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Frankston Bicycle Strategy Frankston City Council

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Glossary

Bicycle facility	A public facility especially constructed for bicycle traffic, which can refer to any part of a bicycle route, bicycle path, bicycle lane, associated signage or parking equipment
Bicycle lane	A marked lane or part of a marked lane, that is designated by a bicycle lane sign
Bicycle route	Any marked route which forms part of a bicycle network, which may utilise different types of bicycle facilities and may be on-road or off-road
CAD	Central Activities District
DCP	Developer Contribution Plan
Footpath	An area open to the public that is designated for, or has as one of its main uses, use by pedestrians
LAAP	Local Area Access Program
LMA	Linking Melbourne Authority, formerly known as the Southern and Eastern Integrated Transport Authority (SEITA)
MTN	Metropolitan Trail Network
Off-road	A bicycle path or shared path that is located on public or private land that is not generally open to motor vehicle traffic
On-road	A bicycle facility that forms part of the road, such as a bicycle lane
PBN	Principal Bicycle Network
Road	An area that is open to or used by the public and is developed for, or has as one of its main uses, the driving or riding of motor vehicles
Shared path	An area open to the public that is designated for use by both bicycle riders and pedestrians
Shared trails	An area open to the public that is designated for use by bicycles, equestrians and pedestrians
Transition	A facility which makes it possible to travel between an on-road bicycle lane and a bicycle path or other off-road facility
Urban Growth Boundary	A planning tool to manage the growth of Melbourne it contains the growth of urban areas
VTP	Victorian Transport Plan

Some definitions adapted from RTA NSW Bicycle Guidelines

Executive summary

The Frankston Bicycle Strategy identifies a number of initiatives to improve cycling facilities and safety and encourage more cycling across Frankston City.

In developing this Strategy, due consideration was given to improving cycling safety and linking communities and facilities, as well the needs of all types of cyclists, regardless of their age, experience or reason for cycling.

Consultation

Extensive community and stakeholder consultation, including school surveys, a BikeScope Survey and community workshops were undertaken to assist in developing the recommendations within this Strategy. Further to this, fieldwork in the form of bicycle rides were undertaken across Frankston City's bicycle network.

Strategic input

The role of cycling within the community from a health, environmental and sustainability perspective is recognised within a number of Frankston City Council and State Government policies and strategies, including:

- Environmental Strategy, 1998
- Recreational Strategy, 2009 – 2014
- Health and Wellbeing Plan, 2007 – 2011
- Victorian Transport Plan, 2009

In addition, as central Frankston is one of six CADs identified within Melbourne @ 5 million, it will have a greater focus on sustainable modes of transport and in turn provides Council an opportunity to improve cycling facilities within and to the CAD.

Most importantly Peninsula Link will include a high quality north-south inland shared path along the roadway length within Frankston City. This significant investment in cycling within Frankston provides Council a unique opportunity and a platform to build upon across the City.

Crash statistics

In undertaking this strategy, due consideration was given to recorded injury road crashes involving cyclists across Frankston City. This highlighted a high proportion of crashes:

- Occurring along Nepean Highway, especially along the section of the road within Frankston Central West, highlighting a need to implement measures along this road length.
- Involving school-aged cyclists, with many of these are occurring as a result of cycling along the footpath on local streets. This highlights the need for improved education measures and for more bicycle facilities in residential areas.

Existing bicycle network

As part of this strategy, routes have been broken down into two types of routes: *Primary routes* and *Secondary routes*. Primary routes are those that provide important links both within Frankston City and also to neighbouring municipalities. On the other hand, secondary routes will provide a more local bicycle network and will act as feeders to arterial bicycle routes.

There is currently 12.8km and 30.7km of completed primary on-road and off road paths and 1.6km and 9.8km of secondary on-road and off-road paths within Frankston City respectively.

Bicycle routes also form a part of the Principal Bicycle Network (PBN) and Metropolitan Trail Network (MTN), for which VicRoads and Parks Victoria are responsible for implementing.

At present, there are three key routes within Frankston City that also link to bicycle networks in neighbouring municipalities.

Bay Trail (off road)

The Northern section of the Bay Trail consists of the *Seaford Wetlands Path* from McKennize Street to Eel Race Road. The north section connects to Kingston City and continues north along the Edithvale Seaford Wetland and then onto Beach Road.

There is a gap in trail from McKennize Road in Seaford to Mile Bridge, Frankston.

The southern section of the Bay Trail commences at Allawah Aveune along Kananook Creek and Frankston Waterfront until it reaches the destination of Frankston Pier. At this point the trail heads inland to link with the Baxter Trail, however the connection between the Waterfront and the Baxter Trail needs to be improved. The Baxter Trail then runs along the Stony Point Railway line to the Mornington Peninsula Shire.

The *Nepean Highway* provides an on-road link from Frankston South to Mornington Peninsula, which in turn it provides an on-road route to many of Mornington Peninsula's seaside towns along Point Nepean Road (e.g. Rosebud and Rye). To the north along Nepean Highway there are vital sections missing at Oilvers Hill west side and both ways through the CAD and Seaford.

The *Frankston – Cranbourne Road* on-road link was recently installed by VicRoads as part of the Cranbourne Road upgrade and connects Frankston City to Casey; however the path is partially disjointed at McMahons Road and does not provide a connection to/from Frankston CAD from Fletcher Road.

Proposed bicycle network

This report has identified a number of routes that should be implemented across Frankston City. The primary routes were assessed against various categories and have identified improvements along the following routes to be of the highest priorities:

On-Road:

- Nepean Highway – Provision of paths along both sides of the road for the entire length (within Frankston City)
- Seaford Road / Ballarto Road - Provision of paths along both sides of the road for the entire length
- Dandenong Road / Dandenong Frankston Road – Provision of paths along both sides of the road for the entire length (within Frankston City)
- Cranbourne Road / Cranbourne Frankston Road – Completion of a key missing link and connections into Frankston CAD

Off-Road:

- Bay Trail (including linking existing Seaford Wetlands and Frankston - Baxter Trails) – a complete off road link connecting with Kingston to the north, through Frankston CAD and foreshore and with Mornington Peninsula to the south
- Dandenong-Frankston Trail – Provision of facilities from Frankston CAD along Dandenong Road / Dandenong Frankston Road (within Frankston City)
- Skye Trail – Provides a path between Kananook Creek and McClelland Dr along Overport Rd and Skye Rd
- Cranbourne Frankston Trail – Completion of missing links between Frankston CAD and Casey along Cranbourne Road / Cranbourne Frankston Road

It is important to note that many of the proposed routes include the completion of many of the missing links in Frankston City bicycle network.

In addition, a number of secondary routes have been identified throughout Frankston City.

Maintenance and renewal

- In managing the sections of the network for which Council is the authority, it is recommended that Council:
- Undertake an inspection of all facilities for which Council is responsible for annually
- Develop a process by which defects can be reported and recorded
- Develop assessment criteria in relation to potential risks with types and levels of defects
- Implement a bicycle facilities maintenance and renewal schedule

Other Initiatives and recommendations included in this Strategy include:

- Direction on standards, cross sections and materials that could be used in developing bicycle paths
- Promoting cycling:
 - Designating a Sustainable Transport Officer and implementing a Bicycle Marketing Plan
 - Encourage schools to participate in Ride2School
 - Develop and maintain a bicycle facilities map of Frankston City
 - Implement a directional signage system for both on-road and off-road bicycle routes
- Improving safety:
 - Support the BikeEd program at local schools
 - Implement the Safe Routes to School program at local schools
 - Provide lighting of off-road paths where warranted
- Planning
 - Use planning scheme provisions to ensure new developments incorporate appropriate facilities for cyclists
 - Encouraging Green Travel Plans
 - Developer contributions

Funding

Bicycle Victoria has compiled a Bicycle Expenditure Index, known as BiXE, to compare per capita spending on bicycle facilities by local government authorities across Victoria. The latest version of the index that has been compiled is BiXE 2008, which is based on the analysis of data for the 2008-09 financial year shows Frankston City's per capita spending on bicycle facilities (\$3.11) falls well below the average figure for outer metropolitan councils. This amount is also less than the \$5 per resident that Bicycle Victoria advocates as a 'fair and responsible threshold for local government expenditure on bike riding infrastructure'.

As summarised in the table below, the cost of implementing all the paths recommended in this Strategy equates to approximately \$40 million.

This equates to a significant investment, which may be partly attributed to the fact that a comprehensive network has been recommended, but also due to the fact that minimal investment has appeared to be put into bicycle paths since the 1997 Frankston Bicycle Strategy was developed.

Whilst Council is not the only authority responsible for implementing the recommended paths, this would require a considerable increase in expenditure by Council to fulfil many of the recommended improvements and to take advantage of the opportunities provided through the Peninsula Link shared path and the Frankston CAD improvements.

		Length (km)	Cost \$ million
Primary	On-road	65.5	10.5
	Off-road	39.4	9.4
Secondary	On-road	47.5	3.6
	Off-road	80.2	16.4
Total		232.6	39.9

It is also important to point out that the State Government provides approximately \$25 million a year of funding to bicycle schemes through various programs and agencies.

Program	Agency	Estimated Funding
VicRoads Bicycle and Pedestrian Program.	VicRoads	\$10 million
Bicycle Projects as part of Major Road Projects.	VicRoads	\$5 million
TravelSmart and Local Area Access Program.	DoT	\$4 million
Metropolitan Trail Network	Parks Victoria	\$3 million
Provincial Pathways Program.	Regional Development Victoria	\$2 million
Active Transport for Cycling and Walking to Schools.	VicHealth and Department of Victorian Communities	\$1 million
	Total	\$25 million

Other potential funding sources and programs are also identified in the Strategy.

1. Introduction

There are a number of economic, health, social and environmental benefits to cycling and accordingly the popularity of cycling is continually increasing. In order to facilitate this growing demand into the future and to encourage people to enjoy these benefits, Frankston City Council appointed Aurecon Australia Pty Ltd to develop the Frankston Bicycle Strategy.

In developing this Strategy, due consideration was given to improving cycling safety and linking communities and facilities, as well the needs of all types of cyclists, regardless of their age, experience or reason for cycling.

In developing the Frankston Bicycle Strategy, Council has undertaken extensive community and stakeholder consultation, including school surveys, a BikeScope Survey (undertaken by Bicycle Victoria) and community workshops. Further to this, in order to obtain first-hand experience of the existing conditions for cyclists within Frankston City, fieldwork in the form of bicycle rides was undertaken. In total, this consisted of approximately 100km of cycling over three days.

A key consideration of this strategy is the proposed Peninsula Link, which will include a pedestrian and walking path along the Freeway and therefore provide a key north-south route through Frankston City.

The Frankston Bicycle Strategy has been able to identify a number of potential on-road and off-road paths and improvements to existing paths and includes a maintenance schedule.

In addition, this Bicycle Strategy has identified a number of bicycle initiatives in three main areas; promoting cycling, improving safety and end-of-trip facilities.

The recommendations that this report has made are summarised in Table 1.1 below.

In order to implement these improvements and initiatives, this Bicycle Strategy has identified numerous funding sources (in particular State Government Agencies) for which Frankston City Council can apply for funding.

Whilst Frankston City Council has produced this Bicycle Strategy, the success of the Strategy is dependent on the support of the local community, businesses and Government in implementing the recommendations and initiatives it sets out.

Table 1.1 Summary of recommendations

Proposed bicycle network Section 6	Maintenance and renewal Section 7	Initiatives Sections 8 to 11
<ul style="list-style-type: none"> • Provision of various bicycle facilities, including: <ul style="list-style-type: none"> • Primary on-road routes • Primary off-road routes • Secondary on-road routes • Secondary off-road routes 	<ul style="list-style-type: none"> • Implementation of a bicycle facility maintenance program, including: <ul style="list-style-type: none"> • Monitoring • Bicycle facilities auditing • User defect reporting • Assessment and prioritisation • A regular maintenance schedule • Implementation of a bicycle facility renewal program 	<ul style="list-style-type: none"> • End of trip facilities: <ul style="list-style-type: none"> • Provide bicycle racks at retail locations • Encourage provision of bicycle enclosures and lockers at major destinations • Encourage employers to provide shower facilities for cyclists • Use planning scheme provisions to ensure new developments incorporate appropriate facilities for cyclists • Promoting cycling: <ul style="list-style-type: none"> • Designating a Sustainable Transport Officer and implementing a Bicycle Marketing Plan • Leveraging bicycle events to promote cycling within Frankston City • Encourage schools to participate in Ride2School • Investigate feasibility of providing bicycle racks on buses • Develop and maintain a bicycle facilities map of Frankston City • Implement a directional signage system for both on-road and off-road bicycle routes • Investigate the feasibility of a public bike hire scheme • Encourage organisations to undertake Green Travel Plans • Improving safety: <ul style="list-style-type: none"> • Support the BikeEd program at local schools • Implement the Safe Routes to School program at local schools • Implement a local campaign to complement proposed state-wide ‘Look out for cyclists’ campaign • Provide lighting of off-road paths where warranted • Implement system of emergency reference markers on off-road routes isolated from roads

2. Strategic inputs

A number of studies and policies have been undertaken by the State Government and Frankston City Council, which highlight the strategic importance of cycling, cycling facilities and the Frankston Bicycle Strategy moving forward. The chart contained in Figure 2.1 shows the hierarchy of these documents. The documents most relevant to the present strategy are discussed further in the sections below.

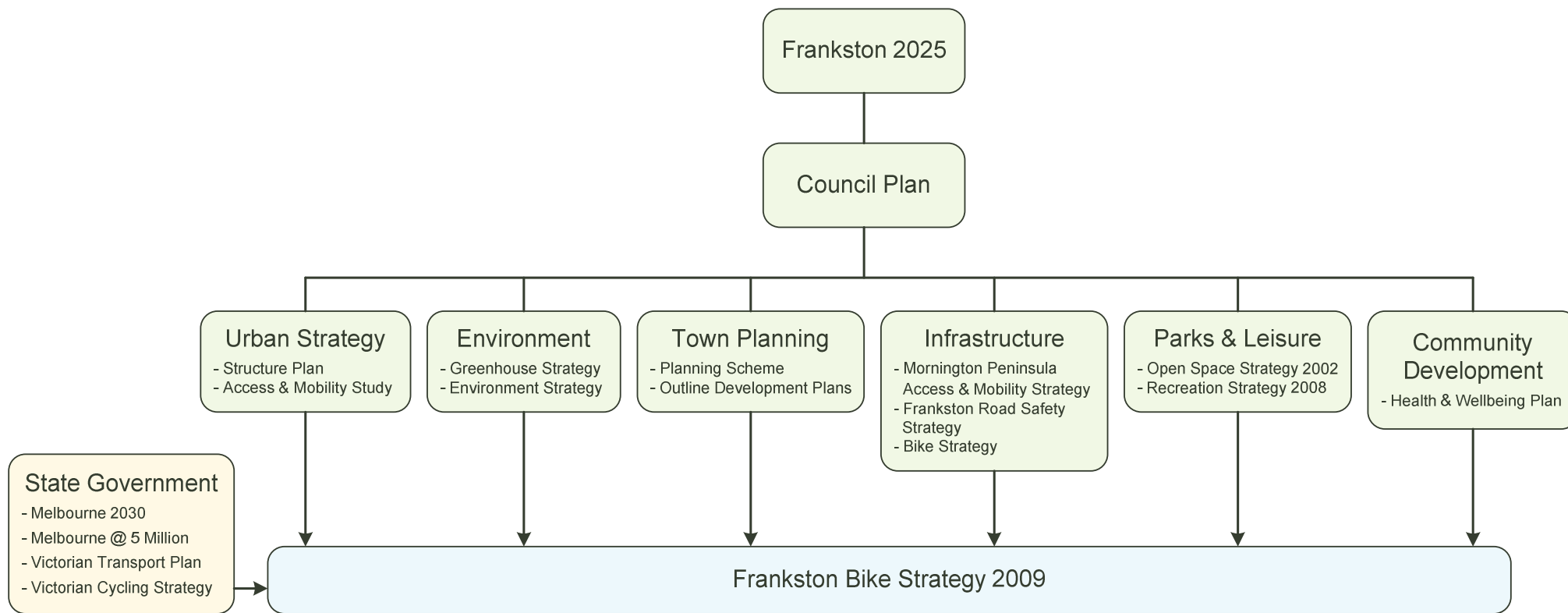


Figure 2.1 Frankston Bicycle Strategy document hierarchy

2.1 Local government documents

Documents and strategies produced by Frankston City Council are summarised below:

Frankston Bicycle Strategy, Sinclair Knight Merz 1997

This document, produced more than a decade ago, is the previous bicycle strategy undertaken for Frankston City. The strategy contained a list of 40 recommended bicycle projects. Each project was assigned a priority for implementation, on a three-level scale.

However, an analysis of this list has shown that only around about one-third of the projects have been implemented, some of them only partially. Furthermore, many of the projects that were designated at the highest priority level have not been realised.

Frankston 2025, Frankston City Council 2008

Frankston 2025 expresses the community's shared vision for the future of Frankston City. It is the result of a community-wide visioning process and its purpose is to inform and guide both Council and community decision-making. Frankston 2025 outlines nine themes that embody this vision. In particular, three of these themes are directly applicable to cycling.

Theme 4, 'Active and healthy', envisions a community where people are active and healthy. One way this may be achieved is if cycling is popular, which would be helped by safe and attractive paths connecting suburbs and taking advantage of the City's natural assets.

Theme 8, 'Well planned, well built and well maintained', imagines a Frankston City that is attractive, efficient and accessible. As part of this, it is hoped that dependence on cars will be reduced and that cycling will form a part of an integrated transport system. In addition, car access will be limited in the city centre, with cycling a preferred method of transport.

Theme 9, 'Clean and green' aims to reduce the environmental impacts of activities within the City. Increased cycling is one means of helping to achieve this goal.

Frankston City Council Plan 2008 – 2012, Frankston City Council 2008

This document is Council's four year plan, covering the period from 2008 until 2012. It contains specific strategies that aim to support the vision for the future as outlined in Frankston 2025. Six strategic objectives are identified in this plan and indicators to monitor the progress towards achieving these. Under each strategic objective key strategies are outlined, along with initiatives under each strategy.

Strategic objectives number 3, 'Active and healthy community with a vibrant culture' and 4, 'Well planned, well built and well maintained', relate to cycling. In particular, the following are directly relevant to cycling.

- key strategy 3.2, 'Provide opportunities that encourage people to engage in active and passive recreation';
- initiative 3.2.2, 'Collaborate with local sporting and recreational groups and associations to promote access and utilisation of Council's facilities, open space and reserves, including Linear Open Space Trails (tracks following a physical feature such as waterways and foreshore)';
- key strategy 4.4, 'Integrate transport planning by providing safe and functional pedestrian, bicycle and vehicle networks'; and
- initiative 4.4.2, 'Review and implement the Bicycle Strategy'

Mornington Peninsula Access and Mobility Study (Transport Plan), Booz Allen Hamilton 2006

The primary objective of this report is to develop an integrated transport plan that meets access and mobility needs of Frankston City Council and Mornington Peninsula Shire areas over the next 25

years. It was identified that walking and cycling are transport options for over 80% of the population and have numerous health, economic and environmental benefits. As a social inclusion initiative, it was proposed that local walking and cycling strategies and networks be developed and be better maintained, as well as developing long distance pedestrian and cyclist trails. It was also identified that to improve cyclist safety and management of visitor peaks, action must be taken to influence cyclists' on road route choices and to develop a regional on road bicycle strategy.

Recreation Strategy 2009 – 2014, Frankston City Council 2009

This document addresses the broad scope of recreation provision defined as physical activity that is undertaken in the public realm for a personal sense of enjoyment. Within the report, cycling was identified as a form of recreation. It recognised a need for a new bicycle / trail strategy within Frankston City Council, which provides a real alternative to car transit, develops the tourism potential of off road trails, makes the arterial roads more cyclist friendly and assists everyday cyclists. It was identified that a bicycle connection between foreshore activities was needed, with a continuous trail from Oliver's Hill to Keast Park. It also proposed that that a way-finding and interpretive signage plan be implemented that integrates with the natural and heritage qualities of the foreshore.

City of Frankston – Frankston Road Safety Strategy, Ove Arup & Partners 2001

This report was developed as part of a state wide attack on road safety concerns with emphasis on vulnerable road users including pedestrians, cyclists, motorcyclists, the young and the old. It identified and recommended the following:

- Update and implement the recommendations in the Frankston Bicycle Strategy (1997) to ensure an efficient and coordinated network
- Encourage community access of cyclist education programs to increase awareness of road safety issues
- Communicate and cooperate with bicycle groups
- Raise community awareness regarding road rules and etiquette which relate to cyclists to increase awareness.

Environmental Strategy 1998

The Environmental Frankston City Council's key strategic document to guide planning decisions and operational processes towards environmental sustainability. The strategy has been prepared in the context of global, national and local policies. The environmental vision for the municipality is; *"Frankston City will be a place where Council and the community have worked in partnership to achieve sustainability"*

The Environmental Strategy has been developed around the following key themes:

- *Resource Conservation* (including waste minimisation, water and energy conservation)
- *Land and Catchment Management* (including pest plants and animals, fire prevention, sustainable land and water management)
- *Biological Diversity* (including indigenous plants and animals on private and public land)
- *Cultural Heritage* (including sites, places and objects of Aboriginal and Non-Aboriginal significance)
- *Urban Environment* (including litter, pollution, transport, companion animals, sustainable residential and industrial development)

The Urban Environment key theme aims to create sustainable development which offers a high quality living environment for residents of Frankston City. In order to achieve this the strategy outlines the following actions:

- Continue to implement the Regional Open Space Plan, including the construction of the Port Phillip Bay Trail.
- Implement Frankston's Bicycle Strategy.
- Promote bicycle use throughout the municipality by providing information and details on the bike path network as designated in the Bicycle Strategy.

Greenhouse Strategy 1999

The Frankston City's Greenhouse Strategy provides a framework for action to reduce greenhouse gas emissions. Greenhouse gas build-up threatens global and local climate change.

The Greenhouse Strategy is to be an evolving strategy, taking into account emerging and developing technologies and the strengthening of greenhouse science and projections.

In June 1999 Frankston City set an ambitious target of reducing community emissions by 20 % below the 1995 level and corporate emissions by 25% below the 1995 levels by 2010.

In order to achieve these targets the strategy outlines 9 objectives, with the following objective relating to cycling:

“to modify the urban form and transport system to reduce travel demand, to promote the use of transport alternatives”

Based on this objective and to assist with achieving the greenhouse targets the strategy recommends the following reduction measures to help reduce energy use:

- The implementation of a Frankston Bicycle Strategy
- Promote bicycle use throughout the municipality by providing information and details on bike path networks as designated in the Bike Strategy

Health and Wellbeing Plan 2007-2011

The long-term vision of the Health and Wellbeing Plan is of Frankston City as a healthy, vibrant and resilient community in which the wellbeing of all citizens is supported and sustained by ensuring that everyone has the opportunity to develop to their full potential. The three health and wellbeing priorities are:

1. Improving mental health and wellbeing
2. Promoting food security and healthy eating
3. Promoting physical activity

Promoting Physical Activity recommended improvements to the walkability of local neighborhoods to ensure that adequate infrastructure for active transport and active recreation is planned into new developments and retro-fitting projects in Frankston City by:

- Implementing Healthy by Design guidelines in the local planning scheme and into infrastructure projects
- Review and implement Footpath strategy
- Review and implement Bike Paths Strategy

Frankston City Open Space Strategy, Robin Crocker and Associates 2002

This Strategy identifies ways of improving open space and better meeting the leisure needs of the community. The study covers areas ranging from the foreshore and bush land to local and district parks, playgrounds, recreation reserve and undeveloped open space.

A vision was developed for a popular and leafy network of open space, building on the natural, landscape and leisure values of the City's foreshore, parks, reserves and waterways.

A series of seven goals and 36 strategies were developed to achieve a high quality open space system for Frankston. Goal 4 of the strategy was to *“Develop a shared pathway network”*. The five actions listed in relation to this Goal were:

1. Progressively design, construct and maintain priority off road shared bicycle/walking paths, including extensions to the Bay Trail and Boggy Creek Trail
2. Continue a policy of requiring paths with connections to facilities and major paths as part of new subdivisions

3. Establish a paths maintenance program and undertake regular maintenance and minor improvement works
4. Liaise with Vic Roads to develop an on road bicycle network
5. Promote the health and environmental benefits of cycling and safe cycling practices.

2.2 State government documents

The State Government has also produced documents relevant to this strategy, and these are discussed below.

Victorian Cycling Strategy - 2009

The Victorian Cycling Strategy was recently released by the State Government in March 2009 and builds on the cycling actions contained in the Victorian Transport Plan. It focuses on encouraging cycling as a mode of transport, and to achieve this, the strategy lists five strategic directions. These are:

- Build networks to connect communities
- Promote and encourage a culture of cycling
- Reduce conflicts and risks for cyclists
- Integrate cycling with public transport
- Integrate cycling needs with land use planning, transport planning and the built environment

Melbourne 2030

Melbourne 2030 is the State Government's strategic planning document for metropolitan Melbourne and was released in October 2002. The measures proposed under this Strategy will help to achieve some of the objectives contained in Melbourne 2030. As Frankston City is one of Melbourne's 31 municipal councils it is considered to be a part of Melbourne 2030.

The recommendations contained in this Strategy support Direction 8 of Melbourne 2030, which seeks to provide better transport links. Improving cycling facilities within the City and creating cycling routes that link key destinations will help to encourage cycling within this area. This will help to reduce the environmental impact of transport, as well as improving sustainability. Better cycling facilities will also improve transport choices within the City.

In order to comply with the Melbourne 2030 plan, certain areas within the City are required to produce a structure plan to identify shortfalls, amongst other items, in transport accessibility and linkages, i.e. bicycle strategies. Areas within Frankston City that require structure plans are the Frankston CAD.

Melbourne @ 5 Million

In December 2008 the Premier and Minister for Planning released the *Melbourne @ 5 Million* report which provides policy initiatives that are complementary to the directions of *Melbourne 2030* and builds on the achievements of the Transit Cities program. *Melbourne @ 5 million* provides policy initiatives that are complementary to the directions of *Melbourne 2030* and the two documents should be considered together.

It outlines the implications of the *Victoria in Future 2008* growth projections for Melbourne, which indicate that the city's population is likely to reach 5 million before 2030. Actively managing this growth and change is an important part of Melbourne's future liveability.

The scale of growth now anticipated in Melbourne suggests a need for six designated Principal Activity Centres to be reclassified as Central Activities Districts (CADs). The following centres, which were previously part of the Transit Cities Program, have now been designated a CAD:

- Box Hill
- Broadmeadows
- Dandenong
- Footscray

- Frankston
- Ringwood

There are a number of projects within Frankston CAD that will improve links between the railway station, town centre and the foreshore. The projects will create a public transport gateway for Frankston CAD to connect the Mornington Peninsula and Melbourne's CBD. Improvements to Kananook Creek will reconnect Frankston CAD with the bay and create a new space for shops, services and recreation. Higher-density development will also be a feature.

\$10.5 million has been spent over the past five years on:

- A Master Plan
- A new learning centre at the Chisholm Institute of TAFE
- Upgrading Wells Street
- Improvements to Kananook Creek and the foreshore

Frankston CAD was allocated an additional \$11.6 million over four years in the 2006-07 State Budget to revitalise the Kananook Creek precinct by creation of a new boardwalk and other improvements to unlock its development potential and to improve links between the railway station, the town centre, the Creek and the foreshore. DPCD is working in collaboration with Frankston City Council on these projects and construction commenced in early 2009.

2.3 Summary

Through a number of policies and strategies, Frankston City Council has recognised the role cycling plays to the community in providing:

- Numerous environmental improvements
- An alternative sustainable mode of transport
- Health benefits
- Recreation
- A good use of open space

State Government policies reaffirm the role cycling has in achieving the above improvements.

In addition, as central Frankston is one of Melbourne's six CAD's, which will have a greater focus on sustainable modes of transport, it provides Council an opportunity to expand on the infrastructure provided for Frankston CAD across Frankston City. This in turn will assist Council in achieving the numerous objectives outlined within the strategies and policies detailed above.

3. Crash analysis

3.1 Bicycle crash data

An analysis has been undertaken of recorded crashes involving bicycles taking place within Frankston City during the six calendar years between January 2002 and December 2007 inclusive.

It is important to note that CrashStats only records crashes that result in fatalities and/or injuries that have occurred on or adjacent to the road network. This means that crashes that occur in off-road locations and minor incidents are not included. The Frankston Bicycle Strategy has taken into account clusters of crashes involving cyclists and accordingly has recommended measures to address these problem areas.

It was found that 143 crashes involving cyclists occurred with the six year period examined. Of these, approximately one-third resulted in serious injuries, with the remained resulting in minor injuries. No fatal crashes involving cyclists were recorded during this period. This is shown in Figure 3.1 below.

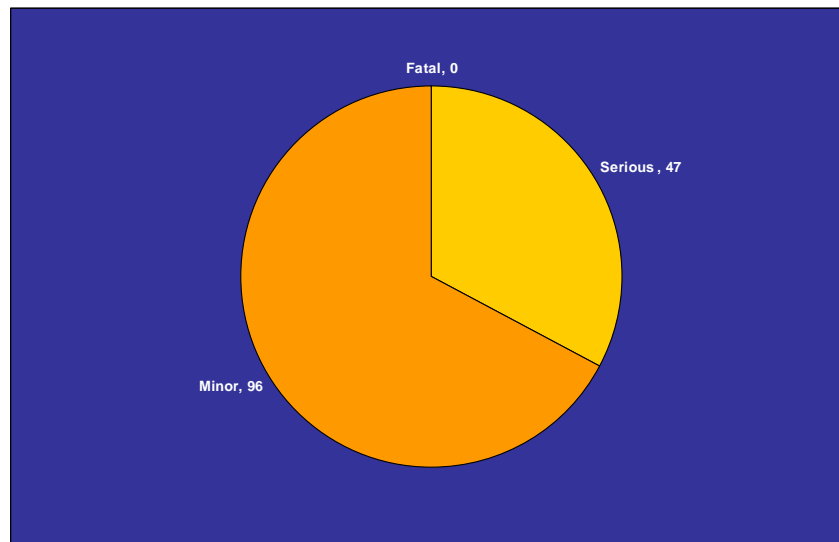


Figure 3.1 Bicycle crashes by severity

3.2 Comparison with other municipalities

The proportion of crashes involving cyclists in Frankston City is 6.4%. This proportion is lower than the figure for Metropolitan Melbourne as a whole and is also lower than the neighbouring municipalities of Kingston and Mornington Peninsula. However, it is higher than Casey and Greater Dandenong. This is summarised in Table 3.1.

Table 3.1 Crashes in Frankston City and other municipalities

Municipality	Total crashes	Bicycle crashes	% of total crashes involving bicycles
Cardinia	1,418	26	1.8%
Casey	3,510	140	4.0%
Greater Dandenong	3,577	155	4.3%
Kingston	3,067	294	9.6%
Mornington Peninsula	2,471	193	7.7%
Yarra Ranges	3,115	99	3.2%
Frankston City	2,241	143	6.4%
Metropolitan Melbourne	68,334	4,847	7.1%

3.3 Crash location

The spatial distribution of crashes involving cyclists within Frankston City was analysed to see if any patterns were apparent. The location and severity of each bicycle crash has been plotted on the maps that are attached in Appendix A.

It is evident that a high proportion of crashes (68 out of 143) occur along major cycling routes, particularly along Nepean Highway. The severity and number of crashes along major routes are summarised in Table 3.2 below.

Table 3.2 Clusters of crashes along major cycling routes

Road	Location	Length (km)	Serious crashes	Minor crashes	Comments
Nepean Highway	Seaford	5.2	4	6	Two serious crashes occurred just south of Entrance Road. Two minor crashes occurred approximately 250m south of McCulloch Avenue.
	Frankston	3.2	2	14	A high volume of crashes have occurred along this relatively short section of road. Within this section of road there are concentrations of crashes around the intersections of Overton Road (three crashes), Beach Street (two crashes) and Wells Street (two crashes).
	Frankston South	1.6	1	1	The two crashes along this section occurred in isolated locations.
Dandenong – Frankston Road	Carrum Downs	5.0	2	3	Within this section of road four crashes were located along a 1.2km long portion between Hall Road and Bogey Creek.
	Seaford	3.4	4	6	Within this section three crashes occurred in proximity to the intersection with Seaford Road.

Road	Location	Length (km)	Serious crashes	Minor crashes	Comments
Skye Road	Frankston	3.9	1	5	No crash trends are evident.
Cranbourne Road	Frankston	4.2	2	10	No crash trends are evident.
Cranbourne – Frankston Road	Langwarrin	5.9	1	1	The two crashes along this section occurred in isolated locations.
Moorooduc Highway	Frankston City	5.9	2	3	Two of these crashes occurred near the intersection of Goldborough Court.

Clusters of crashes also occurred along some of the minor roads within Frankston City. The severity and number of crashes along major routes are summarised in Table 3.3 below. This also highlights that a high proportion of these crashes were serious.

Table 3.3 Clusters of crashes along minor roads

Road	Location	Length (km)	Serious crashes	Minor crashes	Comments
Young Street	Frankston	1.0	0	4	Three of these crashes occurred within a 200m section between Wells Street and Playne Street.
Dandenong Road East	Frankston	1.4	2	1	All three crashes are concentrated within a 180m section between the intersections of Colin Avenue and Cricklewood Avenue.
Excelsior Drive	Frankston North	0.9	2	2	Two out of four crashes were serious.
Around Northgateway and Noel Road (cluster)	Langwarrin	0.5 (radius)	3	1	Three out of these four crashes involved young cyclists aged between 11 and 13 inclusive. A high proportion of these crashes (three out of four) were classified as serious.

3.4 Crash types

Figure 3.2 below summarises the bicycle crashes by VicRoads 'Definitions for Classifying Accidents' (DCA). It is evident that the most common type of crash involves motorised vehicles emerging from driveways striking cyclists. The second most common is a vehicle travelling from a footway striking a vehicle on the carriageway. In most cases, this arises when a cyclist leaving the footpath is struck by a motorised vehicle travelling along the carriageway. The third and fourth most common types of crash involve a vehicle striking a cyclist from behind and sideswiping a cyclist respectively.

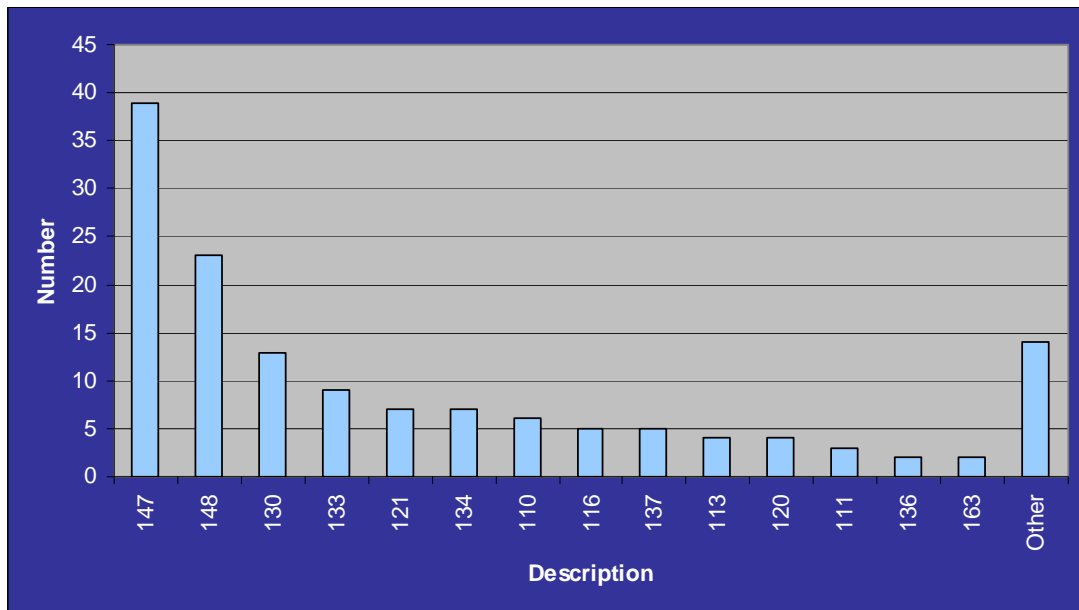


Figure 3.2 Number of crashes by type (DCA)

Key:	147	Vehicle strikes another vehicle while emerging from driveway
	148	Vehicle off footpath strikes vehicle on carriageway
	130	Rear end (vehicles in same lane)
	133	Lane side swipe (vehicles in parallel lanes)
	121	Right through
	134	Lane change right (not overtaking)
	110	Cross traffic (intersections only)
	116	Left near (intersections only)
	137	Left turn sideswipe
	113	Right near (intersections only)
	120	Head on (not overtaking)
	111	Right far (intersections only)
	136	Right turn sideswipe
	163	Vehicle strikes door of parked/stationary vehicle

Closer examination of the two most common crash classifications indicates that younger cyclists are overrepresented in these crash types. School-aged cyclists (aged 5 to 17 inclusive) were involved in 58% and 78% of crashes with DCA 147 and 148 respectively.

This is significantly higher than the average of 38% of cyclists involved in all types of crashes who are school-aged. This is likely to be because younger cyclists are more likely to ride along footpaths due to their young age and also may be less aware of other vehicles.

3.5 Crash characteristics

Weather and light conditions

Around 80% of crashes occurred during the day and about 90% of crashes occurred in dry conditions. This indicates that weather and light conditions are not significant in causing crashes involving cyclists in Frankston City.

Crash type and location

As shown in Figure 3.3, approximately half of the crashes occurred at an intersection, with the other half occurring at midblock locations.

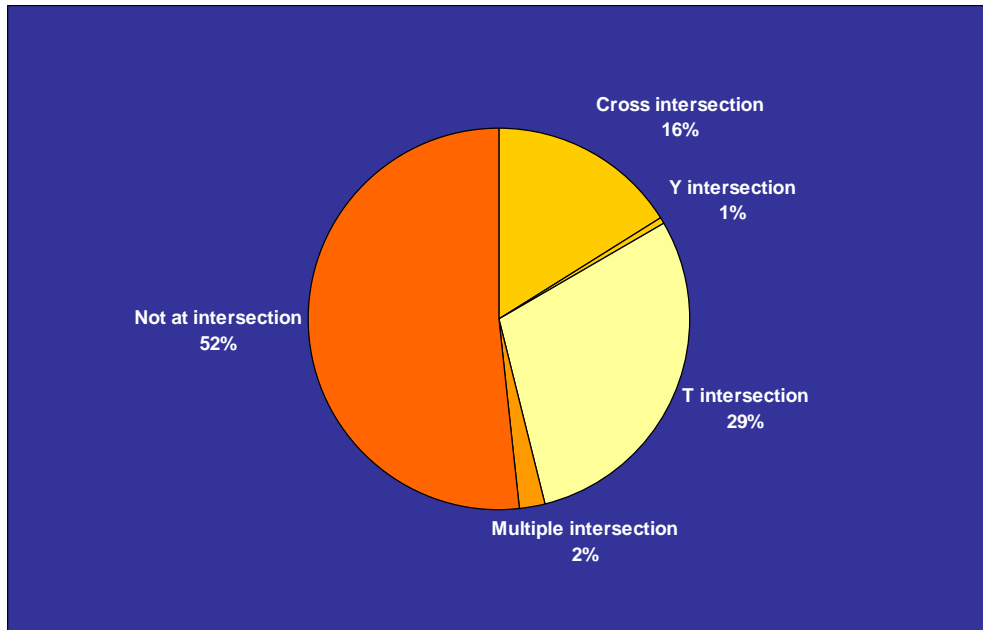


Figure 3.3 Bicycle crashes by type of location

Age of cyclists involved in crashes

The age of cyclists involved in crashes is shown in Figure 3.4 below. Of note is that over one in three cyclists involved in crashes were school-aged cyclists (aged between 5 and 17 inclusive). In addition, it can be seen in Figure 3.4 below that cyclists aged 13-15 years who are involved in crashes are particularly prone to sustaining serious injuries.

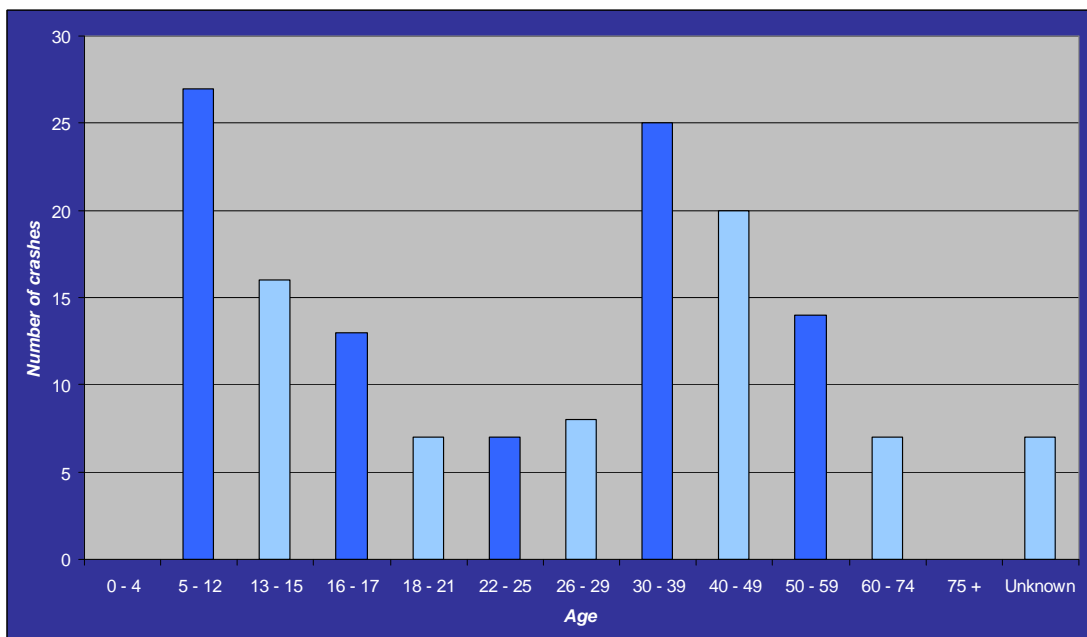


Figure 3.4 Number of cyclists involved in crashes by age

Other Trends

Other Trends identified as part of the CrashStats analysis includes:

- Almost all (97.2%) crashes involved a cyclist colliding with a vehicle
- Over 80% of cyclists involved in crashes were male, with fewer than 20% being female
- Whilst more crashes occur on Wednesdays and Thursdays, there was no obvious trends with respect to the day of the week crashes occur

- There appears to be less crashes occurring during the winter (June to August) than in other months. However, a low percentage of crashes also occur in January.
- Many crashes are occurring during the traditional peak traffic periods, in particular between 08:00 and 09:00; and between 15:00 and 18:00
- In terms of the speed zone that the crashes occurred in, the largest proportion (approximately 40%) occurred in 50km/h zones. A further 30% occurred in 60km/h zones, with almost all of the remainder occurring on higher speed roads.

In addition, as shown in Figure 3.5, whilst there was a significant decline in crashes involving cyclists in 2004 and 2005, the number of crashes increased again in 2006 and 2007.

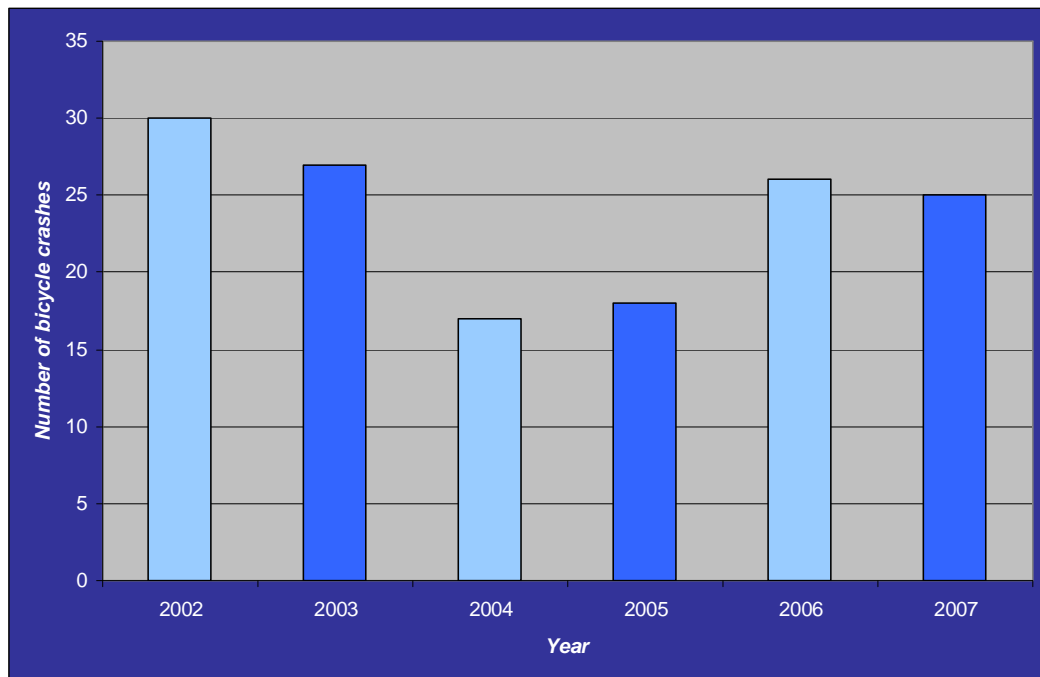


Figure 3.5 Bicycle crashes by calendar year

3.6 Summary

This section identified a number of areas which have a cluster of crashes involving cyclists within Frankston City. In particular, there is a high concentration of crashes occurring along Nepean Highway, especially along the section of the road within Frankston Central West. Accordingly, the strategy includes initiatives to address these safety concerns.

In addition, it has been noted that a high proportion (over one in three) of bicycle crashes involve school-aged cyclists and that many of these are occurring as a result of cycling along the footpath on local streets.

This would suggest that measures to educate school children on cycle safety should be increased. However, such measures may not necessarily be limited to children.

Apart from educating school children in cycle safety, Council should build awareness in the community of where cyclists are likely to be encountered and review existing road treatments and signage near schools to improve pedestrian and cyclist safety.

This also highlights the desire for children to ride off-road and that bicycle safety could improve considerably, should more off road bicycle facilities and secondary routes in residential areas be made available. Such facilities however would need good links between them and to other bicycle paths and lanes to return the maximum safety benefits.

4. Existing bicycle network

4.1 Local government spending

Bicycle Victoria has compiled a Bicycle Expenditure Index, known as BiXE, to compare per capita spending on bicycle facilities by local government authorities across Victoria. The latest version of the index that has been compiled is BiXE 2008, which is based on the analysis of data for the 2008-09 financial year.

As can be seen in Figure 4.1 below, Frankston City's per capita spending on bicycle facilities (\$3.11) falls well below the average figure for outer metropolitan councils. This amount is also less than the \$5 per resident that Bicycle Victoria advocates as a 'fair and responsible threshold for local government expenditure on bike riding infrastructure'.

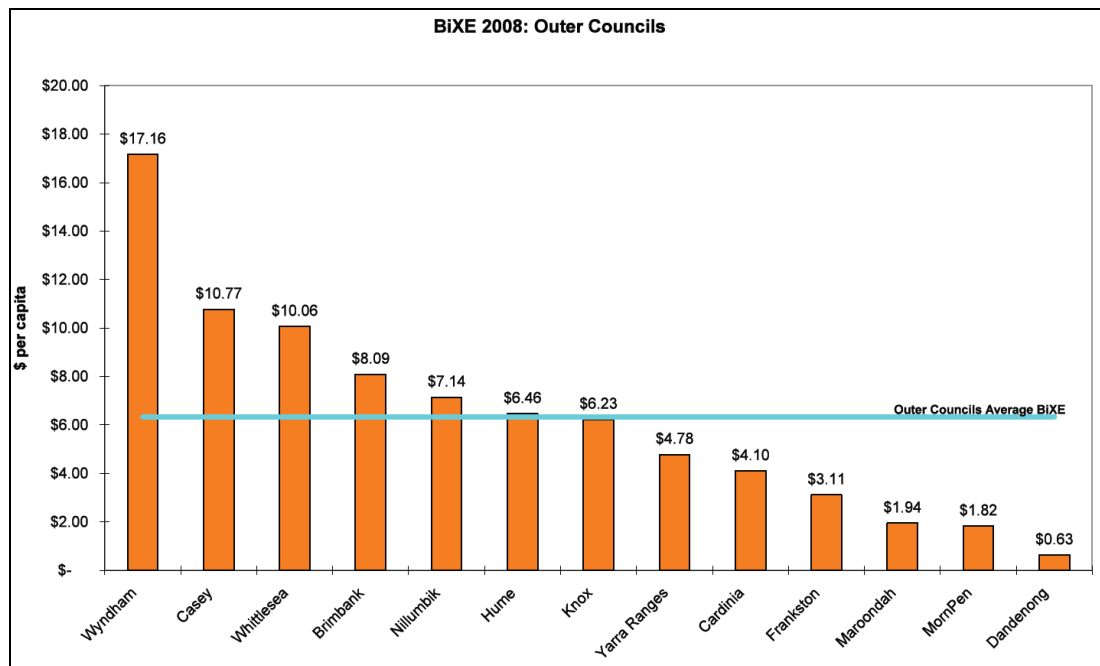


Figure 4.1 BiXE 2008 for outer metropolitan councils

Source: Bicycle Victoria, BiXE 2008: The Bicycle Expenditure Index

4.2 Route typology

As part of this strategy, routes have been broken down into two types of routes: *Primary routes* and *Secondary routes*. Primary routes are those that provide important links both within Frankston City and also to neighbouring municipalities. On the other hand, secondary routes will provide a more local bicycle network and will act as feeders to arterial bicycle routes.

There is currently 12.8km and 30.7km of completed primary on-road and off road paths and 1.6km and 9.8km of secondary on-road and off-road paths within Frankston City respectively.

Bicycle routes may also form a part of the Principal Bicycle Network (PBN) and Metropolitan Trail Network (MTN).

Figure 4.2 provides a summary of existing routes within Frankston City.

4.3 Principal Bicycle Network (PBN)

Certain bicycle routes, both existing and proposed, are part of the Melbourne-wide Principal Bicycle Network (PBN). These routes are arterial cycling routes and are predominantly on-road. VicRoads has

primary responsibility for the development of this network, which is then implemented either by VicRoads or local councils. This has implications for funding of proposed routes, which is discussed further in Section 11.2.1.

It is important to note that Vic Roads are currently updating the PBN and it is recommended that Frankston City Council consult with Vic Roads to ensure the PBN reflects the proposed routes outlined in this strategy. Additionally Central Activities District catchment zones should not exclude established neighbourhoods such as Carrum Downs.

4.4 Metropolitan Trail Network (MTN)

The Metropolitan Trail Network (MTN) is a network of recreational bicycle routes in metropolitan Melbourne, largely consisting of off-road shared pedestrian bicycle paths. Parks Victoria has the primary responsibility for coordinating the development of the MTN. VicRoads and local councils may implement MTN projects belonging to them.

While the primary function of the MTN is to provide for recreational cycling, there are a number of routes that are popular with commuter cyclists as well. These routes can serve an arterial cycling function for less confident riders. The MTN is also integrated with the Principal Bicycle Network. The majority of routes on the MTN are off-road, but there are a number of short sections of on-road routes that link sections of off-road paths.

Figure 4.3 provides a summary of the PBN and MTN, as provided by VicRoads. Noting that measures have been implemented since this map was produced, as such it may not fully reflect existing conditions.

4.5 Regional links

At present, there are four existing links between the bicycle network within Frankston City and bicycle networks in neighbouring municipalities.

Seaford Wetlands

At the northern end, this shared path in the Seaford Wetlands, continues across the Eel Race Drain into Kingston City. This route then continues north to Patterson River, which then connects to the Eastlink Trail. This provides an off-road bicycle route to points further north, including Greater Dandenong, Monash and Knox.

Bay Trail (includes the Baxter trail)

As detailed in this report, through the implementation of various connections (particularly along the foreshore), this could also link up along the Stony Point Railway line to Mornington Peninsula.

Whilst there are currently limited cycling facilities in Mornington Peninsula linking to this route, the Mornington Peninsula Bicycle Strategy includes a recommendation to extend to link this trail to Somerville and onto Balnarring.

Nepean Highway

The Nepean Highway provides an on road link from Frankston South to Mornington Peninsula, which in turn it provides an on-road route to many of Mornington Peninsula's seaside towns along Point Nepean Road (e.g. Rosebud and Rye).

As detailed in this report, Olliver's Hill is a barrier for cyclists, particularly north bound and the lack of on road facilities along the full length of Frankston forms a physical constraint as well as a road safety issue.

Frankston – Cranbourne Road

This on-road lane was recently installed by VicRoads as part of the Cranbourne Road upgrade and connects Frankston City to Casey, however there are two sections of the trail that need to be improved:

- Cranbourne Road / McMahons Road intersection does not cater for cyclists on the approach to the intersection
- The path ends at Cranbourne Road / Fletcher Road intersection and as such does not connect with Frankston Station or Frankston CAD