Blue Mountains Bike Plan 2020

An Infrastructure and Operational Plan
The Vision

To create safe and accessible pathways of travel that improves our connections with our destinations and each other and encourages people of all ages to use their bicycles for everyday transportation and enjoyment.
EXECUTIVE SUMMARY

The Blue Mountains Bike Plan 2020 (BMBP) revises the “Blue Mountains Bikeways Plan 1996”. It will guide the City in the development of new programs and facilities to encourage people to cycle, and to reduce their dependence on the car. It is a strategy based on extensive community consultation and is designed to be flexible, evolving over its lifetime.

The Bike Plan has been prepared in response to the community-endorsed 25-year vision for the Blue Mountains “A Map for Action 2000-2025; Towards a More Sustainable Blue Mountains”. The vision expresses outcomes sought by the community. Out of the 15 outcomes, there are 10 for which an effective cycleway network is important:

1. The Blue Mountains natural environment is protected and conserved & the impact of existing and new development on the environment is reduced
2. Blue Mountains people live sustainably in harmony with the environment
3. The health and well being of Blue Mountains people are improved
4. Services and facilities are accessible and fairly distributed
5. Well managed infrastructure supports sustainable living
6. The liveability and vibrancy of our towns and villages are strengthened
7. Safe environmentally friendly transport choices promote healthy lifestyles
8. The main Transport Corridor is a safe and beautiful space that adds to our local amenity and World Heritage identity
9. The ability of people to connect with each other and access services is improved

The community’s desire for a quality Bike Plan and a quality cycling network is clear.

This Bike Plan also responds to Council’s Management Plan 2004-2008 “Towards a More Sustainable Blue Mountains 2004-2008; Year One/2004-2005”. The Management Plan has a priority objective to "improve the management and condition of built assets for which Council is responsible", and a sustainability objective "to provide accessible and fairly distributed services throughout the Local Government Area". This strategy contributes strongly to those objectives.

The Blue Mountains Regional Tourism Plan 2004-2007 identifies ‘Nature Based Experiences’ as a key area of market appeal. The vision for tourism in the Blue Mountains is:

The Blue Mountains region will become Australia’s premier nature based recreational destination and an internationally recognised leader in sustainable tourism practices.

Cycling has been identified as a key activity as part of this plan.
The Nature Based Recreation Strategy 2005-2015 identifies mountain biking as growing in popularity as an individual and competitive sport. The need to provide appropriate and adequate trails, education and consultation with riders and management agencies has been identified for consideration.

The New South Wales Government’s commitment to improving facilities for cyclists and making cycling safer is outlined in “Action for Bikes – BikePlan 2010”. Action for Bikes is a four point plan describing the wider range of actions that could be taken to achieve these goals. This 4 point plan for bikes is:

1. Improving the bike network;
2. Making it safer to cycle;
3. Improving personal and environmental health; and
4. Raising community awareness

The NSW State Government through the Department of Infrastructure, Planning and Natural Resources recognises the importance of walking and cycling in the creation of sustainable neighborhoods and cities. The recently prepared “Planning guidelines for walking and cycling” in December 2004, aims to assist land use planners and related professionals to improve consideration of walking and cycling in their works. This focus is drawn to the NSW Government’s Integrated land Use & Transport Planning Policy Package. They are also designed to provide a planning complement to the RTA’s facilitations – focused policies and actions.
## Summary of Recommendations for Blue Mountains Bike Plan 2020

### SPOKE 1: Bicycle Friendly Streets

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| 4.1.1 That the City of Blue Mountains develops traffic volume thresholds for roads requiring:  
   a. marked on-road cycle lanes  
   b. wide kerbs/shoulders  
   c. and maintains an up to date model for the entire road network showing traffic volumes on individual road segments | Traffic & Investigations Engineer  
Road Safety & Mobility Officer  
Asset Engineer | 16 |
| 4.1.2 That the City of Blue Mountains seeks to enhance safety and maintains access through traffic calming projects. | Traffic & Investigations Engineer  
Road Safety & Mobility Officer | 16 |
| 4.1.3 That during road resurfacing or reconstruction projects on classified roadways; the City in partnership with the RTA provides wide kerb/shoulder lanes and 2 metre wide Shared Off Road Paths on Classified Roadways where possible. | Traffic & Investigations Engineer  
Road Safety & Mobility Officer  
Transport Corridor Coordinator  
Asset Engineer | 17 |
| 4.1.4 That the City in cooperation with the RTA and Rail Infrastructure Corporation (RIC) seek to incorporate bicycle friendly features in bridge and underpass projects as part of any new infrastructure and into the annual capital works program for existing structures. | Traffic & Investigations Engineer  
Road Safety & Mobility Officer  
Strategic Planning  
Asset Engineer | 18 |
| 4.1.5 That the City develops a pavement repair reporting system designed specifically to include cyclists. | Asset Engineer  
SLA | 18 |
| 4.1.6 That the City undertakes a review of street cleaning practices using the outcomes to acknowledge and respond to the needs of cyclist. | SLA  
BMCS  
BMCC Maintenance Agreement | 19 |
| 4.1.7 That the City specifies the replacement of drainage grates in all appropriate construction projects and develops a monitoring program for the network and other popular cycling streets. | Traffic & Investigations Engineer  
Road Safety & Mobility Officer  
SLA  
BMCS | 19 |
4.1.8 That the City ensures that, wherever possible, cyclists are accommodated road construction activities. This should include, but not be limited to:

- Construction notices posted on Council’s and RTA web sites;
- Advance signing for construction activities;
- Temporary conditions that are compatible with bicycles such as non-slip surfaces, ramped utility cuts and timber decking placed at right angles to direction of travel; ;
- Bicycle specific detours where appropriate; and
- Appropriate signage advising motorist of cyclist using car lanes.

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<thead>
<tr>
<th>Traffic &amp; Investigations Engineer</th>
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<tbody>
<tr>
<td>Road Safety &amp; Mobility Officer</td>
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<tr>
<td>Transport Corridor Coordinator</td>
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<td>Asset Engineer</td>
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## SPOKE 2: Bikeway Network

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<tr>
<td><strong>4.2.1</strong> The City of Blue Mountains implement a network consisting of:</td>
<td>Traffic &amp; Investigations Engineer</td>
<td>24</td>
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<tr>
<td>1. Local On Road – In Traffic Lane (Route signage only)</td>
<td>Road Safety &amp; Mobility Officer</td>
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<td>2. Local On Road – Bicycle Lane (Shoulder/Kerb)</td>
<td>Asset Engineer</td>
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<td>3. Local Off Road – Shared Path</td>
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<td>4. Recreation On Road – In Traffic Lane (Route signage only)</td>
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<td>5. Recreation On Road – Bicycle Lane (Shoulder/Kerb)</td>
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<td>6. Recreation Off Road – Shared Path</td>
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<tr>
<td>7. Regional On Road – Shoulder/Kerb Lane</td>
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<td>8. Regional Off Road – Shared Path</td>
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<td><strong>4.2.2</strong> That the City research, designs and demonstrate innovative measures to enhance the cycleway network</td>
<td>Traffic &amp; Investigations Engineer</td>
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<td></td>
<td>Road Safety &amp; Mobility Officer</td>
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<td></td>
<td>Asset Engineer</td>
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<td><strong>4.2.3</strong> Footpaths to be audited re their suitability as shared paths and converted with appropriate signage and other identified treatments.</td>
<td>Traffic &amp; Investigations Engineer</td>
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<td>Road Safety &amp; Mobility Officer</td>
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<td></td>
<td>Asset Engineer</td>
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<td><strong>4.2.4</strong> That the City investigates opportunities for developing an electronic information system for the bikeway network that is routinely updated. Other information could include maps, signage, information boards, use of the City’s Web Site, Blue Mountains Bike Group and other identified sites.</td>
<td>Traffic &amp; Investigations Engineer</td>
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<td></td>
<td>Road Safety &amp; Mobility Officer</td>
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<td>Asset Engineer</td>
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<td><strong>4.2.5</strong> Wherever possible:</td>
<td>Traffic &amp; Investigations Engineer</td>
<td>26</td>
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<td>▪ Place cut line in an area that will not interfere with bicycle travel.</td>
<td>SLA</td>
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<td>▪ Back fill cuts flush with the surface (humps will not get packed down by bicycle traffic)</td>
<td>Asset Engineer</td>
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<td>▪ Ensure that cuts parallel to bicycle traffic don’t leave a ridge or groove in the bicycle wheel track.</td>
<td>BMCS</td>
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<td>▪ Back fill cuts in the footpath with concrete, flush with the footpath grade.</td>
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<td><strong>4.2.6</strong> That the City to maintains the cycleway network throughout the year to the best of its abilities, including:</td>
<td>SLA</td>
<td>26</td>
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<td>▪ Ongoing inspection and remediation of pavement surfaces, bikeway signs and amenities</td>
<td>Asset Engineer</td>
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<td>▪ Quick restoration of cycleways after adverse event.</td>
<td>BMCS</td>
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<td>▪ The review and development of polices for winter maintenance of bikeways on the roadway and off road paths.</td>
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### SPOKE 3: Safety and Education

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<tr>
<td>4.3.1 That the City establishes a broad based City of Blue Mountains Bicycle Safety Partnership to develop and implement bicycle safety programming.</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>30</td>
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</table>
| 4.3.2 That the City maintains its current commitment to bicycle safety programs by:  
  - Providing a stable level of core funding in the annual operating budget  
  - Supporting an entrepreneurial approach to generating revenue for the expansion and sustainability of programs  
  - Investigating new innovative programs to make bicycling safety information and training more accessible to specific target audiences. | Manager Assets  
Program Leader Transport & Infrastructure  
Road Safety & Mobility Officer | 31 |
| 4.3.3 That the City investigates the opportunities in partnership with the RTA and other agencies to develop a motor vehicle driver education program. | Road Safety & Mobility Officer | 32 |
| 4.3.4 That the City establishes a process to review cycling crash data on an ongoing basis, and determine education, enforcement and infrastructure priorities for improving bike safety. | Road Safety & Mobility Officer | 32 |
| 4.3.5 That the City investigates opportunities to work with the NSW Police to develop materials to assist cyclist involved in crashes, as well as other agencies that have, or could share responsibilities related to bicycle crashes. | Road Safety & Mobility Officer | 33 |
| 4.3.6 That the Blue Mountains Police are requested to continue their active role in bicycle safety by:  
  - Bicycle patrol officers  
  - Working with City staff to establish enforcement priorities based on crash data  
  - Cycling Skills Course participation  
  - Providing representation on the City’s Bicycle Safety Team  
  - Highway Patrol focus on cycle safety | Road Safety & Mobility Officer  
Blue Mountains Local Area Police Command | 33 |
### Recommendation

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<tr>
<td>4.4.1 That the City continues to expand Bike Week and ensure that events are available in various locations across the City.</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>36</td>
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<tr>
<td>4.4.2 That the City works with Schools and other agencies to develop a Bike – to - School Program, which will identify safer routes to schools and provide secure bicycle parking, and bike training and incentive programs for students and their parents.</td>
<td>Road Safety &amp; Mobility Officer, Schools</td>
<td>37</td>
</tr>
<tr>
<td>4.4.3 That the City works with relevant stakeholders to develop and produce up to date and relevant Cycleway maps. These stakeholders include:  - Tourism;  - NPWS;  - Neighbouring LGA’s;  - Department of Lands; and  - Health</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>38</td>
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<tr>
<td>4.4.4 That the City works with other groups and agencies to promote cycling facilities, programs and events through a variety of media, including:  - An annual cycling guide of activities and events  - The City’s website  - Special cycling events throughout the year  - Tourism  - NPWS  - Neighbouring LGA’s  - Department of Lands  - Health</td>
<td>Road Safety &amp; Mobility Officer, Media Officer</td>
<td>38</td>
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<tr>
<td>4.4.5 That the City takes a leadership role in encouraging and supporting cycling as a mode of transportation for City staff, including:  - Developing a plan for providing high quality bicycle parking and shower/change facilities at all civic work places  - Offering bike training courses to all City employees through the regular employee training and development programs  - Providing a pool of bicycles for City employees to use in conducting City business  - Compensating City employees (through kilometres disbursement) for using their own bicycle to conduct City business.</td>
<td>Road Safety &amp; Mobility Officer, E&amp;CS</td>
<td>39</td>
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<tr>
<td>4.4.6 That the City continues to encourage other employers in the Blue Mountains to promote and support bicycle commuting including:  - Providing information and technical advice on the provisions of bicycle parking facilities;  - Developing a plan for establishing Bicycle User Groups; and  - Develop an annual Bicycle Friendly Business Awards Program</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>40</td>
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### SPOKE 5: Cycling and Transition

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<tr>
<td>4.5.1 That the City in partnership with Blue Mountains Bus Company investigates the feasibility of undertaking a pilot program of bike racks on buses.</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>43</td>
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<tr>
<td></td>
<td>BM Bus Company</td>
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<tr>
<td>4.5.2 That the City of Blue Mountains in partnership with State Rail undertakes a comprehensive review of bicycle access to all transit stations in the City and implement improvements wherever possible.</td>
<td>City Planning</td>
<td>44</td>
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<td></td>
<td>SRA</td>
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<tr>
<td>4.5.3 That the City of Blue Mountains, RTA, State Rail and Blue Mountains Bus Company investigate the feasibility of developing a coordinated Bike - and - Ride program and promotion strategies and related initiatives.</td>
<td>Road Safety &amp; Mobility Officer</td>
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<td>(others as indicated)</td>
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### SPOKE 6: Bicycle Parking

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<tr>
<td>4.6.1 That the City’s Asset branch investigate the feasibility of developing and implementing a comprehensive city wide bicycle parking program, which will:</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>47</td>
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<td></td>
<td>Building Operations &amp; Facilities Administrator</td>
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<td>Asset Engineer</td>
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<td></td>
<td>E&amp;CS</td>
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<td>• Install bicycle parking at all civic centres and work Sites, recreation facilities, libraries, transit stations and other civic buildings.</td>
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<td>4.6.2 That the City research and develop demonstrated projects for enhanced bicycle parking facilities, including bicycle lockers and bicycle shelters.</td>
<td>Road Safety &amp; Mobility Officer</td>
<td>48</td>
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<tr>
<td></td>
<td>E&amp;CS</td>
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<tr>
<td>4.6.3 That the City evaluates the existing zoning regulations and develops new requirements for bicycle parking and shower/change room facilities that would apply to all appropriate use in the City.</td>
<td>E&amp;CS</td>
<td>49</td>
</tr>
<tr>
<td>4.6.4 That the City investigate the opportunities of developing and implementing a strategy for reducing bicycle theft, in cooperation with the NSW Police, bicycle retails and insurance industry, research and develop.</td>
<td>Road Safety Program Coordinator</td>
<td>50</td>
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## SPOKE 7: Tourism

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<tr>
<td>4.7.1 That the City work with Blue Mountains Tourism to explore opportunities</td>
<td>Road Safety &amp; Mobility Officer, BM Tourism</td>
<td>52</td>
</tr>
<tr>
<td>4.7.2 That the City in partnerships with Blue Mountains Tourism and other</td>
<td>Road Safety Program Coordinator, BM Tourism</td>
<td>52</td>
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<tr>
<td>4.7.3 That the City develops partnerships with the relevant corporate bodies</td>
<td>Road Safety &amp; Mobility Officer, Transport</td>
<td>52</td>
</tr>
<tr>
<td>4.7.4 That the City establishes and maintains a data base of business with</td>
<td>Road Safety &amp; Mobility Officer, BM Tourism</td>
<td>53</td>
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## PART 5: Implementation and Evaluation

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<tr>
<td>5.1 That the Group Manager, Community and Corporate (GMC&amp;C) prepare annual</td>
<td>GMC&amp;C, BPCC</td>
<td>57</td>
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<tr>
<td>5.2 That the cycleway routes proposed in the Bike Plan be subject to the</td>
<td>Traffic &amp; Investigations Engineer, Road Safety</td>
<td>58</td>
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<tr>
<td>5.3 That the City commits in principal funding of $50,000 per annum for the</td>
<td>GMC&amp;C, Manager Assets, Program Leader</td>
<td>59</td>
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5.4 That the City of Blue Mountains explore alternative funding sources and opportunities, including the state and federal governments and private sectors to assist in the implementation of the Plan

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<th>Asset Grant Funding Group</th>
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5.5 That the City collect and analyse high quality cycling data to measure the progress of the Bike Plan, including:
- Bicycle traffic counts to monitor trends;
- Focussed user surveys on specific cycling issues;
- Public attitude surveys every 3-5 years; and
- Annual bicycle crash data analysis

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<th>Road Safety &amp; Mobility Officer</th>
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   1.5 Economic and Social  
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   1.7 Crash Analysis  
   1.8 Strategy Development: What we have done so far  
   1.9 Study Approach  
   1.10 Public and Staff Consultation  

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   2.2 Primary Goals  
   2.3 Principles and Objectives  

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   Spoke 2: Bikeway Network  
   Spoke 3: Safety and Education  
   Spoke 4: Promotion  
   Spoke 5: Cycling and Transition  
   Spoke 6: Bicycle Parking  
   Spoke 7: Tourism  

5. **Implementation and Evaluation**  

6. **Attachments**
1. PURPOSE

Purpose

The Blue Mountains Bike Plan (BMBP) is envisioned as a thirteen year plan. It will complement other planning efforts in the City with particular reference to Councils Sustainable Asset Management (SAM) Plans.

The BMBP establishes a vision for cycling. It sets integrated principals, objectives and recommendations regarding safety, education and promotional programs as well as cycling related infrastructure, including a comprehensive cycleway network.

The challenge therefore is to foster support for these items so that they can turn into actions that can achieve change. The BMBP is an important step in gaining significant environmental, economical, social equity and health benefits to individuals and to the City as a whole.

The development of this Plan has drawn on the experiences of Bike Plans and Strategies developed worldwide with particular reference to the City of Toronto Bike Plan – Shifting Gears.

“In the Blue Mountains setting of outstanding scenic beauty and fresh mountain air, sound investment in cycleways promises huge rewards for the community”

1.1 The Benefits of Cycling

Australians brought more bicycles than motor vehicles in 2006. The industry-backed Cycling Promotion Fund said 1,273,781 new bikes were sold during 2006, significantly ahead of the 962,521 new cars and trucks bought. Sales rose 9 per cent in 2006 as more people turned to bikes to cut petrol costs and boost their fitness.

Transport use has an enormous impact on the quality of the air we breathe. As the amount of traffic on our roads increases, the quality of the air we breathe decreases. We mistakenly believe the introduction of unleaded petrol and tighter car emission controls will solve the problem of air quality, but the sheer number of cars far outweighs any benefit to be gained. In the Blue Mountains, the private motor vehicle is the primary mode of transport. The dependence on the car is high, despite the statistics that 73% of working residents live within two kilometres of a railway station.

The Blue Mountains is thought not to suffer from significant air pollution and photochemical smog. This is because of the elevation of the city, which provides a physical barrier from the Sydney basin and high winds to flush the city’s air. The National Park also provides a buffer between the Sydney Basin and our city. The effects of air pollution in the City occur mainly at the local level and are often increased by low level temperature inversions in the winter months, whilst motor vehicle emissions are of particular concern in the city, given that Sydney’s major western transport corridor (Great Western Highway) passes through our City.
That’s where bikes come in. Bicycles are an environmentally friendly and economical mode of transport, and make an important contribution to integrated transport plans for our City.

Cycling continues to grow in the City. In the Blue Mountains Recreation and Sporting Strategy 2002 cycling was listed as one of the top 5 activities that people would like to do more of. Recreation participation for children, bike riding in the park/neighbourhood was the second highest activity recorded. Further evidence to support this trend is the annual participation of Bike Week Promotions over the past several years. On estimate, approximately 500 people attend this annual event. This is further supported by record numbers of membership at the Blue Mountain BMX Club, Penrith Panthers Cycling Club and the Western Sydney Mountain Bike Club.

Further evidence to support these claims is detailed in the responses to the Blue Mountains Cycling Survey 2005. We know that:

- 91% have access to a bicycle
- 2/3 bicycles get ridden at least 54% of the time (monthly)
- 35% of bicycles get ridden several times each week
- Riding for recreation (21%), to the shops (20%) and to the park are the most common trips made.

### 1.2 Transportation Efficiency

- Transportation by bicycle is the most energy efficient mode of transportation, and generates no pollution, except in its manufacturing
- Cycling is often the fastest mode of transportation from door to door for distances up to 10km in urban cores
- Ten bicycles can be parked in the spaces required for one car.
- The cost of a typical car parking space in a parking structure can be up to $5,500 compared to $800 to manufacture and install a common 4 bike storage rack.
- The addition of a new traffic lane on an existing road can cost from $350,000 per kilometre to design and construct on Blue Mountains Roads.
- This widening would increase capacity by 100 vehicles per hour.
- By comparison, the cost associated with the addition of a single 2 metre wide shared path, which can accommodate 100 trips per hour, can cost from around $100,000 per kilometre.
- The widening of existing road by 1 metre over 1km to provide a ‘bike lane’ cost $150,000.
- These additions also provided better-cost efficiencies with lower life cycle cost.
- On a bicycle you can travel four times faster than you can walk using the same amount of energy (1).
- On a bicycle you can travel up to 1030 kilometres on the energy equivalent of litre petrol (1).
- More people ride a bike to work then go by taxi.
1.3 Environmental

- Short distance motor vehicle trips are the least fuel efficient and generate the most pollution per kilometre.
- These trips have the greatest potential for being replaced by cycling and walking.
- Reducing car trips will mitigate ozone depletion, the greenhouse effect, ground level air pollution, photochemical smog, acid rain and noise pollution.

1.4 Health & Fitness

- Cycling contributes to personal health by enhancing fitness and providing an enjoyable, convenient and affordable means of exercise and recreation.
- The most effective fitness routines are moderate in intensity, individualised and incorporated into out daily activities.
- Cycling and walking can both accomplish this and at the same time provide mobility.
- Nationally, the annual direct health cost attributed to physical inactivity is estimated at $377 million a year. (5)
- Cycling benefits one’s health regardless of the age at which one takes up cycling.
- Regular cyclists can expect to be as a fit as an average person 10 years younger (2)
- On a bicycle you can have your cake and eat it. A moderate half-hour each way commute will burn 8 calories a minute, or the equivalent of 11kg of fat in a year (3)
- The promotion of physical activity has become a national health priority for Australia. The Strategic Inter-Government Forum on Physical Activity and Health (SIGPAH) has identified the area of active transport (including cycling) as a high priority setting to promote physical activity in Australia.
- The promotion of physical activity in children is a priority at an international, national and state level in Australia. The NSW Government Action Plan 2003 - 2007: Prevention of Obesity in Children and Young People outlines an "increase in opportunities for active transport" as one of the key objectives for an Active Community - especially the development, use and maintenance of off road cycle networks (Actions 2.4 - 2.6). (6)
- The inclusion of physical activity as part of children’s daily routine has been highlighted in the Australian Physical Activity Recommendations for 5-12 year olds. (7)

References:
1. Bicycling Science, Whitt and Wilson, the MIT press,
3. Beer, Bicycle Magazine
4. Global Warming, Cool it, Greenhouse Office
1.5 Economic and Social

- Cycling 10 kilometres each way to work saves about $1,700 in transport costs (including all running costs and depreciation) and 1500 kilograms of greenhouse gas emissions each year (1).
- Cycling provides access and transportation to segments of the population who would not otherwise be able to travel independently. These segments include:
  - Those who cannot or choose not to own a car
  - Those who do not have access to a car for the required period; and/or
  - Those who cannot or choose not to use public transport

References:
1. Global Warming, Cool it, Greenhouse Office

1.6 Bicycle Ownership

- In 2000 Sydney's households owned a total of 1.15 million bicycles, up by more than 40% since 1991 (1).
- In the Blue Mountains Cycle Survey 2005 of respondents' households 23% had 4 bicycles, 20% had 2 and 20% had 3. 5% of households had 10 or more bicycles.
- The proportion of Sydney households with a bicycle has risen from 32% in 1991 to 36% in 2000 (1).
- In the Blue Mountains Cycle Survey 2005 the most commonly owned bicycle was a mountain bike at 49%, Road bike at 34% and a BMX at 17%.
- 1.0% of Sydney's residents cycle each day (1).
- In the WSROC region in 2002 there was on average each weekday 35,925 trips (3).
- 0.6% of trips to work are by bicycle in Sydney (2).
- Most bicycle trips are for social/recreational travel (1).
- In the Blue Mountains there are on average 149 bicycle trips for journey to work purposes on an average weekday.(3)

Reference:
2. Transport and Population Data Centre; Department of Infrastructure, Planning and Natural Resources, Journey To Work 2001
3. Transport and Population Data Centre; Department of Infrastructure, Planning and Natural Resources Household Travel Survey 2002
1.7 Crash Analysis

- Pedal Cyclist accounted for 8% of crashes in the Blue Mountains with the Sydney Region at 4% in 2003. (1)
- Casualties saw an increase of 100% from 2002-03 from 10 to 20. (1)
- Males accounted for 95% of all casualties. (1)
- Males in the 17-20 & 30-39 age groups accounted for 50% of all casualties. (1)
- The 5-year trend has seen an increase of 7.5% from 1999 –2003. (1)
- 39% of crashes occur on the road (2)
- 41% on fire trails (2)
- 14% on the footpath and; (2)
- 5% shared paths (2)
- Only 14 % of all crash are reported to Police (2)

Reference:
1. Blue Mountains Road Safety Action Plan 2005/06
2. Blue Mountains Community Cycle Survey 2005

1.8 Strategy Development: What we have done so far

The City’s first Bike Plan, ‘Blue Mountains Bikeways Plan’ was developed and adopted by Council in March 1996. To date, this Bikeways Plan is approximately 95% completed. In 2004 the City’s first edition Cycleways Map was produced to meet community demand for such a resource. The 2nd edition is currently in the planning phase and is due for completion end 2006. This 2nd edition will have far greater focus on recreation and tourism.

The City Strategy acknowledged the need for a new bike plan to be developed. This then required a Study Team to be formed that involved Council staff, Blue Mountains Bike Group, general cycling advocates from within the community and other identified government agencies such as the National Parks & Wildlife Service, Blue Mountains Tourism and Department of Lands. This study team then worked together to undertake each phase of the development.
1.9 Study approach

The study approach that leads to the development of the Blue Mountains Bike Plan was undertaken generally in 4 phases, as follows:

**Assessing Existing Conditions** involved undertaking an extensive inventory of existing bikeway facilities, existing and planned bikeways, attractors and destinations, then identifying real of perceived barriers to cycling. This phase also included the review of existing plans, reports, town master plans, traffic and pedestrian related studies (PAMPs) and tourism strategy.

**Developing the Cycle Network Plan** involved establishing a vision for the network, then identifying, evaluating, ground proofing and selecting bikeway routes and confirming facility type by route. The facility options include:

1. Local - On road;
2. Local - Off road shared;
3. Recreational - On road;
4. Recreation - Off road shared
5. Regional - On road
6. Regional - Off road shared.

**Reviewing and Assessing Cycling Policies and Programs** involved a comprehensive review of existing programs, policies and funding sources by Council staff and members of the study group. This lead to the development of the objectives and recommendations for each component of the Plan: Safety and Education, Promotion, Cycling and Transit, Bicycle Parking, Bicycle Friendly Streets, Bikeway Network and Tourism.

**Documenting the Plan and Associated Implementation Strategy** involved synthesizing all the work that had been done as part of the study into a concise, informative and prescriptive ‘13 year plan of action’ that will serve to guide the City in its efforts to improve the state of cycling in the Blue Mountains.

1.10 Public and Staff Consultation

A central premise in the development of the Blue Mountains Bike Plan was to actively involve members of the public, staff from across all relevant sections of Council, Blue Mountains Bicycle Group, key stakeholders and the public in all phases of the study.

The Community Survey was the key tool used in this consultative process. The findings from this survey were instrumental in the development for this document.

The substantial input received from those who participated in the survey and other plan studies was reviewed and taken into consideration in the development of the strategy.
The Blue Mountains Bike Plan, therefore, is a product of an extensive study and consultation process, which the City believes generally, reflects the interest of all Blue Mountains Residents, and at the same time is a direct response to many of the needs and wishes of Blue Mountains cyclists and its communities and the many visitors that come to the area each year.
2. PLAN OVERVIEW

The Blue Mountains Bike Plan 2020 has been designed to be a living document that is flexible and capable of evolving over time. It will serve to manage and maintain existing programs and infrastructure, while guiding the development and implementation of new and or improved cycling programs and facilities. Implementation of the BMBP is expected to encourage people to leave their cars at home and cycle, especially for utilitarian reasons.

Based on previous City initiatives; Blue Mountains Bikeways Plan 1996, Cycleways Map 1st Edition 2004 other activities, plus the extensive consultation undertaken during the preparation of the BMBP, a clear direction has been captured in a Plan that the City is confident will enable it to meet its outcomes over the next 13 years.

2.1 The Plan

The Blue Mountains Bike Plan 2020 is more than a proposed network of bikeway facilities. It sets out a vision for cycling that is supported by a comprehensive set of principles, objectives and recommendations that address the need for education as well as the provision of facilities.

2.2 Primary Goals

The primary goals of the Blue Mountains Bike Plan are:

1. To double the number of bicycle trips made in the City of the Blue Mountains, as a percentage of total trips, by 2020; and

2. To reduce the number of bicycle crashes and casualties

The Plan is structured along seven key components, which is analogous to “seven integral spokes”. The seven spokes are integrated through a common implementation strategy, represented by the hub of the wheel. Like the spokes of a bicycle wheel, all seven spokes must work together to achieve the two primary goals and realise the vision of the City of the Blue Mountains.
2.3 Principles and Objectives

The City's physical environment as well as the social and economic factors influences the ways people choose to get around. To achieve the vision of a more bicycle friendly City, the seven spokes detail a multi faceted strategy to build both physical and social infrastructure to support cycling. Each spoke is based on a guiding principal, which describes the overall importance of this component to the whole plan. Each principal is supported by a set of objectives to measure success.

The Seven Spokes:

1. Bicycle Friendly Streets
2. Bikeway Network
3. Safety and Education
4. Promotion
5. Cycling and Transit
6. Bicycle Parking
7. Tourism

SPOKE 1: Bicycle Friendly Streets

Principle: Every Blue Mountains street is a Cycling Street.

Objectives: The City of the Blue Mountains will seek to:

- Ensure that transportation policies, practices and regulations support increase bicycle safety and access for intersections, roadways, bridges and underpass;
- Expand and improve road maintenance service level agreements and programs to enhance cyclist safety, access and comfort; and
- Ensure that cyclist safety, access and comfort are maintained through or around construction zones (Great Western Highway Upgrade).
- Monitor and publish the accessibility of households, communities and facilities in respect to each other through the cycleway network.

SPOKE 2: Bikeway Network

Principle: Blue Mountain residents will be within 5 km or 10 minute bicycle ride to the cycle network.

Objectives: The City of the Blue Mountains will seek to:

- Complete the cycleway network in 13 years
- Ensure the safe and comfortable year round operation of bikeways through design, signage, enforcement and maintenance; and
- Connect the Blue Mountains network to bikeways in adjacent Local Government Areas (Lithgow, Hawkesbury & Penrith).
SPOKE 3: Safety and Education

Principle: Through education, create an environment where people can cycle on Blue Mountain streets without the fear of injury.

Objectives: The City of the Blue Mountains will investigate opportunities to:

- Develop innovative ways, such as public/private partnerships, to fund and sustain safety education programs
- Establish a cycle skills training program, including developing a component for drivers
- Establish a protocol in response to cycling collisions
- Work in partnership with other agencies to deliver message about safe cycling in the Blue Mountains

SPOKE 4: Promotion

Principle: Every bicycle trip improves the quality of life for all Blue Mountains residents and visitors.

Objectives: The City of the Blue Mountains will seek to:

- Encourage cycling for everyday transportation
- Promote cycling to a wide audience via effective use of media and public outreach
- Demonstrate leadership through innovative policies and facilities that encourage City employees to cycle

SPOKE 5: Cycling and Transit

Principle: Greater access and service opportunities for every day travel commuters.

Objectives: The City of the Blue Mountains will investigate opportunities to:

- Improve bicycle accommodation on public transport
- Improve bicycle parking facilities at transit destinations
- Improve bicycle access to transit destinations
- Promote ride-train-ride, ride-bus-ride and other non vehicle means of commuting

SPOKE 6: Bicycle Parking

Principle: Secure and convenient bicycle parking must be available at all cycling destinations to encourage and support cycling.

Objective: The City of the Blue Mountains will investigate opportunities to:

- Expand the current basic parking program to serve all public cycling destination
- Develop and provide enhanced bicycle parking facilities which provide security from theft and protection from the elements
- Require and encourage the private sector to provide bicycle parking at their buildings; and
- Develop effective strategies to prevent bicycle theft.

**SPOKE 7: Tourism**

**Principle:** Provide the Greater Blue Mountains Region with sustainable recreational cycling opportunities in return for regional infrastructure funding and local business opportunities.

**Objective:** The City of the Blue Mountains will investigate opportunities to:

- Develop recreational routes and facilities to attract cycling visitors
- Liaise with government agencies and related corporation utilities to develop and link cycleways with those on Council lands
- Provide businesses that develop sustainable cycling tourism with cycleway network and usage information

Strategies for achieving these objectives for each of the spokes are outlined in detail in the following relevant seven sections.
3. Bicycling in the Blue Mountains

As told by Rod McDonald

On arrival in Leura/Katoomba in June 1958, the year after the big fires which decimated Leura, I was astounded to see bicyclists holding onto the hand rail at the rear entrance of the old canvas covered Bedford busses, as they travelled up both Megalong and Lovell streets. Luckily for me, I “never had the nerve” which, I suspect, has put me in a position where I am able to put my thoughts onto paper all these years later. Many years later after meeting with the Bicycle group in Vienna Austria, and seeing the complete bicycling infrastructure they, and a ‘Green’ local government, had been able to institute over a ten year period, my wife Lida suggested to me that we here in the Blue Mountains should have a similar body and that we should work towards the same ends. i.e. a bicycling infrastructure within the city of the Blue Mountains. I replied something to the effect that ‘well, you should start one’. So, from these early beginnings, developed the Blue Mountains Bicycle User Group, still in existence and still totally involved in advocacy and riding bicycles in the city of the Blue Mountains.

Soon after the groups beginning and an article in the local paper about it, I was approached by the now deceased long term local Laurie Clark who ‘berated’ me for, as he understood the article, not crediting the riders of the past. “Why Rod, we used to ride down to Penrith and back, after work, on ‘cane rims’ when I was young”, said Laurie and went on to chat about riders, clubs and events of the past.

Bicycles of course have been a part of the Blue Mountains for over a century. The amazing photograph taken “about 1900” on page 188 of Jim Fitzpatrick’s ‘The Bicycle and the Bush’ (Oxford University Press 1980), shows a large group of bicyclists gathered in front of the Caves Village. As Jim says “The attraction of the Jenolan Caves for cyclists is evident…”.

It is interesting indeed to wonder who was the first to cross The Blue Mountains on a bicycle! I suppose we will never know, however, bicycles have been a part of the exploration of Australia since the first bicycles were brought here and we can assume that the Blue Mountains was an early, if not the first, destination of our very first bicycle tourist/adventurer.

It is with interest then that we wonder of the difficulties and adventures they had in those pre- motorised vehicular days. There were no bituminised roads, no bicycle paths, and no bicycle lanes. In fact, the pneumatic tyre was not even invented until 1888 (p.p. 16 Jim Fitzpatrick’s Bicycle and the Bush). This then leaves us to wonder of the extreme difficulties encountered in those early years. Obviously, bicycles were very definitely being used in the Blue Mountains as we can note from an extract out of Jim Smiths wonderful little volume ‘The Blue Mountains a Guide for Bicyclists’ (Panacea Press 1980) where he quotes from a 1903 publication about “two happy go lucky characters” who casually attempt to see if they can ride their bicycles from “Blackheath to Jenolan Caves” pretty much in a straight line. This extract describes vividly the extreme difficulties they encountered and it is, without...
doubt, similar to the difficulties encountered by all those hardy early Blue Mountains bicyclists.

Every township had a bicycle dealer and I remember clearly the Bicycle shop in Leura with a sparkling new Malvern Starr bicycle in the window back in 1958. Even the garage owned by the late Vic Butcher at the top of the Mall, carried bicycle spares into the late 1960s. Bicycles were a part of our lives. As a youngster, in 1960, I recall lending my bicycle to Johnny Gehle whose own bicycle was broken and how he used mine to deliver telegrams from Wentworth Falls over night.

So, the Bicycle has been with us in the Blue Mountains since soon after its first arrival in Melbourne in 1875. What amazing changes in riding conditions has occurred over the intervening period. Highways with bicycle lanes, and ripple strips to define them, bicycle paths such as can be found from Springwood to Winmalee, even bicycle paths in Katoomba with little Bicycles painted into them to define them. Our local Council has, with the provision of a ‘Road Safety Officer’, Glen Sherlock, even produced a plan for a Bicycling Infrastructure, or Bicycle Plan. Wonderful.

The Blue Mountains caters for Bicyclists of every variety and we have racing clubs and ‘stars’, a very progressive B.M.X. Club who have over the years built their own track at Lawson, a Mountain Bike circuit in the lower Mountains and a club who encourage people of all ages to participate. Local bicycle rides and paths are written up in books, appear on the Internet and can be accessed by people worldwide.

In conclusion, it is evident that bicycles have been, and remain an important ingredient in the Blue Mountains transport structure, and, as Katoomba is Australia’s Premier Tourist location, must be considered in a positive manner with every decision, which affects this region. Tourism is the backbone of Mountain industry and the numbers of bicyclists visiting this area increases yearly.

Yours in Bicycling
Rod McDonald
4. “THE SEVEN SPOKES” PLAN

SPOKE 1: Bicycle Friendly Streets

Guiding Principles and Objectives

Bicycles are recognised as vehicles under the Australian Road Rules, and as such, should be afforded the same consideration as motor vehicles on the City’s road system. In addition, characteristics that make bicycles so environmentally friendly and practical for short trips, also makes cyclist more vulnerable to collisions and injuries, particularly when sharing the same road space with motor vehicles. The bicycle’s small size requires very little space to operate or park. They are efficient because that are lightweight, and their narrow tires have very little contact with the road surface. As a result bicycles are more affected than most vehicles by pavement conditions, high winds, poor visibility, the speed of traffic and the width of the kerb line.

As part of the Blue Mountains Bike Plan, the City will be developing and implementing a cycleway network system, as outlined in Attachments 1 and 2.

This network is comprised of facilities that are specifically designed to encourage cycling and enhance cyclist safety. While the network will go a long way towards improving the cycling environment in the Blue Mountains, the City’s efforts will not be focused solely on the principals of cycling routes. Cyclists use all the roads in the Mountains including the Great Western Highway so every road and street needs to be made as safe and comfortable for cyclist as possible.

Therefore, the guiding principal for this component of the Blue Mountains Bike Plan is:

“Every Blue Mountains Street is a Cycling Street”.

This effort to make streets more bicycles friendly is consistent with the Outcomes of the City’s Management Plan and Local Road Link Strategy.

Over the past 11 years Council has made significant gains in the implementations of the Blue Mountains Bikeways Plan 1996 coupled with the determined direction to provide links between the villages, railway stations, schools, parks, pools and other major attractors.

To achieve the 2 primary goals of the plan, doubling bike trips and reducing cyclist crashes and causalities, the design and operation of all roads must be made as safe and comfortable for cyclist as possible. The Bike Plan sets out a comprehensive approach to ensure that ‘best practices’ are both expanded and extended citywide. The rest of this chapter will outline the strategy for achieving the following objectives in creating bicycle friendly streets:
Objectives: The City of the Blue Mountains will seek to:

1. Ensure that transportation polices, practices and regulations support increase bicycle safety and access for intersections, roadways, bridges and underpass;
2. Expand and improve road maintenance service level agreements and programs to enhance cyclist safety, access and comfort; and
3. Ensure that cyclist safety, access and comfort are maintained through or around construction zones (Great Western Highway Upgrade).

Transportation Polices, Practices and Regulations

Bicycle friendly polices and practices focus on enhancing safety for cyclist and maintaining or improving access for bicycles. The special characteristics of the bicycle must be considered to ensure that the cyclist is provided with the same level of service as drivers. Where appropriate, cyclist must also receive enhanced treatment not only on the roadway but also at intersections, roundabouts and especially on bridges and in underpasses.

Roadway Design and Operation

When dealing with the design and operation of a roadway section, there is no single solution for making them bicycle friendly. One must take into consideration the broader traffic, environmental and planning objectives for the roadway and integrate cycling objectives within these strategies and frameworks. The intended function of a roadway section generally influences the measures that should be implemented.

Roads within the City are categorised into Classified (Main, State, Highway), which are under the control of the Roads and Traffic Authority and Unclassified (Local, Minor collector, Major collector), which are generally under the control of Council. Two of the primary criteria for the City’s roadway classification systems are speed and volume of traffic, both of which have a direct impact on the comfort of cyclist.

Generally, the higher the speed or volume of motor vehicles on a roadway, the less comfortable it is for cyclist. So as traffic service levels increase on the higher order roadways, they should be matched with a focus on improving the environment for cyclist.

Unclassified Roads

Of approximately 971 kilometres of roads in the City, unclassified roads make up over 75 percent of the network. Local residential streets are generally very comfortable for cyclist and do not require any special bicycle treatments. Local roads have traffic volumes averaging less than 1000 vehicles per day and Minor collector roads have traffic volumes averaging 1000-2000 vehicles per day, and are generally comfortable for most adult cyclists. Major collector roads have traffic volumes averaging 2000-5000 vehicles per day and generally comfortable for more experienced cyclist. Bicycle facilities are generally not required on low volume local and collector roads but may be desirable on some higher volume roads.
There is tremendous pressure from residents to lower traffic speeds in residential areas of the City. The posted speed limit on all unclassified local and collector roads is generally 50km/h. However there are in place some town precincts posted at 40km/h and 40km/h School Zones also apply across the network.

Slower traffic is intrinsically safer for pedestrians and cyclists, particularly for children and inexperienced cyclist. Ongoing efforts to reduce speeding and formalize consistent speed zones on higher posted speed limit roads and roads with identified speeding issues will make them more bicycles friendly.

**Traffic Calming**

Traffic calming measures are sometimes introduced to restore these streets to their intended function by reducing vehicle speeds, discouraging through traffic and generally improving the amenity of neighbourhood environments.

Traffic calming can be in the form of traffic prohibitions or physical changes to the road geometry such as speed humps, chicanes or raised mediums and speed cushions. The overall objective of traffic calming is to reduce the negative effects of motor vehicles while improving conditions for cyclist and pedestrians.

While traffic calming lends itself to slower speed environments, some measures are more bicycle friendly than others. Speed humps for example, are very easily managed by cyclist and appropriate for signed bicycle routes. Other measures, such as road narrowing and pinch points can create problems for cyclist. Care must be exercised in all traffic calming projects to ensure that alterations to the roadway have positive benefits for cyclist.

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**Recommendation 4.1.1**

*That the City of Blue Mountains develops traffic volume thresholds for roads requiring:*

- *marked on – road cycle lanes*
- *wide kerbs/shoulders*
- *and maintains an up to date model for the entire road network showing traffic volumes on individual road segments*
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**Recommendation 4.1.2**

*That the City of Blue Mountains seeks to enhance safety and maintains access through traffic calming projects.*
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**Classified Roads (Main, State, Highway)**

These roads comprise of 25% of roadways in the City. Annual average daily traffic volumes on the Great Western Highway in the lower mountains is 39,595 and in the upper mountains 18,893. Speed limits range from 40km/h school zones, 50km/h, 60km/h, 70km/h, 80km/h, 90km/h and 100 kilometres per hour. As previously noted most cyclists do not feel comfortable cycling on classified roads without bike lanes due to the higher speeds and volumes of traffic. As the speed differential between a car and bike increases, so does the level of discomfort for cyclists. As part of the development of the cycleway network, classified roads were assessed for their compatibility for bike lanes within the existing roadway width. Many classified roads were found to be ideal candidates for both off road shared and on road bike lanes and have been included in the network.

Roadway reconstruction and rehabilitation projects provide good opportunities to improve the cycling environment on a roadway section. Depending on the available road width, minor widening would be possible to achieve wider curb lanes or potentially even bike lanes. Continual liaisons with the state authority (RTA) should be maintained to take any advantage of any such roadworks.

**Recommendation 4.1.3**

*That during road resurfacing or reconstruction projects on classified roadways; the City in partnership with the RTA provides wide kerb lanes and 2 metre wide Off Road Shared paths on Classified Roadways where possible.*

**Bridges and Underpasses**

Bridges and underpasses are in important focus of improvement for cyclist. These structures provide the crossing points of major barriers for cyclist (railway corridor). By their nature and design these structures are less bicycle friendly than other typical roadway section. Underpasses often have abutment walls in close proximity to the kerb area. Higher crosswinds and traffic speeds are more prevalent on bridges. These conditions require more space in the kerb area then the average roadway for cyclist to feel comfortable. As a general principal, these structures should have bike lanes even if they are not part of the bikeway network. For many existing structures, providing a bicycle lane within the available width may be difficult or even not achievable. Where width is not available for a bicycle lane, resealing should be considered to gain as much additional space in the kerb lane as possible.

The construction and rehabilitation of all underpasses should also include the improvement of lighting and drainage. Existing lighting in underpasses can be very poor in the kerb areas where cyclists ride. Not only does the cyclist have difficultly seeing pavement irregularities in their path. Low lighting levels also make it more difficult for drivers to see cyclists. Increasing the visibility for cyclist, especially if bike lanes or curb lanes cannot be achieved, will improve comfort for both cyclists and drivers. Drainage in underpasses is also an issue for cyclist. Poor drainage causes ponding in the kerb area, which may force cyclist to swerve to avoid these areas.
A detailed review of all bridges and underpasses is required to determine where bicycle friendly features can be implemented.

**Recommendation 4.1.4**

*That the City in cooperation with the RTA and Rail Infrastructure Corporation (RIC) seek to incorporate bicycle friendly features in bridge and underpass projects as part of any new infrastructure and into the annual capital works program for existing structures.*

**Road Maintenance and Repair Programs**

As noted previously, the characteristic of bicycles (lightweight, narrow tires) make them more susceptible to irregularities in the roadway conditions than motor vehicles. Deterioration of the roadway surface, potholes and cracking or even debris in the kerb area increase the potential for cyclist injury. Continued and improved maintenance of the roadway surface is essential to ensuring a high level of comfort and safety for cyclist.

**Pavement Repair and Management**

The roadway edge is often the first part of the roadway that experiences pavement cracking or breaks up. This is also the area that is most travelled by cyclist. Repairs of this nature cannot wait for a general resurfacing of the roadway.

The current practice for identifying these locations for repair mostly relies on request from the public. Pothole and pavement repair request can be reported through Councils Customers Service Hotline on 4780-5000, with the investigation and repair of the problem completed as expeditiously as possible.

The City is prepared to take advantage of cyclist’s input to help identify pavement problems, but most cyclists do not know whom to call to report a problem. Examples of such reporting systems might include online and wallet card information. These and other means should be considered to both promote and improve pavement repair process.

**Recommendation 4.1.5**

*That the City develops a pavement repair reporting system designed specifically to include cyclists.*
Street Cleaning

The ‘sweeping’ action of passing motor vehicles tends to push the debris from the travel lanes to the edge of the pavement. Since this is the area utilised by cyclist, they are most likely to encounter and be affected by this debris.

The regional existing on road route along the Great Western Highway, which is under the control of the RTA, is highly susceptible to this problem brought about by volumes of traffic especially heavy vehicles.

Recommendation 4.1.6

That the City undertakes a review of street cleaning practices using the outcomes to acknowledge and respond to the needs of cyclist.

Bicycle Friendly Grated Kerb Inlets

The City still has older style grated kerb inlets at various locations across the City, which could trap a bicycle wheel. Most new roads and streets have the newer bicycle friendly style of grates. However there is no accurate citywide inventory of roads that are still in need of conversion. There is a need to develop an inventory so that this program can be harmonized across the City. Grates will continue to be replaced when roads are resurfaced or reconstructed. In addition, higher volume cycling streets would be addressed on a priority basis, beginning with roadways on the bikeway network.

Recommendation 4.1.7

That the City specifies the replacement of drainage grates in all appropriate construction projects and develops a monitoring program for the network and other popular cycling streets.

Accommodating Bicycles in Construction Zones

The City is currently undergoing major construction and reconstruction at different locations along the Great Western Highway. This is expected to continue for another 4 years. This presents a range of current and future considerations for cyclist.

During construction and rehabilitation of a roadway, the environment through the construction zone, feature rough pavement, narrow or restricted lanes and heavy machinery, can be particularly uncomfortable for a cyclist.
When reconstructing a roadway section, especially ones that have high bicycle volumes, it is important to maintain a safe and convenient access for bicycles through the construction zone. As a general principal, if access is maintained for motor vehicles then access should also be maintained for bicycles. Ideally the contractor should provide a temporary facility for bikes if space is available within the road allowance. While this is not always possible, alternatives to accommodate cyclist should always be considered. If phasing of construction requires that access to the roadway is closed to vehicular and bicycle traffic at any time during construction, a well signed detour route should be provided.

Temporary road conditions through the construction zone that are compatible with motor vehicles may not be compatible for cyclist. For example steel plates and timber decking are typically used to cover holes into the roadway. Steel plates should be coated with a non slip surface and timber decking should be placed at right angles to prevent a bicycle wheel from falling in to the cracks.

Appropriate signage is also important in providing information to cyclist and drivers. A review of appropriate and consistent signage for construction projects across the City is required.

**Recommendation 4.1.8**

That the City ensures that, wherever possible, cyclists are accommodated road construction activities. This should include, but not be limited to:

- Construction notices posted on Council’s and RTA web sites;
- Advance signing for construction activities;
- Temporary conditions that are compatible with bicycles such as non-slip surfaces, ramped utility cuts and timber decking placed at right angles to direction of travel;
- Bicycle specific detours where appropriate; and
- Appropriate signage advising motorist of cyclist using car lanes.
SPOKE 2: Bikeway Network

Guiding Principles and Objectives

As detailed earlier one of the guiding principals of the Blue Mountains Bike Plan 2020 is to make every street “Bicycle Friendly”. The cycleway network presented in this section takes one step further by establishing priority routes with a formal cycleway facility to provide a higher level of comfort for cyclist. The network routes should be very visible through their design, pavement markings and signage, which will have an important role in encouraging cycling.

Given the importance of cycleways in encouraging more bicycle trips, the guiding principal of this spoke of the Blue Mountains Bike Plan is:

“All Blue Mountain residents will be with a 5 kilometres or 10 minutes bicycle ride to the bikeway network”

The cycleway network will consist of 5 basic route types:

1. **Local - On road**: – These links generally show local routes between villages, schools, shopping and sporting precincts, railway stations and other major attractors.
2. **Local - Off road**: – these shared paths general provide the same links as **Local On Road** but are off road.
3. **Recreation - On road**: – these routes are generally those, which provide links for tourism and recreation riding. These routes can also exist in National Parks, and Crown Land.
4. **Recreation - Off road**: – these shared paths general provide the same links as **Recreation On Road** but are off road.
5. **Regional – On road**: these routes run along the Great Western Highway corridor. It provides both marked bicycle lanes, kerb (break down) lanes for use by cyclist and in some locations markings, signs or kerb lanes.
6. **Regional – Off road**: these shared paths general provide the same links as **Regional On Road** but are off road.

Blue Mountains currently have sign posted* approximately:

- 10.5 km of Regional – Off Road
- 13 km of Local – Off Road
- 7 km of Local – On Road
- 70 km of Regional (GWHY – partially sign posted/pavement markings) – On Road

The network also consists of (not sign posted*) approximately:

- 84 km of Recreational - On Road
- 60 km of Local – On Road

* As of 2006
The majority of these are on local roads, which, features a considerable variety of pavement surfaces, pavement widths, terrain, lengths and lighting. The cycleway network will include these existing facilities, upgrading the paths to current standards where feasible to ensure a comfortable cycle.

The primary objectives of the network component of the BMBP will have the City of Blue Mountains:

1. Complete the cycleway/shared path network in 13 years
2. Ensure the safe and comfortable year round operation of bikeways through design, signage, enforcement and maintenance, and
3. Connect the network to cycleways in adjacent Local Government Areas.

The following sections will describe these objectives in detail and present specific recommendations.

**Complete the Cycleway Network in 13 years**

A key element of the BMBP is the completion of the network, shown in attachment 1 & 2 by 2020 which will comprise approximately 306 kilometres of cycleway and shared path conditions of:

**Physical cycleway types**

1. On road in trafficable lane
2. On road shoulder/kerb lane
3. Off road shared path

**Bike Route Type**

1. Local
2. Recreational
3. Regional

The identification, assessment and selection of routes should include but not be limited to the following criteria:

- **Coherence**: Does the route have continuity, connect with major destinations in the area, such as railway stations, shopping centres, and does it connect with other routes in the network, easy to follow.
- **Directness**: Does the route provide a fairly linear or direct way for cyclist to travel in a north-south or east west orientation (spinal and rib geography of the Blue Mountains)?
- **Safety**: Does the route provide protected crossings, such as traffic signals, at arterial roads? Does the route avoid situations where cyclist may feel unsafe or uncomfortable, for example crossing the Great Western Highway or Railway Crossings, or does it provide a safe crossing of such barriers.
- **Roadway Characteristics and Operation**: If the route travels along an arterial or collector street, can the existing intersection accommodate bike lanes, taking in to account pavement width, traffic volumes, parking demand and the number of traffic lanes, pavement surface.
Visibility: Is the route visible to non-users so that they will be tempted to try it? A bike lane has the highest visibility, with its distinctive signs and pavement markings.

The Blue Mountains Cycling Committee and City Staff were consulted extensively in the development of the network.

Development of Network

The process should allow for at least:

- Individual, face to face consultation with identified staff and stakeholders.
- Undertaking a search of relevant Council held documents, plans, data and reports at Council Headquarters.
- Compiling, summarising, critiquing and giving assessment of currency and suitability of this information.
- Identifying, tabulating and prioritising (High, Medium or Low) actions for both a 5 & 10 year strategy
  - Short term (1-6)
  - Long-term (7-13)
- Short term priority projects should be selected based on the following criteria:
  - Ability to add dedicated bike lanes or widen curb lanes within the existing pavement width or as part of scheduled road reconstruction or maintenance
  - Special focus on linking major employment, transport and shopping nodes
  - Extending or upgrading existing on-road and off road bikeways
  - Providing for crossings of cycling barriers
  - Connecting to existing bikeway facilities
  - Focusing on improved bikeway access to more residential areas; and
  - Completing a major new off road/shared facility Upper Blue Mountains Trail.
- Providing a sketch diagram of any engineering actions and locating it on a suitable plan of the area.
- Provide costings for all actions
- Other essential actions include but not limited to:
  - Bicycle routes – existing & proposed
  - Bicycle facilities
  - Treatments to improve safety and efficiency
  - Cyclist safety, crossing points and access
  - Links to and across the Highway and Railway Corridors. Liaison with RTA or RailCorp for works.
- Any other innovational design concepts deemed appropriate

In built up urban environments, the development of bike lanes within the constraints of existing roadways is a major challenge. In most instances, the City had taken a pragmatic approach, recommending bicycle lanes can be installed with minimal impacts on other road users. In these cases, bicycle lanes can be achieved either by reducing the number of traffic lanes or narrowing lanes. As a general principal, widening roads to provide bike lanes is not usually practical. On some road, minor widening may be feasible at the time of reconstruction.
It should be emphasized that the proposed bike network is a planning tool. The network will evolve as new opportunities and challenges present themselves. Moreover, the cycleway type and alignment of each route will require more detailed design and analysis, as well as consultation with affected residents and business before actual installation.

The implementation of some elements of the cycle network will entail innovative designs because they satisfy import cyclist needs and are representative of the different challenges in building a citywide network:

Regional Strategy - Metropolitan Greenspace Program (MGP)

The Metropolitan Greenspace Program (MGP) has been identified in the Government's City of Cities plan for Sydney's future as a key initiative for improving links between bushland, parks, waterways and centres.

In implementing the program, the Department of Planning works closely with local councils to plan and improve regionally significant Greenspace, including parks, trails and reserves. Building Sydney's Recreation Trails is the strategic priority for MGP funding for the 2006–08 period.

Consultation undertaken on behalf of the NSW Government in 2004–05 identified a strong community desire for parks and trails as places to enjoy a healthy, outdoor lifestyle. The emphasis for MGP in 2007 is to encourage councils to enter into partnerships to develop regional trails projects across their local government boundaries. Additionally, MGP will fund projects to improve regional open space across the Sydney Region.

Aims 2006 – 2008

- To promote the development of recreation trails across the Sydney region with a focus on implementing the priorities of the Regional Recreation Trails Framework.
- To promote partnership between State and local government and in particular the development of joint council submissions for projects that cross local government boundaries such as major walking trails.
- To promote the planning and development of trails to provide Sydney's community with healthy and accessible recreation facilities.

Key outcomes

- Partnering with local government to improve regionally significant open space and links between bushland, parks, centres and waterways.
- Enabling more people to enjoy more parks and trails and to appreciate and enjoy our healthy lifestyle, our heritage and our natural environment.
- Delivering the Government's long-term strategy for meeting the community's need for places of recreation.

This Plan has identified the Upper Blue Mountains multi purpose trail linking the Anderson and Ingar fire trails in Wentworth Falls to Katoomba via Cliff Drive and Katoomba to Mount York trail at Mount Victoria as being of significant important to the regional and local cycling and walking network. It is based upon extensive community
consultation and coordination with adjoining LGA’s Penrith and Lithgow. Funding is currently being sought in the 2007 grant round to engage a suitably qualified consultancy firm to prepare detailed design, costing and schedules for its construction.

These particular links have previously been referred to as a “Spinal Greenway Bicycle Trail” option in Bikeways Plan 1996.

### Recommendation 4.2.1

The City of Blue Mountains implement a network consisting of:

1. Local On Road – In Traffic Lane (Route signage only)
2. Local On Road – Bicycle Lane (Shoulder/Kerb)
3. Local Off Road – Shared Path
4. Recreation On Road – In Traffic Lane (Route signage only)
5. Recreation On Road – Bicycle Lane (Shoulder/Kerb)
6. Recreation Off Road – Shared Path
7. Regional On Road – Shoulder/Kerb Lane
8. Regional Off Road – Shared Path

### Recommendation 4.2.2

That the City research design and demonstrate innovative measures to enhance the cycleway network.

### Recommendation 4.2.3

Footpaths to be audited re their suitability as shared paths and converted with appropriate signage and other identified treatments.

### Recommendation 4.2.4

That the City investigates opportunities for developing an electronic information system for the bikeway network that is routinely updated. Other information could include maps, signage, information boards, use of the City’s Web Site, Blue Mountains Bike Group and other identified sites.
“Ensure the safe and comfortable year round operation of bikeways through design, signage, enforcement and maintenance”

The physical condition of bicycle lanes, off road paths and signed routes is a key factor in any decision to ride a bike for utilitarian or recreation purpose. If for example an off road path remains littered with broken branches for several days after a storm, many potential users will either chose a different travel mode or a less comfortable but cleared cycling route.

On street maintenance needs for cyclist are more stringent than for motorist because a cyclist is riding on two narrow, high-pressure tyres. What may appear to be adequate roadway surface for cars (with four wide low pressure tyres) can be treachous for bicycles. Small rock, sand, gravel, ice can deflect a wheel, a pot whole can cause loss of control or damage to the wheel, and glass can puncture tyres.

The gravel and other debris blown off the travel lane on the roadway accumulates against the kerb in the area where a cyclist may ride.

This type of program and or commitment is required for the cycle network to ensure that cycling becomes an attractive year round travel option.

The maintenance of the cycle network will consist of three distinct functions:

1. **Ongoing inspection and repair of pavement surfaces, bikeway signs and amenities**

   For off road-shared paths this will include:
   - Regular sweeping and/or cleaning of the path
   - Removal of over grown vegetation
   - Replacement of damaged or missing signs
   - Replacement of broken lighting and
   - A re painting program for any pavement markings.

   For bicycle lanes and signed routes such maintenance will be incorporate in the overall street maintenance program with special emphasis given to the two metres adjacent to the kerb.

2. **Quick restoration of the bikeway after an adverse event**

   Adverse events are typically weather related such as windstorms and bushfires.

3. **Special consideration during and after construction activity**

   When a bike lane or signed route is closed for construction, the needs of cyclist must be given special consideration to ensure bicycle access is maintained at all times. This may result in a separate detour route for cyclist.

   As noted previously, cyclists are more sensitive to pavement conditions than motorist. As a result, special care is required when pavement patches or utilities cuts effect a bike lane or signed route. Blue Mountains and other service agencies should adopt guidelines similar to the following.
Utility Cuts

Utilities cuts can leave a rough surface for cyclist if not back filed carefully. Footpaths cuts should be finished as smooth as a new footpath.

Recommendations 4.2.5

Wherever possible:

- Place cut line in an area that will not interfere with bicycle travel.
- Back fill cuts flush with the surface (humps will not get packed down by bicycle traffic)
- Ensure that cuts parallel to bicycle traffic don’t leave a ridge or groove in the bicycle wheel track.
- Back fill cuts in the footpath with concrete, flush with the footpath grade.

Recommendations 4.2.6

That the City to maintains the cycleway network throughout the year to the best of its abilities, including:

- Ongoing inspection and remediation of pavement surfaces, bikeway signs and amenities
- Quick restoration of cycleways after adverse event.
- The review and development of polices for winter maintenance of bikeways on the roadway and off road paths.

Once high casualty and/or crash locations in the cycle network have been identified, they will be the focus of a detailed safety review. A broad range of countermeasures will be considered including:

- Widening a path or constructing a separate path for pedestrians
- Installing signage and pavement markings to identify the proper position of the path or providing warning of unusual conditions (e.g. steep grade); and
- Installing traffic signals to assist path/roadway crossings.

Recommendations 4.2.7

That the City establishes a mechanism for identifying high cycling crash and casualty locations in the cycle network, review such locations on an annual basis and implement counter measures.

The success of the cycleway network in attracting more cycling trips will be assisted by having a user-friendly environment for them to ride in.
Pre trip information

In order for cyclist to effectively use the cycleway network, the information needs must be met both before and during a trip include:

- Assistance in planning a route in relation to the trips origin and destination
- Warnings of unusual route features such as steep grades
- Identification of particular scenic routes for primarily recreational purposes
- Up to date listings of route detours or closures and
- Identification of the bikeway type (e.g. signed route)

Enroute information needs include:

- Selecting the correct direction at an intersection
- Determining distances travelled and distance still to go
- Locating amenities, such as toilets and information centres
- Identifying major destinations and landmarks, and
- Locating network connections to enable easy change of trip destination or routing.

The most basic component of cycleway information system, a map, can satisfy many of the pre trip and on-route information needs. A second component, bikeway signs, will complement the information on the map, yet stand-alone for bikeway users who do not have a map. The information system can also include information boards at major entry points or cycleway intersections, and a website containing detailed maps and up to date route status reports.

Connect the network to cycleways in adjacent Local Government Areas

While the Blue Mountains bicycle network is a major undertaking it can also be viewed as only part of a potential cycleway system connecting the Blue Mountains to Lithgow, Hawkesbury, Penrith and the Greater Sydney Region. This view is closer to how the average cyclist would experience their trip. Local Government Area boundaries are usually invisible and do not function as trip destinations. In many instances however a LGA boundary becomes the ‘end of the road” simply because a proper bikeway connection has not been made to the neighbouring area.

The Council areas and state government are in various stages in the installation of their cycleway networks. There are a number of key routes that require particular attention:

- Katoomba to Mt Victoria – Off Road – Metropolitan Greenspace Project
- Mt Victoria to Hartley (Lithgow) – Off Road
- Cliff Drive Katoomba to Leura – Off Road Shared Path – Metropolitan Greenspace Project
- Hawkesbury Road Winmalee to Windsor – On Road
- Mitchell Pass Glenbrook to Penrith – On/Off Road
- Lapstone Zig Zag to Penrith - Off Road
- Other Recreation On/Off Roads in NPWS and on Crown Land
Recommendation 4.2.8

That the City continues to work with neighbouring Councils and RTA to create seamless bikeway connections across the LGA boundaries.

Recommendation 4.2.9

That the City investigates opportunities to monitor and publish the accessibility of households, communities and facilities in respect to each other through the cycleway network.
SPOKE 3: Safety and Education

Guiding Principles and Objectives

Many people perceive cycling in the City as a high-risk activity. From the Blue Mountains Community Cycling Survey 2005 we know that most people feel most comfortable riding on Cycle Paths (17%), Shared paths (12%) Any road with a cycle lane (15%) and Off road (16%).

Respondents to the survey strongly agree that Traffic Volumes and Traffic Speeds impact on their decision not to ride. This fear of injury on the roads inhibits potential cyclist from riding as often as they might.

The Bike Plan's two goals, **doubling bike trips and decreasing cycling crashes and causalities**, are intrinsically linked.

Encouraging more cycling depends on cyclists feeling safe on the street and in the parks. What does that mean? A completely safe road is one where no collision will ever take place. Given a myriad of environment conditions including that of the road itself and the mixture of road users, expecting a ‘completely safe road’ is not reasonable. However, we all have our own sense of personal safety. The perceived level of safety will be different for each cyclist even if the environment is the same.

Improving driving and cycling skills, attitudes and behaviours through education is an important part of the strategy to make streets as safe as possible. There, the guiding principal for this spoke of the Blue Mountains Plan is:

**“Through education, create an environment where people can cycle on Blue Mountains streets without fear of injury”**

There is broad public support for road safety education and skills programs. In the Cycle survey, when asked ‘what other specialist facilities would you like to see’ 33% respondents indicated the need for a training and education park. When asked ‘What facilities are required as a bare minimum for you to consider letting your child ride to school?’ 9% indicated skills training and education.

Cyclist and motorist share common concerns about crashes. All of these point to the need for education programs to increase skill and foster cooperation among all road users.

One of the major barriers to safe cycling is lack of knowledge on the part of motorist, cyclist and other road users about the rights and responsibilities to sharing the road.

To date, the City’s commitment to cycle education is focused around bike week activities during the month of September. This event is designed to:

1. Encourage great use of the bicycle to reduce short trip motor vehicle journeys
2. Target the entire community
3. Helmet wearing
4. Knowledge and Skills training
The City needs to develop an education program that is flexible in addressing the new and emerging safety issues particularly around common issues of conflict between cyclist and motorist.

The rest of this chapter sets out an education and safety strategy for achieving the following objectives:

1. Develop innovative ways, such as public/private partnerships to fund and sustain safety education programs
2. Develop a Cycling Skills program, including developing a unit/component for drivers
3. Establish a protocol in response to cycling crashes; and
4. Work cooperatively with other agencies such as the RTA and Health, to deliver messages about safe cycling in the Blue Mountains

“Develop innovative ways, such as public/private partnerships to fund and sustain safety education programs”

With an increase in both public concern about safety and request for bicycle safety training and education, the City must find a way to develop, deliver and sustain effective road safety education programs.

If the City can bring new funding partners to the table by initiating a Bicycle Safety partnership, it can use its resources to encourage an on going public, Local Government, RTA partnership on bike safety. Insurance companies, health care professionals, Police, bicycle manufactures, bicycle shops and numerous other organisations have a vested interest in bicycle safety. By inviting these stakeholders to work together and to pool resources and expertise, safety programs can be developed and implemented that would be beyond the resources of any one particular organisation. An active Safety Partnership would result in an increase in effective bicycle safety programming across the Blue Mountains.

Recommendation 4.3.1

That the City establishes a broad based City of Blue Mountains Bicycle Safety Partnership to develop and implement bicycle safety programming.

The Blue Mountains must continue to build on the current investment in Bike Week activities, the development of the Cycleway Map and other bicycle and road safety projects. Evidence from successful awareness programs that Council have already initiated about road safety and environment issues, indicates that exposing the public to these message and projects builds momentum and can result in a raised awareness levels and changes in behaviour. The City must continue to fund the development and delivery of existing road safety education programs and this level of funding should be clearly identified in the annual operating budget for the City.
A multi-faceted communications strategy is needed to expand our reach into the community. The communication strategy should address both the content of the message itself and how that message is delivered. We should take care to broaden our approaches to getting the message out. Previous efforts have included local newspapers, internet sites, school newsletters, the Blue Mountains Cycleway Map and other media sources. The intent is to have bicycle safety information accessible to a wide variety of audiences. These groups include young people, women, seniors, motorist and economically disadvantage residents.

The City should address their needs to both in keeping them actively involved and to encourage them to start cycling. If the target number of cycling trips is to be obtained then the concerns of these people need to be addressed.

Recommendation 4.3.2

That the City maintains its current commitment to bicycle safety programs by:

- Providing a stable level of core funding in the annual operating budget
- Supporting an entrepreneurial approach to generating revenue for the expansion and sustainability of programs
- Investigating new innovative programs to make bicycling safety information and training more accessible to specific target audiences

Develop a Cycling Skills program, to include developing a unit for drivers

Provide practical information about bicycle safety for cyclist of every age and ability. Courses should cover crash avoidance techniques, bicycle handling skills, safety equipment, the Australian Road Rules, lane positioning, to anticipate possible conflict and to take preventative action with a particular emphasises on communication with other road users.

The City will make a significant investment in developing these Cycling Skills Course in the Blue Mountains. The intent is to make them available to schools, business and the general community.

The City in partnership with the other cycling groups looks towards developing and offering other cycling related programs such as bicycle mechanic course.
To realise this objective, the City must take several steps including:

- Engage suitable qualified instructors to deliver programs
- Heavily promote and advertise the Cycling Skills Course

Training cyclist and informing them about appropriate cycling techniques is not enough on its own to prevent crashes. Motor vehicle drivers must also become more skilled at sharing the road with Cyclist. Motorist needs to learn new skills and attitudes to safely share the road with cyclist and other road users in general.

**Recommendation 4.3.3**

*That the City investigates the opportunities in partnership with the RTA and other agencies to develop a motor vehicle driver education program.*

**Establish a protocol in response to cycling crashes**

Creating a safe environment where people can ride without fear of injury goes beyond injury prevention programs. There is a real need to respond to crashes in a way that mitigates the factors that lead to the crash. This can be done in three ways. The City can begin by encouraging cyclist to report their concerns about road safety. Secondly, analysis of crash data should be undertaken to identify and then implement improvements in infrastructure, education programs and enforcement programs. Finally, the City can provide information to cyclist involved in crashes. By establish a protocol to cycling crashes; the City can improve the cycling environment.

A review should then be undertaken to process the crashes data on a regular basis. This review will allow for the ongoing review of bicycle crash trends. It will also serve as a mechanism to exchange information between groups and Council working on bicycle safety. This exchange should allow the City staff to identify trends and to work co-operatively on existing or new initiatives.

**Recommendation 4.3.4**

*That the City establish a process to review cycling crash data on an ongoing basis, and determine education, enforcement and infrastructure priorities for improving bike safety.*

The threat or experience of being involved in a bicycle crash has a huge impact on whether people ride, how often they ride and where they choose to ride. While improving roadway conditions and adding safety equipment (like air bags) to cars can help reduce injuries to car occupants, few advances protect the cyclist in crash.
Recommendation 4.3.5

That the City investigates opportunities to work with the NSW Police to develop materials to assist cyclist involved in crashes, as well as other agencies that have, or could share responsibilities related to bicycle crashes.

Work cooperatively with other agencies such as the RTA and Health, to deliver messages about safe cycling in the Blue Mountains

To double the number of bicycle trips in the Blue Mountains within 13 years, the City must invest in creating a safe, comfortable and bicycle friendly environment. To be successful, the City must approach other organisations such as Police, Department of Education, Department of Health, and RTA to play a role in this process. Many of these organisations have similar mandates in terms of safety, education, environment and quality of life. Working cooperatively will make sure those messages are consistent and that the participants can avoid duplicating initiatives.

Recommendation 4.3.6

That the Blue Mountains Police are requested to continue their active role in bicycle safety by:

- Bicycle patrol officers
- Working with City staff to establish enforcement priorities based on crash data
- Cycling Skills Course participation
- Providing representation on the City’s Bicycle Safety Team
- Highway Patrol focus on cycle safety
SPOKE 4: Promotion

Guiding Principles and Background

Bicycle ownership in the Blue Mountains survey result shows that 23% of households have at least 4 working bicycles and that at least 2 of them get ridden at least 34% of the time each month.

Despite high bicycle ownership, many cyclists still do not think of cycling as a transportation option. Recreation cycling (21%) is popular with residents across all areas of the City, while the number of commuters (9%) or utilitarian cyclist is much lower and tends to be concentrated in areas.

Encouraging occasional recreation cyclist to leave their cars at home more often and commute or use their bikes for other purposes has significant benefits for the health of our City. While the Blue Mountains Bike Plan 2020 aims to encourage all types of cycling trips, one of the most important objectives is to encourage recreational cyclist to use their bikes more frequently for everyday transportation. The key to achieve this important objective is promotion, which is really about changing attitudes and behaviour towards cycling and generally about all personal transportation.

Events, communication and programs can inspire and motivate existing cyclist and encourage them to make more bicycle trips, thereby stabilizing the cycling sector.

Promotion and marketing are crucial to gain additional cyclist (i.e. to attract the non cyclist), encourage the recreational cyclist to commute and to change attitudes and behaviour towards cycling as everyday personal transportation. The guiding principal for promoting cycling is:

“Every bicycle trip improves the quality of life for all Blue Mountains Residents”

How does it improve the quality of life for everyone?

- Every car trip converted to bicycle contributes to improvement of air quality and a reduction of green house gas.
- Regular physical activity improves health and fitness and lowers health care cost.
- Fewer motorized trips means less traffic congestion and stress, and
- Cycling puts people in touch their local community.

The City must combine new infrastructure amenities and education with policy developments and promotion so that all residents of the City are aware of their transport choices, including the cycling network. Promotion and marketing will change attitudes and behaviour towards cycling and personal transportation, and encouraging people to choose cycling as a convenient way to get around.

A few of the most successful promotional iniatives by Council have been the annual Bike Week activities and the Cycleway Map. The Road and Traffic Authority also run
an annual Cycle Sydney and the Big RTA Bike Ride which all goes towards the promotion of cycling.

Promoting cycling in the Blue Mountains has been an evolutionary process. Evaluating existing programs, building on their strengths and establishing new directions are necessary steps to achieving the BMBP goal of doubling the number of bicycle trips.

The promotional strategy set out in this plan is designed to meet the following four objectives:

The City of the Blue Mountains will:

1. **Encourage cycling for everyday transportation**
2. **Promote cycling to a wide audience via effective use of media and public outreach**
3. **Demonstrate leadership through innovative policies and facilities that encourage City employees to cycle**

Each objective and its accompanying recommendation are outlined in greater detail in the following sections.

**Encourage cycling for everyday transportation**

While it is important to promote cycling in general, there is a specific need to encourage more bicycling commuting. New cycling infrastructure, bike lanes and bike parking for example will influence these practical trips.

Just as important, promotion needs to begin by changing attitudes, reinforcing that bicycle commuting can be both practical and enjoyable. This section describes two programs, which focus on shifting attitudes and behaviour towards cycling to work and school.

**Events and Programs**

The aim of Bike Week is to hold events that encourage riding around the local community and incorporate the promotion of safe cycling behaviour. This takes place in September of each year. Council has been helping to support, develop and coordinate Bike Week with other individuals, bicycles users group and organisations. Part of the success of previous promotional efforts has been the ability to work together to organise communications and events. Communication includes newspaper press releases and special interest articles. By networking with individuals, community groups, schools, organisations, local businesses, the City seeks to increase participation. Additional resources are needed to promote Bike Week across the City. The challenge of the future is to inspires new individuals and organisations to participate by organising, facilitating, donating or assisting in Bike Week events.
Bike –to- School Program

Approximately 9,600 students attend Blue Mountains schools. Thousands of short distance car trips to schools create traffic safety and congestion problems because many parents and carers drive students to school.

Local Schools

School aged children in the Blue Mountains need to learn and be encouraged to ride their bikes safely. This is a basic life skill that should precede learning to drive a car. Encouraging children to ride to school and in the neighbourhoods will result in a generation capable of making healthy choices about transportation. Today, many parents drive their children to school. Parents afraid for their children’s safety, often discouraging them from cycling. Schools also discourage children from riding to school because of safety concerns and liabilities associated with bicycle theft and personal injuries. On the other hand, students are affected by smog and lack of opportunities for physical activity. Cycling should become an integral part of life in schools.

Parking around schools

There exist an opportunity to decrease the congestion around our school zones by simply decreasing the amount of vehicle vying for limited car parking around our schools. The City in partnership with local schools, Parents and Citizen groups, bus companies and Police should investigate ways of reducing the reliance and dependence on motor vehicles and look to incorporating cycling to school programs across the City.

Some potential initiatives that the City should explore with local schools include:

- Develop a plan to offer the Cycling Skills Course into schools
- Develop a Bike to School program
- Develop bicycle safety resources target for school age children
- Develop bicycle helmet education programs
- Develop a kit for Parents and Citizen and other such groups with bicycle safety training
- Membership on the Bicycle Safety Partnership.

In the last two decades, more sedentary lifestyles have resulted in an increase in the proportion of overweight children ages 7-13 (1). Short distance car trips to schools are ideal candidates to switch to cycling trips. Schools and P&C have done little to date to encourage cycling as one of the ways to solve the problems that short distance car trips to schools create.

**Recommendation 4.4.1**

*That the City continues to expand Bike Week and ensure that events are available in various locations across the City.*
The main barriers discouraging this potential increase in school-oriented cyclists are concerns about traffic safety and bike theft. Some schools actively discourage cycling to school because they do not have secure bike parking and are concerned about related liabilities.

The City should work with school committees to develop bike – to – school and bike parking pilot programs, research bike – to- school activity in selected schools and develop criteria and an ongoing (including funding) for providing bike parking at all schools.

Recommendation 4.4.2

That the City works with Schools and other agencies to develop a Bike – to - School Program, which will identify safer routes to schools and provide secure bicycle parking, and bike training and incentive programs for students and their parents.


Promote cycling to a wide audience via effective use of media and public outreach

Promotion of cycling occurs through two major streams: cycling related events and programs and the dissemination of cycling information through comprehensive communication programs that include a variety of materials and delivery methods. Set out in this section is a review of some recent programs and recommendations on how to build upon their success.

Currently the City spends a significance amount of time and energy on Bike Week. As a result Bike Week enjoys a great deal of media coverage and public attention. To ensure that cycling is recognised as a year round activity for an increasing number of people, and to reach the goal of doubling the number of cycling trips in the City over the next 13 years, the City develops new activities and events for other times of the year.

There should be cycling promotional events in each of the areas of the City. Although the size and focus of new activities and events can vary, they should connect to existing events such as Bike Week, RTA Big Bike Ride, Cycle Sydney and other such events. The City should work in cooperation with clubs, organisations and the media to develop more events over the greater part of the year. The city could assist in the promotion of events by developing a calendar for the full year. This could be a guidebook to bicycle events in the City for all residents and visitors.

Communications

Effective communication is a very important component of a promotion plan that seeks to educate, inform and increase awareness on matters concerning cyclists in the City. If the City’s goal is to change attitudes, communication must be ongoing and not
restricted just to media covering specific cycling related events. Nevertheless, media coverage remains a very effective method to reach a large number of Blue Mountains residents.

Communications includes promotional materials that are available through a variety of means to residents of the Blue Mountains.

The Cycleway Map is a valuable education and promotional tool. In additional to being useful for navigating the City, the map also provided and effective means of dissemination cycling related information focusing on safety and other useful contacts.

Recommendation 4.4.3

That the City works with relevant stakeholders to develop and produce up to date and relevant Cycleway maps. These stakeholders include:

- Tourism;
- NPWS;
- Neighbouring LGA’s;
- Department of Lands; and
- Health

Recommendation 4.4.4

That the City works with other groups and agencies to promote cycling facilities, programs and events through a variety of media, including:

- An annual cycling guide of activities and events;
- The City’s website;
- Special cycling events throughout the year;
- Tourism;
- NPWS;
- Neighbouring LGA’s;
- Department of Lands; and
- Health

**Demonstrate leadership through innovative policies and facilities that encourage City employees to cycle**

Encouraging the use of bicycles for everyday transportation is an effort that will require more resources and influence than those of the City alone. Every employer has a role to play in encouraging and supporting amongst its own work force. The City of Blue Mountains must also play an important leadership role in encouraging and supporting the City’s many other employers in participating in this initiatives. To be a creditable leader, the City must do much more to encourage others, it must lead by example.
Being a leader means providing high quality parking, shower and change facilities for bicycle commuters at all work places, and establishing innovative policies for encouraging City employees to cycle.

The City should explore a number of initiatives to demonstrate leadership. Some of these include:

- Maintaining a pool of bicycles available for staff to conduct City business by bicycle rather than by car
- Compensating employees who choose to use their own bicycles for City business, just as it compensates employees who drive their own cars for City business
- Making cycle training courses available to City staff on staff time, to minimize risk associated with using a bicycle during the work day and to enhance the cycling skills necessary to commute safely by bicycle
- Create an incentive program for employees who cycle to work
- Developing contest among departments to encourage increased ridership
- Installing bike parking facilities outside of all City buildings (police stations, parks and recreation centres) and indoor parking facilities wherever possible
- Encouraging a bicycle mentoring or linking program (so cyclist can find a colleague with whom they can ride to work with)
- Installing shower and change facilities for employees
- Providing lockers for storing clothes.

**Recommendation 4.4.5**

*That the City takes a leadership role in encouraging and supporting cycling as a mode of transportation for City staff, including:*

- Developing a plan for providing high quality bicycle parking and shower/change facilities at all civic work places
- Offering bike training courses to all City employees through the regular employee training and development programs
- Providing a pool of bicycles for City employees to use in conducting City business
- Compensating City employees (through kilometres disbursement) for using their own bicycle to conduct City business

**Encouraging other employers to Promote Bicycle Commuting**

Having established leading facilities and policies, the City should document and promote these to other employers. Promotional materials explaining the benefits of encouraging bicycle commuting, accompanied by incentive programs and friendly competition, will significantly increase bicycle commuting across the City.
**Bicycle Group**

The City will provide support for the Blue Mountains Bicycle Group to promote cycling within their area of influence. Their efforts to increase the number of bicycle trips will compliment those of the City and provide opportunities for partnerships to share responsibilities and resources.

The purpose of the Bicycle Group is to support people in choosing bicycle transportation in every workplace, neighbourhoods, school and community, increase the number of bicycle trips and reduce the number of car trips in the Blue Mountains.

**Bicycle Friendly Business Awards**

The City will recognise and honour leading edge bicycle promotion by other agencies and private corporations though the Bicycle Friendly Business Awards. The Awards will recognize small and large businesses and corporations for their efforts in promoting cycling. These awards remind the private sector that it has unique opportunity to facilitate the use of a healthier, more sustainable and more enjoyable method of transportation.

**Recommendation 4.4.6**

*That the City continues to encourage other employers in the Blue Mountains to promote and support bicycle commuting including:*

- Providing information and technical advice on the provisions of bicycle parking facilities;
- Developing a plan for establishing Bicycle User Groups; and
- Develop an annual Bicycle Friendly Business Awards Program
SPOKE 5: Cycling and Transit

Guiding Principles and Background

Bicycling and public transit both provide transportation alternatives to the private car. But for many travellers, neither form of transport alone can compete with the car’s range, flexibility and convenience.

However, if bikes and transit work as a team they make a formidable alternative to the car – just as flexible and convenient, more relaxing and often faster. Without the car’s environmental impacts.

Given the goal of doubling the number of cycling trips in the Blue Mountains by 2020, the City needs to take better advantage of the cycling transit connection. The guiding principal for this spoke of the BMBP is:

“Greater access and service opportunities for every day travel commuters”

We know that cyclists identify distance and hilly terrain as one of the major reasons they don’t ride their bicycles to travel to work, school or for other utilitarian purposes. Accordingly, 42% of respondents to the Community Survey indicated that it was while they decided not to ride, encouragingly however is that only 16% disagreed that this was a factor.

The combination of cycling and public transit – Bike and Ride – offers an excellent way to expand the practical trip distance and terrain for cyclists. Travellers can ride their bikes to the nearest train station or bus stop and continue their journey on transit, with or without their bicycle. This travel option is very popular in some major European cities, but has not yet been either readily available or adopted in the Blue Mountains.

19% of survey respondents thought better storage on trains were a minimum need for them to take up cycling as a regular transport option.

The number of bike and ride trips can be greatly increased without significant infrastructure improvements and with sustained promotion and encouragement, it provides further support for the high potential of this transportation alternative.

State Rail and Blue Mountains Bus Company are the main transit operators in the Blue Mountains. State Rail network consist of 18 stations running along the spine of the mountains. The location of these railway stations in most areas requires a bicycle ride of approximate 10/20 minutes to connect to the nearest station.

Blue Mountains Bus Company run routes servicing both schools and general commuters. These routes, which primarily run during peak commuter times, provide readily access for cyclist to link with.

The Cycleway Network over the next 13 years will complement this existing network, which will be integrated into the existing transit stations and routes.
While the Cycleway Network, by itself will increase the number of bike and ride trips, the plan includes four objectives to further strengthen the cycling/transit connection:

1. **Improve bicycle accommodation on transit vehicles**
2. **Improve bicycle parking facilities at transit destinations**
3. **Improve bicycle access to transit destinations; and**
4. **Promote ride-train-ride, ride-bus-ride and other non vehicle means of commuting**

The following sections will describe these objectives in detail and present specific recommendations. The final section of this section addresses the funding and implementation of the recommendations.

**Improve Bicycle accommodation on transit vehicles**

While many bicycle/transit trips can be accurately described as ‘bike and ride’, there is a portion of travellers who use a bike - ride - bike combination by taking their bicycles on the transit vehicle. Having a bike at both ends of the trip provides greater flexibility and convenience and in some instances, can reduce the time and travel cost.

Limited availability on trains, especially during peak hours, makes it difficult to use a bicycle at both ends of a trip.

For Blue Mountains Cyclist, bicycle accommodation on transit options can be improved in many ways. This section reviews two improvements requested by cyclist during the study process – bike racks on bus, and permitting greater access for bikes on state rail trains.

**Bike Racks on Buses**

There currently exists no provision on buses in the Blue Mountains to carry bicycles. Bike racks on bus will provide benefits for both cyclist and non –cyclist using buses. For cyclist during peak periods, the rack enables the bike to accompany the traveller, to use their bike at the other end of the journey.

11% of respondents considered racks on bus as being an important option if they are to personally start using their bicycle as a transport option.

Numerous North American cities with racks on buses include Vancouver, Seattle and Phoenix. The Seattle transit system now carries 60,000 bicyclist a month.

Similar programs are currently running in Brisbane and Canberra.

A primary concern that might arise from the installation of racks on buses is the extra time taken to load the bike onto the rack and enable the bus to maintain its schedule.

The benefits and potential impacts of bike racks on buses can best be evaluated in detail via a pilot project. Bike racks would be installed on a few buses to serve a route or routes. Routes would be selected for evaluation, which minimizes impacts on bus schedules and still is able to capture significant data. The decision on whether to develop a bike rack program will be based on the results of this evaluation.
**Bikes on State Rail Trains**

Bicycles are permitted on trains free of charge on the weekend and in off-peak periods. However, if part or all of the journey is made between 6am - 9am or between 3.30pm to 7.30pm on weekdays then a child ticket must be purchased for the bicycle as well as a ticket for yourself.

There are a number of Blue Mountains commuters and tourists who travel in the non-peak period. A bike and ride can be an attractive option for such travellers, especially if the trip is lengthy or entails difficult riding such as steep grades of busy roads.

*Refer Recommendation 4.5.3*

**Improve Bicycle Parking at Transit Destinations**

Of the 18 railway stations on the Blue Mountains Line, 8 have bicycle lockers, cages or racks. The current occupancy rate on racks is near 100% while that on lockers is 75%.

Bicycle New South Wales currently in partnership with NSW Transport monitor the usage, maintenance and hiring of bike lockers throughout the network.

The City is currently reviewing existing usage and upgrading of some locations. The importance of enhanced bicycle parking for encouraging bike and ride activities was highlighted in the 2005 survey. 60% of respondents consider bike security as high with only 16% giving it a low rating. 34% would like more lockers at train stations and a further 51% requested them at shopping centres.

There are two main types of bicycle parking, which will be considered at transit points, bike lockers and bicycle racks.

**Bicycle Lockers**

Bicycle lockers are a significant improvement to the level of security for bike and ride travellers. All lockers are key operated and rented for a nominal fee per month at a time. The authorities are currently reviewing the use of lockers for security risk.

**Bicycle Racks**

One of the simplest and most cost effective ways to improve the quality of bicycle parking at transit stations is bicycle racks, and if possible under shelter. Shelter gives the users the assurance that their bikes are protected from adverse weather, which is not uncommon in the Blue Mountains.
**Improve Bicycle Access to Transit Destinations**

42% of the survey respondents indicated that new links should be installed around shops and railway stations. This supports concerns that on of the barriers of riding to the station are the quality of the bike ride in the vicinity of the station.

Transit stations themselves can contain barriers to travellers with bikes. Probably the most common barrier is a staircase, requiring the bike to be carried up or down. Over the past several years State Rail as part of their access program have installed lifts at Katoomba, Springwood, Penrith and Blaxland stations.

As part of the Network strategy, these linkages between key routes and transit stations will be given a high ranking.

**Recommendation 4.5.2**

*That the City of Blue Mountains in partnership with State Rail undertake a comprehensive review of bicycle access to all transit stations in the City and implement improvements wherever possible.*

**Promote ride-train-ride, ride-bus-ride and other non-vehicle means of commuting**

The combination of cycling and transit makes a formidable alternative to the car for many urban trips. However, while bike and ride remains a relatively new concept in Australia, both Canberra and Brisbane have successfully implemented this type of program.

Marketing and promotion strategies must be targeted to specific audiences for maximum impact. Research shows that by combining cycling and transit the following characteristics of the most likely convert to bike and ride:

- The trip must be some length where fuel and other cost become a factor
- The trip may involve severe traffic congestion give rise to unpredictable delays, perceived dangers and considerable irrational
- There are at least moderate parking problems or cost at the end of the trip
- The family is ideally a single car family living in an area with infrequent or not easily accessible public transport, so there is pressure for the car to be available to other household members
- The individual lives more than 6-7 minute walk from the transit stop or station but no more than a 10 minute bicycle ride away
- The individual already owns a bicycle and is disposed to cycling; and
- There are no steep hills or serious hazards that the individual would have to negotiate going to and from the station

The Blue Mountains Cycle Way map provides an additional resource in this regard by providing a number of route profiles for potential bike-and-ride converts and general bicycle rides.
Because the promotion of bike-and-ride involves two travel modes, there is a need for strong cooperation among the Road Authority (RTA), State Rail, Blue Mountains Bus Company and the City of Blue Mountains. This will entail jointly sponsored advertising campaigns, as well as joint publications and special events.

**Recommendation 4.5.3**

*That the City of Blue Mountains, RTA, State Rail and Blue Mountains Bus Company investigate the feasibility of developing a coordinated Bike - and - Ride program and promotion strategies and related initiatives.*
SPOKE 6: Bicycle Parking

Guiding Principles and Objectives

Cyclists who bike to work, to school or for other practical purposes need more than a network of safe and convenient routes to their many destinations. Equally important, they need a secure place to park their bicycle when they arrive, whether it is for 5 minutes or the whole day. Bicycle commuters also need convenient access to shower and change facilities. The essence of these supportive facilities is a deterrent to more widespread use of bicycles for everyday transportation in the Blue Mountains.

Given that secure bicycle parking is essential to most bicycle trips, the guiding principal for this spoke of the Blue Mountains Bike Plan is:

"Secure and convenient bicycle parking must be available at all cycling destinations to encourage and support cycling"

A comprehensive bicycle parking program must provide 2 levels of parking to match cyclist needs. Basic parking is typically a bike stand/rack on the footpath suitable for short term parking, ideally no more than 10-15 metres from the building entrance. Short term parking will accommodate customers, visitors, couriers and other cyclist who are parking for no more than one or two hours. An enhanced level of service is required for long term bike parking geared to employees, students, residents and others who will be parking for more than two hours. This parking will be provided in a secure, weather protected location on the building site. These facilities can include bicycle racks in a monitored area, a limited access room or garage and bicycle lockers.

The rest of this section of the plan will outline a bike parking strategy for achieving the following 4 objectives:

1. Expend the basic bicycle parking program to serve all public cycling destinations
2. Develop and provide enhanced bicycle’s parking facilities which provide security from theft and protection from the elements
3. Require and encourage the private sector to provide bicycle parking at their buildings; and
4. Develop effective strategies to prevent bicycle theft

Expend the basic bicycle parking program to serve all public cycling destinations

The City has installed bicycle racks at some civic centres, swimming pools, railway stations, shopping precincts and other recreation and park facilities. However, this has not been a systematic program but dealt with on an individual basis or as requests are received.

The City is currently developing a set of urban design guidelines, which will determine the most appropriate type, colour, and style for each individual town or village for bicycle racks in the City.
The current trend is to have loop or hoop style racks installed. This style is well suited to the village urban footpaths where there are many competing demands for the limited space. Bicycle parking on footpaths will always be secondary to their primary purpose, which is to provide safe access for pedestrians. Therefore the City must begin looking at innovative approaches to bicycle parking. European cities have developed very space effecting parking racks, which could serve a model for new rack designs. Some on street parking spaces could be more efficiently converted to bicycle parking – serval bicycles can be parked in the space required for one car.

Very few recreation facilities, community centres and libraries have sufficient bicycle parking. All of these locations require bicycle parking. Locations and parking type will be assessed and prioritised as part of the Phase 1 and 2 of the plan.

The assets branch will be responsible for the management for this part of the program.

**Recommendation 4.6.1**

*That the City’s Asset branch investigate the feasibility of developing and implementing a comprehensive city wide bicycle parking program, which will:*

- **Install bicycle parking at all civic centres and work Sites, recreation facilities, libraries, transit stations and other civic buildings.**

Blue Mountains schools and TAFE colleges have a responsibility for providing bicycle parking for the students and staff. The City has a role in encouraging them to promote cycling and assisting them in developing effective bicycle parking programs.

There has been very little work by schools or the City to encourage cycling to school. There are 2 main barriers to encouraging cycling to Blue Mountains Schools – concerns about traffic safety and bike theft. Some schools actively discourage students from riding their bikes to school because they don’t have secure bike parking.

**Develop and provide enhanced bicycle’s parking facilities, which provide security from theft and protection form the elements**

To date, Council has been successful in providing convenient short term parking, primarily on city footpaths. Council has also been similarly successful in implementing the Secure Bicycle Locker Program, which is a Department of Transport initiative, which is managed by Bicycle New South Wales integrating bicycle and public transport travel.

As part of this program secure bicycle lockers have been installed at key railway stations and transit locations. These being Blackheath, Katoomba, Wentworth Falls, Woodford, Springwood, Blaxland and Glenbrook railway stations.

Lockers can be rented for a minimum period of three months, for $50.00 including GST, plus a refundable key deposit of $50.
The City needs to expand the range of services for cyclist by developing enhanced bike parking facilities, which offer higher levels of security against theft, damage and protection from the elements. These types of facilities typically include bicycle lockers and shelters.

This type of security is particular well suited where indoor secure parking is not available for commuters and is currently and can be continued to be located in car parks and other city owned space. Private owners for private use can also purchase lockers.

Providing protection from the weather is an important amenity for the cyclist who rides in all kinds of weather. The City experiences often adverse weather conditions, particularly through the winter months. Some research is needed to develop simple design concepts, identify potential shelter locations and investigate the potential for cost recovery through advertising revenue or sponsorship.

Recommendation 4.6.2

That the City research and develop demonstrated projects for enhanced bicycle parking facilities, including bicycle lockers and bicycle shelters.

Another idea which has gaining popularity in North America and Europe is the Bikestation, a full service bicycle storage and rental facility. Bikestations provide a full range of services for cyclist including monitoring bike parking, bike locker rentals and repair shops, changing rooms and transit and cycling information.

Indoor monitored bicycle parking and repair centres are common in Europe and Japan. There are over 3000 such facilities in Japan and 84 bike stations in the Netherlands with capacities from 1,150 to 4000 bicycles. They are typically located at public transit and train stations as well as high density bicycle destinations such as universities. (1)

At present there is not sufficient number of cyclists to warrant such a service in the Blue Mountains.

Require and encourage the private sector to provide bicycle parking at their buildings

The City has an essential function in providing bike parking at all public destinations as described in the previous sections. The private sector has an equally important role in providing bicycle parking and commuter cyclist amenities for their employees and customers. The City will encourage the private sector in this effort by establishing bicycle parking requirements for different land uses and developing design standards in consultation with the developer, industry and established guidelines. The City will encourage the private sector to provide high quality bicycle parking.

Given that it is the City’s goal to increase bicycle use, bicycle parking requirements must be based on future bicycle parking demands, not just existing cycling levels. There needs to be a review of the existing bicycle parking development control requirements for all new developments to ensure that future needs are met.

Recommendation 4.6.3

That the City evaluates the existing zoning regulations and develops new requirements for bicycle parking and shower/change room facilities that would apply to all appropriate use in the City.

To ensure that bicycle parking and shower/change facilities in private buildings meet consistently high standards, the City will produce bicycle parking guidelines in consultation with the development industry. These guidelines will explain the benefits of bicycle parking, describe the city’s bicycle parking requirements and offer practical advice on how to provide high quality bicycle parking and shower change facilities, either retro fitting or in original design process.

A clear set of guidelines will also benefit planners who review development applications for compliance with a wide range of council requirements, including bicycle parking. The guidelines will be complement by training for staff in the development review process.

Develop effective strategies to prevent bicycle theft

For many cyclists, the risk of having one’s bicycle stolen is a major obstacle to more frequent cycling.

The usual source of information on bicycle theft is police records, however this reveals only part of the true picture. Many stolen bicycles are not reported to the Police.

Since the reporting of bicycle theft rarely results in the bicycle being found, many owners are of the opinion that there is no point in reporting it.

Effective bike theft prevention starts with secure bike parking. While implementing the bike parking strategy described in this section, it will go a long way towards reducing bicycle theft, it is not enough. A comprehensive theft prevention strategy must
consider all the factors, which contribute to bicycle theft. Cyclist must be more diligent in locking their bicycles at all times and using high security locking devices. Police resources must be directed to catching bicycle thieves. The laws covering the purchase of stolen bicycle by cash converters and pawn shop type businesses must be enforced and supported by the priority education by the relevant authorities.

Recommendation 4.6.4

That the City investigate the opportunities of developing and implementing a strategy for reducing bicycle theft, in cooperation with the NSW Police, bicycle retails and insurance industry, research and develop.
SPOKE 7: Tourism

Guiding Principles and Objectives

Developing bicycle tourism can have significant benefits for both the economy and the environment. The concept of sustainable tourism is growing. Sustainable tourism is based on the combination of ecological, economic, ethical and social equality for local communities.

The world Tourism Organisation reports that nature based tourism is the fastest growing sector in world tourism. The Blue Mountains Regional Tourism Plan 2004-2007 identifies Nature Based Experience’s as a key area of market appeal. The vision for tourism in the Blue Mountains is:

“The Blue Mountains region will become Australia’s premier nature Based recreational destination and an internationally recognised leader in sustainable tourism practices”.

Sustainable development is a guided process, which envisages globally managing resources so as to ensure their viability, thus enabling the City to preserve their natural and cultural capital, including protected areas. As a powerful instrument of development, the tourism industry can and will participate actively in the sustainable development strategy. A requirement of sound management of tourism is that the sustainability of the resources on which it depends must be guaranteed.

Given that Tourism is continuing to grow as a sustainable industry, the guiding principal for this spoke of the Blue Mountains Bike Plan is:

“Provide the Greater Blue Mountains Region with sustainable recreational cycling opportunities in return for regional infrastructure funding and local business opportunities”.

The rest of this section of the strategy will outline a cycling tourism strategy for achieving the following 3 objectives:

- Develop recreational routes and facilities to accommodate cycling
- Liaise with government agencies and related business to develop and link cycleways with those on Council lands
- Provide businesses that develop sustainable cycling tourism with cycleway network and usage information

Develop recreational routes and facilities to attract cycling.

As part of the bike network planning process the City must identify and provide a network of links that provide focus on attracting tourist to the area. These links must be intrinsically linked to other tourism attractors in the region. One of the challenges to be faced are that of providing a range of paths, trails and facilities that adequately meet
the needs of the range of visitors. Research shows that visitors are coming to the region to experience a range of various experiences. These might range from galleries to fine food and extreme adventure activities.

Blue Mountains Tourism Ltd is the organisation that promotes the Blue Mountains as a tourist destination. Promoting bicycle tourism is a long term objective of this plan, and the City should work with Blue Mountains Tourism Ltd to incorporate cycling information in its tourism promotional activities.

**Recommendation 4.7.1**

*That the City work with Blue Mountains Tourism Ltd to explore opportunities with other interest groups, agencies and government to promote bicycle tourism in the Blue Mountains.*

**Recommendation 4.7.2**

*That the City in partnerships with Blue Mountains Tourism and other tourism operators develop a list of experienced based attractors to enable effective linkages to be identified.*

**Liaise with government agencies and related business to develop and link cycleways with those on Council lands**

A percentage of cycling tourist come to the mountains to access several of the renowned fire trail routes that exist in the Blue Mountains National Park. Of particular note is the Woodford Fire Trail and Narrow Neck. At present the number of approved trails is limited. Factors influencing the access are maintenance, insurance and proximity to restricted and authorised areas around the water catchment.

To enable the further development of a complete inter connecting network the City needs to continue its liaisons with these bodies in securing access to these corridors.

**Recommendation 4.7.3**

*That the City develops partnerships with the relevant corporate bodies to securing access to land to enable linkages with other tourism attractors and the cycle network.*
Provide businesses that develop sustainable cycling tourism with cycleway network and useful information

Events and facilities that encourages cyclist to stay longer will result in increased economic benefits. The economic benefits resulting from bicycle events are well documented.

**Recommendation 4.7.4**

That the City establishes and maintains a data base of business with a focus towards cycling tourism and provide them with relevant and useful information.

The environment for bicycle tourism in the City will improve as the seven components of the BMBP are implemented. People will visit the Blue Mountains for other reason will be encouraged to cycle if the infrastructure makes it easier for them to do so, as it does in other cities such as Amsterdam and Copenhagen. By year 2020 of the BMBP, the City will have built a foundation for bicycle tourism.
5. IMPLEMENTATION AND EVALUATION

Introduction

The Blue Mountains Bike Plan described in the previous sections of this report, sets out recommendations for creating a safe, comfortable and bicycle friendly environment in the Blue Mountains, which will encourage people of all ages to use bicycles for everyday transportation and enjoyment. The implementation strategy describes in this section sets out the ‘means’ by which the recommendations will be implemented and goals of the plan achieved. The plan includes management, co-ordination, public consultation, funding, monitoring and evaluation.

Implementation Strategy

The BMBP is a comprehensive and strategic in nature. As such, it will need to be implemented efficiently through an incremental process, with each step or action building upon previous ones. It is also a plan designed to be flexible, and thus it is intend to evolve over time.

The recommendations have been prioritised, and scheduled through two phases for implementation over a ten-year horizon.

Phase 1. Short term (1-7 years)
Phase 2. Long Term (8-13 years)

Attachment 1 - shows the renewal of existing network, proposed actions, cost estimates by component area and priority.

Attachment 2 shows the new proposed network, actions, cost estimates by component area and priority.

The order and timing of priorities set out in the attachments is intended as an initial guide for implementation. They will be reviewed and updated annually as part of an annual progress report that will include infrastructure and programming priorities and budget requirements for the upcoming year/s. Therefore, as the plan evolves it will need to adapt to change. This may be in response to opportunities that may emerge or because of input derived from the ongoing monitoring and evaluation of the strategy.

It is proposed that by the end of Phase 1, 2013 the major links of the network should be completed and that links are made to major existing off road paths throughout the City.

Short-term priority projects were selected based on the following criteria:

- Ability to add dedicated bike lanes or wide curb lanes within the existing pavement width or as part of scheduled road reconstruction
- Complete the regional link along the Great Western Highway
- Special focus on major employment nodes
- Extending or upgrading existing on-road and off-road cycleways
- Providing for crossings of cycling barriers
- Focusing on improved bikeway access to more residential areas; and
This first phase will serve to make cycling for utilitarian purposes more convenient for a greater number of people and significantly increase cycling trips.

**Multi-Faceted Plan**

The Bike Plan is much more than just the Cycleway Network. Parallel to implementing the network is a need to develop and implement safety and education programming. Bicycle parking facilities need to be provided in all areas of the City. The links between cycling and transit need to be strengthened. Day to day practices and policies influencing street design and maintenance will, over time, provide safer, more comfortable streets for cyclist. Many of these activities are an expansion of ongoing programs, however, there is also a need to develop new and innovative programs.

**Management and Coordination**

Currently, responsibility for cycling issues and cycling infrastructure is spread across many internal council groups, state government authorities and agencies and other interest groups in the Blue Mountains.

The Blue Mountains Bike Plan is an ambitious program that requires an appropriate internal organisational structure and more cohesive external partnerships for implementation.

**Bike Plan Coordinating Committee (BPCC)**

In order to directly coordinate the implementation of the BMBP, it is recommended that the Assets Branch establish and chair an interdepartmental staff working Committee. The Bike Plan Coordinating Committee (BPCC) will include staff from:

- Traffic & Road Safety Section
- Assets Management
- City Planning
- Environmental - Parks
- Rangers
- Community
- External membership may include:
  - Police;
  - Health;
  - RTA; and
  - Bike Groups

The primary role of the BPCC will be to coordinate budgeting, program development and delivery across affected/involved departments.

In addition, the BPCC will serve as a vehicle to coordinate and obtain input on the implementation of the plan, review staff resources and responsibilities across all groups and sections, exchange ideas and information and provide input to the preparation of annual progress reports. It is proposed that this Committee meet four times a year or as deemed necessary.
Annual Progress Report

Evaluating the annual progress of the Plan is the corner stone of the implementation strategy. Although the plan provides a timetable to implement the recommendations of the plan over the 13 years, a more detailed annual work plan is needed to guide those who will implement the strategy.

Therefore it is proposed that the Asset Branch in consultation with the proposed Bike Plan Coordinating Committee, prepare an annual progress report to Council and the Blue Mountains Cycling Committee. This report will outline the progress made towards achieving the primary goals of the Plan. The report will measure the successes in implementing the recommendations set out in the strategy, identifying changes in direction and priorities for the upcoming year, including the specific routes and programs proposed to be implemented, will be presented to Council for consideration during the preparation of budgets and capital works programming.

Data collected through the monitoring of programs along with information collected through ongoing community consultation such as attitude/user surveys will inform and thus assist in the preparation of the list of annual priorities.

The first annual report will identify priorities for the 2008/09 budget, and will be submitted in 2008. This report should outline the infrastructure and programs set for implementation in 2008/09 and confirm associated budget allocations.

Recommendation 5.1

That the Group Manager Community & Corporate prepare annual progress reports to Council, in consultation with the Bike Plan Coordinating Committee documenting the progress of the Bike Plan and presenting implementation priorities and funding requirements for the following year; and that the first report be presented in 2008 outlining Bike Plan projects to be implemented in 2008/09.
Public Consultation

Plan Development (2005-2007)

The Blue Mountains Bike Plan 2020 is the product of an extensive public consultation program. A significant amount of time and effort was invested both in public outreach, in terms of promotion of the study and various activities, as well as to obtain public input. The Blue Mountain Community Survey in 2005, lead this investigation of public attitudes and trends relating to cycling in the Blue Mountains, and served as a valuable source of information at the outset of the plan’s development. Other input came in the form of both written and oral submissions through public workshops, emails, telephone calls and letters. All this information was recorded, reviewed and given due consideration in the development of this plan.

During the study of the draft cycleway network and other components of the plan it was reviewed with stakeholders, members of the community, staff representing key sections within Council and the Blue Mountains Cycling Committee. Steering Committee meetings were held with key staff to review the progress of the study and to provide feedback on the various phases of the strategy development.

Plan Implementation (2007 –2020)

Public consultation on the Blue Mountains Bike Plan 2020 does not end with the adoption of the Plan by Council. This consultation is seen as an important on-going activity that will support the implementation of the Plan. The Plan, as previously noted, is designed as a flexible document and will evolve over time in response to new and changing developments and priorities. Some of these changes will emerge through ongoing public consultation and from monitoring the implementation of the Plan.

This is an ambitious Plan, yet one which is pragmatic and achievable over time.

Adoption of the Bike Plan is not the end of the process, but rather marks the beginning of a new course of action for implementing the Plan’s recommendations. Implementation will require ongoing consultation between Council sections, the Cycle Committee and the public. This is particularly important for new bike lanes and off road paths, which can have significant impacts on adjacent properties and other users of parks and roads. The City’s public consultation policy will be adhered to for all new cycleway projects.

Recommendation 5.2

That the cycleway routes proposed in the Bike Plan is subject to the existing approval process (detailed analysis, design and public consultation) before being considered by the City for implementation.
The Blue Mountains Cycling Committee

The cycling committee is a community advisory group to represent cyclists. The role of the committee is to provide input into the whole range of cycling programs and services offered by Council. The committee has been an invaluable resource in developing new and innovative policies and programs to encourage cycling and improve safety.

The Blue Mountains Cycling Committee will be a partner in implementing the Plan, and will continue to have a valuable role in representing the interest of all cyclists in the City. The experience and knowledge of the members of this committee is an asset that will be consulted for advice and input by Council staff during the implementation phases of the Plan. They will provide input into the development and delivery of all six components, and assist staff in identifying priorities for implementing.

Funding

The BMPB is an integrated body of components and as such requires a strategic approach for implementing and a funding commitment. Focusing efforts on individual elements of the Plan, in isolation of the others, for example funding new bike lanes in the short term but not the development of new programming of promotional programs, is not an efficient or recommended strategy.

The public input received throughout the master planning process and the results of the cycle survey clearly indicates that the residents of the Blue Mountains support improving cycling facilities. The time is right for Blue Mountains to invest in its future and commit the necessary long term funding to implement the Blue Mountains Bike Plan. Council’s leadership though this action will directly improve the liveability of our communities and a more sustainable future.

How much will it cost?

Implementing the proposed Draft Plan requires Council to confirm a continuation of its current financial commitment, being $50,000 pa. This enables a continuation of the 50/50 annual funding arrangement which currently exists with the RTA. Subject to approval, this provides a baseline figure of $1,300,000 for the plan period.

Additional funding of $50,000 for each of the next 2 years has been allocated from the Federal Government’s (DOTARS) Supplementary Funding to implement the plan.

This funding commitment will enable the delivery of the priority programme (including all priority works identified in Enclosures 2 and 3), as below:

<table>
<thead>
<tr>
<th>Route Number</th>
<th>Location</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 to M4 Link</td>
<td>Lapstone</td>
<td>$3,860</td>
</tr>
<tr>
<td>L1: 1.7 – 1.26</td>
<td>Glenbrook</td>
<td>$309,465</td>
</tr>
<tr>
<td>L2 to L1 Link</td>
<td>Glenbrook</td>
<td>$26,860</td>
</tr>
<tr>
<td>L2 Extension East &amp; West</td>
<td>Glenbrook</td>
<td>$38,970</td>
</tr>
<tr>
<td>L2: 2.2 – 2.8</td>
<td>Blaxland</td>
<td>$148,180</td>
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<tr>
<td>L6 Extension East</td>
<td>Faulconbridge</td>
<td>$6,500</td>
</tr>
<tr>
<td>L6: 6.7 – 6.11</td>
<td>Faulconbridge</td>
<td>$14,840</td>
</tr>
</tbody>
</table>
The Blue Mountains Bike Plan 2020

| L7a: 7a.14 Faulconbridge | $26,860 |
| L7 Extension West Faulconbridge - Linden | $340,080 |
| L8a Woodford - Linden | $255,060 |
| L12: 12.1 – 12.6 Leura | $204,540 |

Asset Renewal - Enclosure 2
Enclosure 2 lists the asset renewal works required to complete the existing network to an approved standard. Funding for this work is identified within the 50/50 funding arrangement with the RTA and DOTARS allocation.

New Routes - Enclosure 3
Enclosure 3 identifies the missing links that are essential in completing a totally comprehensive network. Enclosure 3 details the estimated cost of $5,145,228 for the Upper Blue Mountains Region Trail. This project has received Metropolitan Greenspace Program (MGP) funding in 2007/2008 to engage a consultancy to undertake the higher level of stakeholder consultation, detailed design, costing and works schedules. Once this work has been completed a more precise estimate will be known of funding required. An application will be made to the MGP for the 2008/2009 round of funding grants to construct the trail. The Australian Tourism Development Program is a high potential funding source for this project, having previously funded similar cross regional projects across the state. The 2008 funding rounds are called for in June of each year in which Council will make application.

Network Maps – Enclosure 4
Enclosure 4 shows network maps, combining the existing and proposed routes.

Funding commitment required to implement total Plan
As indicated in Enclosures 2 and 3, the total cost of implementing the new infrastructure and programs recommended in the Blue Mountains Bike Plan 2020 is estimated at:

| Enclosure 2: Assets Renewal Works | $2,673,180 |
| Enclosure 3: New Routes | $6,939,218 |
| TOTAL | $9,612,398 |

Council’s continual funding commitment of $50,000 pa, when matched at source by the RTA, provides $1,300,000 over the 13 years of the plan to 2020. This core funding will be combined with the DOTARS funding of $100,000 over the next 2 years. This commitment provides for 14.5% of construction cost from the total amount of $9,612,398 and has been prioritised as previously stated.

Council’s ability to complete the remaining 85.5% of the program outlined in the Plan will be dependent on its success in obtaining other sources of income such as grants.

Projects To Be Funded Based on Existing Resource Levels
The priority components of Enclosure 3 have been identified so that they can be combined with the priorities in Enclosure 2 and submitted for inclusion as part of the annual CWP. The lower priorities from Enclosure 3 will be funded from either external funding sources or additional allocation of internal funds.

Other funding sources
Council will attempt to take advantage of other funding sources as they become available, including public-private sector partnerships, such as the proposed Bicycle Safety Partnership. The costs associated with programming, safety and education...
components of the Plan will continue to be partially offset by the Road Safety Program budget, advertising or sponsorship revenue.

Previous successful funding sources
Previously funding contributions have also been secured from NSW Department of Sport and Recreation Capital Assistance Program. In 2006/2007, $15,000 was obtained for cycleways in Springwood and Valley Heights and in 1999/2000 $8,385 was received for cycleways in Katoomba. Council will continue to make application to this program. Also indicated in Enclosure 3, $30,000 has been secured through the Metropolitan Greenspace Program (MGP) funding grants.

Maintenance cost
It should be noted that maintenance associated with the proposed cycleway network will increase the cost of existing Service Level Agreement budgets. A fuller assessment of additional cost will be completed at a later date.

Some of the cycleway routes outlined in the BMBP, especially on road bike lanes, requires little if any improvement beyond a change in pavement markings and or signage. These types of improvements as well as maintenance of the network will be included in the asset maintenance budget. For example, if a roadway is scheduled for an asphalt reseal, new pavement markings will be required. An adjust to the pavement markings plan incorporating bike lanes will be easily accommodated at little if any additional cost. Other network improvements, such as the upgrading of the Great Western Highway provided opportunities to ensure the RTA's commitment to providing on road cycle lanes and shared paths. New off road paths in parks and reserves will be identified as part of the area planning process and subsequent capital works funding applications.

Operational cost included ongoing funding related to implementing the Plan, preparing the annual progress report, delivering safety, education and promotion programs, and performing network and infrastructure maintenance. This includes staff resources, as well as management and administration.

Cost estimates
The cost estimates are considered “order of magnitude costs’. Infrastructure related costs are based on unit pricing. Schedule related cost are based on a preliminary assessment that looked at current expenditures and staff resources for existing cycling related program delivery in the City, and the additional effort and resources required to implement the non infrastructure components of the strategy.

Recommendation 5.3
That the City commits in principal funding of $50,000 per annum for the next 13 years to enable the delivery of the priority programme, establishing the foundation upon which the seven components of the Plan can be delivered.
Monitoring and Evaluation

Monitoring bicycle trends and particularly crash history will be an important part of measuring the successes of the Plan. The review of historic data undertaken for this study clearly indicates the need to improve the collection of cycling data in the City. In addition, Council’s annual community survey should be used to monitor concerns as well as the progress of the Plan.

Implementation of the Blue Mountains Bike Plan 2020 has already commenced. Monitoring the different aspects of cycling behaviour will assist in evaluating the effectiveness and overall contributions of various activities to achieve the stated vision and goals. A bicycle data collection program will serve to establish initial benchmarks and then provide ongoing data to identify trends and monitoring increases in cycling trips during the implementation stage. In order to collect consistent data and reliable data for analysing trends, Council must develop a new bicycle data collection program, which will:

- Use existing cycle travel demand information as a benchmark for assessing growth in cycling trips as the BMBP is implemented
- Measure the progress towards achieving the City’s sustainability goals and targets; and
- Identify cycling issues and trends to influence implementation priorities.

Recommendation 5.5

Collect and analyse cycling data

That the City collect and analyse high quality cycling data to measure the progress of the Bike Plan, including

- Bicycle traffic counts to monitor trends
- Focused user surveys on specific cycling issues
- Council’s 5 year recreation survey
- Annual bicycle crash data analysis
- Sustainable City reporting data
Conclusion

In conclusion, the major underlying principle of the proposed Blue Mountains Bike Plan’s implementation is that it is directly tied to current and future service level agreements and funding. Simply put, one is not possible without the other. Therefore, it is imperative that the City of Blue Mountains continues to commit in principal funding over the next 13 years to implement the Plan. In addition, the City will direct staff to seek out and assess other funding sources and opportunities, service level agreements, development policies and guidelines and best practice models.

What the Blue Mountains Bike Plan sets out in this report is the product of extensive study and consultation. It is a clear response to an identified need of residents and professionals to improve the liveability of the City. Although it has substantial cost implications over time, the long term benefits, including financial, physical and social cost, as outlined in this report will significantly move the City forward towards improving the environmental, social, economic and sustainability of the Blue Mountains. Implementation of the BMBP will encourage more people to cycle more often for more reasons, and thus improve the overall liveability of our communities.