Bicycle Transport Infrastructure Development –time for change

Submission to Infrastructure Australia
March 2010

bicyclenetwork
more people cycling more often

BICYCLE TRANSPORT INFRASTRUCTURE DEVELOPMENT -
TIME FOR CHANGE

SUBMISSION TO INFRASTRUCTURE AUSTRALIA

March 2010

c/o Bicycle Victoria
Level 10, 446 Collins St, Melbourne
(03) 8636 88

PREAMBLE

Bike riding is experiencing unprecedented growth in Australia. Once viewed by policy makers as a fringe activity, bike riding is now recognised as an important part of an integrated response to the transport challenges facing our urban centres. To this end the Bicycle Network welcomes the substantial investment in bike riding infrastructure by the Federal, state and local governments including:

- $40 million Federal Government funding as part of the National Stimulus Package
- $115 million for bicycle facilities, along with the commitment to incorporate bike riding infrastructure into road and rail investment, as a matter or course - Victorian Cycling Strategy 2009
- $158 million over 10 years for cycling facilities as part of the NSW Government Metropolitan Transport Plan: Connecting the City of Cities
- The Mayor of Sydney's commitment to spend $76m over four years to develop bicycle routes
- The Mayor of Brisbane 's 2008 commitment to spend $100m on cycleways over four years
- In Brisbane bicycle facilities are part of the Go Between Bridge and Gateway Bridge projects as well as included in the projects that are part of the State's Road Action Plan

The Bicycle Network recognises that bike riding is still an emerging policy area for Governments; however bike riding infrastructure like other infrastructure classes should be part of the broader long term planning approach fostered by Infrastructure Australia. Critically, although bike riding infrastructure is primarily delivered at state and local level, the top down alignment of policy, planning and investment is essential if the benefits of bike riding are to be optimised.

In this submission, the Bicycle Network has identified four areas for action by Australian Governments consistent with Infrastructure Australia's approach.

1 National Framework for Planning and Investment in Bike Riding Infrastructure:

There is currently no nationally agreed framework to guide planning and investment in bike riding infrastructure. Similar to the road system, bike riding infrastructure should be planned and developed on the basis of current and future functional requirements.

The Bicycle Network proposes a three category structure based around:

- Relevant Networks – based on urban land use especially activity centres and public transport nodes
- High volume Routes – rated by destination, connection and separation
- End of trip facilities – especially secure parking

Each of these categories would be defined by an objective set of criteria which reflect its function. This would ensure that there is a clear strategy for investment in bike riding infrastructure, which is underpinned by an understanding of the requirements

of transport riders. Critically this would give Governments the necessary confidence to invest in cycling infrastructure.

The Bicycle Network recommends that this framework form part of the capital cities strategic planning criteria agreed to by COAG in December 2009.

2 Bike Riding Infrastructure as Part of Road/Rail Funding

New major road and rail investment should incorporate bike riding infrastructure where appropriate. The Victorian Government has adopted this approach for a number of major urban road programs and road projects such as Eastlink and the Frankston by-pass. This commitment is reflected in the recent Victorian Cycling Strategy. This approach should be implemented nationally, and indeed be part of the requirements for Federal funding.

Decisions regarding which projects should incorporate bike riding infrastructure would be guided by the *National Framework for Planning and Investment in Bike Riding Infrastructure* recommended above thus ensuring that this infrastructure would be 'fit for purpose' and only built where required. This is essential to ensure that infrastructure is built in areas of greatest need and to ensure that limited resources are not wasted on low value investments as measured in terms of increased transport trips by bicycle.

3 Supporting Regulatory Reforms

Building regulations and parking space levies are complementary to infrastructure investment and can fundamentally influence the bike riding environment. For example, some states require new and change-of-use buildings to install bicycle parking.

Parking space levies also have a role in encouraging rider numbers, not only through the increased expense associated with parking but also through initiatives such as providing exemptions to developers who trade off car parking in return for increased bike parking.

Currently, these measures are implemented in an ad hoc way across Australia. The Bicycle Network believes a nationally uniform approach is required.

4 Build the Evidence Base

If cycling infrastructure is to be considered part of the mainstream transport mix, then it is essential that a sound body of evidence be developed to support investment decisions. The Bicycle Network appreciates that Governments have limited budgets and therefore, they must be confident that investment in bike riding infrastructure will achieve the desired objectives.

In this context, further work should be undertaken on developing benefit/cost methodology for cycling infrastructure. Further, all new bike riding infrastructure should have electronic counters installed as part of the construction process to enable on-going evaluation of infrastructure investments. This evidence can then inform future decisions.

INTRODUCTION TO THE BICYCLE NETWORK

The Bicycle Network was established in 2008 as an incorporated entity. The Bicycle Network leverages the skills and experience of state rider-based organisations to advance bike riding nationally. The Bicycle Network has over 40,000 members nationally, and operates as a self-funded, not-for-profit organisation, with an annual turnover of over $10 million employing over 50 staff.

The rider-based Bicycle Network's purpose is: ***More People Cycling More Often***. To this end, activities are focused across four areas:

- Facilitating development of bike riding infrastructure;
- Increasing rider numbers through social marketing;
- Developing and promoting policy and legislative frameworks to support bike riding; and
- Program evaluation and data collection to build the evidence base to support these activities.

Over the last 15 years, the Bicycle Network has achieved considerable success for members and the broader community through working constructively with Governments across these areas. Major achievements are outlined in **Attachment A**.

Large scale, measurable behavioural change programs have been a critical component of the Bicycle Network's work. The Ride to Work and Ride2School programs have evolved into successful national programs. Indicative of this:

- Ride to Work has over 100,000 participants annually, with 30 per cent of first time riders becoming regular riders;
- Ride2School has over 100,000 participants across more than a thousand of schools with a demonstrated shift in active transport from 20 to 50 per cent.

An over-50s program is currently being trialled.

This practical experience combined with the insights derived from regular interaction with members enables the Bicycle Network to assist Governments with pragmatic and effective initiatives that achieve key policy objectives.

WHO IS RIDING

The focus of this submission is on bike riding for transport purposes – be it commuting to work or school, trips to the local shops or train station or to visit friends. While recreational bike riding is enjoyed by many Australians, transport related bike riding will make the greatest contribution to the achievement of the Government's transport and environmental goals.

Nationally the bicycle's share of transport journeys is increasing. **Table 1** demonstrates the increase in bicycle commuting between the 2001 and 2006 census years in all capital cities.

Table 1: Journey to Work by Bicycle – by ABS Statistical District (SD)

	2001	**2006**	**% Change**
Sydney	11,131	12,132	8.99%
Melbourne	14,443	20,592	42.57%
Brisbane	7,890	8,889	12.66%
Adelaide	5,101	6,695	31.25%
Perth	6,218	7,240	16.44%
Hobart	707	886	25.32%
Darwin	1,653	1,536	-7.08%
Canberra	3,505	4,062	15.89%

Source: ABS Census 2001 and 2006

Traffic counts undertaken on popular commuter riding routes in Melbourne since the 2006 census have shown a 90 per cent increase over five years.[1]

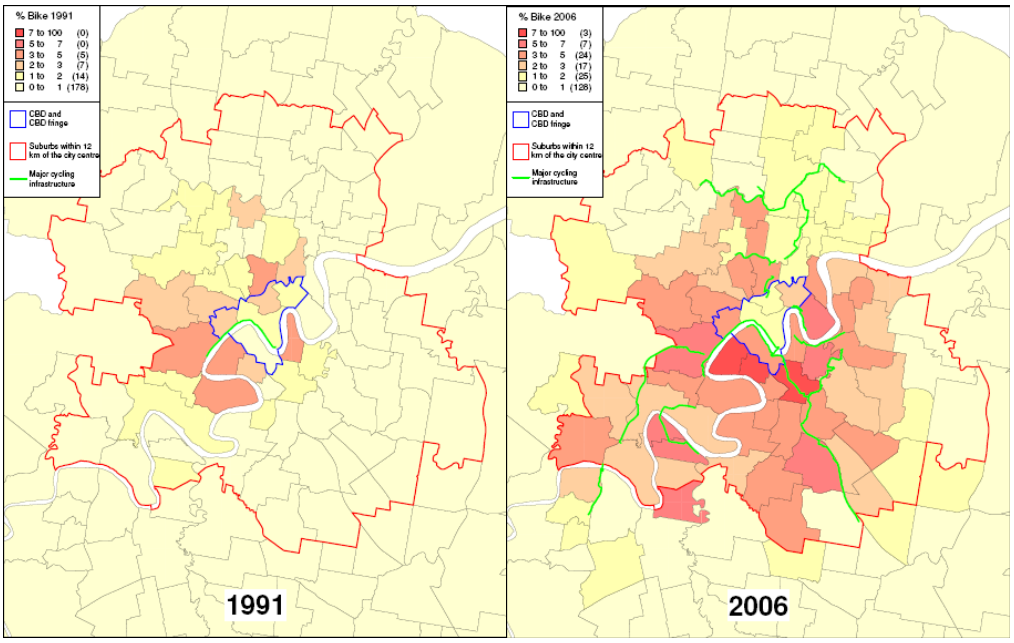
In Melbourne, the increase in bike riding has been driven by the provision of more and improved bicycle routes that provide an increasingly competitive alternative to rising road and public transport congestion. These trends are likely to continue as they are fuelled by population growth, changing inner suburb demographics (more young professionals in inner suburbs), and employment growth in the CBD. [2] Riding to public transport is growing strongly in the outer suburbs of Melbourne as those under mortgage stress seek relief from motor vehicle transport costs.

These trends are largely being replicated across the east coast capital cities. For example, **Figure 1** shows the development of bicycle infrastructure over a 15 year period in Brisbane, and the corresponding increase in bicycle riding.

[1] Bicycle Victoria undertakes "Super Tuesday" counts in March each year. Year by year results were: 2006/07 - 20%, 2007/0 8 - 20%, 2008/09 - 10%, 2009/10 - 20%

[2] State of Victoria (2009) *Victorian Cycling Strategy* p 18

Figure 1: ***Brisbane – Expansion of bike riding infrastructure and increase in riders over 15 years (1991 – 2006)***



Source: *Transport Research and Analysis Centre, Queensland Transport*

School-Age Bike Riders

There has been a substantial change in the travel patterns of school children. **Table 2** shows the modal shift that has occurred.

Table 2 Travel to school, Essendon (Melbourne) 1974 & 2005

	1974	**2005**
Walking	66	7.7
Driven by parents	28	91.3
Public transport	4	0.2
School bus	2	0.2
Bike	0	0.6

Source: Victorian Cycling Strategy p 17

The impact of this shift is reflected in the change in the volumes of motor vehicles on the roads in school holidays and during school terms. Many school drop-off trips can be replaced by walking and riding.

The Ride2School program is successfully shifting school populations away from motor vehicle based drop offs to accompanied and unaccompanied walking and

riding. Each year the program facilitates change across approximately 300 schools with a total population of around 10,000 students. Shifts to active transport (walking and riding) are from an average of between 20 per cent up to 50 per cent. All make some gains and some reduce motor vehicle trips to less than 10 per cent.

Modal shift from motor vehicles to active transport addresses not only congestion but also one of the key factors underpinning Australia's childhood obesity crisis – inactivity.

HOW BIKE RIDING SUPPORTS THE FEDERAL GOVERNMENT'S PRIORITIES

Infrastructure Australia Strategic Priorities

Bike riding directly supports the following Infrastructure Australia Strategic Priorities:

- Develop our cities;
- Reduce greenhouse emissions;
- Improve social equity and quality of life

Bike riding has a crucial role to play in the overall approach to **congestion reduction** in our major cities. Road congestion has a major impact on the productivity of Australia's major urban centres. In cost terms, the Bureau of Transport and Regional Economics (BTRE) estimated that the avoided cost of congestion of the Australian capital cities was projected to rise to $20.4 billion by 2020.[3]

In Australian cities motorised vehicles represent approximately 90 per cent of passenger transport and about 80 per cent of total transport. [4] Increased numbers of bike riders can reduce the number of vehicles on the road and crowding on public transport services. Importantly commuter bike riding can be increased significantly in inner metropolitan areas, where congestion is often greatest.

Consistent with this, in Melbourne between the 2001 and 2006 census, there were nearly 5,000 fewer car journeys to work in metropolitan Melbourne, while the proportion of journeys to work in the CBD by bicycle and walking rose from 4 to nearly 8 per cent.[5]

The **environmental** benefits of bike riding are evident. Bike riding does not produce greenhouse gases or other pollutants. Further, research shows that vehicle emissions are highest when the engine is cold thus short trips by car (less than 5 km) produce higher emissions per kilometre than longer trips.[6] Given that transport is the third largest emitter of greenhouse gases and the fastest growing emission source, bike riding can make a contribution to the emission reductions task.

Bike riding improves **social equity** through provision of a low cost form of transport. In doing so it gives mobility and independence to those without cars and when used in conjunction with other modes extends the reach of public transport thus enhancing

[3] Bureau of Transport and Regional Economics (2007) *Working Paper 71: Estimating urban traffic and congestion cost trends for Australian Cities*
[4] Infrastructure Australia (2010) *State of the Cities Report* p 54
[5] State of Victoria op cit p 18
[6] Ibid p 22

accessibility.[7] This is particularly important in the outer suburban areas where the use of public transport and bike riding has been noted to reduce the transport costs of residents.

Health

The role of regular exercise in preventative health is well documented. The National Preventative Health Taskforce's (NPHT) 2009 report *Australia: The Healthiest Country by 2020* identified increased activity levels as central to addressing Australia's obesity crisis and associated chronic illnesses.[8]

Consistent with this the Taskforce identified the following key action areas[9]:

Key Action Area 1: Drive environmental changes throughout the community that increase levels of activity and reduce sedentary behaviour

Key Action Area 3: Embed physical activity and health eating in everyday life

Key Action Area 4: Encourage people to improve their levels of physical activity and health eating through comprehensive and effective social marketing

Key Action Area 8: Support low-income communities to improve their levels of physical activity and health eating.

Key Action Area 10: Build the evidence base, monitor and evaluate the effectiveness of action

Bike riding has an important role in helping the Government, health professionals and most critically the community to realise these action areas.

The priorities identified by the NPHT are focused on embedding healthy eating and physical activity in the everyday lifestyles of Australians.[10] Bike riding is accessible to people of all ages and genders. It is appealing in that it improves cardiovascular fitness while being low impact on hips, knees and other joints. Critically, bike riding can be woven into people's everyday activities through incidental exercise such as commuting to work or school or for short local trips.

BARRIERS TO INCREASED BIKE RIDING

In developing the Victorian Cycling Strategy, the Victorian Department of Transport commissioned research to identify the barriers for current and future bike riders.[11] The findings of this research, together with the findings of the Bicycle Network's own surveys have identified several consistent barriers to increased riding. These are:

[7] Ibid p 5
[8] National Preventative Health Taskforce (2009) *Australia: the Healthiest Country by 2020* p 88
[9] Ibid p 87
[10] Ibid p 92
[11] Wallis Consulting Group (2009) *Encouraging Walking and Cycling : Focus Group Final Report*

- Infrastructure;
- End of trip facilities; and
- Attitude/Perceptions

Infrastructure

The most significant barrier is infrastructure. Given the relatively recent growth in bike riding as a transport mode, current approaches to planning and investment in bike riding infrastructure do not always support this objective.

While recreational riders enjoy scenic paths along waterways or rail trails, commuter riders require infrastructure – ideally separated from traffic - that directly links key destinations (employment centres, public transport etc) and that is complemented by end of trip facilities. It should be noted that the term "separated" in the context of bike riding infrastructure may range from simple measures such as a single white line painted on the road to identify a bike lane through to more sophisticated measures such as fully separated Copenhagen-style bike lanes.

Table 3 provides a synopsis of the infrastructure requirements of different rider types.

Table 3: Infrastructure requirements by different rider types

	Transport	**Recreation**
High Intensity	Longer faster trips especially adults riding to work. The average Australian commute is 11 km at around 25 kph. ***Metro or regional network: bike paths/bike lanes, end of trip facilities.***	Carbon fibre/high end bikes on road (Beach Road, Melbourne, Centennial Park, Sydney), mountain bike riding in the hills, challenge events, training ***Closed or quiet roads, mountain bike tracks, public velodromes***
Low intensity	Short local trips: Riding to school, station, friends and shops (15 km/h, 15 min sessions) ***Local network: bike paths, bike lanes, bike parking (sheds at schools, cages etc at train stops)***	Weekend bike path ride, trail riding on holiday, skate park tricks, one day 'family' events ***Paths along rivers and waterfronts, rail trails, skate parks***

Key infrastructure issues for transport riders include[12]:

- Gaps in bike riding networks and disconnects between off-road and on-road bike riding paths
- Difficulty accessing key destinations due to indirect routes or land uses that do not encourage bike riding
- On-road routes – inadequate separation of bike riders and vehicles as well as the design of roundabouts and railway crossings;
- Off road paths – inadequate separation of bike riders and other off-road path users, or paths too narrow for the number of users;
- Path design problems – lighting, width, steepness, blind corners and sharp turns
- Lack of connections with other modes of transport such as secure parking at railway stations.

Many of these problems stem from a lack of agreed standards and guidelines for development of bike riding infrastructure. Bicycle transport infrastructure has tended to be developed in an ad hoc way that is not linked to the broader transport or land use system, or was focused on objectives that are no longer relevant.

Critically, transport agencies are 'going it alone' in terms of infrastructure standards and guidelines. In 1993 Austroads released *Guide to Traffic Engineering Practice - Part 14 – Bicycles* (referred to as Part 14). This document provided guidelines for road authorities, engineers, planners and designers involved in the planning and construction of bike riding infrastructure. Over time, individual agencies and states have moved away from a single approach, resulting in many jurisdictions establishing their own standards. For example:

- The Victorian Government publishes CycleNotes which provides advice on planning and implementing bicycle infrastructure;
- The NSW Government published Bicycle Guidelines in 2003, which represent Part 14 material and addressed issues not covered in Part 14
- The Queensland Government has developed Interim road planning and design guidelines guidelines.

Further in some cases, key issues are not always addressed by the road authorities. For example, the Bicycle Network engaged Sinclair Knight Merz to prepare the report *Green Lights for Bikes*, which provides advice on how traffic signals may be adapted to facilitate bicycle transport.

While some of these guidelines seek to address local differences in geography, land use and road management, there is a real risk that opportunities to leverage best practice and to implement nationally the 'best of the best' are missed.

[12] State of Victoria op cit p 23

End of Trip Facilities

Complementary to infrastructure are end of trip facilities. "End of trip" may refer to both arrival at workplace/education facility (end destination) or an interim stop such as train station or ferry wharf. As such the type of facility will vary widely.

In many cases appropriate and secure parking at public transport interchanges is not provided. When it is provided it can be difficult to access or may be located where damage may be caused to bikes.

There are some excellent facilities at modal changes such as the parking cages provided by Transperth and Parkiteer - the system operated by Bicycle Network on behalf of the Victorian Government. Research by the Bicycle Network has shown that one-third of Parkiteer users live within five km of the rail station and have switched from driving to bike riding.

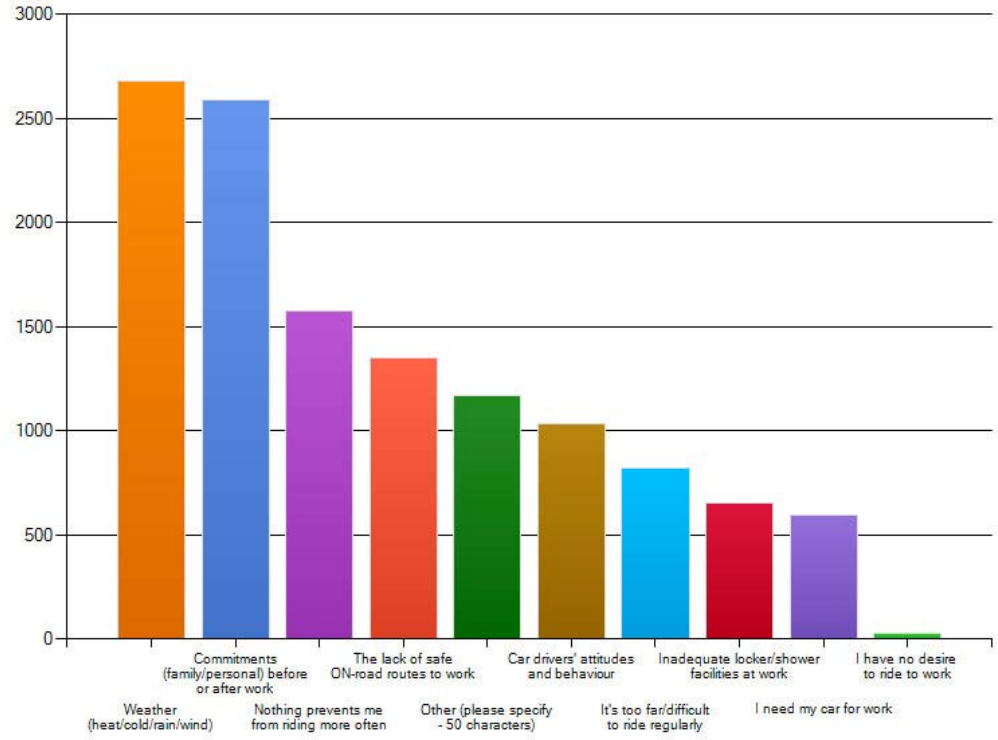
The question of workplaces facilities is more difficult. The decision to install showers and bike parking is largely one for building owners not individual workplaces. Leading organisations look for a positive rating from the Green Building Council but there is no minimum national requirement. State and local governments have differing regulations regarding bike parking and these by and large do not recognise the need for or importance of providing bike parking. As a result low cost but valuable opportunities to develop the mode share of bicycle transport are lost.

Attitude/Perceptions

These issues are highly variable and include weather, perceptions that bike riding is slow or if people have after work commitments/multi-destination trips then bike riding is viewed as a more difficult transport option.

Chart 1 shows the responses from seven thousand people who registered for National Ride to Work Day in 2009 when asked what were the main things that prevented them from riding to work more often.

Chart 1: Factors influencing the decision to regularly ride to work



Source: Bicycle Network Survey of National Ride to Work Day participants

The Bicycle Network's own research has found that these issues can be readily overcome through various social marketing/behavioural change programs. The Ride to Work Program has shown that each year around 3,000 novices who ride for the first time on Ride to Work Day in October that are still riding five months later in May.

Critically however, social marketing programs do not succeed if people do not have a safe place to ride. Accordingly, addressing infrastructure is critical if rider numbers are to increase.

School Age Children

The issues surrounding children riding to school are complex. As for adults, there is no single factor, however the key difference is the role of parents in the decision. While traffic and safety concerns ("stranger danger") are often cited, the convenience of car travel and parents' own methods of travel to work and other destinations is also important.[13] This is consistent with the evidence from the Ride2School program Parents report that weather and before or after school commitments are the main barriers. Interestingly, when children respond to surveys they say they would like the responsibility and freedom of getting themselves to school.

Many schools on National Ride to School Day can achieve close to 100 per cent active transport but fall back on 'normal' days. The active travel potential for schools

[13] Garrard, J (2009) *Active Transport: Children and Young People: An overview of recent evidence p 11*

is high given most parents live within three kilometres of their children's primary school – a very walkable and rideable distance.[14]

The concerns regarding road safety are not supported by the facts. A recent report for VicHealth found that 1.69 children die in cars for every 100,000 Australian children, with pedestrian fatalities 0.86 deaths for every 100,000[15]. Bike riding deaths were lower still. As noted by the Report's author "They are twice as likely to be killed in a car accident as they are as a pedestrian."[16]

There is no doubt that a minority of parents would be unwilling to give up motor vehicle transport to school and many would be unwilling to give up the ability to use it occasionally. For some parents given where they live and for some schools given where they are located there will be limits on the level of active travel that can be achieved. In general it can be said that most school communities (even the determined drivers) would support a strong emphasis on active transport, especially if it was supported by the development of appropriate infrastructure.

A NEW NATIONAL APPROACH TO BICYCLE TRANSPORT INFRASTRUCTURE INVESTMENT PLANNING AND INVESTMENT

The Council of Australian Governments (COAG) agreement to national criteria for capital city strategic planning systems provides an exciting opportunity for Governments to implement a more strategic approach to planning and investment in bike riding infrastructure. While bike riding infrastructure is delivered at a local level, overseas experience shows that central governments have a leadership role through provision of overall goals, design guidelines, research support, model projects, coordination and funding.[17]

The Bicycle Network recommends that bike riding infrastructure included as part of the requirements for capital city planning. However, in making this recommendation, the Bicycle Network recognises that bike riding infrastructure proposals should be subject to rigorous analysis as are other forms of infrastructure. In this context, the Bicycle Network believes four key reforms are required:

1. National Framework for Planning and Investment in Bicycle Transport Infrastructure
2. Inclusion of cycling infrastructure as part of road/rail funding
3. Supporting regulatory reforms
4. Development of an evidence base

[14] Garrard J, Crawford S, Godbold, T (2009) *Evaluation of the Ride2School Program: Final Report*
[15] Op cit p 4
[16] The Age *Schools walk the talk in the fight against childhood obesity* 28 February 2010
[17] Pucher, J & Buehler, R (2008) *Making Cycling Irresistible: Lessons from The Netherlands, Denmark and Germany* in Transport Reviews, Vol. 28, No. 4. 495 – 528, July

National Framework for Planning and Investment in Bike Riding Infrastructure

Roads are classified according to their function or the character of the service they are intended to provide. This approach recognises that no single road operates independently; rather travel involves movement through a network of roads. Decisions regarding planning and investment in the road network are based on this classification system.

The Bicycle Network recommends that all Governments adopt a similar approach for planning and investment in bike riding infrastructure. A three tier system is proposed:

- Relevant **Networks** – based on urban land use especially activity centres and public transport nodes
- High volume **Route**s – rated by destination, connection and separation
- **End of trip facilities** – especially secure parking

Category	Indicative key principles to define	Associated standards
Network	Provides access to key destinations: • 10km catchments around activity districts • 5km catchments around major public transport nodes • 3km catchments around local destinations such as schools, local shopping centres and public transport	• Relate to road management hierarchies and priority allocation for modes by time and space
Route	• Destination – the route goes somewhere useful • Connection – the route connects to other destination based routes • Delineation/Separation – The route is marked or separated so that intrusion by motor vehicles is reduced or eliminated.	• Austroads and other relevant standards • Public transport interface requirements – for example, for station upgrades
End of Trip	• Well located • Well laid out allowing bikes to be brought in an out without conflict • Effective racking on appropriate centres that supports the bicycle and allows the use of locks • Appropriate level of security	• Green Building Council ratings and planning requirements for bicycle parking • School construction and refurbishment requirements – for example, for bike parking

Implicit in this is that bike riding infrastructure is part of the broader transport and land use system. Connectivity is the key. Bike riding infrastructure must be linked to key trip generators such as employment or education centres, public transport and local shops/activity hubs.

Importantly this approach delivers 'fit for purpose' infrastructure. For example the standard of infrastructure would differ depending on traffic levels, thus mitigating concerns of "gold plated" cycling infrastructure.

Adoption of this approach provides three clear advantages for bike riders, other road users and governments:

1. Bike riders – will be better informed of the type of infrastructure and can plan trips accordingly. This certainty enhances the attractiveness of riding and therefore overall rider numbers

2. Other road users – a clearly defined bike network with the associated infrastructure (eg: designated cycle lanes, traffic calming devices etc) – improves traffic management. Motorists can make a decision to avoid those roads which give preferential treatment to bike riders, thereby improving overall traffic flows.

3. Government – better informed decision making regarding planning and investment in bike riding infrastructure. The use of objective and well defined criteria enables projects to be prioritised and limited funding to be directed to projects that deliver the greatest benefits.

The National Framework would be incorporated into the requirements under the national capital cities strategic planning criteria agreed to by COAG.

As noted earlier in this submission, much work has already been done by a range of agencies and organisations such as the Bicycle Network to develop principles and guidelines for bike riding infrastructure. What is required is for this work to be consolidated into a single document and agreed at a national level by Ministers through the Australian Transport Council. This would be undertaken in consultation with key stakeholders and a process established for regular updating to ensure the guidelines and standard remain relevant and promote innovation. To this end, the Framework as proposed should be considered in the current review of the National Cycling Strategy, which is currently underway.

Inclusion of Cycling Infrastructure as Part of Road/Rail Funding

The Bicycle Network has worked closely with the Victorian Government to ensure that new major road and rail investment projects, including upgrades and duplication, incorporates bike riding infrastructure. Examples include[18]:

- Off-road cycle paths as part of the Craigieburn, Geelong and Hallam by-passes;
- An off-road cycle path is part of Eastlink and the recently commenced Peninsula Link (Frankston by-pass);

[18] State of Victoria op cit p 11

- Off and on-road cycle paths will be included as part of the VicRoads $1.9 billion Outer Suburban Arterial Roads Program and through the $60 million Urban Roads Management Systems program.
- All new railway stations, station upgrades, car park upgrades and park and ride developments will incorporate bicycle storage. In addition, bike cages are being installed at key stations. These are being managed by Bicycle Network on behalf of the Victorian Government.
- In addition all new schools are provided with secure undercover bicycle parking.

Similar approaches are now being taken by other State Governments. For example the commitment by the Queensland Government to include bicycle infrastructure as part of the Road Action Plan and Gateway Bridge project.

Given the Federal Government's significant investment in road and passenger rail infrastructure both through the Building Australia Fund and Nation Building program, the Bicycle Network believes that bike riding infrastructure should, where appropriate, be included as part of these projects. The type of bike riding infrastructure would be based on the national framework outlined here, thus ensuring that infrastructure is 'fit for purpose' and only built where it will provide a worthwhile return.

It must be stressed that such infrastructure does not necessarily involve significant expense. Indeed, based on the three tier model, the required new infrastructure may be "filling in the gap" between two existing routes, thus delivering a significant benefit for a relatively small investment.

The transport performance of bicycle infrastructure is high. Current observations show that the most popular bicycle routes in Australia are carrying around 700 riders per hour in the morning peak, equivalent to the performance of an inner city travel lane. This level of use has been achieved by extremely cost effective measures such as line marking 'lazy space'. These measures can be enhanced with greater pavement delineation and separation. By these measures road managers can lift the throughput on existing roads by introducing an 'additional' travel lane.

Supporting Regulatory Reforms

Complementary regulatory reforms are required to facilitate increased rider numbers. As noted, parking policies and building design can fundamentally influence rider behaviour.

In 2006, the Bicycle Network successfully advocated for the development and implementation of bicycle parking regulations for new and changed use buildings in Victoria. Similar regulations are in place in the ACT and Queensland.

Parking space levies (PSL) are another regulatory reform that supports both commuter bike riding and can be used as a congestion management initiative. Further, incentives can be factored into the PSL models for buildings to reduce the number of car spaces in order to install additional bike parking.

The Bicycle Network recommends that the Planning and Local Government Ministers agree to national implementation of these rules.

More broadly, the Bicycle Network acknowledges that the Australian Future Tax System (known as the Henry Tax Review) has finalised its report to Government. It is worth reiterating the points made in the Bicycle Network's submission to that review. Specifically, that any new tax architecture that the review proposes should not encourage distortions in mode choice for private motor vehicle travel. The current system can be adjusted to improve the performance of our transport system against the longer term criteria outlined in the review's terms of reference. To this end we propose a tax concession scheme analogous to existing schemes and using existing or familiar methods that offers:

- Individuals a salary sacrifice arrangement for bicycles, parts and services.
- Companies a tax concession when installing end of trip facilities.

Development of Evidence Base

In the context of transport funding, bike riding infrastructure is a relatively new asset class and does not have a long history of benefit/cost and similar analytical studies. If Governments are to be encouraged to invest in this infrastructure, they need to be assured that limited resources will not be wasted on poorly considered proposals that do not contribute to policy objectives. Accordingly, the Bicycle Network strongly believes in developing the evidence base to support these investment decisions.

VicRoads estimates that bicycle transport can move three times as many people as can travel by car in the same road space[19]. This significant benefit can be achieved with cost effective measures such as line marking 'lazy space', with enhancements such as greater pavement delineation and separation to attract and accommodate increased rider numbers. This experience has not however been quantified or turned into a Benefit Cost Ratio that could guide high level infrastructure investment.

AECOM has attributed the following economic benefits to cycle infrastructure in Sydney:

- Means of transport;
- Health benefits;
- Environmental benefits;
- Amenity benefits;
- Reducing pressure on the road and public transport networks; and
- Providing greater accessibility particularly to marginalised individuals.

The Bicycle Network understands that the early findings from work in Sydney suggest that the benefit/cost ratios are healthy and would support targeted investment. It is essential that government agencies support the continuation of this work. Given the Bicycle Network's own experience in evaluation, research and data collection it would welcome the opportunity to assist authorities with this work.

[19] SmartRoads is an approach that manages competing interests for limited road space by giving priority use of the road to different transport modes at particular times of the day. Further information can be accessed at http://www.vicroads.vic.gov.au/Home/TrafficAndRoadConditions/HowWeManageTraffic/Smartroads/

ATTACHMENT A

BICYCLE NETWORK – KEY SUCCESSES

INFRASTRUCTURE:

Public campaigns since 1991 on bicycle infrastructure for transport and recreation.

Milestones in Victoria include:

- 1993 - St Kilda Road lanes
- 1995 - Yarra Gardiners Bridge $3 m
- 2001 - Colour in bike lanes
- 2002 - Murray to Mountains Rail Trail $2m
- 2005 - Bay Trail link in Brighton $3m
- 2006 - Federation Trail $14m
- 2006 - Census shows 44 per cent jump in journey to work in Melbourne
- 2007 - Swanston Street separated lanes
- 2008 - Rumble edge bike lanes (profiled or acoustic line marking)
- 2009 - Mansfield to Seymour rail trail $14.5m
- 2010 - Albert Street kerbside lanes

SOCIAL MARKETING:

Bicycle Victoria established the Ride to Work (1993) and Ride2School (2004) initiatives. Initially run in Victoria, both of these community based social marketing programs have now been rolled out nationally through the Bicycle Network.

The Ride to Work program is based on research from the three-year Ride to Work and Beyond! project undertaken by Bicycle Victoria and TravelSmart Victoria in conjunction with the Institute of Transport Studies at Monash University.

The project, which commenced in 2003 and concluded in December 2005, was funded by the Australian Greenhouse Office and TravelSmart Victoria aimed to maximise the behaviour change impacts of Ride to Work Day and facilitate the embedding of those behaviours as habits. The program is based on the principles outlined by Canadian Professor McKenzie-Mohr in this book Fostering Sustainable Behaviour. The Bicycle Network regularly hosts seminars run by McKenzie-Mohr for government and community organisations.

In 2009 the year long program culminated in National Ride to Work Day which had 30,390 formal registrations, but with total estimated participation over 91,000. 4,751 registered participants (16 per cent) tried riding for the first time in October 2008 and were called during a week in May 2009 and asked if they rode that week. Of the 2008 novices, 28 per cent were still riding when called in May 2009, with 39 per cent reporting that they were riding to work at least once a month.

The Ride2School (R2S) program is a sister program to Ride to Work. In general at a school the program is able to achieve a shift from passive to active transport modes from the Victorian average of 20 per cent to 50 per cent or more of all students. The Bicycle Network leverages the Victorian Ride2School and NSW Schools Program to run a national event that allows schools to trial walking and riding with their school community. In 2010 over 1,000 schools registered for the National Ride to School day in most states/territories. More than 100,000 students walked or rode on the day.

POLICY AND LEGISLATION:

- 15 years working with
  - State Minsters and VicRoads on the Principal Bicycle Network,
  - Parks Victoria on what is now the Metropolitan Trail Network
  - Local governments to develop transport and recreation facilities

- Recent national submissions:
  - Australia: The healthiest country by 2020
  - Henry Tax Review
  - Australian Sport: emerging challenges, new directions
  - Senate Inquiry into the investment of Commonwealth and State funds in public passenger transport infrastructure and services

- 10 years working to develop rail trails in Victoria funded by three levels of government

- Published research:
  - *Strengthening Bicycle Lane Lines 2008*,
  - *Green lights for bikes 2010*
  - *Cyclist Trauma: the facts 1994, 1996. (Studies of hospitalisation data)*
  - *Cycling Deaths Report 2004*
  - *Nine ways to find space for bicycle facilities on roads 1999.* This was adopted by the Victorian State Government and published as *Cycle Notes 9 Creating on road space for cyclists*

- 2006 - Development of first State bicycle parking regulations for new and change of use buildings

- Developed Parkiteer program for secure parking at public transport nodes. Since adopted by the Victorian Government. Bicycle Victoria now runs this program for the Department of Transport

- 15 years supplying parking facilities and services to offices and apartments

PROGRAM EVALUATION AND DATA COLLECTION:

The Bicycle Network collects quantitative and qualitative data for its own use and on behalf of state and local governments:

- Collection of rider data – such as Super Tuesday counts since 2007. In 2010 over 900 sites were counted across six states in Australia for local governments. Parkiteer monitors use of parking cages at public transport nodes.
- Since 2004, Bicycle Victoria has conducted over 890 online user surveys
- Health data: a recent survey of 2,362 individuals revealed the strong association between bike riding and health
- Audits: Risk and signage audits completed for local governments and state government agencies
- 9 Bikescope rider feedback surveys completed for local governments – average 700 respondents
- 2 Bicycle Accounts completed for the City of Melbourne more than two thousand respondents.
- Member of Road User Collaborative with RACV, Victorian Motorcyclists Union Victorian Taxi Assoc, Victorian Transport Association, Metro Trains, Bus Association of Victoria, Victorian Taxi Association, Yarra Trams