live in Manly council. I would love a designated path along the spit/ Military Road corridor
- Bikes only path along Manly Ocean
- Euroben Avenue, Manly to North Steyne.
- Sydney Road at night (from Seaforth to Rosedale Avenue)
- Shared Ramp Yacht club East Esplanade
- Manly to City and across Spit Bridge- Pittwater Rd, Military Rd
- Manly vale to the city (from Parrawi rd to the City)
- 13 people noted bike route required along Sydney Road
- 2 people noted Seaforth
- Clontarf
- Military rd

Mosman Council

- I would also love dedicated riding tracks which would surely make me consider riding to work, but the spit bridge and access/riding through Mosman, Cremorne and Neutral Bay cause me to drive
- I ride for fun & fitness - have tried riding to work - but Military Road is too daunting on a bike in peak hour.
- I would not consider riding to work as I would be forced to use Military road amongst others and consider the traffic speed, volumes and driver attitudes to be far too dangerous.

Roads that do not exist

- [Conwell Road - Bike lanes \(to link up to Kenneth Road Bikeway\).](#)
- [Corrie Road, North Manly](#)

Questionnaire Distribution Details:

- The Questionnaire commenced on 11 April 2009 and the submission period closed on 19 May 2009.
- The Questionnaire was advertised in the Manly Daily over five consecutive Saturdays April – May 2009 detailing where residents could go to complete the questionnaire and available prizes. Advertising included three Saturdays of paid advertisements and two Saturdays of additional free advertisements due to free available space in Warringah Council's Column.
- The Questionnaire was also advertised via the front page of Council's website 'What's Happening in Warringah'. This advertisement provided a link to complete the questionnaire on line via 'Questions Pro'.
- All local bike shops were contacted and given the opportunity to donate prizes in exchange for advertising space and also asked if they would help distribute hard copies of the questionnaire to their customers.
- Posters were placed at major bus stops throughout Warringah advertising the bike plan questionnaire to be completed on-line and available prizes. Some major bus stops did not have posters placed on them due to lack of good surface to attach the poster.
- A large banner was displayed at Warringah Council Civic Centre, Dee Why and hard copies of the questionnaire were also distributed there.
- All Warringah Council Libraries and the Warringah Aquatic Centre received A4 front counter perspex signs and hard copies of the questionnaire for local residents to complete.
- 2000 Warringah residents received a hard copy of the questionnaire via the post. These residents were selected to receive the questionnaire at random.
- A dedicated bike rider also distributed a number of questionnaires by attaching them to parked bikes in plastic slips at a number of locations in Warringah.

Questionnaire Response Details

- In total 1012 questionnaire responses were received.
- The majority of questionnaires were completed on-line via 'Questions Pro' facility.
- Hardcopy questionnaires were received by Council's Records Team, entered into TRIM and also into the on-line 'Question Pro' program for automatic collation of results
- Questionnaire responses from residents who received a hard copy at random in the post tended to be different from those who completed the bike plan questionnaire on-line due to personal interest.
- Winners of the donated prizes were selected using a random number selection website tool: <http://www.random.org/>
- No Warringah Council staff members were eligible to win a prize but could still complete the survey.

Successful Elements of the Bike Plan Questionnaire

- Use of on-line 'Questions Pro' to automatically collate responses.
- Bike prizes donated from local bike shops in exchange for advertising space on the questionnaire encouraged a good response rate at no additional expense to Council.

Elements for Improvement

- Minimise free-hand responses as much as possible due to time consuming nature of manually collating responses and also some difficulty in interpreting the meaning behind free hand responses.
- Hard copies of the questionnaire distributed to Bike Shops to hand out to clients was largely unsuccessful and only a very small amount of questionnaires were completed via this option. Next time, providing an advertising sign to bike shops requesting that people fill in the questionnaire on-line would be more appropriate. A limited amount of hard copies (i.e. 15 questionnaires should be provided to Libraries and greater encouragement should be provided to complete the questionnaire on-line.
- A number of completed hard copy questionnaire responses received were mixed up due to questionnaire sheets not being stapled together. Stapling did not occur for posted out questionnaires due to the automatic envelope machine not accepting stapled sheets.
- A large number of submissions commented on the need for mountain bike facilities that fell outside the scope of the Questionnaire.
- A number of questionnaires were completed by people living outside of Warringah, this was acceptable as bike riders have no boundaries.
- Some bicycle facilities were recommended for areas outside of Warringah. This data was not considered as part of the data analysis.
- Potential for some lobby groups to enter more than one submission each – i.e. mountain bike riders which may compromise data results.

Summary and Actions Resultant from Bike Plan Questionnaire Feedback

The Bike Plan Questionnaire was distributed on 11 April 2009 and the submission period closed on 19 May 2009. 1012 people responded to the questionnaire, with the high response rate largely attributed to prizes donated by local bike shops.

Feedback from the Warringah Bike Plan Questionnaire has:

- helped identify gaps in the network
- helped prioritise the schedule of works
- helped inform the content of the overall bike plan
- contributed to the promotion / education strategy

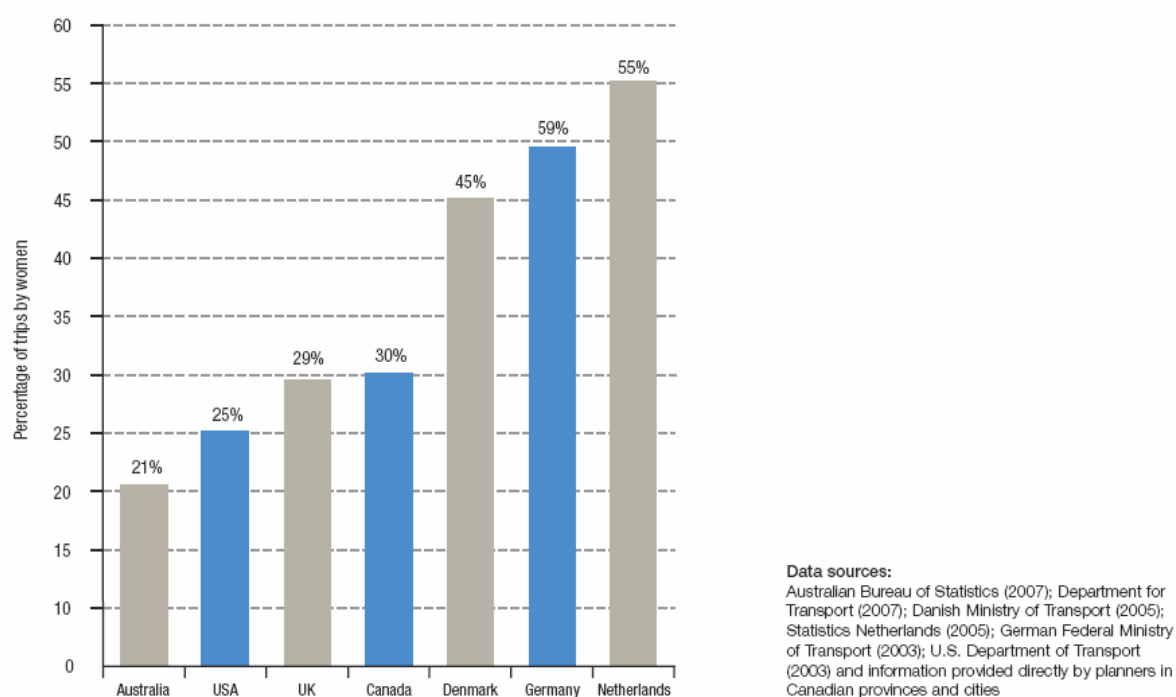
Key Issues Raised Via Bike Plan Questionnaire Responses
The majority of cyclists who completed the questionnaire ride predominantly for recreation (fun and fitness) 57.24% followed by Mountain Bike Riding (Serious dirt bike riding) 17.72% and then commuting (to get from A to B) 25.04%.
Provision of completed bike routes to get cyclists from A to B
Gaps in the bicycle network and desired bike routes feedback.
Improved safety and perception of safety
Provision of bicycle parking. Shopping Centres; Beaches then Bus Stops were the main bike parking locations requested. A smaller number of respondents requested parking at schools, Warringah Council, Workplaces, Libraries, Apartment Buildings, Child Care centres, Places of Entertainment, Manly Ferry etc. Issues concerning security of bicycle parking, long stay undercover parking and different bicycle parking types required at various locations were also raised.

Key Issues Raised Via Bike Plan Questionnaire Responses
Providing end of trip facilities such as showers, change rooms, clothes lockers
Improved safety for cycling facilities on main-roads (RTA Roads)
Need for bike boxes at intersections
Improved safety of shared paths
Bicycle shoulder lanes ('car door lanes') are not safe
Safety of mixed traffic bicycle facilities
Clarification of issues regarding cycling on footpaths
Improved maintenance of on-road and off-road cycling facilities
Maintenance Issues: Pot holes; drainage grates; tree routes, loose surfaces; debris; broken glass; fading painted on-road signage etc
Numerous request for mountain bike riding provisions
Want child friendly cycling routes
Lobby for bikes on busses and ferries
Need for well signposted bicycle routes – Directional signage. Shared Path Signage. Signage for cycling hazards
Improved safety of on-road traffic management devices.
Inadequate and dangerous design of traffic management treatments i.e. roundabouts and road furniture, chicanes, speed bumps with raised edges, jutting out concrete platforms near pedestrian crossings
Riding in bus lanes
Promotion / Education Strategies ➤ Educate to improve behaviour and awareness in order to reduce conflicts between motor vehicle drivers, cyclists and pedestrians ➤ Need for information on where bike routes exist. Promotion of bicycle routes via provision of a Warringah bicycle network map to be available on council website, local bike shops, council eco van, local libraries, council civic centre etc. Include details on the map regarding difficulty of routes, i.e. child friendly routes etc ➤ Cycling events: Warringah to host a local ride day similar to the Spring Cycle where local businesses get involved; Annual ride to work day ➤ Promote local cycling clubs ➤ Need to get more women cycling ➤ Learn to ride opportunities for people of all ages ➤ Campaign promoting the benefits of cycling ➤ Bicycle maintenance courses ➤ Encourage bicycle use as an alternative to the motor vehicle ➤ Workplaces to encourage cycling through provision of bicycle parking and end of trip facilities (DCP Controls) ➤ Promote cycling at Schools. Ride to school days. Bicycle parking at schools. Bicycle skills program.

Key Issues Raised Via Bike Plan Questionnaire Responses
➤ Provide a children's skills training circuit ➤ Education of shared path users ➤ Encourage increased cycling for short trips to shops, beach, recreation facilities, work

Appendix 4: Women’s share of bicycle journeys – an international comparison

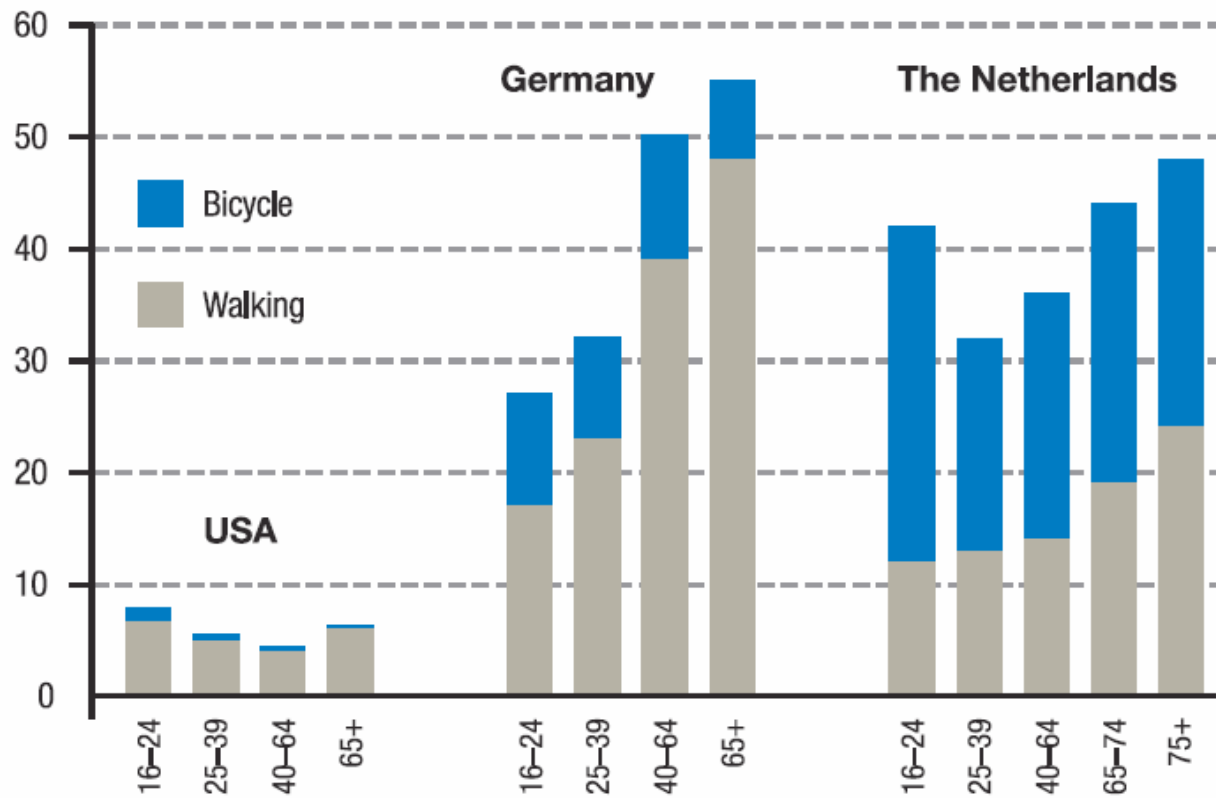
Figure 36: Women’s share of bicycle journeys – an international comparison



Source: Pucher and Buehler, 2008

Appendix 5: Age group diversity in bicycle participation is possible

Figure 37: Age group diversity in bicycle participation is possible



Source: Pucher & Dijkstra, 2003

Appendix 6: Public Education and Promotion Supporting Information

Public Education and Promotion Supporting Information

National Ride to Work Day

Ride to Work Day commenced in Victoria in 1993. The first National Ride to Work Day was held on October 17th 2007 and attracted around 90,000 people, making it Australia's largest cycling event and one of the biggest work place events in the country. Some key facts from Bicycle Victoria 2006 -2007 are as follows:

- In 2007, there were 29,000 registered riders – up from 10,181 in 2006. However, actual number of riders was estimated at 90,000. Of those registered, 26% were riding to work for the first time.
- In 2007 there were almost 3000 registered workplaces.
- In 2006, 63% of registered riders were men and 37% women.
- In 2006, for 25% of registered participants, it was the first time they had ridden to work that year. Over 60% said they usually travel to work by car.
- Ride 2 Work and Beyond has been effective not only in encouraging people to cycle on the day but also to maintain their behaviour after the event. In both 2004 and 2006, 27% of first-time riders were still riding 5 months later.
- Participants have increased more than 5 fold since 2002.

The Ride to Work Day event recruits individual workplace coordinators to strengthen their capacity to provide ongoing support, information and incentives for colleagues. This helps to maintain cycling to work levels after the event. This has been instrumental in ensuring that people maintain their behaviour in the long term.

It is recommended that Council's Road and Safety Officer's role should include promoting and coordinating Warringah Council's participation of in the National Ride to Work Day and providing ongoing support, information and incentives to encourage people to maintain cycling to work behaviour in the long term.

Cycling Events

Cycling events provide a range of opportunities for people of most ages and fitness levels to be physically active. Australia offers a wide variety of cycling events from small community based events with less than 100 participants and short distances, to large more challenging events with more than 14,000 riders. Organisers of cycling events include bicycle recreation/advocacy organisations, charities, cycling clubs and private event operators.

Recreational cycling events provide incentives for people to increase their physical activity levels in preparation for the event, and have also been effective in increasing participants' cycling participation after the event (Godbold, 2005; Bowles et al, 2006; Cycling Promotion Fund, 2005). Additionally, cycling events are also effective in encouraging social connections and team building with many events providing incentives for team entries, and a high proportion of participants citing social interaction as a motive for participation (Godbold, 2005). The following table outlines a number of cycling events in Australia.

It is recommended that Warringah Council support organisers of local and other cycling events, to act as an entry point for new cyclists.

Table 27: Cycling Events

Cycling Event	Organiser	Participants	Length
Great Victorian Bike Ride 2007	Bicycle Victoria	3,700	550 km 9 days
Cycle QLD 2007	Bicycle QLD	1,000	500 km 9 days
NSW Big Ride 2007	Bicycle NSW	1,000	500k m 9 days
Annual Tour 2007	Bicycle SA	200	500 km 9 days
Portfolio Partners Around the Bay in a Day 2007	Bicycle Victoria	14,000	50 km to 240 km 1 day
Wilson HTM Brisbane to the Gold Coast Cycle Challenge 2007	Bicycle QLD	5,700	100 km 1 day
Mutual Community Challenge 2007	Bicycle SA & SA Tourism	2,700	84 km to 128 km 1 day
City of Sydney Spring Cycle 2007	Bicycle NSW	8,500	5 km to 50 km 1 day
Freeway Bike Hike 2007	Asthma Foundation WA	7,015	10 km to 30 km 1 day
Portfolio Partners Sydney to the Gong Ride 2007	MS Society NSW	11,000	56 km & 90 km 1 day

Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008

Warringah Council Leading by Example

Establish and promote Warringah Council as 'best practice' bicycle friendly employer

- Develop a 'Workplace Travel Plan' for Warringah to encourage healthy alternatives to the car such as walking, cycling and catching public transport A good example to follow is the Northern Beaches Health Service Workplace Travel Plan 2009 – 2012.
- Implement the Warringah Bike Fleet for employees to use during work hours
- Promote and support Ride to Work Week annually
- Provide visitor cycle parking location details on Council's Website 'Contact Us' page
- Provide adequate end of trip facilities (bicycle parking, lockers, showers and change rooms). Refer to the case study example of Brisbane City Council below:

CASE STUDY – BRISBANE CITY COUNCIL

Brisbane City Council has recently developed purpose built, high quality end-of-trip facilities for their staff. As the pictures below illustrate, the council has gone beyond simply providing bicycle parking; they also feature showers, lockers and ironing facilities.



Figure 12 Staff Bicycle Parking



Figure 13 Ironing facilities provided for cyclists



Figure 14 Secure bicycle parking outside a transport hub in Brisbane

The development of first class end of trip facilities at Brisbane City Council offers a very good demonstration of the importance of end of trip facilities in encouraging bicycle commuting. Prior to the development of the new facilities, Council provided 100 basic bicycle parking spots. The new facility accommodates 150 bike spaces and 200 lockers. The new facility reached capacity within a few months of opening and there is now a waiting list.

Photos: Courtesy of Brisbane City Council

Bauman A., Rissel C., Garrard J., Ker I., Speidel R., Fishman E., 2008 *Cycling: Getting Australia Moving: Barriers, facilitators and interventions to get more Australians physically active through cycling*, Cycling Promotion Fund, Melbourne.

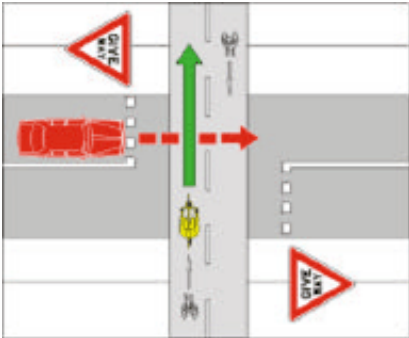
Appendix 7: More details on diagrams and signs

Details on Diagrams and Signs

The following diagrams and signs are extracted from NSW Road Rules and NSW Bicycle Guidelines.

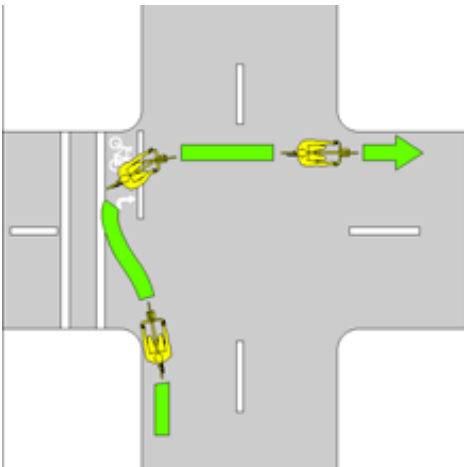
Diagrams and signs

Example: Giving way at a give way sign where a bicycle path meets a road (Rule 71) *RR*

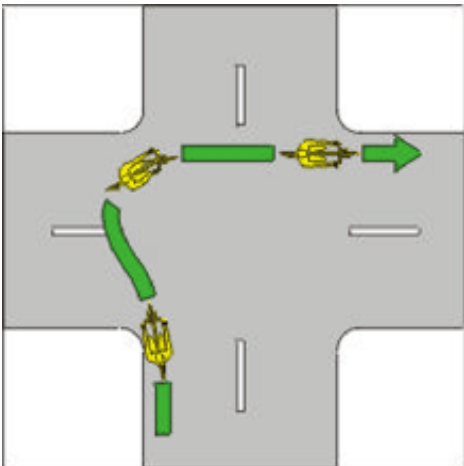


Examples: Optional hook turn by a bicycle rider (Rule 35) *RR*

Example. Bicycle rider making a hook turn at an intersection with hook turn storage area



Example. Bicycle rider making a hook turn at an intersection without traffic lights



(RR)

Bicycle path sign



End bicycle path sign



Separated footpath sign



End separated footpath sign



Note for diagrams. A *separated footpath sign* may have the pedestrian symbol and the bicycle symbol reversed—see rule 316 (4). (RR)

(RR)

Bicycle lane sign



Bicycle path sign



Shared path sign



Separated footpath sign



End no bicycles sign



(RR)

Red bicycle crossing light	Green bicycle crossing light	Yellow bicycle crossing light
		

Bicycle parking sign



Note for diagram. Anything on this sign may be differently arranged—see rule 316 (4).

Appendix 8: Detailed works spreadsheet outlining whole of Warringah Bike Plan 2010-2015 infrastructure requirements

Note: This detailed works spreadsheet is only available on CD or via online versions of the Warringah Bike Plan 2010-2015 Document, as it is an interactive spreadsheet that cannot be printed.

Appendix 9: Warringah Plans of Management – Parks, Reserves and other Open Spaces

Warringah Plans of Management – Parks, Reserves and other Open Spaces

Warringah Council Plans of Management (POM's) have been reviewed with regard to the Warringah Bike Plan 2010-2015. A number of Bike Plan Actions are resultant from this review.

Allenby Park Plan of Management

This plan of management provides for the sustainable management of the reserve. In doing so, it aims to conserve and enhance the locally significant scenic, environmental and biodiversity values of Allenby Park, Allambie Heights, now and into the future. It was adopted by Council on November 28, 2000.

The plan does not specifically mention bikes or bike usage in the reserve. It does, however, mention the use, upgrading and control of tracks and creek crossings currently in the reserve. The Warringah Bike Plan 2101 proposes a new off-road commuter bike track, to be shared with pedestrians, providing access through the reserve. This track would provide a key off-road link from Allambie Heights to Warringah Mall, avoiding the majority of Allambie Road. This would require upgrading of the existing track and erection of directional signage at key locations along the length of the route.

A recommended action for the Bike Plan is to investigate the potential for a new off-road bicycle/pedestrian track to be formalised through Allenby Park, providing a key link from Allambie Heights to Warringah Mall, including directional signage. If investigations deem it plausible then the Allenby Park Plan of Management should be updated accordingly.

Berry Reserve & Adjoining Foreshores Plan of Management

The Berry Reserve & Adjoining Foreshores Plan of Management (adopted June 27, 2000) provides management strategies on which Berry Reserve and the adjoining foreshores can be managed and protected. This includes the upholding of sustainable management measures, in addition to meeting community needs. A five year capital works programme is detailed as part of this management.

The plan mentions bikes in the context of family access to the reserve, and specifically in the provision of "a safe place for children to play and learn how to ride bikes" (page E2, Executive Summary). Specific attention is also paid to bike use in key management action 5: "monitor pedestrian/ bike path for user group conflicts and assess need for widening" (page E4, Executive Summary). The main pathway running through the reserve is also designated a shared pathway for both pedestrians and cyclists.

Even where the term 'bike' or its variants are not used, bicycle use is implicit in measures aiming to improve or create circulation or access to recreational, community and commercial properties amongst the reserve. These include playgrounds, a Scout hall, and its role as a park and to hold community events such as the monthly Narrabeen Markets for the community to enjoy. Bike use is encompassing of the management plan's key values and desired outcomes (page E2- E3, Executive Summary), and is therefore relevant even where it is not specifically addressed. This relevance will be maintained if the proposals set out in the Warringah Bike Plan 2010-2015 are constructed as these proposals will enhance access and circulation through the reserve. The Warringah Bike Plan 2010-2015 includes proposals for:

- Maintenance of the existing bike route on the shared path that joins routes to Dee Why Beach and Cromer via predominantly off-road routes
- Directional signage at key locations to inform users of the predominantly off-road shared path from Narrabeen to Dee Why Beach via Cromer, and
- Upgrading of existing on-ground signage. Provision of shared path signage, i.e. divider line in the centre of the path to ensure pedestrians and cyclist stick to the left unless

overtaking and bicycle/pedestrian logos. This will encourage safe use of the path, reducing user conflicts between pedestrian and cyclists

- An investigation of the provision of lighting along the shared route to minimise collisions between pedestrians and cyclists at night, taking environmental considerations into account

A recommended action for the Bike Plan is that the recommendations outlined in the Warringah Bike Plan 2010-2015 for bicycle facilities at Berry Reserve are investigated for feasibility and where appropriate, the Berry Reserve & Adjoining Foreshores Plan of Management be updated to include these provision as follows:

- Directional signage at key locations be provided to inform users of the off-road shared path link from Narrabeen to Dee Why Beach via Cromer, and
- Provision of shared path signage, in accordance with the Warringah Bike Plan 2010-2015 signage requirements. For example, provision of a divider line in the centre of the path to ensure pedestrians and cyclist stick to the left unless overtaking. This will encourage safe use of the path, reducing user conflicts between pedestrian and cyclists
- Investigation of the provision of lighting along the shared path route to minimise collisions between pedestrians and cyclists at night, taking environmental considerations into account

Brookvale Community Building Plan of Management

The Brookvale Community Building Plan of Management, February 2005, provides a strategy for the management of the Brookvale Community Building, and in doing so aims to:

- Improve community access and usage
- Ensure that maintenance is carried out when it is required
- Improve the energy and water efficiency of the current building, and
- Increase public awareness and the range of possible uses.

These values are espoused throughout the document, but are also encompassed by the specified objectives of the plan of management. These objectives are (pages 3 and 4):

- To protect and enhance the community values for the subject lands and buildings.
- To provide for ongoing use of the land and buildings for a range of community uses, ensuring that potential uses meet the needs of the local community.
- To provide a framework for future development to ensure that the land and buildings meet future demands for community services and activities.

The plan of management also details a timetable and plan for construction work to upgrade the building to meet these values and objectives (page 14).

Although the authors of the plan of management did not consider cycling or council's cycling documents when formulating the management plan (page 19), the objectives for the site are highly compatible with proposals for cycle routes set out in the Warringah Bike Plan 2010-2015. This is due to the fact that at least three designated cycle routes are proposed to pass immediately adjacent to the site, and that parking on the site itself is limited to two vehicles (page 5). This compatibility would be heightened if bike parking was to be installed on the site, although this is not proposed at the present time.

Brookvale Park Plan of Management

The Brookvale Park Plan of Management, September 2002, provides for the management and upgrading of Brookvale Park to meet community and user needs. In doing so, it provides for

strategies that will ensure the facilities meet the needs and requirements of a range of users and uses, both commercial and non-commercial. Users include local residents, the Manly Warringah Sea Eagles Football Club and other potential users of the ground including local sporting teams. Bikes and bike usage are not specifically mentioned or discussed in the plan of management. However, cycling is relevant to the broader objectives, values and uses identified. These include, but are not limited to:

- The use of the area as a park – “facilities for use mainly for recreational, social, educational and cultural pursuits”
- An identified value as Recreation/ Open Space/ Access and Aesthetics - which has the objective of developing Brookvale Park into an area which is open, accessible, attractive and inviting and which caters for both active and passive recreational pursuits, and
- Its role as an area for General Community Use – “promote, encourage and provide for the use of the land, and to provide facilities on the land, to meet the current and future needs of the local community and of the wider public”. This includes providing opportunities for public recreation and access to maintain the welfare of residents.

The plan of management is compatible with the use of bikes to access the park mainly due to the fact that at least three cycle routes (including route B2 from the Civic Centre to Warringah Mall) are proposed to run adjacent to the park under the Warringah Bike Plan 2010-2015. These routes will link the park the greater LGA, and promotion of these routes could help to alleviate car parking and traffic problems around the park and broader Brookvale locality that are identified in the management plan. The existence of bike parking facilities at the Alfred Street entrance to the site further strengthens the compatibility of bikes with the site and management plan.

Coastal Lands Plan of Management

The Coastal Lands Plan of Management, September 2002, provides a framework for managing the coastal open space of Warringah. In doing so, it recognises the significance of beaches and coastal space to the Warringah community by providing areas for passive and active recreation, while also endeavouring to conserve the natural qualities of the coastal environment. It is a governing plan that must be used in conjunction with other plans, such as the Recreation Strategy for Warringah's Beaches and Coastal Open Space, to deliver optimal outcomes.

The plan of management does not mention bike usage in particular, but the values it identifies as important are encompassing of cycling. These values, natural environment, recreation, education, aesthetics, social, heritage and access; are relevant to cycling as it can play a role in turning these values into fruition. One aspect identified in the plan, access, provides a good opportunity for bike usage as it aims to provide for equitable access to coastal environments for all residents and visitors. Cycling would allow this to occur as it would not exclude those who cannot drive or do not have access to a car, such as the young, the old and other people without a car. Surf life saving clubs provide good facilities to allow this to happen, with the installation of bike parking facilities as proposed by the Warringah Bike Plan 2010-2015 is perfectly suited to areas where people congregate such as surf life saving clubs.

The plan of management is compatible with the Draft Warringah Bike Plan 2010-2015 as it does not prevent the proposals set out in the bike plan to be installed. These proposals include designated bike routes along Ocean Street (A1(a)), Collaroy Beach (C5), Long Reef (C16), and bike parking facilities at most beaches. It is therefore compatible, and provides a good resource that will assist in the implementation of the bike plan. Also, cycling represents a low impact and environmentally friendly form of transport, and that ties in with the ecological values espoused by the Coastal Lands Plan of Management.

Generic Parks Plan of Management

The Generic Parks Plan of Management, November 2008, is a plan of management that covers neighbourhood and local parks in the Warringah LGA. To do so, it aims to “provide a clear, concise

and practical outline for the management of district, neighbourhood and local parks within Warringah” and to follow the relevant goals of the Living Warringah strategic plan.

Bikes are mentioned in relation to linking neighbourhood parks and other areas of public use such as shopping centres and other areas of open space. They also arise in relation to design considerations for parks, stipulating that Austroad guidelines must be followed, bicycle racks installed must be in accordance with Australian Standards, and that bicycle paths are one means of providing ancillary benefit to surrounding land uses and activities.

Even where bikes are not mentioned, they are still relevant to provisions relating to recreational pursuits, social and cultural interaction, and accessibility. A balance must be created between the ecological concern of the plan of management, and the human access and recreation focus of the bike plan.

The Draft Warringah Bike Plan 2010-2015 is only partially relevant to the plan of management as it largely proposes the installation of bike routes through major roads and parks not covered by this management plan. However, there are a small number of local or neighbourhood parks crossed by routes in the bike plan, and these are directly relevant to the management plan. As a result, it is compatible with the bike plan, and provides opportunities for the proposals in the bike plan to be installed.

Urban Bushland Reserves Plan of Management for: Anembo Reserve; Bantry Bay Bushland Reserves; Condoover Reserve; Lillihina Reserve and Rhoker Reserve

The Urban Bushland Reserves Plan of Management, 2008 provides measures by which the subject reserves can be managed and protected into the future. It focuses on fostering the value held in remnant urban bushland and its conservation, in conjunction with low impact recreation, aesthetic value, scientific/ educational value, and bushland's ecological value. The plan of management must also embrace protection of the endangered Duffy's Forest ecological community. These values translate into a management regime that focuses on weed control, fencing, track closure and revegetation.

Cycling is listed as part of a key threatening process for bushland. It is listed under the broad topic of Recreational Use, and are seen to “threaten all urban bushland in Warringah, regardless of whether threatened species are present or not.” Therefore, cycling is incompatible with the plan of management and the conservation of these reserves generally as it poses a danger to the natural environment.

The Warringah Bike Plan 2010-2015 proposes to construct bike routes through Condoover Reserve. This route, A4 (a), could be incompatible with the plan of management as it promotes different interests to those of the plan of management. As a result, a level of incompatibility arises as bicycle usage could represent a violation of “sustainable recreational access” mentioned in the management actions of the plan of management. Route A4(a) through Condoover Reserve is an important bike route link for the bike plan as it provides a safe predominantly off-road route linking Forestville, Frenchs Forest and west Seaforth etc to Warringah Mall and Manly. The bike route is proposed to follow an existing path within Condoover Reserve. Four of the five bushland reserves covered by the plan of management do not contain bike routes and therefore present no incompatibility issues with the plan of management.

A recommended action for the Bike Plan is that the need for a bike route following the existing path in Condoover Reserve be investigated taking into consideration the requirements of the Urban Bushland Reserve Plan of Management for Condoover Reserve and the Warringah Bike Plan 2010-2015. If appropriate, the Urban Bushland Reserve Plan of Management for Condoover Reserve should be amended to permit construction of this bike route.

Urban Bushland Reserves Plan of Management for: Collaroy Escarpment Reserves; Lionel Watts Reserve/ Frenchs Forest Showground

The Urban Bushland Reserves Plan of Management (dated August 2009) covers the Collaroy Escarpment Reserves and selected areas of the Lionel Watts Reserve and Frenchs Forest Showground. These areas are indicated on maps published with the document. The plan of management is focused on protecting and rejuvenating the bushland on these sites, including an isolated fragment of the endangered Duffy's Forest Ecological Community and Narrabeen Escarpment Scrub. As a result, the management plan focuses on the conservation and protection of the vegetation present, and the plan of management is based on the following values:

- Biodiversity
- Integrity and sustainability of the reserve
- Educational Research and Community Awareness
- Recreation and Access
- Scenic/aesthetic
- Environmental Protection

The plan of management does not mention bikes or bike use apart from reference to BMX tracks and their associated use in the Frenchs Forest Showground. However, descriptions of the state of the vegetation and terrain indicate that bike use is discouraged in all three reserves. This is apparent through description of the laterite soil at Frenchs Forest as "particularly vulnerable to erosion and compaction", and description of vegetation health as poor, very poor, non- resilient or cleared/ mown (page 30). Conservation and rejuvenation of the vegetation and terrain means that cycling is largely incompatible with the reserves covered.

The Warringah Bike Plan 2010-2015 proposes to construct a bike route, route C14, past the Lionel Watts Reserve/ Frenchs Forest Showground site. As it will pass the site by at its boundaries, it is compatible with the plan of management, and does not present any inconsistencies. No cycling infrastructure is proposed near the Collaroy Escarpment Reserves, therefore no inconsistencies will arise between the two plans.

Sportsground Plan of Management

The Sportsground Plan of Management (dated December 2007) has the primary purpose of providing the community, users and Council with a clear statement on the future use and management of Warringah's sportsgrounds. This involves protecting the values of the 21 sportsgrounds it covers.

The plan refers to cycling as a recreational activity that can take place in sportsgrounds. Cycling has the fourth highest rate of participation for all sports in Warringah, and is referred to in the plan as helping to achieve positive health outcomes. Cycling also arises in management action 9.2 in relation to the access, safety and infrastructure required to use sportsgrounds. Bike tracks are mentioned as a permissible recreational activity that can take place in the subject reserves. More general statements are also applicable to cycling, and include those relating to safety (parking and traffic issues), the diversity of uses permissible in sportsgrounds, access and enjoyment matters, non- official sporting activities, and the Living Warringah values of Recreation and Social Activities.

The Warringah Bike Plan 2010-2015 does not propose to install any bike routes through sportsgrounds covered by this plan of management, nor does it propose any bike parking facilities. However, routes are proposed to run along the boundaries of subject reserves, and these include the Condoover Reserve in North Balgowlah. Overall, the two plans are compatible with one another, and do not present any difficulties or inconsistencies.

Dee Why Lagoon Wildlife Refuge Plan of Management

This Plan of Management (POM) outlines the costs associated with the construction of a Multi-Use Pathway from Pittwater Road to Hawkesbury Avenue within the Dee Why Lagoon Wildlife Refuge

(Pp54). Part of this pathway is a 2.5m wide coloured concrete cycleway. This cycleway has been taken into consideration when preparing the finalised Bike Plan 2010-2015.

The plan of management has at its focus the conservation and protection of a natural bushland and coastal environment. This means that the impact of any bicycle pathway or shared pathway must not degrade the natural or recreational values of the reserve. This is detailed in the plan of management, and results in a natural limitation to the scope of any work proposed.

The Warringah Bike Plan 2010-2015 schedule of works proposes an off-road bike route through the reserve utilising the existing shared path. This route, route B14, is consistent with the plan of management as no further construction work is required.

Dee Why Valley and South Creek Corridor Plan of Management:

This POM provides the framework for managing the Dee Why Valley and South Creek Open Space Corridor. It sets a direction which Council and the community have developed through consultation and research, and features maps which include details of the extent of shared use pathways accessible to cyclists.

The plan of management mentions cycling in numerous places and contexts throughout the plan. This means that the reserves the management plan covers are seen by the community and Council as suitable locations for cycling and bike use generally. The plan reflects this by placing projects that involve cycling as high priorities, prompting the creation of shared use paths where they do not already exist, and promoting the merits of cycling and bike use through other infrastructure (such as a learn to ride facility proposed for Cromer) and planning means. In doing so, it acknowledges that bike use is a value engrained in the reserves covered, and that bike use is appropriate to the area.

The plan of management is compatible with the Warringah Bike Plan 2010-2015. This is due to the fact that the plan of management strives to improve bicycle infrastructure in the area, such as providing a learn to ride facility in Cromer that is also supported by the bike plan. The bike plan also proposes three bike routes along those already identified as shared paths in the plan of management.

District Parks Plan of Management:

The District Parks Plan of Management, 2002, provides a management framework for an area designated as a 'Significant Area' by Warringah Council and an area recognised as having a high recreational value. The District Park is made of Warringah Golf Course, Nolan Reserve, Passmore Reserve, Millers Reserve and David Thomas Reserve; and the combined area of these open spaces represents a vast area of contiguous open space within an urban setting. The values of recreation, natural, social/cultural, access, heritage and visual are used in the plan of management to govern the parks.

Cycling is mentioned throughout the plan of management. It arises:

- On page 14 in relation to development of the tracks in the parks
- The Actions table in relation to the values of Natural/ Access, Access/ Recreation, and Social
- In Appendix B in relation to strong community support for further development of bicycle and walking tracks
- Under Parking, Access and Traffic in reference to improving access to the parks and bridges linking reserves
- In Appendix C on page 6 in reference to safety issues associated with bike riders mixing with other traffic, and

- With relation to a feeling held by residents that the existing cycleway is underutilised.

The strong endorsement of bikes and bike use in this plan of management makes it compatible with the Warringah Bike Plan 2010-2015 and the five bike routes proposed that run through or in very close proximity to the reserves.

It is recommended that provision of a 'learn to ride' facility at Passmore Reserve or Nolans Reserve (possibly where the old netball courts are located) be investigated and if appropriate included in this Plan of Management. It is also recommended that the bicycle routes proposed to run through and in proximity to district parks as identified in the Warringah Bike Plan 2010-2015 be recognised in the Plan of Management where appropriate.

General Community Use Plan of Management:

The *General Community Use Plan of Management* contributes towards a comprehensive management framework for public open space within the Warringah Council boundaries. It is part of an ongoing process that focuses on land parcels categorised as general community use, and covers the following areas:

- Roadside buffers
- Drainage reserves
- Public access and recreation land parcels
- Encroachments
- Natural bushland areas
- Parks
- Road reserves, and
- Other miscellaneous land parcels located along Forest Way in Belrose.

Bikes or bike use are not mentioned through out the document. However, bike use is relevant to some of the values that were identified in consultations with residents. The values of accessible open space, pathways/ pedestrian linkages, opportunities for children to play, walking and relaxation are all relevant to cycling as cycling can be part of any activity that takes place in the spirit of these values.

The plan of management is compatible with the Warringah Bike Plan 2010-2015 as it does not prohibit the development of bicycle focused infrastructure.

Jamieson Park Plan of Management

The *Jamieson Park Plan of Management* is a strategy that provides measures that will cover the management of the park, and help develop and control its future uses. It does so by identifying values seen as important by the Council and community, in addition to creating management measures with sustainable use in mind.

The plan of management mentions bike use in terms of the creation of a shared use pathway through the reserve. This will link it with Berry Reserve and adjoining areas. Even where bikes are not mentioned, cycling is still relevant as access to the site could be enhanced through the use of cycling and the provision of bike parking and storage.

The Warringah Bike Plan 2010-2015 proposes a bike route through the park. This route, route B4, will link Narrabeen, Berry Reserve, Jamieson Park with Cromer and Dee Why through a network of shared use paths. This is mentioned in the plan of management, therefore the two plans are compatible.

John Fisher Park & Abbott Road Land Plan of Management

The John Fisher Park and Abbott Road Land Plan of Management, 2001, provides for strategies that will assist in the management of John Fisher Park and the Abbott Road land into the future. In doing so it espouses the following vision:

John Fisher Park and Abbott Road Land should be a healthy, accessible open space that provides harmoniously for both active and passive recreation, which is well maintained and protected by responsible use and management.

Bikes and bike usage is mentioned frequently through the document. These include the following:

- Page 1 Executive Summary: “Key strategies and actions that are proposed include: Development of improved access and circulation facilities across the park in the form of cycle/walkways and gravel car parks.”
- The 1998 Warringah Bike Plan was consulted in the preparation of the plan of management
- Page 56: under John Fish Park Management Actions, in the “Social/Recreation/Visual” value: “Provide multi use bike paths in accordance with the Landscape Master Plan or similar.”
- Proposals for a new bridge over Greendale Creek to allow for bicycle traffic (page 58)
- Proposals for multi- use paths in accordance with the Landscape Masterplan (page 82)
- A performance target for internal walking tracks and/ or cycleways linking Abbott Road, Harbord Road and the existing Greendale Creek cycletrack (page 86)
- A proposal in the Landscape Plan for a 2.5 metre wide multi- use path through the park. This path would allow “pedestrian and bike users access” and would improve circulation (page 93), and
- Four cycleways/ walkways are listed: Manly High crossing the creek, southern link between bridges, southern link from Park Street Bridge to Griffin Road, and a North/ South link over the Stirgess Avenue Bridge (page 95).

The plan of management also mentions that Abbott Road, as a local road only, gets congested on the weekend as a result of significant car traffic volumes accessing these facilities. The Bike Plan proposes key bicycle routes to access these facilities by bike and bicycle parking provisions (at Abbott Road Curl Curl Youth Community Centre and Frank Gray Reserve) that will make cycling a more feasible transport option and help reduce traffic congestion on Abbott Road.

Community consultation feedback for the Bike Plan identified a need for a safe off-road cycle loop around this John Fisher Park to cater especially for children and family group recreational cyclists. The Warringah Bike Plan 2010-2015 has proposed a bicycle loop within the park to serve this purpose, along with connections to the overall bicycle network. It is recommended that the John Fisher Park & Abbott Road Land Plan of Management be review and the Landscape plan be amended, if appropriate, to include all of the bicycle routes through the parks and bicycle parking provisions as identified in the Warringah Bike Plan 2010-2015 network map.

JJ Melbourne Hills Memorial Reserve and Adjoining Community Land Plan of Management

This plan of management (dated 24 July 2001) applies to the entirety of the council owned JJ Melbourne Hills Memorial Reserve and its adjoining community land in the suburb of Terrey Hills. Covering an area totalling 44 hectares, it provides for strategies that will help conserve the values associated with the site, and assist in its preservation into the future.

Cycling is mentioned as one of the recreational activities that take place on the reserve. BMX riders and mountain bike riders are mentioned as particular users, with the latter responsible for

erosion of surrounding slopes and embankments. BMX riding takes place on the flat reserve at the top of the slope on a specially built track. There is also a bitumen cyclist circuit surrounding the BMX track. Other activities that take place include field archery, pony riding, dog exercising and other recreational pursuits. Ranger inspections are mentioned as a means of ensuring that all activities are occurring in accordance with the law, and that human disturbance of the natural environment is minimised.

The Warringah Bike Plan 2010-2015 proposes to install two routes that pass very close to the reserves. Route A6 along Mona Vale Road from St Ives to Ingleside, and C23 through Terrey Hills will pass along the boundaries of the site, following the existing multi-use trail.

Manly Warringah War Memorial Park Plan of Management:

The Manly Warringah War Memorial Park Plan of Management, 1998, provides measures for the management of the Manly Dam reserve area. In doing so, it covers 375 hectares of land within Allambie Heights, most of which is bushland but also includes Manly Dam, Aboriginal sites, picnic areas, the Warringah Aquatic Centre, sportsfields, tennis courts and a golf club. This land is significant locally and regionally, and requires close management to ensure it is not degraded and its values lost.

The Warringah Bike Plan 2010-2015 is proposing to install bike routes and parking through reserves subject to this plan of management. They are as follows: A3 Narrabeen to Seaforth via the Wakehurst Parkway, A4 Manly Vale to Frenchs Forest, A4(a) Manly Vale to Frenchs Forest alternative, C1 Allambie/Manly Dam Trail via Allambie Heights Oval, C14 Frenchs Forest Allambie Road, C17 Manly Vale/Quinlin Parade to Manly Dam Trail, C17 the Manly Dam Trail, and bike parking at the Warringah Aquatic Centre. The bike plan will be consistent with the plan of management as long as the bicycle infrastructure and riders do not come to dominate the tracks and degrade the environment. If this were to occur, the park's ecological and aesthetic values would be detracted from, and the conservation value of the park would be lessened. In this case inconsistencies and a level of incompatibility would arise as the plan of management's goals would be unable to be upheld.

Red Hill and Golden Grove Parks Plan of Management:

This plan provides for the management of the Red Hill and Golden Grove Parks in Beacon Hill. It covers 17 hectares in total, and encompasses the area's values as a natural bushland setting and for passive recreational activities. The reserves also include areas that were previously denuded, or currently contain stands of the threatened Duffy's Forest Vegetation Community. This means that additional attention must be paid to the area's management. The vision statement for the area reflects this accordingly:

To enhance the bushland setting of the area, create an awareness of the site's cultural and natural environment, provide passive recreational pursuits, recognise the view potential of the area, and provide habitat for birds and animals.

The plan of management mentions bikes and bike use frequently through the document. It is mentioned in relation to the following areas: bicycle routes on shared road space are set out in the 1998 Warringah Bike Plan and skirt the area, but do not extend through it; the creation of "a good bike/ pedestrian/ trail network" would improve access to schools and buses, which is listed as a major issue; a range of trails and surfaces was requested to provide for users such as commuters, cyclists and joggers; and social access to the park for all, including cyclists, the disabled and pedestrians.

The plan of management includes references to bike trails and paths that would complement the Warringah Bike Plan 2010-2015. As a result, the two plans are largely consistent with one another. The bike plan does not propose to install any designated bike routes through the reserves, but proposes several routes that provide access to the reserves. These include route C3 along Willandra Road.