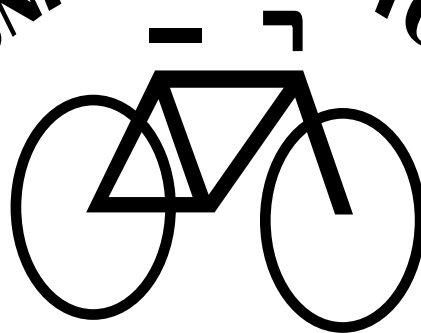




Banyule

CITY COUNCIL

MUNICIPAL BICYCLE



**STRATEGIC STATEMENT**

**August 1996**

**Reviewed June 2000**

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## 1. EXECUTIVE SUMMARY

The Banyule Municipal Bicycle Strategic Statement specifies the actions required to achieve a consolidated cycling network in accordance with the objectives of the Council’s corporate plan.

### 1.1 Objectives

The aim of the strategic statement is to:

- establish a consolidated local, on-road bicycle network which is safe, continuous, direct and convenient;
- create a safe system of continuous, off-road recreational bicycle trails;
- increase public awareness of cycling and cyclist needs; and
- encourage cycling as an alternative form of road transport.

### 1.2 Overview

The bicycle strategies of the former municipalities which make up the City of Banyule, have been reviewed in identifying the local bicycle network.

Other factors influencing route selection have included:

- provision of a safe and efficient cycling environment;
- recognition that cyclists are legitimate road users with special needs;
- ensuring continuity of the commuter and recreational networks;
- providing “low stress” access to local schools, educational facilities, commercial precincts, community and recreational facilities; and
- information contained within the submissions received in response to the draft form of this statement.

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The following routes have been recommended to comprise the local cycling network:

- ❑ Watsonia To East Ivanhoe
- ❑ Macleod to Ivanhoe
- ❑ West Heidelberg to Fairfield
- ❑ Yallambie to Heidelberg
- ❑ West Heidelberg to Banyule
- ❑ Reservoir to View Bank
- ❑ Bundoora – Yallambie
- ❑ Darebin Creek Trail
- ❑ Yarra River Trail
- ❑ Plenty River Trail
- ❑ Montmorency to Watsonia
- ❑ Greensborough To Diamond Creek
- ❑ Greensborough To Bundoora

The local bicycle network is to complement the VicRoads Principal Bicycle Network, which generally correlates to the arterial road network throughout the City.

Furthermore, the strategic statement identifies the behavioural programs required to supplement the recommended engineering measures, namely: Educational programs, encouragement and promotional strategies and legislation enforcement.

## 1.3 Key Actions

The high priority actions requiring immediate attention include:

- \* Appointing an officer (Bicycle Coordinator) to oversee the implementation of the Municipal Bicycle Strategic Statement.
- \* Uniform sign posting of all local bicycle routes;
- \* Linking the Plenty River Trail at Lower Plenty Road to the Yarra River Trail;
- \* Linking the Yarra River Trail from Burke Road North to the Darebin Creek Trail (liaison with the City of Yarra required);
- \* Upgrading the sections of the Plenty River Trail not conforming to the required minimum standards.
- \* Actively promote the local bicycle network and encourage bicycle travel as an alternative mode of road transport and for recreational purposes.
- \* Linking the bicycle network with tourism initiatives.
- \* Declaring the shared footways as specified, where the local

bicycle network crosses the main roads, viz:

- Lower Plenty Road east of Turnham Avenue to the intersection;
- Ruthven Street from the intersection with Waiora Road to the corner of Orr Street;
- The south side of Lower Plenty Road from St James Road to the intersection signals at Upper Heidelberg Road and then on the west side of Waiora Road south to Altona Street.
- North side of Lower Plenty Road between Silk Street and the traffic lights and along the south side between the traffic signals and the path at Kambea Crescent;
- Watsonia Road to Station railway bridge and through carpark to Greensborough Highway traffic signals at Elder Street;
- West side of Upper Heidelberg Road from St Elmo Pde to the existing traffic crossing and then

along the east side from the crossing to Noel Street.

- South side of Grimshaw Street from Gleeson Drive to the existing crossing and then along the north side to Sharpes Road;
- Para Road from the intersection with Station Road to the traffic lights.
- Grimshaw Street from Oxford Street to Balaka Place.

## 1.4 Implementation

The Municipal Bicycle Strategic Statement provides the policy mechanism to achieve a coordinated approach to cycling within the municipality.

Successful implementation of the strategy will require:

- establishing a position (Bicycle Coordinator) within the Council;
- a commitment of the necessary resources to undertake the engineering measures and initiate the educational/promotional strategies;

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- ❑ a strategic approach to physical works and funding applications; and
- ❑ an on-going review of programs in relation to the strategic statement objectives.

## 2. INTRODUCTION

A key action of the Banyule City Council Corporate Plan is to:

*“devise and adopt a bike and trail network through the municipality.”*

Moreover, the Municipal Transportation Profile and Action Statement identifies bicycle travel as a key transport issue.

The Municipal Bicycle Strategic Statement will form one element (of seven) of the Transportation Plan. The objective of this element is to:

*“provide a safe network of bicycle routes which encourage cycling as an alternative to the other forms of road transport and as a recreational pursuit.”*

### 2.1 Background

The three former municipalities which now constitute the City of Banyule have had bicycle strategies in place. It is apparent that, to date, not all of the actions that were identified in the recommendations of the strategies have been implemented.

Furthermore, it is approaching ten years since the strategies were prepared for the former City of Heidelberg and the former Shire of Diamond Valley. Accordingly, it is appropriate to review both the progress and effectiveness of these strategies.

The purpose of this statement is to review and consolidate the previous strategies and in doing so, to set the framework to achieve the aforementioned objectives of the Corporate Plan and the Transportation Plan.

In undertaking this study, the Council has the benefit of hindsight: the original bicycle strategies have laid the groundwork for implementing a bicycle network throughout the municipality.

The former strategy documents sought to encourage and promote the perceived growth trend in bicycle usage; at a time when there were minimal facilities or strategic planning vis a vis bicycle travel. In effect, they were the starting point for coordinating cycling in what is now the City of Banyule.

The popularity of cycling has continued to gain momentum

since the time of the initial strategies\*, which in turn has led to growing concerns towards cyclists' safety.

The most fundamental initiative in this respect has been the introduction of legislation in July, 1990 making the wearing of safety helmets compulsory for cyclists. Further actions have included *The National Bicycle Strategy, Victoria for Bikes – Cycling Strategies for Victoria*, The Principal Bicycle Network, cycling education programs at schools, the general promotion of cyclist needs on roads and the formation of Bicycle User Groups.

Moreover, local government has been increasingly addressing the safety concerns of cyclists through the provision of infrastructure and education programs.

In addition to the increasing demand for improving the cycling environment, particularly the development of bicycle networks (both on and off road) there has been a notable development of bicycle technology over recent years. The result of which has been a steady increase in the

number of regular commuter and recreational cyclists.†

While all cyclists demand a safe and efficient cycling environment, cycling strategies need to cater for the varying needs of the different categories of cyclist: the recreational cyclist, the commuting cyclist (those travelling to work or educational facilities); the professional (racing) cyclist and those using the bicycle as an alternative means of transport for specific purpose journeys (eg. shopping).

## 2.2 The Six “E’s” Approach

To develop a comprehensive strategy for cycling, both the engineering and behavioural programs need to be considered. This approach to bicycle planning is now well established and encompasses the four “E’s” first initiated in the 1977 Geelong Bikeway Study, namely:

**E**NGINEERING – construction of facilities to provide a safer cycling environment;

**E**DUICATION – programs targeting all road and trail users to promote the safe sharing of physical resources;

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\* *State Bicycle Committee Report 1994-1996*

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† *Bicycle Victoria Municipal Bicycle Journal June 1996.*



***E*** ***NFORCEMENT*** – directed at all road users to ensure safer integration of motor vehicles and bicycles on the road;

***E*** ***NCOURAGEMENT*** – to create greater community and government awareness of the benefits of cycling.

To continue to improve the total cycling environment, the four E's need to be considered simultaneously and within the context of a further two "E's", viz:

***E*** ***NVIRONMENT*** – to recognise the environmental benefits of cycling and to ensure off road cycling trails are suitably located to enhance the existing natural environment.

***E*** ***VALUATION*** – to measure the performance of cycling programs to ensure they are in keeping with the dynamics of demand.

### 3. PREVIOUS STUDIES

Consulting firm Loder & Bayly undertook the bicycle studies for the former Shire of Diamond Valley (1987) and the former City of Heidelberg (1988). The Eltham Bike Plan (1990) was prepared by Travers Morgan Pty Ltd.

The three studies were, in effect, the Councils' "first time" approach to bicycle planning and undertaken during a period when the need for bicycle planning at the local level was becoming more widely recognised. The studies' primary objectives were to identify the cycling population and to define the main commuter routes and potential off road trails.

The following is a review of the former strategy documents, including a brief synopsis of the methodology utilised and the survey results obtained.

#### 3.1 Heidelberg Bicycle Strategy Plan

The Heidelberg Bicycle Strategy Plan was prepared by the consulting firm Loder and Bayly in 1988. The report was based on the Four "E's" set out in the State Bicycle Committee Planning

and Design Guidelines and presented in two volumes: *Research and Engineering Programs* and *Behavioural Programs*.

The scope of the study was to identify the "*extent and nature of cycling in the municipality, the factors that inhibit others from cycling and the actions required to make cycling safer, more convenient and more enjoyable*".

A significant component of the study was a telephone survey of 300 households within the municipality geared to establish the cycling behaviour of the residents in terms of:

- The extent of cycling in Heidelberg;
- Characteristics of current cyclists;
- Frequency of cycling;
- Main trip purposes;
- Problems facing cyclists;
- Possible improvements to the cycling environment.

In order to obtain a fuller picture of the needs and perceived

problems, a group discussion involving 18 cyclists was undertaken following the telephone survey and advertisements in the local press. The authors stressed that this process sought qualitative information as opposed to imposing statistical validity on the findings.

The participants were asked to identify the regular cycling routes and discuss the issues affecting safe and convenient travel on same.

Also surveyed were eight (8) secondary schools within the municipality. Of each school, two classes (years 8 and 11) were targeted with an overall 7% of State secondary students in the City being surveyed.

The purpose of the school survey was to identify the principal routes of students travelling to school along with after school bicycle activities.

In addition, a survey of 21 primary schools was undertaken to determine both the cycling characteristics of the pupils and the cycle education programs conducted by the schools.

As a result of the survey, the report set out the engineering

proposals required to establish a network of bicycle routes to serve existing cyclist demand and provide suitable routes so as to encourage new cyclists. Further consideration was given to assessing the City's riverside assets: the Yarra River, the Plenty River and Darebin Creek paths.

The policy also identified the key behavioural programs required to complement the identified preferred bicycle routes.

### 3.2 Diamond Valley Bicycle Study

The Diamond Valley Bicycle Study was undertaken by Loder and Bayly in 1987. The study was commissioned in response to a growing awareness of the potential benefits associated with cycling.

The objective of the study was to: *"increase the use and safety of the bicycle for people in the Municipality"*.

The basis of the study was surveys of residents, cyclists and schools with the data being analysed within the context of the four "E's" philosophy.

There were 295 respondents to the resident survey, the purpose of which was to determine:

- the extent of cycling within the Shire;
- who cycles, when and why;
- the trip type of those who cycle;
- cyclists perceptions of improvements which could be effected to improve the cycling environment; and
- who does not cycle and why?

The major thrust of the study was directed toward information on school children. A survey of all schools within the Shire drew approximately 3000 responses (20% of classes were targeted).

The questionnaire sought to solicit information on the travel patterns of students (with respondents asked to map the most frequent routes taken) of both school trips and bicycle journeys not related to travelling to/from school.

The study sought input from interested persons via written submissions. A total of fourteen (14) responses were received

which detailed both general concerns and specific project requests (eg. bike path extension along the Plenty River).

As a result of the surveys, research and consultation process, the study identified the school routes, commuter routes and the spatial distribution of bicycle accidents. The resulting plan displayed the engineering strategy to implement a network of on road and off road bicycle trails.

### 3.3 Eltham Bikeplan

The Eltham Bikeplan was prepared by Travers Morgan Pty Ltd in March, 1990.

The research for the study was based upon:

- a general survey of residents (the Eltham Bikequiz) which netted approximately 1000 responses;
- a survey of school Principals;
- public workshops.

The aim of the Bikeplan was:

*“To promote and encourage increased and safer cycling in (the Shire) in recognition of its role in enhancing the social, environmental and artistic heritage of the district and of its benefits to the community.”*

The plan applied the traditional four “E’s” approach to bicycle planning but within the context of what the authors described as the fifth “E” – Environment.

As a result of surveys and a consultation program, the Bikeplan proposed a range of initiatives grouped into three categories to provide a total cycling package:

- ❑ Managerial initiatives – to integrate bicycle planning into all aspects of the Council’s management and to foster a “think bike”

## 4. THE CYCLING ENVIRONMENT

It is evident that the era of having to “justify” the need for a bicycle strategy has passed, with the principles and benefits of bicycle travel firmly entrenched and generally agreed upon.

However, to effectively evaluate the performance measures of bicycle initiatives and to judge the changing nature of the cycling environment, information is required in terms of who is cycling, why, how and when.

attitude at all levels of the organisation;

- ❑ Community Initiatives – to educate and encourage the community into wider and safer bicycle usage and to aid the enforcement of bicycle traffic laws; and
- ❑ Environmental and physical initiatives – to facilitate the construction and on going maintenance of a network of bicycle facilities including off road paths, on road treatments and bicycle storage and parking facilities.

The three strategies that have been consolidated to form this statement were all based around original survey data. In consolidating the reports and setting the scene for the current cycling environment, this data has been revisited and coupled with information contained in the submissions received in response to the draft released for comment and the broader trends identified by organisations such as Bicycle Victoria and the State Bicycle Committee.

### 4.1 Summary of Previous Data Analysis

The three previous studies undertaken in Banyule were focused on identifying

characteristics of the cycling population of the respective municipality. The following analysis, while recognising the different methodology used in gaining the results, provides a general overview of the cycling trends established.

#### 4.1.1 Extent of Cycling

The Heidelberg and Diamond Valley surveys revealed similar proportions of cyclists in the two municipalities (44% Heidelberg; 48% Diamond Valley) of which approximately 50% were adults. Eltham had a significantly greater proportion of cyclists (75%).

The school surveys demonstrated a propensity for students to travel to school by bicycle (14% Heidelberg; 11% Diamond Valley; actual data not collected by Eltham survey). Interestingly, the Diamond Valley survey found that higher car ownership of families did not tend to lead to lower frequency of cycling to school.

Individual school policy, parent's attitude and distance were all factors affecting the decision to ride to school.

#### 4.1.2 Frequency of Travel

It was found that approximately one third of cyclists in Heidelberg

and Diamond Valley generally rode on a daily basis, with close to three quarters of cyclists in these study areas cycling at least once per week.

The Eltham survey established that cyclists average just over two trips per week.

### 4.1.3 Bicycle Trip Patterns

It was found that a significant proportion of bicycle trips were undertaken for recreational purposes (over 75% Heidelberg; 50% in Diamond Valley; 60% Eltham). There was a general consensus across the studies, that approximately one quarter of cycle trips were for journey to work/school with the next most frequent purpose being “shopping”.

There was a demonstrated propensity for cyclists to travel on main roads, despite the perception of such roads as being hazardous due to the physical characteristics and the high levels of motor traffic.

Generally, it was acknowledged that cycle paths were not viewed as being conducive to commuter travel due to the discontinuous and circuitous nature.

The Eltham study revealed that where off road facilities are available, they were generally well utilised, especially by younger or less experienced riders.

### 4.1.4 Cycling Conditions

The Heidelberg and Diamond Valley studies indicated cyclists’ preferred improvements to the

cycling environment were “more off road paths” (50% Heidelberg; 48% Diamond Valley) with other significant demands being designated bicycle lanes marked on the road, driver education and improved road surfaces. The Eltham study demonstrated the primary concern of cyclists being safety in traffic and motorists’ attitudes.

## 4.2 The Broader Picture

Information collated from Bicycle Victoria\* indicates:

- ❑ Approximately 70,000 people undertake some form of bicycle travel within Melbourne on a daily basis.
- ❑ There are approximately 1.5 million bicycle owners in Victoria.
- ❑ Most Melburnians live within a 10-minute ride from a railway station.
- ❑ 30% of all journeys to work by car are less than 5km (2% of all trip to work are by bicycle<sup>†</sup>).
- ❑ The number of adult cyclists in Victoria has doubled since 1989 while there has been a steady decline in the number

\* Bicycle Victoria (1996) - *Municipal Bicycle Journal*

<sup>†</sup> State Bicycle Committee (1996) *Report 1994-1996*

of teenagers (attributed to helmet legislation).

### 4.3 Opportunities

The benefits of bicycle travel are not limited to personal health and fitness. The evidence of the past decade would suggest that encouraging cycling can provide realistic solutions to the transport issues resulting from a dependence on motorised vehicles and at the same time furnish opportunities to boost the local economy.

#### 4.3.1 Transport

Within the City of Banyule, approximately 25% of the local workforce works within the local area, with the second most dominant work place destination being the city and surrounds.\* Analysis of the 1996 ABS Census journey to work data indicates that of those respondents within Banyule:

- 63.6% travelled to work by car as driver.
- 9.8% travelled to work by public transport; and
- 0.7% travelled to work by bicycle.

There is clearly scope to encourage people to seek an alternative means of travel to work and to reduce the dependency on the motor vehicle. The promotion of bicycle travel is one such alternative given the relatively high proportions of work place destinations within the local area and or within regions covered by public transport links.

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\* J.A. Grant & Associates 1996.



The 1994 Bicycle Victoria ride to Work Survey identified the following factors influencing the decision to ride a bicycle to work:

fitness	29%
enjoyment	22%
cost	15%
environment	13%
speed	13%
independence	8%
other	2%.

The above figures demonstrate that while time, cost and environmental issues are relevant in the decision to cycle to work, the predominant factors relate to an increased awareness of personal well being (ie. fitness, enjoyment and independence).

This represents the potential of introducing or “selling” cycling as an “enjoyable” alternative mode of transport whilst at the same time being a positive step in reducing the dependence on motorised vehicular transport.

It has been demonstrated that despite the increase in the number of cyclists over the past decade, there has been a significant reduction in the number of cyclists storing their vehicles at railway stations.\*

\*Public Transport Bicycle Committee Report  
June 1995.

At the same time, the ABS Census data indicates that within Banyule, there has been an overall decline in the patronage of public transport for journey to work purposes.

The provision of suitably secure and safe facilities for the storing of bicycles and the identification of appropriate, low stress bicycle routes is paramount to giving cyclists the choice of using the public train system. Similarly, liaison with the Public Transport Corporation to investigate programs to actively encourage cyclists to utilise the public transport could further contribute to increased patronage of public transport and greater numbers of people choosing to cycle as a means of transport.

#### 4.3.2 Tourism

Banyule is well poised to capitalise on the fantastic river systems that run through the municipality. Through improvements to the cycling environment along the river trails (in particular linking the Yarra Trail to the Plenty River and Darebin Creek trails) there is scope to boost the local economy through tourism and recreational initiatives.

Actively encouraging people to utilise the City's cycling assets is mutually beneficial in terms of increasing awareness of cycling as both a recreational and transport vehicle while at the same time providing an opportunity for local business to tap into a growing commercial market.

The State Bicycle Committee has identified a developing trend termed the "Cappuccino Industry"\* whereby cycling to an attraction is linked to social activities (ie. meeting over coffee etc.). Targeting such markets (by promoting the link between the bicycle networks and the City's historic, natural and built assets) creates an opportunity to entice people into the local area and contribute to the local economy.

#### 4.4 Constraints

It is promising to note that as cycling participation has increased over the past decade, there has been a significant reduction in the number of cycling fatalities and injuries during this period.†

Analysis of the VicRoads bicycle accident data for the City of

Banyule demonstrates a steady decline in the number of cyclist accidents over the past five years. Further, there has been a 60% reduction in the number of serious injuries and an 18% reduction in the incidence of minor injuries.‡

Despite the increase in cycling participation and the decline in cycling accidents, there remains a perception that riding a bicycle is a dangerous activity.

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\* SBC *Victoria for Bikes* 1994

† Bicycle Victoria 1996

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‡ VicRoads Road Safety Department 1996

The surveys that were undertaken as part of the initial strategy documents identified the primary factor influencing the use of bicycles within the City as being: traffic volumes and motorist behaviour.

It is evident that by balancing the appropriate infrastructure (and addressing the physical barriers) with educational and promotional programs, the Council can take an lead role in providing a safe cycling environment conducive to encouraging the use of the bicycle as a recreational pursuit and an alternative transport vehicle.

## 5. REGIONAL

### CONTEXT

The Municipal Bicycle Strategic Statement sets the framework for cycling facilities and programs in Banyule. However, it is fundamental that the local plan complements the cycling initiatives being undertaken throughout the metropolitan area. Only with state and local governments working in unison can there be the necessary coordinated approach to the issues facing cycling and cyclists.

#### 5.1 The Victorian Bicycle Strategy

The Victorian Bicycle Network (VBN) is to provide a network of state-wide, integrated bicycle routes.

The VBN is made up of three components:

- The Principal Bicycle Network (PBN);
- The Regional Bicycle Network (RBN); and
- The Municipal Bicycle Network.

#### 5.2 The Principal Bicycle Network

The Principal Bicycle Network is a network of priority routes on a maximum 1.5 kilometre grid within the metropolitan area.

VicRoads is responsible for the development of the network, although a cooperative approach from all local and state authorities will be required to successfully implement the network.

The State Bicycle Committee has set an annual target of completing 100 kilometres of the PBN.\*

The on-road links through the City of Banyule generally correlate to the arterial road network and involve appropriate engineering measures to facilitate the safer sharing of road space.

The key off-road actions of the PBN within Banyule include linking the Main Yarra Trail and the Plenty River Trail and connecting the Darebin Creek Trail to the Main Yarra Trail.

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\* State Bicycle Committee Report 1994-1996

### 5.3 Neighbouring Municipalities

It is necessary that there is ongoing communication with neighbouring municipalities as they prepare strategies for cycling..

Councils should seek to establish working partnerships to ensure a coordinated approach to routes and facilities across the municipal boundaries.

## 6. BICYCLE ROUTES

Bicycle planning needs to provide the infrastructure, facilities and programs to satisfy the existing cyclists and at the same time encourage new cyclists. The provision and promotion of suitable bicycle routes is the first step in this process.

The river systems that flow through the City provide a fantastic opportunity for recreational bicycle paths. The Main Yarra Trail which, in part, runs through the City of Banyule is arguably Victoria's premier off road trail.

While the off road routes may not provide a direct link, the lack of traffic and improved environment can provide a preferable commuting cycling route.

It needs to be recognised that cycling is not going to be limited to the off road routes nor to the local advisory, on road routes.

The bicycle is a legitimate road vehicle and as such, all roads effectively form part of the cycling network.

There are cyclists (as there are motorists) who choose the

quickest and most direct route and in many instances this is going to involve the use of arterial roads.

The perceived advantages of arterial roads include: good continuity and connectivity; higher quality road surface; direct access to activity centres; and facilities such as traffic signals to assist crossing at major intersections.

Nonetheless, the cyclist generally has to trade off the foregoing advantages against increased stress from fast and or heavy motorised traffic. While this may prove to be a deterrent to some cyclists, it should not be read as implying cyclists should not or do not utilise the arterial road system.

The VicRoads Principal Bicycle Network generally correlates with the arterial road network through the City of Banyule and proposes appropriate engineering measures along these routes to enhance the safe integration of cyclists with other road transport.

There are, however, cyclists who seek an alternative to the obvious and direct, arterial roads.

The following local, on road advisory routes have been formulated to provide alternative passage to facilities such as shopping centres, community facilities, schools, and links to the off road trails.

The existence of the advisory on road routes does not imply that cyclists should only use the suggested roads.

Similarly, cyclists using the suggested routes need to be aware that they are travelling on the road system and need to exercise the same degree of caution as if travelling on any road.



REPLACE THIS PAGE with  
A3 ROUTE MAP  
[SINGLE SIDED]

## 6.1 Watsonia To East Ivanhoe Route

### 6.1.1 Route Summary:

*This route provides a local street network linking the Watsonia Rail Station, Macleod Rail Station, Macleod Park, Rosanna Shopping Centre and Railway Station, Heidelberg Shopping Centre, Eaglemont Station, East Ivanhoe Shopping Centre and Ivanhoe Rail Station. The route links with the Yallambie to Banyule Route and variations to the route lead to the Yarra River Trail and Ivanhoe Public Golf Course.*

### 6.1.2 Route Description

This route begins at the Watsonia Railway Station and follows Richards Ave, Powley Pde, Somers Ave and Birdwood Ave to Macleod Park. A shared footway leads to the pavilion.

In the longer term, from this point a shared footway to run through the Rosanna Parklands.

Until such time as the shared footway is constructed, Ellesmere Pde is to provide the commuter link and the route is to follow Beetham Pde and St James Rd to Cape Street, to the Heidelberg Shopping Centre.

Continuing south, the route crosses Burgundy Street (branching off at Yarra St to the Heidelberg Station) and then Banksia Street.

The route follows Castle St, The Righi, Maltravers Rd, Carmichael St and Lower Heidelberg Road to the East Ivanhoe shopping centre. Lower Heidelberg Road is to be linemarked with carparking/bicycle lanes.

Along the Righi, the route branches off at The Eyre and Charlton Avenue to lead to the Eaglemont Station.

Alternatively, continuing along Maltravers Rd the route links with the Ivanhoe Rail Station.

The route follows Warncliffe Road and The Boulevard to join the Yarra Trail near the Ivanhoe Public Golf Course.

### 6.1.3 Required Actions

1. North-south path to be constructed (1.4km\*2.5m) through the Rosanna Parklands (informal path existing).

**PRIORITY:**  
**Moderate**

2. Lean rails to be provided either side of the median refuge on Lower Plenty Road south of the Rosanna Parklands east of Turnham Ave and a shared footway declared on Lower Plenty Road from the median break to Turnham Ave.

**PRIORITY:**  
Moderate

**REPLACE THIS PAGE WITH 6.1  
MAP**

3. Bicycle parking facilities to be provided in Chelsworth Park to encourage walking around the Wilson Reserve.

**PRIORITY:**  
Moderate

4. Standardised advisory signs to be provided along route.

**PRIORITY:** High

5. Review bicycle parking facilities at shopping centres and railway stations.

**PRIORITY:** High

REPLACE THIS PAGE WITH 6.2 MAP

## 6.2 Macleod to Ivanhoe Route

### 6.2.1 Route Summary:

*This route follows the local street network to service Macleod Station, Mont Park Hospital, Macleod Technical School, Latrobe University, Heidelberg West Primary School, Heidelberg Rehabilitation Hospital, Heidelberg Civic Centre and the Ivanhoe Shopping Centre. Variations to the route lead to the Darebin Creek Trail or Chelsworth Park and the Wilson Reserve. The route joins the Watsonia to East Ivanhoe Route at the Macleod Station and Ivanhoe Station, which provides the link with the Main Yarra Trail.*

### 6.2.2 Route Description

This route begins at Macleod railway station then follows Joynt St and Waiora Rd to the Ruthven St intersection. Joynt Street provides a link to Latrobe University via Main Drive.

The route then follows a new path to be constructed parallel to Orr St and Kingsbury Drive to then follow Porter Rd to Southern Rd.

Continuing south, the route follows Porter Rd, Lloyd St, Dresden St, Montgomery St and Edwin St to Bell St [existing pedestrian crossing available at Bell St].

The route continues along Edwin St to Banksia St.

St Elmo Rd leads to the Heidelberg Civic Centre. Existing pedestrian signals are available to cross Upper Heidelberg Rd at this point.

After the Upper Heidelberg Rd crossing, the route follows Noel St, Norman St, Marshall St and Gilbert Rd to Chelsworth Park.

### 6.2.3 Required Actions

1. Construct shared footway from the intersection of Ruthven Street and Waiora Rd parallel to Orr Street (between Orr Street and Kingsbury Drive).

**PRIORITY: Moderate**

2. Liaise with Darebin City Council and Latrobe University to investigate extending the proposed shared path to the intersection of Waterdale Road and Kingsbury Drive.

**PRIORITY: Low**

3. Shared footways to be declared on the west side of Upper Heidelberg Road from St Elmo St to the existing crossing and on the east side from the crossing to Noel Street.

PRIORITY: High

4. Standardised advisory signs to be provided along route.

PRIORITY: High

5. Review bicycle parking facilities at shopping centres and railway stations.

PRIORITY: High



## 6.3 West Heidelberg to Fairfield Route

### 6.3.1 Route Summary:

*This route follows the local road network and the Donaldson Creek Trail to link the St Pius School, the North Metro College of TAFE, Bell Street Mall, Banksia Secondary College, the Council's Transfer Station, Heidelberg Rehabilitation Hospital, Donaldson Creek, Mary Immaculate School, Darebin Parklands, Rockbeare Park and the Darebin Railway Station. The route joins the Reservoir to View bank Route at Dougharty Road, the West Heidelberg to Banyule Route at Bond Street and the Darebin Creek Path. Dougharty Rd provides a link to the Macleod to Ivanhoe Route at Bamfield Road and access to Latrobe University.*

### 6.3.2 Route Description

The route starts at the intersection of Dougharty Rd and Oriel Rd, the route then follows Oriel Rd to Altona St. A number of variations to the route along Pacific Dve, Catalina St, Redwood St and Gona St allow access to Darebin Creek Trail.

The route has two north-south options. Option 1 continues along a bicycle lane-marked route in Oriel Rd to Livingstone St.

Option 2 continues along Altona St, Tarkan St and Tobruk Ave to the West Heidelberg shops and The Mall or south along Coomalie Cres. A shared footway has been declared along the footpath from Coomalie Cres to the pedestrian lights at The Mall.

The route crosses Bell St at the traffic signals and follows Plunkett St before continuing east along Perkins Ave to Waterdale Rd. A shared footway has been declared along the west side of Waterdale Rd to the Banksia St intersection. Banksia St near Osney Ave then connects with the Donaldson Creek bike path.

The Donaldson Creek path continues to Kenilworth Pde, Della Torre Cres, Abercorn Ave and across the footbridge into Fairfield.

A variation to the route follows Kenilworth Pde from the Nellie Ibbot Park to Wynstay Cres, Waverley Ave, Rockbeare Gv (access path to Darebin Parklands), Salisbury Ave (Darebin Railway Station) to Upper Heidelberg Road.

### 6.3.3 Required Actions

1. Bicycle route along Oriel Road to be lanemarked to give priority and protection to cyclists.

PRIORITY: High

REPLACE THIS PAGE WITH 6.3  
MAP

2. Investigate the construction of a shared footway through the Banksia Secondary College and/or the Council Depot to link the route with Osney Ave.

PRIORITY: Moderate

3. Lean rails to be provided either side of the median crossing at the Donaldson Creek path intersection with Livingstone Street.

PRIORITY: High

4. Shared footway to be declared through Ford Park.

REPLACE THIS PAGE WITH 6.4  
MAP

PRIORITY: High

5. Signage required in Dougharty Road advising link to Macleod to Ivanhoe Route and access to Latrobe University.

PRIORITY: High

6. Standardised advisory signs to be provided along route.

PRIORITY: High

7. Review bicycle parking facilities at shopping centres and railway stations.

PRIORITY: High

## 6.4 Yallambie to Heidelberg Route

### 6.4.1 Route Summary:

*This route follows both the on road local street network and off road trails to link Streeton Primary School, Viewbank Primary School, Price Park, Banyule Primary School, Banyule Flats Reserve, Banyule Tennis Club, and the Heidelberg Primary School. The route joins the Main Yarra Trail at Plymouth Street.*

### 6.4.2 Route Description

Starting at the Streeton Primary School, the route follows the off road path at The Grange to Lower Plenty Road.

The route crosses Lower Plenty Road at the traffic signals and follows Grantham Rd, Martins Lne, Toumlin Gve, Lyon Rd, Nelson St and Graham Rd to Banyule Rd.

Alternatively, the route continues west along Banyule Rd to follow the former F18 Freeway Reserve to Buckingham Drive. A branch of the route continues east to Plymouth St and links with the main Yarra Trail. Until the path is constructed the route is to follow:

Sussex Ave, Scarborough Dve and Buckingham Dve, connecting with the Yarra Trail via Plymouth St. The route continues via Beverley St, Anderson St and St James Rd to join Cape Street and thence to Heidelberg Shopping Centre.

### 6.4.3 Required Actions

1. Investigate opportunities to continue the existing path along the transmission line to link with the Plenty River.

**PRIORITY: Moderate**

2. Shared footway to be constructed along former F18 Freeway reserve. Lean rails to be instated where the proposed path meets Banyule Rd and Buckingham Drive.

**PRIORITY: Moderate**

3. Standardised advisory signs to be provided along route.

**PRIORITY: High**

4. Review bicycle parking facilities at shopping centres.

**PRIORITY: High**

REPLACE THIS PAGE WITH 6.5  
MAP

## 6.5 West Heidelberg to Banyule Route

Anderston St, Beverley Rd to Plymouth St where it joins the Main Yarra Trail.

### 6.5.1 Route Summary:

*This route provides an east west link through the City to link the Darebin Creek and Yarra Trails. The route services the Heidelberg West Primary School, Northern Metro College of TAFE, and St Pius School. The route links with the West Heidelberg to Fairfield Route, the Yallambie to Heidelberg Route and the Macleod to Ivanhoe Route.*

### 6.5.2 Route Description

The route commences at the Darebin Creek bike path at Gona St and follows Mulberry Pde, Redwood St and Altona St to Waterdale Rd to cross at the existing traffic signals.

East of Waterdale Rd the route follows Altona St to Upper Heidelberg Rd. The route then follows St James Rd to the railway crossing.

The route continues across the railway and follows St James Rd to Rosanna Rd.

East of Rosanna Rd the route follows St James Rd, Avoca St,

### **6.5.3 Required Actions**

**REPLACE THIS PAGE WITH 6.6  
MAP**

1. Warning signs advising motorists of cyclists crossing at Liberty Pde/Gona St.

**PRIORITY: High**

2. A shared footway to be declared on the south side of Lower Plenty Rd from St James Rd to the intersection signals, to cross Lower Plenty Rd and Upper Heidelberg Rd. A shared footway to be declared on the west side of Waiora Rd south to Altona St.

**PRIORITY: High**

3. Standardised advisory signs to be provided along route.

**PRIORITY: High**

4. Review bicycle parking facilities at shopping centres and railway stations.

**PRIORITY: High**

## 6.6 Reservoir to Viewbank Route

Banyule Rd where it joins the Yallambie to Banyule route.

### 6.6.1 Route Summary:

*This route provides an east west link to service Rosanna Primary School, Rosanna Parklands and Rosanna Golf Links Primary School. The route intersects the Watsonia to East Ivanhoe Route at the Rosanna Parklands and joins the Yallambie to Heidelberg route at Banyule Rd.*

### 6.6.2 Route Description

The route starts at the Darebin Creek bike path at Dougharty Rd and follows Dougharty Rd to Waiora Rd.

The route then follows Davies St to Ellesmere Pde and through the Rosanna Parklands to Pickworth Crt.

The route continues along Pickworth Crt, Finlayson St and Silk St to Lower Plenty Rd, crosses at the traffic signals and continues along the footpath.

The route then follows a new path to run parallel to McCrae Rd to Banyule Rd where it meets the Yallambie to Banyule Route. Alternatively the route runs along Kambea Cres, Graham St to



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### 6.6.3 Required Actions

1. 3.75m bike/parking lanes to be marked in Dougharty Rd. Median refuge to be instated in Dougharty Rd at the intersection of Waiora Rd.

PRIORITY: Moderate

2. A shared footway is required through the Rosanna Parklands to link to the pedestrian rail crossing and over Salt Creek and then to Pickworth Crt.

PRIORITY: High

3. Shared footway to be declared on north side of Lower Plenty Rd between Silk St and signals and on south side between the signals and the path to Kambea Cres.

PRIORITY: High

4. Path to Kambea Cres to be declared shared footway.

PRIORITY: High

5. A shared footway to be constructed along the creek from the end of the path at McCrae Rd to Banyule Rd.

PRIORITY: Moderate

6. Lower Plenty Road south of Rosanna Parklands east of Turnham Avenue and a shared footway declared on Lower Plenty Road from the median break to Turnham Avenue.

PRIORITY: Moderate

## 6.7 Bundoora to Yallambie route

### 6.7.1 Route Summary:

*This route provides an off road east west link through the City servicing: the Greenwood Secondary College and Primary School, Watsonia Station and Shops, Watsonia North Primary School, Loyola College, Watsonia Primary School and the Streeton Primary School.*

### 6.7.2 Route Description

Starting at the existing path at Plenty Road to Dilkara Ave and Greenwood Dr to the transmission line at Morwell St and then to follow a new path along the transmission line to the Watsonia Station.

From the station, the route follows Watsonia Rd to the Greensborough Hwy intersection.

East of the Greensborough Hwy, the route follows the path to the service road leading to the path under the transmission line to Wendover Place. The route continues along Yallambie Road

to Kuridan Crt where it joins the Plenty River Trail.

**PRIORITY: High**

A variation to the route branches north at Morwell St to Gleeson Dr and Grimshaw St. North of Grimshaw St the route follows Sharpes Rd to link with the Greensborough to Bundoora Route.

**6. Standardised advisory signs to be provided along route.**

**PRIORITY: High**

### 6.7.3 Required Actions

1. Shared footway to be declared from Watsonia Rd to Watsonia Station bridge and through carpark to Greensborough Hwy traffic signals at Elder St.

**REPLACE THIS PAGE WITH 6.8 MAP**

**PRIORITY: High**

2. Shared footway to be constructed through the Loyola Reserve.

**PRIORITY: Moderate**

3. Investigate the construction of shared footway link through Loyola College.

**PRIORITY: Moderate**

4. Shared footway to be declared along south side of Grimshaw Street from Gleeson Drive to crossing and along the north side from the crossing to Sharpes Rd.

## 6.8 Darebin Creek Trail

**PRIORITY: High**

### 6.8.1 Route Description

This path runs along the Darebin Creek from Bundoora Park to the Main Yarra Trail at Fairfield.

### 6.8.2 Required Actions

1. Construct a link through Sparks reserve to link with The Boulevard and the Main Yarra Trail.

**PRIORITY: High**

2. Liaise with Yarra City Council and Darebin City Council to facilitate the link to the Yarra Trail in accordance with the Principal Bicycle Network.

**PRIORITY: High**

3. Identify sections of path which require line marking to facilitate the safe sharing between cyclists and pedestrians.

**PRIORITY: High**

4. Ensure all physical fixtures along the trail are fitted with appropriate reflector material to permit visibility in low light.

REPLACE THIS PAGE WITH 6.9  
MAP

## 6.9 Yarra River Trail

### 6.9.1 Route Description

This is Melbourne's premier bicycle trail running from Eltham to the City.

The path runs through the City of Banyule from Fitzsimons Lane to the river crossing near Burke Road North.

### 6.9.2 Required Actions

1. Construct link to the Plenty River Trail in accordance with the Lower Plenty River Concept Plan.

**PRIORITY: High**

2. Upgrade the section of trail subject to flooding where it passes under the Banksia St bridge.

**PRIORITY: High**

3. Investigate realigning the trail to the north of "The Greenery" at Banksia St. In the short term provide warnings to both cyclists and motorists at the crossing point

**PRIORITY: High**

4. Construct footbridge across the river at Banksia Park and Warringal Parklands.

**PRIORITY: Moderate**

5. Liaise with Manningham City Council to investigate constructing a link between View Bank Park and Birrarrung Park.

**PRIORITY: Moderate**

6. Investigate the available grades of granular sand most suitable to bicycle travel in all weather conditions and in consultation with Melbourne Parks and Waterways prepare an implementation plan to upgrade the surface as part of maintenance plan.

**PRIORITY: High**

7. Provide standardised advisory signage along the trail.

**PRIORITY: High**

8. Ensure all physical fixtures along the trail are fitted with appropriate reflector material

to permit visibility in low light.

**PRIORITY: High**

**REPLACE THIS PAGE WITH 6.10  
MAP**



## 6.10 Plenty River Trail

### 6.10.1 Route Description

This path follows the Plenty River from the Greensborough Bypass to the intersection with Lower Plenty Road.

2. Upgrade those sections of the path which do not conform to minimum standards for bicycle travel.

PRIORITY: High

### 6.10.2 Required Actions

1. Continue the Plenty River bike path south to the Yarra River in accordance with the Lower Plenty River Concept Plan, viz:

*Restore the historic Old Lower Plenty road bridge.\**

*Construct new bridge north of Seymour Rd where the path crosses the river.\**

*Establish the trail through the Viewbank property in accordance with the Middle Yarra Concept Plan and the Yarra Valley Parklands Management Plan.*

*Provide appropriate signage at the intersection of the Yarra River Trail and the plenty river Trail.\**

PRIORITY: High

3. Link the northern section of the trail to the Apollo Parkway network of paths and provide appropriate signage.

PRIORITY: High

4. Provide standardised advisory signage along the trail.

PRIORITY: High

5. Ensure all physical fixtures along the trail are fitted with appropriate reflector material to permit visibility in low light.

PRIORITY: High

\* Melbourne Parks and Waterways (1994) Lower Plenty River Concept Plan.

**REPLACE THIS PAGE WITH 6.11  
MAP**

## 6.11 Montmorency to Watsonia Route

### 6.11.1 Route Summary:

*This route is to provide an off road and local street network to link Montmorency Station and shops, Montmorency Primary School, Montmorency Park, Watsonia Heights Primary School, Greensborough Secondary College, and Watsonia Railway Station.*

### 6.11.2 Route Description

The route commences at Montmorency Station and follows Were St and Rattray Rd to Para Rd.

West of Para Rd the route follows Park Lane, Elder St, Delta Rd and Nell St to the footbridge over Greensborough Hwy.

The route follows Nell St West, Ibbottson St and Watsonia Rd to the Watsonia Station where it links with the Bundoora to Yallambie Route and the Watsonia to East Ivanhoe Route.

### 6.11.3 Required Actions

1. A shared footway to be declared on Para Rd from Rattray Rd intersection to Park

Lane. Lean rails to be instated at the crossing.

PRIORITY: High

2. Improve link to the Plenty River trail at Dobson Street.

PRIORITY: High

3. Standardised advisory signs to be provided along route.

PRIORITY: High

4. Review bicycle parking facilities at shopping centres and railway stations.

PRIORITY: High

**REPLACE THIS PAGE WITH 6.12  
MAP**

## 6.12 Greensborough To Diamond Creek Route

A variation to the route continues along St Helena Road to Karringal Drive to link up with Sherbourne Road and the municipal boundary.

### 6.12.1 Route Summary

*This route provides a link from the Plenty River to the north east of the municipality. The route provides access to the Greensborough District Centre, Greensborough Park, Yandell Reserve, Blair Reserve, Holy Trinity Primary School, Dalvida Reserve, Settlers Park, Glen Katherine Primary School and St Helena Secondary College. The route joins the Greensborough to Bundoora route at the intersection of St Helena Road and Main Street.*

### 6.12.3 Required Actions

1. Coordinate link across the municipal boundaries.

**PRIORITY: Moderate**

2. Standardised advisory signs to be provided along route.

**PRIORITY: High**

3. Review bicycle parking facilities at shopping centres and railway stations.

**PRIORITY: High**

### 6.12.2 Route Description

The route commences at the St Helena Rd and Main St intersection and follows St Helena Rd to Glen Katherine Drive.

The route then follows Weidlich Rd, Glen Katherine Drv, and Calendonia Rd to the municipal boundary.

Alternatively, the route branches off at Allumba Drv and follows Beates Rd to the freeway reserve and the municipal boundary.

**REPLACE THIS PAGE WITH 6.13  
MAP**

## 6.13 Greensborough To Bundoora Route

### 6.13.1 Route Summary:

*This route runs east west through the northern region of the City and links the Greensborough Shopping Centre, Greensborough Primary School, Greensborough Park, Whatmough Park, Kalparrin Gardens, Binnak Park, Parade College and the Maroondah Aqueduct Trail. The route joins the Bundoora to Yallambie Route at Sharpes Rd and Noorong Ave and the Greensborough to Diamond Creek route at the intersection of St Helena Rd and Main Street.*

### 6.13.2 Route Description

The route commences at the existing trail at the intersection of St Helena Rd and Main Street.

The route follows the existing path to Yando St, under the Greensborough Hwy to link with Hakea St.

From Hakea St the route follows Grant St, Cameron Pde and Oxford St to Grimshaw Street.

South of Grimshaw St the route follows Balaka Pl, Noorong Ave and Wallara Cres to meet the

Bundoora to Yallambie Route [and to Plenty Road]. Alternatively, the route heads north along Macorna St to the overpass on the Greensborough Bypass. A Shared footway

has been declared to link with the Maroondah Aqueduct trail north of the Bypass.

On Macorna Street the route branches off at Edmund Rice Pde to Chappell Drive.

A north-south link along Jacqueline Rd provides a link to Parade College and Cameron Pde.

### 6.13.3 Required Actions

1. Shared footway to be declared on Grimshaw Street from Oxford Street to the traffic lights and from the lights to Balaka Place.

**PRIORITY: High**

2. Investigate link along Maroondah Aqueduct at Chappell Drive. Land is in private ownership and any future development should include provision of bicycle link to Plenty Road.

**PRIORITY: High**

**3. Standardised advisory signs to be provided along route.**

**PRIORITY: High**

**4. Review bicycle parking facilities at shopping centres and railway stations.**

**PRIORITY: High**



## 7. INFRASTRUCTURE DEVELOPMENT

The relevant reference for the provision of bicycle facilities is the Austroads *Guide to Traffic Engineering Pract Practice – Bicycles, Part 14*. All physical infrastructure development should be undertaken in accordance with the guide.

### 7.1 Arterial Road Actions

It has been documented that commuter cyclists, in particular, demonstrate a propensity to utilise arterial road routes and will continue to do so regardless of whether an advisory route has been provided.

The on road advisory routes detailed above, endeavour to provide cyclists with an alternative to the City's main roads. However, in recognition of the relatively high usage patterns by commuters and to provide a safer on road environment for all cyclists, appropriate treatment needs to be applied to the arterial roads.

A key recommendation of the Victorian Bicycle Strategy was the development of a Principal Bicycle

Network (PBN) to provide a metropolitan network of both off road and on road facilities. The PBN proposes approximately 2000km of on road routes which have been estimated to cost \$70 million\* to implement.

The on road links through the City of Banyule generally correlate with the arterial road network (refer to following map of the PBN in Banyule).

There are a variety of engineering methods to safely facilitate cyclists on the arterial road network and to promote the safe sharing of road space amongst users, including:

- line marking;
- indenting car parking ;
- widening kerb side lanes;
- narrowing median strips;
- restricting parking;
- maintaining the surface;
- treating left turn slip lanes; and
- providing a refuge at intersections via the use of bicycle lanes or advanced stop lines.

In many cases the actual design measures will be constrained by the existing nature of the infrastructure. However, innovative means of achieving a

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\* Bicycle Institute of Victoria (1996) *BV news*  
Vol 14 No 3

compromise between all users (including motorised traffic, cyclists and pedestrians) should be investigated to achieve a balanced response to distributing available road space.

**INSERT      A3      PBN      MAP**

In developing the Principal Bicycle Network, VicRoads noted that past construction of bicycle facilities often occurred in isolation and on an adhoc basis. Moreover, the purpose of the PBN is to develop an integrated network of major bicycle corridors and to identify strategic links necessary to complete the network.

To ensure a consistent approach the arterial road actions should be undertaken in conjunction with Vic Roads and the State Bicycle Committee to ensure uniformity along the Principal Bicycle Network.

### 7.1.1 Required Actions

1. That council liaise closely with VicRoads and the State Bicycle Committee to ensure the arterial routes through the municipality are upgraded so as to facilitate safe cycling as part of the Principal Bicycle Network.

**PRIORITY: High**

2. That as any works are undertaken, attention is given to cyclists requirements in

**accordance with the Guide to Traffic Engineering Practice – Bicycles, Part 14.**

**PRIORITY: On Going**

## 7.2 Local Network

The aforementioned on road advisory routes have been identified to provide a lower stress alternative to the arterial road network. These routes have been identified to cater for journeys to school, recreation facilities, shops, railway stations and recreational trails.

The nature of local roads (relatively lower traffic speeds and volumes) is such that enables the maximum integration of bicycles and motorised transport within the road network.

The principal action required for these routes is adequate signage to indicate the direction of the route (and links within the network) while at the same time providing a warning to motorists

It has been noted previously that it is unrealistic (and not the intention of this statement) to assume that all cycling travel will occur on the local advisory network. Rather, all roads within

the municipality are potential bicycle routes and all local traffic measures need to be (re)engineered to reflect the specific requirements of cyclists.

In particular, traffic measures that result in “squeeze points” thus forcing cyclists and motorists to compete for limited road space, should be avoided or provision made for cyclists to travel through such structures.

The design of speed humps should allow for the passage of cyclists and the practice of using posts to stop motor vehicles from travelling across the speed hump with two wheels in the gutter should be avoided as they invariably follow the alignment of travelling cyclists.

Roundabouts are an effective means of managing motorised traffic but due to the speed and size differential can lead to potential conflict between motorists and cyclists. Each structure needs to be assessed in terms of cyclist safety and include cyclist warning signs. Sight lines should not be inhibited by design or the use of vegetation.

In order to maximise accessibility and mobility of cyclists, exceptions should be made for

cyclists at road closures (using appropriate signage and or separate paths); restricted left turn intersections (“bicycle excepted” signage); and one way streets (contra flow lanes to be delineated).

All road surfaces should be smooth and clear of debris to permit cyclists a comfortable ride without necessitating reactionary manoeuvres to avoid obstacles. It needs to be noted that many road irregularities which may not be noticeable in a motor vehicle can prove to be a hazard for cyclists.

Particular measures include ensuring that: pot holes and surface irregularities are smoothly filled; roads are regularly swept; service covers are flush with the road surface; and drainage grates do not run parallel to the direction of travel.

### **7.2.1 Required Actions**

1. That Council adopt the local route network and undertake the specified engineering measures in accordance with the Guide to Traffic Engineering Practice – Bicycles, Part 14.

**PRIORITY: High**

2. That the development of local area traffic plans and traffic works consider the local cycling network and the requirements of cyclists in accordance with the Guide to Traffic Engineering Practice – Bicycles, Part 14.

**PRIORITY: High**

3. That the local network be reviewed as part of the overall evaluation of this statement to reflect the changing requirements of cyclists.

**PRIORITY: High**

4. That upon identification of any on road action required to improve the safety of cyclists on the City's roads, appropriate measures shall be undertaken in accordance with the Guide to Traffic Engineering Practice – Bicycles, Part 14.

**PRIORITY: High**

### 7.3 Off Road Network

A significant off road bicycle network has been initiated throughout the City, with many of the trails following the river systems. There is, however, a great deal of inconsistency with

regard to the width and surface treatment of the paths.

It has been recommended that the existing paths be extended/linked and upgraded to provide a coordinated off road network. The construction of trails need to conform to the minimum requirements specified in the Austroads *Guide to Traffic Engineering Practice – Bicycles, Part 14*. The surface must be useable in all weather conditions.

Path composition can be either asphalt, concrete or granular sand with each case assessed on its merits in terms of the preferred material.

There is much debate over the use of granular sands for shared trails. On the one hand there is concern from cyclists that the surface is not consistent and that particular grades of sand actually deteriorate the running gear of the bicycle. From differing viewpoints, the use of granular sand allows the trails to be more compatible with the local environment and a more appealing surface on which to walk upon.

What is required, as is the case with sharing any resource, is compromise. The submissions received to the draft of this

document indicated that while concrete or asphalt was the preferred surface of cyclists, it was noted that the choice of sand material could alleviate many of the concerns of cyclists.

There is little justification for paths to be declared as cycle routes only and as such should be declared and sign posted as shared footways. However, there needs to be adequate sharing arrangements in place (refer to later discussion) to promote the safe sharing of facilities.

### 7.3.1 Required Actions

1. That the local bicycle network be adopted and the off road engineering measures identified be undertaken.

**PRIORITY: High**

2. That Council liaise with VicRoads, Melbourne Parks and Waterways and neighbouring councils to implement the off road sections of the Principal Bicycle Network, in particular the linking of the Yarra River Trail to both the Plenty River Trail and the Darebin Creek Trail.

**PRIORITY: High**

3. That a program to upgrade the existing sub-standard off road trails be developed and implemented.

**PRIORITY: High**

## 7.4 Maintenance

As with any asset, a comprehensive and coordinated maintenance program is required to ensure the continuance of the cycling network.

In particular, the off road trails require regular inspections to identify deficiencies in the path surface and to ensure vegetation does not cause potential problems through overhanging or blocking sight lines.

Equally, the maintenance of the roads within the City should consider cyclists needs vis a vis clearing debris from the path of bicycle traffic and ensuring street side vegetation does not protrude onto the road reserve.

Many of the bicycle network maintenance issues can be addressed through existing Council programs with minimal increase in work load or expenditure.

### 7.4.1 Required Actions

1. That a maintenance program for the upkeep of the local bicycle network be developed and implemented.

**PRIORITY:** High

2. That as regular maintenance works are undertaken, consideration is given to cyclists needs.

**PRIORITY:** On Going

## 7.5 Bicycle Parking

The Australian Standard on bicycle parking (AS2890.3) states that the minimum acceptable standard for bicycle parking is the inverted U-type rail. This rail has been endorsed by the State Bicycle Committee and is now in place throughout the metropolitan area.

In order to encourage cycling as an alternative transport vehicle, the Council should provide the specified parking facilities at public places and encourage the private sector and educational establishments to provide suitable bicycle storage facilities (see later discussion).

To facilitate bicycle travel as part of multi modal transport trips (and in turn to encourage this means of travel) adequate, secure

parking facilities should be provided at rail stations. The preferred standard is the locker system which provides greater security (particularly at unstaffed stations) for longer term parking.

### 7.5.1 Required Actions

1. That a review of existing bicycle parking facilities be undertaken and an implementation plan devised, including replacing older style racks with the preferred lean rail.

**PRIORITY:** High

## 7.6 Signs

For signage detail and specifications, reference should be made to the *Guide to Traffic Engineering Practice - Part 14, Bicycles* and the relevant parts of the *Australian Standard manual of Uniform Traffic Control Devices* (AS1742).

### 7.6.1 Guide Signs

The success of the local route network hinges on the provision of guide signs for cyclists. Generally such signs should indicate route direction and provide information on the end point of the journey. The route signage can be supplemented by

less specific in-fill signs indicating changes in direction.

Signage needs to be applied consistently across the municipality and be of a standard used throughout the metropolitan area.

The former City of Heidelberg routes which have been sign posted, utilise the standard for guide signs and these should be applied consistently throughout the municipality.

The existing signs which comply with this standard should be maintained and be supplemented where appropriate with additional signage (ie. where routes have been varied or where deficiencies in sign frequency have been identified).

In recognition of the specific environs and the signage programs that have been initiated, additional guide signs along the river trails should match the existing wooden signs utilised.

### 7.6.2 Warning Signs

The provision of guide signs throughout the local networks should generally suffice in terms

of warning motorists of the presence of cyclists.

In specified locations (particularly where it has been deemed necessary on main roads and at round-a-bouts) standard warning signs (Sign No. W6-7) complying with the Australian Standard AS1742.9. Where an off road path crosses a carriageway, the warning signs should be used in conjunction with the two way arrow sign (Sign No. W8-23).

### 7.6.3 Regulatory Signs

The local route network has identified the need for shared footways to provide a safe cycling link. The shared footways must be identified at the beginning and end point. Where the shared footway is an off road trail, the signs should be placed at appropriate intervals to reinforce its status.

### 7.6.4 Required Actions

1. That all cycle routes be uniformly sign posted and warning signs be instated at specified locations.

**PRIORITY: High**



## 7.7 BMX facilities for younger cyclists.

BMX riding is a recreational activity which has been popular in the community since the early 1980's. The level of popularity has fluctuated during that time. Over the past two years, it has again become popular with young people, particularly for young males between the ages of 12 and 18. .

One element of the recent increase in interest is the informal construction of dirt mounds in many of the city's parks and public open spaces, all built without Council. The purpose of these mounds is to create jumps for BMX bikes.

There is much debate over the construction of these informal dirt mounds and tracks, with some residents requesting Council to remove mounds. However, this has generally resulted in the mounds being re-built in the same park or one nearby. Many of the complaints relate to inappropriate siting, perceived damage to the environment and concern about the congregating of young people in relatively large numbers.

What is required, as is the case with sharing any resource, is a

solution which is more compatible with the local environment and provides for the needs of local residents and the much needed dirt track for the BMX rider.

Council has recently constructed a formal BMX track at Malahang Reserve in the western portion of the municipality and planning is underway for a second such facility in the Greensborough area.

### 7.7.1 Required Actions

1. That a set of guidelines/criteria for the assessment of informal BMX mound/jump locations in Public Open Spaces be adopted by Council.

**PRIORITY: High**

2. That a program for more formal BMX tracks be developed and implemented.

**PRIORITY: High**

3. That Council liaise with local residents and bmx riders to implement any possible formal BMX tracks in local areas.

**PRIORITY: High**

## 8. BEHAVIOURAL PROGRAMS

The foregoing has identified the engineering measures required to facilitate a consolidated bicycle network throughout the municipality. As previously noted, it is necessary to consider the strategic approach to bicycles within the context of the six E's thus complementing the development of physical infrastructure with behavioural programs.

The behavioural programs that need to be considered are encompassed in the "other E's", being:

- Education;
- Enforcement;
- Encouragement;
- Environment;
- and
- Evaluation.

Many of the specific educational and enforcement programs are undertaken by external organisations such as: The Department of Education, The State Bicycle Committee, Bicycle Victoria, VicRoads, The Victoria Police and individual schools. However, the Council has a positive role to play in motivating and coordinating such strategies as well as monitoring the patronage and upkeep of the physical facilities.

Moreover, the Council should initiate promotional strategies to complement the bicycle network with the joint aim of encouraging new cyclists and identifying the facilities for existing cyclists.

### 8.1 Education

The Victorian Bicycle Strategy identified public education as the most effective way to promote improved cyclist behaviour and overall community attitudes to cycling.

The lead agencies in educating cyclists and the public include:

- VicRoads: through advertising and promotions (ie. "Think Ahead – Think Helmet"; "Look Driver – Look Rider"; and "Don't Hit the Road Without a Bicycle Helmet").

- ❑ VicRoads; Schools; Victoria Police and the Department of Education via bicycle education programs at schools and teaching institutions and enforcement of road rules.
- ❑ State Bicycle Committee and Bicycle Victoria through the promotion of bicycle issues and skills training.

Local Councils have a key role to play in terms of community liaison and information and in developing local initiatives to complement the wider education programs. At the local level, the process of education ranges from the cyclist and motorist to those involved in the planning and provision of engineering works.

Cyclists are perhaps the most obvious group to target in any educational program, including the teaching of safety skills and road rules. Many schools run bicycle education programs and while this should be encouraged; it also needs to be recognised that many cyclists are adults who can also benefit from such training.

The safety and perception of cyclists is compromised by those who disobey or do not know the road rules. If bicycles are to be integrated on to the road

network, the cyclist needs to be provided with the necessary information and the road rules duly enforced.

Cyclist educational programs should also target off road cyclist behaviour. In most cases, the off road trails are shared facilities with pedestrians. Educational material coupled with the appropriate infrastructure (ie. Signs, line marking etc) are required to promote the safe and cooperative sharing of the facilities provided.

The motorist should also be included in educational programs to foster a sense of sharing the road space with cyclists. In particular, the opening of car doors, squeezing past cyclists without changing lanes and left hand turn manoeuvres should be highlighted as areas of concern.

Council can participate in the educational process through promotional displays, educational pamphlets to accompany information on bicycle routes, erecting appropriate warning signs and supporting the initiatives and distributing the information published by organisations such as VicRoads, Bicycle Victoria and the State Bicycle Committee.

Finally, there needs to be a process whereby the planners and engineers are made aware of the needs of cyclists, especially in the formulation of Local Area Traffic Management Plans.

### 8.1.1 Required Actions

1. Encourage the training of bicycle skills through the school education programs and initiate an adult training program in consultation with community groups.

**PRIORITY: High**

2. Prepare educational material targeting cyclists, pedestrians and motorists to be published in conjunction with information with the bicycle network emphasising the safe sharing of resources.

**PRIORITY: High**

3. Distribute relevant information published by organisations such as VicRoads, The State Bicycle Committee and Bicycle Victoria.

**PRIORITY: On Going**

4. Develop a guide for those officers processing development control

**applications and undertaking works within the City.**

**PRIORITY: High**

## 8.2 Enforcement

The Victoria Police are responsible for enforcing road rules. The Council should support the active enforcement of road legislation for all road users.

Further, subject to the availability of resources, encourage and or sponsor the police bicycle squad to undertake regular patrols along the City's trail network. This would have a dual effect of legislation enforcement and generation of a greater feeling of security amongst users and residents due to the police presence.

Furthermore, Council has a direct enforcement role where bicycle parking facilities are provided. Council Officers should enforce the use of the facilities so that bicycles are not left in a dangerous manner on the footpaths.

While bicycle security awareness is increasing (and therefore cyclists tend to securely park their bicycle), there is still a propensity for some cyclists (particularly among the younger

riders) to leave their vehicles directly outside the place of visit regardless of where the parking facilities are located.

The other “enforcement” role of the Council is in assessing applications for new commercial development. There needs to be a standard requirement for the provision of bicycle parking and where appropriate, “end of trip” facilities (ie. showers, storage, etc). It is important that such a stance on development control is coordinated and complemented by an education package for both developers and planners so the requirements are clearly understood by all.

### 8.2.1 Required Actions

1. Liaise with the Victoria Police with the view of having regular bicycle patrols along the off road trails and sponsoring road safety forums.

**PRIORITY: Moderate**

2. Initiate programs to enforce the correct parking of bicycles at commercial centres.

**PRIORITY: Moderate**

3. Develop a guide to bicycle parking and storage and end

**trip facilities for development control applications.**

**PRIORITY: High**

## 8.3 Encouragement

The provision of a safe and efficient bicycle network coupled with adequate bicycle facilities is a major step towards encouraging cycling as a viable alternative to other forms of transport and as a recreational resource.

The physical facilities should be supported with suitable promotional material to make people aware of their existence. There is also an unique opportunity to link promotional material with other recreation programs, tourism initiatives and the promotion of heritage areas.

Council should tap into the existing cycling network and liaise closely with local user groups, bicycle retailers, the State Bicycle Committee and Bicycle Victoria in devising specific promotional events and activities.

### 8.3.1 Required Actions

1. Maximise opportunities to promote and organise cycling activities within the municipality.

**PRIORITY: On Going**

- 2. Incorporate bicycle education and encouragement initiatives into local community events and festivals.**

**PRIORITY: On Going**

- 3. Liaise with the Public Transport Corporation with the view to promoting cycling as a form of dual mode travel.**

**PRIORITY: High**

- 4. Incorporate cycling initiatives within the broader tourism and recreation programs developed within Council.**

**PRIORITY: On Going.**

## **8.4 Environment**

The City of Banyule benefits from areas of outstanding environmental integrity.

The development of the trails along the river systems have demonstrated that, not only can the physical infrastructure complement the natural environment but also provide the opportunity for people to access and enjoy such areas.

It is evident that there is a general increase in the awareness of health and environmental issues and the promotion of bicycle usage is harmonious to this ideology. Moreover, it is possible to capitalise on the natural environment within the City in so far as providing an incentive for cyclists to “go somewhere”.

However, the bicycle trails need to be managed in such a way that do not intrude upon or denigrate the natural assets. So as to ensure the continuance of the mutually beneficial association of cycling and environmental awareness, the physical infrastructure (including paths, signs etc) should be of suitable design to enhance the environs in which they are located.

### **8.4.1 Required Actions**

- 1. Promote the environmental benefits of cycling and link to initiatives to encourage new cyclists into the local area.**

**PRIORITY: On Going**

## **8.5 Evaluation**

It as been noted that to effectively evaluate the performance measures of the cycling initiatives and to judge

the changing nature of the cycling environment, information is required in terms of who is cycling, why, how and when. Equally, it is important to understand the factors inhibiting people from cycling.

The cycling environment is dynamic. Improvements to the physical environment, changing community attitudes and personal circumstances will influence the changing factors vis a vis bicycle usage patterns. In preparing work programs, setting performance measures and monitoring the implementation of this statement, it will be necessary to undertake further data collection exercises.

A key element of the State Bicycle Committee's *Victoria for Bikes* strategy is to:

*“develop standard processes for the collection of cyclist numbers and needs” and “to coordinate the collection and dissemination of data using GIS”.*

All future local data collection should be consistent with this objective to ensure that there is a coordinated approach and greater utilisation of results.

The ongoing evaluation of the strategic statement is paramount to ensuring that it continues to meet the stated objectives.

### 8.5.1 Required Actions

1. Preparation and implementation of an evaluation program to measure the performance of the strategic statement and to guide the future work programs.

**PRIORITY: On Going**

2. Liaison with the State Bicycle Committee and Bicycle Victoria in developing data collection and analysis programs that can be utilised on a broader metropolitan scale.

**PRIORITY: High**

3. Undertake research to establish the changing factors influencing people's decisions to cycle and or not to cycle.

**PRIORITY: High**

## 9. IMPLEMENTATION

The Municipal Bicycle Strategic Statement provides the policy mechanism to achieve a coordinated approach to cycling issues within the municipality.

The successful implementation of the strategic statement will require:

- ❑ a commitment of the necessary resources to undertake the engineering measures and to initiate the behavioural strategies;
- ❑ a strategic approach to physical works and funding applications;
- ❑ an on-going review of works programs in relation to the strategic statement objectives; and
- ❑ a coordinated approach to cycling issues within the Council.

### 9.1 Bicycle Coordinator

The issues stemming from the Municipal Bicycle Strategic Statement involve a range of Council departments and programs, including: Leisure and Recreation, Health, Tourism, Strategic Planning, Transport,

Engineering, Parks and Construction.

It has become apparent, through the course of this study, that the spread of resources and responsibilities across a range of single focused units is not conducive to achieving the aims of the strategic statement. Correspondingly, history would indicate that many of the past cycling strategies and policies of Councils have been ineffectual due to a lack of direction in terms of implementation practice.

The foregoing discussion has demonstrated the growing significance of cycling in terms of transport, recreation, leisure, health and environmental issues. To ensure the development of the cycling network encompasses all of the relevant factors; there is a requirement for one position within the organisation to be charged with the responsibility of coordinating the implementation of the cycling programs.

Moreover, it is evident that operating within such a cohesive and strategic manner can ensure that funding allowances are allocated wisely and that the Council is in a position to maximise external funding grants.



The State Bicycle Committee supports the employment of an officer (bicycle coordinator) at the local government level to achieve effective bicycle facilities and safety programs\*, including:

- coordinating the implementation of required actions arising from the strategic statement;
- preparing detailed works programs and funding structures in accordance with the priorities established within the strategic statement;
- coordinating and maximising external funding applications;
- monitoring the strategic position in consultation with relevant players;
- coordinating educational, safety and promotional activities;
- providing in house training and advice;
- facilitating the objective of encouraging bicycle usage as an alternative mode of road transport and recreational activity;
- undertaking a community liaison role; and

- establishing working partnerships to address regional cycling issues.

## 9.2 Timing

In order that the specific works programs can be incorporated within the Council's five year new works and services program, the required actions have been prioritised in accordance with the following scale:

- HIGH: Actions that need to be addressed immediately (within the next 1 – 2 years).
- MODERATE: Actions that should be addressed in the near future (within the next 3 – 4 years).
- LOW: Actions that do not compromise establishing a safe and effective network in the short term (should be undertaken within 5 years).
- ONGOING: Actions forming the basis of maintenance, evaluation and or recurring programs.

## 9.3 Funding

Clearly, much of the “hard work” has been accomplished in terms of providing the initial infrastructure and the resulting capital outlay. Moreover, many of the actions required to facilitate a safe and effective

\* State Bicycle Committee Report 1996.

cycling environment, do not pose a significant additional cost to the Council.

The timing and funding of specific projects should be determined by the bicycle coordinator through the preparation of works programs, which, to be effectual, need to be linked to tangible performance measures and the new works and services budget.

In addition to seeking working partnerships with neighbouring Councils, there are further funding opportunities available from the state government to offset the cost of initiating cycling programs.

#### 9.4 Required Actions

1. Appoint a bicycle coordinator to oversee the implementation of the municipal bicycle strategic statement.

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