



**Horsham Rural City**  
Council urban rural balance

# Horsham Municipal Bicycle & Shared Path Plan

2012 - 2016

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## Executive Summary

In 2004 Horsham Rural City Council engaged TTM Consulting Pty Ltd to prepare a strategic bicycle plan for Horsham. Since that time there has been significant progress in the construction of priority bicycle paths, both on-road and off road, however a further review is now required to assess progress and determine future priority works.

The objective of this report is to continue the strategic work undertaken by TTM Consulting in 2004 and complete an updated strategy for adoption by Horsham Rural City Council to assist with future planning of infrastructure. This report details the recommended bicycle route strategy for the Rural City of Horsham. The Strategy has been prepared following an inspection of the existing bicycle track conditions and from discussions with key stakeholders. This strategy analyses the concerns raised and recommends future projects to address deficient sites.

A number of issues and actions were identified in the 2004 Horsham Strategic Bicycle Plan that have not been completed. Outstanding, but still relevant, actions have been included in the recommended list of actions.

Horsham, a busy regional centre, provides all the facilities needed of a regional centre and all within a 3km radius from the city centre. The topography is relatively flat, the climate is predictable and warm and the short distances between facilities make Horsham a great place to walk and a perfect place to cycle.

Demographic analysis from 2001 and 2006 Census Data published by the Australian Bureau of Statistics indicated that:

- 1974 school children live within the urban area of the Rural City of Horsham;
- 526 (7.3%) households within Horsham do not own a car, and 2290 (32%) own one car; and
- It is likely that the bulk of the Horsham population lives within 5 kilometres of their place of work, yet only 174 individuals (2.7% of workers) cycle to work.

A need for improved walking and cycling infrastructure was identified as a strategic priority by the community in the HRCC Health and Wellbeing Plan 2010-2013 as part of its vision for Horsham. Horsham and the surrounding communities would benefit from a well planned network of reliable and safe inter-linking bicycle/walking tracks. These tracks would give all age groups, whether walking, running or riding, the incentive to enjoy the outdoors – a benefit for both mind and body.

The incentives for improving safety on Horsham's cycle routes are considerable, for in addition to reducing the number and severity of crashes relating to cyclists, a safer cycle network will also encourage more people to cycle and will enhance the public perception of cycling. In the period between 1 July 2006 and 30 June 2011, there were 215 recorded casualty crashes involving 520 people throughout the Horsham Rural City Council and of these a total of 15 crashes involved bicycles.

Fortunately there were no fatalities or serious injury accidents from these 15 crashes however there were injuries sustained as a result of all of these crashes.

The existing and planned development for the city of Horsham varies from further business development in the central business district and along the Western Highway to farming on the north, west and east sides of Horsham and residential growth predominantly to the south of Horsham. This report has taken into consideration the planned residential zones and the longer term need for infrastructure as development occurs.

There is currently limited information on the participation rates for cycling in Horsham. Australian Bureau of Statistics data indicates that of the total 6461 people that travel to work, only 174 (2.7%) individuals cycle to work, with a further 390 (6.0%) individuals walking to work. Interestingly, only 39 of the 174 cyclists were female although when the walking statistics are included, approximately 8-9% of both males and females cycle or walk.

Vehicular traffic volumes on major roads through Horsham have been summarised and highlighted to identify roads that fall into the range where the separate bicycle paths are recommended in lieu of on-road bicycle facilities.

The overall goal of this strategy is to make Horsham and the surrounding communities a more cycling friendly environment that caters for all types of cyclist. To achieve this ultimate goal, this report provides actions to reach the following key objectives:

- 🚲 **Provision of an infrastructure network that caters for all levels of cyclist;**
- 🚲 **Improve connectivity of the existing cycle network between residential areas and central amenities, schools, recreational facilities and transport.**

- 🚲 **Improve safety of the bicycle path network, thereby encouraging more people to cycle.**
- 🚲 **Market the opportunities and benefits of cycling as both a recreational activity and a mode of transport to encourage greater cycling participation.**
- 🚲 **Consideration of future bicycle path network requirements and maintenance costs.**

The recommended actions have been classified as short term (0 to 3 years), medium term (3 to 10 years) and long term (10+ years).

Key recommendations of the strategy include:

- ➡ Undertake greater monitoring of the bicycle path network;
- ➡ Increase maintenance of the existing bicycle network to remove hazards, provide surfaces fit for use, and improve delineation and signage;
- ➡ Remove hazards on the on-road network and provide improved bicycle lane facilities at intersections;
- ➡ Construct short sections of off-road bicycle path to link sections of the existing bicycle network and provide safe routes between residential areas and schools ;
- ➡ Provide 'end of trip' and en-route facilities to encourage greater participation in cycling;
- ➡ Improve advisory and directional signage and bicycle route information;
- ➡ Invest in social marketing initiatives to improve safety and increase cycling participation.
- ➡ In the medium to long term, expand the off-road bicycle path network, particularly: along the river, to Riverside and Dooen, at Haven, to Quantong and to Green Lake.
- ➡ Provide cycling facilities for the outlying towns of Horsham Rural City Council, in particular Natimuk and Wartook.



# I Introduction

A further review of the 2004 Horsham Strategic Bicycle Plan is required to assess progress and determine future priority works.

## I.1 Strategy Objectives and Rationale

The objective of this investigation is to complete an updated strategy for adoption by Horsham Rural City Council to assist with future planning of infrastructure. This report details the recommended bicycle route strategy for the Rural City of Horsham. The Strategy has been prepared following an inspection of the existing bicycle track conditions and from discussions with key stakeholders. This strategy analyses the concerns raised and recommends future projects to address deficient sites.






### I.1.1. Rationale for a Strategy for Bicycle Routes in Horsham Rural City Council

It is a Council Plan objective to improve walking and cycling infrastructure as was also identified as a strategic priority by the community in HRCC Health and Wellbeing Plan 2010-2013. Horsham and the surrounding communities would benefit from a well planned network of reliable and safe inter-linking bicycle/walking tracks. These tracks would give all age groups, whether walking, running or riding, the incentive to enjoy the outdoors.

### I.1.2. Strategy Objectives

The overall goal of this strategy is to make Horsham and the surrounding communities a more cycling friendly environment that caters for all types of cyclist. To achieve this ultimate

goal, this report provides actions to reach the following key objectives:

-  **Provision of an infrastructure network that caters for all levels of cyclist;**
-  **Improve connectivity of the existing cycle network between residential areas and central amenities, schools, recreational facilities and transport.**
-  **Improve safety of the bicycle path network, thereby encouraging more people to cycle.**
-  **Market the opportunities and benefits of cycling as both a recreational activity and a mode of transport to encourage greater cycling participation.**
-  **Consideration of future bicycle path network requirements and maintenance costs.**

## I.2 Background

### I.2.1. Background

The encouragement of active travel is essential for social, health and wellbeing, safety and integrated mobility/transport outcomes for the community. The promotion and support of active forms of travel are important in fostering an environmentally sustainable, liveable and less car orientated community. Furthermore, cycling can reduce the financial burden and risk associated with increasing fuel costs.

The popularity of bike riding has increased dramatically in the last 10 years. To bike riders, riding a bike is a means of transport, a form of fitness, a social network and a sense of

freedom.

The vision for Horsham is: a community that embraces cycling as a real transport choice; has significantly greater tourism and recreational opportunities; a community that does not overly rely on the use of private motorised transport; and realises the health and social benefits of cycling.

To achieve the vision, there needs to be recognition of cycling as a significant mode of daily travel. At present, whilst cycling is recognised under Council, State and Federal policies, significant funding commitment falls short. Commitment is required in terms of allocation of staff resources, resources for the application/acquisition of funds, capital works funding and maintenance funding under the road management plan.

#### **1.2.2. Horsham – The Place to Cycle**

Horsham, a busy regional centre, provides all the facilities needed of a regional centre and all within a 3km radius from the city centre. The topography is relatively flat, the climate is predictable and warm and the short distances between facilities make Horsham a great place to walk and a perfect place to cycle.

### **1.3 2004 Horsham Strategic Bicycle Plan – Progress Review**

A number of issues and actions were identified in the 2004 Horsham Strategic Bicycle Plan that have not been completed. The outstanding actions have been reviewed and relevant

actions have been included in Section 6 – Implementation Strategy.

## **1.4 Relevant Strategies for Bicycle Routes in Horsham**

In recent years, there have been other studies completed that have relevance to this strategy. The following strategies have been reviewed, relevant issues have been considered and arising actions have been included in Section 6 - Implementation strategy.

- ☐ **HRCC Plan (2012-2016), June 2012**
- ☐ **Horsham Rural City Council's Planning Scheme Review, 2010**
- ☐ **Health and Wellbeing Plan 2010 – 2013 – Horsham Rural City Council**
- ☐ **Horsham Bypass Planning Study – VicRoads**
- ☐ **VicRoads – Bicycle Network Planning Bicycle Facilities Guidelines**
- ☐ **Horsham Strategic Bicycle Plan 2004 Cycling Aspects of Austroads Guides, 2011**

***Photograph 1.4.1 – McLachlan Street, Facing West***



## 2. Existing Bicycle Network Conditions

### 2.1 Off Road Bicycle Network

There are a number of significant existing bicycle routes, both on-road and off road, in the Horsham municipality. The major off road routes are summarised below:

- Central Park
- Golf Course Road Bicycle Path
- Henty Highway North Bicycle Path
- Henty Highway South Bicycle Path
- Natimuk – Natimuk Lake & Mt Arapiles Bike Trail
- Old Hamilton Road Bicycle Path
- River Trail in Horsham (North & South Side)
- Velodrome
- Western Highway (NW and SE of Horsham)
- Wimmera Highway Off Road Bicycle Path

### 2.2 On Road Bicycle Network

There is a significant existing network of on-road bicycle routes throughout Horsham. The priority on-road routes are summarised below:

- Western Highway On-Road Bicycle Lanes
- Henty Highway On-Road Bicycle Path,
- Wimmera Highway On-Road Bicycle Lanes,
- O'Callaghans Parade Bicycle Lanes,
- Firebrace St On-Road Bicycle Lanes,
- Baillie St On-Road Bicycle Lanes,
- Darlot St On-Road Bicycle Lanes,
- Hamilton St On-Road Bicycle Lanes, and
- Kalkee Road On-Road Bicycle Lanes

With a small number of additional local routes, the extent of the priority on-road network is considered appropriate, however improvements are required to meet current standards.

#### 2.2.1. Lane Widths

The width adopted for exclusive bicycle lanes will vary depending on the:

- number of cyclists
- speed of motor traffic
- volume of large vehicles

- ability to make space available
- needs of other road user groups
- physical and budgetary constraints.

Designers need to consider these factors when assessing the required width at sites and design the bicycle path accordingly.

#### 2.2.2. Intersections

The intersections along the bicycle routes in Horsham vary from roundabouts to give way signs and traffic lights. For each type of intersection treatment careful consideration needs to be given to the most appropriate facility for cyclists.

### 2.3 Existing and Proposed Land Development

Town Planning applications provide unique opportunities to provide pedestrian and bicycle connections. Development applications should aim to add and enhance the existing and proposed pedestrian / bicycle network.

### 2.4 Horsham Demographics

Population statistics published by the ABS for 2001 - 2006, indicated that:

- 1974 school children live within the urban area of the Rural City of Horsham;
- 526 (7.3%) households in Horsham do not own a car, and 2290 (32%) own one car;
- the bulk of the Horsham population lives within 5 km of their place of work, yet only 174 individuals (2.7%) cycle to work.

### 2.5 Traffic Conditions / Cyclist Volumes

#### 2.5.1 Existing Cycling Participation

There is limited information on the participation rates for cycling in Horsham. ABS data indicates that of the total 6461 people that travel to work, only 174 (2.7%) individuals cycle to work, with a further 390 (6.0%) individuals walking to work.

#### 2.5.2 Vehicular Traffic Volumes on Key Cycling Routes

Analysis of traffic counts provided by VicRoads and Horsham Rural City Council highlighted the highways and roads where separate bicycle

paths are recommended due to the existing combination of speed and traffic volume.

## 2.6 Bicycle Casualty Crash History

The incentives for improving safety on Horsham's cycle routes are considerable, for in addition to reducing the number and severity of bicycle crashes, a safer cycle network will also encourage more people to cycle. The following principles have been adopted to enhance safety for users of the cycle network:

- Identification of locations with crash clusters that require road safety audits;
- Targeted infrastructure improvements at crash locations and high risk sites;
- Encourage consideration of cycling safety in all infrastructure design;
- Education initiatives within schools, workplaces and residential communities;

The reported casualty crashes for the Horsham Rural City municipality in the period from July 1, 2006 to June 30, 2011 were obtained from VicRoads and an analysis of the accident history was undertaken with a comparison to Victoria wide results.

## 2.7 Bicycle End of Trip Facilities / Bicycle Hubs

There is currently a lack of basic end of trip facilities at key destinations, such as shopping centres, major employment centres and community amenities. This deficiency compromises the effectiveness and value of the existing cycling network, and therefore deters cyclists from using cycle routes as they are not offered secure cycle parking, or storage lockers and showers, etc, at their final destination. Creation of a successful bicycle network should include adequate provision of trip end facilities to complement the routes themselves.

## 2.8 General Repair of the Existing Bicycle Network

Much of Horsham's existing cycling network requires maintenance. On the existing off road network there are: low lying sections of paths that have been damaged from flooding;

sections that have been fire damaged; sections that require vegetation and tree trimming; pot holes and poor surface conditions. Further, poor and inconsistent surfacing, faded line marking, edge drop off and pot holes are prevalent on the on-road routes.

## 2.9 Maintenance Requirements

To provide a serviceable on-road and off-road bicycle network for all levels of cyclist, it is imperative that the following maintenance requirements be implemented:

- 1. An adequate budget allocation, specifically for maintenance of the existing on-road and off-road bicycle routes.
- 2. Undertake an audit / inventory of the existing infrastructure to determine the current condition and immediate maintenance requirements.
- 3. Establish a regular maintenance monitoring program for the off-road bicycle paths.
- 4. Ensure that maintenance of the on-road bicycle network is undertaken as part of the Road Management Plan for Horsham.
- 5. Ensure that the key maintenance activities are programmed at appropriate intervals:
- 6. Undertake regular maintenance of the network with an aim to provide smooth consistent surfaces with good delineation.

**Figure 2.9.1 – Surface Condition Photos of the Riverside Bicycle Path**



### 3. Discussion with the Community and Stakeholders

Discussions with representatives of key stakeholders were carried out to identify the key issues and any recommended actions. The following groups were represented at community discussions.

The identified issues and ideas have been included in Section 5.

- VicRoads – Western Region
- Horsham Rural City Council
- Horsham Cycling Club
- Wimmera Roadsafety Committee
- Horsham River Improvement Committee
- Horsham Schools
- Cyclists and Interested Individuals
- Residential Groups from:
  - *Haven*
  - *Riverside*
  - *Horsham West*
  - *Southbank*
  - *Natimuk*
  - *Wartook / Laharum*

## 4. Cyclist's Requirements

### 4.1 General

The basic requirements for convenient, efficient and safe travel by bicycle are outlined in this section. More detailed information on rider requirements is provided in the *Austrroads Guides*.

In addition to the requirements described below, for many cyclists, a major consideration is separation from motor vehicles. Routes that are separated from motor vehicles are generally preferred provided that there is a satisfactory level of service. Commuter cyclists, for example, are unlikely to use a separated facility that results in a significantly greater travel time than alternative on-road

routes. Conversely, recreational riders and school children will prefer a longer path on a safer, quieter route.

In relation to path and road engineering all cyclists have six basic safety requirements:

- 🚲 space to ride;
- 🚲 a smooth surface;
- 🚲 speed maintenance;
- 🚲 sight lines;
- 🚲 connectivity; and
- 🚲 information.

These requirements apply equally on roads and on paths. However, different riders do have different predominant needs. Safety is considered a predominant need for all cyclists together with end of trip facilities.

### 4.2 Level of Service

The standard of the path, compared to that expected by the community, indicates whether or not the bicycle path is considered adequate for use by the intended type of cyclist. Each category of cyclist has different needs and construction of new paths should aim to meet the needs of the majority of users.

### 4.3 Type of Bicycle Facility Required

When considering the type of bicycle facility, such as bicycle lanes or shared use paths, the guiding principles are separating cyclists from motor vehicles and providing a high level of priority for cyclists across driveways and through intersections (Section 4.6.5, *Austrroads 2009b*). A key message of the *Austrroads* guide is that the separation of cyclists from motor vehicles is not always required on local and collector roads that have traffic volumes less than 5000 vpd and speeds less than 40 km/h.

### 4.4 Space to Ride

The bicycle design envelope and clearances shown in Figure 3.1 of *Austrroads "Cycling Aspects of Austrroads Guides"* provide the basis for the design of the bicycle facilities. The envelope is relevant to the design of lanes on roads, off-road paths and for bicycle parking.



## 4.5 Smooth Surface

Many bicycles have narrow tyres inflated to high pressure and have no suspension system. A smooth (albeit skid resistant) surface is therefore desirable for bicycles to be used effectively, comfortably and safely. Surfaces used for cycling should be smoother than those acceptable for motor vehicles.

## 4.6 Speed Maintenance

For bicycles to be effective as a means of transport, cyclists must be able to maintain speed without having to slow or stop too often. Cyclists typically travel at speeds between 20 and 30 km/h. Once slowed or stopped it takes considerable time and effort to regain desired operating speed. Bicycle routes, especially off-road, should be designed for continuous riding, minimising the need to slow or stop for any reason including steep gradients, rough surfaces, sharp corners, obscured sight lines, intersections, or to give way to other people due to narrow lane width.

## 4.7 Sight Lines

It is important that appropriate sight lines are provided between a cyclist's eye height and pedestrians to assist in minimising conflict, and between a cyclist's eye height and the path surface so that cyclists can stop in the event that a hazard exists on the path.

## 4.8 Connectivity

Cyclists need to be able to complete meaningful trips by bicycle. For recreation it may be from a residential area to a picnic spot, or for a specific purpose trip from home to work or the shops. Bicycle routes comprising roads and paths should combine to form an effective, convenient and safe network. Connectivity is an important aspect of the construction of effective bicycle routes. A route for cyclists which starts and ends abruptly is undesirable and may be hazardous as it may lure inexperienced cyclists to a point where they are at risk.

## 4.9 Information and Signage

Bicycle routes should be signposted to indicate both destinations and the distances to them.

Ideally maps should be available showing the route, facilities and points of interest along it, its relationship to the surrounding road system, and its relationship to relevant community facilities. The map and the signposting should be consistent in terms of destination names and other information.

## 4.10 Intersection Design

Intersections involve a number of points of conflicts for all road users and cyclists are particularly vulnerable at intersections. Major intersections with high speeds, high volumes and a variety of turning movements can be intimidating to cyclists. Cyclist safety at a signalised intersection can be significantly improved when on-road bicycle facilities are provided for all elements of the cyclist's path through an intersection.

### 4.11 End of Trip Facilities / Bicycle Parking

The introduction of new "end of trip" facilities provides a significant opportunity to encourage cycling participation. Creation of a successful bicycle network should include adequate provision of "end of trip" facilities to complement the routes themselves. Bicycle facilities such as parking, showers and change rooms, are critical to encouraging cycling and should be seen as part of the bicycle network.

## 4.12 Bicycle Hire Facilities

Tourists to the Horsham area would benefit from bicycle hire facilities. The provision of such facilities would encourage visitors to enjoy the outdoor environment that Horsham offers. In conjunction with bicycle hire facilities, bicycle helmet hire options need to be provided. A number of locations that are considered to be suitable for bicycle and helmet hire facilities have been identified.



**Figure 4.12.1 - Recently Installed Bicycle Racks at Ballarat Aquatic Centre**

## 5 Proposed Bicycle Route Strategy

### 5.1 General Overview

The Horsham Bicycle Path Strategy has been developed to address the community's identified issues and the potential impact of further development.

Through connecting the proposed off-road opportunities outlined under the strategy, it is evident that off-road recreational opportunities can be developed to cover the entire city. The circuits would link and enhance Horsham and surrounds as a tourism destination, delivering economic benefits.

### 5.2 Horsham Central Business District

#### 5.2.1 Background

Horsham is the largest city in the Wimmera wheat growing and sheep grazing district in western Victoria. Horsham features a large commercial centre that lines much of Firebrace Street and extends into adjoining streets. The Horsham Plaza Shopping Centre can be found at the junction of Darlot Street and Wilson St.

#### 5.2.2 Issues / Resolutions

The identified issues for bicycle paths adjacent the Wimmera River within the township of Horsham are listed below.

- ◆ The treatment of bicycle lanes at intersections needs to be improved.
- ◆ Bicycle Hire: A bicycle hire scheme, similar, complete with bicycle parking facilities and nearby helmet hire locations is proposed for Horsham.
- ◆ End of Trip Facilities: Requests for lockable bicycle parking facilities in the central business district.
- ◆ BMX Track: Request for the feasibility of a BMX track for Horsham to be investigated.
- ◆ Horsham Skate Park: It is suggested that a network of paths be constructed around the Skate Park to cater for young children to practice their bike riding.
- ◆ Cycling Hazards: There are a number of hazards on on-road bicycle lanes and on existing bicycle paths.
- ◆ Commuter Bicycle Lanes: Request for new, and improvement of existing, bicycle routes that serve as a commuter function.
- ◆ CBD Access and Linking of Bicycle Routes: Requests for better central business district access via on-road bicycle routes and for linking of these bicycle routes.
- ◆ The following issues and actions remain outstanding from the 2004 Horsham Strategic Bicycle Plan and are still relevant for the central business district.



Figure 5.2.1 Central Park Bicycle Path

#### Highways

- ▶ Western Hwy and Henty Hwy Intersection: If this intersection is signalised, the design will require on-road bicycle facilities.
- ▶ Western Highway: A 2.0m width off road bicycle path along the south side from the Henty Highway to the Caravan Park.
- ▶ Western Hwy: Continue the bicycle lane through the intersection at Williams Rd.
- ▶ Wimmera Highway: Install pavement markings and advisory signage for the bicycle lane from Park Dr to McPherson St.

#### Town Centre

- ▶ Firebrace Street: Remark bicycle symbols on Firebrace Street and extend the bicycle lane to the south of O'Callaghans Parade.

- ▶ Firebrace Street: Provide additional bicycle parking facilities particularly near Roberts Avenue and Pynsent Street.
- ▶ Darlot Street: Repaint the on road bicycle lane on and install bicycle symbols.
- ▶ Urquhart Street: Install additional bicycle symbols and signage and continue bicycle lanes through the roundabouts.
- ▶ Darlot Street: Modify linemarking at roundabouts to cater for cyclists.
- ▶ Roberts Avenue: Repaint on-road bicycle lanes and install bicycle symbols.
- ▶ Pynsent Street: Bicycle parking facilities near the cafes in Pynsent Street.
- ▶ Pynsent Street: Repaint on-road bicycle lanes between Darlot St and McPherson St.

#### **On-Street Bicycle Facilities**

- ▶ Baillie St and Robinson St Intersection: Improved crossing facilities for pedestrians at this location.
- ▶ Baillie St: Request VicRoads to install a raised median with pedestrian crossings.
- ▶ Baillie Street: Repaint existing bicycle lanes and install bicycle symbols.
- ▶ Baillie Street: East of the Henty Hwy, delineate the carriageway with 2.9m traffic lanes, 1.2m bicycle lanes and 2.0m parking.
- ▶ Baillie Street: West of Dimboola Road, seal the shoulder on the south side to provide on-road bicycle lanes in both directions.
- ▶ Baker Street: Repaint existing bicycle lanes and install bicycle symbols. Provide continuity of bicycle lanes at Madden St and Firebrace St.
- ▶ Hamilton Street: Install bicycle symbols in the existing bicycle lane.
- ▶ Menadue Street: Linemark the wide carriageway to delineate a bicycle lane and parking and install additional signage.
- ▶ O'Callaghans Pde: Provide a continuous bicycle lane from the Western Hwy to Firebrace St.
- ▶ O'Connor Street: Repaint the existing line-marking and replace signage.
- ▶ Robinson Street: Repaint linemarking to include a bicycle lane.

- ▶ Williams Road: Provide clearer bicycle lanes and continuity through intersections.

## **5.3 Wimmera River Paths within Horsham**

### **5.3.1 Background**

The Wimmera River flows through the southern end of Horsham, with the only road crossing in town being the twin bridges of the Western Highway. The Wimmera River provides a significant recreational and tourist attraction for Horsham.



### **5.3.2 Issues / Resolutions**

The following issues and ideas for bicycle paths adjacent the Wimmera River within the township of Horsham were identified: in the 2004 Horsham Strategic Bicycle Plan; by the Wimmera River Improvement Committee; and in the Wimmera Regional Transport Group "Bridges to Recovery Strategy".

- ▶ Wimmera River Trail: Undertake required maintenance and install distance markers.
- ▶ The section of River Trail between Macbain Street and McBryde Street in remains to be completed, however an off road path has been constructed along Macbaine Street and McBride Street to connect the Wimmera River Trail.
- ▶ Extend the existing River Trail on the south side of the river from near Ballard St to the weir to complete a loop for cyclists;
- ▶ Construct a bicycle path from Golf Course Rd to Kenny Rd via the channel easement and to the river via the unnamed road;
- ▶ Construct a pedestrian/cyclist bridge across the Wimmera River to the west of the weir to complete a loop;

- ▶ Extend the existing River Trail on the north side of the Wimmera River from the weir to join the bicycle track at the extension of Curran Road and then approx. 500m further to a river crossing;
- ▶ Continue the bicycle path on the south side of the river from the weir, west to McKenzie Creek and then south along McKenzie Creek to join Wards Road and the track to the Henty Highway;
- ▶ Plan and construct a bicycle path on the south side of the river from Horsham to Quantong, with a bridge across the river, south of Quantong. Construction a bicycle path link between Natimuk and Quantong, would then complete the trail.
- ▶ The Wimmera Regional Transport Group “Bridges to Recovery Strategy” proposes bridges across the Wimmera River at the following locations:
  - A footbridge at Bennett Road to provide pedestrian access to new subdivisions; and/or
  - A footbridge from Wotonga Dr to a walking track linking with Burnett St;
  - A footbridge from Hamilton St to a the south of the Wimmera River to cater for pedestrian traffic between new subdivisions and sporting facilities.

## 5.4 Haven

### 5.4.1 Background

Haven is a rural residential area situated on the Henty Highway approximately 5km south of Horsham. A growing community with more than 400 homes, a new primary school was constructed for Haven in 2009.

### 5.4.2 Issues / Resolutions

The identified issues and ideas for the Haven area are listed below.

- ◆ Repair bushfire damaged sections of the sealed bicycle tracks and remove burnt trees and vegetation adjacent tracks.
- ◆ Redevelop decommissioned channel easements into a network of bicycle /

walking tracks to provide safe access to the school and community facilities.

- ◆ Golf Course Road: Repair the unsealed crushed rock track and better define the path with bollard treatments at each crossover.
- ◆ Henty Highway Off Road Path: Repair the sealed bicycle path, that has been damaged by bushfires and floods.
- ◆ Old Hamilton Road: Repair and seal the existing unsealed track and extend the track from Schier Drive through to Mackies Road and ultimately Clynes Road to create a link with other roads / tracks.
- ◆ Grahams Bridge Road: Construct a shared bicycle / walking track along Grahams Bridge Road to cater for the recent residential development .
- ◆ Osborne Road, Plozzas Road / Hunts Road / Holes Road and Mackies Road: Construct bicycle tracks along sections of these roads to connect existing tracks with residential areas and destination facilities.

## 5.5 Southbank

### 5.5.1 Background

Southbank is a rapidly expanding residential subdivision situated west of the Western Highway on the south side of the Wimmera River. With a light traffic river crossing near Burnett Street, Southbank would become one of the closest residential areas to the central business district.

### 5.5.2 Issues / Resolutions

The identified issues and ideas for the Southbank area are listed below.

- ◆ Western Highway: Improve safety for cyclists and pedestrians, particularly with prams, to cross the bridges over the Wimmera River and for cyclists at the roundabout with O’Callaghans Parade.
- ◆ Extend the existing River Trail on the south side of the river from near McCombe Court to the weir to complete a loop of approximately 6.5km for cyclists.



- ◆ An alternative Wimmera River crossing needs to be constructed for light traffic (pedestrians and cyclists), preferably near Burnett Street;

**Figure 5.5.1 – Bicycle Lane and Footpath on the Western Highway bridge over the Wimmera River**



## 5.6 Riverside and Horsham North

### 5.6.1 Background

Riverside is an expanding residential area situated between the Henty Hwy and the Wimmera River, north east of Horsham.

### 5.6.2 Issues / Resolutions

The identified issues and ideas for the Riverside area are listed below.

- ◆ Henty Highway: The bicycle track alongside the Henty Highway requires repair, sealing, vegetation trimming and installation of bollards and signage. Further extend the track along the Henty Highway between Riverside Drive and Perry Drive to provide a continuous bicycle path. Also extend the track further north east to service the motorcross and go-cart tracks, Longerenong College and the lake at Dooen.
- ◆ Wimmera River Track: Construct a new bicycle track along the river between River road and Baille Street to provide a safe route for children to cycle to school.
- ◆ The following issues and actions remain outstanding from the 2004 Horsham Strategic Bicycle Plan:
  - ▶ Henty Highway: Extend the bicycle path on the south side of Dooen Road from Pryors Road to Riverside Road.
  - ▶ Henty Highway: Modify the existing cross section southeast of Pryors Lane to include a central median, 3.5m traffic lanes, and 3.8m wide parking / bicycle lane on both sides of the road.
  - ▶ Henty Highway: Construct 2.0m shoulders northwest of Cameron Road to provide an on-road bicycle lane. Improve delineation of the existing bicycle lane.
  - ▶ Edith Street: Provide facilities for cyclists and pedestrians to cross the railway line on the north side (eastbound) of Edith Street, near Dooen Road.
  - ▶ Edith Street: Modify the Albert St intersection to improve cyclist movements.
  - ▶ Peppertree Lane: It is recommended that future subdivisions have a wider road reservation to provide space for a bicycle path as Peppertree Lane provides excellent access for the two nearby primary schools.
  - ▶ Pryors Lane: Construct an off-road shared footpath in conjunction with further development.
  - ▶ Kalkee Road: Improved bicycle lane delineation by installing bicycle symbols and continuity lines across intersections.
  - ▶ Kalkee Road, Searle St to Lynott St: This section of road is confusing for both the motorist and cyclist and needs to be re-linemarked with clear dedicated lanes in both directions.
  - ▶ Kalkee Road (Urquhart Street), south of the Railway Line: Review traffic volumes and needs with a view to future reconfiguration of the cross section to include a wider median, turning lanes, single through traffic lane, bicycle lanes and parking areas.

- ▶ Knowles Street: Construct a pram crossing and a small section of footpath to link the existing unsealed school path to the road. In addition, seal the path between Knowles St and the Lutheran Primary School.
- ▶ Sunnyside Avenue-Olga Avenue: Bicycle signage needs to be erected in Olga Avenue near to the school to alert motorists to the presence of bicycles.
- ▶ Wawunna Road: The entrance to the railway underpass needs to be improved to allow cyclists to better negotiate the movement.

**Figure 5.6.1 – Henty Hwy Off-Road Bicycle Path at the Intersection with Riverside Road.**



## 5.7 Horsham West

### 5.7.1. Background

Horsham West is planned to rapidly expand with a new residential subdivision, the Jenkinson Estate which proposes more than six hundred lots and is situated between Hillary Street and Curran Road, north of the Wimmera Highway and south of the railway line.

### 5.7.2. Issues / Resolutions

The identified issues and ideas for the Horsham West area are listed below.

- ◆ A bicycle path to the Horsham West Primary School needs to be incorporated into the design of the proposed Jenkins Estate subdivision.
- ◆ The Hillary Street footpath between the Wimmera Highway and the Horsham West School needs to be widened to provide a shared bicycle pedestrian path;
- ◆ Wimmera Highway: Seal the northern side (eastbound) shoulder of the carriageway between Curran Road and Park Drive to provide an on road bicycle facility.
- ◆ Wimmera Highway: Construct the section of bicycle path between Hillary Street and Bennett Road in the median between the Wimmera Highway and the service road.
- ◆ Barnes Boulevard: Provide bollards or a fence to slow cyclists at the Barnes Boulevard entrance to the access between Barnes Boulevard and Kalimna Avenues. Also install advisory signage on Barnes Boulevard to warn motorists of cyclists.
- ◆ Churchill Road: Repaint the on-road bicycle lane and install bicycle symbols.
- ◆ Churchill Road: Install kerb returns to slow traffic at intersecting streets, provide better intersection control and improve amenity for pedestrians.
- ◆ Churchill Rd and Baillie St Intersection: This intersection is conducive to high vehicle speeds and the location of the pram crossings encourages school students to cross on a diagonal. Install kerb returns to slow traffic and relocate all pram crossings to provide a safer design.
- ◆ Curran Road: Curran Road forms part of the strategic network, linking the Western Hwy to the off-road path along Curran Rd between the Wimmera Hwy to the river. As development occurs, offset the carriageway to allow for a shared path.
- ◆ Drummond Street: A key connector road, provide combined parking and on-road bicycle lanes and widen the footpath to a shared path on the west side of the street.
- ◆ McIntyre Street: Linemark the approach to the Churchill Road intersection, to provide 2.8m width traffic lanes and bicycle lanes.

## 5.8 Natimuk

### 5.8.1. Background

Natimuk, a small town to the west of Horsham, attracts local, interstate and international tourists to climb the large rock formation, Mt Arapiles. A Bike Trail has been planned and

partially constructed between Natimuk and the foot of Mt Arapiles. The Natimuk community is keen to have the remainder of the Bike Trail constructed and for delineation improvements along the entire trail.

### 5.8.2. Issues / Resolutions

Issues for the Natimuk area are listed below:

- ◆ The need for a Natimuk–Mt Arapiles Bike Trail has been identified and a section of this bike trail, from Centenary Park Road to Natimuk township has already been constructed, with a further section from Natimuk township to Natimuk Lake Road. The remainder of the Bike Trail is still to be constructed and delineation improvements are required for the entire trail. Maintenance of the trail is required to meet current desirable standards.



**Figure 5.8.1 - Mt Arapiles from Centenary Park Rd**

- ◆ Natimuk Frances Road is regularly used by cyclists, however a large stone size reseal has been completed on this section of Natimuk Frances Road creating difficulty for cyclists.
- ◆ The condition of the Arapiles Summit Road is poor for cyclists due to the rough crack sealing on the pavement.
- ◆ Provide bicycle hire facilities in Natimuk to attract 'adventure cyclist's' and provide another activity for visiting rock climbers.
- ◆ A key long distance recreational trail is proposed between Horsham and Natimuk, a length of between 40 and 50km. A number of options have been suggested

for such a trail. In order, the preferred options are as follows:

- i. The River Option – A scenic trail along the south side of the Wimmera River to Quantong and then along local roads to Natimuk.
  - ii. The Rail Option – An off road trail along a disused railway line, similar to other rail trails in the state;
  - iii. The Highway Option – An off road trail within the existing Wimmera Highway road reserve;
  - iv. Highway Option – Least preferred is the option of widening the Wimmera Highway to provide an on-road bicycle lane between Horsham and Natimuk.
- ◆ The following action was included in the 2004 Horsham Strategic Bicycle Plan and remains to be completed:
    - ▶ Wimmera Highway: Provision of 2.5m width sealed shoulders on the Wimmera Hwy between Curran Rd and Natimuk to provide an on-road bicycle facility between the towns.

## 5.9 Horsham to Green Lake

### 5.9.1. Background

Approximately 9.5km south east of Horsham, the Green Lake area offers excellent recreational facilities for Horsham residents and tourists. Although a longer recreational ride, a bicycle path to Green Lake would allow greater access to these sporting facilities.

### 5.9.2. Issues / Resolutions

The identified issues and ideas for the Green Lake area are listed below.

- ◆ There is potential for greater utilisation of the Green Lake recreational facilities if an off road bicycle path is provided between Horsham and Green Lake.
- ◆ Extend the off road bicycle path on the south side of the Western Highway from the existing path at Wimmera Lakes Caravan Park to Green Lake.

## 5.10 Mt Zero and Wartook, including Mountain Biking

### 5.10.1. Background

The Wartook Grampians Promotion Group has identified that there is great potential for mountain biking and long distance walks in the Wartook area.

### 5.10.2. Issues / Resolutions

The identified issues and ideas for the Wartook area are listed below.

- ◆ The Wartook Grampians Promotion Group has requested that a number of low use, high recreational value multi use bicycle tracks be created on existing routes between the areas of Horsham, Laharum and Wartook. Specifically, the following tracks are proposed:
  - A bicycle track to link Rosebrook at Wartook with Zumsteins in the Grampians National Park;
  - An 'olive oil' bicycle route from Rosebrook to Laharum silo's and then past olive oil plantations for tasting and speciality foods;
  - Utilise Department of Primary Industry tracks to create a looping bicycle route in Wartook State Forest;
  - Formalise a bicycle track linking Horsham to Wartook along the existing driveable tracks by the McKenzie River;
- ◆ Maintenance is required on a number of the existing trails and roads to provide a suitable surface for bicycles.
- ◆ Publish a map of bicycle routes in Horsham and surrounds and utilise local bicycle groups, visitor information centres, and accommodation websites to publicise the maps.

## 5.11 On-Road Training Circuits

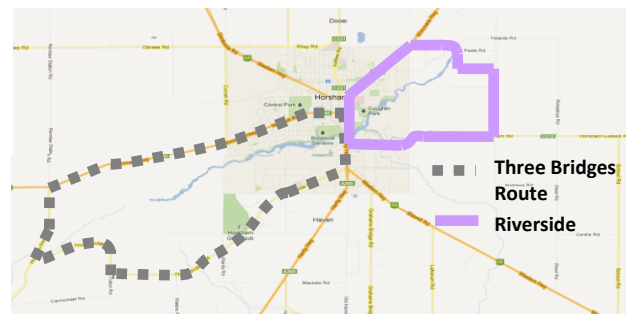
### 5.11.1. Background

In the Horsham area there are a few well utilised on-road training routes that vary from

almost 12 to 63 km in length, as well as a number of priority commuter routes.

It is proposed that a Horsham Commuter and Touring Map be produced, and include an outline of a series of long distance rural circuits for recreational long distance cycling and competitive cyclists.

There is an opportunity to gradually upgrade each of these training routes and provide advisory signage and suitable shoulders for cyclists to use with a relatively small additional cost to the existing maintenance programs.



### 5.11.2. Issues / Resolutions

- ◆ The following routes are widely utilised by competitive cyclists around Horsham:
  - **Noradjuha Route (Approx 63 km)**
    - Western Highway (Stawell Road) (2km)
    - Golf Course Rd & Three Bridges Rd (11km)
    - Horsham Noradjuha Road (16km)
    - Natimuk Hamilton Road (12km)
    - Wimmera Highway (22km)
  - **Golf Course and Three Bridges Rd Route (Approx 23.4 km)**
    - Western Highway (Stawell Road) (2km)
    - Golf Course Rd & Three Bridges Rd (11km)
    - Horsham Noradjuha Road (2.6km)
    - Wimmera Highway (8km)
  - **Riverside Route (Approx 11.8km)**
    - Williams Rd & Horsham Lubeck Rd ( 4km)
    - Riverside East Road (2km)
    - Rogersons Road (1km)
    - Riverside Road (2km)
    - Henty Highway (Dooen Road) (2.6km)
- ◆ Maintenance is required on the road network to provide a smooth surface;



- ◆ The training circuits need to be well signed to remind motorists of the potential of cyclists;
- ◆ The treatment of bicycle lanes at intersections needs to be improved;

## 5.12 End of Trip and En-Route Bicycle Facilities

### 5.12.1. Background

A lack of trip end facilities, in particular secure bicycle parking and shower facilities at workplaces, are a key barrier to cycling. It is recommended that:

- Schools and universities have secure sheltered bicycle parking;
- Shopping precincts, the hospital and railway station have secure sheltered parking;
- Sports grounds, recreational facilities and parks have bicycle parking facilities.

In addition to the identification of safe cycle routes, the provision of supporting facilities, both en-route and end of trip, such as water fountains, cycle parking and cycle shops/hire encourages tourists and recreational riders to increase their cycling participation.

### 5.12.2. Issues / Resolutions

The introduction of additional trip end facilities provides a significant opportunity to encourage cycling participation. The following issues need to be considered in regard to the provision of bicycle facilities.

- ◆ Bicycle facility requirements, as outlined in the Horsham Planning Scheme, should be met for all town planning applications.
- ◆ Key locations that have good natural surveillance and security need to be identified for the installation of high quality bicycle parking facilities.
- ◆ Council should lead by example through the introduction of secure workplace parking and shower facilities.
- ◆ Bicycle parking facilities at workplaces should be weatherproof and secure to

allow for storage of a bicycle and accessories.

- ◆ Bicycle parking for visitors/shoppers need to be appropriately designed.
- ◆ Drinking water fountains need to be available along high use paths and water taps installed on longer paths.

## 5.13 Signage and Bicycle Route Information

### 5.13.1. Background

To improve safety and patronage of bicycle routes, the routes need to be readily identified both on maps and on the ground with clear signage and distance markers.

The use of information boards and maps are recommended at key tourist points, bicycle cross-roads, railway stations and universities to inform users, identify the start of off-road trails and serve to advertise the immediate cycling environment to potential users.

### 5.13.2. Issues / Resolutions

The following issues have been identified in regard to the availability of bicycle route information:

- ◆ Council should create a cycling webpage to serve as a one-stop shop for cycling in Horsham.
- ◆ Develop a Horsham Commuter and Touring Map for tourists.
- ◆ Publish and distribute maps of the local cycling routes.
- ◆ Install information boards and maps at key bicycle cross-roads, railway stations and universities to inform users and serve to advertise the immediate cycling environment to potential users.
- ◆ Improve awareness signage on roads that are frequently utilised by cyclists;

## 5.14 Maintenance

### 5.14.1. Background

A proactive approach to bicycle path maintenance is essential to address bicycle infrastructure degradation and upgrade bicycle paths to meet current standards. Without an ongoing maintenance program, Council will be exposed to liability issues and claims.

### 5.14.2. Issues / Resolutions

The following issues need to be considered in regard to maintenance of the existing network:

- ◆ Increase the current budget to meet the maintenance requirements of the existing cycling infrastructure.
- ◆ Regular maintenance monitoring of off-road bicycle paths in Horsham.
- ◆ Key maintenance activities that need to be programmed include:
  - Replacement of signs and markings;
  - Relocation of street furniture that obstructs paths or sight distance;
  - Trimming of overhanging vegetation;
  - Sweeping loose material from pathways and bicycle lanes;
  - Adjustment of utility frames and covers in the carriageway and potholes;
  - Re-surfacing of uneven pavement;
  - Street-sweeping of on-road routes;
  - Weed management adjacent to trails;
  - Crossover improvements.

## 5.15 Social Marketing

### 5.15.1. Background

To compliment the Health and Wellbeing Plan, a Social Marketing Program needs to be developed to provide continued engagement with the community. The program initiatives would be driven, coordinated and monitored by the Rural City of Horsham.

The components of a Social Marketing Program would include: promotion; education; and events organisation. Safety training would be a key component of the program and the Roadsafes Committee should be involved.

Council should maximise the impact of their marketing efforts by promoting wider cycling programs, including the following events:

- Ride to Work Day
- Ride to School Day

### 5.15.2. Issues / Resolutions

- ◆ Council to promote its achievements in regard to cycle routes and healthy lifestyle.
- ◆ Council should highlight the potential presence of cyclists and their requirements in conjunction with other driving and cycle safety messages.

## 5.16 Monitoring of the Bicycle Network

### 5.16.1. Background

An important aspect of all bicycle strategies is to continue to monitor route conditions, cyclist numbers and the number of crashes, particularly following the implementation of new facilities. Monitoring provides a powerful tool that measures the success of cycling infrastructure, providing grounds for future funding and further improvements.

### 5.16.2. Issues / Resolutions

The Horsham Health and Wellbeing Plan outlines key indicators that support a sustainable future. A number of these indicators relate directly to the development of the bicycle network, including:

- the length of bicycle path (km);
- the length of on-road path (km);
- the number of trip end facilities; and
- the provision of safe routes to schools.

These components all need to be monitored together with consideration of the quality and continuity of paths /lanes and facilities.

It is recommended that a monitoring program be developed, inclusive of bicycle counts along key corridors and that this monitoring be undertaken on an annual basis, starting before the implementation of the strategy.

## 6 Implementation Strategy

The recommended actions arising from the Bicycle Route Strategy for the Rural City of Horsham are summarised in the following tables, Tables 6.1 to 6.3. It is expected that these actions will be implemented over a number of years and a priority ranking is recommended with the actions. Broadly, in order, the priorities reflect the need to: (1) address safety concerns; (2) upgrade/maintain existing infrastructure to meet development / capacity requirements; (3) construct linking paths and on-road facilities to complete existing networks; (4) construct new paths and facilities to meet existing user demands; and (5) construct new paths and facilities to encourage usage and cater for future demand.

Note: The estimated costs included in the following tables are strategic estimates based on a square metre rate and the estimated length of path. Applications for funding, will require a more accurate estimate for each project, following a preliminary design assessment.

### 6.1 Short Term Actions

The recommended short term (0 to 5 years) actions are detailed in Table 6.1.

**Table 6.1 Bicycle Route Strategy – Recommended Short Term Actions**

Priority	Action	Location	Description	Estimated Cost	Funding
<b>1</b>			<b>Actions to Address Safety Concerns</b>		
1	1	Maintenance Budget	Ensure that an adequate budget is allocated for maintenance of existing on and off-road bicycle routes.	\$150,000/annum	HRCC
1	2	Bicycle Network Audits	Undertake an audit of the existing infrastructure to determine the current condition and immediate maintenance requirements of the existing off-road bicycle infrastructure.	\$10,000	HRCC
1	3	Bicycle Route Inspections	Establish a regular maintenance monitoring program for the off-road bicycle paths in the Horsham municipality. The inspections should identify any hazards to be removed and required maintenance.	\$10,000/ annum	HRCC
1	4	Bicycle Route Monitoring	Establish a strategic monitoring program of the bicycle routes.	\$15,000	HRCC
1	5	Road Safety Promotion	Join together with Roadsaf Wimmera to run local advertising campaigns for bicycle safety and driver awareness of cyclists requirements. Aim for at least two cycling related promotions per year.	\$10,000	Roadsafe Wimmera
1	6	Road Safety Training	In conjunction with VicRoads, promote road safety training with an emphasis on safe cycling, at all the schools in the municipality. Repeat programs on an annual basis to attempt to reach all age groups.	–	VicRoads
1	7	Promotion of Health and Wellbeing	Actively promote health and wellbeing through the: <ul style="list-style-type: none"> <li>Annual Ride to Work Day (BV) ; and</li> <li>Ride to School Day (DPCD &amp; BV) (start of school year);</li> </ul>	\$2,000 \$2,000	HRCC
1	8	Cycling Promotion	Promote Councils achievements in regard to cycle routes and healthy lifestyle facilities with regular Council bulletins and local newspaper articles.	\$10,000	HRCC
1	9	Wimmera River Trail	Undertake urgent repairs and establish regular inspections and maintenance of the off-road river trails.	\$15,000	HRCC
1	10	Natimuk – Arapiles Bicycle Trail	Review existing trail conditions against desirable standards and complete required maintenance.	–	HRCC
1	11	Horsham West – Jenkinson Estate	Ensure that a shared bicycle / pedestrian path is incorporated into the design and construction of the Jenkinson Estate.	–	HRCC & Developer

Priority	Action	Location	Description	Estimated Cost	Funding
1	12	Riverside – Peppertree Lane	Ensure that Peppertree L road reserve is wider in future subdivisions to provide space for bicycle paths.	—	HRCC
1	13	Haven - Henty Highway Off Road Track	Remove the hazardous burnt trees near the track;		HRCC
1	14	Haven – Old Hamilton Road	Remove the hazardous burnt trees near the track;	\$TBA	HRCC
1	15	Haven – Old Hamilton Road	Fill in the hazardous deep hole near the Osborne Road intersection;	\$TBA	HRCC
1	16	Haven – Golf Course Road Off Road Track	Undertake urgent repairs to the fire damaged sections;	\$TBA	HRCC
1	17	Haven – Golf Course Road Off Road Track	Instigate a regular maintenance plan to remove weeds and bindii and control ants;	\$TBA	HRCC
1	18	Haven – Golf Course Road Off Road Track	Install bollard treatments at each of the crossovers along Golf Course Rd.	\$3,000	HRCC
1	19	On-Road Hazard Removal Works	Removal of identified cycling hazards on on-road bicycle lanes. The pedestrian crossing on the Wimmera Highway (Natimuk Road / Wilson Street) near Mitre 10 protrudes into the bicycle lane.	\$10,000	VicRoads and HRCC
1	20	Horsham West – Churchill Road	Churchill Road: Repaint the on-road bicycle lane on Churchill Road, install bicycle symbols and at the Churchill Road and Baillie Street intersection, relocate all three of the pram crossings.	\$12,000	HRCC
1	21	Riverside – Henty Highway	Install advisory signage and pavement markings on bicycle lanes southeast of Cameron Rd.	\$10,000	HRCC
1	22	On Road Training Circuits & Road Safety	Update advisory signage on the training circuits and roads that are frequently used by cyclists;	\$25,000	VicRoads and HRCC
1	23	Riverside – Sunnyside Avenue – Olga Avenue	Sunnyside Avenue-Olga Avenue: Install bicycle signage in Olga Avenue near to the school to alert motorists to the presence of bicycles.	\$2,000	HRCC
1	24	Horsham West – Barnes Boulevard	Barnes Boulevard: Provide bollards or appropriate fencing to slow cyclists at the Barnes Boulevard entrance to the pedestrian / bicycle access and install cyclist advisory signs on Barnes Boulevard.	\$10,000	HRCC
1	25	Southbank – Western Highway	Remark the existing bicycle paths across the bridges on the Western Hwy and provide bicycle lanes around the roundabout with O'Callaghans Pde.	\$12,000	VicRoads
1	26	End of Trip Facilities	End of Trip Facilities: Ensure that end of trip facilities are provided at new developments and that town planning applications meet the requirements of Clause 52.34 of the Horsham Planning Scheme.	—	HRCC & Developer
<b>2</b>			<b>Upgrading or Maintenance of Existing Infrastructure to Meet Development / Capacity Requirements</b>		
2	27	Maintenance of On-road	Ensure that regular maintenance of the on-road bicycle network is undertaken.	\$TBA	HRCC
2	28	Maintenance of Off-road	Ensure that regular maintenance, of the off road bicycle paths, is undertaken at appropriate intervals.	\$TBA	HRCC
2	29	On Road Training Circuits & Road Safety	Undertake road maintenance on identified on-road cycle routes, i.e. the Noradjuha Route; Golf Course Road/Three Bridges Road Route; and Riverside Route.	\$50,000	HRCC
2	30	Linemarking	Linemarking: A number of linemarking and signage requirements have been identified.	\$50,000	HRCC
2	31	Riverside – Henty Highway	Repair and seal the bicycle track alongside the Henty Hwy between Riverside Rd and River Heights Rd including: trimming of trees; and the installation of bollards and signage.	2.5km, \$200,000	HRCC
2	32	Haven - Henty Highway	Off Road Track - Repair and reseal the surface;	4900m, \$245,000	HRCC



Priority	Action	Location	Description	Estimated Cost	Funding
2	33	Haven – Old Hamilton Road	Top up, repair and regrade the track between the Western Hwy and Hunts Rd, seal the surface;	2775m, \$140,000	HRCC
2	34	Haven – Golf Course Road Off Road Track	Fill low sections of the track;	\$TBA	HRCC
2	35	Haven – Golf Course Road Off Road Track	Repair the surface and seal the track;	3260m, \$165,000	HRCC
2	36	Riverside – Knowles Street	Construct a pram crossing and a small section of footpath needs to be constructed from Knowles Street to the existing bicycle trail and seal the bicycle trail to the Lutheran Primary School.	120m, \$15,000	HRCC
2	37	On-Road Hazard Removal Works	Removal of identified cycling hazards on on-road bicycle lanes. Hamilton Street has a number of 'choke points' where the bicycle lane terminates at intersections, forcing cyclists to merge into traffic lanes, this is particularly dangerous near the aquatic centre.	\$10,000	VicRoads and HRCC
2	38	On-Road Hazard Removal Works	Removal of identified cycling hazards on on-road bicycle lanes. Western Highway: The roundabout with O'Callaghans Parade is a "pinch point" for cyclists and a bicycle lane needs to be provided in both directions through the roundabout.	\$80,000	VicRoads and HRCC
2	39	On-Road Hazard Removal Works	Removal of identified cycling hazards on on-road bicycle lanes. Along O'Callaghans Parade and the Western Highway (Stawell Road), the bicycle lane disappears at intersections, particularly the roundabout, and a continuous bicycle lane needs to be installed.	\$10,000	VicRoads and HRCC
2	40	On-Road Hazard Removal Works	Removal of identified cycling hazards on on-road bicycle lanes. Western Highway: At the corner of the Western Highway and Williams Road, the kerb return on the highway protrudes out into the marked bicycle lane. The bicycle lane needs to be continued through the intersection with Williams Road.	\$20,000	VicRoads and HRCC
2	41	Natimuk – On-Road Training Route	Complete a small stone size reseal on the Arapiles Summit Road to cover and reduce the need for further crack sealing on the pavement.	5km*6.0m, \$210,000	HRCC
2	42	Horsham West – Hillary St	Widen the Hillary St footpath from the Wimmera Hwy to the Horsham West School on the east side.	460m, \$50,000	HRCC
2	43	Route Signage	Install advisory boards at key locations and bicycle cross roads, numbered trail markers and distance markers together with required directional signage along each route.	\$30,000	HRCC
2	44	Wimmera River Trail	Install distance markers along the trails, ensuring that the marker faces the oncoming cyclist.	\$3,000	HRCC
2	45	Natimuk – Arapiles Bicycle Trail	Identify the entire trail with trail markers, signage and bollards. <i>Note: This work is currently being undertaken.</i>	\$25,000	HRCC
2	46	Horsham W – McIntyre St	Line-mark the approach to Churchill Rd intersection to provide 2.8m traffic lanes and bicycle lanes.	\$8,000	HRCC
2	47	Wartook	Construct an 'olive oil' bicycle route.	\$TBA	HRCC
2	48	Wartook	Construct a bicycle track to link Rosebrook at Wartook with Zumsteins in the Grampians National Park, utilising the historic back track, the original pioneer road to the McKenzie Falls in the Grampians.	\$TBA	HRCC
2	49	End of Trip Facilities	Provide lockable bicycle parking facilities for staff at the municipal offices.	\$30,000	HRCC
2	50	En-Route Facilities	Install additional water fountains at key destinations along cycle routes. Desirable locations include: Natimuk; Mt Arapiles; Quantong; Wartook; Haven Rec Res; Green Lake; Weir Park and Sawyer Park etc.	\$25,000	HRCC
2	51	En-Route Facilities	Install water fountains at regular intervals (approximately 2km intervals) along high use recreational paths and provide water taps at reasonable intervals on longer paths (approximately 5km intervals).	\$100,000	HRCC

Priority	Action	Location	Description	Estimated Cost	Funding
<b>3</b>			<b>Construction of Linking Paths and On-Road Facilities to Complete Existing Networks</b>		
3	52	Riverside – Henty Highway	Construct a bicycle track on the east side of the Henty Hwy between Riverside Rd and Perry Drive.	2.5km, \$200,000	HRCC
3	53	Horsham West – Wimmera Highway	Construct a new section of off-road bicycle path between the Wimmera Highway and the service road to link the existing path at Hillary Street to with the off-road path at Bennett Road.	490m, \$70,000	HRCC
3	54	Haven – Old Hamilton Road	Extend and seal the track from Schier Drive to Mackies Road;	385m, \$55,000	HRCC
3	55	Western Highway	Construct a 2.0m off road bicycle path along the south side from the Henty Hwy to the Caravan Park.	1630m, \$232,000	HRCC
3	56	Riverside – Wimmera River	Construct a short section of bicycle track from the Wimmera River to Macbain St, along McBryde St.	65m, \$9,000	HRCC
3	57	On Road Training Circuits	Complete bicycle lanes treatments at identified Priority 1 intersections, i.e. Western Highway and O’Callaghan Parade; Wimmera Highway and Darlot Street; Western Highway and Henty Highway. Refer to Appendix J for a map of priority intersections that require bicycle lane treatments.	\$115,000	VicRoads and HRCC
3	58	North of Wimmera River, East of Western Highway	Construct a bicycle path along Baillie Street from the Wimmera River path to the Lutheran School and 298 Primary School.	660m, \$94,000	HRCC
3	59	Haven - Henty Highway	Off Road Track - Link the path to proposed paths in channel reserves.	4900m, \$245,000	HRCC
3	60	South of Wimmera River	Construct a bicycle path from Kenny Rd to the river via the unnamed road.	1.4km, \$199,000	HRCC
3	61	Haven – Kenny Road	Kenny Road: Construct a new bicycle track along Kenny Road between the Government Road / Wetlands Track to the Wimmera River Weir and Golf Course Road.	480m, \$68,000	HRCC
3	62	Haven – Kenny Road	Kenny Road: Construct a bicycle path from Golf Course Road to Kenny Road via the channel easement to link with the proposed track through the wetlands area and the unnamed road;	385m, \$55,000	HRCC
3	63	Haven – Grahams Bridge Road and Osborne Road	Construct a new bicycle track along Osborne Rd to link Grahams Bridge Rd and Old Hamilton Rd;	630m, \$90,000	HRCC
3	64	Haven – Grahams Bridge Road and Osborne Road	Construct a new bicycle track along Grahams Bridge Road between Kokoda Drive and Holes Rd.	140m, \$20,000	HRCC
3	65	Haven – Grahams Bridge Road and Osborne Road	Construct a new bicycle track along Grahams Bridge Road between Osborne Rd and Kokoda Dr.	355m, \$50,000	HRCC
3	66	Southbank –West of the Western Hwy	Wimmera River: Extend the concrete bicycle path along the south side of the river from near McCombe Court to the weir.	1.8km, \$256,000	HRCC
3	67	Wimmera River, West of the Western Highway	Construct a pedestrian / cyclist bridge across the Wimmera River to the west of the weir to provide another crossing point and allow cyclists to complete a loop on the river tracks.	75m, \$TBA	HRCC
3	68	Southbank & Wimmera River	Construct a pedestrian / cyclist bridge across the Wimmera River at either (or both): – Bennett Road extension to link with a walking path to Major Mitchell Drive (200m); and/or – Wotonga Drive to link with Burnett Street (175m).	\$TBA	HRCC
3	69	Riverside – Kalkee Road	• Install bicycle symbols on the existing bicycle lane between Lynott Street and Rasmussen Road and linemark the bicycle lanes through the intersections.	\$12,000	HRCC
3	70	Riverside – Kalkee Road	• Re-linemark the section of Kalkee Road between Searle Street and Lynott Street with clear dedicated traffic and bicycle lanes and turning lanes in both directions.	\$12,000	HRCC
3	71	Green Lake Bicycle Trail	Construct an off road bicycle trail from Green Lake service road to Taylors Rd / Wartook Rd.	510m, \$72,500	HRCC
3	72	Green Lake Bicycle Trail	Request VicRoads to construct a crossing of the highway from the Green Lake service road to the recreational reserve.	\$10,000	HRCC / VicRoads

Priority	Action	Location	Description	Estimated Cost	Funding
<b>4</b>			<b>Construction of New Paths and Facilities to meet Existing User Demands</b>		
4	73	North of Wimmera River, East of Western Hwy	Wimmera River: Construct a new bicycle track along the north side of the Wimmera River between Riverside Road and Baille Street to provide a safe route for children to cycle to school.	2400m, \$340,000	HRCC
4	74	Haven – Plozzas Road / Hunts Road / Holes Road and Mackies Road	Construct a bicycle track along Hunts Rd from the Old Hamilton Rd path to the Henty Hwy path;	865m, \$123,000	HRCC
4	75	Haven – Plozzas Road / Hunts Road / Holes Road and Mackies Road	Construct a bicycle track along Mackies Rd to link Old Hamilton Rd and Grahams Bridge Rd.	630m, \$90,000	HRCC
4	76	Haven – Plozzas Road / Hunts Road / Holes Road and Mackies Road	Construct a bicycle track along Holes Rd easement from Old Hamilton Rd to Grahams Bridge Rd;	630m, \$90,000	HRCC
4	77	Natimuk – Bicycle Hire	Provide, or encourage a local business to provide bicycle hire facilities in Natimuk to attract ‘adventure cyclist’s’ and provide another activity for rock climbers that visit Natimuk.	\$10,000	HRCC
4	78	Natimuk – Arapiles Bicycle Trail	Request VicRoads to reseal sections of Natimuk Frances with a size 7 reseal.	3.7km, \$165,000	VicRoads
4	79	Natimuk – Arapiles Bicycle Trail	Construct a new section of bicycle trail from Lake Avenue to Wyn Wyn Road. <i>Note: Some sections between Natimuk Lake and Mt Arapiles currently under construction.</i>	1940m, \$275,000	HRCC
4	80	Natimuk – Arapiles Bicycle Trail	Construct a new section of bicycle trail from Wyn Wyn Road to Red Gum Swamp Road. <i>Note: Some sections between Natimuk Lake and Mt Arapiles currently under construction.</i>	3384m, \$480,000	HRCC
4	81	Natimuk – Arapiles Bicycle Trail	Construct a bicycle trail from Red Gum Swamp Rd / Black Swamp Rd to Arapiles School Rd. <i>Note: Some sections between Natimuk Lake and Mt Arapiles currently under construction.</i>	1895m, \$270,000	HRCC
4	82	Baker Street	Modify the intersection of Madden Street and Firebrace Street to provide for bicycle lanes.	\$40,000	HRCC
<b>Total</b>				\$4,776,500	HRCC
<b>Estimated Cost</b> (excluding uncostered items and allowing 1 cost per annum for ongoing funding requirements)				\$372,000	VicRoads
				\$10,000	Roadsafe

## 6.2 Medium Term Actions

The recommended actions to be implemented in the medium term (5 to 10 years) are detailed in Table 6.2.

**Table 6.2 Bicycle Route Strategy – Recommended Medium Term Actions**

Priority Level	Action	Location	Description	Estimated Cost	Funding Sources
<b>1</b>			<b>Actions to Address Safety Concerns</b>		
1	83	Communication	In conjunction with community groups, publish and distribute maps of key local cycling routes.	\$10,000	HRCC
<b>2</b>			<b>Upgrading or Maintenance of Existing Infrastructure to Meet Development / Capacity Requirements</b>		
2	84	Communication	Create a Council cycling webpage as a one-stop shop for cycling in Horsham for residents, schools and employees with links to Bicycle Victoria and VicRoads.	\$15,000	HRCC
2	85	Communication and Signage	Install larger information boards and maps at key tourist points, railway and bus stations and the university to advertise the immediate cycling environment to potential users.	\$45,000	HRCC
2	86	Marketing	Arrange local cycling events to encourage cyclist participation. The events may range from shorter recreation orientated cycling days on river trails to ride-a-thons and longer challenge rides.	\$6,000 /annum	HRCC
2	87	Horsham to Natimuk – Recreational Facility	Provide advisory signage and encourage use of O'Brees Road until a long distance recreational bicycle path is constructed between Horsham and Natimuk.	\$5,000	HRCC
2	88	On-Road Training Circuits	Complete bicycle lanes treatments at identified Priority 2 intersections, i.e. O'Callaghans Parade intersections, Darlot Street interections; Firebrace Street intersections; Western Highway /Henty Highway and Golf Course Road. Refer to Appendix J for a map of priority intersections.	\$230,000	HRCC
2	89	Southbank – Western Highway	Widen the Western Hwy Wimmera River bridges to create a wider shared pedestrian and off road bicycle paths across the river with safety barrier between the highway traffic and the paths;	\$TBA	VicRoads
2	90	Horsham N – Wawunna Rd	Undertake landscaping and improve the railway underpass entrance for cyclists .	\$30,000	HRCC
2	91	End of Trip Facilities	Provide additional lockable bicycle parking facilities in the central business district.	\$30,000	HRCC
2	92	En-Route Facilities	Ensure that there are emergency telephones available at key locations along the cycling routes. Desirable locations include: Natimuk Township; the foot of Mt Arapiles; Quantong Township; Wartook picnic area; Haven Recreational Reserve; Green Lake Rec Reserve; Weir Park and Sawyer Park etc.	\$80,000	HRCC
<b>3</b>			<b>Construction of Linking Paths and On-Road Facilities to Complete Existing Networks</b>		
3	93	Haven – Channel Easements	Channel Easements: Construct a new bicycle track along the channel easement between the Henty Highway and Old Hamilton Road, adjacent the Recreation Reserve and School.	1475m \$210,000	HRCC
3	94	Bicycle Training Facility	Bicycle Training Facility: Construct a network of paths around the Horsham Skate Park to cater for young children to practice their bike riding.	1000m \$150,000	HRCC
3	95	Baillie Street	West of the Western Hwy, seal the shoulder on the south side, to provide adequate pavement width for on-road bicycle lanes in both directions between Churchill Rd and Darlot St.	1260m, \$180,000	HRCC
3	96	Baillie Street	Robinson Street Intersection: Provide kerb returns to reduce the pedestrian crossing distance.	\$80,000	HRCC



Priority	Action	Location	Description	Estimated Cost	Funding
3	97	Horsham West – Drummond Street	Drummond Street: Provide on-road bicycle lanes between the Wimmera Highway and the river and widen the footpath on the west side of the street to provide a shared off road path.	615m \$65,000	HRCC
3	98	Horsham West – Churchill Road	Churchill Road: Provide improved intersection control at the intersecting streets onto Churchill Road to slow traffic and improve amenity for pedestrians. (10 Intersections)	\$500,000	HRCC
3	99	Riverside – Peppertree L	Peppertree Lane: Construct a bicycle track along Peppertree Lane from the Henty Hwy to Trinity Drive.	1385m, \$197,000	HRCC
3	100	North side of Wimmera River.	Extend the existing River Trail on the north side of the Wimmera River from the weir to join the bicycle track at the extension of Curran Road and then approximately 500m further to a river crossing.	1085m \$155,000	HRCC
3	101	Horsham North – Edith St	Construct and linemark a shared path for cyclists and pedestrians to cross the railway line.	100m, \$20,000	HRCC
3	102	Horsham North – Edith St	Redesign the intersection of Albert St and Edith Street to improve cyclist movements.	100m, \$20,000	HRCC
3	103	Bicycle Hire Facilities	Bicycle Hire: Provide a bicycle hire scheme, similar to Melbourne's Bicycle Hire, complete with bicycle parking facilities and nearby helmet hire locations.	\$40,000	HRCC
3	104	Wimmera River	Construct a pedestrian/cyclist bridge across the Wimmera River from Hamilton St to the walking track.	145m, \$TBA	HRCC
3	105	Wartook – Recreational Bicycle Trails	Construct a bicycle route along Rosebrook Rd, Schmidts Rd and Old Adelaide Rd to create a loop around Wartook State Forest. Repair damaged sections of the tracks and provide a suitable surface.	\$TBA	HRCC
3	106	End of Trip Facilities	Encourage all schools in Horsham municipality to provide adequate, covered and lockable bicycle facilities for staff and students of the school.	–	Schools
3	107	End of Trip Facilities	Provide additional lockable bicycle parking facilities at recreational destinations.	\$75,000	HRCC
3	108	End of Trip Facilities	Encourage the Wimmera Health Care Group to provide covered, lockable bicycle parking facilities for staff at the hospital and other large offices.	–	WHCG
3	109	Horsham West – Wimmera Highway	Wimmera Highway: Seal and line-mark the northern side (eastbound) shoulder of the carriageway between Curran Road and Park Drive to a width of 2.0m, and provide advisory signage.	2260m \$350,000	VicRoads
3	110	Baillie Street	Install a raised median with pedestrian crossings between McPherson St and O'Connor St.	1230m, \$675,000	VicRoads
<b>4</b>			<b>Construction of New Paths and Facilities to meet Existing User Demands</b>		
4	111	Natimuk – Arapiles Bicycle Trail	Construct a bicycle trail from Arapiles Grass Flat Rd to Three Chain Rd via Mitre Lake; <i>Note: Under construction</i>	3700m, \$525,000	HRCC
4	112	Natimuk – Arapiles Bicycle Trail <i>Note: Under construction</i>	Construct a section of bicycle trail from Three Chain Road, along the edge of Mt Arapiles Tooen State Park to join the existing trail at the intersection of Centenary park Road and Arapiles Lane. <i>Note: Under construction</i>	4330m, \$615,000	HRCC
4	113	Riverside - Henty Highway	Henty Highway: Construct a new off road bicycle track to the north east to provide access to the motorcross and go-cart tracks, River Heights Road to Aerodrome Road.	1320m, \$188,000	HRCC
4	114	Haven – Grahams Bridge Rd	Construct a bicycle track along Grahams Bridge Road between Holes Road and Mackies Road;	1645m, \$234,000	HRCC
4	115	Haven – Grahams Bridge Rd	Construct a new bicycle track along Grahams Bridge Rd between Osborne Rd and Kokoda Drive;	\$370m, \$52,500	HRCC
4	116	Haven – Plozzas Rd/Hunts Rd/Holes Rd/Mackies Rd.	Plozzas Road / Hunts Road / Holes Road and Mackies Road: Construct a new bicycle track along Plozzas Road to link the Henty Highway path to the Golf Course Road path.	1845m \$262,000	HRCC
4	117	Haven – Old Hamilton Road	Further extend and seal the track from Mackies Road to Clynes Road;	1615m, \$230,000	HRCC
4	118	Haven – Old Hamilton Road	Link the path to proposed to paths in channel reserves to link to the Haven Reserve.	\$10,000	HRCC
4	119	Haven – Henty Highway	Off Road Track: Consider the installation of a levelled section adjacent the track for horse use.	\$TBA	HRCC

Priority	Action	Location	Description	Estimated Cost	Funding
4	120	Haven – Golf Course Road	Extend the off road track to Wards Rd to link residential areas to the school and Recreation Res;	785m, \$111,500	HRCC
4	121	Haven – Golf Course Road	Link the path to proposed paths in channel reserves.	\$TBA	HRCC
4	122	Haven – Golf Course Road	Consider installation of a levelled section adjacent the track for use by horses;	\$TBA	HRCC
4	123	South side of Wimmera River	Continue the bicycle path on the south side of the river from the weir to the west to McKenzie Creek and then south along McKenzie Creek to join with Wards Road and the track to the Henty Highway.	6550m \$930,000	HRCC
4	124	South side of Wimmera River & Riverside	Construct a bicycle path on the south side of the Wimmera River between the existing bicycle paths to the east of Burnt Creek One and Riverside Road, to provide a loop for recreational cyclists.	4125m \$585,000	HRCC
4	125	Green Lake Bicycle Trail – Western Highway	Western Highway: Construct a new section of bicycle trail on the north side of the Western Highway from Mackies Road to Green Lake service road, including crossings of the highway.	3185m \$450,000	HRCC
4	126	Wartook – Mountain Biking	Construct a single lane mountain bike racing track in the Wartook area that is approximately 5km in length and could be utilised by walkers at other times.	5000m \$350,000	HRCC
4	127	BMX Track	BMX Track: Investigate the feasibility of a BMX track for Horsham.	—	HRCC
4	128	Horsham to Natimuk – On Road Bicycle Facility	Wimmera Highway: Request VicRoads to provide 2.5m width sealed shoulders on the Wimmera Highway between Curran Road and Natimuk to provide an on-road bicycle facility between the towns.	20km \$4.5M	VicRoads
<b>Total Estimated Cost</b> (excluding uncoded items and allowing 1 cost per annum for ongoing funding requirements)				\$6,686,000 \$5,525,000	HRCC VicRoads

Note1 : To review the recommended actions to be implemented in the long term (greater than 10 years), refer to the detailed Strategy for Bicycle Paths.

Note 2: Completion of the proposed actions is anticipated to be over a number of years, and will require significant funding from Horsham Rural City Council's budget. It is estimated that completion of the Short Term, Priority 1 Actions, i.e. addressing immediate safety concerns, will cost approximately \$308,000, with a further \$1,416,000 to complete the Short Term, Priority 2 Actions. It is desirable that the existing network be 'fit-for-purpose' before there is construction of linking paths and on-road facilities to complete the existing networks.

## 6 Conclusion

This report details an updated bicycle route strategy for the Rural City of Horsham to assist with future planning of infrastructure. The Strategy has been prepared following an inspection of the existing bicycle track conditions and from discussions with key stakeholders. This strategy analyses the concerns raised and recommends future projects to address deficient sites.

Following is a summary of the investigation.

- Horsham, a busy regional centre provides all the facilities needed of a regional centre and all within a 3km radius from the city centre. The topography is relatively flat, the climate is predictable and warm and the short distances between facilities make Horsham a great place to walk and a perfect place to cycle.
- A need for improved walking and cycling infrastructure was identified as a strategic priority by the community in HRCC Health and Wellbeing Plan 2010-2013 as part of their vision for Horsham.
- Demographic analysis indicated that:
  - ▶ 1,974 school children live in the urban area of the Rural City of Horsham;
  - ▶ 526 (7.3%) households within Horsham do not own a car, and 2290 (32%) own one car; and
  - ▶ the bulk of the Horsham population lives within 5 km of their place of work, yet only 174 individuals (2.7% of the total 6461 people that travel to work) cycle to work, with a further 390 (6.0%) individuals walking to work.
- Vehicular traffic volumes have been summarised to identify roads where separate bicycle paths are recommended in lieu of on-road bicycle facilities.
- Incentives for improving safety on Horsham's cycle routes are considerable, for in addition to reducing the number and severity of crashes relating to cyclists, a safer cycle network will also encourage more people to cycle and will enhance the public perception of cycling.
- Planned development for the city of Horsham varies from further business development in the central business district and along the Western Highway to farming on the north, west and east sides of Horsham and residential growth predominantly to the south of Horsham.
- Key recommendations of the strategy include:
  - ⇒ Undertake greater monitoring of the bicycle path network;
  - ⇒ Increase maintenance of the existing bicycle network to remove hazards, provide surfaces fit for use, and improve delineation and signage;
  - ⇒ Remove hazards on the on-road network and provide improved bicycle lane facilities at intersections;
  - ⇒ Construct short sections of off-road bicycle path to link sections of the existing bicycle network and provide safe routes between residential areas and schools;
  - ⇒ Provide 'end of trip' and en-route facilities to encourage participation;
  - ⇒ Improve advisory and directional signage and bicycle route information;
  - ⇒ Invest in social marketing to improve safety and increase cycling participation.
  - ⇒ Expand the off-road bicycle path network, particularly: along the river, to Riverside and Doon, at Haven, to Quantong and to Green Lake.
  - ⇒ Provide cycling facilities for the outlying towns of the municipality, in particular Natimuk and Wartook.

