

# **HUNTERS HILL MUNICIPAL COUNCIL**

## **BIKE PLAN**

**FINAL REPORT  
September 2004**

**Cycle Planning  
ACN 078 840 436**

**PO Box 787  
Caringbah NSW 1495**

**Tel: 02 9544 2517  
Fax: 02 9544 0942  
e-mail: [cyclepln@ozemail.com.au](mailto:cyclepln@ozemail.com.au)**

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## EXECUTIVE SUMMARY

Cycle Planning was commissioned to prepare the Hunter's Hill Bike Plan for the Municipality of Hunter's Hill to recommend facilities for safe cycling.

The step is a positive step as part of Council's initiative to provide a network of cycleways that link to existing facilities and to neighbouring areas.

The Bike Plan has been completed with extensive community consultation, media support and surveys.

### **Bike Plan Objectives**

1. Provide Hunters Hill Municipality with a network of on-road and off-road cycle ways linking main generators such as schools, shops and recreation.
2. Provide Hunters Hill Municipality with a network of cycle ways for a variety of uses, including commuting, safer riding to school, tourism and recreation.
3. Identify the impediments to safe and convenient cycle use and identify ways to ameliorate these impediments.
4. Develop a clear and achievable implementation strategy to be implemented in prioritised stages based on anticipated availability of funding.
5. Encourage the use of bicycles as an alternative transport mode to the use of cars, especially for local travel.
6. Encourage non cyclists to cycle.
7. Provide high profile, high use routes during the first stage of implementation that aim to support safe cycling.

## **Methodology**

The following tasks were completed to prepare the Bike Plan.

### **Research**

The examination of relevant documents and reports was carried out.

### **Consultation and Liaison**

Extensive consultation and liaison took place with the project Steering Committee, Bike North (the local bicycle user group), stakeholder groups, schools, local residents and the local media.

### **Surveys**

Qualitative surveys were completed during the study of the stakeholder groups and local residents. School students' cycling patterns were also examined. The completion of fieldwork and saddle surveys assisted with examining the cycling environment.

### **Consolidation**

This step included the identification and prioritisation of future cycle ways and facilities for implementation. Behavioural and promotional programs and funding sources for the implementation of the Bike Plan are identified. The post bike plan stage is also discussed.

## **Project Outcomes**

A network of bicycle facilities has been recommended for the Municipality of Hunter's Hill for implementation in 5 priority stages over a period of 7 years.

### **Examples of Stage 1 projects include:**

- o Bicycle parking at various locations within the Municipality
- o Shared path along the Parramatta Valley Cycleway linking the Victoria Road tunnel.
- o Rectify existing shared path along Crown Street from Crown St to Huntley's Point reserve.
- o On-road facility along Burns Bay Road from Church Street to Fig Tree Bridge.
- o Shared path along Augustine Street from Gladesville Road to Mark Street.

### **Examples of Stage 2 projects include:**

- o Shared path along Pittwater Road Pains Road Field of Mars.
- o Shared path through Riverglade Reserve.
- o On-road facility along Gale Street / The Point Road.
- o On-road facility along the lower service road of Pittwater Road: High Street to Pains Road.

**Examples of Stage 3 projects include:**

- o Shared Path in reserve at Huntley's Point Road.
- o Shared path along Ryde Road from Park Road to Abigail Street.
- o On-road facility along Abigail Street / Avenue Ryde Road to Joubert Street.
- o On-road facility along the full length of Everard Street.
- o Shared path along Augustine Street from Mark Street to Ryde Road.

**Examples of Stage 4 projects include:**

- o Shared path along Gladesville Road from Mary Street to Ryde Road.
- o Shared path in Riverglade Reserve

**Examples of Stage 5 projects include:**

- o Shared path in Tarban Creek Reserve.
- o Shared path along Pittwater Road from Everard Street to Ryde Road.
- o On-road facility along Makinson Street from Tarban Creek Reserve to Massey Street.

**Funding Sources**

Apart from Council using in-house funding to implement the Bike Plan, the following sources are available to assist with implementing the Bike Plan.

- o **Community and Corporate Sponsorship**
- o **Corporate Taxability:** [info@asf.org.au](mailto:info@asf.org.au)
- o **NSW Department of Health – Active Australia Program**
- o **Department of Urban Affairs and Planning Metropolitan Greenspace Program**
- o **Section 94 Developers Contributions**
- o **Department of Sport and Recreation Capital Works Program**
- o **Roads to Recovery Program**

## **1.0 Introduction**

### **1.1 Background**

Cycle Planning was commissioned to prepare a Bike Plan for the Municipality of Hunter's Hill to identify a network of cycling facilities and make cycling safer.

The Hunter's Hill Municipality is situated on a peninsula and is surrounded by scenic gardens and historic houses. This backdrop makes cycling a pleasurable activity that is already popular among locals and visitors who use the area's existing cycle ways and roads.

Currently, the Hunter's Hill area has many cycle ways including: a shared pathway along Tarban Creek, cycle ways linking the foreshore through Gladesville Reserve and an off-road path for younger cyclists incorporated with a picnic area at Buffalo Park. Other existing facilities include bicycle parking at Valencia Street Wharf, Gladesville wharf and at Gladesville Shops. The existing cycle ways are of local and regional importance and link commuting and recreational locations including the Parramatta Valley Cycleway to the west and Lane Cove National Park and Macquarie University to the north.

Up until now, the cycle facilities in the Municipality have been provided without the availability of a formal plan and only when opportunities became available. Hunter's Hills recent decision to prepare a Bike Plan shows an interest and a commitment in bicycle issues and furthermore assists with raising the profile of cycling.

Council's overall objective in preparing the Bike Plan is to allow residents and visitors to the area to experience safe and pleasurable cycling and to make possible the use of existing cycle ways and link these with cycle ways in neighbouring areas.

The community has spoken out for the need to have cycle ways. In past years, Council has had submissions from residents and the local bicycle user group, Bike North to improve conditions for cyclists by extending the existing cycling network and by providing the opportunity to use the bicycle as a vehicle and for recreation purposes.

Furthermore, recent survey results of young people (aged between 10 and 17 years of age) surveyed for their views on recreational needs believed the need to have a new cycle path in the area to be the most desired recreation facility together with a skateboard ramp.

The Bike Plan needs to therefore provide for the various bicycle users and to identify the opportunities that exist from the existing land use and future developments. Sites such as the former Gladesville Hospital and Bedlam Regional Park, should be formally opened up to cycling in the future.

The detailed routes contained in the Bike Plan will allow Council, the RTA and other organisations to systematically implement bicycle routes in the next 7 years.

This study is the first step as part of Council's initiative to provide a network of cycle ways and cycle facilities for the area and to further allow the safe use of the bicycle as a viable method of transport for short trips and for recreation.

## **1.2 Location of Study Area**

The study area covers the local government area of Hunter's Hill.

## **1.3 Objectives of the Hunter's Hill Bike Plan**

The objectives of the Bike Plan are to:

8. Provide Hunters Hill Municipality with a network of on-road and off-road cycle ways linking main generators such as schools, shops and recreation.
9. Provide Hunters Hill Municipality with a network of cycle ways for a variety of uses, including commuting, safer riding to school, tourism and recreation.
10. Identify the impediments to safe and convenient cycle use and identify ways to ameliorate these impediments.
11. Develop a clear and achievable implementation strategy to be implemented in prioritised stages based on anticipated availability of funding.
12. Encourage the use of bicycles as an alternative transport mode to the use of cars, especially for local travel.
13. Encourage non cyclists to cycle.
14. Provide high profile, high use routes during the first stage of implementation that aim to support safe cycling.

## **1.4 Scope of Report**

The remainder of this Section presents a summary of the steps taken to prepare the Hunter's Hill Council Bike Plan.

Section 2 discusses the formation of the proposed bicycle network and bicycle facilities using the existing facilities as a starting point. Literature consulted is also presented. Section 2 presents the results of community consultation and surveys. A review of accident data is also presented.

In Section 3, the Bike Plan Implementation Program is presented and includes the criteria for the priority staging of the proposed cycleway network. Also included in Section 3 is information on implementing the Bike Plan by integrating it into Council's Planning Instruments. Locations and details of bicycle parking and end trip facilities are also included. Section 3 also contains bike route maintenance information.

Section 4 outlines the behavioural and promotional programs necessary for increasing the benefits of the Bike Plan.

In Section 5, the various sources of funding available to implement the Bike Plan are presented.

Section 6 includes some suggested steps to take at the commencement of implementation.

## **1.5 Methodology**

The following methodology was adopted to prepare the Hunters Hill Council Bike Plan.

### **Research**

The examination of relevant documents and reports was carried out.

### **Consultation and Liaison**

Extensive consultation and liaison took place with the project Steering Committee, Bike North (the local bicycle user group), stakeholder groups, schools, local residents and the local media.

### **Surveys**

Qualitative surveys were completed during the study of the stakeholder groups and local residents. School students' cycling patterns were also examined. The completion of fieldwork and saddle surveys assisted with examining the cycling environment.

### **Consolidation**

This step included the identification and prioritisation of future cycle ways and facilities for implementation. Behavioural and promotional programs and funding sources for the implementation of the Bike Plan are identified. The post bike plan stage is also discussed.

## 2.0 Formation of the Bike Plan Network and Bicycle Facilities

### 2.1 Literature Review

The following documents and information have been consulted during the course of the project:

1. *Action for Bikes Bikeplan 2010* (RTA 1999)
2. *Guide to Traffic Engineering and Practice Part 14 Bicycles* (Austroads 1999)
3. *Sign Up for the Bike* (CROW 1993)
4. *Collection of Cycle Concepts* (Road Directorate, Ministry of Transport, Denmark, 2000)
5. *Hunter's Hill Council Youth Survey Summary of Findings* (Hunter's Hill Council, 1998)
6. *Action for Air* (Environmental Protection Authority 1998)
7. *Australia Cycling The National Strategy* (Commonwealth Department of Transport and Regional Services 1998)
8. *Shaping our Cities* (DUAP 1998)
9. Reported Accidents Involving Bicycles in Hunter's Hill LGA, RTA Sydney CS Crash Analysis Unit, 1995-2000 data.

The literature review assisted to identify issues relevant to Hunter's Hill and clarify the established standards required for the provision of bicycle facilities.

### 2.2 Planning for Bicycles - General Requirements

The bicycle planning philosophy presently used locally and internationally states that bicycles should be integrated onto the road system to serve as transport and along off-road pathways when provision for recreation or for inexperienced / young cyclists is made. In areas having high traffic volume, high speeds or limited space, off-road paths are also used for transport.

At the local level, the overriding philosophy followed is that "all streets are bike streets," meaning that the objective of local road planning and engineering should be to safely integrate bicycles with other road users.

A reduction in the overall traffic speeds along local streets to 40km per hour would not only benefit cyclists but would also be good for all road users by providing an environment where the different road users become more compatible and aware of each other.

This is the situation in some European countries such as the Netherlands and Denmark where local car traffic is allowed to mix with other activities in a shared street called a “Woonerf” or living space. Cars can still come and go, but they go at very reduced speeds because they're aware of the other things that are happening on the street, such as children playing, people walking and cycling.

The above approach stipulates that bicycles are not an additional mode using the road network but part of the overall activities expected to be provided for, safely and conveniently. As implied, safely integrating bicycles on the road network may involve altering roads to make them compatible for bicycle use, while at other times requires the provision of off-road paths. Provision at intersections, measures on main roads, signed routes along traffic-calmed streets or minor roads and cycle paths all have a part to play.

Within this philosophy of integration, the needs of the different types of cyclists (such as school children and recreational cyclists), and the full range of bicycle facilities (including on-road facilities, shared bicycle/pedestrian paths, linemarked bicycle lanes and so on) are considered in the development of the proposed cycleway network.

Keeping this in mind some changes have recently occurred in planning, designing and constructing cycle routes. Recent Australian documents (listed below) are available, and should be referred to regarding research, engineering and the legal status of cyclists. In addition to the documents below, a document is presently being completed by the RTA to complement the *Guide to Traffic Engineering Practice - Part 14, Bicycles* (Austroads 1999).

- *Guide to Traffic Engineering Practice - Part 14, Bicycles* (Austroads 1999) has been updated and includes a section about designing cycleways along roads of 12.8m in width, being is relevant to the roads in Hunter's Hill.
- *Action for Bikes - Bikeplan 2010*, (RTA 1999) reviews current data and research available on cycling.
- A notable change in cycling law is the National Road Rules permitting children up to 12 years old to ride on footpaths, with this rule extended to adults accompanying children.
- A document dealing with cycling on a National level is the 1999 - 2004 *Australia Cycling The National Strategy*.

Worldwide respected sources include:

- *Sign Up For the Bike*, (Crow 1993) from the Netherlands
- *Collection of Cycle Concepts* (Road Directorate, Ministry of Transport Denmark, 2000) from Denmark.

Both sources are relevant design manuals for cycle friendly infrastructure. *Sign Up For the Bike* (1993:24) can assist Hunter's Hill Council with its five main requirements for cycling infrastructure being: **coherence, directness, attractiveness, safety and comfort that are** summarised below.

#### 1. **Coherence**

The cycling infrastructure should form a coherent entity linking all trip origins and destinations. Routes should be continuous and consistent in standard.

#### 2. **Directness**

Cycle routes should be as direct as possible, based on desire lines, since detours and delays will deter use.

#### 3. **Attractiveness**

Cycle route0

s must be attractive on subjective as well as objective criteria. Personal safety, lighting, aesthetics, noise and integration with the surrounding area are important.

#### 4. **Safety**

Designs should minimise perceived danger as well as actual safety for cyclists and other road users. A reduction in the overall traffic speeds along local streets benefits all users, in particular pedestrians and cyclists.

#### 5. **Comfort**

Cyclists require smooth, well maintained, regularly swept surfaces and gentle gradients. Routes must be convenient to use and avoid complicated manoeuvres and interruptions.

### 2.3 Determining the Framework for Bicycles

As a starting point to developing the Hunter's Hill Bike Plan, the local area's principal bicycle network and framework for bicycles was determined. The framework consists of the following:

- Identifying the existing bicycle routes and where they link within Hunter's Hill Municipality and further to neighbouring areas.
- Other linkages to neighbouring council areas.
- Identifying the NSW RTA regional bicycle route network.
- Identifying the existing bicycle parking facilities.
- Identifying areas of steep topography.

## 2.4 Identifying Cyclist Generators

The Bike Plan identifies the various generators or bicycle destinations relevant to cyclists including the existing cycle ways, shops, parks, recreational facilities, education and transport nodes.

Bicycle generators can be identified through land use planning and further through survey analysis. Land use planning can identify existing land use and its proximity to residential areas and public transport.

Research indicates that an average cycle trip for someone in Sydney lasts 16 minutes which relates to a distance of approximately 4km, so it is fair to assume that “average” cyclists would be interested in cycling to reach bicycle generators within a radius of 4km from their origin. (Cycling in Sydney: Bicycle Ownership and Use, Transport Data Centre, 2000). The small size of the Hunter's Hill area makes cycling to the listed generators achievable for the average cyclist.

**Some bicycle generators relevant to the Hunter's Hill Municipality include:**

- **Schools:** Hunter's Hill High School, Boronia Park Public School, St Joseph's College and Hunter's Hill Public School,
- **Existing cycleways:** Parramatta Valley Cycleway through Gladesville Reserve, Tarban Creek cycleway, cycleway linking Hunter's Hill High School to Fig Tree Bridge, Buffalo Creek Reserve cycleway, Tarban Creek Bridge cycleway, Fig Tree Bridge cycleway, tunnel linking Victoria Road to Karrabee Avenue.
- **Ferry Wharves:** Valentia Street, Alexandra Street and Gladesville wharves.
- **Shops and Shopping Centres:** Gladesville Shops (including Coles supermarket), Pittwater Road shops, Gladesville Road shops, Boronia Park Shops, Woolwich pier shops and hotel and Alexandra Street shops.
- **Open Space and Recreation:** Boronia Park, foreshore areas including Bedlam Bay Regional Park, Woolwich Baths, Field of Mars Wildlife Refuge, Buffalo Creek Reserve, Clarke's Point and Weil Park / Kelly's Bush.
- **Historic buildings:** including the Vienna Cottage and Hunter's Hill Town Hall.

Where bicycle generators are not within the boundary of the local area but located close by, (such as the Pittwater Road on-road cycleway and Lane Cove National Park), the Bike Plan identifies linkages to these locations.

## 2.5 Cyclists Profile and Relevant Facilities

There are several classes of cyclists and related bicycle facilities that must be considered as part of the Bike Plan that are discussed below.

### 2.5.1 Types of Cyclists

The four classes of cyclists that require planning for in the Hunter's Hill Municipality can be grouped as follows:

**Vulnerable** – This group includes inexperienced adults, older persons and children. Cycling travel speed is usually below 20km/h and cyclists predominantly travel short distances of about 1km to 4km.

**Commuter Adults** – This group includes cyclists who are reasonably confident in traffic, value travel speed and directness of routes. The cyclists make medium length trips with travel speeds typically around 20km/h to 30 km/h. Cycling trips may last from 5 to 60 minutes.

**Training / Fitness Adults** – This group includes cyclists who often travel above speeds of 25 km/h and are prepared to claim their road space. Trips may last between 30 minutes and two hours.

**Recreational** – This group consists of cyclists with varying ages, cycling speed and riding experience. The cyclists may prefer a route with pleasant scenery away from the traffic and with the availability of facilities such as playgrounds, taps, toilets and cafes/ restaurants.

### 2.5.2 Types of Bicycle Facilities

A cohesive network of on-road and off-road cycleways is needed for the various types of cyclists. Bike routes will be directed along local and non-local roads, through parks and along existing footpaths. It is required that bicycle parking be provided as part of the overall cycle network.

Examples of on-road cycleways include linemarked kerbside bicycle/car parking lanes, exclusive bicycle lanes through squeeze points and on-road logos designating cycle "zones" and assisting cyclists with direction of travel. Cycle lanes marked on road are generally coloured dark green with white logos. Traffic calming devices, intersection treatments, reduction in traffic speeds, parking restrictions and easily identifiable signposting of routes are all necessary options.

Examples of off-road cycleways include shared paths for commuting and recreation. The off-road cycleways or cyclist/pedestrian shared zones that are recommended for the Hunter's Hill area will take the form of shared pedestrian/cycle paths of a preferred width of 2.5 metres, formed in concrete, pavers or bricks. As Hunter's Hill is a built up area there may be locations where an off-road cycleway is required but the width of 2.5m is not available. In this situation, each location should be judged on its merits with regard to existing pathway pedestrian volumes and subsequent use by cyclists. The change in the National Road Rules may mean that some footpaths will be widened to provide an area for the under 12's to cycle safely along. Appendix 4 presents examples of on-road cycleways in green and off-road shared paths with separation lines.

When it comes to providing cycle facilities on regional routes, the RTA is committed to providing cycleways to link facilities along the state and local road network. The RTA policy specifies that "Cycling has an important role in a balanced system, because it is economical, efficient for local journeys, environmentally friendly and good for health."

The RTA policy further states that bicycle facilities along State highways will be funded 100% by the RTA. The responsibility therefore lies with the RTA to provide and fund facilities along the State highways identified or to fund alternatives on footpaths, local road or road shoulders that have been indicated in this Bike Plan (including Pittwater Road, Ryde Road and Burns Bay Road) to avail safe cycling.

It is imperative that future road works and maintenance along all roads recognise the needs of cyclists, and cycleway provision, where possible, is carried out simultaneously with other road works and maintenance. The RTA policy for cyclists should be demonstrated through the provision of bike facilities along main roads or as mentioned above along more practical alternative routes.

Bicycle parking can be provided in the type of racks and lockers listed in the Australian Standard (AS 2890.3 1993) for bicycle parking. End trip facilities that are required include showers, change rooms and lockers.

## 2.6 Youth Needs

In 1998, the young people in the Hunter's Hill Council area were asked to complete a survey about their recreational needs. The results of the survey have been presented in the *Hunter's Hill Council Youth Survey Summary of Findings* (Hunter's Hill Council, 1998). A total of 370 questionnaires were analysed from the youth of Hunter's Hill in the 10 - 17 year age bracket. The survey was answered equally by males and females.

The youth were asked to rank from "most needed" to "least needed" recreational facility from the seven recreational facilities presented in Table 1.

**Table 1:  
Recreational Facilities Most Needed by Youth in the Hunter's Hill Municipality**

Recreational Facility	Skateboard Ramp	Cycle Path	BMX Track	Basketball Court	Other	Tennis practise wall	Netball Courts / Cricket
% of responses	23%	22%	17%	13%	10%	6%	9%

The findings of the survey indicate that by far the most popular recreational facilities requested by young people were cycle paths (22%) and a skateboard ramp (23%). The survey indicates that cycle paths and a skateboard ramp should be the first facilities provided for the youth of Hunter's Hill.

Furthermore, the respondents were told that Council is preparing a Bike Plan and they were asked if they would use a cycle path if it were to be provided. A total of 83% of respondents stated they would use a cycle path. When asked what they would use the path for a total of 47% of respondents stated they would use the path for fun and exercise. The results are summarised in Table 2.

**Table 2:  
Possible Use of a Future Cycle Path by Young People**

Use of Cycle Path	For fun and exercise	For both travel to school and fun and exercise	To travel to and from school only	No response
% of Respondents	47%	33%	5%	15%

The Bike Plan acknowledges the needs of local youth and recommends that the provision of an off-road cycle path be seen as a high priority.

## **2.7 Accident Data for Cyclists**

Reported accidents involving cyclists in the Hunter's Hill Municipality for the period 1995 to 2000 were obtained from the Roads and Traffic Authority's Road Traffic Accident Database and analysed for their location. The accident data was analysed to determine the location of accidents and used to assist with the formation of the proposed cycleways network.

A total of 15 cyclists were included in accidents in the Hunter's Hill Municipality between 1995 and 2000. **Figure 1** illustrates the location of the known and reported bicycle accidents. Three of the accidents' exact locations are not known (at Reiby Road and Ryde Road) and are not shown in Figure 1.

The **two** locations with the highest number of bicycle accidents (from highest to lowest) are: Victoria Road with four accidents and Ryde Road with two accidents.

All accidents occurred during daylight hours. A total of 14 accidents took place in dry conditions and one occurred in wet weather (Woolwich Road). Five of the accidents occurred with vehicles other than a car and included two wagons, a 4WD, a truck and a utility.

From analysing the locations where accidents occurred, it is evident that most occurred in areas having 60km/hr speed limits. By reducing speed limits benefits would be made to all road users and especially cyclists and pedestrians.

It should be noted that bicycle riders involved in accidents may not be inclined to report accidents they consider not too serious and where after the incident they are able to ride their bikes. The cyclists may consider the time to report the accident as an inconvenience due to having to ride to a local police station to report the details of the accident.

## Figure 1 Accident locations

## 2.8 Consultation Process

### 2.8.1 Steering Committee Meetings

The study was managed by the Steering Committee comprising of the following persons:

- Don Cottee, Hunter's Hill Council.
- Margaret Kelly, Hunter's Hill Council.
- Alister Sharp, Bike North member, (local bicycle user group).

The Steering Committee met regularly during the project to provide direction to the consultant and assist with monitoring the progress of the project. Day-to-day consultation has been undertaken equally with all members of the Steering Committee.

The consultant attended one full Council Meeting and presented a project update.

### 2.8.2 Informing the Public

There was on-going community consultation during the project. Local stakeholders were informed of the project through notices and articles being placed in the local print media, *The Northern District Times* and the *TWT*. Two articles about the Bike Plan appeared in the cycling magazine *Australian Cyclist* in the *Push On* section. Members of various Council committees were sent information about the project and further information was sent to every household with the Community Survey. Community members, members from Bicycle NSW and Bike North were invited to the Information Session and the saddle surveys a component of the consultation process.

### 2.8.3 Information Session

One public Information Session was held during the project to discuss the preparation of the Bike plan where 25 people attended and participated. Attendees included Bicycle NSW and Bike North members, local cyclists, school children, and other local residents interested in the development of the Bike Plan.

Invited guests were generated from lists provided by the Steering Committee. The Information Session was jointly organised and facilitated by the consultant and the Steering Committee. A broad cross section of the local community, including recreational cyclists, family groups, mountain bike riders and bike commuters attended the Information Session.

Persons attending the Information Session were asked to complete a survey questionnaire with questions relating to their views on cycling, facilities currently used and where future cycleways were needed. Other areas raised in the questionnaire included:

- Cycling type and destinations.
- Routes taken.
- Problems encountered when cycling.
- Desire line and barriers (such as traffic hazards, steep hills and weather).
- Trip purpose.
- Respondents' age.

The survey questionnaire used to gather information is included as **Appendix 1**.

Some issues raised at the Information Session included:

- The need to identify a network of cycleways for both on-road and off-road bike use.
- The need for recreational mountain bike tracks.
- The need to link cycle ways in Hunter's Hill Council to the neighbouring facilities.
- The need to identify bicycle parking at various locations including the local shops and open space areas.

#### **2.8.4 Community Survey with Bike Plan Questions**

A Community Survey was carried out of local residents at the same time that the Bike Plan was being prepared. As part of the survey, a series of questions were included about the Bike Plan. A copy of the questionnaire used for the Community Survey is included as **Appendix 2**. The results from the section of the Community Survey relevant to the Bike Plan are presented below.

#### **Results of Community Surveys**

A total of 374 surveys were analysed with a total 145 respondents (39%) riding a bicycle. More than 23% of respondents cycled at least once per week. Table 3 illustrates the respondents' cycling frequency.

Over half the respondents do not take part in cycling, which is not surprising considering that 35% of respondents were over 65 years old and this was this biggest age group surveyed (refer to Table 4). In addition, a total of 64% of respondents surveyed were female. This is significant as cycling is not as popular with women as it is with men.

**Table 3:  
Cycling Frequency**

<b>Cycling Frequency</b>	<b>Every Day</b>	<b>Once per week</b>	<b>Once per month</b>	<b>Less than once per month</b>	<b>Never</b>	<b>No Response</b>
<b>Percentage</b>	8%	15%	5%	10%	52%	9%

**Table 4:  
Age Group of Respondents**

<b>Age Group</b>	<b>&lt; 20 years</b>	<b>20 – 35 years</b>	<b>36 – 50 years</b>	<b>51 – 65 years</b>	<b>&gt; 65 years</b>	<b>No Response</b>
<b>Percentage</b>	2%	9%	26%	27%	35%	< 1%

### **Type of Cycling**

The respondents who indicated they cycled were asked the type of cycling they took part in and how often this occurred. The results are discussed below.

### **Various Types of Cycling**

#### **Recreational**

Of the 145 respondents who used a bicycle, a total of 139 respondents (96%) took part in recreational cycling and 42% of this group rode frequently.

#### **To School**

Of the 145 respondents who used a bicycle, a total of 8% rode to school frequently or sometimes. This response is quite high when considering that only 2% of respondents were less than 20 years old.

#### **Commuting**

Of the 145 respondents who used a bicycle, 15% used a bicycle for commuting.

#### **Racing**

Of the 145 respondents who used a bicycle, 5% raced with their bicycle.

## Where Cycling Takes Place

The survey respondents were asked where they rode their bicycles. Most cycling (27%) took place along local roads followed by footpaths (20%). All answers are presented in Table 5.

**Table 5:  
Where Bicycle are Ridden “Frequently”**

Location	All Roads	Local Roads	Footpaths	Buffalo Creek	Gladesville Reserve	Other Parks
Percentage	11%	27%	20%	8%	6%	6%

## Location for Cycleways and Bicycle Facilities

The survey respondents were asked to comment on “where they would like to see cycleways and bicycle facilities provided”. The following comments were made:

- Existing cycle ways and Councils proposed plans should be the first to be looked at;
- Links to Parramatta River Cycleway;
- Link through the open space areas;
- Cycleway in Boronia Park;
- Church Street;
- Woolwich Road to Ferry;
- Ryde Road;
- Pittwater Road;
- Boronia Park to Hunter’s Hill Shops;
- Woolwich to Hunter’s Hill Overpass. Connecting Path from Tarban Creek Bridge;
- Hunter’s Hill Overpass;
- Gladesville Bridge to Lane Cove shops;
- Tarban Creek and Huntley’s Point;
- Tarban Creek to Parramatta River Cycleway;
- Tarban Creek Reserve under Gladesville Bridge

## 2.8.5 Results of Surveys to Schools

School survey questionnaires (**included as Appendix 3**) were sent to school principals in the Hunter's Hill area. A total of six schools responded to the survey questionnaire. Table 6 presents the schools' responses.

**Table 6:  
School Survey Results**

School and Address	Contact Teacher	Student Population	How Many Cycle	Cycling Policies	Is Cycling or Triathlon Offered	Comments	Comments relating to Safety of Cycling	No. Come by car
Boronia Park Pittwater Road Gladesville	K. Naylor	380	0	Cycling is banned	No	Develop parks with cycleways. Lower speed limits. Restrict traffic on Pittwater Rd	Students want to see off-road cycleways	285
Villa Maria Mark St	Mark McKeon	320	2	Can not cycle in school grounds	No	Considered safe only for yrs 4,5,6	none	150-200
Riverside Girls High Huntley's Pt Rd	Craig Teece	921	0	none	no	None	none	150
Our Lady Queen of Peace, West-Minster Rd	Denise Shakeshaft	203	0	none	no	No	Very few children have bikes as we are surrounded by busy roads	180
Marist Sisters, Woolwich Rd	Sr Judy MacFarlane	850	6	none	Yes Centennial Park	No	no	100 car and 600 bus
Hunter's Hill Public	R Fors	310	7 and 7 scooters	Yes wear helmet & obey road rules. Can not	no	No	Occasional comments that children disobey road rules	200

				cycle in school ground s				
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## **2.9 Field Work and Saddle Surveys**

Fieldwork including saddle surveys<sup>1</sup> took place in areas of existing and potential bicycle use to identify the existing cycling environment and rectification works necessary.

Routes saddle surveyed during the project consist of existing cycleways, routes to bicycle trip generators and routes identified during the community surveys.

Cyclists were asked to suggest their preferred cycling routes and changes in routes they believed would make cycling more accessible to more people.

Route limitations included the improvements necessary in the continuity and coherence of cycleway facilities and facility maintenance. Some of the issues identified have also been raised by the community in the survey responses.

The Steering Committee was introduced to the method used by the consultant to carry out the saddle survey by attending a preliminary saddle survey of the area. A checklist was used to assess the bicycle routes in the Hunter's Hill area by identifying and analysing the routes' specific problems.

The saddle surveys and fieldwork identified the future location for bicycle facilities and the rectification works necessary to make safer cycling possible.

Several field trips were made with the Steering Committee members to identify a location for the construction of an off-road cycle path, particularly for younger people to use for recreation and mountain bike riding. Both Buffalo Creek and Boronia Park were inspected as possible locations. It was agreed between Council and the steering committee, that a cycleway should be included in the upgrade of Boronia Park and details will be available in the future Boronia Park Plan of Management.

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<sup>1</sup> A saddle survey is an on-bike survey conducted to assess the suitability and engineering constraints of proposed routes for a future bicycle network.

## **2.10 Development of the Proposed Cycleway Network**

The above sections outlined the methodology used to form the cycleway network for future works implementation. To summarise the above, the criteria used to develop the cycleway network includes:

- Understanding cyclists' general requirements.
- Locating existing physical and cultural features (such as land use, topography, road network and bicycle generators).
- Literature review.
- Identifying bicycle accident locations.
- Consulting with and conducting surveys of stakeholders.
- Reviewing comments made by the Steering Committee.
- Completing fieldwork and saddle surveys of proposed routes.
- Identifying problems specific to cyclists and proposing future works.
- Ensuring routes are connected and coherent.

### **3.0 Bike Plan Implementation Program**

From the research and analysis of the issues in Section 2, **Figure 2** illustrates the existing routes and the future cycle facilities proposed for Hunter's Hill Municipality. The network includes recreational routes, commuting routes, routes to encourage healthy activities and foreshore routes.

The implementation of the Bike Plan should follow these steps:

- Provision of the Bike Plan routes and facilities in 5 prioritised stages as illustrated in Figure 2.
- Construction of Bike Plan routes and facilities also undertaken as part of the general road maintenance and construction, resulting in funds being saved from the Bike Plan budget.
- When new developments are planned, bicycles should be integrated into the overall design and construction works rather than providing bicycle facilities afterwards. This includes the implementation of bicycle parking facilities.
- Integration of cycling into the day-to-day Council operations by identifying cycling and incorporating the Bike Plan recommendations into Council's Planning Instruments, guidelines / reports and decision making process.
- The first stage of implementation should cater to the greatest number of cyclists as possible and the new facilities should be used to promote cycling and introduce cycling to non-cyclists in the local area.

**Figure 2 - CYCLEWAY NETWORK (A3) Coloured Plan**

### 3.1 Staged Bike Plan Implementation Program

The staging of the Bike Plan Implementation Program is arranged into 5 priority stages to be implemented in 7 years, with priority 1 being the highest priority and priority 5 being the lowest.

The criteria presented in Table 7 has been used to guide the proposed priority allocation.

**Table 7:  
Guiding Criteria for Bike Plan Staged Implementation**

Priority	Guiding Criteria
1	Rectification of existing routes; Extension of regional routes network; bike parking.
2	Rectification of routes at accident locations; Continue the extension of existing routes; bike parking.
3	Provision of new bicycle facilities forming regional network.
4	Provision new of bicycle facilities linking local trip generators.
5	Provision of new facilities.

The future works program consists of the maintenance of existing facilities and construction of new infrastructure. The proposed staged Bike Plan Implementation Program is detailed below in Table 8.

Ref	Description	Type of Facility	Priority	Cost Estimate	Comments
1 to 2	Punt Road: Victoria Road to Bedlam Bay	On-Road	3	\$2,500.00	Part of Parramatta Valley Cycleway
1 to 3	Victoria Road: Footpath south side Punt Road to Crown Street	Shared Path	2	RTA to cost	Part of Parramatta Valley Cycleway. RTA to fund
2 to 4	Bedlam Bay Regional Park Road: Punt Road to Victoria Road tunnel	Shared Path	depends on plan of management	no estimate available	Subject to Plan of Management for Gladesville Hospital Site. Construct by others
4 to 5	Victoria Road Tunnel: South side to Parramatta Valley cycleway	Shared Path	1	\$5,000.00	Subject to Plan of Management for Gladesville Hospital Site.
4 to 6	Victoria Road Tunnel: South portal to Karrabee Avenue	Shared Path	2	cost to developers	Construct by developers as part of development consent
6 to 7	Karrabee Avenue, Mortimer Lewis Drive and Waruda Place	On-Road	2	\$2,000.00	
3 to 8	Crown Street: Victoria Road to Gladesville Reserve	Shared Path	1	\$28,000.00	
8 to 9	Gladesville Reserve: Crown Street to Huntley's Point Road	Shared Path	1	\$200.00	signpost existing facility
23 to 40	Ryde Road: Park Road to Abigail Street	Shared Path	3	\$8,000.00	
40 to 41	Abigail Street /Avenue Ryde Road to Joubert Street	On-Road	3	\$5,000.00	

Ref	Description	Type of Facility	Priority	Cost Estimate	Comments
41 to 42	Joubert Street/ Avenue Ryde Road to Gladesville Road	On-Road	3	\$1,000.00	
18-43	Manning Road (south side): Tarban creek Reserve to Mary Street	On-Road	1	\$2,000.00	
43-44	Gladesville Road (south side): Mary Street to Ryde Road	Shared Path	4	\$15,000.00	
45 to 46	RTA Land: Burns Bay Road	Shared Path	1		RTA to fund
45 to 47	Durham Street / RTA Upgrade Path	Shared Path	1	\$10,000.00	
26-48	Pittwater Road, lower service road: High Street to Pains Road	On-Road	2	\$1,000.00	
48 to 49	Pittwater Road, west side: Pains Road - Field of Mars	Shared Path	2	\$30,000.00	RTA to fund
23 to 50	Everard Street full length	On-Road	3	\$2,500.00	
50 to 51	Pittwater Road: Everard Street to Ryde Road	Shared Path	5	\$35,000.00	
20 to 21	Tarban Creek Reserve off road	Shared Path	5	\$35,000.00	
52 to 54	RTA Land: reservation parallel to Durham St	Shared Path	1	\$12,000.00	rectify path for cycling

Ref	Description	Type of Facility	Priority	Cost Estimate	Comments
54 to 53	Wandella Avenue/Moorefield Avenue/Kareelah Road and Mount Street to Stanley Road	On-Road	1	\$4,000.00	
31 to 60	Mount Street: Three Patriots Walk to Alexandra Street	On-Road	1	\$900.00	
60 to 61	Alexandra Street: Mount Street to Ferdinand street	Shared Path	1	\$500.00	
61 to 62	Ferdinand Street: Alexandra Street to Madeline Street	On-Road	1	\$500.00	
62 to 63	Madeline Street: Ferdinand Street to Ady Street	On-Road	1	\$800.00	
63 to 64	Brown Lane: Ady Street to Campbell Street	On-Road	1	\$200.00	
64 to 65	Lloyd Avenue: Brown Lane to Alexandra Street	On-Road	1	\$200.00	
35 to 36	Ferry Street: Alexandra Street to Woolwich Road	On-Road	2	\$200.00	
35 to 36	Woolwich Road full length	On-Road	2	\$250.00	

Ref	Description	Type of Facility	Priority	Cost Estimate	Comments
35 to 36	Gale Street/The Point Road: on road facility	On-Road	2	\$1,500.00	
20 to 21	Makinson Street: Tarban Creek Reserve to Massey Street	On-Road	5	\$2,000.00	Temporary on-road facility
21 to 22	Massey Street: Venus Street to Victoria Road	On-Road	3	\$2,000.00	
18 to 19	Manning Road: Riverglade Reserve Victoria Road	On-Road	1	\$1,000.00	
20 to 27	Augustine Street: Gladesville Road to Mark St	Shared Path	1	\$15,000.00	
27 to 23	Augustine Street: Mark St to Ryde Road	Shared Path	3	\$20,000.00	
27 to 28	Mark St and Martin St	On-Road	1	\$8,000.00	
43 to 42	Gladesville Road footpath south side: Mary Street to Ryde Road	Shared Path	4	\$10,000.00	

Ref	Description	Type of Facility	Priority	Cost Estimate	Comments
15 to 18	Riverglade Reserve	Shared Path	2	\$2,000.00	
15 to 7	Riverglade Reserve	Shared Path	4	\$34,000.00	
13 to 11	Victoria Road: Huntley's Point Road to Morimer Lewis Drive	Shared Path	check?		RTA to fund
23 to 25	Park Road Boronia Park	Shared Path	2	\$40,000.00	
25 to 26	High Street: Park Street to Pittwater Road	On-Road	2	\$2,000.00	
60 to 66	Church Street: Footpath north side full length	Shared Path	3	\$1,000.00	
11 to 67	Huntley's Point Road: Betts Park to Keeyuga Rd	On-Road	3	\$1,000.00	
67 to 17	Im Reserve Huntley's Point Road	Shared Path	3	\$5,000.00	widen existing path
68 to 69	Pittwater Road: Auburn Street to High Street	On-Road	5		
29 to 66	RTA Land: Burns Bay Road Church Street to Fig Tree Bridge	On-Road	1		RTA to fund
9 to 10	Huntley's Point Road: Victoria Road to Gladesville Reserve	On-Road	1	\$500.00	link existing

## 3.2 Integrating the Bike Plan into Councils Planning Instruments

Once the Bike Plan is being implemented it is important that cycling initiatives are further integrated into Council's day-to-day planning by including the Bike Plan within the framework of Council's documents, including Councils Management Plan, Environmental Plan, Social / Community Plan and Capital Works Programs. For example, the NSW Department of Local Government's document *The Social / Community Planning and Reporting Guidelines* states that legitimate community groups must have access to facilities. A Bicycle User Group is a legitimate community group that must be included in the Council's Social / Community Plan strategies.

Council can reinforce it's own Social / Community Plan aims by including the social benefits of cycling such as providing a pollution free and inexpensive form of transport and a tool for linking communities together.

Similarly, Council's Environmental Plan identifies the need to reduce car use and encourage the use of alternative transport options such as cycling, walking and public transport, all contributing to cleaner air. What better way to do this than by encouraging Council staff and the community to cycle to work by providing cycleways and parking at work places.

### 3.2.1 Local Land Use Planning Regulation and Management

It is Council's responsibility to ensure that bicycle issues are incorporated into existing policies, plans, strategies and schemes. Where issues specific to bicycles do not exist, it is vitally important that they be included in updates of Planning Instruments and all of Council's document reviews.

The above documents can be adopted to assist with:

- Locating development so there is access to cyclists.
- Minimising development that is car dependent.
- Initiating traffic calming projects to reduce motor vehicle speeds in neighbourhoods with benefits to pedestrians and all road users including cyclists.
- Creating car free developments and areas.
- Formalising bike use in areas of current ad-hoc bike use, such as the former Gladesville hospital site and linkages and Bedlam Bay Regional Park and Boronia Park.

Instruments made under the NSW Environmental Planning and Assessment Act, 1979 and the NSW Local Government Act, 1993 can specifically include bicycle issues and facilitate increased bicycle use in the future.

The following Planning Instruments should be referred to as they can clarify how Council's statutory documents can specifically make reference to cycling. Furthermore, the way in which the Instruments interact with providing cycling facilities is also included.

#### Local Environmental Strategy (LES)

Council or the Director of Planning (DUAP), can specify the form, content and preparation of the LES. The issues of access and transport can be essential components of an LES. When preparing for this type of LES, the integration of cycling that includes recreational and commuting aspects of cycling, must be considered.

#### Local Environmental Plan (LEP)

An LEP is a single plan providing the context and rules for all local decisions and actions. The LEP contains vision, policy, action plan and regulatory provisions. Within the LEP, cycling should be featured at all levels including the vision, whereby cycling can be an important part of "a community working together to attain safe, healthy and active lifestyles". Additionally, cycling should be featured through a strategy such as "providing Council with a cycling network that provides equally for a range of trips."

#### Development Control Plan (DCP)

A DCP provides more detailed provisions than are contained in a Local Environmental Plan. The details from the Bike Plan must be incorporated into the DCP to ensure that the cycleways are implemented as intended in the Bike Plan.

#### Section 94 Contributions Plan

S94 of the EP&A Act enables local councils and other consent authorities to levy contributions for public amenities and services required as a consequence of development. A Contributions Plan is a public document that displays Councils policy for the assessment, collection, spending and administration of contributions. Bicycle facilities such as on-road and off-road paths in new areas or along newly constructed roads, and bicycle parking in shopping centres and office spaces can all form part of the public amenities' levies within a Section 94 Contributions Plan.

#### Master Plans

The component of a Master Plan may be determined by a statutory planning instrument. A Master Plan may contain design principles, staging of development, distribution of public open space and so on. When a Master Plan is being developed, the relevant information from Council's Bike Plan must also be included in the Master Plan. Master Plans that should include bicycle use include the upgrade of the former Gladesville Hospital site and Bedlam Bay Regional Park.

### Local Area Traffic Management Schemes

The Local Area Traffic Management Schemes (LATMS) are a set of physical measures and other restraints on vehicle operation to reduce and calm the traffic flow in order to create more liveable and safer local streets.

It is important to ensure that when the LATMS are developed the needs of cyclists are understood and reflected in the final design and construction of facilities. LATMS should avoid the unintentional adverse effect to cyclists by narrowing the available riding space and squeezing cyclists back into the path of vehicles.

Bicyclist needs should be seriously considered in the future urban design plans and traffic management plans for the Hunter's Hill Village Centre, Gladesville shops, Pittwater Road and Ryde Road parking upgrades.

## **3.3 Bicycle Parking and End Trip Facilities**

Provision of secure bicycle parking is an important element to encourage bikes for shopping, work, school, recreational trips and dual mode<sup>2</sup>. To be effective, bicycle parking needs to be secure, capable of supporting the bicycle without damage and be located where it is accessible to cyclists, in public view and does not inhibit pedestrian flow.

Successful commuting by bicycle is only possible when parking is available at one's destination and cyclists are assured that bicycle parking is easy to use and provides security for their bikes.

End of trip facilities such as change rooms, lockers and showers should be provided at places of employment, education and recreation to encourage cycle use.

It is recommended that bicycle parking be provided by developers as a condition of development consent.

Generally, a mix of bicycle parking needs to be considered for short and long stay parking. Short stay parking facilities (such as inverted U rails) are suitable for recreational and shopping trips, while bicycle lock ups (such as lockers and cages) are more appropriate for long stay and regular users at ferry wharves and places of employment.

It is noted that bicycle parking already exists in some locations and the Bike Plan identifies these locations and makes recommendations on how facilities can be improved where necessary.

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<sup>2</sup> Dual mode travel is achieved by using the bicycle combined with public transport or car.  
Cycle Planning Pty Ltd

Bicycle parking facilities are required in various locations throughout Hunter's Hill Municipality with the locations presented in Table 9. Bike parking should be provided during the first two stages of the Bike Plan's implementation.

**TABLE 9:  
Locations Recommended for Bicycle Parking**

Location	Type of Parking
Pittwater Road Shops at newsagency next to café (to include community noticeboard)	Bicycle Racks and Noticeboard
At Hunter's Hill shops at entry near bakery and at Vintage cellars.	Racks & Information
Gladesville Shops at existing Coles Shopping centre car park entrance advising the location of parking.	Signposting advising of parking location
Hunter's Hill shops – at shopping village near Commonwealth Bank area and video shop.	Bicycle Racks
Hunter's Hill Town Hall – front and rear entrances	Bicycle Racks
Boronia Park	Bicycle Racks
Buffalo Creek Reserve	Bicycle Racks
Gladesville Wharf	Bicycle locker

The bicycle parking recommended are the types presented in the Australian Standard AS 2890.3 1993 - Bicycle Parking. The bicycle parking locations should be monitored on a regular basis and additional bicycle parking provided on a needs basis.

### 3.4 Maintenance of Bicycle Routes and Facilities

As part of the Bike Plan budget allocation, it is suggested that Hunter's Hill Council estimate the on-going costs for the maintenance of facilities.

Table 10 presents a "check list" of maintenance issues that should be addressed as a minimum when providing cycleways.

Type of Facility	Issues to Consider
<b>1. On-Road Linemarking and Shoulders</b>	When will linemarking paint fade? How long will "green strip" last? How often will it require painting? Will an alternative route be available during the time when the road is being upgraded?
	How often will the road need to be swept to remove debris? Does Council have the appropriate sweeper or will it need to purchase this and incur a capital cost?
	How long will the signposting be visible? How often will signposting be removed and vandalised?
<b>2. Off-Road Shared Path - Sealed</b>	How long will the surface remain smooth and rideable?
	How long will the signposting be visible. How often will signposting be removed and vandalised?
	Will landscaping be high maintenance? How often will shrubs/landscaping need trimming and maintaining? Will regular treatment for weeds be necessary? Will tree limbs obstruct pathway?
	Will bollards along the path be removed by vandals?
	Will motorised vehicles use the path and cause damage? Will service vehicles be using the path?
	Will the path need maintenance from weeds growing in gaps?
	How often will the path need to be swept to remove debris? Does Council have the appropriate sweeper or will it need to purchase this and incur a capital cost?
	How often will linemarking and logos require re-painting?
<b>3. Off-Road Shared Path - Unsealed Compacted Surface</b>	Will the path need maintenance from weeds growing in gaps?
	Will the path be adversely affected during wet weather?
	How often will grading be necessary to ensure the path remains safe and comfortable and not discouraging cyclists?
<b>4. Signposting</b>	How long will the signposting be visible? How often will signposting be removed or vandalised?

Type of Facility	Issues to Consider
<b>5. Bicycle Parking</b>	How long will each rack last? When will racks require maintenance such as painting?
	Will the rack be removed or damaged by vandals?
	Will there be a need to remove cyclists' locks and chains left on bike racks?
	How long will the signposting be visible? How often will signposting be removed or vandalised?

## 4.0 Bicycle Encouragement and Promotional Programs

### 4.1 Bicycle Encouragement Programs

#### 4.1.1 General Encouragement

Bicycle encouragement programs are used to promote the benefits of cycling in the community as a form of exercise and transport. The preparation of the Bike Plan in itself is an encouragement measure. *Australia Cycling's National Strategy's Objective 5* states that "The benefits of cycling are recognised by decision makers and the Australian community".

The implementation of the Bike Plan will result in the installation of signposting to alert motorists about cyclists on the road, linemarking and logos painted on the road delineating the space to be used for cycling, and the sharing of paths by pedestrians and cyclists. The installation of secure bicycle parking facilities will allow for commuter cycling taking place, further encouraging cycling.

Localities that have provided cycleways notice that people do start to ride bikes once facilities are built. Residents and tourists in Dubbo use the cycleways that link the City with the Western Plains Zoo and west Dubbo. Sutherland's on-road route from Cronulla to Kurnell provides commuter and training opportunities. The cycleway along the foreshores of Leichhardt provides popular recreational activity and a transport link to nearby parks, school, swimming centre, and Baths. The Liverpool to Parramatta cycleway, located parallel to the railway line, links the various suburbs to school, shops, recreation and open space.

Providing bicycle routes will satisfy the main aim of any Bike Plan, which is ultimately to provide a safe and satisfying ride.

The health benefits of cycling require reinforcing, with cycling being one of the safest forms of exercise, with the only real danger being from lack of riding experience and busy roads. Cycling should be promoted as a healthy pastime and the publicity of the proposed network of cycleways in promotional brochures.

### **4.1.2 Encouraging Physical Activity and Health**

When considering health, not all people are alike, and not all people have equal opportunities to achieve and maintain high levels of health. Being physically active is something that can be achieved by most of the population, with great benefits to their health. Benefits of an individual participating in physical activity include such things as reduction in lifestyle diseases such as cardiovascular disease, colon cancer and diabetes.

Many people used to believe that physical activity had to be vigorous strenuous exercise that was endured three times a week for half an hour or more. Further research has shown that daily "moderate" physical exercise such as cycling, will give almost identical health benefits to vigorous exercise. Moderate activity is defined as cycling for 30 minutes on most (preferably all) days of the week. This is the recommendation of the Chief Health Officer. The moderate message allows physical activity to be incorporated into a part of daily life. Commuting for work, leisure and school all provide opportunities for moderate physical activity.

An environment that supports daily moderate physical activity such as cycling would enable people to include these activities in their daily life. This means that the development of the cycleway network in the Hunter's Hill area contributes to physical activity. The supportive physical environment also encourages the community to include physical activity as part of their recreation and social activities

### **4.1.3 Encouraging the Positive Aspects of Cycling**

A national marketing strategy should be developed to promote cycling and its benefits. This issue is included as Objective 5 Strategy 1 in *Australia Cycling*.

Each year Bike Week takes place where bicycle displays, bike rides and other bicycle related activities are held. Hunter's Hill Council and the RTA are involved in this week and should continue to promote safe cycling in future Bike Week events.

Bicycles are durable forms of transport that are fast and pollution free in their operations. There is a need to promote the clean air properties of bicycle riding. For every person making a trip on bicycle instead of using a car, there is less pollution, less fuel used and less space taken on the road.

For every car parking space provided a total of ten bicycles could be parked in the same area. This benefit requires reinforcing when planning authorities are promoting cleaner cities with environmentally friendly travel modes and less car parking. Providing bicycle parking and end trip facilities at all existing bicycle generating developments can encourage cycling, and all future developments should have bicycle parking.

All the new bicycle facilities provided should be advertised and promoted in the local media so that the community is made aware of them.

#### 4.1.4 Encouraging Youth to Cycle

Surveys of youth undertaken by Council and summarised in *Hunter's Hill Council Youth Survey Summary of Findings* (Hunter's Hill Council, 1998) indicate that young people are interested in cycling for fun and to reach school. Over 80% of young people surveyed indicated they would use a cycle path if provided by Council. The encouragement factor here lies with the creation of a new cycling facility. The youth indicated that they preferred a cycle path away from car traffic.

The Bike Plan proposes to act as a mechanism to increase the number of children riding for fun, recreation, exercise and travelling to school by providing safe bicycle links to facilities.

A major consideration of bike route planning is not only the safety of the routes but also the perceived safety by young people and their parents.

As far as encouraging cycling to school is concerned, Objective 6 of *Australia Cycling* states that "Cycling is incorporated into all appropriate areas of education, training and professional development". Specifically strategies 6.1 and 6.2 are relevant for the Hunter's Hill Bike Plan and state.

" 6.1 To make education about cycling available for pre, primary and secondary school aged students, consistent with curriculum frameworks.

6.2 To ensure pre, primary and secondary school aged students receive appropriate training in safe cycling practices."

Parents who consider a route to be safe will be more inclined to allow their child to ride to school unaccompanied. Recent Australian National Health figures indicate that over 20% of young people are overweight and that 30 minutes of cycling per day leads to significant health benefits and weight loss. The health benefits of exercise and cycling need to be emphasised to re-educate parents and teachers to allow children to cycle to school instead of using buses or cars.

Sustrans (Sustainable Transport Organisation in the United Kingdom) has devised a seven-point safety check to decide whether students may safely cycle to schools. Below is a summary of the points considered. The points should be acknowledged by school teachers, parents and children to further create safer environments and encourage future bicycle riding.

1. Safe routes should follow those used currently by pupils as far as possible. Savings in distance and time are as important for children as adults.
2. Reducing conflict with traffic is crucial, with traffic calming or traffic-free routes, or a combination of the two.
3. Routes should be as wide as possible. Children prefer to travel in company and the short times of peak school travel means pavements and cycle lanes are likely to be crowded.
4. Measures that deter cars from using safe routes tend to make safe routes safer and reduce school escort trips.
5. The location and design of specific safety measures should be mindful of children and parents' fears.
6. Routes need to be continuous and extend far enough from the school in several directions to serve the majority of pupils.
7. Routes should be designed to permit secondary and older primary school pupils to walk or cycle along them unaccompanied.

## 4.2 Education Programs

Objective 6 of *Australia Cycling* states that "Cycling is incorporated into all appropriate areas of education, training and professional development". With this in mind the following education programs are recommended to assist with the implementation of Objective 6.

Road safety programs facilitated through the RTA and the Police Service could be designed to improve general road sense and the behaviour of both motorists and cyclists. Programs should aim to publicise the requirement that all road users must share the road with each other, and alert motorists of their responsibilities towards pedestrians and cyclists.

The Communications Strategy outlined in Table 11 can be followed to encourage cycling in the Hunter's Hill area.

<b>Task</b>	<b>Strategy</b>	<b>Time Frame</b>
<b>1. Encourage Safe Cycling</b>	Announcement from the Mayor or General Manager in Council's magazine / newsletter	An introductory message
<b>2. On-going promotion of cycling</b>	Cycle promotion through occasional messages and Council's newsletter	On-going
<b>2. On-going promotion of cycling</b>	Details in rates notices	Every Quarter
<b>2. On-going promotion of cycling</b>	Poster and leaflet to be produced and displayed on notice boards at Council, libraries, at schools, bike shop, doctors surgeries, community health centres and cycling clubs	On-going
<b>2. On-going promotion of cycling</b>	Leaflet or messages to be forwarded with employees pay advice	once every twelve weeks
<b>2. On-going promotion of cycling</b>	Advertisement for Council column in the local papers	first as an introductory message
<b>2. On-going promotion of cycling</b>	Advertisement for Council column in the local papers	Used to highlight special event such as Bike Week
<b>2. On-going promotion of cycling</b>	Advertisement for Council column in the local papers	Promotion of cycling
<b>2. On-going promotion of cycling</b>	Internet Home Page (Libraries)	Details of Bike Plan or bicycle routes on home page. Develop a map that shows all routes so cyclists can access information from PC's
<b>2. On-going promotion of cycling</b>	Telephone Hold Message	Customers phone Council and during the time they are placed on "hold" the message includes details about bicycle riding in the Hunter's Hill area.
<b>2. On-going promotion of cycling</b>	Mayors Message on Local Radio	Details of bicycle plan or bicycle routes.
<b>3. Community Bike Ride</b>	Advertisement for Council column in the local newspapers Northern District Times and TWT	Media release and media notice showing advertisement and poster prior to event
<b>4. Community Saddle Survey</b>	Leaflet for bike shops to hand to their customers	Leaflet providing details to promote the event
<b>4. Community Saddle Survey</b>	Advertisement for Council column in the local papers	Advertised one month prior to event then every week up to the starting date

Task	Strategy	Time Frame
<b>4. Community Saddle Survey</b>	Poster and leaflet to be produced and displayed on notice boards at Council, libraries, at schools, Community Health Centres, bike shops and cycling clubs.	Leaflet providing details to promote the event
<b>5. Information Sessions</b>	Advertisement for Council column in the local newspaper	Media release and media notice showing advertisement and poster prior to event
<b>5. Information Sessions</b>	Letters inviting relevant groups	Letters sent via Council to relevant community groups and individuals inviting their participation
<b>5. Information Sessions</b>	Letters to schools	Letters sent via Council to relevant community groups and individuals inviting their participation
<b>5. Information Sessions</b>	Letters to bicycle clubs	Letters sent via Council to relevant community groups and individuals inviting their participation
<b>6. Ride to Work Day</b>	Advertisement for Council column in the local papers	Annual Event. Perhaps during bike week in September
<b>6. Ride to Work Day</b>	Media release or media notice as part of advertisement	Leaflet providing details to promote the event
<b>6. Ride to Work Day</b>	Bike Shops Promotion	Leaflet providing details to promote the event
<b>6. Ride to Work Day</b>	Community Health Centre and RTA promotion	Leaflet providing details to promote the event
<b>6. Ride to Work Day</b>	Leaflet to be distributed with pay slip	Prior to event
<b>6. Ride to Work Day</b>	Breakfast at a key location such as Boronia Park or Tarban Creek Reserve to promote event. Organised by Council and the user groups. Publicise in local papers	Annual Event. Perhaps during bike week. Appropriate when new facilities have been provided
<b>7. Ride to School Day</b>	School children encouraged to try riding to school with parents or accompanied by volunteers from schools and Bike North. Organised by Schools, Council and Bike North. Publicise in local papers and schools' newsletter.	Leaflet providing details to promote the event
<b>8. Family Bicycle Day</b>	Event to be arranged through Council linking in with other Council activities such as a Community fair or bike week event	Annual Event. Perhaps during bike week. Appropriate when new facilities have been provided
<b>8. Family Bicycle Day</b>	Event promoted through Media, Council notices, bike shops and clubs.	
<b>9. Series of Bike Rides and Prizes</b>	Community is invited to ride along a new facility and each time they ride they receive a ticket and placed into a draw for a prize. The more times the person cycles the more chances they have of winning the prize	At the opening of a facility over three consecutive week ends or afternoons (daylight savings)

Task	Strategy	Time Frame
<b>10. Community and Bike North Participation</b>	Form a Bike Plan committee to discuss progress of implementation and other bicycle issues	Continue consultation with community members from the original bicycle plan Steering Committee. Meet one month after presentation of Final report than at three monthly intervals
<b>10. Community and Bike North Participation</b>	Pro- forma sheet to record bicycle hazards and maintenance issues. Sheet available at Council, libraries, schools and bicycle shops. Community members should be able to phone, fax or e-mail their concerns to the relevant Council officer.	On-going
<b>11. Bicycle Rider Participation</b>	Saddle Survey of new bicycle facilities once provided to comment on suitability	When facility provided and then every six months. This could be organised as part of a social ride.
<b>12. Purchase of Bicycles for Public Use</b>	Bicycles should be purchased and made available for a nominal fee from the bicycle shop, sports store, Council and Bike North .	Once cycle facilities have been provided
<b>13. Bicycle Counts</b>	Six months after the implementation of priority 1 of the Bike Plan	After every phase of implementation to determine rise in bike riding.

### 4.3 Enforcement Programs

Enforcement is the legal compliance by all road users and is necessary to improve both cyclist and motorist behaviour. Many cyclists have developed practices of poor riding behaviour, which results in serious accidents and fatalities. Enforcement does not only need to be directed at cyclists but also at motorists. All need to be aware that they are sharing the road with each other and that both are vehicles with the right to use the road network whilst respecting other users. The Police officers from the Gladesville Police Station who patrol the Hunter's Hill area are actively enforcing the road rules and positively participating in educating motorists to respect cyclists by carrying out some of their duties on bike. The Police wear bike uniforms and are visible to the public. This provides an opportunity to show that cyclists are also working people and not just recreational users and helps to reinforce the message that cyclists, including Police share the road with other vehicles.

### 4.4 Promotional Programs and Their Importance

With the implementation of the Bike Plan it is important that the community is informed of the benefits of cycling, the locations of the existing cycleways and related facilities.

Bicycle promotional programs could be administered by Hunter's Hill Council or be joint projects between neighbouring Councils, Bike North, community groups, government agencies and corporate organisations.

When organising promotional programs it is important to ensure that all groups have the common view of co-operating with the aim of promoting bicycle use.

In a broad sense, bicycle promotion programs should include areas of health, road safety, education and encouragement.

#### Health Promotion

Health promotion could include the following:

- Encourage regular exercise as outlined in the Department of Health's publication *Active Australia*.
- Publicise the health and fitness benefits of cycling.
- Encourage employers to provide cycle parking and showers and include this as a condition of development consent.
- Encourage employers to pay cycle mileage allowances for short business trips.

#### Road Safety

Road safety promotion could include the following:

Involving Council's Community Liaison Services Officer with the implementation of the Bike Plan to ensure that cyclists are included in the development of future road safety programs and campaigns.

## **Education**

Education programs could include the following:

- Promote an understanding of the environmental and health benefits of alternative transport.

## **Encouragement**

Encouragement could include the following:

- Publicise new cycle routes and invite the community to ride new bike routes.
- Availability of maps showing bicycle routes and facilities (such as the map prepared by Bike North).
- Invite comments on cycle routes and make information available.
- Prepare an internet site detailing the Bike Plan.
- Provide bicycle parking and end trip facilities for staff and visitors to Council.
- Establish Council as a "best practice" employer in terms of encouraging and enabling staff to ride to work with cycle parking, change rooms, showers and lockers provided at Council.
- Engage the community support through Bike North continuing to organise local bike rides to encourage more cycling.
- Encourage Council officers to use bicycles, where appropriate as official transport and to provide and maintain bikes and helmets for Council staff.

## 5.0 Funding the Bike Plan

The successful implementation of the Bike Plan will depend on the availability of sufficient funds for the staging of the project. Funding for the implementation of the Bike Plan is available from a variety of funding sources including Council and the Roads and Traffic Authority and supplemented as required from a number of sources listed below:

### 1. Roads and Traffic Authority

Funds are provided by the RTA for cycle routes and facilities identified in Councils Bike Plans. The RTA can fund some projects on a 50 / 50 basis with Council and others can be totally funded.

### 2. Councils in-House Funds

Includes a variety of budgets such as the Bike Plan budget, Capital Works, maintenance fund and traffic facilities. Where cycleways are used for recreation, these may be built during park upgrades should the timing be appropriate.

### 3. Community and Corporate Sponsorship

Encouraging community ownership by allowing residents or business groups to become involved in the implementation of bicycle facilities. This could include constructing a facility or providing promotional information about cycling. Examples of community support include the construction of pathways by the local community in the Baulkham Hills and Jindabyne.

### 4. Corporate Taxability

Corporate taxability exists when providing cycleways, with further details available from the following e-mail address: [info@asf.org.au](mailto:info@asf.org.au)

### 5. Department of Urban Affairs and Planning Metropolitan Greenspace Program

Funding is available from the Department of Urban Affairs and Planning (DUAP) for constructing cycleways in urban locations within recreational or open space and parks. Further details are available from DUAP on (02) 9391 2000.

**6. Section 94 Developers Contributions**

Section 94 (s94) of the NSW Environmental Planning and Assessment Act, 1979 (EP&A Act) makes provision for a local council to require a contribution from a developer where a development is likely to increase the demand for public facilities in an area. If the Council is satisfied that a development will increase the demand for public facilities, it may place a condition on the development consent requiring:

- The dedication of land free of cost; or
- The payment of monetary contribution; or
- The construction of a material public benefit (a building/work benefiting the area); or a combination of the above.

In the past, Wollondilly Council and Pittwater Council have used Section 94 contributions for the construction of shared off-road pathways in new release areas.

**7. Department of Sport and Recreation Capital Works Program**

Funding is available from the Department of Sport and recreation for the construction of off-road pathways for recreation and sport uses. The Department of Sport and Recreation recently assisted with funding the construction of the off-road pathway along the foreshores of Lake Jindabyne.

**8. Roads to Recovery Program - Department of Transport and Regional Services**

Grants are available from the federal government for local government to use for providing cycling facilities. The closing date for applications is the 15<sup>th</sup> August each year. Further information about the program can be obtained from the internet site: [www.dots.gov.au](http://www.dots.gov.au).

**9. NSW Department of Health – Active Australia Program**

## 6.0 Post Bike Plan Stage

At the commencement of the Bike Plan's implementation, there are activities that should take place to ensure the Bike Plan is understood by the community and includes a program of monitoring and review.

### Step1 Launch Bike Plan

At the completion of the Bike Plan a mayoral launch would allow for the Bike Plan to be promoted and for the community to learn more about the Plan, increase community interest and participation and allow for another opportunity of community consultation. The focus could include the following:

- Bicycle routes and parking identified in the Plan with priorities and funding.
- Availability of a cycleways map with bike information and safety hints, rights and responsibilities of cycling and how to use shared paths.
- Invite the public to participate in a bike ride.
- Invite the local bicycle user group Bike North to participate in the launch.
- Invite public / businesses to participate with implementation of the Plan. Include the Chamber of Commerce from Ryde and Gladesville.
- Invite bike shop proprietors to the launch.
- Forward copies of the Bike Plan to the RTA and others who assisted with the Plan (such as local schools).

### Step 2 Publicity

For the first stage of implementation, a pilot project should be undertaken to provide a high priority project to raise interest in cycling. The implementation of the first route should be followed by a public opening by the mayor.

### **Step 3 Continue Bicycle User Group Input**

The Bicycle user group, Bike North, should continue to work with Council's Traffic Committee and other committees to ensure that the issues from the Bike Plan are implemented and discussed prior to future work being undertaken on roads and paths. The contacts that have been made during the preparation of the Bike Plan should not be lost but recorded and reinstated at this point. This ensures that on-going stakeholder consultation takes place.

### **Step 4 Monitor and Review Bike Plan Process**

Performance indicators should be established for accident savings and increase in cycle use. Systematic evaluation and bike counts should take place to determine if bike riding increases. This information is necessary to ensure future funding is allocated to bikes and to continually assess the potential of providing facilities.

Other monitoring activities could include the following:

- As new routes are being implemented these should be mapped and information of the route given to the community.
- All routes developed should be transferred onto GIS and Council should prepare hard copies of all maps.
- After 5 years there should be a revision of the plan detailing what has been implemented and what project remain for the future.
- An information line and internet site should be established so community members can make comments and/or lodge complaints about the cycleways.

**Appendix 1**  
**Survey Questionnaire for Information Session**



**Appendix 2**  
**Community Survey Questionnaire Distributed to all**  
**Households**



**Appendix 3**  
**Survey Questionnaire Distributed to Schools**



## **Appendix 4**

### **Typical Treatments for On-Road and Off-Road Cycleways**